

Role of ICT in Enforcing Women's Potential in the Mountainous Regions: Case Study of Kyrgyzstan

Dr. Kent Millington,
Entrepreneur-in-Residence, School of Business, UVSC,
Zamira Djusupova,
ICT Component Coordinator, UNDP Democratic Governance Program, Kyrgyzstan
Dr. Ulan Brimkulov,
Fulbright Scholar, University of Michigan at Ann Arbor,
Alexey Semyonov,
CEO&CFO, Advanced Language Systems International,
Dr. Baktybek Abdrisaev,
Distinguished Visiting Professor, UVSC

Background

It is well known today that ICTs can give to everybody new opportunities for development. However, lack of access to them in developing countries creates obstacles to people for individual and social advancement as well.

Women in mountainous regions occupy the lowest level of the digital gender divide because of huge responsibilities for their families and kids at home. That causes challenges for them in education, employment, participation in governance and business.

A number of conferences and workshops organized by different international organizations including the United Nations and the World Bank discussed gender problems and ways to improve women's life. Best practices worldwide demonstrate how ICTs can help women in poor countries in many different areas. Among them one can mention for example: - access to the health related information with extensive use of ICT and training in that area; ICT training seminars for women interested in small business with facilitating e-business opportunities for them. Apart from education and training opportunities, access to Internet also creates new job and marketing opportunities, focusing in particular on linking women producers to expanded tourist markets.

There are also projects with emphasis on building a framework for information sharing, content creation, off-line information dissemination and web-based partnerships with organizations located outside the region.

The Declaration of Principles, adopted on 12 December 2003 at the World Summit on the Information Society in Geneva, emphasized that the development of information and communication technologies provided enormous opportunities for women, who should be key actors. The Information Society enabled women's empowerment and their full participation on the basis of equality in all spheres of society and in all decision-making processes. It stated also that gender perspectives should be mainstreamed into all sectors of development and ICT used as a tool to that end.

What ICTs can give to women in mountainous regions?

No doubt that new opportunity to access important e-knowledge resources appears due to the use of ICTs. Women as individuals can improve organizational and personal knowledge and skills through the use of new e-empowerment tools. Women

organizations in mountainous area can gain access to news and pertinent information and that allows them to conduct research and participate in global women's initiatives, collect and share information on gender issues. Effective access to and use of ICT can improve mountainous women's leadership capabilities and ensure participation in community and economic development activities. Programmes and initiatives in some countries have demonstrated how ICT became an instrument for women's economic empowerment. E-commerce initiatives can link women producers and traders directly to markets at national, regional or even global levels, allowing them to restructure their economic activities and bypass middlemen and male-dominated and exploitative market structures.

As it was mentioned above education is an area where mountainous countries are applying a combination of traditional and new ICT. It includes, for example, the use of computers and the Internet in formal and informal learning, distance education and in establishing e-learning centres to support training of women and girls. High illiteracy rates of women and girls in mountain regions and their lack of ICT training are two of the most serious barriers that prevent them from entering the information economy. Continuing gender gaps in education, due to domestic responsibilities, lack of mobility and sociocultural practices that downplay the importance of education of girls, constitute enormous challenges for women and girls. Language and basic computer literacy are prerequisites for women and girls to benefit from the use of ICT for education. Initiatives that focus on educating women in poor communities and teaching them computer literacy have demonstrated the value of ICT for women. New ICTs also allow the process and content of education to be adapted to learner preferences and priorities, thus opening up possibilities for designing and providing education in forms that are locally relevant.

There is a vast potential for ICT to facilitate global, regional and national health initiatives for women. ICT can contribute to improvement of health conditions in mountainous countries. However, there has been too little attention given on to how these technologies can directly address women's health concerns, or how they can build on women's roles at household and community levels as the primary users and disseminators of health information, including sexual and reproductive rights and health. Use of the Internet is being explored through exchange of information via e-mail, online newsletters and list servers. ICT have the potential for delivering locally adapted health information to women through community access points. It is well known now from world wide experience that ICT is a forceful tool to improve governance and strengthen democracy and citizen empowerment. It can help foster more transparent governance by enhancing interaction between government and citizens, revitalizing civic institutions and public debate, promoting equity and equality, and empowering minorities. It can be also powerful in providing a voice to women who have been isolated and invisible. In recent years, e-governance has become a priority area of many Governments resulted in the implementation of programmes that apply ICT in delivering Government services and promoting transparency and accountability. It is important that e-governance should focus on using new technologies to strengthen public participation in democratic processes. Public interest has to be the main focus of Government and so the focus of e-governance is to better serve citizenry. Best world experience in governance shows that gender-responsive governance involves the active and meaningful participation of women in all levels of decision-making and ensuring greater transparency and accountability in government.

What are the barriers for women to use ICTs in mountainous regions?

Needless to say that today there are many barriers to women's access to ICT especially in mountainous countries because ICT is considered by the majority of people as a primarily male industry. Women are underrepresented among ICT users and very rarely work as developers of software. More women are illiterate than men and fewer girls than boys complete secondary school or attend science and technology training programmes in the ICT sector.

Women in general are earning a living in parallel with having domestic responsibilities and care-giving and that leaves women little time for learning new skills. In some countries cultural norms and even concerns over personal safety may make it difficult for women to attend training courses or visit telecenters. In mountainous countries geographical location of facilities constitutes additional constraints, together with limited infrastructure, lack of necessary equipment, hardware, affordable software and low Internet penetration due to what women do not have understanding of the opportunities made available by ICT.

Kyrgyzstan: Challenges and Opportunities

Kyrgyzstan is a former Soviet Union country in Central Asia with a population of 5.2 million. Over 90% of the territory is the vast mountains and so 65% of the population lives in mountainous areas. This land-locked, mountainous country has a predominately rural population that is relatively poor. 70% of all unemployed are women. During the last number of years there was a trend that mainly women were working hard to earn money for children and their families. Women are lacking education, which restricts financial independence and as a result a social equality.

Despite these problems, the country has also some positive factors. Geographically the country is located at the crossroads of Europe and Asia. Further integration of Central Asia and Kyrgyzstan in particular to the regional trade and economy with a prospect of a large increase in land-based cargo means that the country occupies an important place at the intersection of some of the largest markets in the world: China, Europe and India. Kyrgyzstan is committed to a bigger degree than its neighbours to democratic reform and has a vibrant civil society. This includes a vigorous NGO sector and a clearly independent, although small, media sector. Many women started to unite into small groups or associations for identifying sources of financial aid from different funds and international financial institutions.

From a development point of view Kyrgyzstan has a national strategy and plans to use effectively new ICT in the area of governance, economy and education. National Strategy "ICT for development of Kyrgyz Republic" was approved in 2002 and Council on ICT for development established under the President of Kyrgyz Republic. National Action Plan for implementation of National ICTD strategy was developed with the concepts on e-government, e-education and e-economy elaborated and approved in 2003. On the basis of the national computer network which connected central government with the regions and provinces Government provides information to citizens through public portals and almost all government agencies have their official web sites. More than 150

public access points established in the regions with the assistance of international donor community with the aim to provide access to computer literacy courses and Internet services. The mountainous terrain of much of Kyrgyzstan makes network expansion countrywide a difficult task, but there is clearly a potential for growth while less than 9 people in 100 have a telephone, and 90 per cent of the population falls within mobile cellular network coverage areas. Three fixed line companies have been licensed to compete and two have started operations, SaimaNet (Russian-owned) and WinLine, but they probably command no more than 2 per cent of the market. For commercial reasons they concentrate in Bishkek by offering service to more profitable business sectors, and selling cheap international calling cards as well. By 2005 six cellular licences have been issued, but currently only four operators are active on the market of mobile services: Katel, Bitel, MegaCom, Fonex. The number of Internet users is increasing every year and now there are more than 550 thousands of them with 38 Internet providers delivering IP services. Over 389.4 thousand people use ICTs in their daily work and over 60% of them are women but mostly in the capital of the country.

How to increase women's potential in Kyrgyzstan through the use of ICTs?

Taking into account all challenges and opportunities in Kyrgyzstan for ICT use it is evident, that ICT can provide new opportunities for women by creating an environment, including through training, where they feel comfortable participating in community development activities and advocating for their needs and priorities of economic empowerment. In this regard it is important to develop ICT-based tools that address women's specific needs and are run by women. For example, ICT literacy programmes, business planning courses, e-trainings. Access to market and trading information services and e-commerce initiatives can offer economic opportunities in salaried employment and entrepreneurship. ICT interventions should be directed at economically empowering women by creating business and employment opportunities for women as owners and managers of ICT-accessed projects, as well as employees of new business ventures. As producers and distributors of goods and services they can capitalize on the potential of these technologies as knowledge and networking tools. ICT have to be used to connect women to new and emerging markets, broaden their social networks and provide them with information that opens up important economic opportunities.

Telecentres or public information and recourse centres should be widened to offer a multitude of services like Internet, e-mail, computer literacy courses and e-trainings. They should provide an invaluable resource to enable women to use, produce and disseminate knowledge and information, and thereby to contribute to their communities' and countries' economic and social growth. In this context awareness raising about the opportunities of ICT for women plays significant role. More education and training in basic computer skills for women should be extended in the regions of the country. To make more affordable and accessible ICT facilities to women in rural area Open Source software should be used more widely in such telecenters.

At the country level central and local governments have to improve delivery of public services, health care and welfare services through the wide use of new ICT technologies with special emphasis to women.

How UNDP Supports ICT in Kyrgyzstan

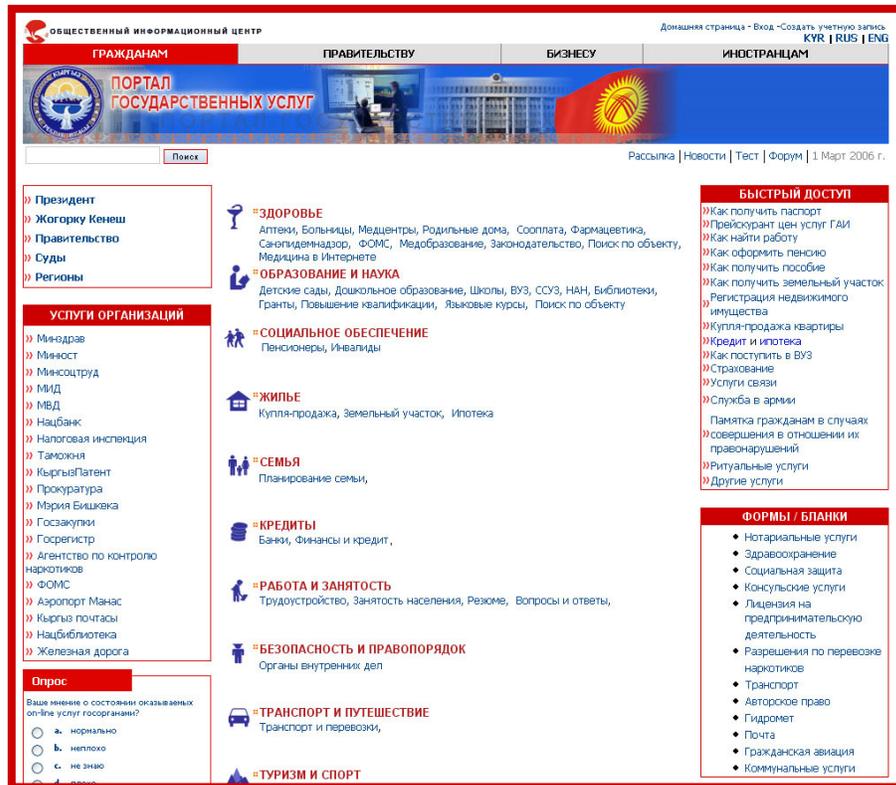
UN General Assembly resolution 58/146 emphasized the need to ensure that rural women have access to and fully participate in the area of ICT. The resolution invited the World Summit on the Information Society in Geneva and Tunisia to take into consideration while addressing gender issues, the priorities and needs of rural women and girls as active users of information and to ensure their participation in developing and implementing global information and communication technology strategies.

In this respect UN Development Program assists governments of developing countries to identify gaps in opportunities and outcomes for girls and women, and help them identify gender-specific, measurable goals and objectives for the ICT sector. UNDP also supports institutional structures promoting national ICT development in a way that benefits women, and help bring representatives of women's organizations and gender experts into the policy formulation process.

The main goals of UNDP in Kyrgyzstan in the field of ICTD is to provide advice to the Kyrgyz Government with regard to the country's integration into the world information society and to foster the use of ICT as a tool for achieving the Millennium Development Goals, for improving the delivery of public services and for widening citizen's access to information. In Kyrgyzstan, UNDP assists to the country extremely well in three key areas: national policy formation, creating a broad-based coalition for change, and the practical implementation of ICT related projects mostly in governance area. In response to a government request, UNDP hosted the first National ICT Summit; and published the Summit results to share knowledge and provide a base for future studies. UNDP continues to assist the government in defining its own priorities and presenting these priorities to donors. In the same vein, UNDP assisted to the private sector with creation of the Association of Telecommunication Operators which has increased the ICT efficiency of the country, and with other donors the first Public Access Points (PAPs) have been established.

In terms of practical ICT implementation, UNDP helped the government to establish a national computer network and create its own web presence through the governmental portals www.gov.kg. UNDP promotes improvement delivery of public services and access to them by supporting development of "one stop shop" e-public services portal www.govservices.kg.

Citizens, before going to government agencies to receive any service citizens can familiarize with rules and procedures for getting services, and also to know which organisations and departments they have to visit. From that point of view there is no need for them to know even name of institution which is responsible for selected service delivery. Moreover, they can find all necessary regulations and instructions. The Portal is a one of the key elements of e-government and integrated government information recourses providing new opportunities for quick and easy access to public services for citizens, business and visitors from other countries.



Front page of the governmental portal www.govservices.kg.

It gives also the access to information about state authorities through the government portal and official web-sites of ministries, agencies, regional administrations and local governments. Further development phases of e-government would give opportunities for citizens to fill in applications on line which can make easy and better service delivery.



Public Information Center in the Osh region of Kyrgyzstan

Public Information Centers in the villages provide e-access to information including women rights and gender issues, trainings on computer literacy and e-trainings

for different women groups in the villages. The main priorities are planning small and medium business and land relations. Women in the mountain villages communicate and share information in the global women network through the world wide Internet recourses. In Public Information Centers in the villages women can get access via single “window” to various application forms for obtaining different services. Such applications can be printed and filled in by citizens according to instructions and rules at home or in public information centers at different locations before visiting related organizations. As a result people can get out of a habit to gratify civil servants for quick service delivery and reliable information which lead to reduction of corruption in government agencies.



Women participants at the computer literacy courses in Kyrgyzstan

The one of significant activities of UNDP in ICTD area is awareness raising campaign in the mountain regions about the opportunities to get access to information and services including knowledge recourses for women through Public Information centers in pilot municipalities.



Members of different Aйл Okmotus at the ICT seminar in Kyrgyzstan

Computer literacy courses including trainings on Internet and e-mailing are conducted for interested groups of local people on reasonable chargeable base. Along with pilot Aiyl Okmotu (local municipalities) employees representatives of neighbouring Aiyl Okmotus have been trained on computer literacy free of charge through the centers. At the same time they receive consultations and technical support on elaborating plans of socio economic development of Aiyl Okmotus. The number of trained Aiyl Okmotu representatives increased from 10% to 70% and that helps to improve the quality of their daily duties. As a result they have got possibilities to prepare timely efficient reports and use legislation in electronic format. Furthermore Aiyl Okmotu has an opportunity to arrange data inter exchange with the government structures by e-mailing system. Computerized municipal management system including management of local recourses and finances is under development in close collaboration with Ministry of Finance and Agency on Local Self Governance and will be established in pilot electronic Aiyl Okmotus as soon as development will be completed.



New computer equipment at Aiyl Okmoty

Open Source use for Enforcing Women's Potential in Mountainous Regions

Approach to breach the technology gap between developed countries in the world and the ones in transitions, including nations in Central Asia by using Open Source technologies was discussed before.^{1,2}

As one of the practical approaches to do so, it has been proposed that a training program be established at one of the universities in Central Asia and in the American University of Central Asia (AUCA) in Bishkek, Kyrgyzstan in particular to train current and future business and government leaders, women entrepreneurs and leaders of NGOs as well in the use of Open Source software applications. Open Source software offers a variety of applications that will greatly enhance business and government operations at a very reasonable cost. It will be also a very important and effective tool for enforcing women's potential in the countries of the region.

As envisioned, the program will eventually offer both undergraduate training for students at the regional university as well as seminars for government and business leaders throughout the region:

1. Undergraduate training will consist of coursework that specifically teaches the skills needed to use a wide variety of office software applications. In addition to these specific classes, the applications will be incorporated into the teaching protocols of the professors and instructors at the university itself. In this way, all students will become familiar with the applications and their uses in the organizations where they will be employed in the future.
2. Training seminars will be one to two week seminars taught at such university for business, government leaders and women entrepreneurs and leaders of NGOs from Central Asian countries. This training will familiarize attendees with current applications and give hands-on experience in the use of these tools.

It is anticipated that the program will start by focusing on the students of the university and leaders from around Kyrgyzstan in the first year. Once the program is well established, an aggressive effort will be made to promote the training throughout the region and to bring both students and leaders from other countries to such an institution to participate in an expanded training program. The size of the program will be determined by the funding that can be secured.

The development of the curriculum will need greatest attention. The selection of the applications to be taught is critical to the success of the program. The courses to be taught will need to be carefully developed to meet the needs of the region.

At this moment UVU discusses with representatives of the local universities in Central Asia, international financial institutions and several private ICT companies in the United States details of the joint activities under the umbrella of this project.

References

1. B.D.Abdrisaev, Z.S.Djusupova, A.I.Semenov. *Case study: Kyrgyzstan's experience in promoting Open Source for National ICT development*, Proceedings of PISTA 2004, Vol.I, P.148-151, Intl. Conf. on Politics and Information Systems: Technologies and Applications. July 21-25, 2004, Orlando, Florida, USA

2. B.D.Abdrisaev, Z.S.Djusupova, A.I.Semenov. *Case study: Kyrgyzstan's experience in promoting Open Source for National ICT development*. Journal of Systemics, Cybernetics and Informatics, Vol.2, №7, 2006