INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTs) FOR

PROMOTING CHANGE: A CASE STUDY IN TANZANIA

A Dissertation

by

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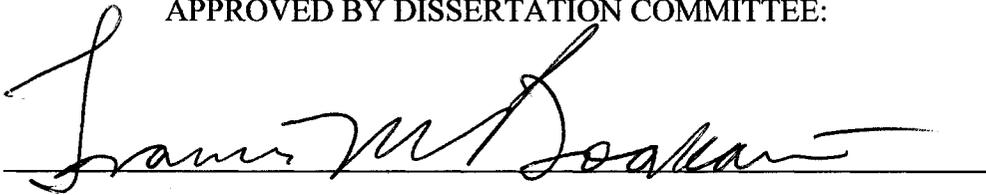By

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Abstract

Chair: Francis Musa Boakari

The study was an investigation about the impact of Information and

Communication Technologies (ICTs) on the lives of members of a women's group in

East Africa. It focused on the consequences of the collaboration, facilitated by computer-

mediated-communication, between the Women's Global Connection (WGC) of the U.S.

and the Saint Cecilia Women's Group (SCWG) in Bukoba, Tanzania. To explore the

effects of the relationship between the groups, two field trips were made to the

community. Semi-structured interviews and observations were conducted. Relevant

documents, e-mail exchanges, and the contents of an international web-based Cross-

Cultural Leadership Development Program (CCLDP) were studied as well. Analyses of

the field data, information from the interactions between the women, and exposure to

cross-cultural knowledge revealed that the members of the SCWG had experienced some

positive changes, including the realization of their own empowerment. Questions related

to the extent to which these new factors influenced the African women's lives, and how

exactly the relationships through the CCLDP with women from other countries affected

the SCWG members, are ongoing.

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Chapter One: Introduction

Initial Comments

The objective of this study was to investigate the impact of Information and Communication Technologies (ICTs) on the lives of a group of women from Bukoba, Tanzania, East Africa. The research focused on the use of the Internet resulting primarily from collaboration between a community-based organization, the Saint Cecilia Women's Group (SCWG) in Bukoba and a non-government organization, the Women's Global Connection (WGC), headquartered in San Antonio, Texas, US.

In this study, Information and Communication Technologies (ICTs) were identified as a technological tool integrating text, photos, graphics, audio, and video to support the exchange of information and promotion of knowledge. Warschauer (2003), when approaching multimedia literacy in his study of social inclusion and technology, talks about multimodal communication. This consists of a combination of text, photos, audio, and video in a single presentation. He argues that multimodal communication can provide a good opportunity to "level the playing field of literacy by restoring the status of more natural forms of audiovisual communication that are in some ways more broadly accessible" (p. 116). Nevertheless, it is important to note that even though multimedia literacy has great potential in promoting inclusion, unequal access to the tools and practices can curtail the process.

Collaboration between the two organizations was facilitated in the interactive area of the website maintained by the U.S. organization and through e-mails that were exchanged between the two groups. The Internet was conceived as

an instrument that was integrated into their lives and social practices, and also used for communication, planning, and collaboration. It is within this context that we proceeded in our exploration of the changes considered positive as experienced by the women's group in Bukoba after the ICT intervention.

One factor that influenced this study was the on-line forum that had been created in 2003 to host a Cross-cultural Leadership Development Program (CCLDP). It was initially restricted to invited participants from Tanzania, Zambia, Brazil, and the United States. This closed-discussion was later converted into an open forum named cross-cultural dialogues. This forum provided for the primary communication between the SCWG and WGC, since the Tanzanian women's group had had its first experience with ICT through the CCLDP.

Studies of the impact of Information and Communication Technologies (ICTs) on economic development, political activism, and reduction of gender disparities (Dumas, 2002; Robins, 2000), have raised questions as to whether the information generated through the Internet has positively influenced rural and poor communities. Computer-mediated technologies have also sensitized researchers about computer-mediated communication literacy which, according to Warschauer (2003), should entail interpretative and writing skills if one wishes to communicate effectively via online media.

The analysis of the impact of ICTs in this study was based on the Alternative Evaluation Framework (AEF) developed by Gigler (2004). From the AEF we utilized the various outcome indicators that were created to assist in the assessment of both individual and community empowerment after the ICT intervention. Notions of empowerment guiding this study were culturally sensitive

and focused on women's empowerment in less industrialized countries (Datta & Kornberg, 2002).

When considering the positive changes the SCWG experienced after a successful ICT intervention promoted by the WGC through the provision of technical and educational assistance, this researcher explored individual and collective empowerment that occurred in the economic, social, cultural, psychological, and organizational dimensions. The focus was on process and outcomes. Process referred to the leadership strategies utilized in the cross-cultural leadership development program (CCLDP) that influenced the women, and the strategies that affected the women in their social context. Outcomes referred to socio-economic and cultural changes that included the sale of handcrafts in the United States, development of the commercial farming project, increased participation in a revolving loan fund, more participation of women from the villages in the income-generating activities (the group's projects), and the increased association of women in the Bukoba Women's Empowerment Association (BUWEA). The outcomes also included development of computer, leadership, and entrepreneurial skills, as well as improvement in English language proficiency.

In this study, the main objective was to investigate the influences Information and Communication Technologies had on the members of the St. Cecilia Women's Group (SCWG). We explored to what extent collaboration between the WGC and SCWG facilitated by ICTs, helped to promote positive changes. We also investigated how these socio-economic changes were reflected on the empowerment of the individuals and the group. Social, cultural, political, and economic factors served as bases for this investigation. At the same time,

preoccupations with cultural issues were always in the background. This researcher

is a Brazilian of European descent and working with rural women in Tanzania was

an invigorating cross-cultural encounter that provided a challenging framework for

the study.

<div align="center">Context of the Study</div>

Tanzania

   Tanzania is located in the eastern part of Africa, bordering the Indian Ocean

between Kenya and Mozambique (COSTECH, 2004). According to the 2002

Population Census, Tanzania has a population of 34,584,607.
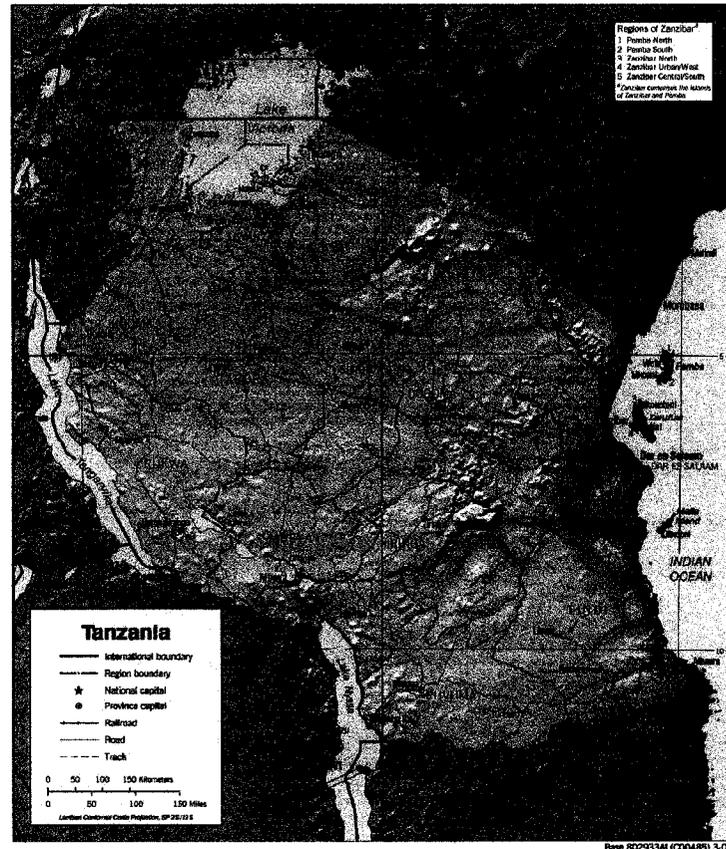
Figure 1. Map of Tanzania and border countries.

From http://www.uhurut.com/themap2.htm

The United Republic of Tanzania is the fusion of two countries into one nation: the Republic of Tanganyika, independent in 1961, and the People's Republic of Zanzibar, independent in 1963. Julius Nyerere, the first president of Tanzania, signed the country into existence on April 26, 1964 (Askew, 2002), thus constituting a diverse nation where more than 120 multiple ethnic, racial, religious, and socioeconomic groups coexist.

The Swahili culture became dominant in the meeting of the African Tanganyika and the Arab Zanzibar cultures. The communities that arose along the coast shared a common language (Kiswahili), religion (Islam), kinship networks, and historical experiences (Askew, 2002, p. 33). Kiswahili is the primary mode of governmental communication. Nevertheless, the use of English continues in the highest levels of administration, the higher courts, and secondary and university education. As attested by Askew (2002), this has created the stereotype of Swahili as an inferior language.

The Portuguese were the first to colonize Tanga, seeking profitable trade networks on the coast. Their control of the coast was eradicated in April 1729. However, the coast kept shifting allegiances and alliances. Oman, the next ruler, sought foreign protection from the British, which withdrew their support in 1826. His control of the coast was finally overthrown in July 1889, when the German military subjugated it, after having made inroads into the interior of Tanganyika. The country has witnessed in the last five hundred years, competition between local city-states and colonial powers (Portugal, Oman, Germany, and Great Britain) for domination of the lucrative East African trade networks. According to Askew (2002), in the 1940s a nationalist sentiment started to grow with the Tanganyika

African Association (TAA), an organization that later became the Tanganyika

African National Union (TANU), which adopted a platform for self-government

and independence.

After independence in 1961, President Julius Nyerere inaugurated the

Arusha Declaration that designed for Tanzania, "its own unique path of social

idealism" (Askew, 2002, p. 47). The President chaired for thirty years the Party of

the Revolution (Chama cha Mapinduzi, or CCM), the result of the merger of the

two ruling parties of Tanganyika and Zanzibar, Tanganyika African National Union

(TANU) and Afro-Shirazi Party (ASP) respectively. The coexistence of multiple

ethnic groups in Tanzania led Nyerere to initiate a process of unification through

social policies that included the establishment of Kiswahili as their official

language. People were shuffled and moved to different regions, a process that is still

common in contemporary Tanzania, since many secondary school students are sent

to schools far from their home regions.

Askew, in a comprehensive investigation of the cultural revolution in

Tanzania, stressed that colonialism, nationalism, socialism and political/economic

liberalization are "experiences and constructs that shaped processes of cultural

production in Tanzania" (2002, p. 161). From independence to the implementation

of Ujamaa socialism in 1967, Tanzanian cultural production was confined to the

collection and reconstruction of local traditions and customs, a political decision

that promoted the rejection of foreign influence, values and material wealth.

Ujamaa socialism was Nyerere's unique brand of socialism, and was inspired by

African tradition based upon the values of communalism, cooperation, and self-

reliance.

Cultural committees were set up in all the regions of Tanzania in order to implement Ujamaa. The country's cultural policy, the heart of Ujamaa socialism, was organized around six points, as summarized by Louis Mbughuni, a former director of arts and language in the Ministry of Culture. The six elements were: (a) selective revival of traditions and customs; (b) promotion and preservation of the Tanzanian cultural heritage; (c) work with culture as an instrument of national development and unity; (d) development of tribal cultures into one national culture; (e) contribution of the Tanzanian culture toward the development of mankind and the contribution of other cultures to development; and (f) necessity to overhaul the educational systems inherited from the formal colonial powers and the need for all Tanzanians to remove the influence of colonial mentality from their minds (Askew, 2002).

Nyerere was succeeded by Ali Hassan Mwinyi in 1985, starting a transition from single-party socialism to multiparty democracy. In 1995, the Tanzanians had their first national elections. The winning candidate, Benjamin Mkapa, was a representative of the ruling CCM party.

During the colonial period, Africa was seen as a profitable continent. Empires were seduced by its potential in exportable raw materials and a good market for European-processed finished products. Colonial intervention, although contested, helped to create obstacles to African empowerment during and after colonialism. Tanzania's struggle for self-reliance has been marked by many challenges in the face of colonial heritage. The nation pursued different approaches to economic development, having in the 1990s become subjected to the forces of neoliberalism, an often euphemized construct for neocolonialism (Askew, 2002).

In the late 1970s, socio-economic crisis in Africa prompted a shift in the policies that would begin in the 1980s with the Structural Adjustment Programs (SAPs), proposed by the International Monetary Fund (IMF) and the World Bank. A new model of development with its widespread preferences for the elimination of government regulations, reduction of taxes, provision of tax incentives for business, removal of welfare programs and the privatization of government service delivery became the way to deal with the economic crisis (Chachage, 2003).

It was in this climate that the agenda on poverty resurfaced in Tanzania in the 1990s. Documents were produced by the Tanzanian government during the first years of the 1990s as part of seeking debt relief. It was also during this period that the United Nations developed the first Human Development Report under the United Nations Development Program (UNPD), creating the Poverty Strategies Initiative (PSI). The World Summit for Social Development inaugurated the Highly Indebted Strategy Countries (HISC) concept that established a direct link between debt relief and poverty reduction.

Chachage's (2003) keynote address during the 6th University of Dar es Salaam (UDSM) Convocation Symposium raised the defying question "Why is Tanzania still poor forty years after independence?." He reminded his colleagues that the government of Tanzania had been concerned with the fight against poverty since independence. A developed state, he argued, was conceived of in the first decade after independence as one that would bring social services, industries and infrastructure in order to fight poverty, disease, and ignorance, based on the philosophical foundations of welfarism and collective responsibility (Kaduma, 2003).

Chachage (2003) attributed the current state of affairs in Tanzania to the misguided conception that his country was poor. Accordingly, poverty is only measured by economic indicators, and this has prevented a more comprehensive view of the economic condition that is based on other elements besides budget deficits and inflation. His view rests on the assumption that policies created to deal with the socio-economic crisis have destroyed strong institutions.

Chachage's (2003) evaluation of the situation in Africa, particularly in Tanzania, was not optimistic. African predicaments can be illustrated with the number of the absolute poor (people living on less than 1 USD a day). According to the 2002 United Nations Trade and Development Report (UNCTAD 2002), this number has risen in many countries with the implementation of the SAPs, from 217 in 1987 to 291 million in 1998.

With a desire to create a developmental model for Tanzania, the government privatized many state owned enterprises and services, thus intensifying the dependence on external resources. Many of the policies that were introduced in order to attend to the demands of a free market, a new economic order, such as the liberalization of internal trade markets by the removal of price controls and liberalization of interest rates, were deemed to have deepened the already intense problems Tanzania had (Chachage, 2003). The government curtailed expenditure on social services, diminishing the quality of education and generating a shortage in human resources, and leading formal unemployment to have doubled to about one million between 1990 and 2000 (Integrated Labour Force Survey, 2000/2001). Out of 34 million Tanzanians, merely seven million were working in the formal sector

(Simba, 2003). The informal sector accounts for the highest volume of economic activity.

Agriculture in Tanzania has been the pillar of the economy. The majority of the population (85%) lives in villages and is mainly involved in agricultural activities. Over the 40 years of independence, the contribution of agriculture to the Gross Domestic Product (GDP) has been between 40 and 50%. The primary agricultural products include coffee, sisal, tea, cotton, pyrethrum, cashews, tobacco, cloves, corn wheat, cassava, banana, fruits and vegetables. The principal export crops include coffee, cotton, tea, horticulture and sisal. Food crops contribute to 50% of the Tanzanian GDP, livestock 30%, and traditional crops 8%. There is a great potential for the livestock sub-sector since more than 90% of the population of Tanzania depends on livestock products for their livelihood (COSTECH, 2004).

In the Project Proposal for Establishment of the Emergency Information and Communication Center in Tanzania (COSTECH, 2004), some problems in the agriculture sector were identified. One was the withdrawal of the Tanzanian government from the provision of agricultural services. Others were the huge debts of the cooperatives that prevent them from providing agricultural services to farmers, the limits in access to inputs due to the removal of subsidies, and lack of credit facilities. The lack of produce quality control services, the weak supply of veterinary drugs and other inputs, the poor animal health services, the absence of financial institutions for providing credits to farmers, the fluctuations in agricultural output caused by periodic droughts, and the poor quality of even the low yields, constitute another set of problems in the agricultural sector.

Major infrastructural development happened between 1970 and 1980 when the Tanzanian government allocated 30% of the budget to this sector. During this period, roads, airports, harbors, institutions of higher learning, health centers, and hydro-electric plants were built. Since 1986, however, budget allocations have continued to fall and economic development has been left in the hands of the private sector, which has invested in tourism, trade and mining.

Kaduma (2003) provided some recommendations to fight poverty in Tanzania. She suggested that funds for development be created like Tanzania had done soon after independence. Since 85% of the population lives in the villages and is engaged in agriculture, capital should be made available to farmers and they should be familiarized with productive agricultural techniques. It has also been suggested that the government create financial services (bank branches) or co-operative credit societies. Such basic changes are necessary because it is understood that over-dependence on foreign aid has dismantled Tanzania's productive capacity (Mrema, 2003; Simba, 2003).

Since independence, the productive sector in Tanzania has not been mobilized. Domestic entrepreneurship skills were not developed for the public sector (Simba, 2003). The population was and is mainly in the service of the state or in peasant farming and micro business.

Telecommunication sector. Tanzania has over a hundred Internet servers' service providers in the country, serving only the urban population. Data provided by COSTECH showed that according to the Telecommunication Development Bureau (BDT), International Telecommunication Union (ITU), there were 250,000 Internet users in Tanzania in 2004, 0.7 users per 100 inhabitants. In Sub-Saharan

Africa, the number of Internet users was 5,667,000, corresponding to 0.9 per 100

inhabitants. In the whole of Africa, there were 13,857,000 Internet users, 1.6 per

100 inhabitants (COSTECH, 2004).

There are over 93,000 telephone lines in use with over 1,668 telex lines.

Mobile telephone services are also available, provided by companies such as

Vodacom, Celtel, Mobile and Zantel (COSTECH, 2004). The Tanzania

Telecommunications Corporation Limited (TTCL) and Zanzibar

Telecommunications (ZANTEL) are the two fixed line operators in Tanzania with

180,000 mainlines and 234,000 installed telephones (Kamuzora & Kamuzora, 2004,

p. 160). There has been a liberalization of the telecommunications sector in

Tanzania, with the participation of the private sector introduced with the Economy

Recovery Program (ERP) that was inaugurated in 1986. The Economic and Social

Action Program (ESAP) was also introduced in 1989, reflecting the shift from a

centrally planned system to a market-oriented economy.

There is an estimate of over 1000 Internet Cafes in Tanzania. Most of the 59

Internet Cafes (60%) surveyed by COSTECH in a study conducted in 2002, were

connected through Wireless Local Loop (WLL) to their Internet Service Providers.

Ten percent were connected through dial up, and 24% through leased lines

(Kamuzora & Kamuzora, 2004, p. 162). Though Internet use is possible in the

country, two observations need to be made. First, access to this technology is still a

problem for most people. Second, to be far removed from Dar es Salaam, the

country's capital, also presents other kinds of difficulties. It was important to

remember these limitations as we went ahead to investigate how ICTs have

influenced the SCWG members in Bukoba.

Bukoba, Kagera Region. Kagera Region is located in the northwestern corner of Tanzania. Bukoba, the capital of Kagera Region, is situated on the shore of Lake Victoria, and it is the second largest port on the lake. The region shares boundaries with Uganda, Rwanda and Burundi, and lies across the lake from Kenya (See map p. 5). The Region comprises five administrative districts: Bukoba, Muleba, Karagwe, Biharamulo and Ngara. It has six Councils, which include Bukoba Town, Bukoba Rural, Karagwe, Muleba, Biharamulo and Ngara. According to the 2003 National Census, the population is at 2,003,888, with an annual growth rate of 3.1%.

The main economic activity in Kagera is agriculture. The main commercial product is coffee, and food crops include matoke (green bananas), maize and beans. Agriculture accounts for 50% of the Region's Gross Domestic Product and fishing activity as an economic activity is undertaken by most of the population living along the shores of Lake Victoria.

The 2002 Population and Housing Census showed that 43.7% of the female population above 25 years of age, never attended school in the Kagera Region; 43.8% completed elementary or secondary school. The total percentage of females who never attended was 38.4% compared to 29.0% of the male population.

Data on Kiswahili literacy revealed that 60% of the total population in the Kagera Region was literate, and of these, 53.9% spoke only Swahili. Forty eight percent of the female population was literate compared to 52% of the male population. An exponential increase in the illiteracy rate can be observed as the population aged, with the highest rates of literacy between the ages of 10 and 34 years of age and the lowest among those above 60 years old. Between 1998 and

2002, there was an increase in the literacy rate for the total female population, increasing from 42% to 56% (United Republic of Tanzania, 1998, 2002 Population Censuses). Only 4.81% of the population living in the Kagera Region spoke English and Kiswahili.

Of the 460,549 literate people, 424,171 (92%) had attained primary education, while 379,351 had reached Standard Seven (last level of primary education). Approximately 6.5% (29,464) had some secondary education, the majority having completed Form 4, since secondary education in Tanzania goes from Form 1 through 6. Only 2,620 (0.5%) reached the university level or other related post secondary level of schooling (URT, 2002).

In terms of household conditions, only 2.85% of the households in the Kagera Region had electricity, 0.79% in the rural area and 28.31% in the urban area (URT, 2002). More households used protected spring water, 17.61%, compared to pipe borne water, 13.71%. The urban area accounted for the majority of its use, 41.03%, when compared to the rural area, 11.49%.

This research might not have taken place without the collaboration among the Women's Global Connection (WGC), the St. Cecilia Women's Group (SCWG), and the Bukoba Women's Empowerment Association (BUWEA). The interactions between these groups, and some of the consequences of these social relationships, provided the space and material for examining this dissertation.

The Women's Global Connection

In 2001, Sisters Dorothy Ettling and Neomi Hayes of the Congregation of the Sisters of Charity of the Incarnate Word (CCVI), founded the Women's Global Connection (WGC), a grass-roots organization focusing on the development of women's leadership and women's empowerment. Founding the WGC was facilitated by the use of Information and Communication Technologies (ICTs). The web-based organization launched its virtual community in 2002, utilizing a format called webcrossing to create an interactive online space to foster the spread of information and exchange of knowledge between women from different countries, backgrounds, and cultures. Webcrossing consists of a technology that provides synchronically set chats, with capacity for any users to create new topics for discussion, e-mail services, capacity for setting up closed discussions for only invited guests, and other capacities. The website follows an organic format, allowing participants to create their own discussions according to their interests. The organization, which began as cross-cultural outreach, envisioned the online community as a space for the promotion of cross-cultural understanding and a resource for learning.

The Sisters of Charity of the Incarnate Word (CCVI) have several missions around the world, mostly in industrializing and less industrialized countries. They had decided not long ago, to start another mission in Mongu, Zambia. Inspired by the outreach opportunities that had already been created, Sr. Ettling planned a visit to Botswana, Zambia, and Tanzania during the summer of 2003. There, she collected data and documented her experiences in the local communities of Mongu, Zambia and Bukoba, Tanzania. Her findings were instrumental for the development

of a more systematic plan of action. In addition, dialogue between Sr. Ettling and the local community, including leaders, practitioners, and organizations, was crucial to set in motion the next steps for what became the Reach-out Africa initiative. In the United States, the outreach project has received support from many individuals and institutions.

In August 2003, this researcher started to work on a project that further evolved into four major initiatives in two different countries, Zambia and Tanzania. Her role as the coordinator for international initiatives with the Women's Global Connection led her to this research. By the end of 2003, the investigator had an opportunity to work with the Tanzanian and Zambian women through the various projects the organization was developing. Due to lack of time and resources, she focused on the Tanzanian reality only, particularly in the collaborative project that was being developed with the St. Cecilia Women's Group (SCWG) from Bukoba.

The St. Cecilia Women's Group (SCWG)

The St. Cecilia Women's Group (SCWG), a prayer group started in 1996, was introduced to the computers and to the Internet in 2003. Until then they had not had an opportunity to access the resources available in this relatively new communication technology, even though the Internet was already being provided in Bukoba town. A few Internet Cafes could be found in town and the popularity of these small services was growing steadily. The women living in Bukoba town knew they existed, however they did not think they could one day have become users of the Internet, since it was typically the youth who were engaged in accessing the web.

Their first experience in an Internet cafe was marked by a surprisingly positive adventure. Assistance provided by the Director of the WGC on a one-on-one coaching, created a connection that has lasted for three years. The technological tool was integrated in their social practices and it has been consistently used for communication between the WGC and the SCWG. The women's group slowly improved their computer skills and they are now more able to make inroads, exploring different options in computer-mediated-communication. The transitioning from communication via regular mail to e-mails and discussion groups was not problematic. They understood the process and adapted to the Internet by learning how to use this instrument of communication.

The Internet cafes in Bukoba charge fees that are accessible to the women's group although they limit the hours used weekly. The women usually access the Internet to check on new messages and before they reply to them, they share with the group what was conveyed. Responses to questions, planning, and collaborative projects are developed by the group and supervised by the leader of the women's group. One or two members then go back to the Internet café in order to type and e-mail, as well as post in the discussion, the group's decision and information.

Daily activities including house chores and part-time jobs have interfered in the women's ability to explore the Internet. The women do not have much time available, making their use of computer-mediated technologies a task-oriented process rather than an exploratory endeavor.

This support group was created in response to the many plights the community in Bukoba, Tanzania, had been facing for years: poverty, the systematic exclusion of women from the heritage system as it had been practiced and informed

by customary law, the low cultural status attributed to women in their society, and the barriers created against women's active participation in the productive system of their country. After one year of existence, the eight founding members of the SCWG decided to expand their initiative into a *Mary-go-round* group.

According to Majaliwa and Ndyamukama (2004), the *Mary-go-round* was a group strategy wherein each member contributed 1 USD per month initially. That contribution increased and in 2005, the group members were able to contribute 10 USD monthly. The total amount collected was then given to one member to help her start a new project of her choice. Most of the projects were concentrated on small-scale agriculture, which was an extension of the activities a family had developed for many years for subsistence. Small plots ranging from two to six acres were owned by each of the SCWG members. They also had between one and two dairy cattle and/or a poultry farm with no more than a hundred chickens. They sold eggs, milk, and beans. It was a regular practice among the women to purchase a heifer or start a poultry farm. Nevertheless, insufficient funds prompted them to create new ways of raising money so that they could expand their home business. One example was the production and selling of bags of beans.

The St. Cecilia Women's Group (SCWG) also supported other women's groups that were developing similar projects in the local area to get their income generating projects started. Their support primarily consisted of the provision of technical assistance for small scale agriculture and funding of a few other projects. In most of these projects, the women were contributing about 0.20 cents, making it hard for the groups to raise enough funds to support small businesses.

Some women depended on the community farms to produce their agricultural goods. What was produced was primarily used for family consumption. As a result, the women were not able to sell the products since there was very little surplus. Besides, the women would need to get consent from their husbands to sell the surplus. As a consequence of this, Majaliwa and Ndyamukama (2004) identified the women's limited access to resources and the low levels of productivity as two crucial problems hindering the progress of their income generation projects. Traditionally, the male controls the resources and scarcity had made it even more difficult to change this cultural norm in the community. Authors pointed out the challenges in convincing the husbands of new group members to allow their wives to sell part of their crops and allocate some money back to the revolving fund. They usually had to build their argument upon the fact that having cattle and/or poultry, would provide them with manure that in turn could be used to fertilize their plots and help improve the productivity of their farms.

While engaging in this new business venture, the women were still expected to fulfill their traditional primary role within the family and remain responsible for the household work. Their home activities include working in the family farm, fetching drinking water, washing the family's clothes in the river (located two or three kilometers away) caring for the children, serving the men, and cooking for the entire family.

In 2004, the women's group started to develop a commercial farming project. Although customary law barred Tanzanian women from owning property (Muchunguzi, 2002), recent legislation granted them the right to inherit fixed assets such as land, houses, bicycles, and livestock. In spite of the enactment of new laws

that include women as legitimate inheritors, the larger society in Tanzania has never enforced them, remaining loyal to the customary law that regulated the inheritance system. As a result, old practices persist that give authority to the men who decide whether their spouses may or may not, own property and sell the surplus produced.

Most women in Bukoba had at the time of this study a limited role in decision making. They needed to receive consent from their husbands to participate in the meetings organized by the St. Cecilia Women's Group. They also faced forced marriages, and unprotected sex. Due to economic hardships, some women had also turned to prostitution, becoming more exposed and vulnerable to HIV/AIDS.

Majaliwa and Ndyamukama (2004) in referring to the national programs in place about HIV/AIDS in Tanzania, pinpointed some of their drawbacks. The HIV/AIDS programs operated in schools and were broadcast on TV and over the radio. Due to their location in major centers, such programs reached a small percentage of the population from the rural areas. There, where only a few people had attained some degree of schooling and a few had access to schools, the HIV/AIDS programs had been developed by non-governmental organizations.

As we can see, the situation of women in Bukoba has been very challenging. It is in this context that the role of the SCWG should be understood. The collaboration with the WGC and other professionals, could only add to the important contributions this group was already making in both the urban and rural areas of Bukoba district.

Bukoba Women's Empowerment Association (BUWEA)

BUWEA is a community-based association that was created in July 2005. Its goal is to assist women from the local community (urban and rural areas) to start small businesses. In doing so they offer technical and financial assistance (revolving fund loan) aimed at helping to increase the local families' income. Their major income-generating projects, consist of small scale agricultural activities and basket making for sale in the international market. These projects are encouraged in order to promote the empowerment of women who have been excluded from the productive system in the country and from the decision-making process of a patriarchal society.

The BUWEA organization have expanded its goals and the members were, at the time this study was conducted, interested in managing a learning center that would offer basic computer skills training, entrepreneurial skills development workshops, and educational materials and resources in health education. BUWEA, an organization of currently 27 groups, established that adhesion to the organization was conditioned upon the formation of smaller village groups to ensure that the basic infrastructure required to efficiently conduct the income generating projects was in place. There are no membership fees. Concerning their organizational structure, the leading group in the organization is slowly developing a list of basic activities, functions and roles. There was little clarity in the total group about this organization structure when this investigation occurred (2005/2006).

Collaboration between the SCWG and WGC

Women's Global Connection initial inroads in Tanzania had an exploratory nature. The organization was committed to support the leadership development of

women in less advantaged countries, integrating collaboration as one of its core values. WGC wanted to avoid delivery of services or programs without integrating a participatory approach, assuming that the local community knew better their own resources and needs. In this sense the organization tried to adjust to the local environment and provide expertise that would serve the women's group.

The St. Cecilia Women's Group's support to women from the rural area was not limited to agriculture. Many women produce handcrafted baskets in their spare time, an activity that takes usually a month to be completed. It is intensified during the rainy season when the women are prevented from working on their farms. A collaboration initiated between SCWG and WGC is the marketing of these baskets. Once the baskets are made, the role of the St. Cecilia Women's Group is to select and collect the best baskets, using quality control, a practice that was learned through interaction with WGC collaboration. The next step is to identify outlets that would potentially purchase and sell their baskets, another challenging task. The group has to keep an inventory and ship the baskets to the United States. On the U.S. side, Women's Global Connection is responsible for helping the group to locate outlets and promote the baskets. During the period when this study was conducted, the group had made connections with a few outlets in San Antonio, Dallas, and Boerne where small inventories of the baskets were introduced but not necessarily sold.

WGC has organized two basket sales so far, one in 2004 and another in 2005. The organization has committed itself to the organization of an annual basket sale. During the past two sales, the organization adopted a similar procedure; it ordered one hundred baskets and paid in advance. The profits generated through the

sales in the United States were integrally refunded to the St. Cecilia Women's Group and added to their revolving fund. For these sales and other initiatives, the WGC received support from the University of the Incarnate Word (UIW), also located in San Antonio, Texas.

The partnership between WGC and UIW provided an opportunity for sharing human resources since the university was able to offer support from highly skilled individuals who donated their time and expertise to the handcraft sale. Undergraduate students who were enrolled in a Marketing class helped the St. Cecilia Women's Group to develop a Marketing Plan under the supervision of a professor who was a WGC volunteer. The students also worked on the basket sale, assisting in the elaboration of inventory, cataloguing, and pricing strategies for the handcrafts.

Another project sponsored by Women's Global Connection in collaboration with the communities in Bukoba, Tanzania, and Mongu, Zambia, are short-term insertion trips. In 2004, 2005, and 2006, teams of professors and graduate students went to Bukoba and Mongu. The purpose of the immersion trips was to promote exchange of knowledge in areas identified by the local communities through a participatory approach as crucial for the improvement of their living conditions. During their visits, UIW personnel planned and offered workshops and seminars. The topics were concentrated in business plan development, strategic management of small businesses, fair trade practices, teaching styles and techniques, leadership styles, early childhood education, health issues and education, grief and loss, and development of basic computer skills. Equally important was the exposure of

volunteers from the United States to a new reality, thus helping them develop cross-cultural sensitivity.

The Cross-Cultural Leadership Development Program (CCLDP)

In 2003, the St. Cecilia Women's Group along with other women from Palestine, Mexico, the United States, and Brazil were invited to participate in a cross-cultural leadership development program. The program was designed to last for one year. Assiduous participation during that period granted the participants a leadership certificate.

The cross-cultural leadership program consisted of a closed discussion that was created in a technological environment, web-crossing, as previously described. Participation was restricted to selected users. After one year, when participants in the leadership program had been granted their certificates, other users had full access to the leadership forum. In April 2006, the cross-cultural forum registered over 600 entries. The discussion was very rich and contained the history of the collaboration between the women from the St. Cecilia Women's Group in Tanzania, women from Zambia, Mexico, Brazil, Palestine, the United States, and finally staff and volunteers from the Women's Global Connection.

Collaboration between stakeholders in the cross-cultural leadership program led to the participation of two representatives from the St. Cecilia Women's Group at the first International Conference sponsored by the Women's Global Connection in 2004 in San Antonio, Texas, USA. At the conference, Regina Majaliwa and Rachael Ndyamukama (2004) talked about the importance of community education with special emphasis on HIV/AIDS issues, legal counseling on women's rights, and information on birth control as a way to ameliorate the harsh living conditions

of the women in Bukoba. These representatives also suggested that women should have broader access to education for they were important agents of socialization as they were responsible for transmitting knowledge to the next generation. According to the two women, more education also meant the utilization of talents and potentials; awareness of diseases such as malaria, diarrhea, and HIV/AIDS; awareness of women's rights; and more active participation in politics. Their contributions seemed to be expressively linked to the promotion of women's empowerment.

Women's empowerment has been defined in different ways such as, enabling women to play a more active role in the change process, sometimes representing more control over resources and using their decision-making capacity. Empowerment is a plastic concept whose definition has changed over the decades. During the 70s and 80s, empowerment was more frequently captured and analyzed from a perspective of process: policies and strategies of changes affecting women. It also distinguished between two analytical categories: "power over" (whom), focusing on gender differences, and "power to" (influence) whom/what, power to bring about change in situations of inequality and discrimination (Datta & Kornberg, 2002). Since empowerment is a flexible and complex concept to define adequately in any culture, for the purpose of this study, the term will refer to the control of resources and use of decision-making capacity.

Statement of the Problem

As a result of the collaboration between the St. Cecilia Women's Group and the Women's Global Connection, facilitated by Information and Communication Technologies in the past two years, the researcher decided to investigate the

changes the women's group in Bukoba experienced after being exposed to information and knowledge from women and realities situated in different cultural contexts. Changes were not only attributed to the ICT intervention; it is presumed that other factors had influenced changes since the Internet use has long been instrumental and connected to the work, family, and everyday life of Internet users. There is an understanding among many researchers that "people adapt the Internet to their lives, rather than transforming their behavior under the impact of the Internet" (Castells, 2001).

Gigler (2004) also attested that there is not a direct relationship between ICTs and empowerment since that relationship is shaped by an interconnection between technology and social context. Thus it is suggested an exploration of other factors that were already in place prior to the women's ICT experiences that were expected to have influenced their potential for changes. Their history as a women's group within a particular cultural context, and the members' idiosyncrasies were expected to have worked as filters for any information they received through their interaction with other women. At the collaborative level, when the SCWG was called upon by the WGC to respond as an organized group that had a mission, vision, goals, and objectives, changes were observed and they reflected the mergence of the two agendas both organizations had created during their years of existence as a formal institution.

Studies in the ICT field exploring relationships between information technologies and social orders (Couch, 1996); information technologies, global power and governance (Singh, 2002); information and communication technologies and politics, international relations, global commerce, cultures, as well as policy

formation and implementation (Aronson, 2002), demonstrate the impact ICTs have on all sectors of global society. Even though this study focused on an ICT program with small-scale participation, the actual interdependence between non-governmental organizations, local governments, and educational institutions forming global networks, helped to shape the various initiatives proposed by the Women's Global Connection. The fact that the SCWG became part of this experience seems to have affected the lives of its members. Consequently it seems there were also linkages between the results produced through the Women's Global Connection ICT intervention in the St. Cecilia Women's Group and the broader community in Bukoba. The same has been said of other similar programs developed by non-governmental organizations in other countries, utilizing information and communication technologies (Couch, 1996). The basic nature, characteristics, and consequences of these dynamics as related to the SCWG members and their social context warranted the present study.

Purpose of the Study

In this ethnographic case the researcher looked at cultural, social, economic, and informational arrangements in the Tanzanian culture, and specifically in the community where the women lived to try to identify changes they might have gone through and also tried to understand any preconditions connected with changes the St. Cecilia Women's Group (SCWG) experienced during the collaboration with the Women's Global Connection (WGC). So the research focused on the use of Information and Communication Technologies as a potential instrument for promoting socio-economic changes. Moreover, the researcher's goal was to investigate the role(s) the women's organization had in transforming the realities of

the participants and those around them (nuclear and extended families, neighbors, parishes, and other closely related groups).

To evaluate the experiences the SCWG members were going through, the researcher assumed that the women were able to identify and describe any such changes. It was observed that there was an increase in the number of participants involved in the income generating projects. Not only their own ability to generate more funds to support new members improve but also, the funding initiatives of the women's organization in the United States opened opportunities for more participation. Although the WGC has assisted the SCWG to increase participation in their various projects in the past two years (2004-2006), there has not been any systematic collection and analysis of data regarding these experiences in terms of income generation and gender-related issues.

In short, this investigation of the use of Information and Communication Technologies by a women's group from a least industrialized country focused on the changes and factors influencing those changes within the St. Cecilia Women's Group that reverberated outside the group, reaching family members, neighbors, friends, and the local community in general. The researcher assumed the changes were influenced by the group's engagement in cross-cultural communication, participation in the cross-cultural leadership development program (CCLDP), and exposure to new information and knowledge through the use of ICTs.

This study also explored whether the changes experienced by the women's group influenced the empowerment of the participants. During the investigation the researcher considered the cultural differences linked to the conception of

empowerment, always trying to understand the meanings that such a construct had for the group.

Research Questions

The research questions guided this investigator in a search for associations between the use of Information and Communication Technologies (ICTs) and socio-economic and cultural changes experienced by the women's group investigated.

The research questions orienting this study were as follow:

1. Has the St. Cecilia Women's Group (SCWG) from Bukoba experienced changes since they began working with the Women's Global Connection (WGC) through a collaboration that was facilitated by ICTs?

2. What have some of these changes been?

3. Have these changes been influenced by the ideas and practical knowledge gained from the women's utilization of ICTs for developing online cross-cultural communication and collaboration?

4. Did the SCWG have some pre-existing conditions and capabilities that helped them to acquire the new experiences and undergo changes?

5. What are some of the wider consequences of the changes the SCWG women have experienced?

These questions were refined as to guide our investigation of the linkages between collaboration, ICT intervention and facilitation, and socio-economic and cultural changes of poor individuals living in rural areas.

Significance of the Study

This study constitutes the first assessment of the collaboration between the SCWG/BUWEA and the WGC that has happened in the past three years (2003-2006). Pre-requisite for the collaboration has been the possibility of communicating online efficiently. The SCWG has been able to report the evolvements of their activities, sharing their agenda, plans, goals, and strategies through the WGC website and e-mails. The WGC on the other hand, has facilitated the interaction between the organization in Bukoba and other stakeholders in the United States and other parts of the world. Opportunities for interaction without the facilitation of the WGC have been many as well, helping the women in the search for information in relevant areas such as farming, income-generating activities, and health issues.

The exploratory nature of this study reflected the first immersion by the U.S. stakeholders in a reality that is beginning to be understood. This has generated an inroad in new terrains that should orient further development of collaboration. It is expected that this study will provide the bases for insights in this endeavor.

Even though there has been intense discussion on the benefits and disadvantages of the use of ICTs for socio-economic development, the choices the WGC made when developing strategies for collaboration online configured particularities that should not be undermined for the understanding of the socio-economic and cultural changes the women's group has experienced in the past three years. These are crucial issues that need more understanding.

Information and Communication Technologies (ICTs) might have the potential to create new opportunities for poor and rural communities. Nevertheless, these opportunities can most effectively be pursued when institutions and

individuals implementing ICT programs in such communities have previous knowledge of the social, economic, cultural, and informational context where intervention will occur.

Articulation between ICTs, poor and rural communities, collaboration between two organizations based on cross-cultural communication, and social and economic changes seemed to have created a good opportunity for exploring the uses and impact of ICTs through a more holistic approach. The study has led to an honest discussion of the possible implications of a collaboration facilitated by ICTs by two organizations that were situated in totally different contexts and which had agendas that were merged. The findings seemed to be relevant in the sense that they can be used to inform the decision-making process for both parties when the time comes to design and implement new ICT projects that are culturally sensitive.

Another important aspect of this study was the opportunity given to the women's group to express their concerns, goals, dreams, interests, and most importantly, their understanding of the possibilities created with the use of ICTs. They can now expand their worldviews and interact with women and men from other realities and at the same time, share their own cultural identity. It is a process that brings opportunities for reflection and changes. Even though this study is a partial and incomplete evaluation of the problem in linking ICTs and socio-economic changes, through it, the groups can help promote dialogue to orient further action. Much of what was found in this study should provide a solid ground for further research since the results indicated some changes that happened after exposure to the cross-cultural communication and collaboration that occurred.

This study was never intended to be an assessment of the ICT intervention and the collaboration initiated in 2003 between WGC and the SCWG. However, the continuing collaborative work should benefit from the results of information gained throughout the two years of investigation.

Limitations of the study

Language barriers generated great obstacles between this researcher and some of the interviewees. The lack of proficiency in both Swahili and English interfered in the flow of the interviews and some questions had to be restated as to clarify what exactly the researcher was asking and needed to know. One of the members' daughter helped on some occasions with translation but the inability to directly ask questions and return to points deemed important by the researcher in order to address some of the research questions in depth was limiting. The leader of the local organization and another member who were very active within the association also helped with translation and explanation of cultural values, traditions, beliefs, and activities. However, part of the problem of translation was compensated due to the relationship between the researcher and the women's group, which allowed them to feel more comfortable when making mistakes and when they felt they had to ask what exactly the researcher needed to know.

Cultural differences also created some limitations to this study since the researcher had to interpret the data based on her own experiences and classificatory system, which were not necessarily that shared by the women's group. Besides, the researcher's role as the coordinator of the WGC's women's economic development program may have led to preconceptions and assumptions that did not correspond to what the women were experiencing. Nevertheless, deeper exploration of the

research problem and the data helped this researcher to understand her own biases and conduct an analysis that gave priority to the women's understanding of their own reality.

Immersion in a new culture created some initial adjustment problems since the researcher had a limited time to conduct her 2 months fieldwork in 2005 and 2006. So adaptations had to be made while this research was being carried on, promoting discomfort when expectations were not being matched. The time limitation also meant that only certain elements of the SCWG reality could be identified and analyzed. Nonetheless, the researcher believes that she has been able to capture as much about this women's group and their reality as could be expected under the conditions that prevailed during the investigation.

After having discussed some of the main ideas that guided the study, the next chapter will present a review of relevant literature. In this review, contributions that helped shed light on the study were gathered from several areas: information technologies, ICT and social inclusion-exclusion, issues of information and computer literacy, as well as feminist theory, the empowerment of women, and similar related research themes. These themes are discussed only in so far as each one helped this researcher acquire what she considered most relevant for analyzing the realities of the SCWG, BUWEA, and WGC in terms of their relationships as mediated by existing ICTs in Bukoba, Tanzania.

Chapter Two: Literature Review

Research in Information and Communication Technologies (ICTs) has

pointed to changes in the way researchers have approached the field. During the

first years of broader Internet access to the public in the early 90's, users were

progressively beginning to explore this incredible instrument of communication and

information. This novelty seemed to create a sense of urgency, that everyone

needed to have access to the Internet if they wanted to be part of the emergent

economy based on the information age. Computer and Internet usage was

mandatory if a community was interested in joining, and being part of, the global

economy. There seemed to have been a euphoria that came with the invention of the

Internet which led precursors to affirm the benefits and potentialities a netwòrked

society could create. International organizations had, in their agenda, a rush to adopt

ICT for development and many started their campaign towards the acquisition of

this new technology (Gigler, 2004; Warschauer, 2003).

As research in ICT developed following the Internet access growth, a more

holistic approach to the advantages and disadvantages of the Internet also started to

develop. Usage of the Internet revealed that only a minority of people were

benefiting from the use of ICT, and that those who could have benefited the most

from its use, were the ones who were excluded. Analysis conducted by Castells

(2001) showed that access to the Internet has been geographically and unevenly

distributed. Such an uneven territorial distribution is a result of, among other things,

the "connection to pre-existing milieu of technological innovation, which provide

the know-how of new technologies, and the network of suppliers, which could

sustain new entrepreneurial initiatives" (Castells, 2001, p. 222). Producers of

Internet content are also highly geographically concentrated. According to Castells (2001), such a concentration of producers within certain areas can be explained by the fact that the Internet has to be sustained in its innovational developments by a few players who have the expertise and the money to create and develop. To illustrate this, according to data provided by Castells (2001), 50% of the Internet content providers were located in the United States, followed by Germany and the UK with 8.6% and 8.5% respectively. When the number of Internet domains is considered, data revealed that the US had 25.2 per thousand population, Brazil 0.5 per thousand population, and China and India 0.2 and 0.1 respectively. Castells (2001) concluded that the spatial patterning of the Internet is linked to the metropolitan concentration of the information economy, rather than the distribution of the population.

The concentration of Internet users is not as high as the concentration of Internet providers and domains, which indicates an asymmetry between production and consumption of Internet content. As a result, substantial concentration of content production within a few countries and groups can be observed, leading to a near absence of content production which is meaningful to the larger population. Moreover, most of the content is provided in English, a language spoken by only a small portion of the global population. This issue has also been addressed by Kamuzora and Kamuzora (2004) who did an investigation of ICT in Tanzania in which they explored local access to computers and to the Internet. The researchers questioned whether measuring the number of users in Tanzania would support arguments favoring the benefits of using the Internet for learning.

The challenge in assessing uses of the resources available on the Internet takes us to the next level of research in ICT where the Internet, as an instrument for change, development, empowerment, and education, prompts us to think of computer literacy as consisting of gradual levels of mastery in computer use. Unfortunately many users are still at the bottom of the scale in computer and Internet literacy due to lack of English and limited access to computers and, subsequently, to information and knowledge provided through the Internet. Data found in Warschauer's study revealed that only 6% (350 million) of the world's population speak English as a native language (2003). This influences the wider use of computer resources.

The study conducted by Warschauer (2003) linking technology and social inclusion revealed an important shift from a focus on the digital divide; one that detaches itself from the dichotomy between those who have access to the Internet and those who do not, to a focus on graduations of access and ways of promoting social inclusion via the use of computer technologies. Castells (2001) had already stressed that technological innovations do not happen in a vacuum; they are rather, implemented and diffused within a social structure that has been in place for a long time. Use, implementation and diffusion therefore have greater or lesser chance of being successful, depending upon the social, political, economic, and cultural structures that are in place. Tanzania, for instance, has been very successful in its adoption of mobile phones. The explanation for such a successful diffusion is attributed to the Tanzanian oral tradition. The fact that mobile phone owners can communicate using their own language helps to explain its widespread adoption and its advantages when compared to the Internet. Also, only 10% of households in

Tanzania have access to electricity, according to a household budget survey report (URT, 2002) used by Kamuzora and Kamuzora (2004) in their study of Internet access by the poor in Tanzania. This is a great barrier to the implementation of technology of information. This data also helps us to understand the great support given to the adoption of radio as a means of communication and education in rural areas. These areas would also benefit from utilization of the Internet.

In response to questions raised among researchers and policy makers who seek to understand the number of exclusions in this "new information economy," "Information Society," or "Information Era," Warschauer (2003) reveals the importance in creating a theoretical connection between social inclusion and technologies based on three premises. These assumptions are: the acknowledgement that a new information economy and network society have emerged; that ICT plays a critical role in all aspects of this new economy and society; and that access to ICT can help determine the difference between marginalization and inclusion in this new socioeconomic era. As a result, he proposed an investigation of literacy; a social practice "involving access to physical artifacts, content, skills, and social support" (Warschauer, 2003, p. 58). He then concludes that there is not just one type of ICT access since access exists in gradations. Corroborative to what we have tried to develop in this study is another of Warschauer's conclusion, that computer and Internet use does not provide any automatic benefit outside of its particular functions.

The first understanding that is sought among researchers exploring the relationships between rural population's access to computers and the Internet, and development, seems to be a mapping of exclusion. Castells (2001), as shown earlier

in this chapter, has provided us with a good description of the geography of the Internet in which he not only reveals concentrations of Internet providers, Internet domains and Internet users, but also provides an explanatory model for such a concentration of the Information and Communication Technologies in the world.

The next focus then among researchers is to evaluate the quality and effectiveness of access, especially those researchers who are assessing the uses and benefits of ICTs for development after the technology is implemented and made available. This implementation is becoming more common in countries where Telecommunication policies have been adopted and Telecenters created to benefit minorities who otherwise would not have access to computers and the Internet. According to Kamuzora and Kamuzora (2004), several national development strategies and policies in Tanzania such as the National Development Vision (NDV) 2025 (URT, 1999) and ICT Policy (URT, 2003) mention ICTs as one of the core means of attaining higher economic growth. Disadvantaged groups, including some rural populations, women, and other minorities are now placed at the center of the debate. Impact of the use of ICTs among disadvantaged populations has therefore not only been approached from a predictive perspective through which past experiences in research have led to conclusions drawn on failures, but also, and perhaps as a result, on a prescriptive approach that suggests effective use of ICT for promoting socioeconomic development.

Physical resources are a *sine qua non* condition for access, but digital, human, and social resources also play different and yet complementary roles for the use of ICT to be successful. Physical resources, including computers and Internet connection, must be available before we can start investigating the uses and impact

of ICT within a given community or group. Data provided by Warschauer (2003) showed that 8.4% of the world's population had access to the Internet in 2001. Access remains highly stratified and in Africa only 0.5% of the population had access to the Internet in 2001. Explanations for such stratification are correlated to economic, social, cultural, political, and infrastructural conditions in any context. In Tanzania, according to Kamuzora and Kamuzora (2004), Internet users are estimated to number more than 100,000. Considering Internet services, it is estimated that dial-up accounts in the country range from 10,000 to 15,000 with more users utilizing corporate Local Area Networks (LANs) and Internet cafes (COSTECH, 2002), which were estimated to number 1000 in 2003.

Kristopher Robinson and Edward Crenshaw (1999) conducted research about 75 countries and their findings revealed that the number of Internet host computers per capita was associated with Teledensity (defined as the number of fixed lines per 1000 inhabitants). In Tanzania, the Teledensity was 5.3, a much lower rate compared to the Sub-Saharan region with a Teledensity of 24.4. Some characteristics present in some countries help to explain higher rates in Internet access. These characteristics are high levels of energy consumption, post-industrial economies, educational level, and political openness. We have shown previously that in Tanzania 10% of the households have access to electricity (United Republic of Tanzania Survey 2002).

Tanzania does not have a strong service sector, therefore, it is not yet categorized as a post-industrial economy. Educational level was a variable corroborated by Kamuzora and Kamuzora (2003) in their research of Internet access by the poor in Tanzania. There they showed a correlation between higher level of

education and higher access to the Internet. The Tanzanian government through its major agency COSTECH (Commission for Science and Technology) has created supportive policies for the implementation of Telecenters throughout the country, which could constitute some level of political openness. Other factors explaining Internet access rates are: the existence of a competitive telecommunication industry, English language proficiency, and national wealth. Considering that in Tanzania only 6% of the population has completed secondary education, and linking that to the fact that English is taught only in secondary schools, we can predict lower rates of adoption of the Internet. Even though Tanzania does not fall into the category of countries with a high level of Internet access, it has, in the past few years, established some Telecenters and opened new Internet Cafes. This has resulted in a slow and increasing number of Internet users in the country.

Another important aspect of ICT use is computer and information literacy. Computer literacy should allow access to meaningful content, goals, and purpose in order to promote learning. Information literacy can be defined as having computer specific knowledge and broader critical literacy skills (Warschauer, 2003). When looking at the different outcome indicators that fall into several dimensions deemed important for development by disadvantaged populations, Gigler (2004) indicates questions that should be asked while assessing the impact of ICTs on rural populations. According to him, traditional information systems (based on indigenous knowledge and traditional communication practices), are frequently forgotten. The World Bank, in its World Development Report 1998, in stressing the critical value knowledge plays for development, omits indigenous knowledge. Instead it focuses attention on technical knowledge (in health, agriculture,

accounting, and other such factors) and knowledge about attributes (i.e. credibility

of a borrower), concentrating on a supply-side approach (Gigler, 2004, p. 2). A

solution to the knowledge gap then would be the provision of ICTs for making

information available. In contrast, Gigler proposes the conception of a mutual

knowledge gap, stressing that it is important to "first understand the traditional

information systems and to assess existing information channels and

communication patterns before introducing ICTs" (Gigler, 2004, p. 3). His

approach also highlights existing structural inequalities and the social exclusion of

marginalized groups within developing countries. It would also be interesting to

consider the impact of cross-cultural communication between countries and cultures

where women are placed in lower positions in the social structure and are therefore

less powerful than men.

Gigler's Alternative Evaluation Framework for ICT Interventions

The Alternative Evaluation Framework (Gigler, 2004) was selected as the

evaluation tool to examine the changes in the women's lives after they started to use

ICTs. The researcher addressed the following questions: (a) whether and under

which conditions improved access to information and knowledge that was

facilitated by ICTs can enhance the individual and collective capabilities of the poor

to better achieve the lifestyle they value; (b) under which conditions can ICTs

empower poor communities? Our assessment was then focused on the investigation

of the presence of similar conditions within the group and environment we chose to

study. Positive changes could be verified by whether the livelihood outcomes were

strengthened with the expansion of capabilities (strengthening of people's capitals)

after ICT interventions. Livelihood outcomes (impact indicators) are a result of the

strengthening of capabilities deriving from different levels of empowerment. At the individual level (individual empowerment), capabilities include psychological, social, economic, informational, political, and cultural. At the collective level, they include social, economic, political, organizational, cultural, and informational capabilities.

Psychological indicators (for empowerment) are described as: (a) the improved ability to analyze and solve problems; (b) to enhance a person's self-esteem; and (c) a sense of participation in the modern world. Impact indicators for human capital encompass people's ICT management and leadership skills. The functional view of ICT literacy utilized by Gigler (2004) stresses the importance of the ability of people to appropriate technology to meet their local and cultural needs. Managerial and leadership skills include the ability to convene meetings, supervise people, and have basic knowledge about accounting and finance.

Effective use of ICTs as an instrument to reach people's personal and collective development goals should impact the economic, social and cultural dimensions of a person's life. Indicators for individual empowerment on the economic dimension include: (a) improved access to markets; (b) enhanced entrepreneurial skills; (c) alternative sources of income; (d) strengthened productive assets; (e) improved employment opportunities; (f) improved income through lower transaction costs (less time constraints), reduced transport needs, and increased timelines of sales.

On the political dimension, improved access to government information/services, improved awareness about political issues, and improved capabilities to interact with local governments, are outcome indicators selected to

evaluate whether human capabilities were strengthened. And finally, on the cultural dimension, outcome indicators were selected to support us in the assessment of the strengthening of people's cultural identity. They were the use of ICTs as a form of cultural expression (i.e. design of computer graphics, websites), and increased awareness of the people's own cultural identity.

Gigler (2004) also includes outcome indicators to assess enhanced social capabilities, integrated in the key dimension of community empowerment within small groups, community organizations, partnerships and political action. These indicators are informational, organizational, social development, economic development, political participation, and cultural identity. Accordingly, the collective pursuit of goals informed by a group's vision at the community level are an important source of power for the poor (Datta & Kornberg, 2002; Gigler, 2004).

In continuing the selection of outcome indicators for assessing the impact of ICTs on community empowerment, another dimension considered was the organizational. In this dimension, the organizational effect of ICTs on existing social institutions should support our understanding of the strengthening of local organizations (Gigler, 2004). The points to be considered here are the control of information flows in the community by traditional organizations and the status of existing power relationships with the introduction of ICTs. It is also important to remember increase in the efficiency and transparency of existing organizations. Another important element to be evaluated is the strengthening of community-based organizations by improving their communication channels with other organizations in different communities.

Concerning the impact of ICTs from a social perspective, Gigler (2004) points to increased access to education and health (including adult education) and to changes in power relationships between children and adults. In economic terms, ICTs are presumed to help communities to access new opportunities, providing them with access to markets, improving the productive activities of the community, and some expectation is created around access to financial resources and improvement in income. From a political perspective, ICTs have the potential to improve the transparency of information flows within the community (election of community leaders) and enhance political participation. The outcome indicators suggested in this case are the ability of communities to influence decision-making processes, ability to make their voices heard, improved transparency of government institutions through e-government, enhanced capacity of communities to coordinate their political work with other communities, and ability to participate and influence international policy debates. And finally, regarding cultural identity, through the use of ICTs, poor communities should have acquired skills and knowledge to manage and own the technologies. At this point, ICTs should have been incorporated in the community's life to some degree. An important aspect of strengthening cultural identity is the use of indigenous language. Dissemination of the community's culture via the strengthening of indigenous knowledge is another indicator associated with cultural identity.

Between the socio-economic, cultural, political, and technological factors that should inform the different capitals (economic, natural, human, social, and informational), and capabilities (individual and collective), there should also be enabling factors (role of intermediary organizations). Gigler (2004) utilized in his

study the capability approach developed by Amartya Sen (1999). Accordingly,

people have capabilities consisting of freedom to achieve various lifestyles. A

person's capability results from "alternative combinations of functionings (various

things a person may value doing or being) that are feasible for her to achieve." In

order for someone to realize his/her functionings he/she will depend on capabilities

and assets.

Gigler (2004) asserts that changes can lead to empowerment and certain

enabling factors are deemed essential for community empowerment. Thereby, great

emphasis is given to non-government organizations, local governments and

community-based organizations as key agents and institutions responsible for the

transferring of technical and management skills to the local community during the

implementation process of ICTs. The Alternative Evaluation Framework (AEF)

integrates the following aspects in the analysis of the role an intermediary process

plays in implementing ICTs, each containing specific indicators: (a) the nature and

extent to which a participatory process has facilitated the preparation and

implementation of ICT programs; (b) the level of support by the intermediary

organization in terms of its provision of specific technical services (capacity-

building activities); (c) the degree to which local communities have gradually

appropriated the technology and gained ownership of the program (Gigler, 2004, p.

21).

Gigler (2004) devised the Alternative Evaluation Framework (AEF) and it

guides the exploration and understanding of the impact of ICTs on the women's

lives in Bukoba through specific use of the indicator outcomes incorporated in his

analysis. In this case, some adjustments became necessary since the WGC

intervention was a small endeavor compared to large ICT intervention programs. Information flow and knowledge exchange were then specific to a combination of the agendas of the two organizations (i.e., international conference, income-generating projects, insertion trips, basic computer training, cross-cultural leaderships program, and agricultural activities). Thus not all the outcome indicators are applicable given the nature and extension of the WGC intervention.

It is suggested that the theory developed by Pierre Bourdieu (2001) around the concept of *habitus,* and refined along his accomplished academic life, be integrated into the notion of "capabilities" based on Amartya Sen's capability approach (1999) as explained by Gigler (2004). Habitus refers to the effects past experiences have on an individual as social subject. In this sense, habitus and capabilities concept seem to be complementary in that they help us understand the potentials and limitations for individual and community empowerment when considering the implementation of ICT programs in a specific context. Bourdieu (2001), explains that social agents (with acquired *habitus*) perform acts of practical knowledge that are facilitated by systems of schemes of perception, appreciation and action. Appropriate strategies are constantly renewed but they are limited by structural constraints from which they are produced and that defines them. In Bourdieu's theory of *habitus,* the notion of an autonomous isolated agency has no application. He does not recognize any explicit definition of ends or rational calculation of means. As a result, strategies are generated based on the identification and recognition of conditional, conventional stimuli to which people are predisposed to react. Consequently, "the agent is never completely the subject

of his practices" (Bourdieu, 2001, p. 54). Practical sense is what informs (enables) one in his/her action.

Gigler's (2004) idea of capabilities is compared with the notion of strategies derived from practical knowledge in Bourdieu (2001). The socio-economic, cultural, political, and technological contexts and the livelihood resources of economic, natural, human, social, and informational capital are elements conducive to the realization of an individual's and community's capabilities. Similarly, a person's ability to generate strategies based on Bourdieu's concept of *habitus* depends upon the social structure, from which practical knowledge was constructed and transmitted via institutions and agents.

If we are to consider a positioning as suggested by Gigler (2004), in which human development is placed at the center of the debate on the use of ICTs for the promotion of empowerment, such notions as capabilities, *habitus*, strategies, capitals, and livelihood resources seem to be important for helping us to understand how people appropriate technology. It also helps in understanding how information and communication technologies impact people's lives.

Information and computer literacy is described by Gigler (2004) using four components: the extent to which the poor have access to information from the formal institution of the market, state, and civil society; the ability of the poor to process and evaluate information; the extent to which the poor not only consume, but produce and share information within their communities and networks; and finally, the extent to which indigenous knowledge plays a role in the lives of the poor. These are important components and operational concepts that we should consider when preparing to evaluate the positive impact of ICTs for development

among poor and rural populations. They should be observed in order to better understand the impact on the individual and society at several levels (social, economic, political, cultural and regional).

Information and computer literacy should also include certain levels of understanding and skills (Warschauer, 2003). These include the ability to develop good research; determine the most likely places to seek relevant information; select the most appropriate search tool; formulate appropriate search queries; evaluate the result of a search query, including the reliability, authorship, how current the source is; save and archive located information, and cite or refer located information.

Multimedia literacy is also considered by Warschauer (2003), who sees the value in the combination of multimodal communication using text, backgrounds, photos, graphics, audio, and video in a single presentation. He considered this "a great opportunity to level the playing field of literacy by restoring the status of more natural forms of audiovisual communication that are in some ways more broadly accessible" (p. 35).

Computer-mediated communication literacy was also defined and it entailed interpretative and writing skills necessary to communicate effectively via online media (Warschauer, 2003). "Electronic literacy involves far more than being able to operate a computer. It is an act of agency: the power to construct a representation of reality, a writing of history, and to impose reception of it by others" (p. 118). It is not clear to what extent the writer can impose a reception of his/her story, but it definitely involves a capacity to create a representation of reality that can be appealing to some and rejected by others.

Social inclusion promoted through the use of ICTs encompasses a great range of variables, information and computer literacy being included. Decisions about Internet content have been deemed crucial by many researchers if provision of ICTs is to be considered among poor and rural population. The social context where implementation is occurring is also very relevant and has been highly considered as a key element for the successful application of ICTs for development. The premise is that technologies are adjusted and integrated to particular social realities. Therefore, some factors revolving around the socio-economic, cultural, and political contexts are important for the absorption of a new technology. In terms of the curriculum proposed in places where ICTs are being implemented, Warschauer (2003) suggests critical pedagogy and situated learning as possibilities for creating relevant content. The idea is to carry out meaningful tasks and solve meaningful problems in an environment that reflects the target group's own personal interests, combining computer skills with other content materials that serve community needs. This focused endeavor also relates to teaching students to search for information and to actively master information technology tools, and engage in autonomous and purposeful learning.

Concerning what Warschauer (2003) describes as social capital or social resources, it seems relevant that ICTs be integrated in the already established web of social relations. In this sense, there should not be a division between traditional and virtual communities. This understanding is also attested to by Castells (2001). Promoting social capital is seen as an important asset for local communities and that can be provided through the implementation and use of ICTs. Helping to connect or reinforce coalitions and networks that will support the communities' goals can be of

great potential in leveraging existing community resources, mapping and connecting existing community connections, and integrating with broader social and economic campaigns. Giving assistance to strengthen social networks can become useful for organizing new social alliances and mobilization via a wide range of media and tools (Warschauer, 2003).

Relationships between ICTs and development usually include the concept of empowerment. Do ICTs have the capability to empower? How could that be measured? Empowerment per se has always created great challenges in many fields of research when it needs to be assessed. How can we affirm that someone or a particular group has been empowered? How can we connect a group's or individual's empowerment to specific conditions? The challenge remains when the goal is to link the use of ICTs with empowerment. And it is even more difficult when we recognize the strong linkage between uses of ICTs when applied to social practice.

The women's group we studied had an agenda previous to our presence in their local environment. All the members of the St. Cecilia Women's Group (operating since 1996) that later founded the Bukoba Women's Empowerment Association (2005), were already involved in social and economic practices and they had as the organization's main goal, raise the income of the women living in the rural areas surrounding the district capital of Bukoba. Dissemination of the idea that a woman should be self-sufficient evolved into another important task: to educate local women about home-based projects, helping them to identify local resources that could be utilized for generating income. So not only did they envision opening small businesses as a solution to their immediate problems and

needs associated with poverty, but they also realized that the message should be transmitted through their local leaders.

Concurring with the position that empowerment should be contextualized, we adopted a definition that provided us with tools for assessing empowerment in the particular social context of Bukoba. Empowerment was thus evaluated based on the local women's own idea of empowerment, which primarily consisted of their ability to generate more income. Attached to that was the fact that the ability to generate more income should reflect on the women's capacity to have a stronger voice and to be part of the decision making process.

Their unique experience with computers also guided our analysis of empowerment based on access to a tool that was previously not integrated (and not allowed to be part) of their social practice. Morritt (1997), focusing on feminist standpoint theory, analyzed what effect women's unique perceptions have on their experience with computer based technologies. She explains feminist standpoint theory by asserting that "women's daily life experiences have important epistemological consequences for the understanding and construction of social relations" (Morritt, 1997, p. 7). She also stresses that the subjugated knowledge of women should be empowering and their experiences (women's emotional labor, relational personality structures, and different modes of reasoning) should be valued since "women's different lives have been erroneously devalued and neglected as starting points for research" (1997, p. 16). According to her women's work and gender role relationships need to be examined as it relates to women's experience with computer based-technology.

Power has been defined as the ability to control material assets, intellectual resources, and ideology. Empowerment in its turn is a dynamic, ever changing concept. To empower means to be able to change something, to redistribute power. Datta & Kornberg (2002) proposed we separate empowerment, as a process and as an outcome, as a way to organize the literature. The impact of social and economic processes on social relationships (gender equality) is one aspect that could guide our search for the effect policies and strategies have on empowerment. Some attention should be focused on ICT policies that aim at providing access to information to minorities, including women. Globalization and cross-cultural communication should also be stressed since they bring a new agenda to local communities and affect social relationships.

Gender differences in the control and distribution of resources was in the 1970s and 1980s, utilized to address empowerment, bringing into the discussion the notion of power in a relational context: "power over [whom]" and "power to [influence whom/what]" (Datta & Kornberg, 2002). According to these same authors there is a distinction between "power over" and "power to". The first, meaning control, and the second, means the ability to influence change. The notion of "power to" is, according to the authors, a preferred one and it refers to "the strategies that women use to increase their control of resources and generate decision-making capacity" (p. 2). Women's organizations are essential in this debate for they can gain more power through their strengthened organizational capacity and, as a result, be able to promote changes, thus crystallizing their visions and perspectives. In the 1990s, the notion of "power over" was incorporated and

empowerment was seen as a process of gaining greater control over the sources of power.

A combination between the notions of power as a process and as an outcome is more often used. As outcome, empowerment can be manifested in challenging patriarchal ideology, transforming structures and institutions that have reinforced and perpetuated gender discrimination. Outcome also refers to access to, and control of, both material and informational resources by poor women.

Applied to the Tanzanian reality, an analysis of empowerment should encompass the accomplishments hoped for, and expected by the women's group in Bukoba especially those in rural areas. Their reality does not differ from other African women's realities, especially those in rural areas. Creevey (2002) analyzed the impact of structural adjustment programs in Niger and Senegal on empowerment. Many women in these countries are, like many Tanzanian women, working in the informal sector. In Senegal, embedded in the Plan of National Action were incentives for the formation of women's groups and associations (this characterizes the informal sector in Tanzania as well). The rationale was to be able to identify the women's groups and provide credit for income-producing activities, seen as a key for their economic success. Nevertheless, the results of initiatives like this have not been positive and improvement in the relative economic position of women has not occurred since few formal loans have been available. The lower access they have to loans, compared to men, is attributed to three factors: less education, less access to collateral, and perceived lower profit potential because of the nature of their business. Women tend to have more access to credit (and

savings) for income-generating activities in the semi-formal institutions (Creevey, 2002). This is a situation that is also present in the Tanzanian informal sector.

An important consequence of the structural adjustment policies in Niger and Senegal, and a stretch can be made to other African countries as we could observe in Tanzania, was the proletarianization of women. These policies drew the women out of the subsistence economy that was organized around the household and home plot activities. They began to struggle to find cash incomes in wage paying jobs and small businesses of their own (Creevey, 2002). Their web of financial relationships, on which their businesses were based in the informal sector, were then organized around their own informal savings and credit organizations. Weekly or biweekly, the members of these solidarity groups give a set amount of money and then each one takes a turn in using the total amount gathered. They are, in most cases, loans with no interest rate that are based on personal knowledge and trust of the debtor.

Creevey (2002) explains that most of these solidarity groups have both a saving and a credit function and their principal purpose is to finance the means of production including agricultural inputs and tools. In urban areas, the savings are primarily needed for commercial activities. Improving the home, or other non-economic purposes (paying for utensils, health, social needs) are, to our surprise, secondary reasons for these savings.

Another study of the structural adjustment policies (SAPs) in Mexico and Costa Rica conducted by Anastasakos (2002) showed that SAPs reduced public funding in education and health. SAPs in the 1980s, were policies advocated by the World Bank and the International Monetary Fund (IMF). They consisted of a liberal tradition of trade liberalization; reform of the price structure through devaluation;

reduction or elimination of subsidies; introduction of fees for public utilities; wage freezes and higher producer incentives (for exports); and the reduction of the role of the state not only in the economy, but also in the provision of social services. What the author calls the "invisible adjustment" compelled many women to seek work in the informal sector in order to maintain acceptable levels of household income. According to Anastasakos (2002), since many resources that are required for meaningful transformation in women's lives are controlled by the state, its policies and institutions have a great impact on women's empowerment.

Miller (2002) investigated women and development in the Caribbean. Many similarities were found between her findings and the reality of Tanzania, concerning the agriculture sector. In the Caribbean countries, small farmers typically own or rent small plots of land and have little access to capital or credit. Most have a few years of schooling, and extension officers and aid agencies often do not include women farmers in programs offering training, credit, and new technologies. Women in Tanzania have faced the same challenges and like the women in Niger, Senegal, Mexico, Costa Rica, and the Caribbean countries, they have been forced, in the informal sector, to seek more capital to add to their household income. Adjustment structural policies have also removed the government's responsibilities from national social and economic programs, placing much of the responsibility with health and education in the hands of families, especially women. As a result, the redistributive capacity of the government (welfare state) that could potentially raise the poor families' income via an effective tax system is destroyed and the families and women are left helpless.

Chapter 3: Methodology

Research Design

This research integrated micro and macro analyses, a technique that connects an in-depth study of the "logic of practice" (reference) within the women's group and their community, with the practices of other producers of worldviews which influenced the women in Bukoba. Utilizing a micro approach, the investigator explored the living conditions within the women's environment. She also explored their values, categories of perception, categories of thinking, and worldviews. As much as possible, she let them remain the principal observers, reflective agents and main communicators about these elements.

Based on a macro analysis, she looked at Information and Communication Technologies as a tool supporting the distribution of content (information and knowledge) via the cross-cultural dialogue, previously known as the cross-cultural leadership development program. The researcher investigated to what extent the exposure to new information had contributed to alter the participants' worldview.

The research problem was to investigate the changes the women's group in Bukoba experienced after they participated in collaborative projects by using Information and Communication Technologies (ICTs). The use of ICTs enabled women from different cultural contexts to share their worldviews. The four research questions that guided the author in the search for associations between uses of ICTs and socio-economic and cultural changes. They were: (a) Has the St. Cecilia Women's Group (SCWG) from Bukoba experienced changes since they began working with the Women's Global Connection (WGC) through a collaboration that was facilitated by ICTs? (b) What have some of these changes been? (c) Have these

changes been influenced by the ideas and practical knowledge gained from the women's utilization of ICTs for developing online cross-cultural communication and collaboration? (d) Did the SCWG have some pre-existing conditions and capabilities that helped them to acquire the new experiences and undergo changes? (e) What are some of the wider consequences of the changes the SCWG women have experienced?

Prior studies have suggested that there is an impact of Information and Communication Technologies in poor, rural communities. Investigations of Dumas (2002) in Mali, and Akpan (2003) in Nigeria, pinpointed some outcomes from the interplay between information technologies and socio-economic development as well as women's empowerment. In the current study, little was known about the influences that the online, cross-cultural leadership development program had on the lives of the St. Cecilia Women's Group.

Therefore, there was a need to explore changes that were captured not only through the participant observer's and observer participant's preconceived categories, but also through the changes that the women experienced and reported. As participant observer, the researcher primarily took part in the women's activities while she also tried to observe these activities. On other occasions, these basic roles were reversed. Being with the members of the SCWG in these various but interrelated roles, helped the researcher gain more integrated insights into the realities and lives of the women. The researcher's concern in developing this study in a culture that was different was to limit distortions commonly produced by researchers who question their informants on issues neither shared nor meaningful to them, therefore not comprehensible when related or explained.

Qualitative Research

Qualitative research is recommended when social interactions and the meanings the participants attribute to these interactions are relevant to address the research problems and questions (Marshall & Rossman, 1999; Merriam, 2002). This design was selected because this researcher was studying the daily lives and regular activities of a group of women upon whom she was dependent in order to understand what and why they were doing. At the same time, the investigator's main objective was to hear and observe from them the meanings and implications they applied to elements of their reality.

The qualitative genre was selected for this study since it allowed the researcher to "focus on the meaning that people express about some aspect of their lives" (Marshall & Rossman, 1999, p. 60). The challenges related to entrance into a culture different from the investigator's, and the need to explore unknown practices in unfamiliar grounds, led her to select the qualitative research design. It was assumed to be the most helpful to understand the changes the St. Cecilia Women's Group in Bukoba experienced since the intervention of the Women's Global Connection. At the same time, this investigator never presumed that any changes that were detected during the process of research would correspond to what the women's group experienced. Consideration of cultural differences was made based on the investigator's westernized and academic perspectives.

Marshall and Rossman (1999, p. 2) as well as Rossman and Rallis (1998) cite some central characteristics of qualitative research. According to them, qualitative research is naturalistic; it draws on multiple methods, is emergent and evolving, and is interpretative. Also in qualitative research, the social world is seen

central to their use and understanding of the Information and Communication Technologies they interact with.

The investigator's focus was on the collaboration between the SCWG and the WGC because it was the catalyst for the changes she was presuming had occurred during the period of two years of observed collaboration. In order to understand, after describing and interpreting the group's shared pattern of behavior and beliefs regarding ICTs, it was deemed crucial to understand their culture.

Based on the research problem and questions in this study, there was also an expectation that a case study would help explain the role of the organization within the local community and how its role as an association, would reflect on the women's objectives and goals. The investigator also focused on the individual lived experiences, especially because of the multiple roles a woman plays in the setting investigated.

Ethnographic Method

Because of the exploratory nature of this research and the assumption that operational concepts borrowed from other cultural realities would not necessarily contemplate the practical knowledge of the women within the group, the researcher opted for utilizing the ethnographic method.

In this study, an ethnographic design presented the possibility of drawing from this group's realities and culture, their own understanding and experience of social, economic, and cultural changes and empowerment. Ethnographic designs are procedures used in qualitative research to describe, analyze, and interpret a group's patterns of behavior, beliefs, and language that form their culture (Creswell, 2002, P. 481). Culture as a symbolic system, was defined by Geertz as mechanisms of

control, rules, plans, and instructions that govern behavior (Laraia, 1999, p. 63). Cultural observations and analyses through an ethnographic approach, was selected for this study because of the great emphasis the researcher gave to the women's group in relationship to their social environment. The same kind of attention was given to the relationship between the group in Tanzania and the organization in the United States since both configured two cultural groups that were joined through the cross-cultural communication, interaction, and collaboration that they developed.

Knowledge gained from the researcher's interaction with the members of the St. Cecilia Women's Group, both on-site and through the online, cross-cultural leadership program, oriented this research and generated some categories associated with socio-economic and cultural changes. The general learning, use of the Internet, development of basic computers skills, cross-cultural communication, organizational skills, emotional and spiritual support, were all elements used to orient the data collection and analysis process. In this way, the research became more ethnographically grounded.

Setting

In order to investigate the women's group from Bukoba, it was crucial to understand their local environment. Although other studies assessing the impact of ICTs on poor communities could have provided concepts for understanding socio-economic changes experienced by the participants in this study, cultural particularities greatly influenced the women's group's realities.

Bukoba, Kagera Region, Tanzania

The United Republic of Tanzania is a country situated on the East Coast of Africa. It borders the Indian Ocean on the East, Kenya and Uganda on the North, Rwanda, Burundi and the Democratic Republic of Congo on the West, and Zambia, Malawi and Mozambique on the South.

Tanzania, once Tanganyika, was a stage for innumerous battles for control of its natural resources, a fact that repeated itself in many other countries. It was ruled by four colonial powers: Portugal, Oman, Germany, and Great Britain. In 1961 Tanganyika became independent, having Julius Nyerere as its first president. The subsequent president was Ali Hassan Mwinyi, who succeeded Nyerere in 1985, followed by Benjamin Mkapa, the first president elected in October 1995 and who was also from the ruling party CCM.

Tanzania is divided in 22 administrative regions and the Kagera Region, where Bukoba is located, is one of them. The Region is situated in the northwestern corner of Tanzania. Bukoba, Kagera Region's capital, is on the shore of Lake Victoria, and it is the second largest port on the lake. The region neighbors Uganda, Rwanda and Burundi, and lies across the lake from Kenya.

The Region comprises five administrative districts: Bukoba, Muleba, Karagwe, Biharamulo and Ngara. It has six Councils, which include Bukoba Town, Bukoba Rural, Karagwe, Muleba, Biharamulo and Ngara. According to the 2003 National Census, the population is at 2,003,888 with an annual growth rate of 3.1%.

The majority of the population in Tanzania is small farmers and so is most of the population in Bukoba. Their local commercial activities are therefore concentrated on agricultural products. All the participants in this study had inherited

family plots, usually a 2 acre farm utilized for subsistence farming. The main food crops are banana, cassava, and maize, sweet potatoes, and yam crops. Coffee and tea are the predominant cash crops in the area. Dairy cattle, poultry, and pig husbandry are also undertaken. Fishing is a sector which employs many people and it has a strong potential for growth.

In the Kagera Region, approximately 93% of its 1,337,908 inhabitants lived in the rural area in 2002. About 80.83% of the population worked in agriculture out of the region's 57% employed population. The great number of farmers in the country reflected a campaign initiated by the President Julius Nyerere (1964-1985) who implemented the African socialism that had been inspired by the Chinese socialism of Mao-Tse Sung. Household and housing conditions indicated the infrastructure encountered in Kagera Region. Of a total of 396,533 private households, 92% were in rural areas. The average household size was 4.7 persons per household. Male-headed households were more (68%) than female-headed households (32%). In the distribution of households by building materials, 64% of all households had walls of poles and mud, and 86% of the total private households used mud as the main flooring material (URT, 2002 Population and Housing Census).

According to the 2002 National Census, Bukoba has a population of 81,221 people with an annual growth rate of 4%. Of the total population, 40,380 are women and 40,841 are men. In 2002, the Bukoba city council profile developed to support the Lake Victoria City Development Strategy by the United Nations Human Settlement Program, counted 19 pre-primary schools with a total of 992 pupils of whom 480 were boys and 512 girls. The council identified 26 primary schools with

14,507 pupils of whom 7,509 were girls and 6,363 were boys; 6 of the schools are privately owned. The total number of students in secondary schools was 3,206 of whom 1,509 were girls and 1,697 were boys. Of the 9 secondary schools in Bukoba, 6 were run by the government. Bukoba had also three technical colleges with a total population of 120 students and a branch of the Open University of Tanzania (OUT) with 75 students of whom 8 are women and 67 are men.

In 2002, in Bukoba had one government hospital with 250 beds, two health centers and ten dispensaries. In terms of communication, the city was estimated to have 2,500 telephone lines that were used by individuals and institutional customers. Mobile telephone networks were also available.

Participants

The St. Cecilia Women's Group (SCWG) celebrated ten years of existence in 2006. The group had been formed originally as a prayer group in 1996 and later became a women's organization focused on the development of income-generating activities and support of small businesses in Bukoba and surrounding villages. Collaboration with the WGC begun in 2003 and it has expanded since then. In the summer of 2005, the SCWG decided to create another women's organization to serve a larger community of women seeking small loans, advice in small businesses start-ups, and support. The Bukoba Women's Empowerment Association (BUWEA) had in 2005, approximately 125 members registered and 27 groups. Each group develops activities such as pig husbandry, poultry, dairy keeping, food crops, handcraft making, and petty shops. The larger organization's goal is to continue the development of the revolving fund loan to benefit more women from the villages and to improve their distribution system.

The eight members of SCWG were selected to be the informants for this study because they were the WGC's formal collaborators and had participated in the cross-cultural leadership development program. Another ten women from the villages around Bukoba indirectly informed us since they were beneficiaries of the activities and projects SCWG/BUWEA was helping to develop. They were not direct users of the Internet but they benefited from the women's organization's collaboration with the WGC.

During the researcher's time in Bukoba, six weeks between July and August 2005, and three weeks in July 2006, many visits were made to the surrounding areas where the women were living, farming, and making baskets. Except for the SCWG, the majority of the women involved in activities assisted by SCWG/BUWEA did not speak English. They spoke Kiwaya, their local language, among themselves. And those who went to school also spoke Swahili, their national language. Only the minority spoke English, a language that is taught in secondary school.

During the researcher's visit, the group met four times a week. The members were attending basic computer skills lessons, which helped to keep the group together during the days the researcher was doing her field work. Interviews were scheduled weekly and this provided an opportunity to interact with the women and be immersed in their culture for two months. Most of the researchers' activities had been planned around the women's schedule, which were usually filled with many chores. The physical proximity to most of the participants and the intense interaction that was promoted by the members' participation in the computer lessons, helped to create more trust and rapport between the participants and the researcher.

Role of Researcher

When this researcher first arrived in Dar es Salaam on June 29, 2005, she did not know what to expect despite the many opportunities she had had to talk to colleagues who had already visited Tanzania. She tried to keep her channels open for her desire was to capture as much information as she could. At the same time, her interpretations of the interaction between men and women, language, foods, dress code, architecture, smells, and so forth were completely attached to her previous experiences in both Brazil and the United States.

The investigator's practical knowledge regarding driving skills would tell her that people should be given priority in the hierarchy of living beings. She expected rules and regulations regarding driving patterns for the protection of pedestrians, as a result, practical knowledge eluded her expectations and created cultural disjuncture, schisms between her realities and the realities in the host culture.

This investigator had worked in collaboration with the SCWG prior to the visit to Bukoba, where the majority of the data was collected. During the two years of interaction, she dialogued with the group in the Cross-cultural Leadership Development Program (CCLDP) and exchanged e-mails related to the activities the WGC was developing in partnership with the SCWG. She also had an opportunity to meet face-to-face contact with two of the members who came to the 2004 WGC International Conference held at the University of the Incarnate Word in San Antonio, Texas, USA.

Upon her arrival in Bukoba in July 2005, she was introduced by the leader of WGC to the women's group and she was able to initially establish rapport

through the Director's intermediation. The computer lessons that this researcher provided for the women in the home where she stayed helped her to build confidence and trust and have full and easy access to the women of SCWG.

Visits to their homes were also crucial for building trust, and visits to the villages helped her to understand the reality of many women in Bukoba. The range of activities and lifestyle were very similar among the SCWG and the BUWEA members. The first one constituted a group of more privileged women since they had some schooling and their husbands were employed. The fact that they were living in the urban area also provided them with better access to information, education, and opportunities. Among BUWEA's members, the majority lived in the villages and had less opportunities.

The researcher's home was close to the group's members, which also helped her to maintain constant interaction with their families and neighbors. They all knew the reason why she was in Bukoba and the leader of SCWG played an important role in facilitating the interaction of the researcher with the group. The friendship that developed with the leader, given the fact that the researcher was staying in a home right next to her house, plus the intensive interaction with her family members and neighbors, gave to the investigator a chance to observe their daily lives. Through informal conversations, the leader of SCWG provided much information about Bukoba and the surrounding area.

The SCWG realized the researcher's role was to gather information that would support the development of future collaboration. They also understood the necessity of providing accurate information so that the researcher could understand the culture and socio-economic practices in the local community where she was

living for a couple of months. The investigator's ethical behavior, expressed

through her respect to the different cultural manifestations in the local community,

helped her to succeed in building trust between her and the participants. In this

sense, they were very cooperative and contributed greatly to the accomplishment of

this study.

Research Strategies

Data Collection

Even though socio-economic changes could be evaluated through the use of

objective measures, and a survey could have been a good research instrument, the

meanings of the changes in the women's lives would not have been adequately

captured through closed-ended questions. Primary information was gathered from

the women in Bukoba and other localities. The researcher used data published from

the 2002 Census and also data found in publications by researchers from Dar es

Salaam and Morogoro, where there was higher concentration of studies due to the

location of universities and governmental offices. Secondary data were selected

based on the areas of interest associated with this study, including Internet usage,

infrastructure in telecommunications, women's cooperatives, and women's small

businesses enterprises.

More specifically, data were collected from multiple sources, including

formal interviews, observations, conversations, and other available sources. The

formal interviews were scheduled on separated days and they were usually

conducted in the women's homes and were tape-recorded. This was a good strategy

for this allowed the researcher to establish a level of comfort with the participant

before beginning the interview. The family members were usually present. By

visiting their homes, the researcher could observe more closely their households, the living standards, make discoveries about their families' professional activities, their schooling, and cultural practices. There were various opportunities for conversations: celebrations, parties, visits to the members' homes, visits to farms and villages, weddings, and during the computer lessons. Conversations were informal and were not tape recorded.

The leader of SCWG showed the researcher documents, including minutes of meetings, records of activities, and bookkeeping for the revolving loan found. The business plan developed with the assistance of different stakeholders from Tanzania and the United States was also used for understanding goals, mission, vision, objectives, and strategies of the Commercial Farming Project, which was initiated in 2004 by the SCWG, constituting an effort to cultivate 10 acres of beans and maize and commercialize it in the local market.

The researcher spent about three weeks in Dar es Salaam, capital of Tanzania. Additional data not available in Bukoba were collected at this time. Since an understanding of the role of Information and Communication Technologies in promoting socio-economic changes was linked to a broader understanding from the government and other social institutions and organizations on the same matter, the researcher deemed it important to access technological policies and proposals that were provided by the Director of the Tanzania Commission for Science and Technology (COSTECH). The following documents were also used--"Proposal on Social Economic Survey of ICT Use in Development in Seventy Villages in Seven Districts of Bunda, Ukerewe, Serengeti, Simanjiro, Singida, Musoma, and Kiteto, Tanzania (August 2003); the "ICT Socio-Economic Feasibility Study" used in Lindi

Region and submitted in November 2004; the "Report on Proposals for the

Establishment of Women owned and operated Multi-Purpose Telecentres in

Tanzania" of July 2003; and the "ICT and Poverty Reduction in Tanzania" Concept

Paper of COSTECH.

Chapter 4: Findings

Introduction

In this chapter the researcher reports the findings based on relevant information sources and the two months of fieldwork conducted in Bukoba, Tanzania between July and August 2005. The results consist of interviews with the members of the SCWG, analysis of the online cross-cultural leadership development program, reading documents that belonged to the organization in Bukoba, and e-mails that were exchanged between the SCWG and the Women's Global Connection during their collaboration.

We organized the topics discussed in this chapter following the emergence of relevant themes associated with the use of ICTs during the collaboration. The data strongly suggested that the women's group's primary goal was to improve their standard of living through collaboration with other entities, since they were already developing home-based businesses to supplement their income prior to the intervention of WGC. The opportunity to partner with WGC was seen as a positive step toward the achievement of goals that had been set by the women's group. SCWG tried to address problems associated with poverty in the local community. Their agenda was similar to other women's groups in the region and it was not innovative in that sense. Even the government had encouraged the creation of women's groups to strength the opportunities and alternatives for dealing with local problems such as food shortages, lack of medicine, deficient health system, expenses with school fees, and so on. All the women were experienced small scale farmers and knew the local resources they had available. Thus the group placed great emphasis on the opportunity to partner with an American organization and

understood the collaboration as a step toward the achievement of goals that had been set by the women's group.

WGC had proposed since its foundation to connect women around the world using the Internet as a tool for promoting cross-cultural communication and developing educational materials for promoting capacity building. Connection with the SCWG was then an opportunity to put into practice plans that were clearly part of the organization's mission. In this sense WGC was a catalyst for the activities the SCWG was developing and the use of ICTs expanded the opportunities for the exchange of ideas and promotion of human capacity building.

History of the Collaboration Online: computer-mediated communication and rationale for the Cross-cultural Leadership Developing Program (CCLDP)

WGC's first encounter with the eight members of the St. Cecilia Women's Group (SCWG) happened in July 2003 and it was staged in one of the few Internet Cafes available in Bukoba. The group had originally been formed as a prayer group and later became the advisory group for the Bukoba Women's Empowerment Association (BUWEA), a non-government organization founded in July 2005 by the leaders of the SCWG. Dr. Dorothy Ettling, the executive director of the Women's Global Connection (WGC), received a grant to conduct exploratory research in three African countries. She had been invited to visit Bukoba through a connection she made while visiting Zambia that same month. Her arrival in Bukoba, a city with a population of about 59,157 according to the United Republic of Tanzania, Population and Housing Census 2002, was marked by her immediate encounter with the SCWG, followed by a brief stop at the local Internet Café. The availability of one Internet Cafes along with her vision of promoting the use of ICTs to connect women throughout the world prompted her to teach the women

from the SCWG basic computer lessons. She stayed in Bukoba for several days and introduced the women to the Internet and to the WGC interactive website, a virtual community that had been launched in 2002 to further cross-cultural communication and women's leadership. The visit and teaching marked the beginning of a collaborative relationship between the women's group in Bukoba and the women's organization in the United States. This relationship has led to a continuous exchange of ideas and promotion of cross-cultural understanding that has lasted for three years.

During Ettling's first visit to three African countries in 2003, this researcher was promoting the organization's website, which was seen as a tool for connecting people from around the world and an educational channel where information could be shared and ideas could be exchanged. It was filled with resources that could be used for capacity building. The interactive area of the website had been divided into five parts: sharing our stories, leadership, celebrating spirit, wellness, and education. The subjects were created to reflect the organization's mission, vision, and objectives, based on the fourfold intention of interconnectness. The sharing of ideas, stories, and strategies were meant to further political, economic, and social changes. The second intention for interconnectedness consisted of sharing ideas and research about women's ways of learning, women's experience of change, and the process of growing in leadership. The third intention was expressed through the offering of art, music, poetry, and images to help global citizens to heal. And lastly, interconnectedness based upon the respect and sharing of personal values rooted in different faith traditions used as a source of motivation for working for change. The

fourfold intention of connectedness stated in the WGC website represented and guided the organization's mission and goals.

When the collaboration between the two organizations began to be delineated, their agendas were integrated. The SCWG's primary goal was to find ways to improve the local women's families' standard of living. The women were overburdened with domestic activities intensified by the poverty, low level of technology, lack of infrastructure, and low access to education. These conditions were further exacerbated by traditions that placed women at the lowest level of the social structure. The women were aware of their socio-economic conditions and limitations, and they knew that their chances for improvement were linked to hard work and collaboration. Therefore, to expand the activities they were already developing and increase access to the revolving loan fund, the women seemed to realize that the presence of the WGC was important.

The WGC does not fund the SCWG. It supported the women's group in Bukoba through small campaigns that were made available online and which helped to raise small funds of approximately USD 500 per year to sponsor women from the villages to purchase farm animals at USD 50. The WGC has also organized an annual basket sale that takes place in Autumn and that promotes the local women's tradition and expertise in basket weaving. However, the profits generated are not large and though they help in supplementing funds for the purchase of basic necessities for the women and their families, these sales have not altered completely the women's socio-economic reality.

Overall Path Toward Changes

The use of Information and Communication Technologies was described by the participants as life-changing. P. Rugumira explains, "What Sr. Dorothy told us it was an eye opener because I never knew of the Internet, we were all new to the Internet so when she came here and took us to the Internet that's when we started to know" (personal communication, August 10, 2005).

While the use of ICTs may not have directly impacted the socio-economic conditions of the women, it did have an impact on their lives as they developed basic computer skills such as typing messages, using a browser, accessing e-mails, creating files and saving documents, selecting and posting pictures, and learning to use the Internet for communication. As one of the SCWG women explained:

> We were told that when you go to Google you can open it and get anything from there. You can learn, you can expand your knowledge which you get from the school and then you go there, you open and you find anything which you want. (R. Ndyamukama, personal communication, July 12, 2005)

They also developed their English skills for it was the language utilized for communication between the different players in the collaborative process. As Rachel explains, "If you go to the Internet you can add more, you can add more to your skills by typing, by communicating with others, so our English you can say it has already improved" (R. Ndyamukama, personal communication, July 12, 2005).

The sharing of educational materials and exchange of knowledge were important for the changes the women's group experienced and reported. Indeed ICTs were instrumental for promoting more efficient information exchange that affected the level of productivity in the partners' collaborative work. P. Rugumira

explains, "They are sharing knowledge now with the computer, without that connection we wouldn't have maybe". (personal communication, August 10, 2005)

Changes were also noted in the level of expectations the women created for themselves after being exposed to alternative ways of thinking, different socio-economic realities, and various cultural values. As Magdalena explained, "Some women do business with other costumers, in South Africa, America, Nigeria, Nairobi, and other countries. You find it very interesting and you become anxious to have the same activities that other women have" (M. Bwahama, personal communication, August 10, 2005).

In refining the themes associated with the use of ICTs that emerged during the analysis of both the interviews and the web site from the Cross-cultural Leadership Development Program (CCLDP), we decided to concentrate on three areas: (a) Accountability; (b) Information Exchange and Capacity Building; and (c) Support and Advice. Our understading is that these areas express more accurately the uses the women's group had of the ICTs during the collaborative process. We concluded the uses are crucial to explain the impact of ICTs on the women's lives and to corroborate the changes the women's group experienced.

Accountability: Use of ICTs for Reporting Collaborative Activities

The researcher's goal was to discover the use of ICTs by the women's organization in Africa for accountability purposes especially in their dealings with the WGC in the United States. Examples of entries that were posted in the leadership area in response to queries specifically related to the events such as the

2004 and 2005 Summer trips, 2004 International Conference, Annual Basket Sale

of 2004 and 2005, income-generating activities and the revolving loan fund are

provided.

Much of the information exchanged between the participants and the

facilitator Dr. Ettling, in the cross-cultural leadership program (CCLDP), showed

aspects of accountability. The participants, especially the international collaborators

from Zambia and Tanzania, became reporters of activities they were developing in

partnership with the WGC. Some of these are discussed below.

Preparation for the 2004 WGC International Conference. The 2004 WGC

International Conference, held in San Antonio at the University of the Incarnate

Word, provided an opportunity for women and men from around the globe to

discuss community leadership from the perspective of a globalized world. The

conference's focus was academic as well as cross-cultural and allowed for

community leaders from around the world to exchange ideas and learn from one

another.

Two women from the SCWG in Tanzania were invited and sponsored to

come to San Antonio. This was the first time the women of Bukoba had traveled

abroad, an event that required some assistance from the WGC so that their visas,

conference proposals, and other bureaucratic procedures could be taken care of and

completed successfully. Ettling wrote:

> I would like to ask the women in Bukoba of St. Cecilia's Group to be
> thinking of a possibility. Here at Women's Global Connection, we
> are trying to raise some money to have two women from Bukoba
> attend the Conference here in San Antonio this next July. It would be
> necessary for you to discuss as a group if two of you would be able
> and interested in coming to the States. Of course, it would mean that
> you would need to get visas, and whatever other documents are
> needed. We would get the ticket and plan for your stay during the

Conference here in San Antonio. (personal communication, January 26, 2004)

The women were thankful for the invitation, and immediately reported that they were going to discuss the message with the SCWG members and inform the facilitator about their decision. They observed what had been requested by the facilitator and Director of WGC, followed the instructions and suggestions that had been offered online, and learned the process of applying for visas. Letters of invitation for the conference were faxed to local offices in order to support them in getting visas to the United States, a goal that was successfully achieved. Ettling explained, "Dear Rachel and Regina, I am faxing letters to the St. Theresa's convent that could help you with obtaining your Visas for travel to the United States. Let me know if you think these will be useful" (personal communication, February 15, 2004).

The facilitator, Dr. Ettling, encouraged the SCWG to participate in the decision-making process, stressing their role as active agents. Accountability was therefore the result of the group's appreciation for the opportunities created through the collaboration. As R. Ndyamukama explains, "Thank you very much for the effort you have been making to fax through our invitation letters. We have them in hand; we are processing other necessary documents for the trip" (personal communication, February 25, 2004). The two women who attended to the international conference in 2004 faced some challenges while they were applying for their visas. They were assisted by the Director of the WGC through email and other means. She called the American Embassy several times to show that they were coming to a legitimate conference and to try to make the process a little easier for the conference participants from Bukoba.

Another important skill that needed to be learned to assure the women's full participation at the conference was conference proposal writing. Once again the CCLDP facilitator encouraged them to write one that would reflect the work the women were developing in their communities. The facilitator constantly offered opportunities for dialogue on the elements that made up a proposal and she also provided samples of ones that were going to be presented at the conference. R. Ndyamukama wrote, "We hope we are going to give realities in Bukoba, about our works and several things according to the proposal for representation which we are going to give out very soon." (personal communication, February 9, 2004)

Communication about the tickets to San Antonio to attend the conference was done partially via email. Sometimes the facilitator would restate questions that had been asked in emails she had sent to the SCWG about actions that needed to be completed. She would do that in the leadership area as it was a public space for those trying to obtain news on the affairs of the collaboration. For example Ettling would write: "Did you get my last e-mail about the tickets to San Antonio? We are on checking in the price here" (personal communication, March 23, 2004).

The women would then respond to her, giving continuity to the collaboration through the constant updating of matters related to their activities. Rachel responded, "Thank you for the information about our tickets. I am going to convey this message to Regina and the all group. All information about visas we will let you know through e-mail immediately tomorrow." (R. Ndyamukama, personal communication, March 24, 2004) Most of the communication between the SCWG and WGC that was related

to the 2004 International Conference was instructional. It helped the women

learn the steps necessary for accomplishing tasks and bureaucratic

procedures and developing new skills, so they could achieve their shared

goal of participating at the conference in the United States.

Income Generating Activities and Revolving Loan Fund. Several income

generating activities were developed through the collaboration of the SCWG and

WGC as these two organizations became more intertwined. Working together,

SCWG and WGC tried to achieve different goals and developed strategies that

would help both organizations to fulfill their objectives of raising the women's

income and improving upon their families' standard of living, as well as to promote

capacity building. In the case of WGC, the organization offered to provide

educational materials and share their volunteers' work and expertise in business and

education. Its role for the SCWG/BUWEA projects through the use of ICTs was to

connect women around the globe and increase the exchange of knowledge between

people. SCWG saw this connection as an opportunity for expanding its income

generating projects and did all it could to meet the basic requirements established

between the two organizations for the collaboration to happen.

The SCWG/BUWEA main goal was to tackle poverty and improve the

standards of living of the women and their families from Bukoba through income

generating activities. The majority of the population in Bukoba lived on a farming

system inherited from Nyerere's African socialism inaugurated in 1967 with the

Arusha Declaration. African socialism, or "Ujamaa", was Nyerere's governing

philosophy founded on an agriculture-based reinvention of communalism (Askew,

2002). They were small farmers, who customarily inherited 2 acres plots, called

family farms, and whose main activity was to cultivate banana, beans, cassava, yams, and vegetables for subsistence, as well as coffee and vanilla for sale. The precarious infrastructure, an extreme low purchasing power in the district, and the inheritance of this farming system, limited the women's ability to tackle the problem of poverty. The women knew they had to take advantage of the system that was already in place and use their traditional knowledge and experiences in farming to try to improve their lives.

The messages exchanged in the CCLDP between the facilitator and the SCWG regarding the income generating activities indicated a pattern of communication that emphasized the preoccupation the women's group had in reporting the progress of their work. Their preoccupation increased when they were talking about activities that were being developed in partnership with the WGC. The fact that the facilitator was also the Director of the organization in the United States created a need for the women to share the evolution of their activities and maintain communication with her.

Although WGC was responsible for the annual basket sale, the organization did not want to be committed to the sale of baskets through out the year. Rather, WGC's role was to find retailers interested in promoting the baskets in the United States. The organization created a campaign advertised on the WGC's website to sponsor small businesses in Bukoba. Through this campaign, WGC raised approximately USD 500 to sponsor women in the villages to purchase farm animals thus promoting the expansion of local home-based projects. Even though the WGC did not have a role in funding the SCWG, the organization worked to mobilize funds to sponsor the development of income-generating activities in Bukoba. As a

result, the SCWG kept the American organization informed on the matters of small

businesses. The necessity to maintain the collaborators in the United States

informed could be testified when the women's group addressed the questions posted

by the facilitator in the CCLDP regarding the small businesses. Below, the

facilitator shares news and asks for information concerning a woman who received

a grant to start her small business:

> Currently, we are exploring some more outlets for the baskets and other handcrafts. I will keep you posted on that. Were you able to help another woman get started on the animal project? Don't forget to send us the details of who it is and maybe also a picture of the woman. (D. Ettling, personal communication, November 4, 2004)

After reading the message, SCWG promptly responded and identified the women

who benefited from the income-generating projects the women's organization in

Bukoba was promoting:

> I am sending to you some photographs of women who form the cooperative of village women groups in Bukoba. On every second Tuesday of the month, there is a meeting for all group leaders and group members who have a turn of receiving money collected from the Mary-Go-round. At the same time those who identified problems like school fees, hospital bills we borrow a loan from 5USD to 30USD (R. Majaliwa, personal communication, February 15, 2005)

Description of the activities organized by the SCWG became more detailed

as indicated in the quotes below. It appeared to this researcher that the women's

group's decision to keep their partner in the United States well informed reflected

their concern to maintain a good relationship with WGC, one that proved to be

serious and longstanding. This was reflected in their inclination to defer to

authority, and the facilitator was seen as an authority figure, and constituted a

reflection of their maturity as an organization. Often the messages were written by

the leader of the women's group who understood her role. The leader showed her

commitment to both organizations and tried to meet the expectations she thought

existed:

> I am sending to you pictures with different events which were taken
> on 8th March the International Women's day. The day coincided with
> the monthly meeting day so women celebrated the day by receiving
> money for the seven women who are selected from different group to
> begin the home-based project. Each member signs after receiving the
> money. (R. Majaliwa, personal communication, March 14, 2005)

Noted changes pointed to a stronger bond between the two organizations,

the group's commitment to any action plans that were deemed relevant for the

continuing development of their activities, and an increase in the confidence level

of the women's group. The SCWG trusted their partners and understood they were

also responsible for the changes they wanted to happen in their community. The

women started to be more innovative in the areas in which they were more

confident, a change expressed in the accounts of their work with other women's

groups. R. Majaliwa explained, "The seven women have piglets at home. They are

busy collecting grass and other stuffs. What a big change" (personal

communication, March 23, 2005).

Insertion Trips. WGC organized in-service, insertion trips during 2004 and

2005 to Tanzania as part of its activities involving local partners in this country, and

volunteers and collaborators from the United States. During the planning stage, the

interactive area of the WGC website became the major location where

communication and preparation for the trip happened. Communication also

happened via e-mails, a more private venue through which certain details regarding

the Summer Trips were discussed and settled.

Once more, ICT was used for reporting the planning of activities developed

in partnership between the women's group in Tanzania and the organization in the

United States. The leadership area on the website was a place where reminders were posted, suggestions were made, and questions were asked on dates, schedules, timetables, and arrangements in general. R. Ndyamukama wrote, "We would also like to know your program of coming to Bukoba. You said it will be in summer but dates not yet confirmed. Hoping to hear from you." (personal communication, March 22, 2004).

The SCWG had experience in organizing visits. In 2003 the WGC Director had requested to be taken to the villages to learn about the women's realities. When the women were informed of the visit of five volunteers in 2004, they immediately posted messages asking the preferences of the group. They used the leadership area to gather information and plan the visitors' activities and make arrangements.

The WGC Director kept switching between her role as facilitator of the CCLDP and leader for the organization. She shared her views on the plan of activities that had been organized by the SCWG. The women's group responded to her suggestions. Their commitment to the partnership was evident and it could be illustrated by a particular event that happened when a business professor who joined the immersion trip in Tanzania decided to organize a workshop for the women's group. The professor and volunteer had planned her topic on the development of business plans. The SCWG reported on their availability to participate and extended the invitation to other women. Motivated by their participation in the workshop, the women in Bukoba created a new discussion in the leadership area to exchange information about their businesses with the workshop facilitator. R. Ndyamukama recorded online:

> All members were happy of having a workshop with Val. We are
> going to give this information to other women groups whom we are

collaborating with. At your arrival we will be prepared. Thank you.
We have already introduced our business to Val through Starting
Business. We will continue the discussion with her. (personal
communication, April 2, 2004)

In 2005, the SCWG helped to organize a workshop on business start-ups.

Both the organizations in Bukoba and in the United States utilized the interactive

area to plan the workshop. Analysis of the information exchanged indicated a more

sophisticated communication pattern between the women in Bukoba and their

collaborators in the United States, showing improvement in the skills required for

planning workshops. R. Majaliwa communicated:

> In the last message indicated that we are looking for a place in town
> as you asked. In the mean time we have a few of them though we are
> still waiting for your preference so that we can arrange the room for
> the conference which will be close to where you will be staying at
> the same close to the internet service (personal communication,
> March 23, 2005)

The women reported on a regular basis the actions they were taking to help to

organize the business workshop. E. Rwezahura wrote, "We are continuing with our

preparations. This week we are going to meet Kishanje and Itahwa women groups.

We will inform you everything after our meeting" (personal communication, June

9, 2004). Communication exchanged in the interactive area concerning the summer

trips became more detailed as collaboration between the SCWG and the WGC

progressed. Plans of action that had been set up by the WGC and that depended on

the women's group in Bukoba to be accomplished helped the SCWG to become

aware of their role in the collaborative process and to understand that efficient

communication was crucial for the success of the collaboration. It also helped them

to mature and learn how to strategically plan events and develop collaborative

activities.

Analysis of the group's choices in terms of the location where the workshop should be held, the place where the team stayed, and their preoccupation with both locations' proximity to the Internet Cafés, revealed the women's learning in decision-making. Previous experiences and interaction with volunteers and staff working for the WGC helped them to develop skills in strategic planning. In the end, the women's group demonstrated to be active, engaged, and more confident when making decisions.

Information Exchange and Capacity Building

Knowledge exchange has been at the center of the debate on the benefits of the use of ICTs for development and empowerment of poor and rural communities. Although access to ICTs cannot solve more immediate problems such as lack of clean water, electricity, and access to land for subsistence farming, it has the potential to help isolated populations become informed on issues and solutions that would presumably help them to move forward in trying to achieve better standards of living. Jeremy Rifkin, president of Foundation on Economic Trends, interviewed by Ian Limbach (2006), stated that two thirds of the human population does not have electricity. "They are powerless in the global economy, literally", said Rifkin to the Financial Times editor, skeptical of the use of ICT for development. Other leaders, researchers, and ordinary citizens shared his view, adhering to a more critical understanding of the benefits of information technology. Successful or not, the use of ICT by the SCWG has indicated changes that were perceived as positive by the group.

Cross-cultural Leadership Development Program. In January 2004, the eight members of the SCWG who met Ettling during her visit in July 2003 joined

the online, cross-cultural leadership development program with other women from Zambia, Brazil, and the U.S. A grant was provided to the group in exchange for their commitment to go online once a week and post messages in the interactive area set up to promote the leadership program. Their entries should be in response to the topic under discussion that week, usually a subject that had been proposed by the facilitator, Ettling, and opened for reflection and discussion. On many occasions the participants shared their own experiences, not following any format. Since the leadership program had been designed to follow an organic format, the participants had flexibility in choosing the topics they wanted to discuss.

Initially, when the discussion was limited and only invited guests could join and interact, approximately twenty members were active. Out of the twenty, eight were from Tanzania, four from Zambia, one from Brazil, and seven from the United States. After a successful year of intense interaction the facilitator proposed that the leadership area should be open to all the members of the Women's Global Connection community so that they could take advantage of the richness of the cross-cultural content shared in the women's leadership program. The transition from the closed to the open discussion changed the role of the facilitator, and the nature of the engagement of the participants.

The virtual cross-cultural leadership development (CCLDP) program was inaugurated by the facilitator in August 2003 and it has been active and holding discussions for almost three years now. When the online forum was first started, the facilitator, Ettling, requested the participants to introduce themselves and alerted them to the fact that they would be communicating with people from around the

world. She also posted words of encouragement, asking the participants to remain

engaged in the activities they were already developing.

The leadership area was used to plan different projects WGC wanted to start in

collaboration with the women in Tanzania. As a result, the discussion was geared

towards the WGC broader agenda. D. Ettling wrote:

> I wanted to share with you some of the plans that are on the making. A team of us here are planning with the Sisters to have a workshop next year there in Mongu for teachers, caregivers and others interested. I am wondering if you can give me some information about the school year. (personal communication, October 31, 2003)

The focus of the cross-cultural leadership development program (CCLDP) was the

sharing of life stories as means for personal growth. This is evident from the

communications on the website. D. Ettling wrote, "You are clearly an inspiration.

Your work and commitment to other women is admirable and a testimony to your

personal growth." (personal communication, November 2, 2003)

Leadership was another strong point in the discussions, especially during the

period the CCLDP was a closed discussion group and the facilitator had a central

role in leading the dialogues. The rationale for the cross-cultural leadership program

was to promote women's leadership across borders by sharing life stories to help

women identify their strengths, limitations, and talents, especially among those who

were economically the least advantaged living in paternalistic cultures. Reflecting

on and development of leadership potential was encouraged by the facilitator when

she invited the following dialogue:

> I would like to invite each of you to reflect on how you believe your own culture invites, encourages or discourages women to take leadership. Are there certain aspects of a young girl's socialization that encourages her to take leadership in the family and in the community? Are there certain aspects that discourage her? What

does she have to overcome, if this is so? (D. Ettling, personal communication, February 23, 2004)

The cross-cultural leadership program was designed to help women to identify their leadership skills in contexts where they had experienced disempowerment and exclusion from the decision-making process. The collaborative nature of the leadership program and other activities developed by WGC, helped to explain the use of the leadership area for planning and accountability. And finally, exchange of ideas and learning were paramount in the whole design of the leadership area and guided the discussion throughout its three years of existence. The leadership area had been utilized to support different activities planned by the sponsoring organization in the United States. As an educational tool, it helped the participants to understand realities that were unfamiliar to them and to build a supportive system that went beyond their borders.

This researcher explored the educational use of the ICTs as it applied to the interaction between the SCWG and the other participants in the leadership area. The topics of discussion included the activities in place during the two years of this study. The rationale justifying the creation of the CCLDP remained a guiding principle for the use of the interactive area among the participants, who expressed the benefits of using the interactive area of the WGC website for learning about other cultures.

The interviews reflected the participants' excitement when using the Internet to communicate with women from around the world. Effective communication meant opportunities for learning and exchanging ideas, and an expanding world view. It also gave them a sense of being a part of a bigger whole because their existence was being acknowledged by people around the world. When asked about the benefits of

the Internet, the interviewees reported how it had helped them to learn from other cultures, M. Bwahama explained, "The Internet is helping us to learn a lot all over the world." (personal communication, August 10, 2005). They now are in touch with what other people are doing around the world, as R. Majaliwa expressed, "We can see what the outside world is doing and even inside the country." (personal communication, August 1, 2005)

The women in Bukoba stated on many occasions the benefits of the use of ICTs. They pointed that communication with the outside world was beneficial in that it allowed them to learn about what other women were doing and how they were living. M. Bwahama explained, "The Internet is helping us to learn a lot all over the world, you can learn about how other people are living, we communicate, the St. Cecilia Women's Group, we communicate with many women over the world." (personal communication, August 10, 2005)

It was a life changing experience for it not only allowed them to experience the outside world through the testimonials they were reading but also put them in touch with their own reality in Tanzania via a reflective process. R. Majaliwa shared, "So it has just changed our lives because we are sparing something to go to the Internet and see what is there, and see what the outside world is doing and even inside the country." (personal communication, August 1, 2005)

Access to the resources available in the Internet was seen as a possibility for expanding the women's knowledge on topics they chose to explore. The women associated their learning with what was taught at school. Since they had been away from school for a long time now, the Internet represented an opportunity for learning without any dependence on formal institutions. R. Ndymukama explained,

"You can learn, you can expand your knowledge which you can get from the school and then you go there, you open and you find anything which you want" (personal communication, August 6, 2005).

The topics the women sought were primarily connected with their practical life, another important aspect of their experience with the Internet. The CCLDP provided discussions in subjects of interest to the women. They could find relevant content since the program was targeted at a population of women from least advantaged communities. M. Bwahama shared:

> We read what about the other women are talking from Nigeria, South Africa, America. If you find something interesting you try or you comment about it. When you meet with others you can learn something, you meet with others, you talk together, you share information about your family, about your work, cultivation, something you don't understand, or you want to know about something. (personal communication, August 10, 2005)

Communication and learning were two important variables considered when the women shared their experience with the Internet. Expansion of their knowledge was linked to the possibility they had to connect with other women from around the world. P. Rugumira explained:

> It's an easy mean of communication, for communicating all over the world. Someone has to answer and the one who answers gets the reply, at the same time you are here and you communicate with somebody in America, it has very high impact. Because we are expanding our knowledge, because we are now able to communicate easily and all over the world. You communicate with someone very far away easily and within a short time. (personal communication, August 10, 2005)

The learning was based on the cross-cultural experiences, according to the participants and the WGC. One of the features of ICTs is the ability to communicate with people living in different geographical areas and with people from different cultural backgrounds and experiences. The women saw their participation in the

CCLDP as a wonderful event in their lives, one that contributed to the enrichment

of their knowledge of different cultures and to their own recognition of the value of

their culture.

The women also recognized the benefits for their children as future users of

the Internet. This was communicated by A. Valence:

> With the computer I can even teach my children so that they will
> know more about the work and they can communicate with other
> people outside Tanzania and get skills from other countries. Now I
> think I am going to encourage them to learn, to collaborate with
> other people outside Tanzania and even Tanzania in order to make
> their life better. (personal communication, July 31, 2005)

R. Majaliwa, the leader of the SCWG, also acknowledged the opportunities created

by the Internet for learning, and like A. Valence expressed her interest in supporting

her children having access to computers and to the Internet, "We are sending our

children because we know that there are computers they can get information"

(personal communication, August 1, 2005).

Learning language and computer skills was an opportunity created through

the participants' engagement in the online dialogues. Because the communication

was in English, and mastering the language was seen as an educational advantage,

the women experienced a great sense of empowerment. Computer usage is

associated with young people and the educated so mastering the computer and

being able to communicate via the Internet brought the SCWG a higher status in

their community. As R. Ndyamukama wrote:

> We didn't have a chance of writing maybe or speaking English. But
> if you go there to the Internet you can add more your skills by
> typing, by communicating with others, so our English you can say it
> has already improved. (personal communication, August 6, 2005)

Nevertheless, for those who did not speak English, a sense of exclusion was created when they realized they could not use the computer "because you can't use something you don't understand." (C. Emanuel, personal communication, August 11, 2005)

The interviewees talked about exchange of information and meeting women from other countries on the Internet, which was conducive to fast-speed communication. Their understanding was in line with what the CCLDP was designed for as T. Fredrick writes:

> You can get things, the women, another women in the country, what do they do, then women will get things to do. Then you can read what other countries do easier when you use the message in the Internet. (personal communication, August 3, 2005)

The information the SCWG retrieved from the Internet through their communication with other women who had joined the discussions over two years, was then applied to their daily lives. Sometimes they would not have the means for implementing the new skills and ideas learned, however the inspiration remained and they utilized the information in whatever way possible, adjusting it to their own reality. Magdalena wrote, "We read what about the other women are talking from Nigeria, South Africa, America. If you find something interesting you try or comment about it" (M. Bwahama, personal communication, August 10, 2005). M. Bwahama also expressed her interest in learning more about business practices since she owned her own business in Bukoba. According to her, the skills and ideas learned through the Internet were not always applicable to her reality given the scarcity of resources she faced, however it did not prevent her from improving her business with the ideas she gained. The information gained through the Internet inspired her to make improvements.

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The leadership area reflected the purpose why the interactive area had been created. It helped the participants to realize their own latent leadership skills. It provided a space for sharing their traditional knowledge in farming, basket making, and health issues. As R. Ndyamukama explained, "This connection will help us to exchange ideas and experiences from all participants. It is a good thing for us as we are going to learn from each other." (personal communication, August 6, 2005) Emphasis was placed on the development of leadership skills during the year the CCLDP was in place. The women focused on self-realization of their talents and skills. The facilitator indicated ways of reflecting on their capabilities as women living in a particular cultural context. As she explained:

> I am wondering if each of us could tell a short story about how we began to recognize some of our own gifts and talents. Everyone of you in this discussion is doing things for herself, for her family and friends and for others in the community. It is really important to understand how we have grown in that ability to be a leader. (D. Ettling, personal communication, February 1, 2004)

The responses revealed the leadership skills that the participants had developed during their lives as mothers, farmers, neighbors, friends, community leaders, students, and teachers. For some of the participants, this was the first time they realized their gifts, talents, and abilities as leaders.

The SCWG Commercial Farming Project. Another important aspect shared and learned from the leadership website area was the women's traditional knowledge of farming. Everyone in the CCLDP was interested in learning about the agriculture system in Bukoba. Some new participants who joined the discussion after it became an open forum assisted the women in the development of a business plan for their commercial farming project. This resulted in a document that has been utilized for seeking grants. Some interaction also occurred between business

students and professors in the United States and the SCWG, who provided as much information as possible for them.

Sometimes the SCWG would explain the development of their farming projects, giving details of the cultivation process, with great confidence, evidence of years of experience and expertise. One participant shared, "Let us make a good start and share our experience with others especially in farming" (R. Majaliwa, personal communication, October 11, 2004). On different occasions the women from the SCWG responded to questions other participants posted. There was also an exchange of information between the women in Tanzania and Zambia, who were also farmers. R. Majaliwa explained to the women of Zambia, "You wanted to know about the soil, it is clay soil, it dry up quickly and it gets wet easily. We told it needs a lot of animal manure and green compose. They are all available locally" (personal communication, October 16, 2004).

The messages posted and exchanged in the leadership program related to farming were informational and motivated by the expertise the women had in farming. The fact that the women from Zambia were also farmers led the SCWG to seek advice from them, reinforcing the purpose of leadership sharing experience, which was to promote interaction between women from various cultural contexts. R. Majaliwa asked, "We know you started farming much area than us. So give us more about weeding and land preparation and what do you do when it gets dry?" (personal communication, October 11, 2004). They were interested in learning by discussing topics that were directly connected with their realities, such as farming. They knew they had the traditional knowledge and felt confident to talk about it, as illustrated by the following message from R. Ndyamukama, "We are almost

finishing weeding our maize and beans farm. We are inviting ideas from your sister

in law. It will be helpful for us." (personal communication, October 19, 2004)

Advice on farming was sought and illustrated the effective use of ICT for

promoting women learning about topics that were meaningful to them.

Summer Trip: practicing organizational skills. When the members of

SCWG were online planning the summer trip, they played their role as hostesses to

the American collaborators and visitors, helping to plan their visit. Moreover, they

showed their excitement about the benefits of the visit for the women's cultural

enrichment, as is illustrated in this message from R. Ndyamukama:

> We are happy to hear the exactly date of your trip from San Antonio
> to Bukoba. We say welcome. We are happy to be with all group in
> the period they will stay here. They can see the realities from here.
> We expect to gain much from their trip. (personal communication,
> March 24, 2004)

Through planning for the trip, the women also developed organizational and

communication skills as is evident in the message received from Regina and T.

Fredrick:

> We got a message informing us the date of when the team will arrive
> at Bukoba, thanks. We are anxiously awaiting for them. We would
> like to know what they would like to see from here. We would like
> to make some arrangements. Can we get your program before your
> arrive so that we can make ours too. (personal communication,
> March 29, 2004)

The facilitator played a double role: she guided the discussion on the leadership

website, setting up a weekly agenda for the CCLDP based on the WGC plans of

action involving the African collaborators; and as the WGC director, she made the

final decisions that were related to the organizations' collaborative activities. As she

explained:

> The main purpose of our visit will be a workshop at Hekima
> Secondary School with teachers. So most of the time for the team
> will be spent in working there. We are also planning to have a
> workshop with your group in Developing your business, so the
> important thing is to plan to have the women available for the time
> together. (D. Ettling, personal communication, March 29, 2004)

The planning for the summer trips and the announcement of a workshop that was

offered to the women's group in 2004, opened up another opportunity for the

women in Bukoba to expand their knowledge about small businesses and develop

their computer and communication skills. Once the SCWG was informed that a

faculty member from San Antonio would provide a workshop on small businesses

during her visit in Bukoba, the women's group created a new forum named

"Starting Businesses" in the leadership discussion. There they explained about their

income-generating activities aiming at providing a foundation to the faculty

member who would work with them.

In February 2005, preparations and planning for the summer trip began. The

first question was related to the volunteers' timetable. The women's group

understood most of the time would be spent at Hekima Secondary School, where

most of the workshops were held and where the WGC efforts would be

concentrated during the mission trip. The women also wanted to schedule visits to

other sites in the area. As R. Majaliwa communicated:

> We have made all the arrangements for your stay. We shall be
> together. We have found the place close to my home. We would like
> you to visit our home based projects and to visit women groups visit
> the farm, visit the orphans, and other things you would like to see.
> (personal communication, April 29, 2005)

There was a dialogue between the two parties and an understanding of needs and

priorities that were shared via e-mails. The SCWG worked in response to the range

of activities planned by the WGC, but their experience of the local reality gave

them a certain expertise in the decision-making process also. That reverberated in their own organizational decisions, letting them exercise their organizational skills.

Even though the 2004 WGC International Conference, the 2004 and 2005 Summer Trips, the Annual Basket Sales of 2004 and 2005, the income-generating activities and the revolving loan fund, and the St Cecilia's Commercial Farming that guided the discussion about leadership during the past two years were not exhaustive, they set up an agenda for the SCWG and illustrated the range of activities that were undertaken during that period of time. Many of the skills the women's group developed and exercised were a result of these activities and events.

From Income-generating Activities to Small Businesses: learning new skills and rediscovering old ones through cross-cultural dialogue. In exploring the role the income generating activities and revolving fund loan had in shaping the web-based leadership, two major aspects seemed to have emerged: the CCLDP was used to report the women's group's activities, as well as to exchange knowledge and experiences between the participants.

The interviewees reported the importance of income-generating activities for improving the women's living conditions in Bukoba. The justification for their implementation was based on two principles: increase in their income and empowerment. When one of the members of the SCWG was asked about the benefits of the collaboration, she did not hesitate to respond that it had been the marketing of their handcrafts. P. Rugumira said, "Marketing our handcraft. The women in village are encouraged to work more and efficiently because they have to make something that is nice, presentable. So they are working hard, and they are now organized." (personal communication, August 10, 2005)

In trying to explain the goals of BUWEA, the leader of the women's group in the villages surrounding Bukoba was straightforward and said that they aimed to raise money through the sale of piglets to the butchery. Raising pigs had been supported by the SCWG, advisory group for BUWEA, for three main reasons: (a) it was cheaper than raising cows; (b) there was very little infrastructure required; (c) and it helped to improve the women's crop production because the pigs also produced manure. Out of the 27 women's groups forming BUWEA, 17 were developing piggery projects. The remaining groups were raising cows or goats and then selling the milk, conducting minor trades, growing fruits and vegetables for sale, and making and selling handcrafts.

The leader of the SCWG, also chair of the BUWEA, explained during her interview that they had encouraged the women from the villages, in areas where poverty was rampant, to start a Mary-go-around, a small revolving loan fund that helped the women to initiate small income-generating activities. R. Majaliwa explained:

> The group has to grow, from where we started if we were contributing five dollars now we are contributing ten dollars. We are planning to work on our loans so it grows. And as it grows we can get more products or improved products. Now we are working with others, others can also see that we are doing something and we started something by ourselves and it is still going on, we didn't just collapse within a short time, it is still on, so we became teachers of others who saw us. (personal communication, August 1, 2005)

When the director of WGC toured the villages, she also encouraged the women to use their local resources to raise their income, to have some independence from their husbands, and to be empowered. R. Majaliwa stated:

> As Sr. Ettling was saying you should be confident, yourself should begin from your own sources, your own ideas, not just sit and say that someone has to come for your rescue. So spread that message to

other women, you start with a little thing you have, no matter how small, but you should have something. (personal communication, August 1, 2005)

The SCWG's vision was to help the women make some money so they could pay school fees for their children, pay for medicine and hospital bills, and purchase small items to meet basic needs. R. Majaliwa continued:

A woman must have some money, no matter how small that is. If you have some money you can buy a package of salt, which is a hundred Tanzanian shillings. Some women say they can't have the Mary-go-around because they don't have anything to start. Work hard and sell something, even I she sells three kilos of beans, that is your money, the cow can go sick, the husband has no money, and you can't go even to the farmer to buy a chicken, so we have to fight this, that is our main goal that a woman should have something. (personal communication, August 1, 2005)

The interplay between the SCWG and the WGC was seen as an opportunity for making connections that could help the women's group in Bukoba improve their income-generating activities. R. Majaliwa shared:

The handcrafts that are being sent to the United States and sold to the international market so that is very big benefit. And even the women in the villages are recognizing the benefits of working more, working harder. And there is a connection between the women in the villages, here the SCWG, and United States of America. (personal communication, August 1, 2005)

In fact, most of the income that was generated from the partnership happened during the annual basket sales. WGC placed small orders yearly, beginning in 2003 and SCWG shipped baskets that were sold in the annual sale held at the University of the Incarnate Word in San Antonio, Texas. The event was considered of great relevance for the SCWG/BUWEA, even though it provided minimal funding for the home-based businesses. As R. Majaliwa explained:

Your efforts are bearing fruits in Bukoba. Most women are coming to us with baskets asking if there is another order. They wanted to improve their family farms by keeping animal, their Mary-go-around

(monthly contributions have gone up from 20 cents of a dollar to half a dollar in some groups especially those who are making baskets). This is great, the reach-out Africa programme is now taking off with more groups being formed. (personal communication, August 1, 2005)

Preoccupation with preparation for the sale was shared by Regina, "We have received the inventory order, we are now working on it, some of the baskets were already here. We shall send them by the end of this month (SCWG leader, CCLDP participant). R. Ndyamukama wrote when the first parcel arrived, "We were very happy to hear that the first parcel of baskets arrived. Was it safe? Because it takes too long" (personal communication, June 4, 2004).

After the group had been informed that the basket sale had been a success, they came in to the leadership area to acknowledge the efforts the team organizing the basket sale that year had put in to the sale. R. Majaliwa wrote, "I'm glad to hear from you as how attended the basket sales. It sounds good to hear that they look beautiful. That is encouragement to all of us women from Bukoba" (personal communication, October 11, 2004). The communication suggested a need to reaffirm their role and the tasks associated with it as the women's group understood them in relationship to the collaborative work they were developing with WGC.

2004 International Conference: expanding the SCWG worldviews and developing skills. The international conference was pivotal in expanding the SCWG's horizons. In practical terms, they learned new skills including how to write a proposal for a conference, preparation of PowerPoint presentations, experience in public speaking and formal presentations, improvement of English skills, and travel abroad. They also expanded their worldviews and were able to convey the knowledge gained during their participation at the conference and the

visit to the United States to the entire group and the women from the villages surrounding the town of Bukoba. P. Rugumira explained, "Another benefit is that our representatives from our group attended the International Women's Conference and when they came back we shared what they learned with our women from the villages" (personal communication, August 10, 2005).

Proposal writing for conferences was an important skill that the women developed during the 6 months prior to the 2004 international conference. Again, the facilitator played a crucial role in guiding the women through the process of writing a short proposal. Samples from other conference participants were provided online so the women could access a module. D. Ettling explained:

> Since you are really hoping to come to the July Conference, what about planning for a presentation on some of your reality. You could talk about the reality of women in Mongu, how they are doing so many things to help people. You could also talk about your own work, the things you are doing to deal with the poverty and crisis of HIV/AIDS. I think Sr. Letty could help you develop a short proposal (200 words maximum) that would tell the ideas of your presentation. (personal communication, January 2, 2004)

For any given explanation, the facilitator would try to suggest concrete examples the women could use from their own reality. Deadlines for the proposal submission and places on the website where they could find more detailed information were also provided. The facilitator encouraged the CCLDP participants, who were also conference presenters, to talk more about their presentations to "give everyone a deeper understanding across cultures and also help the presenters get ready for their presentations at the Conference" (D. Ettling, personal communication, February 27, 2004).

In response to the suggestions, advice, and requests posted by the CCLDP facilitator, the women from the SCWG wrote to report the development of the

activities that were associated with the topic/event of the week. In replying to the invitation to participate in the 2004 international conference one of the members of SCWG conveyed her satisfaction and the benefits it would bring to the group. As mentioned before, the interviewees acknowledged the conference as an important event in their lives, benefiting not only the women who visited the United States but also all the members of BUWEA. It helped them to expand their views and learn more about other women leaders living in different countries. R. Ndyamukama wrote, "Thank you very much for giving a golden chance to attend the Women's Global Connection conference in San Antonio in the next July." (personal communication, January 30, 2004) The SCWG considered their participation in the 2004 conference as more important when compared with other events that helped to shape their experience with WGC. Their collaboration with WGC meant they were able to make new connections, to learn about new projects, and observe and immerse themselves in cultures that were differed from their own.

Support and Advice

Another important use of ICTs by the women's group studied in this research concerns support and advice received through interactions among the CCLDP participants. Besides technical support they would also seek emotional and spiritual support. P. Rugumira explained:

> After being introduced to the Internet we are able to be connected
> with women from abroad to exchange views, learn from each other,
> women from abroad they are encouraging us, sharing the
> experiences, sometimes women of the global connection some of the
> women are having problems, sharing problems, and then another
> women from other country is encouraging that woman. (personal
> communication, August 10, 2005)

Serious work ethics were also inspiring to the women in Bukoba. They shared the same values and identified themselves with women who would work hard to provide a more comfortable life for their families. M. Bwahama stated:

> The women say in the Internet, one woman I cant remember from which country, about her family, sending the children to school, paying school fees, she say she was working hard, day and night, if you work hard, all the time keeping yourself busy you will get, of course you will find something to help your family. Don't be lazy, most of the time you must be busy, if you are working in the office, doing something in the office, working the garden, keeping your house clean. (personal communication, August 10, 2005)

Topics on health issues were deemed relevant for the majority of the participants.

M. Bwahama shared:

> I read about a woman who was speaking about herbs, after that I was interested, when I read those doctors who use herbs I wanted to know more and get some details that you can use this herb as a medicine to cure this disease. I have my small notebook and I would write down so that one day someone asked about the herbs you have herbs that cure some diseases so I'm making investigation about that. (personal communication, August 10, 2005).

Support and advice were also sought concerning farming. When one of the participants from Zambia shared her dream of acquiring eight oxen, an extra plough, and a harrow to help with her rice and maize fields, a member of SCWG responded:

> It is good keep on praying one day you might acquire what you think of having. My advice to you is keep on working hard and contact large scale farmers and other non-government organizations who can assist you to give soft loans. (R. Ndyamukama, personal communication, March 22, 2004)

Some of the participants who lived in the United States attended the basket sales and they were able to share that experience with the others in the leadership program. Their comments and words of encouragement to the women in Tanzania

were well received by the women in Bukoba. The communication from the United States reinforced the value of their handcrafts and helped to increase their level of confidence.

Certain topics discussed on the CCLDP sparked the participants' curiosity. For example, one of the participants from the United States shared with the women in Tanzania the challenges she was facing with her daughter and son who had been sick for several weeks. Although the children had been taken to the hospital, none of the suggestions given by the medical doctor had solved their problems. She then decided to ask the women in Tanzania about natural treatments. This event brought about an exchange concerning traditional and technical knowledge and information. One of the participants from Tanzania offered this advice:

> In addition to what you have been advised by your friends, try to feed the child with water every time after normal feeding and in between meals. And perhaps spinach soup for the child. (P. Rugumira, personal communication, February 18, 2004)

The SCWG was encouraged to share their knowledge on the formation of women's cooperatives with participants from the United States. Their organization became a module for other participants who were also trying to improve their lives and help their communities. The benefits were articulated and they were in tune with what the women's group expected to accomplish and what the organization in the United States had proposed to do.

Support and advice were considered in this study for they played a relevant role in the use of ICTs for information exchange and collaboration. The women in Bukoba were not seeking cold facts. Their communitarian nature led them to search for connections before they could start to seek knowledge and advice. Their use of

the WGC website and the Internet cannot be dissociated from their need for

relationships and emotional support.

Chapter 5: Discussion and Conclusion

The purpose of this study was to explore the impact of Information and Communication Technologies (ICTs), specifically through the use of the Internet, on the lives of a group of women from Bukoba, Tanzania. In trying to accomplish our objective, we considered an important question raised by many researchers and policy makers trying to evaluate the power of the Internet to create new economic, social and political opportunities for developing countries and the poor. Is it possible to create new opportunities? And if so, under what conditions?

It was also our objective to explore the empowerment experienced by the women's group and their community as a result of the collaboration between the St. Cecilia's Women's Group (SCWG) and the Women's Global Connection (WGC). Socio-economic and technological factors were identified and helped to explain the changes. The results helped this researcher's explanations of socio-economic changes leading to empowerment via the use of Information and Communication Technologies without underestimating the human and natural resources that were already in place prior to and independent of the collaboration that was started a few years ago. This helps in confirming the catalyst role the WGC had originally proposed to fulfill.

When trying to capture the reality of another people, it is important for a researcher to keep an open mind. The use of preconceived notions to classify information can lead to the collection of inaccurate information. This inaccurate data promotes skewed description of the assessed phenomenon. This is the case for the use of the notion of empowerment which is plastic and should be contextualized. The understanding the women have of empowerment is linked to

the history of the notion, associated with the feminist movement in the Western continent. This notion was then operationalized and applied to serve agendas seeking redistribution of power and transference of decision-making to minorities and oppressed people.

It is common to impose one's worldview when attempting to understand another culture. Perceptions that form this worldview are based on prior experiences in particular social conditions. In the case of scholars, whose worldview is derived from the scholastic universe, categories of classification and concepts pertaining to that universe are utilized to describe and understand practices taking place in environments strange to them. As a result, scholars risk promoting what Bourdieu (2000) calls scholastic epistemocentrism, common among professional thinkers. What is also called scholastic ethnocentrism can be summarized in Bourdieu's words as:

> Projecting theoretical thinking into the heads of acting agents, the researcher presents the world as he thinks it is (that is, as an object of contemplation, a representation, a spectacle) as if it were the world as it presents itself to those who do not have the leisure (or the desire) to withdraw from it in order to think about it. (p. 51)

When the researcher analyzed the impact of Information and Communication Technologies (ICTs) on the women's group in Bukoba, she did not assume they understood what information and communication technologies were. She also never presumed they understood the implications of the use of the Internet. She knew they were still trying to comprehend the concept of using technologies for communication. Practical knowledge regarding the benefits of the use of ICTs was shared among the members of the St. Cecilia Women's Group (SCWG). Previous

interactions with the leader of the SCWG and the Director of Women's Global

Connection promoted enhancement of their knowledge base.

Bourdieu described the process of reflexivity among scholars and stated that

because researchers tend to presume an immediate grasp of common practices, they

"tend to substitute for the active agent, the reflecting 'subject,' for practical

knowledge, the theoretical knowledge which selects significant features, pertinent

indices and which, more profoundly, performs an essential alteration of experience"

(Bourdieu, 2000, p. 52). The author shows that "thick description," a method

developed by Clifford Gertz, in promoting the description of the descriptions,

ignores the scholastic break with the recorded activity that has to be put into the

theory. Therefore, when the researcher is doing the description of the social world

he/she is doing the 'literarization' that his/her description has imposed on it.

The researcher was aware of the limitations imposed by the use of

theoretical thinking to the reality of a group of women who had been exposed

recently to the computer and the Internet. Additionally, the researcher found some

events to be relevant because they assisted in accomplishing goals that had already

been set up by the group. This is the case of the income-generating activities that

were of primary concern among the women since they were meant to solve part of

their poverty problems by helping to raise their income level. Also, their

understanding of empowerment was connected with the women's capacity to

generate income and to become independent from their husbands. In this sense, a

concept of empowerment that was sensible to the cultural differences of the group

was more appropriate.

Bourdieu (2000) calls for description and analysis that incorporate the history of the conditions, production, categorization, classification, perception, and thinking that exist in a particular context. Tanzania was colonized by four countries, and it is still dependent on the donor community to produce assessment and solutions for local problems since it lacks highly skilled people. Foreigners have developed agendas and programs to help empower women in developing countries. Also, the implementation of multipurpose centers that employ technology for knowledge exchange and capacity building has become very popular. So, the women's sense of empowerment was strongly associated with what the broader community understood as being empowered.

The researcher was careful, in this study, to emphasize the meanings the women gave to their experience of the use of ICTs. And she assumed they could not have understood the implications of the use without supporting their view on institutional thinking, one that was provided by merging the collaborators' understanding of the benefits and their own understanding of use to facilitate already established activities.

In addressing the questions this researcher had proposed to answer during the course of the investigation, this study was valuable in that it indicated that the participants experienced positive changes in different aspects of their lives. Preliminary analysis of information from the interactive area of the WGC website, where the women from Bukoba had been more active, along with the analysis of the data from the interviews, revealed that these changes were primarily social, economic, and technological. The data also suggested that the changes were fostered by multiple intertwining factors such as the merging of two separate

agendas from the two distinct organizations; the presence of the WGC as a catalyst for the combination of the agendas via collaboration online; the incentive for pursuing goals and activities that had already been planned by the women's group in Bukoba but that needed technical advice in order to reach its ends; and support and inspiration by other women from different cultures to whom they had been exposed when participating in the CCLDP, 2004 WGC International Conference, and Summer trips. In the case of the use of Information and Communication Technologies, specifically the Internet and email, the SCWG reported four major kinds of assistance pertaining to its application for: communication and learning, retrieving information, development and improvement of computer skills, as well as the development of language skills (English), all of which led to social empowerment.

The author observed an increase in the participants' level of confidence that was translated in their accounts and reports of accomplishments in the fields of agriculture, where they have recently developed a business plan for commercial farming and have started to cultivate maize and beans (the group acquired a 50 acres farm). The confidence level of the SCWG members also increased as can be seen in the revolving loan fund, since the number of participants increased exponentially. The basket making and sale were activities demonstrating higher levels of confidence because their production has become more organized and the baskets are of better quality. These are some changes that occurred in the income-generating activities, reflecting economic changes.

The leaders and other members of SCWG/BUWEA also reviewed their strategy and decided they should be more inclusive and bring more women from the

villages to join the women's association. They used some of the profit made from the basket sales in a system of borrowing and lending of money to benefit more women who would not have other means of meeting their basic needs otherwise. The basket sale helped to increase the women's income and it brought hope among the members of the group. However, they acknowledged the difficulties in maintaining a stable market in the United States and agreed that the handcrafts solve just part of their problems. The planning of the sale was mostly done online, not only through the cross-cultural discussion but also via email. Decisions related to the number of baskets that should be shipped to the US, quality and types of baskets, and deadlines were computer-mediated.

The use of ICTs also impacted the women's group's organizational skills. Because they felt the need to be accountable to their supporters and since the Internet was an efficient means of communication, they started to organize themselves better and keep records of their activities. They learned to attach pictures of their meetings when members of BUWEA were granted a small loan to be invested in income-generating projects. They provided lists of grantees and explained the process of getting a loan: deadline for repayment, interest rates, description of income-generating activities that were developed, and information on cultural practices. These activities in exchange brought more credibility to the group.

Moreover, other benefits associated with the use of the Internet were singled out by the SCWG, who saw the Internet as a great potential for knowledge exchange and learning. By exploring activities that other women were doing and finding out about challenges that they were also experiencing, the SCWG was

inspired to remain strong in their pursuits for innovative solutions they needed to bring to their community.

Access to information via ICTs was accomplished in the case of the SCWG through "communication with people all over the world." They learned how other people were living because they had access to effective communication technology and they also had the skills for using this technology. Although the number of Internet Cafes in the town of Bukoba was limited they were available and the costs were reasonable. So the infrastructure, although subjected to breakdowns from time to time, was in place.

R. Majaliwa, the leader of the SCWG and the chair of BUWEA, offered a comprehensive view of the uses of Information and Communication Technologies. As a representative of the group, her worldviews can be said to express the group's overall understanding of uses and benefits of ICTs. She stated the importance of the Internet for retrieving information and learning "what the outside world is doing and even inside the country" (personal conversation, August 1, 2005). Since the SCWG started to develop their computer and Internet skills via the CCLDP, the learning process was the result of their communication with people from other countries (the US, Zambia, Brazil, Tanzania) who would inform them of the state of affairs of their lives in different cultural contexts.

The availability of the Internet, online discussions, and email allowed the women to reach out to people from various geographical regions and socio-economic backgrounds and brought them together to pursue a common goal. Moreover, it helped individuals who would have been excluded from participation in initiatives that ultimately promoted empowerment--women in their late forties

and early fifties living in the African context might never have thought they would become computer literate and would be able to communicate so easily with women all over the globe--via programs focusing on the development of computer and leadership skills. The participants unanimously reported the importance of developing computer skills for their personal growth and empowerment. Their understanding of access to computers and to the Internet as an exclusive right of young people and also as a right granted through enrollment in formal education, was changed with the presence of a female facilitator who saw the use of the Internet as a tool for empowerment. Their concern with their obligation as parents to provide all they could to educate their children would lead sometimes to a feeling of guilt since they were the ones using the Internet and not their children. However, their new knowledge was also used to urge the learning and engagement of their children with information and communication technologies, such as the Internet.

The benefits the participants associated with the use of the computer and Internet for their lives as mothers, spouses, entrepreneurs, leaders, educators, members of women's organizations, and the application these technologies have in their daily lives cannot be separated from both the idea they have of the benefits and the ones conveyed by different agents and organizations they have been interacting with and the application these technologies have in their daily lives. The ability and capacity to communicate even better and faster with women not only from Tanzania but also from other places around the world, were seen as some of the greatest advantages in accessing the network. Instead of writing letters, they could now write e-mails and convey their messages more efficiently. Letters might take days, weeks, or even months to reach their final destination, whereas e-mails and the

messages posted in the online discussion could reach many people within seconds. This is the mathematics used by these women who saw the Internet as a great tool for communication.

The participants also reported the advantage of being able to exchange ideas, learn, and retrieve information from the Internet. They saw the Internet as a library that could be accessed by anyone, a source of information and knowledge. Farming was one topic that was regularly approached in the cross-cultural leadership discussion. They shared their traditional knowledge and sought advice on how to improve their agriculture-related activities. They understood other women with different qualifications were reading their messages and presumed these women could potentially help them to find solutions for their problems. Health related messages were also common in the discussion, an important topic for women living in a country that has been devastated by HIV/AIDS and other illnesses such as malaria.

The women of SCWG and their colleagues knew that their participation in the cross-cultural leadership program and online discussion represented an opportunity for expanding their horizons and a potential for bringing educational and economic resources back home for two reasons. The two reasons included the fact that their participation consisted in the reaffirmation of their commitment and collaboration with the organization from the United States. Besides it signaled a potential for making new connections.

The benefits were both tangible and intangible: the tangible benefit was the grant they received for over one year and were expected to get online and post messages once a week. As a result of their collaboration with the WGC, they began

to receive grants that were turned into loans for women who had been selected by their 125-member organization, BUWEA. Concretely, they also started to get support for the sale of handcrafts that were produced locally and commercialized internationally. The intangible benefits included the information exchanged via the WGC website between the SCWG, WGC staff, University of the Incarnate Word (UIW) faculty, and other members from the community. Faculty of the UIW became involved in projects for the development of a business plan for the women's group, health literacy, and early childhood curriculum.

Another strong point encountered during the investigation of the cross-cultural leadership discussion and the women's participation in ICTs in general was the planning process that was monitored online by the facilitator. It was exciting for the women from both Zambia and Tanzania to plan their visit to the United States during the first WGC International Conference held in San Antonio in July 2004. That was the first time the women of Tanzania were going to leave their country and the online discussion as well as e-mails, were used for guidance, planning, and learning. Topics ranging from visas and documents required for getting a visa to the U.S. and tips for writing a research proposal, since they all came and presented at the conference, were discussed extensively during the period prior to the international conference.

The learning of computer skills, ability to access the Internet and communicate with women from other countries, the engagement in discussions that gave them opportunities to voice their ideas and learn from people with different backgrounds, added to their range of possibilities. If empowerment is to be understood, among other things, as the ability to have options and make choices,

people could imply that these women were transformed. Their options remained limited but the participants realized that while other options existed, new ones could also be created. Empowerment was addressed by the women as something they had experienced during the collaboration with the WGC and it seemed to be the result of their engagement in different activities that were now being facilitated online. Overall, the benefits associated with the use of the computer and the Internet were related to the fact that they allowed the participants to communicate efficiently and work collaboratively despite their geographical location and it was a rich source of information.

In trying to understand the benefits and positive changes the women's group experienced throughout collaboration, this researcher faced several limitations that prevented her from choosing a particular theoretical framework for assessing the impact of ICTs on the women's lives. As a researcher but also as an active member of the team that was collaborating in the implementation of a few initiatives in Tanzania and Zambia, this investigator found herself on unfamiliar grounds since she had just started to learn about the Tanzanian culture. In order to better assess the impact of ICTs, this researcher decided to utilize a list of outcomes related to exposure to information and communication technologies, seeking guidance through the alternative evaluation framework (AEF) proposed by Gigler (2004).

The AEF is a comprehensive tool for assessing the impact of ICTs on poor communities. The question Gigler (2004) raises in his AEF reflects his concern as to whether and under which conditions ICTs can help to improve access to information and knowledge that in turn enhances the capabilities of the poor to better achieve the lifestyle they value. His question is embedded within a theoretical

framework that considers the capabilities of the poor, either as individuals or groups, to bring about the standards of living they believe in as a better measurement for empowerment than any other concept based on power to, power over, power with, or power within. He suggested using the capability approach to understand and explain the interdependence between resources (capitals) and agency. In this sense, ICTs must be enacted in order to be meaningful to their users. They have to be appropriated and utilized to serve the goals that were set up by individuals and groups. Though Gigler (2004), in this particular case, was looking at the implementation of multipurpose centers, his suggestions do apply somewhat to the SCWG case we studied.

Gigler (2004) utilized "outcome indicators" to assess the impact of ICTs for bringing about changes at the individual and collective levels in the social, economic, and cultural dimensions. He divided the social capabilities into informational, psychological, social, economic, political, and cultural. He also incorporated enabling factors, which consisted of the support given by intermediary organizations that provided specific technical services.

In the case of this study, the alternative evaluation framework served as a parameter for understanding the meanings the SCWG gave for their use of ICTs and to reflect on the two years participation in the CCLDP. The researcher shared Gigler's understanding that ICTs are a catalyst for expanding the human and social potentials of poor communities and expanded his view of enabling factors by considering that WGC not only played an important role as a facilitator but also enabled the women's organization to leapfrog into a position where they gained and used technical, entrepreneurial, and leadership skills.

In trying to address whether the use of ICTs has impacted the lives of the women from Bukoba, the data suggested that it has promoted changes in various dimensions of their lives. Nevertheless, the changes were not necessarily innovative, they were rather a reenactment of skills and potentials that had already been developed via experiences lived in their daily lives, executing activities that were traditionally attributed to women in Tanzania. The distinction is that these women had been educated and therefore they had had opportunities that most of Tanzanian women did not have.

In terms of information, the analysis of data revealed that the SCWG and the extended family and community benefited from their participation in the CCLDP. There was little exploration of new topics that could have been related to their realities since their use of the Internet was restricted to their weekly participation in the CCLDP. In this sense, the women did not use any search engines or explored different websites other than the WGC. The information retrieved was therefore what was available in the leadership discussion mainly, although they would sometimes visit other areas of the website to initiate new discussions. Consequently the information and knowledge gained were extracted from a guided discussion that was permeated by events that ultimately led the dialogue to specific topics. These were primarily related to the 2004 International Conference, income-generating activities, revolving loan fund, farming, summer trip planning, and the leadership program in which they participated. Even though the leadership program had originally been proposed to be an open and flexible discussion, it was clearly defined by priorities established by the ongoing activities at that time. The

facilitator also had a powerful role as she directed the topics of conversation, especially during the period when the discussion was still closed.

Regarding the different events as they related to the development of skills, the international conference helped the SCWG to learn about the process of getting a visa, the preparation of a proposal, participation, presentation in a conference, and travel abroad. They had, for the first time, an opportunity to travel to the United States and experience a different culture. As a result, they experienced the expansion of their worldviews by comparing their beliefs, customs, and traditions, with those of the U. S. and also learned more about practical matters such as infrastructure, roads, and businesses. Considering the vision shared with Gigler (2004), the opportunities created through the use of ICTs, which enabled the collaboration between the SCWG and WGC, were not directly connected to development. They only provided the participants with potentials and capabilities, assets would be required to go to the next step. In this sense it did not matter if the SCWG had learned about a business plan if they did not have any economic capital to begin the implementation of income-generating activities. That was why the provision of a small amount of capital, whether through the revolving loan fund or grants and sponsorships, were crucial in launching their businesses.

Bourdieu (2002, p. 130) talks exhaustively about practical sense, or the knowledge obtained from our relative position in social space that circumscribes or limits the possibilities and chances of achieving goals in life, whether they are professional or not. This researcher understands that his views of possibilities and chances underpin the explanation of potentialities, as can be applied to the SCWG.

Derivatively, SCWG faces two restrictive or limiting variables, their assets and their practical knowledge, as well as their sense of belonging to a particular position in social space. Their collaboration with the WGC was an enabling factor facilitating changes and empowerment to the extent to which certain assets were provided or had already been put in place. For instance, the women from the extended community where the SCWG acted and who did not have a secondary school education, had a different view of the benefits of the Internet. The researcher had an opportunity to interview the leader of the organization that was recently formed to extend the actions of SCWG to the broader community and she shared her lack of interest in learning computer skills. This woman claimed that she did not have the language skills for she did not speak English. This corroborates what I was referring to previously; that is she did not have the assets to enact a potential which consisted in the learning of basic computer skills. Secondly, the woman continued, she preferred to favor her daughter who was attending school, was young, and could most likely benefit from the use of the computer and the Internet. This attitude reinforces the actualization of practical knowledge that has also been introduced.

In terms of an informational outcome indicator for empowerment, Gigler (2004) explained how information literacy was defined as "a set of abilities enabling individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" (p. 15). The special circumstances that drove the SCWG to be exposed to a certain type of information, given the structure of the Cross-cultural Leadership Development Program (CCLDP), helped them to stay focused on particular subjects as they were related to the activities being implemented by the two organizations. Much of what was

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shared was applied to their own reality, releasing them from the need to constantly distinguish alternative sources of information. What was available in terms of information and knowledge was intertwined with their activities. The information that was retrieved from the CCLDP was shared in the meetings the group conducted monthly. Everyone benefited from the knowledge that was exchanged in the leadership area of the WGC website.

Another important aspect of their use of ICTs was the cross-cultural sensitivity created with the inauguration of the CCLDP. Indeed, the promotion of cross-cultural understanding through the exposure to different cultures without the intermediation of agencies that might filter or misinform, was a founding principle of the WGC and part of its mission and vision. The facilitator was an expert in those matters and she wisely tried to balance between her own reality and that of the participants before she requested some action or provided any information, an aspect deemed crucial for efficient exchange of information between the participants from the two organizations.

The psychological outcome indicator was also a good measure of change and empowerment. According to Gigler (2004), this is measured by the ability to analyze and solve problems, to enhance a person's self-esteem, and the increase in the sense of participation in the modern world. Referring to the first property, the women from the SCWG mentioned how the information exchanged in the CCLDP helped them to realize their own weaknesses and strengths as an organization and work toward the solution of their problems. One practical matter that was assessed and then worked upon was their inability to consistently report on the evolution of their activities in a systematic fashion. They would do so, but their report lacked the

details that were deemed important to the people who were supporting their projects financially through small grants. If one observed the evolution of their participation in the leadership program within a time span of two years, one would have seen the progress they made towards accountability. In fact, once the WGC began a small campaign to raise funds for the income-generating activities and to support the payment of school fees for girls, the demand on the women's group in terms of providing some information associated with their use of the money started to increase. That propelled them to give a more detailed description of their distribution system for the loans, which were distributed to the women from the villages who utilized the money to raise farm animals.

The CCLDP was purposefully designed to foster the development of the women's leadership skills. Analysis of the messages that were posted in response to the questions and reflections proposed by the facilitator, showed that even though the women had exerted leadership for many years through their regular activities as mothers, wives, teachers, neighbors, and community leaders, they came to realize their talents, gifts, and leadership skills through guided reflections. They did not develop the skills because of the leadership program; they had an opportunity to identify the skills after they were named. This is a phenomenon that is related to what Ian Hacking (1998) described in his article on the evolution of the psychological sciences. He explains that in creating symptoms for new mental illnesses and recalling cases of patients who had manifested the symptoms in the past, psychology helped to create new people who manifested those symptoms. Similarly, now imbued with a new classificatory system, the SCWG members were

able to understand more clearly their position as community leaders and act more in that way.

A relevant aspect for the SCWG was their sense of participation in the modern world through the use of ICTs. They shared an understanding of the ability to use the computer and the Internet as skills that were not for them. They were meant to be used by young people who are attending school or are government officials. The middle-aged women were in that sense the last ones to be considered for the use of the computer for communication. Thus, the opportunity given to them was seen as an unprecedented chance to achieve a higher status in their societal structure. This is referred to as a major source of empowerment, something they are proud of and that changed their perception of their own socio-economic situation. They now feel more confident to advise other women from the community on different matters, and to demand changes in their relations with local officials, who they have to contact from time to time in order to get some technical assistance. Their relationship with their husbands also changed and they experienced more freedom to discuss their needs and those of their children with their spouses.

At the center of the SCWG awareness was their vision of supporting as many women as possible to increase their income through income-generating projects that had proved to be valuable to them. They used their traditional knowledge to evaluate the mechanisms that would lead to an increase in the women's income without requiring unrealistic measures. They were also able to provide technical and organizational assistance for the activities they were disseminating. Their collaboration with WGC bore fruit and helped them to promote their handcrafts, an activity carried out in their spare time, especially

during rainy days, but that had shown some potential for growth in the international market.

Their constant fight against poverty and the strength of the informal sector for generating wealth in Tanzania placed economic development as the primary focus of SCWG. They underscored their interest in improved access to the international market for their baskets on different occasions. They also manifested their need for more knowledge in the fields of agriculture, a major activity of 85% percent of the local population and 50% of total the population in Tanzania. It was an important indicator of the changes experienced during the period of their collaboration, more visible with the acquisition and development of a commercial farming project. It was not possible to access the revenue generated through these various initiatives, however it was known that it added very little to their annual income, especially when assessed within the U.S. parameters. An assessment in relative terms would have shown a different quantification of the economic benefits resulting from the collaboration. And it would perhaps demonstrate more accurately the empowerment experienced by the women's group.

The WGC committed to organize an annual basket sale and it did so for two years consecutively. It organized a few other small sales within religious organizations and it has placed an order for the third annual basket sale scheduled on December 9th, 2006. In aiming at improving their businesses, faculty and graduate students worked with the SCWG in teaching them basic business skills. Learning from previous experience with a granter who pointed out to the problems in their organizational structure, the SCWG showed their interest in learning skills to construct a business plan that would demonstrate their abilities and commitment

to the causes of many women from the villages who were living under similar situations of disenfranchisement. Faculty and graduate students from the University of the Incarnate Word who had a genuine interest in working with the women's group were then mobilized and developed educational tools and materials for the workshops that were conducted during the summer of 2004 and 2005.

The CCLDP helped the SCWG to share the Tanzanian culture beyond their geographic boundaries. The acknowledgement of SCWG and the women of Bukoba as a culture in its own right has increased their level of appreciation for their own traditions and uplifted their social status, leading to the strengthening of their cultural identity. Enabling factors, such as the intermediation by the WGC, which supported the SCWG with technical services, helped the women's group to acquire the necessary skills for making the collaboration possible. However, this collaboration merely helped to recognize more fully, their capabilities and potentials for setting and achieving goals.

Through this study we were able to describe the changes the St. Cecilia Women's Group experienced since they began working with the Women's Global Connection, which led to their strengthening as a group developing collaborative projects locally and internationally, and as leaders in the local community. The opportunities for growth and collaboration were possible due to the availability of ICTs in their local community, computer training provided by WGC volunteers, and their willingness to learn computer skills and expand the activities they were already developing. The changes the women's group experienced were the result of a combination of activities they developed during collaboration, consisting of new organizational, business, and computer skills that were integrated to their traditional

practices. Exposure to information available in the WGC website and the learning obtained through their interaction with other women in the virtual community, were important to recreate the women's perspectives on life. The women's previous experience as members of a women's group, that was originated to support small projects, and as leaders in the local community, were also important conditions for the success of the collaboration. There was a structure in place prior to the WGC's intervention that cannot be denied. In three years, the women were able to develop skills that will support them in their endeavors as small business women and they should also perpetuate their search for collaboration with local and international organizations.

Post Script

My trip to Tanzania in July and August 2005, followed by a second visit in July 2006, was strategic for giving me the conditions to develop my field work. The research questions I raised could only be addressed had I immersed myself in the Tanzanian culture and, most importantly, in the cultural context where the women's group I had proposed to investigate was living. The Saint Cecilia Women's Group (SCWG)/BUWEA was being studied for the first time and the resources available that could have helped me to describe and explain the conditions where this women's group had been living were limited. I gathered relevant information from the Cross-Cultural Leadership Development Program (CCLDP), an online cross-cultural dialogue that provided content related to activities the women developed throughout the three years of collaboration between the Women's Global Connection and the SCWG/BUWEA. However, the information was not directly related to their understanding of the use of Information and Communication Technologies. The facilitator's goal in the CCLDP was to help the participants to identify their own leadership skills and work towards their improvement through the different activities they were developing. Among the many messages posted, a few were then related to the women's use of the Information and Communication Technologies as a tool for changes. Preparation for the trip helped me to develop a closer relationship with the participants in Bukoba. We exchanged e-mail weekly and as the date of my departure to Tanzania approached, we planned together the activities I wanted to do while in Bukoba that would help me to understand the women's reality. The SCWG scheduled visits to the villages for they understood I needed to be exposed to their reality. Even though the SCWG members were living in town, they were also small farmers, having to work in their "chambers" every week to ensure food production for the nuclear and extended family. SCWG's leader

and I used to go to her two farms, one that her family inherited and another one that she acquired and that she expected to give to her daughters. Regina, a 56 year old women who had lost almost a 100% of her sight, worked with her hands weeding the areas around the banana trees and planting with a hoe vegetables and cassava. The boys, two young male who had became her protégés or part of her extended family, were asked to bring all the cassava they could bring, as well as carry the heavy bunches of bananas they were able to collect. Regina used to work five hours without resting or snacking, something we would do if we were in the United States. She knew that she would have lunch at two in the afternoon and that she had had breakfast before she left at seven in the morning. During her work at the farm I tried to offer my help but she would never accept it, arguing that I was not prepared for doing the activities she used to do. My hands were too delicate and I did not have the strength she had, even though I was much younger. I felt frustrated at first for I realized that she could be right. So I decided to do what I was trained to do, which was to ask as many questions as possible given my preparation and creativity. Sitting on the grass and watching her to move her arms up and down with a hoe, I questioned her about the activities women did in Tanzania, the division of labor between men and women, their hopes and dreams, farming, history of the region, how girls were raised in Tanzania, and her family. She would give me all the details, always stressing the importance of helping the local women to become independent from their husbands so they could be independent and be able to make choices that would benefit their children. On our way back home I used to observe women, children, and men walking on the unpaved roads, the women usually carrying bananas and vegetables over their heads and the children, when they were not helping their mothers, they were wearing uniforms, returning from school for a day of work and play. I would also see small shops along the road made with any materials they

could gather from their farms, where they sold vegetables, fruits, salt, sugar, and bread loads. That was found in all the villages visited.

Fuel is very expensive in Tanzania. Kerosene is used for cooking and petrol for cars. Having a car was a privilege experienced by a few, usually government officers or business men who received some support and were able to purchase an automobile. Regina's husband had an old truck of a Japanese brand. Its use was carefully plan as to ensure the family was taking full advantage of it every time the truck left the house. Regina had a driver, someone that was called upon when she had to do business or go work in her two farms. I never asked how much she paid for his services but it should not be too much given the reality of her family and their reality. She would always bring the two boys, who would be dropped somewhere in our way to collect grass for the two cows she kept at home for providing milk to her family and sometimes to the neighbors. Since after her husband had became ill, Regina took charge of all the family's affairs. Among the many activities she did, including farming, she also had meetings with local authorities to negotiate her husband's health benefits; he had been forced into retirement because of his illnesses. One of her daughters was also trying to enroll at a university and during my visit Regina had devoted great part of her time meeting with a local religious institution to negotiate terms and conditions of her daughter's scholarship. Her daughter had finished secondary education and could have been attending university for more than one year. However, she did not get any funding from the government and was struggling to find sponsorships that would allow her to enroll.

Regina had also a daughter who was married with a child and who was a medical doctor in Dar es Salaam, capital of Tanzania. I had an opportunity to stay at her home and follow her activities at the hospital for two days. As a pediatric doctor, she would care for

premature babies and mothers facing challenging conditions. There were not mosquito nets at the hospital where she was working. But she seemed adapted to the conditions and did not appeared to be concern. One of her sisters was also living in Dar es Salaam. She was also married and had a little girl. She worked as an elementary teacher, like her mother Regina, and she would sometimes leave her baby with the 17 years old girls who used to care for the doctor's daughter while she was at the hospital.

In Bukoba, like in any other places in Tanzania, women are responsible for many activities including cooking, cleaning, taking care of the children, the elderly and the ill, farming, helping the extended family and neighbors, and on. Regina's daughters, now young adults, did not help with farming since they were taking care of their own families. The fact that they had received education provided them with an opportunity to have salaried work and be able to skip some activities typical of a female living in Tanzania. The members of the SCWG had invited me to their homes. Allocating time to visit them was important for the women. Their homes and families were the most important asset they had and I would not have known them if I had not expend the day visiting with their family. Speciosa was also an elementary teacher who had two grown sons and two daughters. Her son who had been unemployed and his family were living at her house. The other son was living just next to her house, married and with one child. Speciosa's husband worked for the government and at the time of my visit he demonstrated interest in starting a new business filming weddings and other events with a video camera he had recently purchased. He had a computer at home and had installed the software he would need to edit the videos he would develop. During my visit he showed me the computer program and asked me to give him clues on its use. Unfortunately, I was not familiar with the software and was not able to help him. In different occasions he called me hoping that I would work

with him in learning about the computer program, which did not happen due to other commitments I had.

Eugenia invited me to dinner in a nice evening. Her husband walked me to their home and had his son accompanying us. I was greeted by all her children who stayed with me in the living room waiting for the dinner to be served. In the meantime her husband's brother and nephew stopped at the house joining us to a warming conversation. They joked around me when I indicated to be lost in the conversation, missing the signals and meanings since I could not contextualize much of what was been discussed. The family asked me questions about the life in the United States and shared their opinions on subjects ranging from politics, education, and international affairs. Eugenia had also a large family and one of her sons felt particularly interested with my presence. He wanted to become a musician, a dream shared by many Tanzanian who dreamed with a successful career, and he explored with me different possibilities in achieving that goal. The meal was incredible and I tried for the first time special dishes that are only served when they received special guests. Senene is a dish prepared with grasshoppers and even though I did not feel very well in the next day, I tried without hesitation its taste. I clearly wanted to have that kind of experience. They also served white beans, which are very expensive. Eugenia remained silent most of the time sitting right next to her husband and drinking some beer. In that particular occasion, the males revealed to be more inquisitive; something that did not surprised me by being part of the traditional gender division.

My visit to Audacta's home was a different experience. Apparently, her family was not allowed to join us. Audacta had prepared a meal and treated me with special care. I had planned to interview her that day and so I did. Her living conditions were very similar to the other members of the SCWG. She was also an elementary teacher and had a large

garden and animals that she had to take care of at her home. Audacta explained that her husband was supportive of the different activities she was developing. They would work together in the garden, making decisions about planting. When asked about her children, Audacta demonstrated to be concerned about their future and stressed the importance of education to their future. She thought girls were experiencing changes and they were having more equal opportunities compared to boys in terms of decisions regarding marriage, schooling, and career. They could now marry later in their lives and pursue their careers if they chose to do so.

Theodosia had lost her husband and she was living in the city with her daughter. Her other children were living in different locations, working or studying. Like the other women, she had cows at home and worked as an elementary teacher in a school very close from her house. I stopped for a brief visit and had lunch with her and Regina. She had struggled to build her house and she was slowly getting back on track after her husband passed away to pursue a more comfortable life. Magdalena and Paschasia received me for a short visit as well and their reality seemed to be very similar to the other members of the SCWG.

The reality of a family living in the rural area was very different than those living in the urban area. They did not have electricity and many women had only had primary education. Their lives resumed in a struggle to produce food for the family and support the children to attend school. Among the families visited during my stay, only a couple had better crops and was able to sell part of their crops. In these families both husband and wife were working together in their farm. But in general the situation was the same, scarce resources and subsistence farming. Transportation to the city was difficult, which maintained them isolated from the resources found in town.

It took me a while to adjust to that new reality. My close proximity to the leader of the SCWG, a great leader and very knowledgeable and experienced women, helped me to understand the living conditions of women in Bukoba. The trust I had built with the women helped greatly to access the information I was seeking. Having someone available for me for almost twenty four hours a day contributed to the success of my experience in Tanzania.

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