PUBLIC ACCESS TO INFORMATION & ICTs
PHASE II REPORT

Mongolia

Preliminary version: Feb 15, 2008

Draft 1: June 15, 2008.

Final Report: August 15, 2008

University of Washington
Center for Information & Society
4311 11th Avenue NE, Suite 400
Box354985
Seattle, WA 98195 USA
www.cis.washington.edu
cisinfo@u.washington.edu

Recommended citation:

Pact Mongolia (2008). Public access to information & ICTs: Mongolia. Public Access Landscape Study final report, presented to University of Washington Center for Information & Society (CIS), Seattle.

Table of Contents

1 Extended Executive Summary

1.1 Research Project Overview

This research focuses on the public access to information and communication landscapes in 24 countries, with specific focus on public libraries, to understand the information needs of underserved communities, public access to information and communication venues, and the role of ICT.

Through field research in 24 countries conducted by local research partners, and cross-country comparative analyses based on common research design elements (see list of countries and research design overview in Appendix), the project aims to contribute to the knowledge in the field of information and ICT for development. Of particular interest and value are: the comparative look at key venues (libraries and other), and the mix of depth of in-country knowledge with breadth of global comparison to elicit success factors and scenarios to understand how diverse populations can and do access and use ICT to improve their lives. All outputs of this research will be broadly disseminated to interested stakeholders and placed in the public domain.

1.2 Introduction

The second largest landlocked country in the world, Mongolia is sandwiched between Russia and China. The total population of 2,635,200 people (National Statistical Yearbook, 2007) occupies a country three times the size of France. This makes Mongolia the least densely populated country in the world. Half of the population lives in and around the capital city of Ulaanbaatar, with the remaining population scattered across twenty-one aimags (provinces).

The research undertaken in this project was conducted by Pact Mongolia between January and August 2008. Research was conducted in Ulaanbaatar as well as in six aimags across the country.

1.3 Country Overview

Mongolia contains very little arable land, and animal husbandry remains a primary source of income for a large portion of the population. Approximately thirty percent of the population is nomadic, and these herders follow seasonal migratory routes in search of pasture for their livestock. The Gobi desert spans the south of the country, forests and mountains are found in the north, and vast steppes stretch across the central regions of Mongolia. The country is rich in natural resources including gold, coal and copper, and the extractive industries are poised to usher in a new phase of economic development.

Literacy levels are high in Mongolia, a legacy of the Socialist era. The majority of Mongolians speak Khalkh Mongolian, the official language of the country. A minority of about seven percent, concentrated in the west of the country, has Kazakh as a mother tongue, and there are a number of additional ethnic groups spread throughout Mongolia.

Over thirty percent of Mongolians live below the poverty line, and inflation has increased steadily over the last five years. Rural resident and residents living in the peri-urban areas surrounding Ulaanbaatar and other small cities tend to be more economically disadvantaged.

The number of cell phone providers has doubled since 2005, with decreasing costs for users and increasing coverage. The fourth provider won a government tender when it aimed to connect rural settlements and remote parts of the country to a telecommunication system. The overall number of the users of mobile services reached 1 million at the end of 2007.

All aimag centers, and a number of soum (village) centers now have mobile phone coverage, and it is expected that every soum center across the country will have coverage by the end of 2009. Television ownership continues to grow, with over 50% of rural and nomadic families owning television sets, satellite dishes and alternative power generators. Radio remains a vital information source for rural residents, although TV is set to surpass this. Most rural soums have been connected to electricity. All aimag centers are now connected to fiber optic cable, and the Government has pledged to have all soums connected by the end of 2008.

In 2004, the Government established the Information and Communications Technology Agency (ICTA) of Mongolia. The ICTA is chaired by the Prime Minister with purpose of supporting ICT development in the country while also coordinating ICT-related initiatives.

The e-Mongolia program was launched in 2005 to develop Mongolia into an information and knowledge-based society through the integration of ICT into all sectors of society. The e-Mongolia Master Plan has six program areas and sixteen objectives. The implementation of the objectives has moved steadily ahead.

The total bandwidth has increased from 78Mbps in 2004 to 247 Mbps as of 2006. In 2004, most ISPs were using VSAT to access the Internet, which was expensive. As of 2006, a unified gateway was opened up facilitating a dramatic decrease in costs. ISPs have since adopted land line usage which has reduced costs by ten times compared to 2004. The result of this is that costs for local Internet users have decreased by a third of what they were in 2004.

The government recognizes the importance of ICT and its continued development with the establishment of the National Committee on Integrated Registration System in January 2008, chaired by the Prime Minister.

Mongolia has been one of the most stable democracies in Asia. There are issues regarding freedom of the press and impartiality of media, with ownership issues paramount in limiting pluralism, diversity and freedom of expression. Many media channels are owned by sitting politicians. Low levels of professionalism among journalists is another factor contributing to the poor quality of information.

Following the national election in June 2008, a state of emergency was declared after violent protests erupted in the center of Ulaanbaatar amidst allegations of vote rigging and

corruption by the winning party, the Mongolian Peoples' Revolutionary Party (MPRP). The state of emergency included the closure of all private television stations, with the state broadcaster the only channel on air. Foreign Press were banned in a chilling clampdown on information flow.

For the purposes of this research, urban areas include Ulaanbaatar, Darkhan and Erdenet. Non-urban areas include all soums and soum centers, as well as aimags and aimag centers.

1.4   Research Rationale, Sample & Methods

Research was conducted in two phases. Phase one saw the first draft of a country report developed, along with a country profile, contact list and research variables. During this phase, five venues were researched:

- Public Libraries

- Development Information and Resource Centers and Public Information Centers

- Cybercafés and Internet Centers based at telecommunications offices

- Khan Bank Information Centers

- World Vision Mongolia Child and Family Information Centers

In studying these venues, researchers met with a number of key sectoral actors at national and local level, as well as with venue operators. Desk research was also undertaken. In total, twenty-five in depth interviews were conducted using formalized tools. Key research areas, including telecenters, were not fully investigated under the first phase due to time constraints, and were earmarked for attention under the second phase

In the Second Phase, the research focus was narrowed to four venues as per the research guidelines. The selected venues for continued research included:

- Public libraries

- Telecenters

- Internet Centers and Cybercafés

- Khan Bank Information Centers

Phase two also saw the research team conducting user and operator surveys as per the research guidelines. These were conducted at various branches of each of the four venues at city, aimag center and soum level in seven different locations, including the district of Ulaanbaatar. In total, fifteen venues were surveyed, thirty-six percent of which were in Ulaanbaatar, with data captured from a total of 111 respondents in Ulaanbaatar and 195 respondents in non-urban venues.

Under the course of this research, a total of thirty-three site visits were made in six aimags and in Ulaanbaatar. Furthermore, fifteen focus groups were held - ten outside of Ulaanbaatar and five in Ulaanbaatar, with a total of 151 respondents

1.5   Information Needs of Underserved Communities

The size of the country, coupled with dispersed settlements and a nomadic lifestyle for many, makes it difficult to disseminate timely and up-to-date printed information to all residents. This puts non-urban residents at a particular disadvantage in receiving information such as daily news and current affairs. Along with access to news, these residents also need updated herding, animal husbandry and livestock information, weather and forage forecasts, educational updates and support materials, and government updates and information. Since 2006, all university entrance exams now have to be registered for online. Payment also needs to be made online. Online shopping and banking is rare in Mongolia and conceptually unfamiliar for most of the population. This is even more difficult for non-urban residents who do not live near a public access Internet point, who have had little chance to interact with computers, and who generally lack computer literacy skills.

Increasing numbers of non-urban residents are relying on digital technology to access information, including television and mobile phones. Public access Internet venues are located in all aimag centers, but are only found in 6% of soum centers. Aimag center and city residents are increasingly turning to the Internet to meet their information needs. Mobile phone provider G-Mobile offers mobile internet services that have the potential to bridge the information gap for remote and nomadic families.

Most public libraries, especially those located outside of the center of Ulaanbaatar, do not have current information sources available or are unable to provide an environment conducive to accessing the existing materials. The main reason for this situation is a shortage of funds to purchase new materials and repair or maintain infrastructure effectively. A lack of support services, such as photocopiers and scanners, leads many users to tear pages out of the source documents. Later users then find themselves at a greater disadvantage in their quest for information.

There are only two free public access Internet points for visually impaired users in Mongolia, and both of these are located in Ulaanbaatar. One is located at the MFOS (Mongolian Foundation for Open Society) telecenter, and the other at the Metropolitan library. This places visually impaired users in the rest of the country at a disadvantage with regard to information access. At the two free access points for these users, there is a lack of technical competence amongst the staff to capacitate and assist potential clients with queries, and to maintain and repair equipment. Public information access points such as libraries do not have existing infrastructure, such as wheelchair ramps, elevators and wide book aisles, and staff lack technical skills in assisting disabled users and users with special needs.

1.6   Strengths, Weaknesses and Opportunities in Key Public Access Venues

Mongolians across the country have embraced technology, as is evidenced by the growing number of cell phone users. However, the library remains a core access point for information. Socialist legacies include high literacy rates and library infrastructure. The existing library infrastructure includes 357 branches that cover every soum, aimag centre and district in Ulaanbaatar has the potential to serve as staple information access venues. Libraries have been neglected in the long and continuing transition from Soviet rule, and most libraries, especially outside Ulaanbaatar, are unable to provide users with current information, new reading materials or a comfortable physical environment. Only 2.5% of state funded libraries offer digital services and all but one of these are in the larger urban areas. Rejuvenation of the library system and infrastructure by building on state funding will enable the creation of public information hubs across the country.

There is a lack of computer literacy within the general population in Mongolia. Internet access is expensive for lower-income users, and there aren't enough Mongolian language knowledge building sites. Commercial Internet cafes are mainly located in central Ulaanbaatar and other larger urban areas. In 2006, there were 105 registered Internet cafes in Mongolia. While skills development will enable access it will only partially resolve the information divide. Knowledge facilitators, like the librarian of the 20th century, will be needed to source information and localize it.

There are virtually no programs in place aimed at increasing the number of public access to information venues for disabled segments of the population, or facilitating the skills of disabled users. Existing infrastructure does not make allowances for disabled users. Only one library in Ulaanbaatar has a wheel chair ramp at the entrance of the building, and most public access information venues have stairs. Further to this, there are no financial concessions made for disabled users who receive state support, which is minimal, and may not be able to afford the costs associated with accessing information. Implementing programs that develop infrastructure that is friendly for disabled users, build the capacity of disabled users, and are economically viable will assist in the increasing the number of disabled users who are able to access information at public venues.

Cybercafés and Internet centers at telecommunication centers (post office) are found in every aimag center. For some aimag centers, these are the only public access Internet points available for an immediate population of approximately 20,000 people. At soum level, there are only twenty public access Internet points across 330 soums. This translates to 6% of soum centers housing a public access Internet venue. Three quarters of these venues are Khan Bank Information Centers (KBIC), and the remainder is privately owned. Khan bank is one of the largest banks in Mongolia. The KBIC model, which runs on a very minimal budget and is the result of a private-public partnership, is proving to be sustainable. It differs from donor funded telecenters that have not always managed to sustain themselves when funding comes to an end. Continued rollout of these centers, supported by capacity development of the local population will assist remote population to access information via the Internet

Telecenters that have been established in Mongolia through the support of various donors have faced many challenges in the process of sustainability. Fifty percent of telecenters established have been unable to continue post donor funding, and have been forced to shut

down. Those that still operate face continual challenges in securing the income required to cover operational costs. The telecenters were the first public access Internet points in the locations in which they were established, but now have to contend with commercial Internet centers and cybercafés that are open for extended hours and provide additional services such as gaming.

1.7   Salient Findings

Many people who use the Internet at public access venues do so for communication purposes. Communication has emerged consistently as a key use of the Internet by users in urban and non-urban locations.

The provision of digital information access be it by Internet or mobile phone, in the rural areas, is essential. Currently, there is a lack of public information access points in the rural areas, especially at soum level. Sustainability options for public access venues need to be examined as does the further development of the mobile phone as a key information access tool for rural and nomadic populations. Supporting the development of increased ICT access needs to be the development of the capacity of the general population, and the training of trainers who can transfer skills and facilitate knowledge localization.

There is a lower computer literacy in rural areas and less exposure to technology, which in turn leads to a smaller demand market. Research undertaken could not determine any free Internet access points in the rural areas. Free access points would encourage use of Internet but would need to be supported by training for users and staff.

There is a lack of Mongolian language knowledge building sites and many users are unaware of what Mongolian language websites exist. This means that many are unable to access information that may be available, but that they do not know about.

The KBICs are proving to be a sustainable, replicable model for the provision of public access Internet venues in rural and remote areas. Users of these venues report that being able to access the Internet at their local center has been of great benefit to them, and allows them seek, send and receive information in a fashion that they were not able to do previous to the center. Increase community participation and a more concentrated community development approach will assist in easing some of the problem that KBICs and their users have encountered.

Mobile Internet services provided by mobile phone providers such as G-Mobile allow residents in areas of coverage to access the Internet in some of the most remote and isolated parts of the country. Many of these remote residents do not have the awareness, skills or hardware available to make use of this service. For those that do, this system has increased access to information and provided a cost effective communication tool.

The public library system is unable to fully support the needs of users. Outdated information, a shortage of relevant materials, crumbling infrastructure, and a lack of digital technology combine to create an environment in which people cannot fulfill their information needs. For users with the technical capacity and knowledge as well as an access point available, the Internet may fill this void. For the majority of rural residents, as

well as a number of people in Ulaanbaatar, who are not computer literate and may not have access to the internet, information remains unreachable.

1.8   Key Recommendations

- Undertake a focused risk and opportunity analysis to consider whether or not libraries could be rejuvenated given their current state of decay, lack of capacity and 'tired mentality'.

- Create a culture of open learning, access to information, and the right to know among a traditionally information deprived society through targeted awareness raising activities .

- Promote ICT as a tool for nation building, cultural preservation, consolidating archives and traditions at risk.

- Train and deploy digital information facilitators to create and meet local information needs including minority languages.

- Develop and appropriate computer literacy course for Mongolia, and train trainers.

- Introduce widespread computer literacy courses (such as ICDL) and trainers located in library digital hubs.

- Promote the range of information vectors (including radio, TV and mobile phone) that can be developed at community level.

- Support Khan Bank Information Centers as a low key, realistic and potentially sustainable model that reaches the information underserved in rural areas.

- Develop and promote facilities for people with disabilities to access computing with custom built tools.

- Install physical access infrastructure to enable people with mobility issues to enter and use ICT facilities.

- Provide laptop computers to remote herding families and build the computer skills capacity of these users. Also provide portable internet connection devices, such as those offered by G-Mobile. Doing so will facilitate increased access to information and communication.

2 Methodology

2.1 Venue Selection

2 paragraphs

Brief description of the selection process: how you selected the types of venues to be studied, why they were included, why others were left out.

Desk research employing quantitative and qualitative methods was utilized to gather initial data. These sources helped to clearly define the direction of the research and to highlight interviewees that the research team needed to contact. Data was then collected through initial interviews conducted with experts and stakeholders that had emerged from the preliminary research. Interviews were sought and conducted with information sources that balanced input from government and state sources, international donor agencies, national nongovernmental organizations and grassroots organizations active in ICT in Mongolia. In collecting data, the researchers aimed to balance interviewees with technical and practical expertise and experience.

Libraries quickly emerged as a popular information venue with a well established infrastructure and position in communities. There are over three hundred fifty-seven libraries in Mongolia, and these are very often the only information resource center available to local populations. For these reasons, it was deemed necessary to further investigate the state of the libraries and their role in the public's access to information.

Telecenters have been established by different organizations in a variety of areas in Mongolia. Some of these Telecenters have proven to be sustainable, not without challenges, and others have been forced to close. One of these telecenters offers one of two free access points for visually impaired users. The Telecenters provide an interesting model for information access and lessons learned.

There are increasing numbers of for profit and privately owned cybercafés springing up around the country. It is a challenge to pinpoint the exact number of cybercafés as many operate outside of the legal requirements for business registration. However, these venues constitute a major public information access point for the population. In some rural areas, they are the only public Internet access points available, and, with the growth of the data transfer backbone across Mongolia, their numbers are set to continue.

Khan Bank Information Centers (KBIC) provide an interesting model in which the private sector has established 13 Internet centers in some of the most economically disadvantaged and remote settlements in Mongolia. Motivated by corporate social responsibility and in the context of lack of access to digital information in remote areas, Khan Bank began planning their Public Information Centers (PICs), known as KBICs in 2005. Plans for 2008

include the rollout of an additional eight venues.

World Vision Child and Family Centers were included in initial research as a non-ICT venue embedded in a community development theoretical model and meeting the information needs of marginalized and economically challenged segments of the population. Theses centers were eventually dropped from the research as a large number of them had closed and services in the remaining centers focused more on community development processes than the provision of information.

2.1.1 Venues Studied

Enter the details to complete the table based on the venues studied in this country (more details will be filled in other sections):

	Public Libraries	Telecenters	Cybercafés and Internet centers	Khan Bank Information Centers
Total number in country	357	8	105	13
A. # in Urban location	10	3	> 60	0
% offering ICT	5	100	100	0
Total # of people served (annual)	485,000	7,478	?	0
B. # in non-urban location	347	5	?	13
% offering ICT	4	100	100	100
Total # of people served (annual)	882,700	17,730	?	?

Comments (comment especially on definition of urban / non urban in the country):

- For the purposes of this study, urban areas include Ulaanbaatar, Darkhan, and Erdenet

- Non-urban areas include all soums (provincial counties) and soum centers, as well aimags and aimag centers.

- Please note that the exact number of cybercafés and Internet centers in Mongolia cannot be determined. The numbers included have been extrapolated from research and multiple sources, with primary information consolidated from source material created by L. Ariunaa. What is known is that there are a total of 32 Internet cafes attached to telecommunications centers across the country. Twelve of these are in larger cities such as Ulaanbaatar, Darkhan and Erdenet (counted here are urban locations) and twenty are located in aimag centers (non-urban locations).

- '?' indicates that the number cannot be determined as it has never been counted, and or operators were reluctant to supply an estimation.

Other Public Access experience # 1: Wifi hotspots

These venues offer free wireless Internet access to patrons who bring along their laptop computer.   They are most often housed in coffee shops and restaurants in the center of Ulaanbaatar. When wifi services were first offered, they were located in venues that were popular with foreigners and the ex-pat community. Growing numbers of

Mongolians now frequent the venues and make use of the wifi services.

There is also a wifi hotspot in and around the Technology Park, located in the center of Ulaanbaatar. The Technology Park was established towards the end of 2003 by the Mongolian Government with funding totaling one million US dollars received from the Republic of Korea. The aims of the Technology Park include:

Café offering free wifi in central Ulaanbaatar

- Creating favorable incubation conditions for new companies and supporting and encouraging the growth of these enterprises.

- Attraction of foreign investment to the technology sector

- Implementation of joint projects through contact with foreign organizations including banking, financial, business and development institutions.

   Total number in country: Cannot be determined

   % offering ICT access: 100%

% in urban location: 100%

Comments on how it is influencing public access venues in the country:

The wifi hotspots have allowed a greater number of people to access the Internet. However, this service is only open to people who have the financial means to own a laptop computer, spend money at the venue, are computer literate, and are able to access central Ulaanbaatar. The hotspots have not directly assisted the majority of the local population access information as the physical tools, such as computers, are not available.

2.1.2 Other Existing Public Access Venues, not included in this study

Basic information about other public access venues **not** included in the study (e-tuktuk, school or other private libraries not open to the public, health centers, etc), although they could play a role in public access information in the country. Indicate rationale for NOT including them in the study.

Other Venue not studied # 1: Child and Family Information Centers

Total number in country: 10

% offering ICT access: 0%

% in urban location: 100%

Description of the Venue:

Child and Family Information Centers (CFIC) were established by World Vision International Mongolia in the economically disadvantage areas of Ulaanbaatar and aimag centers. Half of the CFICs have since closed because of funding issues. The centers do not offer any digital services, although users are requesting Internet access. The CFICs offer family and social information and services to poorer communities, and are a good example of a well established community centre that work with existing community needs.

The CFICs are located in the heart of the disadvantaged communities and are able to provide much needed social information to the local population. World Vision International Mongolia is adamant that there is no religious component to the centers.

Reason why it was not included in the study:

The focus of the functioning CFICs is in community development with a focus on issues such as domestic violence, child health and family development.

Other Venue not studied# 2: Educational institutions including universities

Total number in country: 1,101

% offering ICT access: Unknown

% in urban location: Approximately 60%

Description of the Venue:

There are increasing numbers of schools, universities and tertiary education institutes that have Internet access and libraries available for students. The Mongolian National University in Ulaanbaatar houses a telecenter funded by Soros. Schools that fall within the G-Mobile coverage foot print were given a computer, a modem and a free month of Internet access, after which he school was responsible for Internet access costs. G-Mobile reports that 80% of these school have been unable to afford the costs associated with Internet access .

Reason why it was not included in the study:

 These venues primarily serve students and very few are open to the public.

2.2 Inequity Variables

1-2 paragraphs each.

Describe how each variable affects equitable public access to information and ICT in this country, and what you did in this study to make sure each one was addressed (for example, if you visited venues in both urban and non-urban locations).

Also include additional variables of local relevance to your country, as you listed in Form 1, section 1a.]

2.2.1 Socio-Economic Status

According to the Asian Development Bank (ADB), more than thirty-six percent of Mongolians live below the poverty line, and 18.1 percent live on less than one dollar per day. The Bank also notes that Mongolia currently has the highest inflation rate in Asia, and that inflation rates have steadily increased from two percent in 2004 to reach 15.1% in 2007. At the start of August 2008, inflation rates reached 19.5%. The government has taken steps to assist the population by decreasing tax levels and increasing minimum government wage levels. The cost of living, however, continues to increase. This leaves many with less financial power and less money available to cover costs such as Internet access fees or library charges.

Rural residents and residents living in the peri-urban areas tend to be more economically disadvantaged. Salary levels are generally lower in areas outside of the capital city Ulaanbaatar. However, the costs of goods and services is often equivalent to, if not more than the charges levied by similar institutions in Ulaanbaatar.

Of the venues investigated in this study, a proportionate number of each venue was visited in areas that are less economically developed and where infrastructure is lacking, as well as

in Ulaanbaatar and larger urban areas. Data was collected from users and operators from all socio-economic strata using survey tools and focus groups.

2.2.2   Educational level

Literacy rates in Mongolia are high at nearly 98% across the population. Following the transition from the communist system to a market economy in 1990, younger boys, and less often girls, were removed from school in order to watch the family herds, or to generate income by watching other people's herds. Illiteracy or semi-literacy prevents these demographics from utilizing technology to the same extent as their peers, and leaves them with little confidence to tackle text based technology.

In the remote soums and rural areas, technical and life literacy levels are lower than they are in urban areas and larger soum and aimag centers. Literacy levels of users and community members were considered and accommodated in the different locations and venues.

2.2.3   Age

Mongolia has a young population, with 50.4 percent of the population twenty-four or younger (National Statistical Yearbook, 2007).   For many of these citizens, technology such as mobile phones, computers and the Internet is a norm, even in areas outside of Ulaanbaatar.

Computer classes form part of the school curriculum, and are taught from grade 5 through to grade 11. However, particularly in the countryside, these classes are typically taught by unqualified (non-specialized) teachers from books alone. Nonetheless, on average, each soum school has at least five computers.

Older generations have been quick to adapt to technological innovations and changes, as is evident by the fact that cell phone subscribers now exceed 82% of the population aged 10 years and above. However, many lack the computer literacy skills that would allow them to access information via the Internet.

In collecting data during the research process, the research team paid attention to the demographics of the users interviewed in order to ensure that a balance was struck between different age groups. The majority of informants were aged between 15 and 60, which, by population breakdown, accounts for 66% of the total population of Mongolia. The table below illustrates the ages of all the user survey and focus group informants from whom data was gathered during the research process. The age range of informants was 12 to 65 years old.

Age of focus group and user survey informants and population breakdown by age
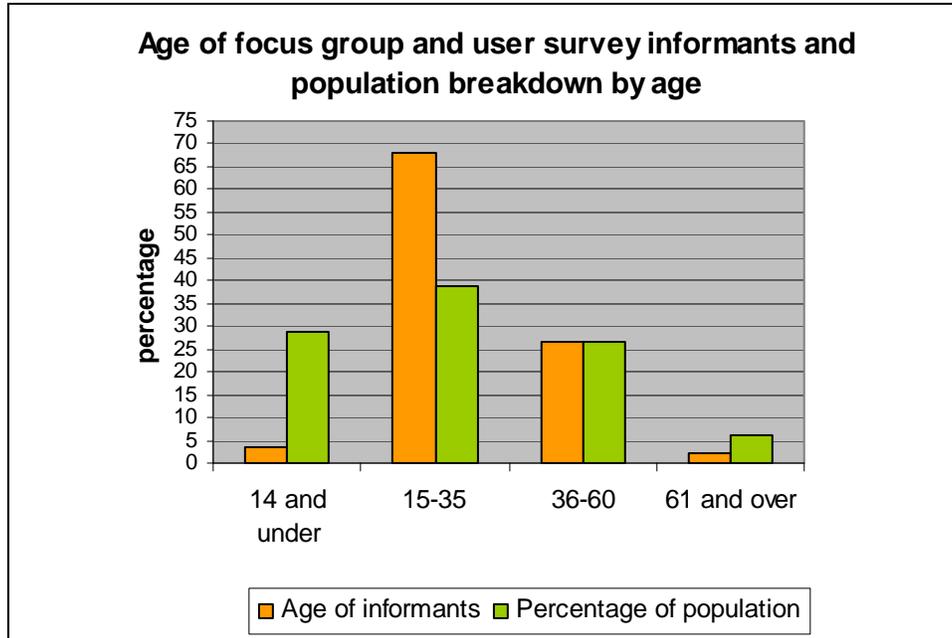
2.2.4 Gender

Gender in Mongolia is not a defining factor in accessing information. On the whole Mongolia enjoys relative gender equality though not in a western sense of feminism. It is often young men who are unable to access a full education due to economic imperatives. In 2007, sixty-five percent of all university, higher educational institution or college graduates were female (National Statistical Yearbook, 2007).

2.2.5 Location

The capital city, Ulaanbaatar, is home to over one million people - nearly half of the total population of the country. The majority of the country's Internet cafes, as well as three of the four free public access Internet points in Mongolia, and almost all wifi hotspots, are located in this city. The two largest libraries in the country, the Metropolitan Library and the National Central Library, as well as the Ministry of Culture which oversees libraries, are also based in Ulaanbaatar. There are over sixty Internet cafes in Ulaanbaatar, the majority of which are located in the centre of the city (InTeC, MIDAS, ICTA and CRC, 2006).

Of the approximately one million people living in Ulaanbaatar, around one third live within the city centre and have access to running water, proper sanitation and regular electricity supplies. The remaining two thirds live in the peri-urban ger districts which have developed on the city outskirts up as a result of internal migration. Theses poorly serviced areas are growing. A ger is a traditional, portable felt and wood housing structure.

Ger district, Ulaanbaatar

The remaining population is spread across twenty-one aimags, or provinces. An aimag is comprised of up to twenty-seven soums, or counties, including the aimag centre. Soums are in turn comprised of baghs. In total there are 330 soums, and 1,500 baghs. Each aimag has an aimag centre, which is generally the largest settlement within the aimag, and home to the aimag government, district hospitals post offices and libraries, and other administrative units. Infrastructure within the aimag centers is generally better than it is in the soum centers.

Excluding the federal district of Ulaanbaatar, in which a small city called Baganuur is based, there are three larger urban areas, Darkhan, Erdenet and Choibalsan that have better infrastructure and populations exceeding 39,000 inhabitants. On average, each aimag center and other larger rural settlements have an Internet café attached to the state's telecommunications office. Every city, aimag centre and soum centre has a library and cultural centre. However these are often in a state of disrepair, lack recent reading materials, do not offer digital services, and lack adequate heating in a country where winter temperatures average -30° C. Most soums in Mongolia are now connected to electricity.

Mongolia has approximately 171,588 nomadic households that regularly move with their herds and dwellings (National Statistical Yearbook, 2007). Nomads are often far from soum centers, and, with only three percent of Mongolia's roads paved, access soums centers by horse or motorbike in very difficult conditions. They may or may not own alternative power generators such as solar panels, although numbers are increasing.

Herding families are remote and often distant from settled centers

The research team undertook to represent venues in all of the locations in which they are found. Public libraries, for example, were visited at Ulaanbaatar, aimag center and soum center level in order to gather data from every sphere and to include users from all socio-economic backgrounds.

Other Inequity Variables

Other Inequity Variable 1: Language spoken

Khalkh Mongolian is the official language of the country and is spoken by ninety percent of the population. Approximately seven percent of the population is ethnically Kazakh and their native language is Kazakh. Kazakh Mongolians are generally located in three western aimags of the country. Although many may speak or understand Mongolian, their reading and writing skills may be weak. The Kazakh population lives a very traditional way of life, many are nomadic and live in extremely remote areas. Schooling for children is often not possible as the fees are too high, distances to vast and language may be a barrier. Many of the young girls are not fully educated and are married in their teenage years. There is a lack of printed materials available in Kazakh language and limited radio broadcasts from

the local FM radio station based in the aimag centre that may not reach the outlying areas.

The majority of television programming in Mongolia is produced in Mongolian, with a few programs produced in English. English language programming includes weekly news round ups, music talk shows and language lessons. There are over seventy FM radio stations in Mongolia, out of which thirty stations are in Ulaanbaatar, and forty-two are located in non-urban areas. (InTeC, MIDAS, ICTA and CRC, 2006)

According to the Asian Communications Handbook, 2006, there are 161 newspapers and sixty-nine magazines published in Mongolia. The national newspapers are mainly Mongolian, with a few in English and Russian. The majority of school text books are in Mongolian. In the last few years, international agencies such as Save the Children UK have been active in working with the government to create learning materials in Kazakh.

The younger generation of Mongolians has had exposure to English and English language knowledge amongst this generation is growing, predominantly in the larger urban areas. Older generations may be fluent in Russian, but tend not to make as much use of ICT as their younger counterparts.

Other ethnic minorities in Mongolia include Buriad, Tsaatan, Bayad, Durvud, Uriankhai, Uuld, Khoton and Barag. These ethnic groups are small, the Buriad, for example, comprise 0.25% of the total population of the country ('Buriad' 2007). Although almost all Mongolians speak Mongolian, each of these groups keeps their own language, culture and customs.   There are virtually no publications addressing the needs of these minorities in their own languages.

In gathering data, the research team selected sites which are home to ethnic minorities in order to assess any information available in these languages. This included distant areas such as Khovd and Bayan-Ulgii aimags in the far west of the country, which are home to large Kazakh minority groups.

 Other Inequity Variable 2: Disability

In researching this variable, it became evident that disability is not well referenced and statistics are not easily available. Under the previous socialist system, people considered disabled were provided with special education, accommodation, training and work by the state. Since the transition, this system has largely fallen away.

The National Human Rights Commission of Mongolia (NHRCM) reports that there are 34,000 students with disabilities in the country. There are currently five special schools with more than 2,000 students with disabilities enrolled. All of these schools are located in Ulaanbaatar. Access to education for disabled students living in rural areas is extremely limited, if not completely non-existent, resulting in high drop-out rates. Of the over 200 public and private schools in Ulaanbaatar, only two schools meet the standards for enrolling disabled children in inclusive education.

There are two public access Braille computers that are open to the public, and both of these are located in central Ulaanbaatar.

Physical disabilities, especially those relating to mobility, are seldom catered for in Mongolia. Historically, town planning has not taken into account access for the physically disabled, or people with mobility issues. Infrastructure is old and in need of repair and dangerous for visually impaired citizens. Older buildings, where government offices and state amenities are situated, very seldom have lifts or wheelchair ramps. There are no lifts in venues such as the National Central Library, the National University, or the Metropolitan Library. The Metropolitan Library has a ramp wide enough for a wheel chair leading to the main entrance of the building, which is up a flight of stairs from street level.

Other Inequity Variable 3: Remoteness

The 171,588 nomadic families in Mongolia often live vast distances from the nearest settled areas. Ninety-seven percent of Mongolia's road network is earth tracks making travel difficult. Given the severe climatic conditions travel is often dangerous. Radios have been the dominant information dissemination route - virtually every family has one, regardless of location. However, it is expensive to replace the batteries, and they are often turned on only for specific programs and short periods. Increasing numbers of nomadic families are investing in alternative energy generators, such as solar panels, allowing access to continuous radio and television programming. Television is fast becoming the preferred electronic medium.

The distance that many of these families live from settlements means that they are completely reliant on radio or television for most of their information. Word of mouth is a favored and well-utilized communication channel, but is dependent on remote herders meeting each other. Information is also gathered when a family member goes to the soum centre to stock up on essential supplies, or to sell livestock or commodities seldom more that once a month and often not for many months at a time. Many nomadic families keep a post office box at the soum centre post office and may subscribe to printed materials that are collected when they are in town. Alternatively, if the family has a child who is being educated at the soum centre school where they board, printed materials and other information is brought home when the child returns for school holidays.

Although cell phone coverage is rapidly expanding, the remote areas within the soums are not always able to access the networks.

The research team covered vast distances across Mongolia in order to gather data from venues, users and operators located in isolated and remote areas of the country. Certain venues, such as the Khan Bank Information Centers, have been established to serve more distant populations, and it was for this reason that they were included in the study.

Mongolian highway

2.3   Data Gathering Techniques

Describe the different data gathering techniques you used to conduct this study. Provide specific examples and sample selection criteria.

2.3.1   Literature Review

Describe the type and approximate number of documents reviewed. Include detailed references of the most useful ones. Include valid links for all online sources.

Sixty documents were reviewed.

A broad range of documents have been explored as part of this research process. The documents included country specific reports from agencies including the United Nations and the Asian Development Bank (ADB); country specific ICT reports by UNESCO and the World Bank; regional reports including documents by PANOS; ICT landscape reports by local and international technical experts; Mongolian laws and regulations; media freedom reports produced by local NGOs such as Globe International; and PowerPoint presentations and reports from the Information and

communication Authority of Mongolia (ICTA), amongst others.

2.3.1.1 Most Useful Bibliography:

1. InTeC, MIDAS, ICTA and CRC (2006) *Information and Communications technology development in Mongolia – 2006 Whitepaper.* Mongolia

   White paper examining ICT landscape in Mongolia in 2006

2. Johnson, C.A, Ariunaa, L. and Britz, J.J, *Constructing the pillars of a knowledge society: The challenges in providing access to ICTs in rural Mongolia.*

   http://www.librijournal.org/pdf/2005-4pp216-224.pdf

   Paper examining how Mongolia is meeting the challenge of providing access to ICTs in the rural areas.

3. Ariunaa L., Enkhjargal S. (2003), *Mongolia - ICT use in Education, National policies, strategies and programmes* Mongolia

   www.unescobkk.org/fileadmin/user_upload/ict/Metasurvey/MONGOLIA.PDF

4. Askerud, P., Tsog Sh., Oyunbayar, G.(2005), *Mongolia – Addressing poverty and the information gap: An integrated national programme for rural development*, Programme Proposal, second draft

   Examines historical context for the information gap in 2005.

5. Amgalanbat B., (date unknown), *The infrastructure and policy of Mongolian e-learning and distance learning,* PowerPoint presentation, Policy and Planning Department, ICTA.

   www.aprsaf.org/data/aprsaf14_data/day1/CSA12_**Distance**%20edu-i**nfrastructure**%20overview-Batsuren%20**mongolia**.pdf

   Presentation outlining the ICT strategy on e-learning and distance learning, and the current infrastructure to support implementation

6. Amarbayasgalan D. (2005), *Public Access to Information, Mongolia's Situational*

Analysis, PowerPoint presentation, Science, Communication and Information Section Mongolian National Commission for UNESCO

http://www.itu.int/osg/spu/ni/wsisbridges/linked_docs/presentations/Amaraa-emongolia.pdf

Presentation explaining the historical context of ICT development in Mongolia, current situation, legal environment and gaps

7. Yembuu B., Khukan M. (2005), *Literacy Country Study - Mongolia*, Background paper prepared for the Education for All Global Monitoring Report 2006, UNESCO.

unesdoc.unesco.org/images/0014/001462/146207e.pdf

8. *ICT Profile - Mongolia (2005)* , UNDP, Asia-Pacific Development Information Program

www.apdip.net/projects/dig-rev/info/mn/

Overview of ICT sector in Mongolia

9. *Mongolian Statistical Yearbook 2007,* National Statistical Office of Mongolia, Ulaanbaatar, Mongolia.

Compilation of social and economic statistics for Mongolia.

10. Naranjargal, K., Munkhburen, D., Narangarav, G. et al (2006), *Media Freedom Mongolia Report October 2005 - October 2006,* Globe International and Open Society Forum, Ulaanbaatar, Mongolia

Report examining freedom of expression, violations of rights of media and journalists, and media overview in Mongolia.

2.3.2   Individual Interviews

Describe the type and approximate number of individuals you interviewed. Include detailed contact information for the most useful ones (indicate for which topic, if appropriate). Discuss how representative is this sample of people you interviewed in relation to different opinions and perspectives in the country.

Twenty-five individuals interviewed (excluding user and operator survey respondents).

Initial interviewees were selected as the research process began in order to provide researchers with a broad picture of the ICT and public information access venue landscape. Interviews that followed were often a result of information received during an earlier interview and represented a honing in on focus areas and venues. Researchers attempted to ensure that a representative balance was sought and interviewed key actors at government level, local level and at venues themselves. Interviewees came from the government sector, non-governmental organizations and private organizations.

A list of key contacts can be found in section 2.3.7

2.3.3   Group Interviews and Focus Groups

In total, the research team conducted fifteen focus group across the four venues in a number of different locations:

	Public Libraries	Telecenters	Cybercafés and Internet centers	KBIC
# **urban** focus groups	2	1	2	n/a
# **non-urban** focus groups	3	2	2	3
# respondents in **urban** focus groups	20	10	20	n/a
# respondents in **non-urban** focus groups	30	20	21	30

The focus groups were conducted by the research team in order to dig deeper into the │facing users at various venues and to better explore the experiences and opinions of users regarding accessing information. A focus group guide was developed for all venues.

Focus group, Eroo Soum, Selenge aimag

Participant numbers were limited to ten per focus group. Participants were selected form the local community and included users and non-users of the venue under investigation.

Local point people in the relevant locations were selected in order to assist with the

logistical arrangements for the focus groups and participant selection, as many of the focus groups were held in distant and remote areas. In order to ensure that participants were available and in the settlement areas, advance notice had to be given. In selecting participants, researchers attempted to :

- ensure an equal gender balance that reflected national proportions

- obtain participants from a variety of a different age groups

- bring together venue users and non-users

- include participants from all local socio-economic groups

- include representatives from the herding population where relevant

- limit the participants to one representative per extended family or household

National researchers were not always able to implement the criteria above. This resulted in a higher proportion of female participants (63%), which may also be reflective of the higher number of female graduates from secondary and tertiary educational institutions.

2.3.4   Site Visits

Describe the number and location of site visits you conducted. If available, include detailed contact information for the most useful informants (indicate for which topic, if appropriate).

Thirty-three site visits were conducted.

Sites visits were undertaken over the course of this research project at a number of venues across the country. Visits were made to urban, peri-urban and non-urban venues at city, aimag, and soum level. Each visit was the result of careful planning taking into account geographical location, linguistic and ethnic diversity, socio-economic status of the local community and facilities available.   The areas visited included:

- Ulaanbaatar city and outlying peri-urban areas

- Khovd aimag - Khovd aimag center and Myangad soum

- Selenge aimag - Eroo soum

- Darkhan-Uul aimag - Darkhan city and Khongor soum

- Tuv aimag - Zuunmod soum (aimag center)

- Bayan-Ulgii aimag, - Ulgii soum (aimag center)

- Omnogobi aimag, Dalanzadgad (aimag center)

2.3.5 Surveys

Describe the location and number of respondents to surveys you conducted for this study. Indicate their relative distribution across venues (for example, 30% in telecenters, 20% in cybercafés, 50% in public libraries), and how they were selected.

Describe the venues, their locations and the sample size for each:

	Public Libraries	Telecenters	Cybercafés and Internet centers	KBIC
# **urban** venues surveyed	2	1	2	n/a
# **non-urban** venues surveyed	3	2	2	2
# respondents in **urban** venues	45	21	42	n/a
# respondents in **non-urban** venues	68	43	42	42

Note: 'Urban' includes locations found in Ulaanbaatar, Darkhan or Erdenet, 'rural' includes all areas outside of Ulaanbaatar excluding Erdenet and Darkhan

Please note that the figures above include users and operators who completed the survey tool.

Relative distribution of User and Operator surveys across venues

- Public libraries — 37%
- Telecenters — 21%
- Cybercafés and Interent centers — 28%
- KBIC — 14%
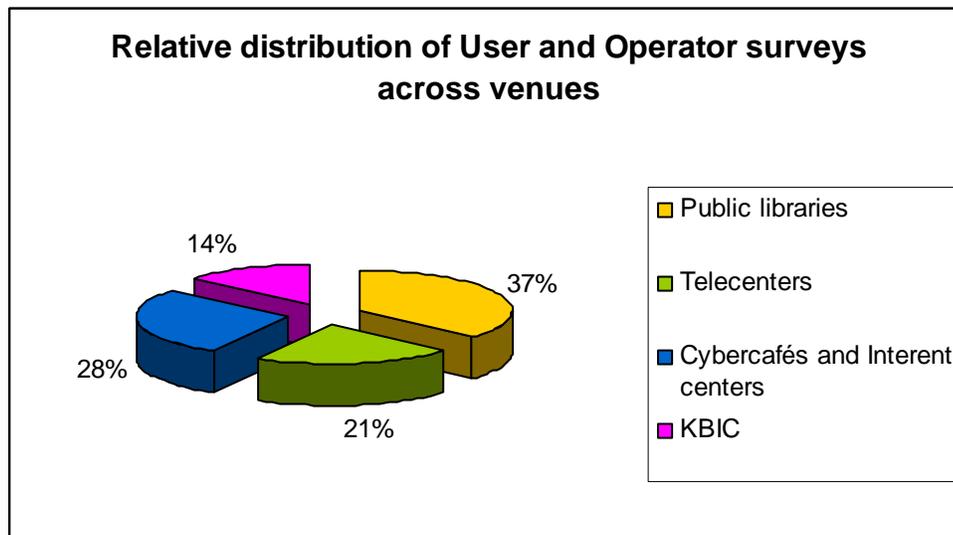
Survey description & comments:

Surveys were conducted by the research team over a three week period in both rural and urban areas of Mongolia. The locations were selected as suggested by the University of Washington's research mandate for User surveys and Operators interviews, as well as in order to encompass geographic and linguistic diversity, areas in which the specific venues operate, and relevant socio-economic variables such as distance from Ulaanbaatar, remoteness, and poverty levels. The locations selected for user and operator surveys included:

> Ulaanbaatar City
>
> Khovd aimag - Khovd aimag center, Jargalant soum and Myangad soum
>
> Selenge aimag - Eroo soum
>
> Tuv aimag - Zuunmod soum (aimag center)

KBIC are only located in rural soums and therefore no interviews were conducted in urban areas. Data was gathered from two sites only as the soums in which the KBIC centers are located have been selected because they are remote and therefore difficult for the research team to reach.

The research team met with operators and venue users in order to gather data. Venue users were selected at random at the selected venue and approached by the researcher. The researcher conducted the interview orally, noting the responses of the informant in a survey tool. All tools were coded, and then entered into an Excel database. The survey tool employed was supplied by the University of Washington. The survey tool was adapted for Mongolia with the removal of questions relating to caste, as this variable is not relevant. However, the question pertaining to ethnicity was retained as there are a number of small ethnic groups in Mongolia with their own languages, and this impacts on access to information.

The research team worked with available budget. The team traveled over 2,200 kilometers across rough terrain to gather the data that has been collected. Mongolia is a vast country with minimal infrastructure, including a lack of paved roads outside Ulaanbaatar, and wide distances that need to be covered between settlements such as soums and aimag centers, where the venues are located. These factors prevented the research team from meeting the suggested three urban and three non-urban locations for each venue.

The researchers encountered resistance in respondents, to the provision of information. This is not uncommon in post Soviet contexts, especially amongst older segments of the population, where mistrust and fear of questions is an extended legacy. This resulted in a greater number of younger respondents.

2.3.6   Most Useful Contacts

List here some of the most knowledgeable and useful contacts that can provide additional information and insight, in case someone else wants to gather additional information about this topic in the country.

- **Nyamkhuu** Tsodol

    Director General of Policy and Planning Department ICT Authority.

    nyamkhuu@icta.gov.mn

- **Bayraa** Bat-Erdene

    Officer - Department of Culture at the Ministry of Education, Culture and Science in charge of libraries

    bayaraa@mecs.pmis.gov.mn

- **Baljid** Dashdeleg

    Open Society Forum (OSF) Information Resource Manager.

    baljid@forum.mn

    Tel: +976 11 313 207

- **Amarjargal** Zina

    World Vision International (WV), Mongolia - Program Officer for Child Right's and Advocacy.

    amarjargal@wvi.org

- **Begzsuren** Jamsranjav

    Department Head of Computer Programming at Ulaanbaatar City Library.

- **Ariunaa** Lkhagvasuren

    General Director of InTeC Co. ltd, independent consultant.

    ariunaa@itconsulting.mn

- **Enkhjarga**l Sukhbaatar

    Executive Director.

    MIDAS/MONITA NGO

    secretary@ict.mn

- **Akim** Gotov

    National State Library Director.

- **Altangerel** Bayar

    General director, Mongol Content LLC.

- **Gan-Erdene** Baljinnyam.

    Director of IT Department of Mongol Shuudan Ltd.

    info@mongolpost.mn

- **Batsaikhan** Dima

    Deputy Director of Rural Business Development Department of Khan Bank Mongolia

    Batsaikhan_d@khanbank.com

2.4   Research Trustworthiness & Credibility

2-3 paragraphs

Describe any steps you took to minimize your own bias in conducting this study, and to increase the credibility and trustworthiness of the results you are presenting.

The Pact research team used the research design document as well as the surveys received from the University of Washington to create the tools required to collect data. Identical tools were utilized for interviews conducted in specific sectors and all user and operator survey informants received identical questions. All data was entered into an excel database.

Pact also took steps to ensure that all interviewees were well briefed on the objective of the research and understood that participation would not result in any financial gain.

2.4.1   Research Limitations

Describe important limitations you encountered in conducting this research, and limitations in drawing generalizations or broader conclusions based on the findings you report.

Information is not a commodity freely shared in Mongolia. Much of this is a throwback to the Soviet period when information was a source of power and people feared the potential repercussions that accompanied opinions. Concurrent to this was the reluctance of some national research team members to ask questions they felt were too invasive, or were sure

they would not get an answer to.

Many interviewees were unable to conceptualize basic responses including being willing to estimate numbers of users at venues. This left the research team unable to quantify usage by clients, and proxy indicators that may answer this question could not be found.

Budgetary constraints limited travel to a proportionate number of KBICs. These centers re located in remote soums. The result is that three out of thirteen venues were visited (23% of total KBICs). Interviews were conducted with management in Ulaanbaatar. Suspected researchers generalizations were checked for validity.

User surveys were collected during the start of the summer holiday period when there are less library users and many residents leave the cities, aimag and soum centers for the countryside, to enjoy the warm weather.

As data was being finalized for submission, a question arose regarding the definition of 'no answer' as recorded in the user survey coding sheet, question 8. The data collection team noted that they recorded answers which included "I have no answer to this question' as well as 'I do not use any other venues' under 'no answer'. The exact number of participants replying 'I have no answer to this question' and 'I do not use any other venues' thus cannot be determined.

2.4.2 Team Qualifications

1 paragraph

Description of the research team and its qualifications to undertake this study.

Led by Tracey Naughton, the Pact Mongolia research team has a broad research background that spans Mongolia, Central Asia, Europe and Africa.

Tracey Naughton is an information and communications specialist with over twenty years of experience across Africa and Asia. Her foundation interest is in technology and the content it carries as a means of fostering democratic participation, communication and development. She has been a media producer and policy advocate for over twenty-five years. Tracey played a lead role in the United Nations World Summit on the Information Society (WSIS) and chaired the WSIS Media Caucus and the Civil Society Bureau. She currently works as the country director at Pact Mongolia.

Ondine Ullman has lived and worked in Mongolia for over 6 years and is an educational specialist who has worked in rural areas, developing educational standards. Ondine leads the Pact Mongolia monitoring and evaluation program.

Lkhamaa Hishigt, a program coordinator at Pact Mongolia, has may years of research experience in government and industry in Mongolia and Russia.

Chimgee Batmunkh has worked in development for almost a decade. Her experience is working at grassroots level, in data collection from underserved and marginalized segments of the population, and in initiating and leading data collection processes. She is a

program coordinator at Pact Mongolia.

Other researchers and research assistants involved in this project include:

- Ariunaa Lkhavagsuren (researcher - ICT specialist)

- Zambaga Enkhbaatar (research assistant)

- Undarmaa Khash-Erdene (research assistant)

Research assistant collecting user surveys, telecenter, Khovd Aimag

3   Country Assessment

3.1   Overall Country Assessment

Provide a broad picture of the public access information landscape in the country, informed by the results of this research. In 2-3 paragraphs, what is your overall assessment of public access information venues in this country?

Mongolia has a consistent library infrastructure, with a library in every soum, aimag capital and city. However, the libraries are in need of structural repair and updated materials. According to Bayraa, Officer in charge of libraries at the Department of Culture at the Ministry of Education, Culture and Science, only four libraries, or 1%, of the 326 libraries in the rural areas offer any ICT services to their users.   Users report that the libraries are increasingly unable to meet their information needs and that they are turning to other information sources, such as the Internet, if available.

There are a number of Internet centers and cybercafés in urban areas. However, there are relatively few such venues outside of the four largest cities in Mongolia -Ulaanbaatar, Darkhan, Erdenet and Choibalsan. The peri-urban areas of Ulaanbaatar, known as ger districts are home to approximately 600,000 people. This area has very few Internet centers and cybercafés and residents need to travel into the center of Ulaanbaatar to access digital information.   In certain aimag centers, such as Hentii and Bayankhongor, there is one cybercafé that serves a local population of over 15,000 people and an aimag population of over 70,000 people.

There are four free public Internet access points in Mongolia. Three of these are found in the two largest cities in the country. The locations of these free public access Internet points are illustrated in the map that follows.

FREE PUBLIC ACCESS INTERNET POINTS
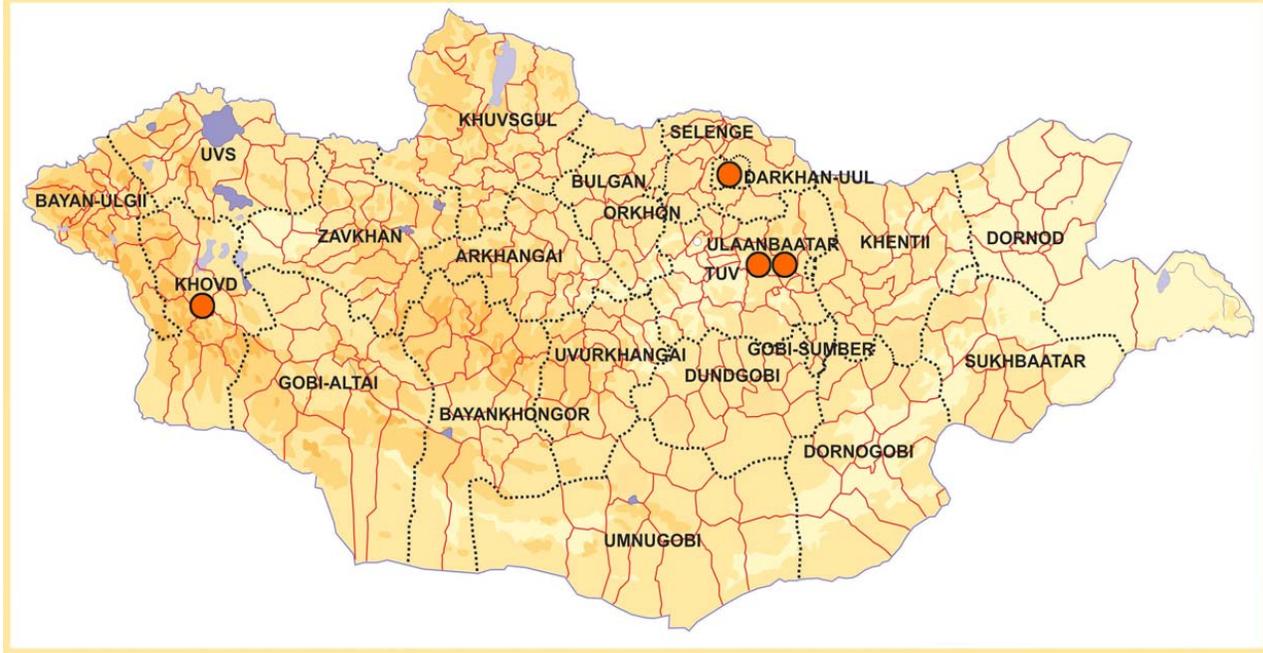
Distance from settlements places herding and nomadic families at a disadvantage with regards to access to information, especially digital information. Very often the infrastructure to support digital dissemination of information is weak in the most remote areas, and the herding population does not have a high level of technological communication literacy. Moreover, a number of rural households do not have electricity at all, or only for a few hours per day, as can be generated.

Low income earners and people living below the poverty line cannot afford to access information through information access points that levy charges, such as Internet cafes. The costs associated with mobile phones are often prohibitive to low income earners and they seldom have fixed land lines.

 Older generations lack general computer skills and, in particular, Internet skills. There are limited computer skills training courses available to the public, including free of charge training courses.

3.2   Real Access Framework

Summarize the key findings and your assessment of each dimension in the Real Access framework used in this study. You will provide more details later.

3.2.1   Access

2 – 3 Paragraphs:
What is your overall assessment of ACCESS ecosystem in the country (physical access, appropriate technology, affordability)?

34

Mongolia is a very large country that is very sparsely populated.   This means that access to information for rural residents and nomadic herding families is a challenge. There are very few public access Internet venues available in rural areas, although roll out of the network backbone is underway and all soums are expected to be connected by the end of 2009.

Currently, however, there are only 20 soums (6%) with public access Internet points. Thirteen of these soums have KBICs. The other seven centers, located in four different soums, have private Internet cafes. Three of the four soums are located along the railway line and access the services of the railway ISP. The other soum, Kharkhorin, is the largest soum in the country and a popular tourist destination. Rural residents need to contend with, financial issues, dirt tracks instead of roads, extreme weather conditions and huge distances in order to reach the soum centers. This journey is made infrequently.

Two mobile phone service providers, G-Mobile and Skytel, also offer mobile Internet services for areas in which they offer coverage. G-Mobile is Mongolia's newest entrant to the mobile market. Operational since April 2007, the company has a mandate to provide ubiquitous coverage to the rural areas. The portable modem, which looks like a mobile phone, can be connected to a computer for instant Internet access. Costs vary between 20,000 MNT and 55, 000MNT (17.24 USD - 47.40 USD) per month, depending on the number of gigabytes in the service package.

 While the availability of this technology provides the potential for remote and rural herding families to access the Internet, this would require herders to have a computer and electricity source. Compact hardware such as a laptop is most suited to the compact confines of a ger and nomadic lifestyle. Laptop computers are expensive in Mongolia, but making them widely available to the herders and providing adequate training and technical advice such as protecting the machinery against the cold, would go far to bring this segment of the population into the information society.

There is little concession made to disability in Mongolia. The two sets of computer equipment available for public use for visually disabled users are located in Ulaanbaatar. One of these venues reports that the equipment is currently out of order. Clients with mobility issues need to contend with stairs, lack of wheelchair access and maneuverability, and extremely slippery marble paving in the snowy winters.

There is a lack of multi-platform media and creative thinking on cross media opportunity. Pact is one of the only organizations that produce multi-platform media, with a suite of programs that covers radio, television, print and mobile mediums. This assists in reinforcing the information, providing the users with the option to select the platform that is most convenient to them, and also provides different cost access - ranging from free radio broadcasts to the cost per message SMS service.

2 – 3 Paragraphs: What is your overall assessment of CAPACITY ecosystem in the country (human capacity, locally relevant content, integration into daily routines, socio-cultural factors, trust in technology, social appropriation of technology)?

Research has highlighted the low levels of user computer literacy and capacity, especially amongst residents in the per-urban and rural areas, and older users. Concurrently, the level of technical ability and skills amongst venue operators remains relatively low and means that users are often unable to receive the support they need. This includes Internet access venues as well as in libraries offering digital services.

There is a lack of Mongolian content and knowledge sites available on the Internet. While Internet users are able to access news sites in Mongolia, they struggle to find Mongolian language websites that provide solutions to their information needs. Many users interviewed said that they were unsure of where to look on the Internet and that they were not aware of the Mongolian Language websites that do exist.

The Internet is providing an affordable communication medium for Mongolians. Many have become reliant on public access venues such as cybercafés and Internet centers for communication with friends and family across the country and in the large diaspora abroad. Many Mongolians are turning to the Internet as a prime tool for long distance communication, including connecting with people in Ulaanbaatar, sometimes a four day car journey away.

Internet Center in Eroo Soum

There are only four free public access Internet sites in Mongolia, and these are based in Ulaanbaatar and Darkhan, the two largest cities. All other venues levy a fee for users and this prohibits some people from accessing the Internet on a daily or very regular basis. Some users have begun to utilize the Internet, accessed in multiple venues, to assist in income generation activity, such as cosmetics sales and placing orders. Others utilize resources available on the Internet for professional development, such as teachers and entrepreneurs. A number of users view the Internet as an academic extension tool and source learning materials from the web as well as information about course and study opportunities at tertiary institutions. Long distance learners at universities access course materials on the Internet and this is saves them having to come to Ulaanbaatar - a financial and time benefit.

Trust in technology has not yet emerged as an issue in this developing information society. However, operators at venues offering Internet access do bemoan the constant incursion of computer viruses.

3.2.3   Environment

2 – 3 Paragraphs:
What is your overall assessment of the ENVIRONMENT ecosystem in the country (local economy, national economy, legal and regulatory framework, political will & public support, regional and international context)?

The rapid growth of mobile phones in Mongolia is testament to the ease with which Mongolian's interact with and absorb new technology, as well as the need for improved communications and information supply mechanisms. This, coupled with high literacy rates, points at high user levels of digital technology when a framework that supports physical access and capacity development is in place.

Mongolia has the highest inflation rate in Asia, and the cost of living continues to increase. Soaring costs and reduced spending ability means that many users have less funds available to pay for the fees levied by venues such as libraries, telecenters and Internet cafes.

The ICTA, chaired by the Prime Minister, was established in 2004 and acts as a coordination and support mechanism for ICT related initiatives. Mongolia has developed policy documents that map the strategic vision of the Government for the development of the ICT sector in the country. These include the 'Concept of Information and Communications Development in Mongolia by 2010', and the subsequent 'Medium term strategy to develop the Information and Communications technology sector in Mongolia'. The latter paper was developed in order to implement the objectives laid out in the 'Concept of Information and Communications Development in Mongolia by 2010' document. Other initiatives include the 'E-Mongolia' and 'E-Government' programs.

According to the ICTA, soum centers will begin to connect to the Internet by the end of 2008, and all soums will be online by the end of 2009. Facilitated by the development of the backbone structure, soum connectivity will theoretically allow the majority of Mongolia's resident's access to the Internet.   However, the lack of physical infrastructure needed to support this access and the technical capacity of users is inadequate.

3.3   Information Needs of Underserved Communities

Describe the specific information needs experienced by underserved populations, based on the results of your research. Who could benefit from better public access to information? This could relate to e-government services, health or agriculture information, job training, employment search, among many others. Include reference to the key inequity variables in your country.

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

(ii)   Indicate the sources of data for this assessment

A prominent theme that emerged from the data collected was the need for educational content and additional information to complement text books and other academic materials. Specifics included skill diversification and retraining, free online language training, legal education,

education program updates, health education and general educational and vocational training. Essential to this also, is computer skills training. Bearing in mind the impact of the transition from a centrally planned economy that offered guaranteed employment and a steady income to a market economy, it is to be expected that the need for information about skills and business training, such as business plan development, marketing skills, best business practices, and partnering and networking opportunities have been identified by interviewees as a priority.

Rural populations are challenged in accessing up to date printed information and are reliant on electronic mediums, such as radio, television, and, increasingly the Internet, to access timely and current news.   There are a number of Mongolian language news sites that allow Internet users to access daily information. Although e-Government services and portals exist, many of the users interviewed in the course of this research did not identify Government services as information they seek from the venues studied. Less than 8% of users across the venues searched for Government related information, with the highest proportion in telecenters, specifically telecenters in urban areas. Rural residents may be unaware of the services offered or how to access the government sites.

 Along with e-government services, the populations would benefit from legal information and updates, human rights and gender issue information, civil society forums and impartial news reporting. However, it is essential that this information be available in Mongolian and therefore accessible to all of the population.

With regards to the herding and rural business community, weather updates, forage forecasts, herding and business capacity building, basic business skills and market price information and trends would help to stimulate rural business opportunities, empower herders to sell their commodities and livestock for fair prices, and plan activities such as pasture moves and hay purchases. Also, information would help herders to prepare for and mitigate during natural disasters. Other information that would benefit the disadvantaged groups mentioned, as well as the population at large, would be e-banking service, market and commodity price services, daily news, and current affairs.

Given that many of the ger district residents are displaced, in search of income, in need of skills retraining, information regarding job opportunities, and may be unaware of their civil and legal rights, providing free access points and computer skills training would empower a number of these residents through knowledge gain and access to information

> *Source: Interviews conducted with users in urban and rural areas, focus group feedback gathered in urban and rural areas, interviews with thought leaders and actors in the local ICT field, desk research and experiential knowledge from Pact's work in the development sector.*

3.3.1   Where is Information Available?

4.2b) What are the current sources for this kind of information in the country? Are these sources adequate (current, appropriate to the population, etc.) In sum, does the locally-relevant content exist?

> (i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.
>
> (ii)   Indicate the sources of data for this assessment

At soum level, a primary source of information remains word of mouth. For generations, Mongolians have received their information through radio, television and print media, and they continue to receive the bulk of their information in this way. There are 175 periodical newspapers in Mongolia, of which five are daily, twenty-eight weekly and four biweekly. Fifteen of these are published in foreign languages. Approximately sixty percent of people rely on newspapers as their primary information source; thirty percent receive necessary information from the radio, and twenty percent watch television. Thirty-three newspapers have their own websites, and eight online newspapers without print equivalents, are published ('Newspapers and Magazines', 2006).

International organizations, such as World Vision International Mongolia, Mercy Corps and CHF offer training courses to rural residents. These are usually at aimag center level, therefore inaccessible to soum residents, although World Vision International Mongolia has established learning centers in a number of soums throughout the country. The learning centers provide long distance education materials to marginalized young herders through print, games, radio and audio-visual materials. Pact Mongolia produced these materials.

Pact Mongolia, together with Mercy Corps, implements a mobile phone market price information service that provides factual, immediately available current commodity price information to herders and rural business entrepreneurs across the country. This service is administered by MobiMedia, a content provider and daughter company of MobiCom, the largest mobile phone provider in the country. MobiMedia also offers health advice, news updates, weather information, entertainment news, and other information services to their subscribers. These services are more expensive than standard text messaging costs, and may not be affordable to all users.

Television is becoming increasingly popular, although soum residents are unable to access as many channels as aimag center or urban viewers. A growing number of rural television viewers are buying satellite dishes. This enables them to receive more Mongolian language stations.

There remains a lack of Mongolian language websites that contain substantial knowledge, and the Internet remains inaccessible to the majority of rural residents.

> **Source**: *Interviews conducted with users in urban and rural areas, focus group feedback gathered in urban and rural areas, interviews with thought leaders and actors in the local ICT field, desk research and experiential knowledge from Pact's work in the development sector.*

3.3.2   What are some of the Key Barriers to Access the Information that Underserved Communities Need?

Are the people who could benefit from this information getting access to it? Why or why not? (E.g. content exists but not in the right language, print media exists but has not been distributed appropriately, digital media is available but people do not have access points, etc.)

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone

Mongolia is a very large country with very little infrastructure. All national newspapers are printed in Ulaanbaatar, as are many local aimag publications. This makes nationwide dissemination of printed information, especially time-sensitive information, very difficult. For instance, a daily newspaper subscribed to by a resident of Bulgan soum in Bayan-Ulgii aimag, 1,982 kilometers from Ulaanbaatar, will take approximately ten days to reach the local post office, and the subscribers post office box.

All the main daily Mongolian newspapers have portals that allow online access to their materials as well as daily updates of the news. Other Mongolian language websites report the news, but are not necessarily affiliated to any particular newspaper, make use of existing reported materials and publish these with accreditation. There are no digital news services which report independently of the existing print media.

Given the problems surrounding the timely distribution of printed information, as well as the increasing costs for publishers, digital information that could be accessed via the Internet or by cell phone would allow the population quicker access to information and eliminate delivery costs such as human resources, fuel and transport. Supporting this, however, would need to be the development of user and operator training for the local populations, which is currently lacking. Users surveyed identified the lack of training as a major obstacle in accessing information.

Printed materials, as well as radio and television programming in Kazakh and other ethnic group languages are seldom produced in Mongolia. Pact Mongolia, under a project funded by

A typical soum post office

World Vision International, designed and implemented long distance learning materials for marginalized young herders who have not completed their education. Two of the aimags received the materials in Mongolian, and the third aimag, Bayan-Ulgii, received all materials in Kazakh. Feedback received from Bayan-Ulgii indicated that the materials, although produced for a teenage audience, were being read by residents as old as seventy-six. Residents explained that there was nothing else published in their language which provided necessary information, and up to date information, reaffirming the lack of Kazakh language printed and electronic materials.

There are four free public access Internet points. Three of these are telecenters. Two are located in Ulaanbaatar, one is in Darkhan city and one is in Khovd aimag center. In Ulaanbaatar, the free

access Internet points are located at the Open Society Forum's DIRC centre and at the Metropolitan Library. In Darkhan and Khovd, the free internet access points are located in the public libraries.   Internet access is expensive for lower-income users. For members of the public who cannot afford the costs levied by Internet and cyber cafés to use the web or simply to work on a computer, access to information via the Internet and other digital networks is not possible.

Those who are able to access the Internet, there is a lack of sites in Mongolian for building knowledge. Throughout the venues, 13% of users surveyed felt that the lack of content posed a barrier to accessing information, with an additional 13% stating that the content that is available is not in the right language, therefore are unable to access information.

> **Source**: *Interviews conducted with users in urban and rural areas, focus group feedback gathered in urban and rural areas, interviews with thought leaders and actors in the local ICT field, desk research and experiential knowledge from Pact's work in the development sector.*

3.3.3   How do users experience different types of public access venues?

Based on responses to the open question in user surveys, how do users experience different types of public access venues? Are there any trends or preferences for kinds of information, services or activities in one type of venue over another?

Public Libraries:

Just over one quarter of public library users report that they also visit a cybercafé or Internet center in order to access additional information. Although cybercafés and Internet centers are a popular choice of venue, the library users felt that the operators were less friendly and less technically competent than their local librarians. The environment was 'noisy and chaotic', and the centers were more expensive than the library. Libraries were seen by many as a place to develop knowledge and learning.

The majority of public library users reported that the main reason they visit the library is to access reference information and reading materials.

User feedback included:

'If I fail to find the information I need in the library, I go to the Internet center.'

Khovd, Khovd aimag

'I am a student. I spend most of my time in the library. The library helps people to learn and develop their intelligence.'

National Library, Ulaanbaatar

'Libraries need to be cleaner and more comfortable for us to use.'

Eroo soum. Selenge Khovd aimag

'The post office Internet café is good. But the staff aren't very competent.'

Khovd, Khovd aimag

<u>Telecenters:</u>

Telecenter users who access a local cybercafé or Internet center report that they find these to be less comfortable and more crowded. Libraries were seen to be colder and have a poorer selection of content. Three quarters of telecenter users in urban areas tend to use the venues to browse the web in search of information, with a high proportion in the nonurban areas using the venues to communicate via chat and e-mail. Overall, telecenter users report that the telecenters are more comfortable to work in and therefore conducive to productivity.

Telecenter located in the MFOS building in Ulaanbaatar

User feedback included:

'This Soros center provides us with good information.'

DIRC, Ulaanbaatar

'I search for educational information. It's easier to find it here.'

Khovd, Khovd aimag

'It's hard to sit for too long in the library in winter. It's too cold and uncomfortable, and the book supply is poor. The telecenter is more comfortable and easier to work in'

Khovd, Khovd aimag

'There is a time limit at the telecenter. One person can only access the Internet three times per week for about 90 minutes at a time. Although this is free, this is too little time. The Internet café at the post office is not free, there are so many people and although there are 8 computers, only a few actually work.'

Khovd, Khovd aimag

'Lots of students come here for information.'

Zuunmod, Tuv aimag

Cybercafés and Internet centers:

Twenty percent of cybercafé and Internet center users reported accessing their local public library as an alternative information venue. These users felt that public libraries have less content available and less up-to-date information. Many reported that the cybercafés and Internet centers are often crowded, uncomfortable, under equipped, and that operators are often unfriendly and unable to help them.

User feedback included:

'Internet [access] fees should be reduced.'

Commercial cybercafé, Ulaanbaatar

'It is too crowded. Computers often have viruses.'

Commercial cybercafé, Ulaanbaatar

'Some Internet cafes are really bad. The service and connection speed is slow, there is minimal ventilation and they are very noisy.'

Commercial cybercafé, Ulaanbaatar

'On weekends, the center cannot cope with the influx of people. There is a long line and we have to wait very long for our turn. Computers need to be upgraded and equipment, such as webcams, need to be bought.'

Commercial cybercafé, Zuunmod, Tuv aimag

KBICs:

Generally users at the KBICs access the public library for additional information as there is usually not any other venue in their soum. Soum libraries were identified as having out of date information and slower arrival of new information, and a poorer information pool for users to draw from. Many users said that the working hours of the centers are not conducive to access.

User feedback included:

'A larger, better equipped room would help to expand Internet services at local level.'

KBIC, Khongor soum, Darkhan-Uul aimag

Because of the KBIC, I can get information whenever I want it. Before, if I missed the news on the TV, that information was lost to me. Now this has changed.'

KBIC, Khongor soum, Darkhan-Uul aimag

'The newspapers arrive in out soum very late, and the Internet allows us to get the news on time, or to look up the news that we have missed.'

KBIC, Myangad soum, Khovd aimag

3.3.4 Inequity Environment in the Country

2-3 paragraphs

What does inequity look like in the country? Using the inequity variables described in section 2.2, provide a short overview of the main underserved groups, regions and/or other locally-appropriate segments of the population.

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

Disadvantaged groups exist in both the rural and urban areas of Mongolia. Rural residents, especially those that herd, are often hardest hit by natural disasters, such as zuds. Severe zuds in recent years have resulted in many herding families losing their entire herds and source of income. Zuds often claim lives. A zud is a Mongolian term for the extreme conditions which exist after a hot summer is followed by a cold winter.

Herding families affected by natural disasters or economic losses also move to aimag or soum centers. However, they are often unemployable as their skills and knowledge set lies in herding. People are then faced with the dilemma of not wanting to return to herding but unable to find employment in the settlements. This influx to larger urban areas, and in particular to Ulaanbaatar, has also been driven by the lack of economic opportunities in the rural areas, students entering tertiary education institutes, and the search for jobs by rural residents. As a result of this mass internal migration, ger districts have rapidly grown in size and number.

Many of those who come to Ulaanbaatar and other cities live in peri-urban ger districts with underdeveloped infrastructure, no proper sanitation, no running water and inadequate electricity. They are often unregistered and thus have no access to health or social benefits. Ger district residents are often economically disadvantaged, living below the poverty line, and at risk because of lack of information. Due to their peripheral location on the outskirts of the city, ger districts are very often excluded from information campaigns that occur in Ulaanbaatar.

The growing ger districts steadily creep up the hills surrounding Ulaanbaatar

Economic factors have also driven many Mongolians into the small sale informal gold mining sector. Settlements have rapidly developed around gold sites, and 100,000 miners work in hazardous and often damaging conditions. It is estimated that for every one   miner, there are four people reliant on the income generated. The settlements that have sprung up are often comprised of gers or haphazardly constructed buildings, and typically there is no sanitation, running water or electricity. Until recently, artisanal mining was not legal, and although the status has been changed and is now a taxable profession that allows access to social services, there is still great

stigma attached to the job.

The infrastructure situation has improved steadily over the last few years. The electricity network has been expanded to provide electricity to rural areas. Although not all the soums currently have access to the centralized electricity network, the government plans to have all soums connected by the end of 2010. However, in the background is an old central infrastructure in need of repair and an energy crisis.

Under the socialist system, education was free. All soum centers had schools with boarding facilities, as did the universities, vocational schools and technical colleges in Ulaanbaatar and aimag centers. There were no costs for pupils who required dormitory accommodation. The result of these measures was a fully literate population.

Following the transition from socialism in 1990, literacy rates began to drop. During the school year of 1992-1993, over thirty thousand children dropped out of, or were removed from schools. Boys accounted for more than seventy percent of this total (Yembuu and Munkh-Erdene, 2005). The driving factor behind this was the need for children from herding families to help their parents look after newly privatized livestock. This phenomenon has resulted in a 'lost generation' of semi or neo literate Mongolians. Increasing costs associated with education mean that children are not able to access schools if they live in remote areas, and their families cannot afford the boarding fees.

There are very few facilities in Mongolia that cater to disability of any kind. Wheelchair ramps are very rare, while stairs are common and often extremely slippery in the snow and ice. Elevators are often only found in more modern buildings. There are no lifts in the National Central Library or National University, even though each of these institutions is several floors high.

> (i)If appropriate, indicate any specifics that apply to Digital ICT services alone.

IT training at school level is often inadequate. Teachers are not fully trained and computer laboratories are often not accessible to students, or properly equipped. This results in students with limited computer capacity and skills. This is trend is more dominant in the rural areas than in Ulaanbaatar.

Distance from settled areas places herding and nomadic families at a disadvantage with regards to access to information, especially digital information. Very often the infrastructure to support digital dissemination of information is weak in the most remote areas, and the herding population does not have a high level of technological communication literacy. Moreover, a number of rural households do not have electricity at all, only for a few hours per day, or as can be generated.

Low income earners and people living below the poverty line cannot afford to access information through information access points that levy charges, such as Internet cafes. The costs associated with mobile phones are often prohibitive to low income earners, and they very seldom have fixed land lines.

The lack of infrastructure coupled with a lack of awareness about the possibilities and potential of digital ICT services in informal settlements such as those created by small-scale miners means that many of the miners and their families may find themselves unable to access information that

impacts on their lives as citizens, and further isolates an already stigmatized population.

According to a number of interview sources, Internet became accessible to the broader public in Mongolia between 1996 and 1997. Older generations lack the general computer skills and, in particular, Internet skills.

3.3.5 Freedom of Press and Expression & Right to Information

What is the overall perception of freedom of press, censorship & right to information in this country?

Mongolia has been one of the most stable democracies in Asia. However, there are issues regarding freedom of the press and impartiality of media, with ownership issues paramount in limiting pluralism, diversity and freedom of expression. The government has recognized the importance of ICT and is committed to its development in Mongolia. This is evidenced through the establishment of the ICTA, approval and implementation of E-Mongolia Master Plan and recent establishment of National Committee on Integrated Registration System, chaired by Prime Minister.

The ownership of media entities by political parties, groups and individuals is relatively transparent in Mongolia and known to the general public. Of all the information sources interviewed, only one responded that they were happy with the current state of the media in the country. Of the remaining responses, fifty-six percent indicated that the media was 'controlled' by 'monopolies', 'wealthy people' and or 'political parties'.Those interviewed who felt that the media was not entirely free were clear in defining political and financial affiliation as the cause. Many respondents indicated that the media was a for-profit entity that did not give a voice to marginalized and vulnerable groups as these groups could not contribute to the financial gain of the organizations.

The MRPR building, torched during violent protests

following the general election

The existing perception of the media is that its voice is defined by political affiliation and ownership, but it is not censored per se. Rather, the direction and content of the media entity is driven by ownership.

During the state of emergency imposed in Mongolia following violent uprisings after the protests staged following the general election in June 2008, the state banned all independent television stations from broadcasting for five days. The only station allowed to broadcast was the state broadcaster. This was a chilling event for the freedom of expression campaigners in Mongolia.

3.4   Charts: Information Needs, Users & Uses

Based on the results of your research (especially user surveys and interviews with librarians and operators), complete the required data to chart the information needs of underserved communities using the following examples. Provide any explanatory comments as needed.

3.4.1.1 Users, by type of venue

Users profile (estimated proportion of users in each category, %)		Public Libraries				Telecenters				Cybercafés				KBIC			
		Urban		Non-urban		Urban		Non-urban		Urban		Non-urban		Urban		Non-urban	
		General use	ICT use	General use	ICT use	General use	ICT use	ICT use	General use	General use	ICT use	General use	ICT use	General use	ICT use	General use	ICT use
Gender	Male	31%	45%	31%	34%	0%	48%	36%	0%	0%	43%	0%	42%	N/A	N/A	0%	34%
	Female	69%	55%	69%	66%	0%	52%	64%	0%	0%	57%	0%	58%	N/A	N/A	0%	66%
Age	14 and under	0%	0%	7.5%	7.5%	0%	0%	5%	0%	0%	7.5%	0%	2.5%	N/A	N/A	0%	0%
	15-35	0%	83.7%	50%	50%	0%	55%	65%	0%	0%	90%	0%	85%	N/A	N/A	0%	75%
	36-60	0%	13.5%	42.5%	42.5%	0%	45%	30%	0%	0%	2.5%	0%	10%	N/A	N/A	0%	22.5%
	61 and over	0%	2.8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2.5%	N/A	N/A	0%	2.5%
Education level	No formal education	0%	0%	2.5%	0%	0%	0%	0%	0%	0%	5%	0%	5%	N/A	N/A	0%	1%
	Only elementary	0%	6%	48%	46.5%	0%	0%	13%	0%	0%	30%	0%	20%	N/A	N/A	0%	29%
	Up to high school	0%	71%	12.5%	40%	0%	0%	47%	0%	0%	35%	0%	35%	N/A	N/A	0%	35%
	College or university	0%	23%	37%	13.5%	0%	100%	40%	0%	0%	30%	0%	40%	N/A	N/A	0%	35%
Income bracket (approx)	High	0%	10%	15%	9%	0%	70%	5%	0%	0%	10%	0%	20%	N/A	N/A	0%	10%
	Medium	0%	17%	58%	38.5%	0%	30%	60%	0%	0%	45%	0%	48%	N/A	N/A	0%	50%
	Low	0%	0%	27%	23%	0%	0%	35%	0%	0%	45%	0%	32%	N/A	N/A	0%	40%
	Student	0	0%	0%	29.5	0%	0%	0%	0%	0%	0%	0%	0%	N/A	N/A	0%	0%
Social status (approx)	High	0%	2%	0%	10%	0%	10%	10%	0%	0%	5%	0%	2.5%	N/A	N/A	0%	0%
	Medium	0%	83%	57%	70%	0%	65%	65%	0%	0%	75%	0%	62.5%	N/A	N/A	0%	90%
	Low	0%	2.5%	33%	0%	0%	0%	0%	0%	0%	0%	0%	10%	N/A	N/A	0%	2.5%

	No Answer	0%	12.5%	10%	20%	0%	25%	25%	0%	0%	20%	0%	25%	N/A	N/A	0%	7.5%
Caste (if appropriate)	Dominant	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A%
	other	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A%
Ethnicity (if appropriate)	Dominant - Khalkh	0%	50%	43	7%	0%	95%	70%	0%	0%	95%	0%	70%	N/A	N/A	0%	48%
	Kazakh	0%	0%	0%	100%	0%	0%	10%	0%	0%	5%	0%	5%	N/A	N/A	0%	2.5%
	Uuld	0%	0%	0%	100%	0%	0%	7.5%	0%	0%	0%	0%	12.5%	N/A	N/A	0%	0%
	Uriankhai	0%	0%	0%	100%	0%	0%	2.5%	0%	0%	0%	0%	7.5%	N/A	N/A	0%	12%
	Bayad	0%	0%	0%	0%	0%	0%	2.5%	0%	0%	0%	0%	5%	N/A	N/A	0%	0%
	Buriad	0%	33%	66%	0%	0%	5%	0%	0%	0%	0%	0%	0%	N/A	N/A	0%	0%
	Durvud	0%	0%	66%	33%	0%	0%	2.5%	0%	0%	0%	0%	0%	N/A	N/A	0%	5%
	Zanchin	0%	0%	22%	78%	0%	0%	2.5%	0%	0%	0%	0%	0%	N/A	N/A	0%	2.5%
	Myangad	0%	0%	0%	0%	0%	0%	2.5%	0%	0%	0%	0%	0%	N/A	N/A	0%	30%

Source: User and operator survey data collected by the research team with venue users and operators in selected sites and locations.

Comments, including comments on other inequity variables.

'Urban' includes locations found in Ulaanbaatar, Darkhan or Erdenet, 'rural' includes all areas outside of Ulaanbaatar excluding Erdenet and Darkhan

Data received from both the users and operators surveys regarding gender have been blended and the aggregate has been included in the table above

General use refers to locations that do not offer ICT services

ICT use refers to venues that offer ICT services, and does not include the numbers found under the 'general use' column

Student has been added under public libraries as many library operators were unable to differentiate the socio-economic groups of students, which comprise one of the largest groups of user.

3.4.1.2 Information People Seek, by type of venue

(estimated proportion in each category, %)	Public Libraries				Telecenters				Cybercafés				KBIC			
	Urban		Non-urban		Urban		Non-urban		Urban		Non-urban		Urban		Non-urban	
	General use	ICT use	General use	ICT use	General use	ICT use	ICT use	General use	General use	ICT use	General use	ICT use	General use	ICT use	General use	ICT use
Education	0%	58%	18%	41%	0%	17.5%	39%	0%	0%	19.5%	0%	18%	n/a	n/a	0%	30%
Health	0%	5%	4%	9.5%	0%	8%	9%	0%	0%	2%	0%	6%	n/a	n/a	0%	9.5%
Agriculture	0%	2%	2%	1.5%	0%	5%	4%	0%	0%	0.5%	0%	2.5%	n/a	n/a	0%	5%
Government services	0%	2.5%	7.5%	8%	0%	15.5%	9%	0%	0%	8%	0%	9.5%	n/a	n/a	0%	4%
Entertainment	0%	7.5%	22%	12%	0%	6%	17%	0%	0%	29.%	0%	27%	n/a	n/a	0%	18%
News	0%	11.5%	8%	17%	0%	9%	15%	0%	0%	11.5%	0%	11%	n/a	n/a	0%	17.5%
Personal	0%	9%	5.5%	7.5%	0%	17.5%	4.5%	0%	0%	29%	0%	23.5%	n/a	n/a	0%	14%
Other: not specified	0%	0%	22.5%	0%	0%	0%	0%	0%	0%	0%	0%	2%	n/a	n/a	0%	2%
Other : environment	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	n/a	n/a	0%	0%
Other: sport	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	n/a	n/a	0%	0%
Other : Business and Commerce	0%	0%	0%	1.5%	0%	18%	0%	0%	0%	0%	0%	0%	n/a	n/a	0%	0%
Other : new technology	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	n/a	n/a	0%	0%
Other : literature	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	n/a	n/a	0%	0%
Other : social sciences	0%	0%	2.5%	0%	0%	3.5%	2%	0	0%	0%	0%	0%	n/a	n/a	0%	0%
Other : research papers/materials	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	n/a	n/a	0%	0%

Source: *User and operator survey data collected by the research team with venue users and operators in selected sites and locations.*

Comments: (Include description of "other". Suggested headings based on frequently reported topics in other research and may vary across countries).

Information here includes data collected from both users and operators. The data has been blended and the averaged percentage has been included in the table above.

Category social sciences includes politics, history and Mongolian tradition.

Category education includes information regarding learning English, information to support English study and information about scholarships and study programs at universities across the world.

3.4.1.3 Uses of ICT, by type of venue

(estimated proportion in each category, %)	Public Libraries				Telecenters				Cybercafés				KBIC			
	Urban		Non-urban		Urban		Non-urban		Urban		Non-urban		Urban		Non-urban	
	General use	ICT use	General use	ICT use	General use	ICT use	ICT use	General use	General use	ICT use	General use	ICT use	General use	ICT use	General use	ICT use
Email	0%	21.5%	0%	27.5%	0%	14%	37%	0%	0%	29%	0%	32.5%	n/a	n/a	0%	34%
Chat	0%	4.5%	0%	17.5%	0%	3.5%	14%	0%	0%	23%	0%	17%	n/a	n/a	0%	6%
Web browsing	0%	41%	0%	27.5%	0%	75.5%	26%	0%	0%	17.5%	0%	17%	n/a	n/a	0%	30%
Blogs & social networking	0%	7.5%	0%	2.5%	0%	0%	9%	0%	0%	5.5%	0%	12.5%	n/a	n/a	0%	4%
Commerce & business	0%	0%	0%	2.5%	0%	3.5%	1%	0%	0%	3%	0%	9%	n/a	n/a	0%	8%
Phone or webcam	0%	2.5%	0%	2.5%	0%	3.5%	6%	0%	0%	16.5%	0%	0%	n/a	n/a	0%	0%
E catalogue	0%	19%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	n/a	n/a	0%	0%
Games	0%	0.5%	0%	20%	0%	0%	5%	0%	0%	5.5%	0%	6%	n/a	n/a	0%	18%
E books	0%	1.5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	n/a	n/a	0%	0%
Video materials	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	n/a	n/a	0%	0%
Other (not specified	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	6%	n/a	n/a	0%	0%

Source: *User and operator survey data collected by the research team with venue users and operators in selected sites and locations*

Comments: (Include description of "other". Suggested headings not exhaustive, based on frequently reported topics in other research and may vary across countries).

3.4.1.4 Frequency of Use for each type of venue

(estimated proportion in each category, %)	Public Libraries				Telecenters				Cybercafés				KBIC			
	Urban		Non-urban		Urban		Non-urban		Urban		Non-urban		Urban		Non-urban	
	General use	ICT use	General use	ICT use	General use	ICT use	ICT use	General use	General use	ICT use	General use	ICT use	General use	ICT use	General use	ICT use
First visit	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	n/a	n/a	0%	0%
Rarely (less than monthly)	0%	4%	5%	14%	0%	10%	0%	5%	0%	5%	0%	2.5%	n/a	n/a	0%	0%
Occasional (about once a month)	0%	5%	5%	13%	0%	10%	0%	5%	0%	10%	0%	7.5%	n/a	n/a	0%	0%
Regular (about 2-3 per month)	0%	11%	20%	23%	0%	30%	0%	40%	0%	15%	0%	34%	n/a	n/a	0%	55%
Frequent (about once a week)	0%	20%	46%	25%	0%	40%	0%	25%	0%	20%	0%	35%	n/a	n/a	0%	40%
Daily (about every day)	0%	60%	24%	25%	0%	10%	0%	25%	0%	50%	0%	21%	n/a	n/a	0%	5

Source *User and operator survey data collected by the research team with venue users and operators in selected sites and locations*

Comments:

- These figures indicate consistent use and demand for access to digital communication and information technologies.

3.4.1.5 Barriers to use for each type of venue

(estimated proportion in each category, %)	Public Libraries				Telecenters				Cybercafés				KBIC			
	Urban		Non-urban		Urban		Non-urban		Urban		Non-urban		Urban		Non-urban	
	General use	ICT use	General use	ICT use	General use	ICT use	ICT use	General use	General use	ICT use	General use	ICT use	General use	ICT use	General use	ICT use
Location, distance	0%	6%	10%	3%	0%	6.5%	2.5%	0%	0%	11%	0%	7%	n/a	n/a	0%	21%
Hours of Operation	0%	2%	8.5%	24%	0%	68%	18%	0%	0%	14%	0%	2%	n/a	n/a	0%	12.5%
Cost	0%	3.5%	9.5%	2%	0%	1.5%	4.5%	0%	0%	8%	0%	10%	n/a	n/a	0%	0%
Lack of skills / training	0%	19%	10.5%	4%	0%	3.5%	21%	0%	0%	8%	0%	20.5%	n/a	n/a	0%	22%
Not enough services	0%	11%	7%	25%	0%	3.5%	9%	0%	0%	30%	0%	24.5%	n/a	n/a	0%	20%
Not in right language	0%	19%	5%	11%	0%	6%	18%	0%	0%	19%	0%	16%	n/a	n/a	0%	12.5%
Not enough content	0%	22%	30%	22%	0%	11%	6%	0%	0%	8%	0%	10%	n/a	n/a	0%	2%
Other : poor service standards	0%	0.5%	0%	0%	0%	0%	0%	0%	0%	0.5%	0%	2%	n/a	n/a	0%	0.5%
Other: insufficient resources	0%	11%	12.5%	2%	0%	0%	0%	0%	0%	0%	0%	0%	n/a	n/a	0%	0%
Other: infrastructure	0%	5%	3.5%	0%	0%	0%	1%	0%	0%	1.5%	0%	3%	n/a	n/a	0%	3%
Other : inconvenient	0%	0%	3.5%	4%	0%	0%	2%	0%	0%	0%	0%	0.5%	n/a	n/a	0%	2%
Other : insufficient technology	0%	1%	0%	3%	0%	0%	18%	0%	0%	0%	0%	4.5%	n/a	n/a	0%	0%

Source *User and operator survey data collected by the research team with venue users and operators in selected sites and locations*

Comments: (Include description of "other". Suggested headings not exhaustive, based on frequently reported topics in other research and may vary across

countries).

- Information here includes data collected from both users and operators. The data has been blended and the averaged percentage has been included in the table above.

- Location includes distance of the user's dwelling to the library.

- Poor service standards include issues such as lack of responsiveness from venue staff, staff unwillingness to assist users and a lack of technical knowledge of the part of local venue staff. Also included here is a lack of communication by venue staff regarding new services and updated materials.

- Insufficient resources include books, magazines and other informative materials that are out of date and may no longer be relevant. It also includes a lack of materials that users can access when seeking information. Materials may be outdated or not available to the users as the venue does not keep the required materials in stock for a variety of reasons. This category also includes the lack of support services such as photocopying services, or e catalogues, that may hinder the user's ability to properly access or retain information.

- Infrastructure includes the physical aspects of the venue such as inadequate lighting, heating or ventilation, irregular electricity, dilapidated buildings and facilities such as reading rooms, lack of comfortable spaces in which to access the resources and information, poor furnishings and lack of noise control.

- Insufficient technology refers to a lack of computers for users, outdated equipment, irregular or limited Internet access available for users

3.4.2 Salient Initiatives to Help Meet Critical Information Needs by Underserved Communities

What are the most salient initiatives in the country (past, ongoing, or planned) that aim to meet the information needs of underserved communities in the country? How important are they? In what ways are they successful or not? Where can more information about them be found?

- If appropriate, indicate any specifics that apply to Digital ICT services alone.

3.4.2.1 Past Initiatives:

The first initiative was implemented in 1997 between the UNDP and the Government of Mongolia. Citizens Information and Service Centers (CISC) were established at the governor's offices in six aimag centers. The purpose of the project was to provide government related information to the local population along with Internet services. The venues were also established with the aim of providing ICT learning facilities for the users, as well as allowing access to government related information. Three of the CISCs are currently functioning.

In 1998, the Mongolian Foundation for Open Society (MFOS) (Soros Foundation) piloted Community Information Centers (CIC) in three aimags of Mongolia – Omnogobi, Dornod and Bayankhongor aimags. One of the CIC, in Bayankhongor aimag, has closed down. The other CICs continue to provide services to users.

A monitoring exercise conducted by Soros of the CICs highlighted that a key problem that the centers faced was the failure to establish a common fund, contributed to by all the organizations utilizing their services. This fund would then cover Internet connection and other operational costs. The centers were also advised to develop an alternative, non-donor dependent strategy for sustainability, a suggestion that none of the centers took up. The evaluation also noted a lack of professional managerial and technical capacity at the centers, and the inability of the managers to conceptualize future planning, potential problems and strategy. The CICs that are currently operational now have to compete with commercial cybercafés and Internet centers that have opened up.

Internet cafés were established in all twenty-one aimag centers through funding received from the Korean Government. The Internet centers were housed in the local telecommunications offices, and open to the local population. These have since reverted to the Mongolian Telecommunications Company, which has since been privatized.

The government of India provided one million USD for the development of IT in Mongolia. As part of this project, five Community Information Centers were established in Selenge, Hentii, Omnogobi, Gobi-Altai, and Arkhangai aimag centers with the aim of providing Internet services to users. The centers were also established in The Mongolian Telecommunications Company buildings (post offices). In 2005, an additional five Community Information Centers in another five rural locations opened to the public.

The establishment of Internet cafes at local post offices provides Internet access points for rural residents living in the aimag centers. In some aimags, such as Hentii and Bayankhongor, these access points represent the only public access Internet points in the entire aimag.

The Last Mile Initiative (LMI) project implemented in Mongolia from December, 2004. United States Agency for International Development (USAID) supported the project and the Academy for Education Development (AED), USA, and Intec Co Ltd. Mongolia implemented it. The main objective of the project was to pilot test Wireless Fidelity (Wi-Fi) networks in rural remote areas, which can be used by the public to access information and technology. The project was piloted initially in Dadal soum in Hentii aimag. Internet access was provided through VSAT technology to the local school, and Wi-Fi based telephone services were offered to citizens of Dadal soum. Based on the positive results

A public library in Darkhan

of the testing, a second stage of piloting was undertaken in two additional soum centers and two bagh centers. There have been no further developments in this project.

The World Bank supported the implementation of the Information Communications Infrastructure Development Project (ICIDP) since September, 2006. The ICIDP has four major components: 1) information and communications infrastructure in rural areas; 2) a communications regulatory component; 3) public-private partnerships for e-government; and 4) project management. Within the first component of the ICIDP project, there is a subcomponent related to voice and Internet access at the soum level and other institutions such as schools. The project is currently under development.

The World Bank also supported implementation of the "Rural Education and Development (READ)" Project in Mongolia. The aim of the READ project is to help enhance the quality of education in rural primary schools. Although not directly related to public access, the project aims to make classroom libraries available to the young learners and their teachers.

In 1997, the Asian Development Bank (ADB) implemented a project in which computers and hardware were provided to aimag center schools and selected schools of Ulaanbaatar and other cities. Following this, the ADB implemented a project known as the "Innovating ICT for Rural Education of Mongolia" project. The main purpose of the project was develop the ICT capacity of the soum school teachers, thereby enabling the teachers to improve their skills and the level of education that can be delivered to students at remotely located soums.

A Public Information Center was established in Darkhan. The centre was the result of a partnership initiative between the UN Resident Coordinator's Office, the WB Resident Representative Office, OSF and the Darkhan public library. No fees are charged for Internet access, and users pay only for printing and regular library costs.

More information:

Ariunaa Lkhavagsuren - ariunaa@itconsulting.mn

World Bank Public Information Centers - http://web.worldbank.org

3.4.2.2   Ongoing Initiatives:

Khan Bank plans to establish eight more KBICs in 2008, bringing the total number operating

by the end of 2008 to twenty-one.

More information*:*

Batsaikhan Dima - Batsaikhan_d@khanbank.com

3.4.2.3   Historical Trends and Opportunities to Serve Information Needs

Based on the above, what is the general trend in the country in relation to provision of public access information services? Are there any important ucomputeroming opportunities (for example, ucomputeroming regulatory changes, infrastructure enhancements, etc) that can impact public access information (include services through libraries and other public information venues)?

i.   If appropriate, indicate any specifics that apply to Digital ICT services alone.

In 1989, there were 418 public libraries throughout Mongolia.   Since the transition from socialism in 1990, public libraries have not had revenue allocations to enable procurement of current reading materials for their users. The number currently stands at 357. Available materials are outdated, and the libraries are run down, inadequately heated and in need of repair. They are the current information access points for many of the local residents and the installation of digital and Internet technology would be a logical extension of their information provision role. Refurbishment is indicated as a prerequisite in a library revitalization strategy.

Certain areas, such as Nalaikh, a satellite district of Ulaanbaatar, received funding from international donors, in their case a Korean organization know as 'New Village Movement' to establish a community

library.

In Nalaikh, the 'New Village Movement' donated ten million MNT (approximately 8,700 USD) towards the establishment of the library. The library is located in the district's administrative office. The Nalaikh district budget covers the librarian's salary and utility costs. However, this model is not common and users in smaller areas and rural areas continue to suffer as libraries cannot provide for their needs.

Television has undergone rapid development in the last five years. There are now twenty-one local language television stations in Mongolia, although not all are accessible to rural residents. The number of families owning televisions sets is growing rapidly as the costs decrease. VCD and DVD players have also become increasingly popular in the rural and urban areas. The table below outlines some of the main indicators of access to information and communication.

Indicators of access to information and communication						
Indicator	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
# of telephone lines	135,500	145,300	152,600	160,500	156,600	149,600
# of television sets	200,000	220,000	290,000	320,000	362,500	400,100
# of cable television subscribers	46,278	53,228	64,130	77,277	81,808	89,680
# of mobile phone subscribers	256,800	319,400	445,100	570,900	770,100	1,175,100
# of internet service providers	5	8	12	26	24	34
# of internet cafés*	88	118	120	115	105	105
# of personal computers	43,605	51,805	60,000	85,000	99,606	119,527
# of households	568,600	585,600	596,400	611,000	632,500	645,700
# population	2,475,400	2,504,000	2,533,100	2,562,400	2,594,800	2,635,200

Extrapolated from the National Statistical Yearbook 2005 and 2007

*please note that this refers to registered business entities and does not include a number of venues that may operate outside of business registration parameters.

With regards to Internet access, the establishment of public access centers such as community information centers and telecenters by international organizations and Government donors was concentrated between 1997 and 2002. Virtually every public Internet access point currently operational in the rural areas was historically funded by national or international non-governmental organizations.

During this time, the UNDP and Government of Mongolia implemented the "Information and Communications Technology for Sustainable Human Development" and "Decentralization of public services" projects. Within the framework of these projects, Citizens Information and Service Centers (CISC) were established in six aimag centers in the governors' offices.

The aim of these centers was to provide government related information to citizens and Internet services. The CISC also aimed to serve as venues for ICT learning, accessing government related information, and communicating with government and public organizations through Internet and email. Three of CISC are currently operational in Tuv, Khovd and Ovorkhangai aimags.

In a joint partnership initiative of the UN Resident Coordinator's Office, the World Bank (WB) Resident Representative Office, the ADB's resident mission and the Open Society Forum (OSF) launched Development Information and Resource Centers in 2004. One DIRC was established in the OSF's offices in Ulaanbaatar, and the other in the National University of Mongolia. Both offer free Internet access for users, as well as printed materials including reports.

The Mongolian Foundation for Open Society (MFOS) (Soros Foundation) piloted Community Information Centers (CIC) in three aimags of Mongolia –Omnogobi, Dornod and Bayankhongor. The existing UNDP funded CISC in Khovd was provided with enhanced technology and funding from MFOS. Currently, two of the three CICs are operational.

With funding from the South Korean government, Internet centers were established in twenty one aimag center telecommunications offices. This project meant that there was a public Internet access point in every aimag centre in Mongolia offering Internet and email services to the local population. These Internet centers were later handed over to the Mongolian Telecommunications Company, MTC.

Under a bi-lateral agreement signed by India and Mongolia in 2002, the government of India invested one million USD in the ICT sector in Mongolia. Within this project, five Community Information Centers were established in Selenge, Hentii, Omnogobi, Gobi-Altai, and Arkhangai aimag centers. The purpose of the centers was to provide Internet services to the local communities. The centers were established in the Mongolian Telecommunications Company buildings (post offices), and were equipped with five computers, one server, one printer, one scanner and necessary furniture. All assets were handed over to the Mongolian Telecommunications Company (MTC). These five centers, along with the twenty-one centers established under funding received from the Government of South Korea form the core of the twenty-nine cybercafés that MTC now owns and operates across the country.

In 2005, the Government of India funded-project established additional Community Information Centers in another five rural locations -Kharkhorin, Bulgan, Huvsgul, Dornod and Sukhbaatar.

Public Internet centers and cybercafés are popular information access points, especially in Ulaanbaatar and other larger cities. In 2006, there were over 100 Internet cafes in Ulaanbaatar, 95.5 percent were privately owned. The cafes averaged ten users an hour, and charged between 400 and 500 tugrugs (0.35 - 0.43 USD) per hour for Internet access and use of the computers (InTeC, MIDAS, ICTA and CRC, 2006)

The development of the backbone network of Mongolia means that all aimag centers are now connected to the Internet by fiber optic cable. Ts. Nyamkhuu, the Director General for Policy and Planning at the ICT Authority reports that soum centers will start to connect to the Internet by the end of 2008, with all soums online by the end of 2009. This will theoretically mean that almost all of Mongolia's citizens will be able to access information through digital services in their nearest soum. However, the physical infrastructure needed to access the information, such as computers, table and chairs – as well as adequate computer literacy skills are lacking and would need to be developed.

Typical soum library furnishings

Mobile phone coverage will increase to include every soum center by the end of 2009, resulting in greater number of mobile phone users. Mobile phones provide a unique opportunity for rural residents to communicate with friends and relatives, and also to receive information. The number of mobile phone subscribers more than doubled between 2005, with 570,900 subscribers, and 2007, with 1,175,100 subscribers. Given the continual steady growth evident over the last five years, continued mobile phone penetration is expected.

Source*:*

- Mr. Harish Baxla, Embassy of India in Mongolia

- National Statistical Yearbook 2005, 2006 and 2007 editions

- Ariunaa Lkhavagsuren - write-up notes - ariunaa@itconsulting.mn

- Batsaikhan Dima, Khan Bank - Batsaikhan_d@khanbank.com

- Nyamkhuu Tsodol - nyamkhuu@icta.gov.mn

- 'Information Technology in Mongolia for the year 2004' - www.unescap.org

- 'Information and communications technology development in Mongolia – 2006 '

    White paper - InTeC, MIDAS, ICTA and CRC (2006)

- 'Constructing the pillars of a knowledge society: The challenges in providing access to ICTs in rural Mongolia.' - http://www.librijournal.org/pdf/2005-4pp216-224.pdf

3.4.2.4   Planned Initiatives:

As mentioned in 3.4.2.2, in 2008 Khan Bank plans to increase the number of KBICs in Mongolia from 13 to 21.

3.5   Economic, Policy & Regulatory Environment

3.5.1   National & Local Economic Environment

Describe the national & local economic environment and how it affects public access to information & communication in the country.

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Both the World Bank and the ADB report that Mongolia's inflationary levels are the highest in East Asia. According the ADB, inflation closed in 2007 at 15.1%. The World Bank reports that general inflation in the first quarter of 2008 reached 27%, with inflation of food prices reaching 48% in April 2008. While the government will implement measures to lower food prices and assist consumers, inflationary pressures experienced by the local population will restrict the amount of income available for fees that may be incurred in seeking information. Revenue, planning and allocation remains centralist approaches

The fiscal environment is constrained and lacks an equitable formula or process for resource allocation. Although when it comes to ICT, the policy, regulatory and legal environment is conducive to the infrastructure component of access. However when the market is left to lead access at population level, expertise is limited and not joined to social or cultural imperatives. Historically, social and cultural imperatives have been limited to Soviet priorities such as theatre, ballet and classical music and matching resources allocated through determinist statistical analysis. Mongolian management of the economy has not shown the capacity or drive to implement a more liberal approach. However, interviews with key policy makers demonstrate willingness, if not relevant implementation expertise. Both the World Bank and ADB are implementing 5 year programs aimed at developing capacity within government ministries. Mongolia is a largely unregulated environment governed by internal instructions that can change decisions, revoke permits, and allow favours free of transparency and published governing instruments. Domestic policy is blamed for escalating inflation, these often based in national sentiment rather than economic wisdom. The MPRP has recently been returned to power on promises to citizens that would bankrupt the state if implemented.

Regionally to the west a similar scenario is to be found in post Soviet contexts. Public take-up of information sources is high given the constraints particularly seen within the dimensions of the real access theoretical framework.

The following diagram illustrates the vertical planning approach that exists in Mongolia. Each department sits alone like a silo with no connection at the same level. There is no effective communication between departments. Rural government departments are connected to the same departments in central government in a straight line going upwards. Ideally, there would be a horizontal way of communicating and planning across government departments at all levels of government. This process should begin at local level and involve the community in planning and settling priorities. This system impacts on publicly funded libraries.
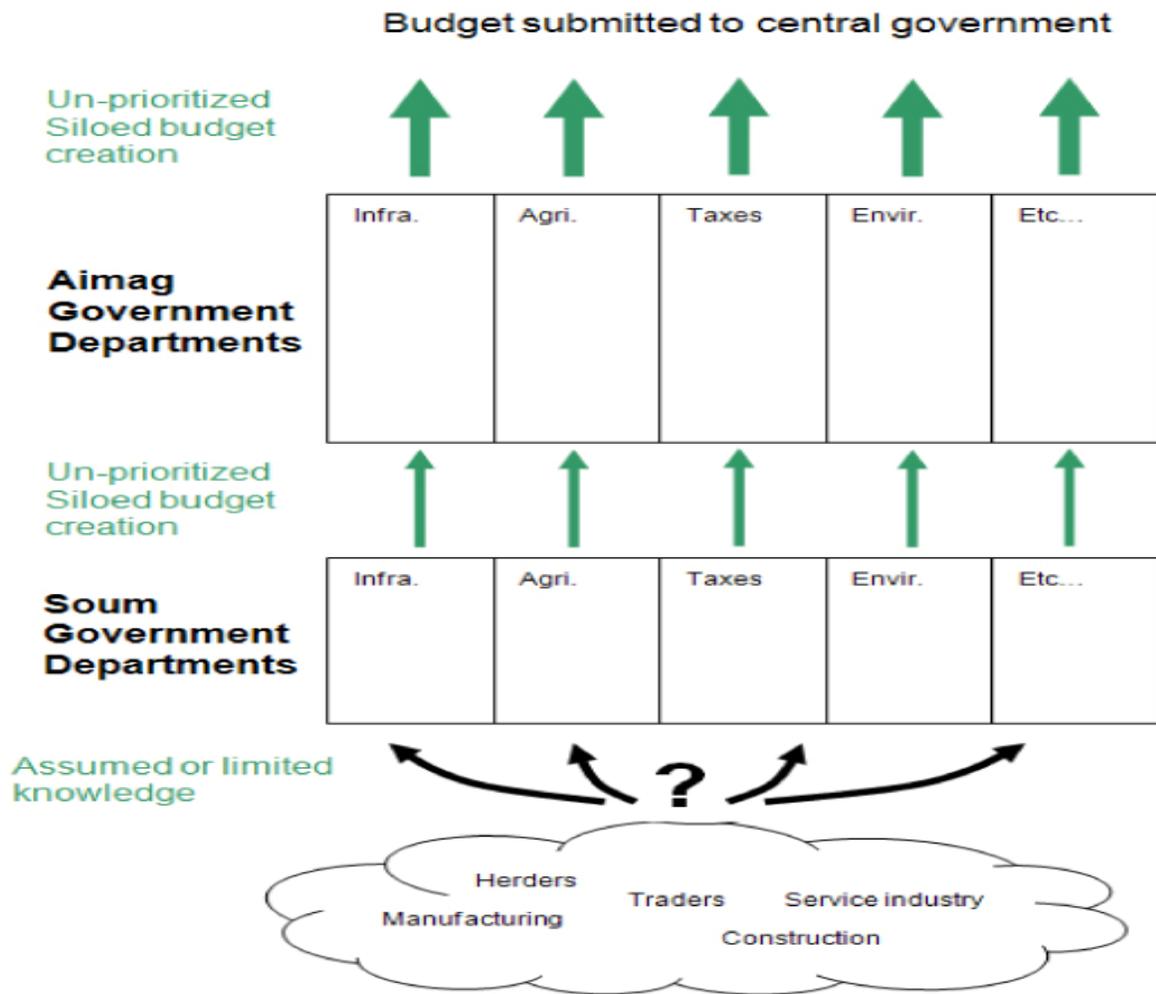
Trends:

Mongolia is destined to become one of the world's foremost mining countries. Mongolia has some of the world's largest deposits of coal, copper, gold, uranium and iron, as well as other less valuable ores. It is the top country for mineral exploration. Currently, thirty percent of GDP comes from mining

operations with continued annual increases. Seventy-two percent of industrial output and seventy-six percent of exports are attributed to mines. Mining will continue to be the backbone of the economy at least until 2050.

Potentially, Mongolia will be able to afford its own development. However, its capacity to manage this is questioned. Mongolia is on the precipice of either a resource boom or a resource curse. With internal migration resulting in a record breaking urban population as a percentage of population, the traditional nomadic lifestyle is rapidly breaking down. Those seeking a slice of the pie in the city are in fact facing object poverty and loss of culture

Source:

- 'Blue Sky Mining - Community and mining in Omnogobi Aimag, Mongolia - Scoping report' - produced by Pact Mongolia

- 'World Bank : Inflation in Mongolia is the highest in all of East Asia' - http://www.montsame.mn

- Asian Development Bank and Mongolia - 2008 - A Fact Sheet - www.adb.org

3.5.2   National & Local Policy (legal & regulatory) Environment

Describe salient features of the policy & regulatory framework in the country (and if applicable, locally) that affect delivery and access to information (e.g. censorship, Wi-Fi bandwidth regulation, etc). What is your assessment of the general trend on this matter?

Libraries in Mongolia fall under the administration of the Ministry of Education, Culture and Science.

The government of Mongolia established the Information and Communications Technology Authority (ICTA) in October 2004 by following national elections. It is chaired by the Prime Minister of Mongolia and coordinates ICT functions among government organizations, and coordinates ICT related initiatives among businesses, NGOs, international organizations and donor organizations. The main objectives of the ICTA are to:

- Provide encouragement and advice for the provision of policies for the development of short-term, mid-term and long-term planning and reform for ICT;
- Encourage improvement of the legal environment for ICT;
- Provide encouragement and advice on program and project development for ICT;
- Regulate policy implementation on resource and capability for the ICT sector;
- Provide public administration and management leadership, as well as management of

capital/assets and financing, and internal service;

- Encourage regulation for human resources and cooperation in the ICT sector;

- Improve monitoring of the implementation of policy and planning of the sector; provide information and establish a database for ICT;

- Establish a consolidated system of public information;

- Eliminate the digital divide

The ICT regulatory institution in Mongolia is the Communications Regulatory Commission. It was established in 2001 as an independent institution with the objective of establishing a fair, effective and competitive environment in the ICT market for enterprises, while, at the same time, creating opportunities for the provision of high quality services through the use of new technologies to organizations and individuals. It is responsible for issuing licenses and certificates to Internet service providers, mobile and telecommunications operators and companies working on VOIP services. It also oversees the resolution of disputes between different parties.

The information and communications technology sector is governed by laws and   regulations adopted and approved by the Parliament of Mongolia and the Government of Mongolia. The following existing laws are related to the ICT sector of Mongolia:

- Law on telecommunications, approved by the Parliament in 1996 and amended in October, 2001

- Law on radio spectrum/frequencies, approved by the Parliament in 1998

The main policy documents that guide the ICT sector in Mongolia include the "Concept of Information and Communications Development in Mongolia by 2010" (ICT Vision for 2010), "Medium term strategy to develop the information and communications technology sector in Mongolia", the "E-Mongolia" program and the "E-government" program.

The "Concept of Information and Communications Technology Development in Mongolia by 2010" is a strategy document which has been created in order to develop a knowledge-based society that will improve the quality of life of the citizens. The Concept had three major objectives:

1. A government-legislation framework

2. A business-economy framework

3. A human development framework.

The Concept paper was developed with the involvement and support of stakeholders from government organizations, the private sector, NGOs, academia and individuals. In order to implement objectives stated within the Concept paper, the "Medium term strategy to develop the ICT sector in Mongolia" was developed and approved by the Minister of Infrastructure in November, 2002.

The "Medium term strategy to develop the ICT sector in Mongolia" was created with the aim of

establishing a state policy and regulatory system, as well as creating a favorable environment in which human, social, economic, business, political and legal development could take place. The four major objectives include:

1. A political and legal framework

2. infrastructure development

3. Human capacity building

4. Business and private sector support.

Trends:

(i)If appropriate, indicate any specifics that apply to Digital ICT services alone.

The development of the backbone infrastructure in Mongolia will facilitate the connection of all aimag centers to the Internet by fiber optic cable by the end of 2008, with soums connected by the end of 2009. In theory, this will allow the majority of Mongolian's to access information via the Internet in their closest soum center. Herders in the rural areas will still be required to travel into the soum centers to avail themselves of this service, and capacity building and physical infrastructure development are required.

Mobile phone coverage will increase to include every soum center by the end of 2009, indicating continued increase in user numbers. Mobile phones provide opportunity for rural residents to communicate with friends and relatives and also to receive and transmit information.

There is a library in every soum centre. These libraries are often inadequately heated and in need of repair, and state revenue allocation is barely enabling maintenance. They are the current information access points for many of the local residents and the installation of digital and Internet technology would be a logical extension of their information provision role. To move to a more significant role in access to information rejuvenation would encompass physical renovation of the venues, the creation of more comfortable physical environments for users, and contemporary materials.

Source: Interviews with key government officials, local technical experts and implementing organizations.

3.5.3 Regional & International Policy (legal & regulatory) Environment

Describe salient features of policy & regulatory framework in the region and internationally that affect the delivery of public access to information & communication in the country. What is your assessment of the general trend on this matter?

Geographically, Mongolia belongs to the Central Asian region, including Kazakhstan, Kyrgyzstan, Afghanistan, and Tajikistan among others. However, according to personal at the ICTA, Mongolia would like to be included in the North East Asia region, which includes countries perceived to be economically mainstream such as China, Korea, and Japan as opposed to Cambodia, Laos, and Burma

that are considered as fringe Asian economies. Some Mongolians believe that inclusion in the North East Asia region is geographically more suitable and is beneficial in terms economic development and co-operation. No official activities in regards to this notion have been undertaken.

> **Source**: *Interviews with ICTA members, key government personal and ICT players active in the ICT arena in Mongolia*

3.6   Collaboration Practices and Opportunities across Venues

Linkages and collaboration between different types of venues was identified as a **strong emerging theme in the preliminary analysis**. Please provide as much detail as possible to help understand existing and potential collaboration opportunities and linkages among and between public access venues, and how they can improve the quality and relevance of information access to underserved communities.

i.   Include reference to existing as well as potential collaboration opportunities.

ii.   If appropriate, indicate any specifics that apply to Digital ICT services alone.

There is limited connection between venues in Mongolia. There has been active collaboration between Mongolian government institutions, bilateral donors, International governments, and local and international donor organizations in the roll out of digital ICT public access to information venues. However, interaction between public access venues is not predominant in Mongolia.

Some of the collaboration mentioned above has resulted in the development of relations between venues. In these cases, public information centers have been established in existing libraries or cultural centers. Examples include the establishment of a PIC in Darkhan in the public library, and certain KBICs in schools or cultural centers. The establishment of these venues strengthens and supports the work of the libraries and cultural centers and provides Internet access for patrons.

3.7   Buzz Factor: Public and Government Perceptions about what is "cool"

The "buzz factor", ie, public and government perceptions about what is "cool" in relation to public access venues, where to invest resources, what places to hang out in, was identified as a **strong emerging theme in the preliminary analysis**. Please provide as much detail as possible to help understand how these perceptions about what is "cool" offer new opportunities or obstacles to strengthening public access information venues in the country.

The government of Mongolia has illustrated it's commitment to making Internet access more available to citizens and in doing so, it's belief in the value of the Internet as an information tool. The establishment of the ICTA and e-Government services, along with the recent addition of a fourth mobile phone service provider, further strengthens government resolve to open up information and communications to the public.

In lowering the prices of Computers, the government facilitated increased buying power for those wishing to purchase hardware. The decrease in connectivity charges has also indirectly supported the increase of public Internet access points. However, the government has implemented very few direct projects to increase public access to the Internet, or to develop local content.

Many Mongolians, especially younger urban Mongolians, view Internet centers as place in which they can hang out, chat online and search the web. User fees at Internet centers and cybercafés range from 500 MNT - 600 MNT (0.43 - 0.52 USD) per hour, and this is affordable to a vast proportion of users,

especially in areas such as central Ulaanbaatar where disposable income levels are highest in the country. With the current inflation levels, it is often cheaper for an hour of Internet access than it is to buy a loaf of bread.

For many residents, especially those in the rural areas, libraries offer the only public access information services. Libraries are seen as under stocked, out of date and uncomfortable, and many users are starting to seek information elsewhere. Many rural residents, however, acknowledge the value of the library and have expressed the desire to see the library flourish into a central information hub at which they would be able to meet all their information needs, including Internet access, communications, news updates, resource materials and entertainment.

Two mobile phone service providers offer mobile Internet services to users within their areas of coverage. This service is predominantly accessed by people within the aimag centers, with fewer soum and herding families utilizing the services. This is due to a larger number of people at aimag center level with technical capacity and access to hardware, as well as proximity to the service provider's offices based in the aimag centers. The result of these services is a sizable increase in the number of non-urban residents who are able to surf the Internet and access information.

Advert for G-Mobile Internet services in Gobi-Altai aimag center

3.8   Legitimate Uses

The difference between "legitimate" or "non-trivial" uses of information in public access venues was identified as a **strong emerging theme in the preliminary analysis**. For example, uses of social networking spaces (Facebook and similar), blogs, chat, video games, as well as opportunities to download, install and run open source software

There are a number of computer centers in Mongolia that only offer gaming services to their clients.

The clients are usually young men and boys, and the games are usually violent. The centers are noisy and there are often two or three people shouting advice and encouragement to their friends crowded around each player and his computer. This environment is not conducive to "non-trivial' access within the same room.

Internet center offering gaming services, aimag center

Some Internet centers and cybercafés offer Internet access as well as gaming services to users. Users seeking Internet access often complain that the gamers are noisy and distracting. They do not refer to gaming as 'trivial'; rather they believe that is should be confined to specific gaming centers as it is to distracting for fellow users who are trying to concentrate.

In Mongolia, communication has become a prime function of Internet use. In cybercafés and Internet centers, chat has become a predominant activity. Within the Mongolian context, the use of the Internet as a voice and text based communications tool is quite acceptable. Many people in urban and non-urban venues access Internet services in order to communicate with people in other parts of Mongolia and abroad using applications such as Yahoo! messenger and Skype.

3.9 Shifting Media Landscape

3.9.1 Mobile phones

There are over one million mobile phone subscribers in Mongolia. Given that the total population of the country is 2,635,200, one million subscribers accounts for 38% of the total population. Mobile phone coverage will increase to include every soum center by the end of 2009, resulting in an

increased number of mobile phone users.

Mobile phones provide a unique opportunity for rural residents to communicate with friends and relatives, and also to receive and transmit information. The mobile phone user market is set to expand in the coming years. Pact Mongolia implements a mobile phone market price information service that provides factual, immediately available current commodity price information to herders and rural business entrepreneurs across the country. This service is administered by MobiMedia, subsidiary company of MobiCom, the largest mobile phone service provider in the country. MobiMedia also offers health advice, news updates, weather information, entertainment news, and other information services to their subscribers. These services are more expensive than standard text messaging costs, and may not be affordable to all users.

Since 2005, the number of mobile telecommunication service providers in Mongolia has doubled from two to four. Two of the service providers are GSM technology providers, and two are CDMA operators. Increased competition has facilitated decreasing costs for users and increasing coverage. The fourth provider won a government tender to connect rural settlements and remote parts of the country to a telecommunication system.

Increasing cell phone coverage allows more users to access information via their cell phone. MobiMedia, part of MobiCom , the largest cell phone provider in the country, offers information services to their subscribers via text message or voice message. Information that is accessible to users includes:

- international and domestic news updates, including sports
- celebrity and entertainment news, jokes, puzzles and games, and erotic entertainment for adults
- beauty and health advice
- commodity price information
- currency exchange rates, market price and commodity information and weather forecasts
- news about the latest scientific and technical innovations
- English-Mongolian dictionary

The monthly service fee for MobiMedia is 1,140 MNT (approximately 1 USD), plus additional services fees per channel, and a set number of units per channel for prep-paid users. All the information is in Mongolian. This service provides an opportunity for people living in rural areas that have MobiCom coverage to access the latest news and information that impacts on their livelihoods, such as commodity price information and the weather forecast.

Skytel and G-Mobile now offer mobile Internet access in areas in which they offer coverage. Services fees vary depending on the number of gigabytes required, and start from 20,000 MNT (17 USD) per month.

Nyamsuren Sambuu, Director of the Independence Council of Mongolia (NGO)

provides instruction to herders using G-Mobile technology

Photo: KC Dedinas

The service theoretically allows remote rural residents Internet access. However, many rural residents do not own computers, and are not computer literate. Providing computer literacy training plus affordable hardware to rural residents has the potential to dramatically increase the   number of Mongolians able to access information in some of the most remote areas of the country.
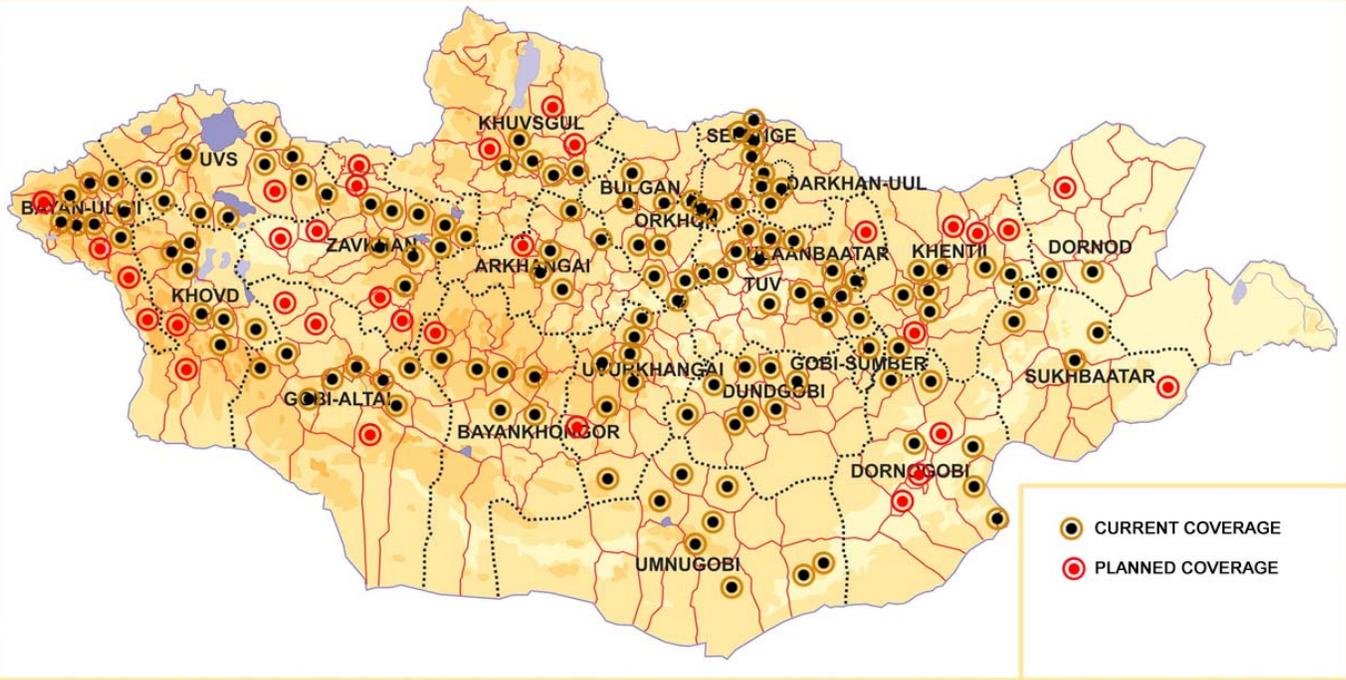
Map illustrating current and planned mobile phone and Internet services provided by G-Mobile

3.9.2 Web 2.0 tools & use

If appropriate, describe any salient uses of Web 2.0 tools among users of ICT in public access venues. (Web 2.0 refers to evolution of web-based communities and hosted services, such as social-networking sites, wikis, blogs and others. Wikipedia).

An average of 6% of users across venues surveyed by the research team identified blogs and social networking as uses of ICT.   There are a growing number of Mongolian websites that provide news, entertainment, blogging, chat, online dictionary and general information services. Examples include www.caak.mn, www.banjig.net and www.oollo.mn.

Many Mongolians who are able to navigate websites in foreign languages also have profiles on international social networking sites such as Hi5, facebook.com and myspace.com. Chat services, especially Yahoo! Messenger, remain popular with users and have also become a communication tool in the work place.

3.9.3 Combination of different media

If appropriate, describe creative ways in which different media are being combined to meet information needs of underserved communities, and the ways they affect public access venues. Different media include community radio & TV, other print media, street theatre, songs, etc.

76

Pact Mongolia works closely with a number of media organizations to create behavior change communications (BCC). In doing so, Pact combines radio, television, mobile phone and print media to create a suite of materials that support community development. Pact Mongolia works closely with a number of local radio stations and journalists in the creation of the media. These media facilitate increased access to information through vital commodity price information available through mobile phone services and increased literacy skills.

The research team was unable to discern other current or planned initiatives that bring different media together to meet information needs.

3.9.4   Other shifting media landscape examples

If appropriate, describe other new features and practices in the media landscape that affect public information venues and information needs of underserved communities.

This would be a good place to discuss innovative practices on content creation and production of new messages, media, information and knowledge that are not described elsewhere in this report.

- MobiCom plans to establish free public Internet access points on the streets of central Ulaanbaatar. The project is currently in the planning stage. According to MobiCom staff, there first access point will be in the center of the city near the State Department Store.

- As mentioned above, Pact Mongolia creates behavior change communication materials that support continued development in Mongolia. The aim of many of these materials is to increase literacy skills. In doing so, Pact Mongolia is providing and strengthening skills required to access information. Furthermore, many of these materials are stored in libraries and contain essential information for rural and herding communities.

- In February 2008, it was announced that a Microsoft Resident Representative Office will open in Mongolia. Within the framework of this cooperation, Microsoft office will be translated into Mongolian. This will help in reducing the language barrier and assist users to navigate the computer software.

3.10 Health Information Needs

This is an extra contribution to other research on health information needs going on at the University of Washington, based on willing respondents to last two questions on user surveys at the public access venues.

3.10.1 Sources of Health Information

Where are people most successful at locating useful health information for themselves or their family (% of respondents across all venues):

24% clinic/hospital	15% friend	15% health worker	20% public access venue (library, community center, etc)

Comments: This data was collected from all respondents.

Other responses included:

- community resource - 10%

- Internet at private locations - 15%

- TV - 1%

3.10.2 Types of Health Information

What types of health information do they have the most difficulty finding (% of respondents across all venues)?

36% disease prevention	15% how to locate healthcare	15% child health information	31% remedies/drugs	3% Other

Comments: This data was collected from all respondents.

The category 'Other' included:

- Early diagnosis - 2%

- Traditional medicine - 1%

4   Venue-Specific Assessments

4.1   Venue # 1: Public Libraries

4.1.1   Overall Venue Assessment

Provide a broad picture of the public access information landscape in this venue, informed by the results of this research.

2 – 3 Paragraphs:
What is your overall assessment of public access information in this type of venue?

Although the library remains a core access point for information for much of the population, the value of the institution as an information center has been in decline since the transition from socialism in 1990. Socialist legacies include high literacy rates and a consistent library infrastructure. There is a public library in every soum, village centre and provincial center across the country, and a range of subject specific libraries in Ulaanbaatar.

Most libraries, especially outside Ulaanbaatar, are unable to provide users with current information, new reading materials, or a comfortable physical environment. Users report that the library is failing to provide them with the information that they need, updated source materials and current facilities including Internet services. Research has shown that only 2.5% of state funded public libraries offer digital services.

Aimag center library, Dalanzadgad, Omnogobi aimag

There are 357 public libraries across Mongolia:

	Number of public libraries.	Number offering Digital ICT services
Ulaanbaatar	10	5
Aimag Centers and Larger Urban Areas	21	4
Soums	326	0

Users of the Metropolitan library in Ulaanbaatar provided positive feedback about the venue with regards to how the library was more comfortable than other libraries, and the service, not without its problems, was better. This led these users to consider this venue as their first choice when seeking information and other library services. Many also mentioned that this library along with the National library had introduced a self service system, and that this made the library more user friendly facilitated ease of access for patrons. That self service is considered an innovation is worthy of note. Self service is, of course, a norm in most national library systems and this is a further indicator of how the post Soviet style has been retained in Mongolian service constructs.

4.1.2   Access

2 – 3 Paragraphs:
What is your overall assessment of ACCESS ecosystem in this type of venue (physical access, appropriate technology, affordability)?

Libraries have traditionally been the information hub for communities. People seeking knowledge, be they students or citizens, have accessed this venue in their search. However, libraries are no longer able to fulfill their historic role as information centers successfully, and this has led users to look elsewhere. Although services remain largely affordable, the lack of current materials and to date print resources, coupled with minimal electronic resources, has led to a dramatic decrease in the value of libraries as a venue for information gathering.

4.1.2.1   Physical Access

Describe how accessible this venue is to various population segments, differentiating by applicable Equity of Service variables (Form 1c), especially the differences between urban and non-urban settings.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Socio-economic status: The costs levied by libraries for yearly membership and registration fees are affordable for most of the population. The charges at soum and aimag level are lower than they are in Ulaanbaatar. However, reduced registration fees for senior citizens are only available in Ulaanbaatar. State pensions are low and a lack of disposable income may inhibit pensioners from obtaining or renewing library membership. There are no national initiatives to promote access to library services for economically challenged segments of the community through free access programs.

Education level: Even though increasing numbers of aimag centre and larger urban area libraries are introducing digital and Internet technology services, many users within these areas lack the technical capacity to utilize these additional services. A factor that often compounds this situation is the lack of technical skills on the part of the operators. This results in equipment that is often broken and operators are unable to assist users.

Age: Library services are open to all ages of the population.

Sex: Gender is not paramount in limiting access to library services. A larger proportion of female users may be attributed to the greater number of women in tertiary education and tertiary education graduates.

Location and Remoteness: Libraries located in soum and aimag centers are often not accessible to remote populations because of the distances and the difficulties in traveling to settled areas. Libraries are often located in the central parts of cities, aimag centers and soums, and for residents living far from the central areas, especially in aimag centers with no public transport, accessing the library can be difficult. Mobile services are limited, often due to a lack of financial resources, marginalizing potential users who either live in isolation, are unable to leave their homes, or are disabled.

Language spoken: Many library users and operators have stressed to the research team the lack of Mongolian language materials and content available, both electronically and in printed form. There is also a lack of materials available in ethnic minority languages, including Kazakh.

Disability: Access for members of the population who have mobility or physical disabilities is often difficult as there are no wheelchair ramps. Stairs often need to be negotiated simply to enter the buildings.

4.1.2.2 Appropriate Technology & Services

Describe how appropriate the technologies, services and information offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Socio-economic status: For most users, the fees levied by the libraries are affordable.

Education level: Libraries have traditionally provided users with printed materials. This was appropriate given the high literacy rate in the country. Computer and electronic literacy rates, however, remain relatively low, leaving users and library staff without the required skills to utilize

and maintain electronic equipment.

Age: Mongolians of all ages seek information at public libraries. There are very few skills development training courses on offer for generations that have not had the benefit of IT instruction at school or are not familiar with computers and the Internet.

Sex: The majority of librarians in Mongolia are women. There are no gender-driven impediments to accessing library services.

Location and Remoteness: The vastness of the Mongolian territory and the current limitations of infrastructure mean that daily newspapers and other time-sensitive materials cannot reach the remote areas quickly. Although many users are able to access printed materials in terms of being literate, they are seldom able to access current, up to date materials. Even though increasing numbers of aimag centre and larger urban area libraries are introducing digital and Internet technology services, many users within these areas lack the technical skills to utilize these additional services. Compounding this, is the lack of local content sites.

Language spoken: There is a lack of materials available in Kazakh, especially in areas where Kazakh is the dominant language, such as Bayan-Ulgii aimag. Only twenty-five percent of the materials in the Bayan-Ulgii aimag center library are in Kazakh. The majority of the materials that do exist in the local libraries in Bayan-Ulgii have been received from donors in Kazakhstan, the Government of Turkey and other civil organizations.

Disability: Disabilities are seldom catered for in Mongolia in terms of infrastructure and construction. There are only two libraries that offer Braille keyboards and programs for visually impaired users, and both of these are located in Ulaanbaatar. Often stairs need to be navigated in order to access the facilities and research has shown that only the Metropolitan library in Ulaanbaatar has a ramp that wheelchairs can access.

4.1.2.3 Affordability

Describe how affordable the technologies and services offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Socio-economic status: The library staff, ministry officials, and users interviewed reported that the yearly registration and membership fee levied was reasonable and affordable. The registration and membership fee per user which varies between 500 and 4,000 MNT (40 US cents and 3.50USD) depending on location and age. Fees levied in Ulaanbaatar tend to be higher than those in the rural areas. A full breakdown of these costs may be found in section 4.1.2.4 *Fees for Services.* However, even fully paid members need to pay a nightly fee to borrow materials and take them home. These additional costs may hinder full utilization of library resources.

At all public libraries with Internet access, with the exception of Darkhan and the Metropolitan Library, Internet users need to pay a fee of 500 MNT (40 US cents) per hour, regardless of whether they are library members or not. This added cost may prove a barrier to accessing the Internet through the library. Costs are also levied for word processing and general computer usage.

Education level: This variable is not a key factor impacting on the affordability of library services.

Age: Minors and senior citizens in Ulaanbaatar pay a reduced yearly registration and membership fee. However, they other costs incurred, such as photocopying services, Internet access or the overnight fees to take books out of the library are standard and there is no allowance made for pensioners. This is particularly difficult as pensions in Mongolia are very small and many pensioners are unable to meet the costs of these additional services. There is no price differentiation for senior citizens and children at aimag and soum level. More details can be found in section 4.1.2.4 *Fees for Services.*

Location and Remoteness: Coupled with these cost of library usage are the vast distances that potential users may need to travel in order to reach the nearest soum or aimag libraries, and any costs, such as petrol, that may be incurred. Travel is most often undertaken by motorbike, camel or horse over dirt track or a trail forged through the countryside. Travel in the extreme winter months can be difficult and dangerous.

Disability: Visually impaired users who wish to access the Internet using special software and a Braille keyboard would need to travel to Ulaanbaatar in order to do so. This is not feasible for many because of the costs incurred and the time it would take. Although internal flights do operate, these are expensive and infrequent. Travel by car over dirt tracks can take up to three days of non-stop driving.

4.1.2.4   Fees for Services

What fees or other requirements exist in order to access and use the information in the venues? (registration, user fees, restrictions to certain populations)

Fees are charged for the issuing of a **reader's card and registration**. Once a person has registered and receives a reader's card, they are able to access the library and utilize the materials within the library. The cards do not cover the costs of taking the books home, accessing Internet or photocopying services. These are charged separately.

In Ulaanbaatar, the cost per year for adults to register is as follows:

Indicate amount in local currency :4,000 MNT

Equivalent in US Dollars: 3.50 USD

Date of estimate : 14/02/2008

and local currency name : Mongolian tugrug

The costs for children and senior citizens in Ulaanbaatar per year is:

Indicate amount in local currency 1,500 MNT

Equivalent in US Dollars: 1.10 USD

Date of estimate 18/02/2008

and local currency name : Mongolian tugrug

At aimag centre level, the cost for registration is identical for all users, regardless of age.

Indicate amount in local currency 500 MNT

Equivalent in US Dollars: 0.40 cents

Date of estimate 18/02/2008

and local currency name : Mongolian tugrug

At soum level, the cost is also identical for all users regardless of age:

Indicate amount in local currency 150 MNT

Equivalent in US Dollars: 0.10 cents

Date of estimate 18/02/2008

and local currency name : Mongolian tugrug

Fees are also levied to **take books home**.

 In the aimag centers the costs per night are as follows

Indicate amount in local currency 200 MNT

Equivalent in US Dollars: 0.18 cents

Date of estimate 18/02/2008

and local currency name : Mongolian tugrug

 In Ulaanbaatar the costs per night vary

Indicate amount in local currency 500 - 1,000 MNT

Equivalent in US Dollars: 0.40 -0 .90 cents

Date of estimate 18/02/2008

and local currency name : Mongolian tugrug

Photocopying services are not available at all libraries. Libraries in Ulaanbaatar offer this service, with very few, if any soum and aimag centre libraries able to offer photocopying services. Although these libraries may have a photocopying machine, they are seldom able to afford the costs associate with ink and paper. Fees for photocopying per page at Ulaanbaatar libraries:

Indicate amount in local currency 50 MNT

Equivalent in US Dollars: 0.40 cents

Date of estimate 18/02/2008

and local currency name : Mongolian tugrug

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

If library card holders wish to use the Internet services offered at the library, they need to pay additional fees for this service. Fees for Internet access are the same at libraries offering the

service in Ulaanbaatar and in aimag centers. The cost is between 400 MNT and 500 MNT (0.35 - 0.40 US cents) per hour (18/02/2008 and 14/02/2008). There are no digital services offered at soum level.

4.1.2.5   Geographic Distribution

What is the distribution of the venues in terms of their geographic location?

Complement any details not already included in section 2.1: Venue Selection.

The existing library infrastructure covers every soum, aimag centre and city across the country.

Mobile library services exist, in theory, at each library. These mobile services aim to facilitate

access to library materials by remote populations, as well as to hospital patients, schools and local

organizations. These services in terms of fuel and staff time are often impediments to

implementation, and these services are very seldom actually offered to the local population.

4.1.2.5.1   Map

If available, insert a map that displays the geographic distribution of this type of venue in the country (expand to the size you need).

PUBLIC LIBRARIES IN MONGOLIA
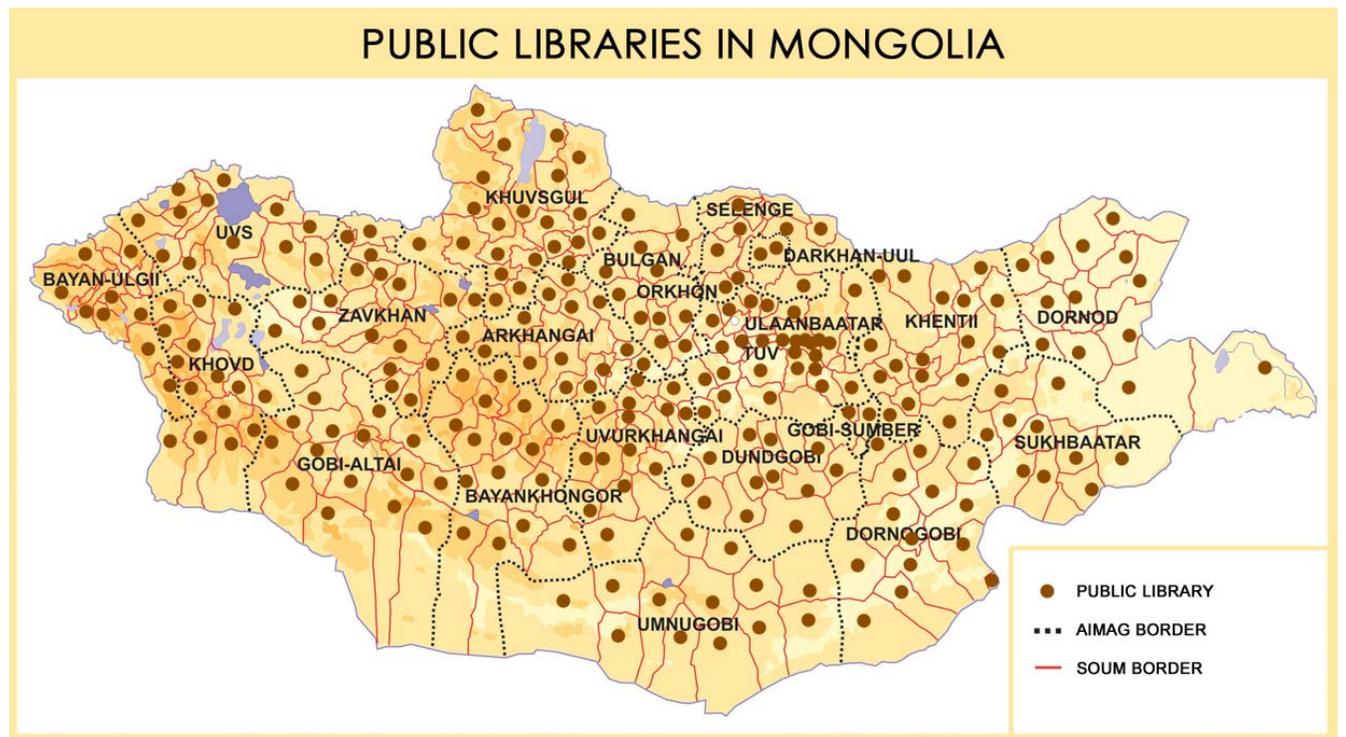
Description of map:

This map illustrates the location of all public libraries across the country.

4.1.2.6 Other Factors affecting Access

Other factors that affect equitable access to public information in this type of venue, not covered above?

The user's registration fee that needs to be paid at each library is an impediment to lower-income users.

Libraries in Mongolia cater to literate users who are able to access text-based information, or users who have enough literacy skills to give them the confidence to utilize library resources effectively. There are no services for illiterate or neo-literate users.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Although Internet training courses are offered free of charge at selected libraries, Internet use costs 500 MNT per hour. This may exclude users from lower income groups. The Internet training that is offered seldom follows a curriculum or formalized training plan.

4.1.3 Capacity & Relevance

2 – 3 Paragraphs:
What is your overall assessment of CAPACITY ecosystem in this type of venue (human capacity, locally relevant content, integration into daily routines, socio-cultural factors, trust in technology, social appropriation of technology)?

Increasing numbers of Mongolians are turning to technology to solve their information needs. Although the backbone has been extended to include all aimag centers, and it is planned that all soum centers will be connected by the end of 2008. The current public library system is unable to meet this demand in the majority of its locations, especially in areas outside of the two largest cities in the country – Ulaanbaatar and Darkhan. Librarians and other library staff often lack the technical skills required to properly assist users in utilizing technology-based services, or to maintain the equipment. The need for increased training for both users and operators emerged as a dominant factor in inhibiting the use of ICT in libraries.

The distance that many rural residents have to travel to access the libraries means that users are unable to utilize the services as often as they may want to. Bearing in mind the daily fees that are levied to take books home, users travelling from remote areas may not be willing or able to pay the costs. The distance from the libraries may negatively impact rural user's abilities to integrate library services into their daily routines.

There is a lack of relevant or local content in digital materials available in Mongolian, and many of the existing print materials are out of date. Users report that existing library resources are seldom able to satisfy their information needs. In order to source the information they require, many are turning to alternative venues and sources such as the Internet, which is only available in

2.5% of public libraries.

4.1.3.1 Staff Size

How many people work in a typical facility for this type of venue? (full time-equivalent employees or contractors; describe any significant variations; i.e., large, medium and small libraries in the country)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

In soum libraries, there is generally one staff member who serves as the librarian, procures books, completes clerical work, undertakes renovations (as budget allows), cleans, and completes all reporting procedures.

The number of staff at aimag centre and larger urban areas depends on the size of the library and consists of more than one person. In Zuunmod, the Tuv aimag centre, the library had eleven staff, made up of four librarians, four service support staff members, one manager, one financial officer and one IT point person.

The National Library of Mongolia has a staff of ninety, fifty-seven of whom are librarians.

For libraries offering Internet and Digital services, there is at least one IT person on staff.

4.1.3.2 Staff Training

What is the overall capacity of the staff (ie, librarians, telecenters operators) to help users access and use public access to information & communication services offered in this venue? Differentiate by applicable Equity of Service variables (Form 1c).

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

(ii) For Public Libraries, indicate if Library School training is available and/or required for librarians.

In theory, all librarians employed in the public library system are graduates of the Cultural University's Library Sciences course. The officer in charge of Public Libraries in Mongolia reports that library staff training is held twice a year. The training programs are designed to upgrade library staff capacity and can include computer training including Internet skills and IT technology utilization skills such as photocopying.

There is also a twenty-one day training course offered at the Cultural University in Ulaanbaatar for library staff. During this course, the participants develop technical competency skills convening library systems and packages, improve user centered service skills, explore the practical application and guidelines for the latest policies library-related and regulations introduced by the Ministries of Education and Culture, learn about procurement and stock processes, and customer service ethics. There is no specific training during this course that deals with assisting disabled users or introducing IT to new users. Participants in focus groups

examining libraries highlighted the lack of service culture in Mongolia as a problem in accessing the services offered in the libraries. This is a prevailing factor across industries in Mongolia.

<div style="border:1px solid black; background-color:#ffff99;">

Quotes from public library focus group participants

Our librarians don't know how to communicate. Most of them are women who are middle aged. They treat us as if we have come begging at their homes.

37 year old female, Zuunmod soum, Tuv aimag

The knowledge and skills of librarians are outdated and the service is poor.

43 year old male, National Central Library, Ulaanbaatar

</div>

(ii) All librarians employed in public libraries need to be suitably qualified. This includes having completed a bachelor's degree in library sciences at the Cultural University, located in Ulaanbaatar. The course is four years long. Completing a Master's degree takes an additional two years of study.

4.1.3.3 Services Offered

What kind of services does this type of venue offer to the public? (ie, access to books, magazines; meeting & conference rooms; audio/video programs, computers, Internet, other). Include Digital ICT services if offered.

	Services Offered	Comments
1.	Registration and issuing readers cards	Price varies between Ulaanbaatar, aimag center and soum center libraries.
2.	Reading hall	Free of use for all card holders.
3.	Borrowing books	Daily charges are levied for this service regardless of location.
4.	Information enquiry service by phone or in person	There is no cost for this service regardless of location.
5.	Mobile library service	Operational costs often affect the reach and implementation of existing services.
6.	Internet Access	The Metropolitan Library and Darkhan public library offer free Internet access.

7.	Photocopying and computer services (word processing)	Only in selected libraries in Ulaanbaatar, larger urban areas and aimag centers.
8.	Internet training	Internet training at selected libraries is free of charge for members of the public.

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

Libraries at soum level do not offer any digital services, whereas fifty percent of libraries in Ulaanbaatar do, as do twenty-one percent of libraries in aimag centers and larger urban areas. The size of the book collections available to users is relative to the location of the libraries. Libraries in central Ulaanbaatar are able to offer the greatest variety of materials to their users. The Mongolian National Library houses three million books, however, only 150, 000 of these are in Mongolian. The remainder are in languages including Russian and German, and religious texts in Tibetan and Sanskrit. Libraries in outlying districts of Ulaanbaatar, larger urban areas and aimag centers have fewer resources available, and libraries in soums have the smallest collections for users to access.

4.1.3.4 Programs for Underserved Communities

Describe if this venue has programs specifically intended to reach underserved communities, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Socio-economic status: There are no national programs that support access to libraries for economically disadvantaged segments of the population through the reduction or removal of registration fees. The librarian interviewed at Sergelen soum library, in Tuv aimag, reported that the user registration fee has been waived for local groups identified by the library as vulnerable. These include school pupils living in the school dormitory, people who are unemployed or do not have a source of income and may have large families, and people living below the poverty line. This step was taken in order to encourage the population to use the library and library services. In order to apply for this benefit, residents need to get a letter from the local district governor attesting to their status. The librarian went on to mention that the poorest of the poor generally do not utilize library services, and she attributed this to the impact of their vulnerable situation and the lack of importance the library holds for them while they struggle to survive.

Education level: Research was unable to uncover any programs run by public libraries that aimed to increase literacy of low or neo-literate population segments. A reason for this is the high literacy rate in Mongolia - 98%. This means that groups that are unable to deal with text based information cannot access the services offered by the libraries.

Sex: In Mongolia, gender is not a decisive factor in limiting access to information. Young boys and men who have been removed from school in order to tend to the herds may lack the skills and confidence to use library services and tackle cast text-based information. There are no public library programs that research has been able to highlight that target this group.

Location and Remoteness: Mobile library services are said to officially exist at each library. These mobile services aim to facilitate access to library materials by remote populations, as well as to hospital patients, schools and local organizations. However, these costs of these services in terms of fuel and staff time are often impediments to implementation. In reality, few libraries are implementing this service.

Internet training courses for members of the public offered at selected libraries at aimag centre level and in Ulaanbaatar are free of charge for all participants. This allows members from all sections of the community to participate in the courses. However, residents would need to be able to reach the library, and so this excludes those living far from the library , those at soum level, or those who are unable to leave their homes.

Language spoken: The Metropolitan Library introduced a reading room with Kazakh language materials in December 2007. Libraries in areas where Kazakh is the predominant language, such as Bayan-Ulgii and areas of Khovd, only a quarter of materials available are in Kazakh, and these have been received from donors in Kazakhstan and Turkey.

Disability: Research has show that, on the whole, the public library system does not implement specific programs that target underserved communities. This may be due to a lack of available funding, and also due to local perceptions about what constitutes an underserved segment of the community. In Mongolia, for example, disability is an extremely difficult issue to research as very little information exists. Historically, disabled people were kept separate from larger society, with special schools, medical facilities and sheltered employment. The result of this is a general lack of awareness regarding disability in the country, with the subsequent failure to tailor services. Rather, individual libraries have implemented initiatives that may assist targeted segments of the local population.

The Metropolitan Library in Ulaanbaatar has made one Braille Computer available for public use.

4.1.3.5   Relevant Content

What type of locally relevant content is available? What else is needed? Who is doing it?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Available Content:

All respondents interviewed about public libraries during the course of this research were quick to state that there is a lack of local content available for library users in both printed and electronic mediums.   The majority of content available at the libraries is in printed form in Russian and Mongolian,

> **Quotes from public library focus group participants**
>
> Look at the condition of the library. It is hard to say that this is really a library. No useful information is available. There are a few old Lenin volumes and Communism theory books. Last spring, one million tugrugs worth of funding was given to this library and a few literature books were bought.
>
> 27 year old male, Eroo soum, Selenge aimag

and includes fiction and non-fiction. Many of the reference materials are out of date and users report that these materials are unable to assist them in accessing pertinent information.

Only libraries in larger urban areas offer digital services and Internet access. The National and Metropolitan libraries, both located in Ulaanbaatar, have established E-catalogues of their resources in Mongolian.

Other Content Needed:

Up-to-date reference materials, general non-fiction materials and subscription publications are not found in the libraries. Many students utilize the libraries in the course of their studies.

> **Quotes from public library focus group participants**
>
> One day, there was a general knowledge quiz competition in the soum. The quiz included a question about Mongolian leaders. Nobody could answer the question. There was no book available in the library that could give us the answer either. People in our soum cannot learn about our own history.
>
> 27 year old female, Eroo soum, Selenge aimag

Updated fiction and general reading material for adults and younger readers would encourage intellectual curiosity, a characteristic lacking generally in post Soviet societies. Daily newspapers, current journals and magazines are not present in the libraries, leaving many readers, especially in rural areas, with little printed access to daily news and topical information.

Internet and intranet services at aimag and soum level would enable inter-library loans. Mongolia's postal system is adequate to support such a development.

Local Initiatives to build needed content:

The research team was unable to uncover any local initiatives that are currently working towards the development of local content in libraries.

Source: Interviews with library personnel and focus groups with local library users.

4.1.3.6   Services & Information Available in Local Languages

Describe the availability of services and contents relevant to human development that are available in **local languages** in this type of venue? (i.e., info on health, education, government services, etc)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

There is a shortage of Mongolian language materials and content across media. The Mongolian National Library, for example, has three million books, of which only 5% are in Mongolian. Publications that are made available by the government and donors are available to users. If these are written and produced in Mongolia, they are often bilingual – English and Mongolian.

Many of the reference books that may exist in Mongolian are out of date and current information is lacking.   The yearly procurement budget for libraries varies according to the location, and relative population size, of each public library service area. For the Municipal Library, a yearly procurement budget of thirty million tugrugs (approximately 25,860 USD) is available, aimag centre libraries have ten million tugrugs (approximately 8,620 USD) each, and soum libraries have 100,000 (roughly equivalent to 86 USD) tugrugs each. This means that there are very few

up-to date publications at soum and aimag level.

Internet users in libraries are able to access Mongolian language websites that may contain more up to date information, as well as websites such as the Open Government website www.open-government.mn.   The bulk of available government produced information supports economic rather than social development.

Materials in minority languages are in very short supply. There is a lack of materials available in Kazakh, the largest ethnic minority at 7% of the population, especially in areas such as Bayan-Ulgii, where Kazakh is the dominant language. Only twenty-five percent of the materials in the Bayan-Ulgii aimag center library are in Kazakh, the remainder are in Russian and Mongolian. The majority of the materials that do exist in the local libraries in Bayan-Ulgii have been received from donors in Kazakhstan, the Government of Turkey and other civil organizations

4.1.3.7   Types of Uses

What do people USE the venues for (most frequent kinds of information & services people seek in them, activities they carry out in them)?

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

Refer to section 3.4 Charts: Information Needs and complement here as needed:

Libraries are an exceptionally popular location for school pupils and university students to work in after school hours in Mongolia. Entire families often live in one room houses or gers, and libraries provide a quite space in which pupils can complete assignments and tasks, as well as source information. Many of these users, especially in the rural areas, cannot find the information that they need from the resource available in the library. An average of 30% of users in non-urban public libraries and 57% of users in urban public libraries report using library services for educational purposes. Teachers involved in the focus groups also stated that they used the library resources to create lesson materials, supplement textbooks and boost their knowledge.

Library users also seek entertainment information. The data collected by the research team indicates that more users (22% in total) seek this information in the rural libraries that do not offer ICT services, than in the rural and urban libraries that do. The number of users seeking entertainment information was lowest in the urban areas. This may be due to the comparative number of tabloids and radio and television stations that provide this information.

Only 8% of library users in rural areas with no ICT services used their local library to find news information. In rural areas where ICT is available, this figures more than doubles. This is indicative of the inability of library users in remote areas to access up to date newspapers and information in print and an increasing imperative to use electronic sources to access current news information. Other areas of information sought include health (6% of users) and government services (6% of users).

(i)An average of 35% of library users that access ICT services at the library browse the web, often doing so to complete educational assignments. Some respondents stated that they used the web to search for educational opportunities at overseas universities.

One quarter of respondents in the user and operator surveys pinpointed e-mail as a primary ICT activity that library users engage in. The number of users who use the Internet to chat in non-urban libraries that offer ICT services is twice that of urban library Internet users.   This reflects the lack of private cybercafés and Internet cafes in non-urban areas. It also implies ownership of private Internet accounts. In the urban areas, there are numerous Internet and cyber cafes and increasing numbers of private Internet accounts. Prices continue to fall.

> **Quotes from public library focus group participants**
>
> I get educational and health information from the library and share this with my children.
>
> 45 year old female, Khovd aimag center
>
> It has been three years since I began cattle farming. I collect information on cattle farming, improving milk yield and productivity, and milk and meat processing. I also want to contact and share my experiences with other cattle farmers
>
> 32 year old female, Metropolitan Library, Ulaanbaatar
>
> I have taught for over 40 years, and am a regular library user. I seek information that is relevant to my occupation.
>
> 63 year old male, Khovd aimag center

4.1.3.8   Number, Type and Frequency of Users

Refer to section 3.4 Charts: Information Needs**Error! Not a valid result for table.**. Complement here as needed:

In Ulaanbaatar, 60% of respondents stated that they visit the library nearly every day. The libraries in central Ulaanbaatar serve as major intellectual and information resources for the students that study in the city's approximately 200 tertiary institutions. The National Library reports that they have 60,000 users in total, and that between 300 and 400 visit the library every day.

4.1.3.9   Users Capacity to use information and services offered

What is the overall capacity of the users to take advantage of public access to information & communication resources, differentiating by applicable Equity of Service variables (Form 1c)?

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

Socio-economic status: Low income earners may find the costs associated with library services prohibitive and therefore refrain from making use of the resources available. For some, the library holds negligible importance and the associated costs impinge on basic survival.

Education level: Users need to have a high degree of literacy in order to make use of information accessed through the library as it nearly always text based. Although Mongolia enjoys a high

literacy rate, there are segments of the population who have not completed basic or formal education and rendered unable to utilize library services.

Location and Remoteness: People living in remote areas are not able to frequently access the libraries and therefore cannot take advantage of resources that are available. They may also be unaware of the services that are on offer or how to access them.

Language spoken: Ethnic minority language segments of the population often find the lack of materials in their native languages a barrier to accessing information.

Disability: Disabled users are not well catered for in the public library system in Mongolia. The premises are often not easy for user with mobility and physical disabilities to access, and there are no materials available for visually impaired readers outside of central Ulaanbaatar.

A large proportion of the population lacks the technical capacity to interface with technology. Many older Mongolians, as well as those living in the countryside have had very little exposure to computers or opportunity to use them. User skills remain low, regardless of educational status or location, and this needs to be addressed in order to facilitate proper public access to information.

> **Quotes from public library focus group participants**
>
> There are times when I fail to access the information I need because I can't use the equipment.
>
> 41 year old female, National Central Library, Ulaanbaatar
>
> I can't access the information that I need. The library fails as an information provider, and the staff is unhelpful. And with the Internet, I face a language barrier
>
> 28 year old male, National Central Library, Ulaanbaatar

4.1.3.10 Training Courses for Users

Describe training courses offered to the public at this venue, and if they offer some kind of testing and certification.

 ICT specific training courses:

Internet training courses are held at the larger libraries that offer Internet services. Most of these are located in Ulaanbaatar. According to interviewee's, the libraries and by extension the librarians are not mandated to teach computer and Internet skills training courses. Because of this, there is no set curriculum or training program, and no certification is awarded. At many of the libraries that do offer training courses, the frequency of the workshops is irregular, and often driven by user demand. In a culture where saving face is a compelling factor, having to specifically request training is a deterrent to the acquisition of new skills.

At the Metropolitan library, an introductory Internet class is held every Thursday between 16.00 and 19.00. These courses are designed for beginners, and are facilitated by the librarian that oversees IT as well as competent library users. The first two hours are spent delivering basic Internet application instructions and highlighting resources for the participants. The remaining hour is set aside as a group session in which participant can talk about difficulties they may have experienced in accessing the Internet and where the instructors can provide the necessary support.

The librarian's office at the Mongolian National library

The Internet center at the library has 6 computers in total, and all of these are utilized for the training course. There are between 6 and 12 participants on every course. According to Metropolitan library staff, most of the participants are secondary school children as well as people working in the private sector.

The IT librarian at the Metropolitan library reports that the training course consists of the following topics:

1. What is the Internet?

    - The history behind the Internet.

    - Facts and figures including size, user numbers, etc.

    - What you can do with the Internet.

    - What types of accounts you can open.

2. What is electronic mail?

    - Setting up an e-mail account.

- Understanding your   e-mail address.
- Sending and receiving e-mails.

3. Searching the Internet for information.

- How to select languages (either English or Mongolian).
- How too gather information.
- Simple search tools.

4. How to deal with the information you're received.

- How to print documents.
- How to convert Internet based documents into a Word file.
- How to copy documents onto a flash drive and retrieve them.

The IT librarian at the Metropolitan library says that the driving factor behind the training course is to facilitate ease of access to information and to increase the number of Internet users. Following the training workshops, the IT librarian registers all new users' e-mail addresses and then sends messages about library activities , such as changes to the library timetable, new book arrivals, cultural events and activity updates.

4.1.3.11 Integration into daily routines

How easy is it for users to integrate the information and services offered in this type of venue into their daily lives? (offer concrete solutions to their needs and problems, make it easier to solve them at this venue than in other places)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Public libraries continue to occupy a pivotal position as a public access to information venue in Mongolian society, despite the difficulties the institutions face in bringing current and relevant information to their users. Along with a lack of current information, most of the libraries are in a state of disrepair.   There is inadequate heating in the freezing winters, and a lack of ventilation during the warm summer months. Users repeatedly state that the environment within the libraries is not conducive to productivity - they are uncomfortable and lacking support services such as photocopying and scanning. This leads to pages being torn out of books, and in rural libraries there is often only one copy of each book available per library. This places later users at a disadvantage.

Library services are difficult to reach for rural residents such as herders, who live outside of the soum centers, as well as residents who are unable to leave their homes or travel to the library. Mobile library services are seldom able to operate as the costs involved, such as petrol, are prohibitive. This lack of service restricts the ability of the users to access library services.

4.1.3.12 Users Perceptions about the Venue

What is the general perception or opinion of the population about the venue (not necessarily its specific services, but the venue itself: ie, what do people generally think about libraries? Are they places that are "cool" or "only for elites" etc?), differentiating by applicable Equity of Service variables (Form 1c)? This includes perception by people who do not use the venue…

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Quotes from public library focus group participants

The library is the main place to enlighten and educate the public.

60 year old male, Khovd aimag center

The library is a global cultural center.

21 year old female, Metropolitan Library, Ulaanbaatar.

Libraries are literally part of every settled community. Physically, a library exists in every soum, along with other consistencies such as the community center, post office and local government office. Local residents have traditionally viewed the library as a place of learning, and a venue that facilitates personal growth.

For those that have not completed formal or basic education, libraries are a daunting and inaccessible entity. For many who cannot access the library due to the distances they would have to travel, the library is still seen as a respected institution, but one which is not accessible to them.

Many view libraries associated with academia and learning as venues to study, access information for school and lectures, and complete assignments.

4.1.3.13 Social Appropriation of Information and Generation of New Knowledge

What activities, products and services are users undertaking that exhibit new levels of social appropriation of technologies and generation of knowledge? For example, how are users generating and disseminating new knowledge, products and services through their use of this venue? (see category 13 in Real Access Framework for Social Appropriation of Technology).

If relevant, indicate any specifics that apply to Digital ICT services alone.

The inability of libraries to provide the information that users need in printed form has driven many of the users to seek information over the Internet, allowing digital research and information gathering to become the norm for many.

Users have also come to rely on Internet services offered to send and receive e-mails, and to chat with friends and relatives. This is particularly relevant in a country as large and sparsely populated as Mongolia, with almost half of the population resident in one city.

Education quality has increased as a result of Internet access. Along with the benefits that student's derive from being able to access additional resource materials, a number of respondents mentioned that they were able to access scholarship information through the Internet at their local library. This is considered essential as they live at least three days' drive from Ulaanbaatar.

Applicants applied online, were awarded scholarships, and took up new studies.

4.1.3.14 Trust, Safety & Privacy

What is the general perception or opinion of the population about the safety, security and privacy (TRUST) of the information and services offered in this venue?

Again, the library is viewed with respect and trust. The research undertaken did not uncover any information that suggests otherwise. Net security is not on the public radar because there isn't yet sufficient usage patterns. As has been observed in other start up ICT contexts, spam mail is viewed with interest rather than irritation that is more prominent in highly developed nations

4.1.3.15 Gaps and Opportunities in information & services offered

What other information gaps & opportunities exist, which are not being met? (other information / services people need that are not being met there and could be offered, especially through Digital ICT services)

Herding families living in remote areas are not easily able to access information. Although mobile library services exist, they are very often unable to function as planned due to financial constraints. When they are able to operate, regular mobile services cannot be guaranteed due to a lack of steady funding. This negatively impacts on remote populations' ability to access information. Household laptops would make it possible to be on line anywhere using mobile Internet connection services offered by a local mobile phone service provider, G-Mobile.

Some soum libraries are able to operate mobile services around the soum centre, visiting hospital patients and government buildings. Extending this to include people with mobility disabilities, the elderly and those living on the edges of the soum centers would help disadvantaged segments of society access library services.

Offering Internet services at soum level would allow soum residents to access daily newspapers

online in Mongolian, and also to maintain contact with relatives living in Ulaanbaatar and abroad.

4.1.4   Enabling Environment

2 – 3 Paragraphs:
What is your overall assessment of the ENVIRONMENT ecosystem in this type of venue (local economy, national economy, legal and regulatory framework, political will & public support, regional and international context)?

Mongolian society holds information, knowledge and education in high regard, and, directly related to this, is the library. The libraries are viewed by the general population as venues for professional and personal development, and remain respected institutes even though lack of funding has hindered the libraries abilities to provide quality and quantity information. Emerging strongly from the interviews conducted was the overriding recognition of the library as a core

community centre and the central information supplier in Mongolia, and the progression of the libraries into the leading source of digital information at city, aimag centre and soum level seems logical.

This environment though depleted and badly in need of capital and capacity injection, has a solid foundation and is a positive, lasting legacy of the Socialist era. The building of a new structure to house the State Central Library in Ulaanbaatar, funded through a grant of approximately 20 million USD received from the Kuwait government, is testament to the Mongolian Government's recognition of the value of the public library system and commitment to upgrade the existing facilities however possible.

The centralization of the budget and nascent revenue flow model stemming from a central source is problematic. The small revenue base is an issue that is set to shift with the stabilization of the Investment Agreement and increased revenue generated from the mining sector that will account for 35% of the national GDP. For libraries located in areas in which mining revenue is set to flow down to aimag and soum level, increases in available budget will result.

4.1.4.1 Local & National Economy

Describe the local & national economic environment and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

The costs levied by libraries are largely affordable to the greater population and so changes in the national economy will have minimal impact on the user fees collected. However, funding received from the government may be affected by economic fluctuations. As the natural resource boom and development produce economic growth in Mongolia, it remains to be seen if funding to develop the library system access information and the capacities to utilize it, will be a priority. Decentralization of funding has yet to occur in Mongolia but pressure to distribute mining royalties equitably is likely to create demand for revenue flow reforms and public services at regional and local levels.

The current centralized funding system does not allow libraries to receive actual funds required for repairs, maintenance and stock replenishment. The result of this is continued deterioration of library infrastructure a lack of updated materials for users to access.

4.1.4.2 Legal & Regulatory Framework

Describe the legal and regulatory framework and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Libraries are administered by the Ministry of Education, Culture and Science.   There have been no recent significant developments in policy that would affect libraries. While the government recognizes the significant role that these institutions play in communities in allowing access to information by continuing to fund an infrastructure that takes into account every soum and aimag center and city, the venues continue to be underfunded. They are thus unable to fully serve their local populations.

4.1.4.3   Political Will & Public Support

What is the level of political will and public support for this type of venue? (refer to & complement section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

While public libraries continue to receive state funding, the amount of money available is insufficient to meet user demand and immediate needs such as repairs. Many users that were encountered in the course of this research expressed their frustration at the inability of the library system to fulfill their information needs. This feeling was more predominant outside of Ulaanbaatar where facilities are lacking and fewer radio stations, television stations and printed publications are available.

4.1.4.4   Organization and Networking

Describe if the facilities in this type of venue organized in any network, association or other collective body? (ie, national public library system, telecenter franchise or network, etc)?

The National Central Library of Mongolia manages and coordinates the operations of all libraries throughout the country, including public libraries. Libraries in Mongolia are part of the Mongolian Consortium of libraries which is a member of the Electronic Information for Libraries network (EILNet).

EILNet is a non-profit organization that supports and advocates for the wide availability of electronic resources by library users in transitional and developing countries. The headquarters of the organization are in Rome. EILNet's vision is to provide leadership and act as an international advocate for the expansion of the availability of electronic resources, along with the development of member library skills. The EILNet currently includes library consortia in 48 developing countries and transition countries.

4.1.4.5   Partnerships

Describe notable public-private partnerships in support of this type of venue.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

As part of the Mongolian Foundation for Open Society's "Community Information Center" (CIC) project, the aimag centre libraries in Dornod and Omnogobi aimags were equipped with computers and linked to the Internet. CICs are accessible to the public Internet-based services offered include video-conferencing facility for citizens and their relatives, who live, study and work in Ulaanbaatar, or abroad, as well as e-mailing, browsing government websites, surfing the

net and communication with central and local government officials.

A Public Information Centre (PIC) was established by the United Nations Resident Coordinators Office, The World Bank Resident Representative Mission and the Open Society Forum in the Darkhan public library. The PIC offers free Internet access to users.

Although not an example of public-private partnership, it is worth mentioning that the Metropolitan library has been the beneficiary of AusAID, the Australian

Government's overseas aid program, in 1998 facilitated the

The Metropolitan Library, Ulaanbaatar

initial digitalization of the Library. The Embassy of the United States of America established the American Cultural Centre, which is housed within the central library. The Embassy is now financing the existing Internet services at the library, with a yearly budget of 150,000 USD. Previous funding had been received from the Information Development Resource Centre (IDRC) Canada. World Vision International has donated equipment for the digitalization of printed resources.

4.1.4.6   Other Environment Factors

Other factors in the environment that affect access and use of information in this kind of venue, not covered above?

Librarians in Mongolia need to be graduates of the library sciences degree offered at the Cultural University in Ulaanbaatar. Through the research observation process as well as interaction with public library users, researchers have been made acutely aware of the lack of knowledge curiosity on the part of the paid library staff. Technical skills upgrading including customer relations and IT skills development for library staff need to be integrated into future development plans.

4.1.5   For Publicly Funded Venues only: Revenue Streams

This section is meant specifically for publicly-funded venues (public libraries, national connectivity programs, etc).

4.1.5.1   Budget

What is the total budget for this public access venue system (applies especially for libraries, answer for other

venues if applicable and if available)?

National Library of Mongolia

Total Budget for Fiscal Year 2007

Local currency name 300,000,000 MNT

Approx. equivalent in 259,740.26 USD based on exchange rate of 1,155 MNT: 1 USD on 7th July 2008.

Metropolitan Library

Total Budget for Fiscal Year 2007

Local currency name 230,000,000 MNT

Approx. equivalent in 199,134.12 USD based on exchange rate of 1,155 MNT: 1 USD on 7th July 2008.

Total aimag center library budget (21 libraries in total)

Total Budget for Fiscal Year 2007

Local currency name 86,054,000 MNT

Approx. equivalent in 74,505.62 USD based on exchange rate of 1,155 MNT: 1 USD on 7th July 2008.

Individual soum library budget (326 soum libraries in total)

Total Budget for Fiscal Year 2007

Local currency name 2,500,000 MNT

Approx. equivalent in 2,164.50 USD based on exchange rate of 1,155 MNT :1 USD on 7th July 2008.

The figures above were received from interviews conducted with local library operators as well as Ministry officials.

4.1.5.2   Relative size of budget

How large (or small) is this budget in relation to other funding streams? (this is a way to show, in financial terms, how much the government cares about information and public access as compared to a variety of other issues in the country).

Relative Size of Budget for same year	Total budget (local currency)	Comments (percentage breakdown against total national budget)
Total national budget	1,725,213,105,700.00	100%
Education	8,762,714,000.00	0.51%
Health	4,499,104,700.00	0.26%
Public Libraries	1,811,649,600.00	0.11%

Other Comments:

Information received from www.legalinfo.mn as well as interviews with relative ministry representatives.

4.1.5.3   Sources of funding

What are the sources of funding for this public access venue system?

The table below illustrates the general sources of funding for venues across this public access system. Any differences are included in the 'Comments' column.

Sources of funding:	Approximate % of total budget	Comments
Government sources:	100%	The exception is the Metropolitan library which receives 75% of its current funding from the state. The remaining 25% is received from rental fees paid by organizations housed within the library building, as well as multi-donor funding.
International donors:	0%	
National donors:	0%	
User fees / services:	0%	

4.1.5.4   Paths and Flows of resources

How do resources get allocated and disbursed to the actual venues? For the principal funders, and especially for the public sources, what is the flow of funds? How are the funds raised (what tax stream), what path do the tax streams flow before they get to the specific venues? Who makes decisions about this funding?

Funding for libraries in Mongolia stems from a centralized budget at the Ministry of Education, Culture and Science. There is a budget planning and request process that each library needs to undertake in order to secure funds for the following year. The process, explained in detail below, theoretically allows libraries to request funds against actual needs. Discussions with library operators as well as Ministry of Culture, Education and Science officials have highlighted that the institutions remain underfunded and that libraries at soum level tend to receive identical yearly budgets of just over 2,000 USD per venue, regardless of the requests submitted.

The Library fiscal system is governed by the Law of Government Organization Administration and Financing. The main purpose of the law is to manage and regulate human relations arising from budget development, approval, expenditure and reporting. All state and local government-funded organizations as well as joint ventures (in which government shares exceed 51%) are subject to

the law.

The steps which need to be undertaken to secure budget approval are as follows:

1. Budget vs. activity planning is undertaken by a working group consisting of the library director, finance staff and heads of library departments. This process occurs between January first and May first. At soum level, the librarian is the only staff member and will thus undertake this process largely by themselves.

2. For Ulaanbaatar-based libraries the budget planning paper is to be submitted to the Head of the Department of Culture at the Ministry of Education, Culture and Science no later than June 01. The budget review process involves negotiations between the Ministry and the submitting party in order to achieve mutual consensus.

3. For aimag and soum based libraries, the budget plan is submitted to the aimag department of Culture and Education.   The aimag department officers review the plans submitted and compile and overall aimag library budget that includes the aimag center and soum library requests. This budget is then submitted to the Aimag Citizen's Representatives council for approval. Once approval is received, the aimag department of Culture and Education sends the   budget to the Department of Culture at the Ministry of Education, Culture and Science by 1st   June.

4. The Department of Culture at the Ministry of Education, Culture and Science then reviews all Ulaanbaatar, aimag and soum library budgets and compiles them into one integrated library budget. After reviewing and compiling the budget plans, the Department of Culture submits the integrated budget to the Minister of Culture and Science not later than July 1st.

5. The Minister of Education, Culture and Science reviews the integrated library budget and includes the information in the Ministry's master budget.

6. The Ministry of Education, Culture and Science in turn hands the Ministry's master budget to the Ministry of Finance no later than August 15th. At this point all the budgets received from the individual ministries are combined into a national budget.

7. The Member of Parliament in charge of financial affairs then submits the national budget to the Government of Mongolia and Parliament not later than September 15th.

8. Final approval is received from the Government and Parliament between November 1st and 15th.

Funding is received by libraries on a quarterly basis. In order to receive the funding, each library needs to generate:

- Monthly financial reports which are submitted to the Ministry of Finance.

- Quarterly financial statements submitted to the Ministry of Education, Culture and Science and the Ministry of Finance).

- Quarterly tax reports to the Tax office of Mongolia.

Once the quarterly financial statements have been received, reviewed and approved by the two ministries, each library is then eligible to receive the next quarterly installment tranche of funds.

If a library fails to submit the required financial reports, the upcoming quarterly funds are withheld.

In terms of narrative activity reporting, each library department or unit needs to generate a quarterly activity report. In smaller aimag and soum level libraries, where there is one staff member, a single report needs to be written. At larger libraries, the vice director collects all department or unit reports and compiles these reports into one document. The compiled reports are then handed to the Director of the library who is responsible for sharing the information with the staff and facilitating a participatory activity evaluation meeting to identify achievements and activity gaps. Annual narrative reports are sent to the Department of Culture at the Ministry of Education, Culture and Science.

4.1.5.5   Fees and Cost Recovery

Describe if there are user fees or any other type of cost recovery. How does it affect service delivery and usage?

Membership fees are charged at each of the public libraries. As mentioned earlier, these fees vary according to the geographical location of the library (fees are higher in Ulaanbaatar than at soum and aimag level) and the age of the user in the case of Ulaanbaatar. Additional support services such as photocopying, scanning and Internet access, as well a nightly loan charge, are levied and the fees are collected from users. The money collected in fed back into the centralized library system.

Not all library users can afford to pay for additional services. This prevents them from being able to take materials out of the library and use them at home. Users also report that pages are commonly torn out of books as photocopying services are not available or affordable, or member are unable to pay the nightly loan fee. In soum libraries where there is often only one copy of each material available, later users are unable to access complete information sources.

4.1.5.6   Cost Categories

What are the main cost categories in the operation of this kind of venue? (% of total annual budget)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Metropolitan Library

Cost Categories for Operation:	Approximate % of total budget	Comments
Staff (salaries, benefits)	61.6%	
Building Infrastructure	0	
Utilities	14.2%	
Staff Training	0	
Computers / Technology	0	
miscellaneous	24.2%	Includes office supplies, and transport.
Total	100%	
Cost Categories for Operation:	Approximate % of total budget	Comments
Staff (salaries, benefits)	33%	Includes salaries (29%), social and medical insurance (3%) and other benefits (1%).

Overall aimag center library budget

Soum budget

Building infrastructure and routine repairs	3%		
Book Procurement	6%		
Utilities	53%	Includes electricity (3%), water (2%) and heating (48%)	
Office supplies	0.4%		
Local travel	1%	Includes per diem (0.4%) and petrol (0.6%)	
Communications	0.5%		
Other expenses	0.1%		
Computers / Technology	3%		
Total	100%		

library

Cost Categories for Operation:	Approximate % of total budget	Comments
Staff (salaries, benefits)	96%	
Building Infrastructure	0	
Utilities	0	Soum level libraries are located inside local cultural centers. The cultural center covers all library utility costs.
Staff Training	0	
Computers / Technology	0	
Book procurement	4%	
Total	100%	

4.1.5.7   Recent changes and future trends

Describe any recent changes and anticipated future trends in the funding and revenue streams for this type of venue in the country. Have funding levels risen or decreased dramatically over the past few years? What is the outlook for the foreseeable future?

In June 2008, the government launched its plans for the building of a new State Central Library in Ulaanbaatar. The funding for this project has been received from the Government of Kuwait (http://ubpost.mongolnews.mn/index.php?option=com_content&task=view&id=1938&Itemid=36).

The new building is reported to cost 20 million USD. In various newspaper reports, government officials have stated that the new building is being constructed as the need for a modern, well equipped and technologically updated Central library is paramount.   This move is indicative of the Government's acknowledgement that the public library system in Mongolia is in need of updating and additional support, but that the funds to ensure this are not allocated internally.

Although the public library system will continue to receive state funding, historical and current trends indicate that the amounts awarded to libraries, particularly the majority of libraries and aimag and soum level, are not adequate to facilitate the changes needed to meet user demand. Almost all libraries are in need of physical repair, updated content, technological upgrades and staff capacity development. Users, in turn, need to be given the skills to properly utilize the new services available. In order to meet user demand and to transform the libraries into user friendly information hubs, adequate external funding is needed. A concerted advocacy effort is needed to prioritize access to information and public services to support information flow and the capacity for access.

4.1.6   Case Example for Public Libraries

Provide a short descriptions and commentary for each type of venue, offering a realistic sense of what the venue looks and feels like in its day to day operation, the kind of people who visit, and the kind of services they receive. Also, the case example indicates what makes the case unique or what features are commonly shared with other venues. A photo and short quotes will make it even more real.

Sergelen soum centre is a typical Mongolian rural village. It is situated in Tuv aimag. The soum library, which serves a population of just over 2,000 people, is located in the local school building. The research team visited the library just after the lunar New Year, Tsagaan Sar February 2008. It was a cold, windy day, typical of the long, harsh Mongolian winter, and the daytime temperature was a chilly twenty five degrees below zero, centigrade.

A typical Mongolian soum

The visit was arranged, and the team was greeted with usual Mongolian hospitality as they arrived at the school. Local officials gathered at the entrance to welcome the visitors, steaming bowls of

warm milk tea in their hands. The library occupies one classroom in the school. There are a few desks and chairs for users, but these do little to provide comfort. The library houses 160 books in total. What struck the researchers most forcefully was just how cold the library was.

Book storage in soum library

Bundled up in their winter coats, hats pulled low and scarves wound tightly around their necks, the research team and the local librarian began to chat in earnest. The librarian explained that the heating system, which is centralized, did not work properly, and, when it did, local soum budgetary constraints meant that heating was often unavailable as heating materials were too expensive to buy, and bills could not be paid. This meant that, for eight months of the year in one of the coldest inhabited countries in the world, the library had very little, if any, heating. Inevitably, this impacts on the number of people who visit the library.

The budget that the library in Sergelen soum receives from the government does not cover all the

costs incurred. The librarian undertakes all cleaning and maintenance work by herself and pays for all the cleaning supplies and other associated costs out of her own pocket.

The library is supposed to maintain a mobile service for the rural residents. The librarian outlined the constraints that she faced in implementing this activity, 'Transportation costs are too high. We need to have a vehicle to travel in, and pay for the costs of petrol, as well as the costs for people to perform the service. I am the only librarian. If I leave the library, who will serve the local users? Mobile library services are just too expensive. They exist on paper only.'

Local soum library and librarian

The library has an old, second hand computer. When asked how often the librarian used the computer, and for what purpose, she replied 'I've switched it on a few times. The last time I used it, it was to check some CDs about the e-library program that I'd received. I think the CDs were about the national math curriculum.'

Quotes from Ulaanbaatar's Metrpolitan Library and National Central Library users.

'It is right to access information in the library. But if we stay at the same level it can't be freeely accessed by the public. It is necessary to equip the library with very good digital equipment. Books are so easily damaged. If the book is rare, and there are only a few copies, then only a few people can access this information at one time. Books should be digitized.'

28 year old man, Metropolitan library

'This library introduces new services and cares for it's customers well. It holds public training and has Internet services.They are beginning to introduce self service, so you can choose the books you need by youself. But, my ability to get information is hampered because some of the equipment that would help me is not available, such as a photocopier and a scanner. This means that I can't take information with me.'

32 year old man, Metropolotan library

'People can now choose books freely and serve themselves. This makes using the library easier and more friendly. There is a good supply of books and also of textbooks in foreign languges. These is also free Internet service.'

21 year old woman, Metropolitan

library

National library, Ulaanbaatar

'I usually go to the Metropolitan library. It is better in terms of service and equipment. They cooperate with foreign information centers and the interior design is good.'

25 year old male, National Central Library

'I go to the Metropolitan libary. The service is much faster and the information center runs well. It is clean inside and comfortable.'

20 year old female, National Central Library

'The Metropolitan library functions well. It's more than a library - it's also a place where young people go to spend their free time constructively. It has a good collection of books and innovative self service. Sometimes, it gets too crowded during the school year.'

22 year old female, National Central library.

Enterance to the Metropolitan Library

4.2   Venue # 2: Telecenters

4.2.1   Overall Venue Assessment

Provide a broad picture of the public access information landscape in this venue, informed by the results of this research.

2 – 3 Paragraphs:
What is your overall assessment of public access information in this type of venue?

For the purposes of this research study, the following have been included within the category 'Telecenters':

- Citizens Information and Service Centers (CISC) established by the United Nations Development Program (UNDP).

- Community Information Centers (CICs) established by the Soros Foundation.

- Development Information and Resource Centers (DIRCs) and Public Information Centers (PICs) established by the Soros Foundation.

These venues all provide public access to computers, the Internet and other information with the aim of facilitating development of the local community.

There are two DIRCs in Mongolia. Both were established by the Soros foundation, which later created the Mongolian Open Society Forum (MOFS). One DIRC is located at the old Soros building, now home to the MFOS office in Ulaanbaatar, and the other in the National University of Mongolia, also in Ulaanbaatar. There is one PIC in Darkhan City. All of these offer digital and Internet services to users. The DIRC in the National University of Mongolia has not been included and has not been considered as a public access venue in this study as its primary role is to supply Internet access to university students.

The Open Society Forum (OSF) is an initiative of MFOS. The OFS piloted three Community Information Centers in three aimags in Mongolia. Currently, two of the three CICS's are operational - in Omnogobi and Dornod aimags. Both of these are situated in the local aimag center library, and both continue to make digital technology, including the Internet, available to local users.

The CISCs were established by a joint project between the Government of Mongolia and the UNDP from 1997 onwards. Six CISCs were established in six aimag centers at the governor's office to provide government related information to citizens. The centers were also established to provide Internet access, ICT learning venues and e-mail communication points with government, for local residents. The CICs were established in Tuv, Dundgobi, Huvsgul, Khovd, Ovorkhangai and Sukhbaatar aimags. The Ovorkhangai and Tuv branches are currently operational.

4.2.2 Access

2 – 3 Paragraphs:
What is your overall assessment of ACCESS ecosystem in this type of venue (physical access, appropriate technology, affordability)?

Many of the Telecenters were established over a decade ago, when public Internet access was very limited and access to information was a nascent idea. They were established in larger cities and aimag centers, which were unlike the soums connected to the backbone cable. The centers were established with donor funding and many have since shut down. This has happened as many were unable to generate enough income to meet the costs incurred in operating, as well as the conclusion of donor funding.

Some of the Telecenters, such as the DIRCs offer free services for users, facilitating ease of access for the local population, in economic terms. However, all of these Telecenters are located in Mongolia's two largest cities, Ulaanbaatar and Darkhan, or aimag centers. Residents who live in the soums would not be able to access the centers, or their services, as easily, but can travel to them.

The DIRC located in the MFOS building in Ulaanbaatar houses a computer with a Braille keyboard and specific software for visually disabled users. As with the other computers, there is no charge for use. This provides an opportunity for visually impaired citizens to obtain information on development issues, access online information from world wide web and actively participate in online social activities, as long as they are in Ulaanbaatar. There are no such facilities outside of

the city.

4.2.2.1   Physical Access

Describe how accessible this venue is to various population segments, differentiating by applicable Equity of Service variables (Form 1c), especially the differences between urban and non-urban settings.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Socio-economic status: The telecenters are located in central locations within the aimag centers and cities. This eases access for users who live in and around these central regions.

Education level: Many of the telecenter users in Ulaanbaatar were students a undergraduate and postgraduate levels and associated the center with intellectual and educational pursuits. In order to access the text based information on the internet, or simply to browse successfully, a relatively high degree of literacy is required. While most of the population is literate, those that are not may be reluctant to access the Internet and weary of the amount of text they would need to navigate.

Age: Age is not decisive barrier to accessing the services offered by the telecenters. Older generations that have had less exposure to and opportunity to utilize computers and the Internet may be more reluctant to use the services available, or feel that they 'are not for them'. More mature users may experience embarrassment at learning new skills in front of a younger generation.

Sex: Overall, there are no gender-driven impediments to accessing telecenters.

Location and Remoteness: Telecenters have been established in the aimag capitals and city centers, and are distant from the rural areas and from the peripheral city areas. This puts them out of reach for a number of people, especially those that would need to travel vast distances on dirt tracks through extreme weather conditions.

> **Quote from telecenter focus group participant**
>
> There is no information provider in the areas where rural people live. How many times will a rural herder come to the soum center? It is only in winter that they may have a bit more free time. It is really hard for rural children to access extra information.
>
> 59 year old female, UNDP CISC, Zuunmod, Tuv aimag

Language spoken: The printed materials available at the DIRC in Ulaanbaatar are available in English and Mongolian. At all of the telecenters, users are constrained in the range of the sites that can be accessed by the extent of their linguistic skills. For users with English, Russian or another foreign language, a greater number of websites will be available to them.

Disability: There are wheelchair ramps leading into the DIRC center in Ulaanbaatar, although wheelchairs cannot access the library area where the printed materials are kept. The DIRC center in Ulaanbaatar houses one of two public Internet access points for visually impaired users in the country.   The Braille keyboard that is available for visually impaired users is currently broken and the center is trying to replace it. Budgetary constraints are making this difficult.

Describe how appropriate the technologies, services and information offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Socio-economic status: Providing free Internet access to the general population of Ulaanbaatar and Darkhan has opened up Internet and communication channels for city residents.   Users are able to surf the web, browse government websites, and develop computer skills.   The tarrifs levied by the other telecenters are lower than those charged by privately owned cybercafés and Internet centers in the same locations. This price differential helps to draw clients into the telecenters and make the services offered more accessible.

Education level: The DIRCs do not offer special training for users to develop computer literacy and capacity skills. This is essential in rural areas and for large segments of the population that have not been exposed to computers before. The UN CISC centers have been holding computer training courses, including Internet training workshops that have helped the users to develop the skills required to utilize the technology available to them. Users that were interviewed expressed gratitude for these

> **Quote from telecenter focus group participant**
>
> When I come here they are nice to me and it is clean and comfortable. They teach me things I don't know or understand
>
> 29 year old female, UNDP CISC, Zuunmod, Tuv aimag

training sessions as they now had the skills required to make use of the services available. Users highlighted the helpfulness and support of the center staff.

Age: Age is not a decisive factor in accessing telecenter services. The telecenters do not offer specific training courses for mature users who have had less exposure to technology and computers specifically.

Sex: There is a growing number of gaming centers or Internet centers that offer gaming services in Mongolia. These are predominantly utilized by young boys, and are rowdy and loud. This may prove intimidating for female clients who wish to access the Internet, and therefore limit or prevent them from doing so. Telecenters do not offer gaming services, thereby creating a more comfortable and neutral environment for female users.

Location and Remoteness: The telecenters are located in Ulaanbaatar, Darkhan and aimag centers. These locations are far for soum residents and therefore inaccessible unless they are visiting the aimag center of the cities. This means that soum level residents struggle to access these services on a regular basis, and may not be able to access the free services offered in Ulaanbaatar and Darkhan.

Language spoken: The scope of the Internet sites accessed is limited by the language proficiency of the users. Some telecenters, such as the one in Dalanzadgad, Omnogobi, have created wall murals of Mongolian language website addresses in an attempt to broaden the range of websites available.

Disability: There is no trained staff able to teach visually impaired users to utilize the Braille keyboard and related software that is available in Ulaanbaatar. The IT point person from the Metropolitan Library volunteers his time to teach users at the DIRC if required. The lack of training services means that there are very few clients who are able to access this service.

4.2.2.3   Affordability

Describe how affordable the technologies and services offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Socio-economic status: Access to the Internet at the DIRCs is free. No charge is levied and this reduces the economic barrier for users. While this enables access, the free services are limited to those within range of these two centers. Users living in the peri-urban areas around Ulaanbaatar and Darkhan will incur costs in travelling to the venues, both located in the city center. For telecenter users in the non-urban areas, fees are levied for Internet and computer access, although these are often cheaper than costs charged by private Internet centers and cybercafés. Soum level residents often have to travel reasonably far to reach the soum centers and may not be able to afford to do this in terms of financial or human resources. When this journey is undertaken, it is infrequent.

> **Quote from telecenter focus group participant**
>
> I like the regular computer trainings, and the reduction in Internet services fees is great.
>
> 21 year old male, UNDP CISC, Zuunmod, Tuv aimag

The DIRCs implemented a minimal charge for reports and surveys that users may access and print. Previously, users were able to electronically access human development reports by organizations such as SOROS, World Bank and Asian Development Bank (ADB), and print them. This charge was levied to prevent unnecessary wastage and help to keep costs minimal. The center staff reported that many users were taking the paper home with them as paper is a valuable commodity in Mongolia. Many households are dependent on lighting fires in their stoves for cooking and heating. This new charge, however minimal, may hamper lower income users in taking information home from the DIRCs. Furthermore, the DIRCs are contemplating a move towards a membership system with an associated fee. Users who are not able to afford the membership fee will still be able to access stored documents and reports electronically, but will not be able to access the Internet.

Users at the UNDP CISC report that user fee is appropriate to the general economic conditions of their aimag center and this makes using the services of the center affordable and realistic for the local population. An hour of Internet access costs 400 MNT, approximately 30 US cents.

Education level: Education is not a major influence in affecting affordability.

Age: Telecenter clients pay the same amount for services offered regardless of age. There are no discounted rates for senior citizens or minors. This variable therefore is not of consequence in influencing affordability with regards to accessing the venues.

Sex: Gender is not a key factor in influencing affordability of services. There is relative equality

with regards to finances in Mongolia. This is another Soviet legacy that has been retained, one in which people were paid similar salaries regardless of gender, and women were encouraged to work.

Location and Remoteness: People that do not live in the center of Ulaanbaatar, Darkhan or the aimag centers will incur costs in travelling to the venues. These costs are financial and human. Herders cannot afford to be away from their livestock for extended periods and this impacts on how often they are able to travel into the aimag centers. Both of the telecenters offering free access to the Internet are located in Ulaanbaatar and Darkhan are situated in the two largest cities in the country and are not easily or regularly accessible to non-urban residents.

Language spoken: This variable is not decisive in influencing the affordability of this venue.

Disability: Disabled citizens are entitled to financial support from the state. The amount received, however, is low and this may hinder their ability to pay the charges levied by the telecenters. The exceptions, of course, are the Darkhan and Ulaanbaatar telecenters which provide free of charge Internet access

4.2.2.4   Fees for Services

What fees or other requirements exist in order to access and use the information in the venues? (registration, user fees, restrictions to certain populations)

If there are fees: What do these fees buy?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

DIRC Telecenters.

Internet access is free.

Printing fees (per page):

Indicate amount in local currency 50 MNT

Equivalent in US Dollars: 0.40 USD

Date of estimate 12/02/2008

and local currency name Mongolian Tugrug

UNDP CISC Telecenters

Internet Access

Indicate amount in local currency 400 MNT

Equivalent in US Dollars: 0 30 USD

Date of estimate 10/06/2008

and local currency name Mongolian Tugrug

PIC Telecenters

Internet access is free. However, because the PIC is housed in the Darkhan public library, clients need to have a valid library membership card in order to access the Internet services.

Library membership (per year)

Indicate amount in local currency 1,000 MNT

Equivalent in US Dollars: 0.86 USD

Date of estimate 18/02/2008

and local currency name Mongolian Tugrug

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

In general, there are more computers available for users at telecenters in Ulaanbaatar, and Internet access and venue access, is free of charge. Ulaanbaatar is the only location which houses a computer for visually disabled users.

The computer based in the Darkhan public library is available to library patrons with a valid library membership. The UNDP CISC and the CICs are open to the general public.

All of these venues offer basic Internet services including instant messaging and VoIP.
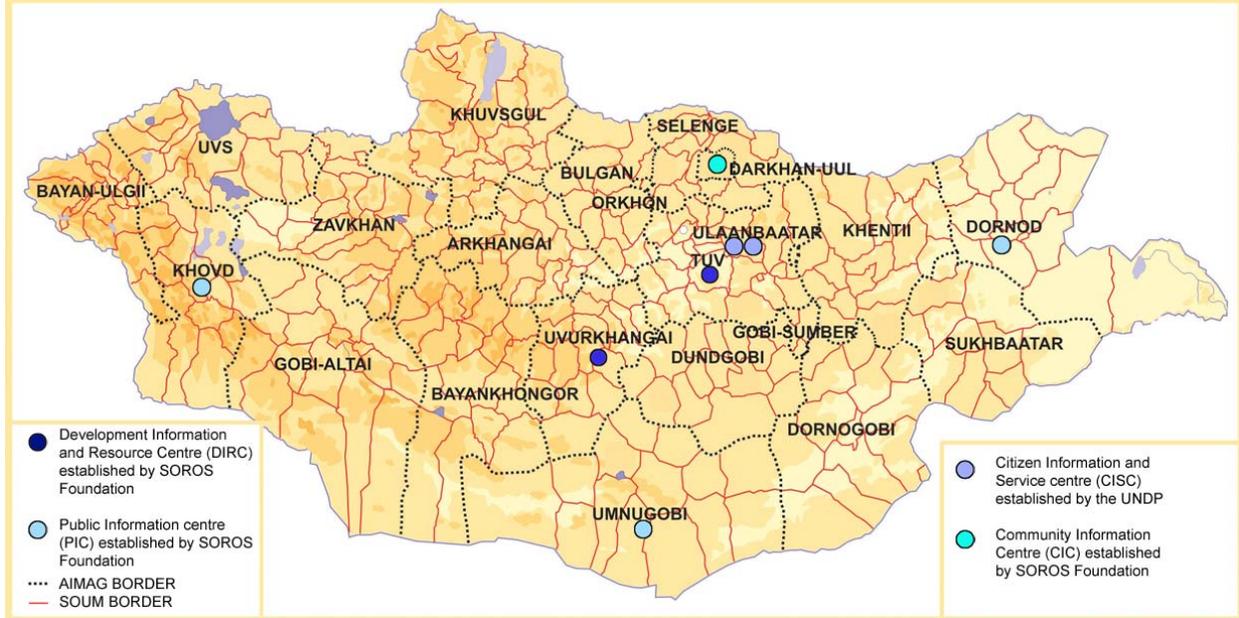
4.2.2.5   Geographic Distribution

What is the distribution of the venues in terms of their geographic location?

Complement any details not already included in section 2.1: Venue Selection.

4.2.2.5.1   Map

If available, insert a map that displays the geographic distribution of this type of venue in the country (expand to the size you need).

TELECENTRES

Legend:
- Development Information and Resource Centre (DIRC) established by SOROS Foundation
- Public Information centre (PIC) established by SOROS Foundation
- ···· AIMAG BORDER
- — SOUM BORDER
- Citizen Information and Service centre (CISC) established by the UNDP
- Community Information Centre (CIC) established by SOROS Foundation

Description of map:

The map above illustrates the geographical location of telecenters. All of the telecenters are located in large cities or aimag centers. There are no telecenters at soum level.

4.2.2.6   Other Factors affecting Access

Other factors that affect equitable access to public information in this type of venue, not covered above?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The telecenters which offer free Internet access are located in the two largest and most prosperous cities in the country. Ulaanbaatar is also home to the majority of the country's privately owned Internet centers, cybercafés, and wifi hotspots. Mongolia's soums and aimag centers have far fewer public access Internet points. Non-urban residents and people living in the peri-urban districts around Ulaanbaatar and Darkhan are often more economically disadvantaged than residents in the center of the cities.

2 – 3 Paragraphs:
What is your overall assessment of CAPACITY ecosystem in this type of venue (human capacity, locally relevant content, integration into daily routines, socio-cultural factors, trust in technology, social appropriation of technology)?

> **Quotes from telecenter focus group participants**
>
> I can't interact with the Internet and computers. I get the help from the young person here.
>
> 61 year old male, UNDP CISC, Zuunmod, Tuv aimag
>
> I can't get the information I need. The main reason is that I can't use electronic equipment.
>
> 65 year old male, UNDP CISC, Zuunmod, Tuv aimag

User feedback has indicated that the majority of the telecenters are well staffed with knowledgeable personnel who are able to assist users with questions and capacity building. The difficulties encountered by many users and potential clients are technological and language barriers. This is especially predominant in the areas outside of Ulaanbaatar. Many of the rural residents do not have the skills required to access digital technology, and, if they do, find that there is limited content available in Mongolian. This feedback was especially predominant amongst older respondents (aged 35 and above) located in rural areas.

Many clients use the telecenters communicate with relatives and friends across Mongolia and the world. There are large Mongolian diasporas located in America, Korea and Japan. Instant messaging and VoIP usage allows clients to communicate with other parties at an affordable rate.   Many also come to telecenters regularly to access information that is needed for their studies, and the centers have become an accepted access point for academic resources.   Trust in technology has not emerged as a factor or a point of concern, possibly because power supply interrupts lower expectation of constant availability.

> **Quotes from telecenter focus group participants**
>
> I communicate with my sister who is abroad now very cheaply. If I call on my cell phone it is very costly. We don't even make use of the post anymore as we communicate via e-mail very fast.
>
> 31 year old female, UNDP CISC, Zuunmod, Tuv aimag
>
> My brother works in Korea. I take my dad to the telecenter so that he can chat with my brother. There is no other way to communicate so cheaply.
>
> 22 year old male, Khovd aimag center,

4.2.3.1   Staff Size

How many people work in a typical facility for this type of venue? (full time-equivalent employees or contractors; describe any significant variations; i.e., large, medium and small libraries in the country)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

There are between one and two staff members at each telecenter. In the larger centers that also have a library reference service, such as the DIRC in Ulaanbaatar, one of the staff members will focus on library tasks. All staff are employed full time.

4.2.3.2   Staff Training

What is the overall capacity of the staff (ie, librarians, telecenters operators) to help users access and use public access to information & communication services offered in this venue? Differentiate by applicable Equity of Service variables (Form 1c).

(iii) If appropriate, indicate any specifics that apply to Digital ICT services alone.

(iv) For Public Libraries, indicate if Library School training is available and/or required for librarians.

The staff who are employed in telecenters come from a variety of backgrounds. In the telecenters located in public libraries, such as the CIC centers in Dornod and Omnogobi and the PIC at the Darkhan public library, the staff are trained librarians. Theses librarians are not IT specialists and have developed their computer capacity 'on the job'. They do not receive any specific training to develop their ability to help users access and utilize information, and their lack of technical skills means that when equipment breaks, is in need of repair, or poses a problem, they are not always able to rectify the situation.

The DIRC staff in Ulaanbaatar are not trained to teach visually disabled users how to use the Braille keyboard and special software that is available. Because of this, visually impaired users who may wish to utilize the equipment available, but do not know how, are unable to do so.

4.2.3.3   Services Offered

What kind of services does this type of venue offer to the public? (ie, access to books, magazines; meeting & conference rooms; audio/video programs, computers, Internet, other). Include Digital ICT services if offered.

Services Offered	Comments
1. Internet Access	Access is free in the DIRCs and PICS, and a fee is levied at the other centers. The DIRCs are contemplating the introduction of a membership fee that would facilitate and include Internet access.
2. Printing	Only available at some of the Telecenters at approximately 50 MNT per page. Many aimag based telecenters do not recover supply costs from the service fees, indicative of poor management capacity.
3. Access to electronic resource materials	This service is free of charge at telecenters where it is available.
3. Books and publications	Only available at the DIRCs and UNDP CISCs

4.	Development reports and surveys	Only available at the DIRCs and UNDP CISCs

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

Larger telecenters that continue to receive donor funding, such as the DIRCs and PICs are able to offer patrons additional services such as printing. Telecenters which need to generate their own income, such as the CICs, struggle to provide a spectrum of services to clients as the funds are not available.

4.2.3.4 Programs for Underserved Communities

Describe if this venue has programs specifically intended to reach underserved communities, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Access to the Internet in the DIRCs is free. No charge is levied and this reduces the economic barriers for users. Internet access at the PIC is also free if the client is a valid library member.

However, there are only two of these centers that offer access to the public, and they are found in Mongolia's two largest cities. Rural and peri-urban populations are often the most economically disadvantaged and are unable to benefit from these free services.

The telecenters that are located in aimag centers do provide pay as you go Internet access for local residents, but residents living in the soums cannot access these services regularly. The charge levied for Internet access may be prohibitive to residents who are economically challenged.

> **Quote from telecenter focus group participant**
>
> It is impossible for rural herders to make use of the center's services. They don't know about the Internet or computers.
>
> 29 year old female, UNDP CISC, Zuunmod, Tuv aimag

The DIRC located in the open Society Forum office in Ulaanbaatar has a computer with a Braille keyboard and specific software programs for visually disabled users. There is no charge for use. While this allows computer literate visually impaired users to access the technology, there are no training or support services available, and no staff trained to assist new users. This prevents the service from being fully utilized and opened up to this segment of the population. Use is limited to residents and visitors of Ulaanbaatar.

Telecenters do not have any resources in other ethnic languages, including Kazakh, the second largest language in Mongolia. Many of the reports, evaluations and documents available for reference at the DIRC in Ulaanbaatar are in English, and this language barrier prevents users from being able to access the information contained within the documents.

4.2.3.5   Relevant Content

What type of locally relevant content is available? What else is needed? Who is doing it?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Available Content:

All telecenters allow users to access the world wide web and within this, almost any information that they seek. The barrier that arises is the lack of available content in Mongolian. The CIC

Telecenter in Dalanzadgad, Omnogobi attempts to assist the patrons by guiding them towards sites that they feel are relevant and may be in Mongolian. The walls of the Telecenter are covered in web links and addresses for users to search in their quest for information.

Telecenter in Dalanzadgad, Omnogobi, with Mongolian language web links for users

Many of the human development reports that are available at the DIRC in Ulaanbaatar are in English and users therefore either need to be proficient in the language or able to afford translation services. The UNDP CISC offers newspapers, magazines and a limited selection of reference books for use in the center, free of charge. All of these materials are in Mongolian, and many have been selected to meet the needs of the local community. For example, the center subscribes to Rural Business News Magazine. This publication provides essential herding, agriculture and business news to rural residents and entrepreneurs produced by Pact Mongolia.

Other Content Needed:

There is a lack of local and localized content. Content that is available needs to be relevant to the population that it will serve. Many rural venue users interviewed through the course of this research stated that they would like to be able to access information about the rural issues that they face. While some publications are available in Mongolian, such as Rural Business News, they are not always available to telecenter users, either in printed form, or the relevant Internet link. Clients in areas further away from Ulaanbaatar, such a Khovd, a two day journey by car and with

plane flights twice a week, are unable to access daily newspapers because of distance. The printed publications are flown out to the aimags, but because of the flight schedules often arrive late. This is particularly problematic for readers of daily news papers. Although many of these are available online, users may not have the skills to access them, or know where to look.

Some of the most popular Mongolian content sites include:

www.rbn.mn

www.montsame.mn

www.dailynews.mn

Initiatives to build content:

Rural Business News has been produced by Pact Mongolia for Mercy Corps Mongolia under a USAID funded project for the past seven years. There are a handful of other publications that provide rural agribusiness information to readers. Some of these receive international donor funding, others are for profit publications. Further to this, there are a number of for profit publications that are for sale, and which rural residents can subscribe to through the post office. Although some of these are available on the web, research was unable to find a project targeted at increasing relevant local content for the Mongolian population.

4.2.3.6   Services & Information Available in Local Languages

Describe the availability of services and contents relevant to human development that are available in **local languages** in this type of venue? (i.e., info on health, education, government services, etc)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Many users face a large language barrier in accessing content. The majority of materials covering a range of developmental issues are available in Mongolian and English. A few materials are available in Russian. The DIRCs have resource materials published through development programs covered by Global Open Society Institutions, including publications issued by international and donor organizations. From 2006, OSF supported briefings in Mongolian on a range of different development issues related to political, social and economic sectors in Mongolia.

Internet users are able to access as much human development information on the web as exists in a language they are proficient in. A number of Mongolians are proficient in Russian are able to access Russian websites, and growing number English language websites. However the content may not always be relevant to Mongolia.

> **Quote from telecenter focus group participants**
>
> Sometimes I fail to find the information that I am looking for because it isn't in my language.
>
> 25 year old female, DIRC, Ulaanbaatar
>
> I can't find the information I need because I don't know foreign languages.
>
> 22 year old male, CIC, Khovd aimag center,
>
> I face language difficulties. I can't browse the Internet well because I don't understand English.
>
> 22 year old female, CIC, Khovd aimag center

4.2.3.7   Types of Uses

What do people USE the venues for (most frequent kinds of information & services people seek in them, activities they carry out in them)?

(ii)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

Refer to section 3.4 Charts: Information Needs and complement here as needed:

Nearly one third of all telecenter users seek educational information. This is more predominant in the non-urban areas, where educational resources are less available. Ulaanbaatar is the educational hub of Mongolia with over 200 tertiary education institutions, and a number of libraries.

In the non-urban areas, over half the clients utilize Internet access in order to e-mail and chat, while this number is far lower in the urban areas. Three quarters of users in urban areas use the Internet to browse the web.

This is indicative of the predominant adoption of Internet services at telecenters as a communication tool by the rural population, and as an information seeking tool by the urban clientele. Urban users do access the Internet in order to communicate, but research indicates that happens more frequently at cybercafés and Internet centers.

 A higher percentage of telecenter clients in non-urban areas used the Internet to access news and

current affairs, reaffirming the lack of printed daily news materials available to rural residents.

4.2.3.8   Number, Type and Frequency of Users

Refer to section 3.4 Charts: Information Needs. Complement here as needed:

Forty-percent of non-urban clients frequent the telecenters 2-3 times per month. The same percentage of urban users visit the telecenters approximately once per week. This difference may be the result of the free Internet access available at the urban telecenters, while rural users have to pay an hourly charge for Internet access. It is of interest to note that while one quarter of non-urban users visit their local telecenter almost daily, only 10% of urban clients do so.

4.2.3.9   Users Capacity to use information and services offered

What is the overall capacity of the users to take advantage of public access to information & communication resources, differentiating by applicable Equity of Service variables (Form 1c)?

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

(i) In terms of the free Internet access and information sources offered by the DIRCs, the centers are open to all who are within proximity of the centre, regardless of socio-economic status. The location of the Internet centers in two of the largest and most developed cities in Mongolia does little to relieve the lack of information available to rural residents and remote herding families. The centers do not carry information in Kazakh or any other minority language, and much of the available source material is in English.

Many residents in non-urban areas, especially herders, do not have the computer literacy required to access the Internet and seek information. The lack of telecenters in close proximity to many of these herding families means that they have less chance to develop their technical capacity. Computers remain something that 'city people' utilize. Further, is the lack of understanding of the value of the information that may be accessed through the Internet, such as government services and commodity and livestock price information.

The lack of materials and content available in Mongolian, as well as the language barriers experienced when surfing the web make Internet access difficult and frustrating, if not impossible for many potential users.

4.2.3.10 Training Courses for Users

Describe training courses offered to the public at this venue, and if they offer some kind of testing and certification.

Basic Internet skill training is offered, but there is no testing or certification process. The courses are offered on a need and demand driven basis and are not regularly available. Users at the UNDP CISC pinpointed the lack of training for users as a key barrier preventing local residents from accessing the services provided by the center.

4.2.3.11 Integration into daily routines

How easy is it for users to integrate the information and services offered in this type of venue into their daily lives? (offer concrete solutions to their needs and problems, make it easier to solve them at this venue than in other places)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

With regards to the DIRCs and PIC, the fact that Internet access is free in these centers undoubtedly goes a long way towards encouraging and supporting usage. Furthermore, placing one of the DIRCs in a university has allowed students access to vital information within their learning centre. This proximity of the information access point to the demand has helped to bridge an information gap.

The location of the telecenters in the aimag capitals and larger cities means that local populations are able to access the venues relatively easily, but that residents in soums experience more difficulty. The result of this lack of access is a lack of integration of information quest in daily or regular activities, and this is compounded by a lack of user capacity.

The fact that some of the telecenters offer Internet training for clients builds user capacity and confidence and in turn increases information quest as a regular facet of life.

4.2.3.12 Users Perceptions about the Venue

What is the general perception or opinion of the population about the venue (not necessarily its specific services, but the venue itself: ie, what do people generally think about libraries? Are they places that are "cool" or "only for elites" etc?), differentiating by applicable Equity of Service variables (Form 1c)? This includes perception by people who do not use the venue…

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

Overall, telecenters are seen as valuable points of information. In Ulaanbaatar, the DIRC provides users with human development content that may be difficult to source elsewhere. The venue is seen by many patrons as an 'intellectual source'. The flipside of this is that other users may view the DIRC as a place that only students, researchers or academics frequent, and choose not to make use of the services offered.

Many residents, especially older residents in the rural areas view telecenters as valuable, in that they are hubs of information that could be accessed, but stressed that they did not have the skills or knowledge to interact with the technology available. Many reported asking younger people, such as grandchildren or center staff to access information from the Internet on their behalf. Many of these same respondents associated the technology with 'the City' (Ulaanbaatar), and struggled to reconcile the venues with rural life. Others viewed the centers as a source of academic and intellectual information frequented by students and teachers.

> **Quote from telecenter focus group participants**
>
> The [DIRC] center is for those who are highly educated.
>
> 28 year old male, DIRC, Ulaanbaatar
>
> Students and young people come here often. Not rural folks or old people or people who are not computer literate.
>
> 31 year old female, UNDP CISC, Zuunmod, Tuv aimag
>
> I can't interact with the Internet and a computer. I get a young person here to check rates of livestock commodities regularly. It increases profits.
>
> 61 year old male, UNDP CISC, Zuunmod, Tuv aimag
>
> People who are middle aged and above can't use computers. They need Internet training.
>
> 33 year old female, CIC, Khovd aimag center

4.2.3.13 Social Appropriation of Information and Generation of New Knowledge

What activities, products and services are users undertaking that exhibit new levels of social appropriation of technologies and generation of knowledge? For example, how are users generating and disseminating new knowledge, products and services through their use of this venue? (see category 13 in Real Access Framework for Social Appropriation of Technology).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The Internet has provided an affordable information mechanism for many Mongolians. In Mongolia, one out of five families has relatives abroad, and the Internet is enabling regular communication. This pattern is evident in the telecenters and in other venues offering Internet services.

Although rural residents are not always able to access the Internet for a number of reasons, those that are using the Internet are able to source information that is relevant to their way of life and daily activities. These users are taking the information and applying it to practical uses such as income generation and academic information. Furthermore, in keeping with the favored practice of spreading information through word of mouth, the users are sharing this knowledge with others in their communities. This process sees information passed from one user able to access the knowledge in the aimag center along to other residents in neighboring soums.

> **Quote from telecenter focus group participant**
>
> I am a herder. I can't use the Internet, but I ask the assistant to help me. I look for commodity prices and legal information.   I have now learned how to obtain information on the commodity rates and then do business. This means that I get higher profits and my risks become fewer. Also, I accessed the law about animal theft and printed a copy. I shared this information and advice with my community, and told them about who we need to approach without delay, if our animals are stolen. One of the community members chased a matter up using the advice I had passed along and they received compensation.
>
> 65 year old male, UNDP CISC, Zuunmod, Tuv aimag

4.2.3.14 Trust, Safety & Privacy

What is the general perception or opinion of the population about the safety, security and privacy (TRUST) of the information and services offered in this venue?

Cyber security is not a paramount concern in new user environments, but will be when household computer ownership increases and virus invasions increase with personal consequences. Currently what is considered by many as spam is not an unwanted intrusion into limited information diets. This is of course how vulnerability fuels Internet scams.

4.2.3.15 Gaps and Opportunities in information & services offered

What other information gaps & opportunities exist, which are not being met? (other information / services

people need that are not being met there and could be offered, especially through Digital ICT services)

The DIRCs operate between 9 am and 6 pm during the week. These are standard business hours in Mongolia. Because the DIRCs are not open after hours or on the weekends, there is a large segment of the population that is unable to access these centers. Users interviewed stressed that the current work hours are not conducive to accessing the centers. The majority of the information content is in English. This limits the number of people who are able to access and understand the information available. Providing translated and localized information would increase the volume of information that is accessible to users.

Training courses offered to local residents and potential users by telecenters would support access to the venues by providing the population with the skills that they need to interface with technology. Many users interviewed stressed that this was a primary barrier in accessing information at telecenters. Concurrent to this is the need to build the technical skills of operators. This would assist in

Soros telecenter in Ulaanbaatar

supporting the users and also maintaining open work stations.

Currently, the only free Internet access venues are the telecenters in Ulaanbaatar and Darkhan. Rural residents, who are very often economically disadvantaged, are sometimes unable to access the Internet because they cannot afford the fees levied. The telecenters however, need to generate income in order to continue activities. An operational conundrum lies in serving the public without creating additional access barriers.

Many of the telecenters only offer Internet access services and do not provide other materials for users. Having printed materials and electronic information with content relevant to the local populations available for users would help patrons access the information that they need.

There is no-one who is trained in the use of the special computer and software for visually impaired users at the DIRC in Ulaanbaatar. This means that visually disabled segments of the

population cannot be trained to use the facilities available, or receive necessary support in the process of using the technology. A trained staff member would be able to assist new and existing users. This would in turn help to increase the number of users available.

The existing infrastructure in many of the non urban areas is in need of updating. Users at the Khovd CIC report that the frequent electricity blackouts that affect the town, sometimes lasting for weeks, severely limit their ability to access information. During blackouts telecenter's Internet cannot work, no printing service is available, and the telecenter often has to shut down. Providing an alternative power generator that is sustainable and economically viable will assist the center in operating in difficult conditions. Supporting this would be the archiving of relevant content into an electronic database. This would allow users to search for information off-line.

4.2.4   Enabling Environment

2 – 3 Paragraphs:
What is your overall assessment of the ENVIRONMENT ecosystem in this type of venue (local economy, national economy, legal and regulatory framework, political will & public support, regional and international context)?

Telecenters are important venues for providing public access to information in Mongolia. These centers were amongst the first to branch out of Ulaanbaatar into other parts of the country and offer public Internet access services. However, many have faced difficulties in generating enough income to remain viable, and have had to close. Each aimag center now has a cybercafé attached to the local post office, and many aimag centers have private Internet and cafes and gaming centers. This allows residents a choice in venue and telecenters that only offer Internet access, may be unable to compete.

The free services offered by DIRCs facilitate increased information access for students, professionals and resident populations. The DIRCs contain more up-to-date information than libraries and are perceived by users to be more comfortable. However, they are reliant on international donor funding, and, should this funding cease, it is doubtful that the centers would be able to continue to provide services, especially not free access to the Internet.

4.2.4.1   Local & National Economy

Describe the local & national economic environment and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

Economic development and prosperity may lead to a scenario where donor resources dwindle and services such as the DIRCs are not supported by internal revenue. The national economic environment will have minimal impact on a venue such as the DIRCs because there are no direct costs involved in most of the services that the centers offer. Furthermore, the services that are charged for, such as printing, are far cheaper than they are centers offering similar services, such as cybercafés and Internet centers. Indirect costs such as transport costs may affect user ability to

access the centers.

Creeping consumer prices and steadily increasing inflation means that most Mongolians have less disposable income and the money that they do have needs to go towards necessities such as food, fuel in the winter, clothing and education. This will impact negatively on the telecenter income and may render them unable to meet costs and unable to provide services to the community.

4.2.4.2 Legal & Regulatory Framework

Describe the legal and regulatory framework and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

The legal and regulatory framework does not impact on public access to information at this venue. Given no direct costs any reduction in their ISP fees may be passed onto consumers in the form of other services.

4.2.4.3 Political Will & Public Support

What is the level of political will and public support for this type of venue? (refer to & complement section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

There is no specific support at National level offered to telecenters. The local populations are supportive of the venues in economic terms - the services offered are cheaper than the local cybercafé or Internet center. The Omnogobi telecenter, located in the aimag capital Dalanzadgad, was unable to meet the Internet service fees once donor funding was withdrawn. After repeated appeals to various organizations, the aimag government eventually assisted in paying the outstanding amount. This was done because the local government recognizes the value of the telecenter, which is located in the aimag center library, and the services that it provides to the local population.

4.2.4.4 Organization and Networking

Describe if the facilities in this type of venue organized in any network, association or other collective body? (ie, national public library system, telecenter franchise or network, etc)?

The DIRCs and PIC are a joint partnership initiative of the United Nations Resident Coordinator's Office, the World Bank (WB) Resident Representative Mission and the Open Society Forum. The DIRC based in Ulaanbaatar received additional support from the Asian Development Bank (ADB).

4.2.4.5 Partnerships

Describe notable public-private partnerships in support of this type of venue.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The DIRCs and PIC are joint partnership initiatives between the UN resident Coordinators Office, the World Bank Resident representative Office and the Open Society Forum.. Many of the

telecenters, including Dornod and Darkhan are located in public libraries, providing Internet access for library members.

4.2.4.6   Other Environment Factors

Other factors in the environment that affect access and use of information in this kind of venue, not covered above?

There are none that have been determined at this stage.

4.2.1   For Publicly Funded Venues only: Revenue Streams

This section is meant specifically for publicly-funded venues (public libraries, national connectivity programs, etc).

4.2.2   Case Example for Venue # 2: Telecenters

Provide a short descriptions and commentary for each type of venue, offering a realistic sense of what the venue looks and feels like in its day to day operation, the kind of people who visit, and the kind of services they receive. Also, the case example indicates what makes the case unique or what features are commonly shared with other venues. A photo and short quotes will make it even more real.

The DIRC located in the MFOS building in Ulaanbaatar houses one of two public access computers in Mongolia for visually impaired users. There are very few users of this service at the DIRC, and those that do use the service regularly, soon become known to the staff.

In September 2007, two men visited the DIRC. One of them appeared to be visually impaired, and was accompanied by a friend. The friend helped him to go to the bathroom and navigate the center. The two friends came in at about ten in the morning, and stayed until closing time. The men sat down at the computer for visually impaired user and appeared to be searching for information.

After they had left, no-one else used the computer until Tsengel, a regular user, arrived at the center a few days later. As usual, he took his place at the computer, and set to work.   After few moments, the librarian heard a gasp. 'What's happened to the keyboard?' asked Tsengel. At first glance, it appeared normal, but it wasn't working.

The staff took the keyboard to the World Bank, a DIRC partner and donor of the visually disability compatible computer. An IT specialist was called in to examine the keyboard.   He found that it had been opened, and components removed to the extent that the keyboard could no longer work.

Visually disabled user, DIRC

The World Bank was unable to order a single keyboard. Previous to this incident, the WB had ordered a computer, keyboard and software for visually disabled users to be used in the Darkhan PIC. It was decided to give this to the Ulaanbaatar DIRC to replace the damaged system. Unfortunately, the computer went missing in transit and never arrived in Mongolia.   A new keyboard will cost 3,000 USD, which the telecenter is unable to afford.

The current computer can be used by voice activation, without the keyboard but the DIRC staff has said that there is no-one who knows how to do this. The loss of this computer means that there is only one fully operational public access computer for visually disabled users in Mongolia.

'In June 2005, I visited the (CIC) Internet center in Dalanzadgad in Omnogobi.   This center was established in 2000 by the Mongolian Foundation for Open Society in the local public library and supplied with four computers. In 2002, as part of the Cyber Aimag project, the Mongolian Foundation for Open Society (MFOS) donated five more computers, and the library was connected to three schools, the justice department and the radio station through high speed radio modem connections with the server located in the Internet center.

According to the librarian and the center director, when the center opened many adults came out of curiosity but most did not come back. Only adults with children abroad or in Ulaanbaatar used the center to send e-mails. The majority of users were high school students who used the center to send e-mails to one another, or chat. The center also offered Internet lessons and training in software applications. The cost was about 2 USD for children and 4 USD for adults for a two day course.

Funding from the MFOS ended in 2004 when it changed its mandate away from funding projects to supporting policy development. According to a monitoring report of the MFOS centers conducted in 2004, the outstanding debt to the telecommunications company by this center was 5,087 USD, which was beyond the ability of the aimag government to pay. Although the aimag government supports the center in principle, it has not yet been able to raise the funds to cover the connection charges. The governor did try, unsuccessfully, to convince a Canadian mining company operating in the areas to help with the funding.

The computers in the center are still in good condition and the librarians are enthusiastic about continuing the service, but it is doubtful that the center can be self sustaining in the near future. The library's budget is about 16,000 USD per year which barely covers heat, maintenance and staff salaries. Even with this amount, there is no book budget and the library has to rely on donations to purchase new books.'

Extracted from 'Constructing the pillars of a knowledge society: the challenges in providing access to ICTs in rural Mongolia'

C.A Johnson, L. Ariunaa and J.J Britz

4.3.1   Overall Venue Assessment

Provide a broad picture of the public access information landscape in this venue, informed by the results of this research.

2 – 3 Paragraphs:
What is your overall assessment of public access information in this type of venue?

This section includes all privately owned cybercafés and Internet centers, as well as commercial Internet cafes located at Post offices. There are 32 post office cyber cafes in Mongolia. Twenty-nine are owned by the Mongolian Telecommunications Company (MTC) and three are owned by Mongol Shuudan (MS), the post office.

Commercial Internet centers and cybercafés are mostly located in central Ulaanbaatar and other cities. In 2006, there were 105 registered Internet cafes in Mongolia (Mongolian Statistical Yearbook, 2007). The standard cost per hour for Internet at cybercafés and Internet centers is between 500 and 600 MNT (40-50 US cents). It is difficult to count the exact number of Internet

A Internet center in Ulaanbaatar

centers and cybercafés in Mongolia as the number of venues continues to grow and remains largely unregulated. There are seven Internet centers and cybercafés at soum level.

MTC would not meet with the research team or provide requested information. Thirty percent of the company is privately owned by Korean investors, with plans for full privatization to follow. MTC is not among five legal entities scheduled for privatization in 2008, though Mongol Shuudan is included (Mongol Messenger, 26 March 2008). Information about costs and services for MTC cybercafés and Internet centers was gathered from branch offices. MS met with the research team and provided all information requested.

These cybercafés and Internet centers are for profit entities that are open to any member of the public who is able to pay the charges levied. There are no commercial Internet centers or cybercafés in the soums, but they are found in aimag centers and in the larger cities. These centers generally offer no user training or capacity development, although a few of the cybercafés at post offices do.

135

4.3.2   Access

2 – 3 Paragraphs:
What is your overall assessment of ACCESS ecosystem in this type of venue (physical access, appropriate technology, affordability)?

Theses venues are for profit, commercial entities. Users who are unable to afford the charges levied are not able to access the services that the venues provide. There is no distinction made for users on the basis of economic capacity.

Located in larger cities and aimag centers, these venues exclude soum residents from regular use due to location. The populations living in the ger districts which surround Ulaanbaatar and Darkhan often have to travel distances to reach the closes Internet center or cybercafé. Although electricity is fairly regular, shortages are not uncommon and often force the centers to shut, leaving the users without a venue in which they can access the Internet.

Very few cybercafés and Internet centers offer any skills training for the local population and so computer literacy remains low. Clients that do use the cybercafés and Internet centers in the aimag centers most contend with slow connection speeds, outdated equipment, and equipment in need of repair. There are no special facilities for users with disabilities.

4.3.2.1   Physical Access

Describe how accessible this venue is to various population segments, differentiating by applicable Equity of Service variables (Form 1c), especially the differences between urban and non-urban settings.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Socio-economic status: Most of the aimag centers and all the larger cities do have regular electricity supplies, although it is not uncommon to experience electricity shortages and blackouts. Other aimag centers, such as Khovd (Khovd aimag) and Dalanzadgad (Omnogobi aimag), have regular power shortages that can last for weeks. Some businesses are able to afford generators that can provide alternate power, but the costs associated with this are high, especially with the increasing prices in fuel. There are only seven of these venues at soum level, limiting number the public access points available to soum level residents.

> **Quote from Internet center and cybercafé focus group participant**
>
> I cannot access information easily. Our home is very far. This Internet cafe is the closest one to my home. But in order to come here, I have to walk for over a kilometer to reach the nearest bus stop and then travel a fair distance. I need to do this each way. This Internet center is the closest one to our remote Ger district.
>
> 19 year old male, Internet Cafe at post office #37, Ulaanbaatar

Education level: A degree of computer literacy is required to use these venues. Literacy rates in Mongolia are high and this assists users in dealing with text based information.

Age: Age is not a decisive factor in accessing these venues. Older generations that have not had

the opportunity to interact or become familiar with technology may be more reluctant to enter the venues, or view the services offered as being for 'younger generations'.

Sex: Gender does not influence accessibility greatly. However, centers that offer gaming services may be intimidating for female users. The game players are usually male and oftentimes have groups of friends gathered around the monitors screaming advice and encouragement. The resulting environment is noisy and aggressive.

Location and Remoteness: There are seven Internet centers and cybercafés located in 330 soums centers in Mongolia. This means that only 2% of all soum centers house these venues. Along with the thirteen Khan Bank Internet Centers that are also found at soum level (please refer to Venue #4), this brings the total of public access Internet points at soum level to 6% of soums, 20 venues in total. The soums that do have Internet centers and cybercafés are located at border points, in tourist centers or along the railway line. Many rural residents living in the soums cannot access these venues regularly as visits to the soum centers are infrequent. People living in the peri-urban ger districts that surround Ulaanbaatar often have to travel far distances in order to access the nearest Internet center of cybercafé.

Language spoken: Clients at these venues will be able to access as much information as their linguistic skills allow. Users with knowledge of foreign languages such as English, Russian, German or Korean will be able to access a far greater number of websites that they would with Mongolian alone.

Disability: There are no special facilities for users with disabilities.

4.3.2.2 Appropriate Technology & Services

Describe how appropriate the technologies, services and information offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Socio-economic status: Bearing in mind the lack of public access Internet points at soum level, and the growing number of mobile phone users and areas of coverage, accessing information and the Internet via mobile phones needs to be considered as a more appropriate and accessible option.

Education level: The level of computer literacy and Internet skills amongst the general population remains low and cybercafés and Internet centers do little to bridge this divide.

Age: Younger generations have had more exposure and chance to interact with computers. More mature users may feel embarrassed about their inability to use the equipment and may chose not to access the services provided by the venues.

Sex: Gender is not a key variable in this instance.

Location and Remoteness: There are very few soum based Internet centers and cybercafés. Clients that do use the cybercafés and Internet centers in the aimag centers must contend with slow connection speeds, outdated equipment, and equipment in need of repair.

Language spoken: There is a shortage of Mongolian language knowledge sites, and minimal, if any, digital materials available in ethnic languages.

Disability: There are no special services or technology available for people with disabilities.

4.3.2.3   Affordability

Describe how affordable the technologies and services offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Socio-economic status: Users from disadvantaged economic backgrounds may not be able to afford the charges associated with use, and are thus excluded from accessing information at these venues. For many of the population, dealing with increasing costs of living and rising inflation necessitates cuts in spending on items that are not essential, such as visiting Internet centers and cybercafés. The cybercafé and Internet centre managers interviewed, as well as the Mongol Shuudan representative all felt that the prices were comparatively low and affordable for the local populations. They did acknowledge, however, that low income segments of the population are not able to benefit from the services offered. The charges levied do exclude lower income earners as the costs are not flexible and do not mean test individual users.

Education level: Education is not a major variable that affects affordability. High literacy and education rates amongst the general population are Soviet legacies. This helps to ease interaction with text based information. However, for segments of the population that are semi-literate or have not had the benefit of a full education, accessing the technology in these centers may prove intimidating.

Age: Many younger users are able to afford the charges levied by these centers. A number get money from their parents. An hour at these venues is cheaper than the cost of a loaf of bread or a liter of milk. There are no concessions in prices for minors or pensioners. For pensioners who receive a very small monthly sum from the state, this may prove to be a barrier to accessing the services offered by these venues.

Sex: Gender does not influence affordability for users at these venues.

Location and Remoteness: Residents living in soums without Internet centers and cybercafés will have to travel a considerable distance to access these venues. Travel costs, along with other factors such as the weather and the distance, may prohibit this from happening.

Language spoken: The language of users is not a factor in influencing affordability.

Disability: There are no financial allowances for people with disabilities at these venues. The state subsidy that is received by disabled Mongolians in negligible and this may prevent them from accessing these venues.

4.3.2.4   *Fees for Services*

What fees or other requirements exist in order to access and use the information in the venues? (registration, user fees, restrictions to certain populations)

If there are fees: What do these fees buy?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The fees levied depend on the services offered at each venue. The list below is an overview of all services offered at a range of venues in Ulaanbaatar, other cities and aimag centers. There is no Internet center or cybercafé that offers the full range of services listed below.

Internet access - per hour

Indicate amount in local currency 500-600 MNT

Equivalent in US Dollars: 0.43 - 0.52 USD

Date of estimate 15/02/2008

and local currency name Mongolian Tugrug

Printing fees - per page

Indicate amount in local currency 100 MNT/page

Equivalent in US Dollars: 0.09 USD

Date of estimate 15/02/2008

and local currency name Mongolian Tugrug

Use of computer (non-Internet - word processing) - per hour

Indicate amount in local currency 550 - 600 MNT

Equivalent in US Dollars: 0.47 - 0.52 USD

Date of estimate 15/02/2008

and local currency name Mongolian Tugrug

Laminating fees

Indicate amount in local currency 200-800 MNT (dependent on size)

Equivalent in US Dollars: 0.17 - 0.69 USD

Date of estimate 15/02/2008

and local currency name Mongolian Tugrug

Typing service fees

Indicate amount in local currency 300 MNT

Equivalent in US Dollars: 0.26 USD / page

Date of estimate 15/02/2008

and local currency name Mongolian Tugrug

Fee for cover page design

Indicate amount in local currency 200 MNT / sheet

Equivalent in US Dollars: 0.17 USD

Date of estimate 15/02/2008

and local currency name Mongolian Tugrug

Certificate and award design fees

Indicate amount in local currency 1,000 - 2,000 MNT /design

Equivalent in US Dollars: 0.86 - 1.70 USD

Date of estimate 15/02/2008

and local currency name Mongolian Tugrug

E-mail related service fees including opening and setting up e-mail accounts (NOT e-mail access)

Indicate amount in local currency 100 MNT / hour

Equivalent in US Dollars: 0.09 USD

Date of estimate 15/02/2008

and local currency name Mongolian Tugrug

Internet Chat fees

    Indicate amount in local currency 500 - 1000 MNT / hour

    Equivalent in US Dollars: 0.43 - 0.86 USD

    Date of estimate 22/02/2008

    and local currency name Mongolian Tugrug

Web camera use fees

    Indicate amount in local currency 220 MNT / 10 minutes

    Equivalent in US Dollars: 0.19 USD

    Date of estimate 22/02/2008

    and local currency name Mongolian Tugrug

Color printing including photographs and text fees

    Indicate amount in local currency 600- 800 MNT per

    Equivalent in US Dollars: 0.52 - 0.69 USD

    Date of estimate 22/02/2008

    and local currency name Mongolian Tugrug

Photocopying service fees

    Indicate amount in local currency **50 MNT/side**

    Equivalent in US Dollars: 0.04 USD

    Date of estimate 22/02/2008

    and local currency name Mongolian Tugrug

Scanning service fees

    Indicate amount in local currency 300 MNT/one side

    Equivalent in US Dollars: 0.26 USD

    Date of estimate 22/02/2008

and local currency name Mongolian Tugrug

Copying files to disk - up to five pages - fees

Indicate amount in local currency 110 MNT

Equivalent in US Dollars: 0.09 USD

Date of estimate 22/02/2008

and local currency name Mongolian Tugrug

Copying files to disk - more than five pages - fees

Indicate amount in local currency 220 MNT

Equivalent in US Dollars: 0.19 USD

Date of estimate 15/02/2008

and local currency name Mongolian Tugrug

Copying from CD to CD fees

Indicate amount in local currency 1,200 MNT /disk

Equivalent in US Dollars: 1.03 USD

Date of estimate 22/02/2008

and local currency name Mongolian Tugrug

Copying from VCD to CD fees

Indicate amount in local currency 2,800 MNT/disc

Equivalent in US Dollars: 2.41 USD

Date of estimate 22/02/2008

and local currency name Mongolian Tugrug

Copying games and programs onto CD fees

Indicate amount in local currency 2,800 MNT/disc

Equivalent in US Dollars: 2.41 USD

Date of estimate 22/02/2008

and local currency name Mongolian Tugrug

Burning text onto CD fees

Indicate amount in local currency 1,800 MNT/disc

Equivalent in US Dollars: 1.55 USD

Date of estimate 22/02/2008

and local currency name Mongolian Tugrug

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

Venues in Ulaanbaatar and other large cities will have more services available for users. Aimag center based Internet centers and cyber cafes tend to have fewer amenities such as photocopiers and scanners.

4.3.2.4.1   Map

CYBERCAFES AND INTERNET CENTRES
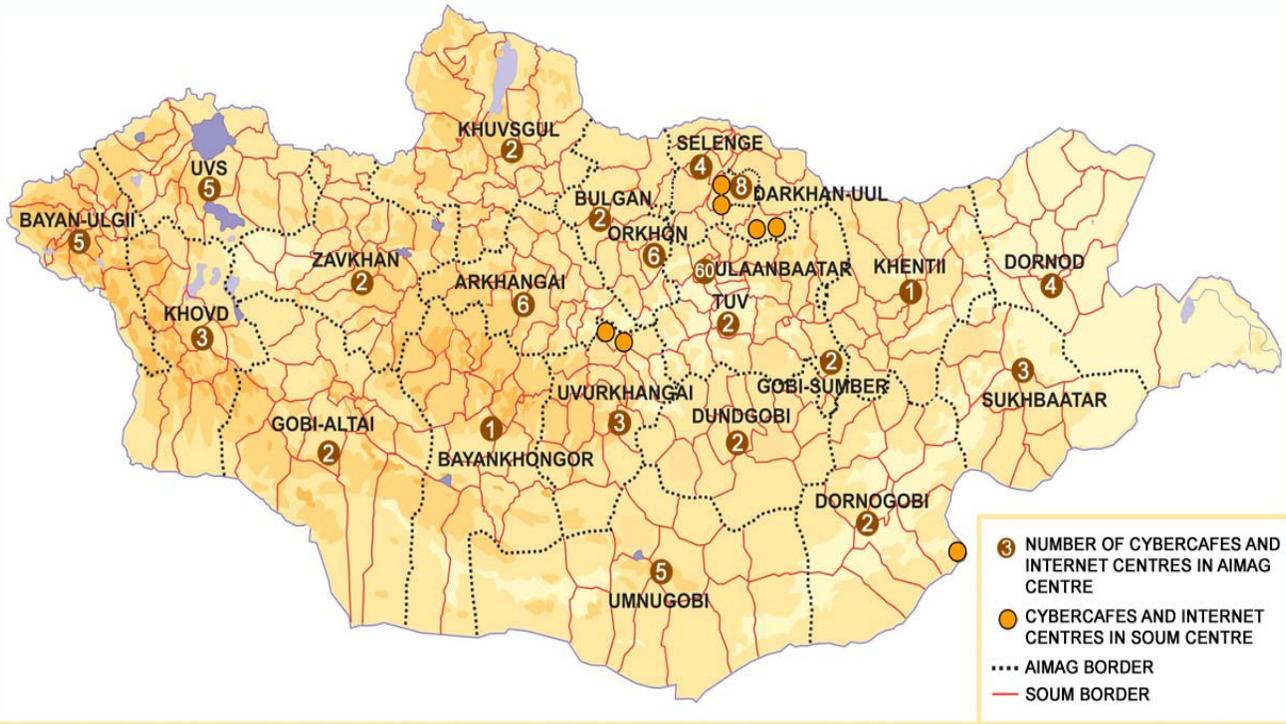
Description of map:

The map above represents the number of known Internet centers and cybercafés across the country.

4.3.2.5   Other Factors affecting Access

Other factors that affect equitable access to public information in this type of venue, not covered above?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

There are fewer Internet centers and cybercafés outside of Ulaanbaatar, and only a handful at soum level. The costs levied by the centers may not be affordable for economically challenged segments of the community, and these business make no allowances for users who cannot afford the fees charged. There are no programs that serve people with disabilities.

4.3.3   Capacity & Relevance

2 – 3 Paragraphs:
What is your overall assessment of CAPACITY ecosystem in this type of venue (human capacity, locally relevant content, integration into daily routines, socio-cultural factors, trust in technology, social appropriation of technology)?

For members of the local populations that have the capacity and financial ability to utilize the services, these venues function as valuable public access information points. As commercial entities, there is no distinction made for economically disadvantaged segments of the population who may not be able to afford the fees that the centers charge. Staff has basic skills to assist users and there are a handful of venues that offer computer literacy training. However, these trainings are not regular or formalized, and are often upon request only. In keeping with the practice of 'saving face', many people may feel too shy to approach the staff for help or request lessons.

If the users are computer literate, and able to access the information on the Internet, then the service allows the users access to fast, up-to-date, localized information within the limitations of overall local content. Very often in the aimag centers and soums, these cybercafés are the only source of digital information other than television and radio.

Many of the venue operators that were interviewed stated that they contend with viruses on a daily basis, and that this is exasperated by the number of users who bring portable storage devices, such as flash sticks, into the centers. Having to repair damage caused by the viruses often means that computer terminals are not available for users , and that equipment is quickly damaged, with little chance for it to be replaced.

There is a lack of relevant content in Mongolian on the Internet and the cybercafés and Internet centers do not store electronic content that may be of relevance to the local population. These venues offer Internet access and are not repositories for information.

> **Quotes from Internet center and cybercafé focus group participants**
>
> People don't know how to seek information on the Internet and spend lots of time and money and get discouraged. They don't know the addresses of the websites they need, or where to look. I think that this is the biggest hindrance to accessing information.
>
> 30 year old male, Internet Cafe at post office #37, Ulaanbaatar
>
> People miss information because of their financial situation, They can't afford to access it. It is expensive to deliver information to the remote soum areas.
>
> 42 year old male, Internet Cafe at post office, Zuunmod, Tuv aimag
>
> Poor people do not understand the value of information. Because they do not see it as a necessity, they ignore it. They buy a loaf of bread with the money they made standing at the market all day - they don't buy a newspaper or access information. They don't understand that a lack of information holds up progress.
>
> 19 year old male, Internet Cafe at post office, Zuunmod, Tuv aimag

4.3.3.1   Staff Size

How many people work in a typical facility for this type of venue? (full time-equivalent employees or contractors; describe any significant variations; i.e., large, medium and small libraries in the country)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

On average, there are two staff members in each of the cybercafés and Internet centers in the aimag centers. One of these is an IT specialist. Larger venues offering additional services hire

more staff as required. The Director of the Mongol Shuudan IT department mentioned that the company has one staff member at their centers during spring, autumn and winter, and that an additional staff member is hired over the summer to cope with the increase in users. Summer sees greater number of national and international tourists in the rural areas.

Staff working in the centers assist users with tasks like setting up Internet accounts, queries and questions about how to use the Internet, collect fees for services, operate the photocopiers and scanners, burn CDs, download information and design report covers and certificates.

4.3.3.2   Staff Training

What is the overall capacity of the staff (ie, librarians, telecenters operators) to help users access and use public access to information & communication services offered in this venue? Differentiate by applicable Equity of Service variables (Form 1c).

(v) If appropriate, indicate any specifics that apply to Digital ICT services alone.

(vi) For Public Libraries, indicate if Library School training is available and/or required for librarians.

Once a year the MTC holds a training workshop for cybercafé staff. The workshop aims to develop the technical capacity of the staff and also examines issues such as customer service and relations. Individual cybercafés report that they send staff on training courses as they perceive necessary and which they are able to fund. The Director of the MTC IT department reports that handouts and other printed information aimed at continually developing staff skills are regularly sent out to cybercafé staff.

Staff employed in commercial cybercafés and Internet centers may be offered capacity building training if the owners of the centers feel that this financially viable and of value to the business. A commercial cybercafé operator interviewed in Nalaikh, a peri-urban district of Ulaanbaatar, mentioned that they had been sent on a day long customer relations course by the center's owner, and that this added to their confidence in dealing with clients.

4.3.3.3   Services Offered

What kind of services does this type of venue offer to the public? (ie, access to books, magazines; meeting & conference rooms; audio/video programs, computers, Internet, other). Include Digital ICT services if offered.

	Services Offered	Comments
5.	Internet Access	Prices are not necessarily cheaper in Ulaanbaatar
6.	Communication Services: Web cams, VoIP services	These costs for users are often higher outside of Ulaanbaatar as equipment is more difficult to come by and must be sourced from Ulaanbaatar.
7.	Printing, scanning and	Not a standard service, only available at certain

	photocopying services	venues.
8.	Copying and burning materials onto CD	
9.	Report and certificate design	
10.	Word processing and typing	
11.	Laminating	

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

According to the head of Mongol Shuudan, the Mongolian post office, company, all the services offered across branches are identical. This was re-iterated by MTC cybercafé managers at various local branches. However, the services offered are dependent on the facilities in each of the centers. The MTC cybercafé in Bayan-Ulgii, for example, offers only Internet access and photocopying services and reports that the computers they use are slow, outdated and insufficient in number to meet client demand. Bayan-Ulgii is the furthest aimag from Ulaanbaatar, and traditionally one of the most disadvantaged.

All aimag centre Internet cafes are connected to the Internet through fiber optic cable backbone. This is in comparison to two years ago, when all Internet cafes were connected either through VSAT or dial-up connection.

The cybercafé operated by MTC in Post Office 37 in Ulaanbaatar is located in one of the more outlying districts of the city. The Manager at the cybercafé reports that they are only able to offer clients basic Internet and occasional fax services. These amount to far fewer services than offered by other branches. The centre also reports that only seven of the nine existing computers are operational. As with the other MTC branches in Ulaanbaatar, the centers are connected to the Internet via a 256 k/byte fiber optic cable. Besides the seven computers available for the public, other computers in the building are also connected to the Internet causing the Internet to be very slow. Both users and cybercafé staff have complained about the Internet speed.

4.3.3.4 Programs for Underserved Communities

Describe if this venue has programs specifically intended to reach underserved communities, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

These venues are for profit organizations that are reliant on user fees to fund the services that they offer. No allowance is made for socio-economic status - the prices are fixed and if people want to use the services, they need to pay. Interviewees were quick to state that the staff is available to offer assistance to users, and that this is included in the fees levied by the centers.

There are no special facilities for hearing impaired or visually disabled users. The Internet centers are not especially equipped for wheelchair access or use by people with mobility issues. The fact that these venues are located mainly in aimag centers and the larger cities, with only a scattering found in soums excludes many rural residents from being able to regularly access information at these venues.

4.3.3.5   Relevant Content

What type of locally relevant content is available? What else is needed? Who is doing it?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Available Content:

Users are able to access any materials on the Internet within the limitation of language proficiency. There is a shortage of Mongolian language content available and this limits the scope of information that the average user is able to access. A number of Mongolians are proficient in Russian, and therefore access Russian language websites. Other languages, such as English, German and Korean, are known by segments of the population and used to access additional Internet information. No specific service provision of information is offered at these venues.

Other Content Needed:

Increased Mongolian language content, as well as direction to appropriate sites for users, is needed.

Local Initiatives to build needed content:

There were none that could be determined at this time.

Source: *interviews with users, operators, management and relevant key actors.*

4.3.3.6   Services & Information Available in Local Languages

Describe the availability of services and contents relevant to human development that are available in **local languages** in this type of venue? (i.e., info on health, education, government services, etc)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

As mentioned previously, there is a limited amount of Mongolian language content available. This restricts the amount of information that users can access. Along with this, many users report that they do not know where to look for available information. A clear list of URL addresses of sites that have relevant, Mongolian language information available would do much to assist users in being able to access information, including human development information.

4.3.3.7 Types of Uses

What do people USE the venues for (most frequent kinds of information & services people seek in them, activities they carry out in them)?

(iii) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Refer to section 3.4 Charts: Information Needs and complement here as needed:

Communication has emerged as a primary use of Internet centers and cybercafés. VoIP services such as MSM messenger and Yahoo! messenger constitute one of the main services accessed by users. E-mail is another. Internet centers and cybercafés have done much to assist the rural population bridge the previous communication divide.

Venue users seeking information, search for news, educational information and entertainment stories on the web. The Internet centers and cybercafés also provide services that may not be accessible elsewhere in the aimag or soum, such as photocopying, basic design, scanning and laminating. All of these services attract fees.

> **Quotes from Internet center and cybercafé focus group participants**
>
> I communicate cheaply with my husband who is working in Korea. It is more expensive to call my sister in Ulaanbaatar than it is to chat with my husband in another country.
>
> 37 year old female, Internet Cafe at post office, Zuunmod, Tuv aimag
>
> It is expensive to send text message or call on the phone. One of my brothers works in Ulaanbaatar and another in Korea. My parents are always worried about my brothers and want to call them. I can't imagine how we managed when there was no Internet. Now we communicate very cheaply through the Internet. We also send each other photo.
>
> 25 year old male, Internet Cafe at post office, Khovd, Khovd aimag
>
> I come to the Internet center to communicate with my friends.
>
> 19 year old male Internet Cafe at post office #37, Ulaanbaatar

4.3.3.8 Number, Type and Frequency of Users

Refer to section 3.4 Charts: Information Needs. Complement here as needed:

Fifty percent of urban users interviewed stated that they came to the Internet centers and cybercafés almost everyday, while only 21% of rural respondents replied that they did so. The difference many be attributable to the amount of Internet and cybercafés in Ulaanbaatar , and a

greater amount of disposable income in the city. The majority of non-urban residents visit the centers between 2-3 times per month or once a week.

It is not possible to determine the number of users per venue. Operators at local venues were reluctant or unable to provide estimates. Mongol Shuudan has not undertaken any measurement of frequency of use. MTC representatives stated that user figures had been collected, but was unwilling to release these figures. No reason for this reluctance was provided.

4.3.3.9   Users Capacity to use information and services offered

What is the overall capacity of the users to take advantage of public access to information & communication resources, differentiating by applicable Equity of Service variables (Form 1c)?

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

Users need to have basic computer literary and web browsing skills in order to use the services offered at these venues. Users in non-urban areas and older users tend to be less computer literate and have had less exposure and opportunity to use computers. Younger generations, and people living in areas with more exposure to computers are more comfortable with technology and utilize it when needed.

The fees levied may exclude people from lower income socio-economic groups. The for-profit orientation of these organizations means that there is limited inventive to provide subsidized access. The cybercafés and Internet centers are located only in the aimag centers and are not readily accessible to the rural population living in the soums. The cost and time required to travel to the aimag centre will impact on the ability of rural users to access the centers.

The Internet centers do not supply any materials in Kazakh, including those based in the Kazakh speaking areas of the country, and populations with no formal or basic education are not able to access the information as it is text based.

4.3.3.10 Training Courses for Users

Describe training courses offered to the public at this venue, and if they offer some kind of testing and certification.

Only one cybercafé mentioned that they offer training courses to the public and even then, this is only offered if the user requests to learn. There is no course curriculum or design applied to this training. No certificates are issued upon completion of the course, and learning outcomes are not tested. A standardized training package adapted to the Mongolian context, with allowance for rural learners, administered by trained venue staff would support the development of computer literacy and information access in Mongolia.

ICT specific training courses:

If offered, the course consists of basic and mid-level computer training, no certification or testing offered.

4.3.3.11 Integration into daily routines

How easy is it for users to integrate the information and services offered in this type of venue into their daily lives? (offer concrete solutions to their needs and problems, make it easier to solve them at this venue than in other places)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

In Ulaanbaatar, larger cities and aimag centers where there are a number of Internet and cybercafés, access to the venues is made easier by the number of workstations available. This in turn allows users to access the venues with ease and extract the information they need to carry out the activity they have set out to do. The amount of information that users are able to access is often limited by the amount of Mongolian content available on the web.

Internet centers and cybercafés tend to have longer working hours than libraries and telecenters. These extended hours make it easier for people to access the venues after work and over the weekends.

Users Perceptions about the Venue

What is the general perception or opinion of the population about the venue (not necessarily its specific services, but the venue itself: ie, what do people generally think about libraries? Are they places that are "cool" or "only for elites" etc?), differentiating by applicable Equity of Service variables (Form 1c)? This includes perception by people who do not use the venue…

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

Users see the Internet Centers and cybercafés as access point to current information that can be sought and retrieved in a short amount of time. Unlike the libraries, more current and international information is available to Internet users at these sites. Younger generations are more technical and have had more exposure to digital technology. Many of them view the Internet centers and cybercafés as a venue or choice for information retrieval, and a key communication center.

A large proportion of these users are students who view the Internet centers and cybercafés as teaching and learning tools - an extension of their regular learning environment. Many of the younger generation see technology, and places that offer technology, as 'cool' and more in tune with their lifestyle.

4.3.3.12 Social Appropriation of Information and Generation of New Knowledge

What activities, products and services are users undertaking that exhibit new levels of social appropriation of technologies and generation of knowledge? For example, how are users generating and disseminating new knowledge, products and services through their use of this venue? (see category 13 in Real Access Framework for Social Appropriation of Technology).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

A number of users at these venues have come to rely on Internet access provided by the centers as a key communication mechanism with relatives and friends in other aimags, Ulaanbaatar and abroad. A driving factor in this trend is the financial viability of utilizing VoIP and messaging services as opposed to calling on land and cell phones.

Many generations communicating with family abroad, Khovd cybercafé

Users have also started to integrate the Internet accessed at these venues into their work routine. This allows them to increase the quality of their work, speed up processes and, in the case of self-employed entrepreneurs, to increase profit. An example of this emerged consistently throughout the research. A number of women sell Oriflame cosmetics. These sellers are now accessing Internet centers and cybercafés to place their order via the Internet. This saves them time and money as they now longer have to travel to the central depot to place their orders, only to have to return a few days later to collect them. Orders are now submitted electronically, and the sellers only need to travel once to collect the stock. Along with saving time and money, the process of electronic ordering speeds up the delivery time to the clients, which has been well received.

Many have also reported that Internet centers and cybercafés have allowed them to access occupationally relevant information that has assisted in developing their businesses and professional skills. The users report that the Internet is very often the only available source of this information.

Internet access at the cybercafés and Internet centers has allowed students to seek additional learning information as well as to access educational services, such as entrance examinations, and learning programs. Increasing numbers of users are relying on the Internet as a source of supplementary information, and contact with learning institutions.

4.3.3.13 Trust, Safety & Privacy

What is the general perception or opinion of the population about the safety, security and privacy (TRUST) of the information and services offered in this venue?
Generally, the population sees the cybercafés and Internet centers as secure venues for accessing information and facilitating contact with relatives and friends in various locations.

4.3.3.14 Gaps and Opportunities in information & services offered

What other information gaps & opportunities exist, which are not being met? (other information / services people need that are not being met there and could be offered, especially through Digital ICT services)

Because these entities are for profit organizations, all digital ICT services that are offered at the Internet centers and cybercafés are charged. This excludes a segment of the population unable to afford the fees. Developing a bridging system that could build on existing infrastructure and allow new users to develop computer capacity and web browsing skills at a subsidized rate, with a gradual movement towards charges for services would support the creation of a broader, capacitated population armed with the skills needed to access digital information.

Training both operators and users are needed. Funding the implementation of a standardized training program, facilitated by well trained operators would support local populations in acquiring digital technology skills.   An adapted EDLC course would be a good tool to assist the development of this process.

Increasing the number of computers available to users, speeding up the services, updating older equipment and making the Internet centers more comfortable for users would also assist in drawing more of the population into the centers.

A paramount issue is the limit of local content. Content development, to meet real information needs, is key to building participation by Mongolians in the global information society.

4.3.4   Enabling Environment

2 – 3 Paragraphs:
What is your overall assessment of the ENVIRONMENT ecosystem in this type of venue (local economy, national economy, legal and regulatory framework, political will & public support, regional and international context)?

The Internet centers and cybercafés fill a need – they provide digital services to aimag and city based populations. They are self funding, self supporting enterprises that rely on continued user access for sustainability. Increasing costs and economic pressures may discourage users from visiting these centers often. All aimag centers are now connected to the Internet and the backbone network capacity is on par with Ulaanbaatar. However, as self-funding and self sustaining enterprises they are at the mercy of the market economy and the increasing inflation

and cost of living may impact on user ability to afford the services that the centers offer.

With regards to Mongol Shuudan and MTC cybercafés and Internet centers found at the post offices, privatization may bring changes, though given the self sustaining model already in place, this in not likely. Monitoring over privatization is necessary.

4.3.4.1 Local & National Economy

Describe the local & national economic environment and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

Inflation and living costs are increasing in Mongolia. The impact of this on the general population is significant, and even more widely felt by disadvantaged communities. These venues are for profit entities that rely on user fees for funding and sustainability. With less disposable income, and more costs to meet, users may have less cash in hand available to access Internet centers. This situation has the potential to adversely affect the funding situation of the Internet centers and cybercafés. With regards to Internet center and cybercafés at local post offices, the central planning model facilitates an even spread of venues.

4.3.4.2 Legal & Regulatory Framework

Describe the legal and regulatory framework and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

Internet centers and cybercafés should, by law, by registered business entities. However, this is not always the case, and the exact number of these venues is difficult to determine. These commercial entities are part of the market economy. Younger generations of operators have been born into this economy with a resultant higher entrepreneurial drive and capacity that is at least favorable to the environment.

4.3.4.3 Political Will & Public Support

What is the level of political will and public support for this type of venue? (refer to & complement section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

Internet centers and cybercafés are commercial entities that are supported by the public in so far as provide necessary services for the population. This environment supports the market economy in spite of limited capacity in people over the age of thirty.

4.3.4.4 Organization and Networking

Describe if the facilities in this type of venue organized in any network, association or other collective body? (ie, national public library system, telecenter franchise or network, etc)?

There is no network or collective body for commercial Internet centers and cybercafés in Mongolia.

4.3.4.5 Partnerships

Describe notable public-private partnerships in support of this type of venue.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

No notable public-private partnerships were noted during the research.

4.3.4.6 Other Environment Factors

Other factors in the environment that affect access and use of information in this kind of venue, not covered above?

N/A

4.3.5 For Publicly Funded Venues only: Revenue Streams

This section is meant specifically for publicly-funded venues (public libraries, national connectivity programs, etc).

Case Example for Venue # 3: Internet centers and cybercafés

Provide a short descriptions and commentary for each type of venue, offering a realistic sense of what the venue looks and feels like in its day to day operation, the kind of people who visit, and the kind of services they receive. Also, the case example indicates what makes the case unique or what features are commonly shared with other venues. A photo and short quotes will make it even more real.

Darkhan-Uul aimag lies between the Hentii and Khangai mountain ranges. It is an area of great natural beauty and considerable natural resources and mineral deposits. The aimag is located in the agricultural heartland of the country and the area is renowned for its fresh produce. Many of the aimag's residents rely on agricultural production for their income.

The aimag capital is known as Darkhan, and is the second largest city and educational center in Mongolia. Because of this, the aimag has greater infrastructure that includes paved roads, reliable energy sources and a railway line that connects the city to Russian and China.

There are eight Internet centers and cybercafés in Darkhan-Uul aimag. Most of these are located in the ground floors of typical Soviet-built apartment blocks. The cybercafé located in apartment building 6 is a typical example. The café rents the two room converted apartment from a local landlord. The center has seven computers, one photocopier and one printer.

Internet center in apartment block (painted blue), Darkhan

Bayar (not his real name) is a regular visitor to the cybercafé. He is 51 years old, and runs a vegetable growing business in an area known as God's Valley, near Darkhan. He and his family also live in building number 6. By training, he is a teacher. His wife is a nurse. Their combined salary amounted to 140,000 MNT, about 120 USD per month, and making ends meet with four children was proving impossible. Having seen other people in Darkhan succeed in agricultural enterprises, in 2006 Bayar decided to try his hand at vegetable growing. Currently, his business employs 15 men as field technicians working on 10 hectares of land.

After the 2007, Bayar wanted to sell his vegetables at the biggest market in order to secure a substantial income. He asked people around town what the wholesale prices in Ulaanbaatar were, and, on the basis of this information, rented a truck to drive the produce the 350 km to the city. When he arrived in Ulaanbaatar, he realized that the prices were over 50% lower than he had been told. He was forced to sell the vegetables without profit, leaving he and his family in a very vulnerable situation.

Bayar was quick to realize that the major factor is this disaster was the lack of factual information and inadequate research. Had he been more informed about the status of prices, he would have stored the vegetables until prices rose and then sold his harvest for a profit. His sister, who lives in Ulaanbaatar, advised him to access vegetable prices on www.haih.mn.

Bayar had never used the Internet. He knew there was an Internet center in his building. With help from the local operator and fellow users, in almost no time he was navigating his way around

157

haih.mn, and soon felt confident enough to search for additional Mongolian language sites. He now regularly visits a number of websites in order to gather information about vegetable prices. This information informs his decisions to sell and also helps keep him abreast of new technology and continual advancements. This has led his business to grow substantially to the point where he is able to hire a staff of 15, cover educational fees for his four children, and support the needs of his family.

Bayar jokes that ' All my family now come to the Internet center. My family is an Internet family! My wife loves to cook and she gets delicious recipes from the Internet with the help of my daughter, who studies English. My daughter uses the Internet to help her study English, and my son comes here to play games and search the web. And I continue to search the Internet for vegetable related information and commodity prices.'

Bayar and his daughter in the Internet center in apartment building 6, Darkhan

4.4 Venue #4: Khan Bank Information Centers

4.4.1 Overall Venue Assessment

Provide a broad picture of the public access information landscape in this venue, informed by the results of this research.

2 – 3 Paragraphs:
What is your overall assessment of public access information in this type of venue?

Motivated by corporate social responsibility and in the context of lack of access to digital information in remote areas, Khan Bank began planning their Khan Bank Information Centers (KBIC) in 2005. The KBICs are all located in soum centers. The locations chosen by Khan Bank for the Internet centers are disadvantaged soums with no mobile phone coverage at the time of establishment, underdeveloped infrastructure, and economic challenges.

Focusing initially on the central region, four centers were installed in 2006, another nine in 2007. Roll out plans for 2008 include eight centers, bringing the total to twenty-one nationwide. The location of the additional eight centers will be determined in the last quarter of 2008.

The Khan Bank Foundation approaches the governors of soums seeking agreement to set up the KBICs and the allocation of a suitable venue as the local contribution to the project. The bank provides equipment, minimal venue alterations if required, the Internet connection and part payment of the coordinators salary. About fifty percent of project initiation meetings at soum level have resulted in the establishment of a KBIC. Some soums cannot meet the criteria of contributing a venue. Only one governor resisted the project apparently not wanting his local residents to have expanded access to information.

4.4.2 Access

2 – 3 Paragraphs:
What is your overall assessment of ACCESS ecosystem in this type of venue (physical access, appropriate technology, affordability)?

The location of the KBICs at soum level is a tremendous step in making public access Internet points available to remote populations. Historically, public access Internet points have been located in large cities or aimag centers, with very few at soum level.   The hourly rates charged by the KBIC are approximately half of those charged by Internet centers and Cybercafés in aimag centers and in the cities. These fees have been established by taking into account the local economic situation of communities the centers serve, and the spending power of the local population.

Soum residents access the soum center far more often than the aimag center or a city. This brings the Internet closer to them, although many will still have to travel considerable distances in extreme weather to access the services. The capacity levels of users remains low and the some of the KBICs offer training for the local population. However, a number of local residents and KBIC users that the researchers met with felt that the number of trainings offered were inadequate, or the training times did not take into account community activities. This was most prominent in Khongor soum. Most of the residents in Khongor are involved in agriculture and spring is one of

their busiest months as they prepare their fields and plant their crops. The local KBIC offered training sessions for the population during this period, with the result that most residents were unable to attend.

4.4.2.1   Physical Access

Describe how accessible this venue is to various population segments, differentiating by applicable Equity of Service variables (Form 1c), especially the differences between urban and non-urban settings.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Socio-economic status: Remote families who cannot afford the costs associated with travelling to the soum centers will not be able to access the services offered by these venues.

Education level: People who are semi-literate or illiterate will have less confidence to use computes and tackle the amount o text involved in seeking information from the Internet.

Age: Age does not impact on physical access to the KBICs.

Sex: Gender does not play a role in affecting physical access at the KBICs.

Location and Remoteness: The KBICs are the most accessible public access Internet point for the local soum populations. Many of the herding families come into the soums every one to two months to stock up on basic commodities and check their post boxes. Providing the users are Internet literate, they would be able to visit the centre and access the Internet. The centers also allow the local teachers to access current information that can be used to supplement lessons and to develop their professional capacities, such as English as a Second Language lesson plans and aids. Likewise, students have the opportunity to work on a computer, develop computer skills and access information that would otherwise be out of their reach.

Language spoken: The centers only offer Internet access, and users are limited in the amount of information they can access by the extent of their language skills.

Disability: The KBIC have no specific services or facilities for people with disabilities.

4.4.2.2   Appropriate Technology & Services

Describe how appropriate the technologies, services and information offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Socio-economic status: the costs for local users are inline with the socio-economic status of the locations in which the venues are situated.

Education level: Soum level residents often have had less exposure and opportunity to use computers and the Internet. The capacity of the population to access and utilize the technology needs to be lifted to a level that would allow for more rural residents to make use of the services that are offered.

Age: There is a lack of computer literacy in the rural populations, especially amongst the older

generation. Most of the soums that were selected by Khan Bank have had less technological exposure than other areas – no mobile phone networks and may only have been electrified in the past few years. Digital technology is new and often perceived as unattainable by average members of the local population. Younger users are accessing the centers for gaming. Other users who want to access information find it difficult to do so and may resent those playing games and engaging in what they see as less important activities.

Sex: Gender is not a significant variable in this instance.

Location and Remoteness: The KBIC provide a much needed mechanism for these rural populations to access information, communicate with relatives and friends, interact with the national Government which otherwise remains distant, and explore the world outside of Mongolia.

Language spoken: Internet users are able to access sites in Mongolian. Should the users be proficient in a foreign language, they will be able to access a broader range of websites.

Disability: There are no programs or specific activities for people with disabilities at the venues.

Meetings with KBIC users continually highlight the user perception that there are not enough computers available at the centers. While this may be indicative of high expectation from users, it also signals that user demand for services is constant. While appreciative of the services that the centers offer, many users also state that the furnishings in the venues are not very comfortable, that the venues are too small, and that lighting and ventilation are poor.

Quotes from KBIC focus group participants

The center is not comfortable at all. It is very cold during the winter. It is very small, and it leaks when there is rain. There are no lights and inadequate ventilation.

17 year old female, KBIC, Eroo soum, Selenge aimag

I guess it is better to have the center in this condition that it is to have no center at all. The tables and chairs are for children, and are not suitable for adults. They always get broken because the children play and sit all day long. The center needs to make money, and so they can't prohibit the children from coming to the center. I have heard that the bank says it will close the center down if it can't make money.

25 year old male, KBIC, Myangad soum, Khovd aimag

There are only three computers, so sometimes I cannot find a place to sit because all the spaces are taken. Once people get a seat at a computer, they tend to stay there for a long time.

16 year old male, KBIC, Khongor soum, Darkhan-Uul aimag

4.4.2.3   Affordability

Describe how affordable the technologies and services offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Socio-economic status: The hourly rates charged for Internet access are approximately half the rate levied by Internet centers and cybercafés in aimag centers and the larger cities. The rate takes into account the economic situation of the local population and, in doing so, helps to lower one of the barriers that the population may otherwise face in using the KBIC. This lower cost is realistic in facilitating user access as the soum communities tend to be less economically well off and many live a semi-subsistence lifestyle.

Education level: This variable is not a significant factor in influencing affordability of services at this venue.

Age: Age does not impact significantly on affordability and access at the KBICs. State pensions are small and recipients of these subsidies may struggle to meet the costs charged by the centers.

Sex: Gender does not impact on affordability and access to this venue.

Location and Remoteness: Remote soum residents and herding families may need to travel distances over dirt tracks and in extreme weather conditions in order to access the KBICs. The economic costs incurred in this travel, including the lack of physical labor available at home during this period and the time taken to travel is a disincentive for this segment of the population from accessing the services.

Language spoken: This variable is not relevant to affordability.

Disability: There are no concessions or price differentials for people with disabilities. This may prevent such users, especially those reliant on state subsidies, from meeting the required costs.

4.4.2.4   Fees for Services

What fees or other requirements exist in order to access and use the information in the venues? (registration, user fees, restrictions to certain populations)

If there are fees: What do these fees buy?

<u>Internet access</u>

Indicate amount in local currency 300 MNT per hour

Equivalent in US Dollars: 0.26 USD

Date of estimate 27/02/2008

and local currency name Mongolian Tugrug

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

All the centers offer the same service – Internet access for remote rural populations. Some centres subscribe to papers and magazines with income from user fees, in other cases The Khan Bank Foundation pays for subscriptions.

4.4.2.4.1 Map

If available, insert a map that displays the geographic distribution of this type of venue in the country (expand to the size you need).

KHAN BANK INFORMATION CENTRES IN SOUMS
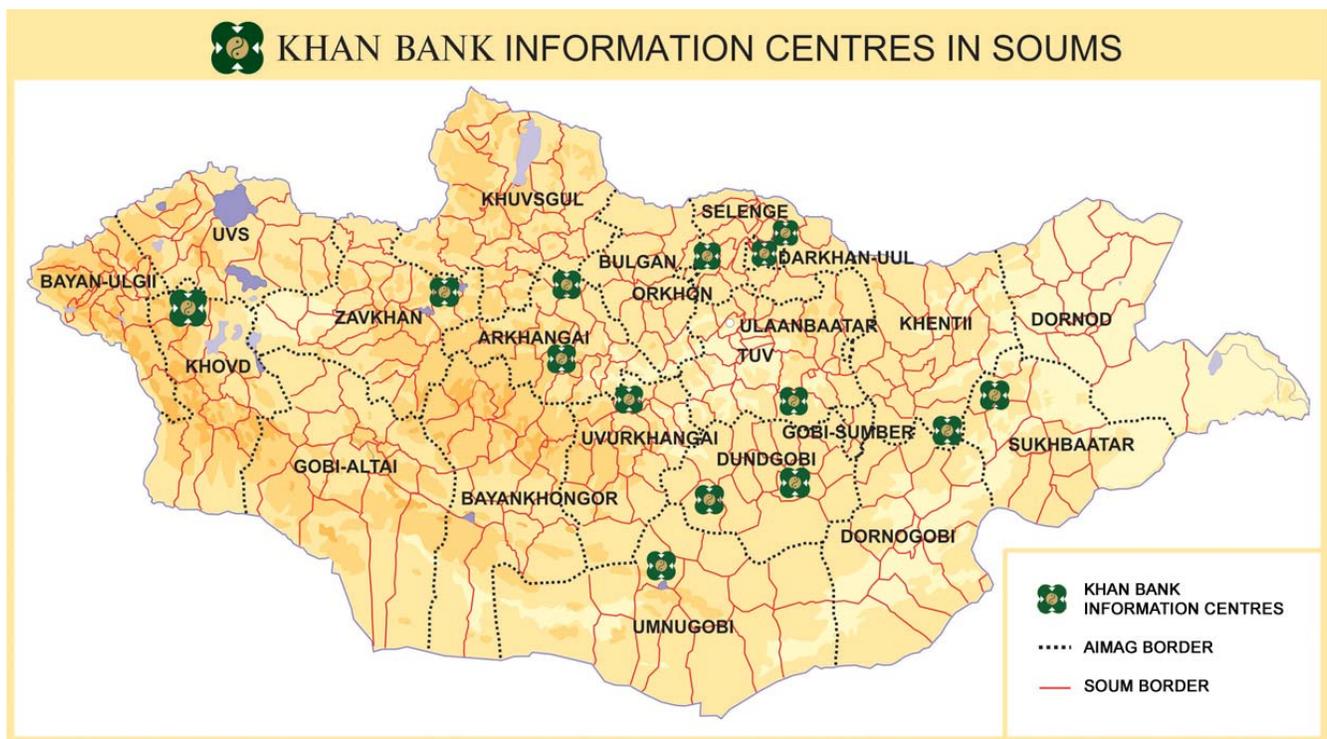
Description of map:

The map above illustrates the location of the thirteen KBICs. The locations of the additional eight centers, which are planned for 2008, are yet to be determined.

4.4.2.5 Other Factors affecting Access

Other factors that affect equitable access to public information in this type of venue, not covered above?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Recruiting people with the capacity to coordinate the centers has been a challenge and typically the coordinator has a day job and opens the centre after their other working hours. Our research picked up feedback from users and potential users indicating the centers are not open enough or at convenient times.

Khan Bank pays the part time coordinators between 20, 000 and 30,000 MNT per month (approx. USD20-30). The bank's goal is to have full time operators at the centre, though this is dependent on a viable level of sustainability in operations.

Currently the Khan Bank bandwidth is used by the centres and is more available after banking hours than during the day, giving some logic to the pattern of after hours opening times. The bank is currently spending USD3 million on an upgrade of their national network and this will significantly increase bandwidth availability within the network and make day time operations of the KBICs more satisfying for users who have also noted slow connection speeds.

4.4.3 Capacity & Relevance

2 – 3 Paragraphs:
What is your overall assessment of CAPACITY ecosystem in this type of venue (human capacity, locally relevant content, integration into daily routines, socio-cultural factors, trust in technology, social appropriation of technology)?

Each KBIC offers Internet access services. The level of technical support available to users is dependent on the level of knowledge of the operator. Khan Bank representatives report that they struggle to find suitably qualified people in the soums to operate the centers and provide users with adequate levels of support.

There is a lack of Mongolian content available on the Internet and this limits the amount of information most of the users are able to access. The KBICs do not store or localize information for clients to access. Local populations are in need of computer skills capacity building and regular, appropriately timed training sessions.

Complaints received from users about the lack of computers available for use is indicative of high demand from the local population for access to the centers and the Internet. Increased KBIC business hours could also help facilitate access to the services by the local population. Residents who are using the Internet at the KBICs do so to find information, communicate with people, and source educational materials and learning.

The location of a public Internet access point in a soum center has done much to bring information access to the rural populations The users have no concerns about privacy or trust issues, although, as in all of Mongolia, computer viruses are rampant and a continuous problem.

4.4.3.1 Staff Size

How many people work in a typical facility for this type of venue? (full time-equivalent employees or contractors; describe any significant variations; i.e., large, medium and small libraries in the country)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Khan Bank representatives report difficulty in finding adequately trained staff in the soums, to serve as operators. The KBIC often hire a local teacher or government worker to staff the centre on a part time basis.

4.4.3.2   Staff Training

What is the overall capacity of the staff (ie, librarians, telecenters operators) to help users access and use public access to information & communication services offered in this venue? Differentiate by applicable Equity of Service variables (Form 1c).

(vii) If appropriate, indicate any specifics that apply to Digital ICT services alone.

(viii)   For Public Libraries, indicate if Library School training is available and/or required for librarians.

Training for centre operators has been minimal with some on site input from the bank's IT staff and some training in Ulaanbaatar also with Bank IT personnel as trainers.

4.4.3.3   Services Offered

What kind of services does this type of venue offer to the public? (ie, access to books, magazines; meeting & conference rooms; audio/video programs, computers, Internet, other). Include Digital ICT services if offered.

Services Offered	Comments
12. Internet access	
13. Printing	

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

KBICs have only been established in soums. They all offer the same service - Internet access for the local community.

4.4.3.4   Programs for Underserved Communities

Describe if this venue has programs specifically intended to reach underserved communities, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The centers were established specifically to provide Internet access to a segment of the population that faces challenges in receiving up to date information. The communities that were selected for a KBIC are remote, lack infrastructure and tend to be economically disadvantaged. Within the established centers, the fee that is levied for Internet access has been developed bearing in mind the local economy and the financial ability of the users. The fees are approximately half of those charged at aimag center and city Internet centers, cybercafés and Telecenters.

4.4.3.5 Relevant Content

What type of locally relevant content is available? What else is needed? Who is doing it?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Available Content:

Clients that are computer literate are able to access any Internet sites they want within the limits of the content available in Mongolian or any other language they understand. There is a lack of Mongolian content available for users to access. Internet users are not aware of many of the sites that are available in Mongolian, and this means that they do not have access to potentially important and useful information.

Other Content Needed:

A boarder range of content in Mongolian needs to be available to Internet users. The KBICs have the potential to become resource hubs in the soums. Building a selection of reference materials in printed and electronic form would support the development of community activities and livelihoods.

Local Initiatives to build needed content:

The Khan Bank Foundation has recently funded and launched the Mongolian version of Open Office (Windows). This was launched at Technology Park in Ulaanbaatar on August 8th.

Source: Interviews with KBIC staff, Khan Bank management in Ulaanbaatar, local community members and KBIC users

4.4.3.6 Services & Information Available in Local Languages

Describe the availability of services and contents relevant to human development that are available in **local languages** in this type of venue? (i.e., info on health, education, government services, etc)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The centers provide Internet access only, with limited printed publications available. Clients are free to access Mongolian language websites that explore issues such as health, education and government services. The KBICs do not keep information and resources that clients may access in addition to searching the web for information.

4.4.3.7 Types of Uses

What do people USE the venues for (most frequent kinds of information & services people seek in them, activities they carry out in them)?

(iv) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Refer to section 3.4 Charts: Information Needs and complement here as needed:

KBIC clients predominantly use the centers for e-mail (42.5% of users interviewed) and web browsing (44% of users interviewed).

While searching the web, users are seeking information on education, entertainment and news. Nine percent of users responded that they played games at the KBIC.

Over half of the KBIC clients interviewed used the centers to communicate via e-mail or chat and made use of a webcam if available.   This again reinforces the emergence of the Internet as a key communication tool in Mongolia.

4.4.3.8   Number, Type and Frequency of Users

Refer to section 3.4 Needs. Complement here as needed:

Numbers of users are not counted by individual centers. Soums centers, where the KBICs are located, tend to be relatively small settlements of a few thousand people. Bearing in mind user feedback regarding the lack of works stations in the KBICs, it may be deduced that demand is high even though population numbers may be low.

The KBIC in Khongor has been tracking the number of users that access the venue. According to the local operator, between twenty and thirty people access the center every day. The monthly figure ranges between 500 and 700 users.

4.4.3.9   Users Capacity to use information and services offered

What is the overall capacity of the users to take advantage of public access to information & communication resources, differentiating by applicable Equity of Service variables (Form 1c)?

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

Providing the user is computer literate, can reach the center easily, and has the required fee, then utilizing the services offered by the KBICs is not a problem. However, computer literacy levels in the countryside, particularly at soum level, remain low. Economically, the soum residents tend to earn smaller salaries than aimag centre or city counterparts. Khan Bank has recognized this economic divide and lowered the user charges accordingly, making them more affordable for the local populations.

The number of residents who have not completed a formal or basic education is often higher in the rural areas. This is driven by the fact that young boys in particular may be removed from education in order to tend the family herds, or generate income for their families by watching other family's herds. Illiteracy and neo-literacy are barriers to accessing text based information. In the case of illiterate or neo-literate populations, a lack of confidence in dealing with text based information compounded by the unknown nature of digital technology may drive these segments of the population away from the KBIC.

There are no facilities or services available for disabled users.

4.4.3.10 Training Courses for Users

Describe training courses offered to the public at this venue, and if they offer some kind of testing and certification.

Each of the thirteen KBICs offers training courses on their own schedule. There is no centralized training timeline. If the particular KBIC offers a training course, it will focus on basic computer literacy and Internet access. As far as the research team has been able to ascertain, the training courses are free of charge.

A number of the users interviewed in Eroo soum felt that the courses that were offered did not take into account community activities and responsibilities, and members of the local population were therefore unable to attend the training sessions. In this case, training interventions were offered in prime planting season to an agricultural community. This highlights a lack of community development expertise, and a situation that can be easily rectified.

Other respondents felt that having only three computers available does not allow proper training courses to happen. Some respondents mentioned that there were multiple trainees per computer and that this made learning very difficult, and reduced the chance that each of the participants had to actually use the computer. Mini-interventions that build the capacity of three people at a time will be far more effective than training courses for larger groups of people.

It is interesting to note that a number respondents over the age of 40 felt that a lack of training was their biggest barrier to access, and called for regular training sessions to be held. In doing so, they are recognizing both their need to learn how to use the technology, but also the value of the information accessed thought this technology.

> **Quotes from KBIC focus group participants**
>
> Last year in spring, a free computer training course was announced. Not many people attended because it clashed with spring agricultural work. Most people in this soum are dependent on the fruit and vegetables that they grow for their yearly income. Winter is a better season for training workshops.
>
> 61 year old male, KBIC, Eroo soum, Selenge aimag
>
> Last month [May 2008], free user training was held. But that is our busiest time in which we plant vegetables and pupils sit their final school exams, so we couldn't attend the sessions.
>
> 60 year old male, KBIC, Eroo soum, Selenge aimag
>
> People can't use the centers because they are not trained. But how can a proper community training be held when there are only 3 computers available?
>
> 28 year old female, KBIC, Myangad soum, Khovd aimag
>
> Some training courses that help us to learn about computers and how to use the Internet would be good.
>
> 51 year old male KBIC, Khongor soum, Darkhan-Uul aimag
>
> We need to organize training for the elders.
>
> 17 year old female KBIC, Eroo soum, Selenge aimag

4.4.3.11 Integration into daily routines

How easy is it for users to integrate the information and services offered in this type of venue into their daily lives? (offer concrete solutions to their needs and problems, make it easier to solve them at this venue than in other places)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Some KBIC clients report access issues because of the centers' working hours and slow connection speeds. Other community members attribute a lack of training to their inability to access the services. Regardless, community members are accessing the services and using the Internet to gather information and communicate. The KBICs have opened Internet access to local soum center residents, but remote rural populations and herding families will still need to travel into the soum centers to access the services. However, this is less of a journey in terms of time and finances for the majority of these residents than travelling to the aimag center would be.

Although the KBIC offer residents affordable long-distance communication options and the opportunity to access information that might otherwise be out of their reach, the lack of computer skills, lack of confidence in utilizing new technology and minimal understanding of the value of the services may prevent members of the local population from accessing the centers.

KBIC in Khongor soum near Darkhan, known to it's users as the Jungle

4.4.3.12 Users Perceptions about the Venue

What is the general perception or opinion of the population about the venue (not necessarily its specific services, but the venue itself: ie, what do people generally think about libraries? Are they places that are "cool" or "only for elites" etc?), differentiating by applicable Equity of Service variables (Form 1c)? This includes perception by people who do not use the venue…

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Users appreciate that the KBICs offer a service, Internet access, which is rare in soums in Mongolia. Though facilities are limited, the fact that this attracts complaints suggests full usage.

4.4.3.13 Social Appropriation of Information and Generation of New Knowledge

What activities, products and services are users undertaking that exhibit new levels of social appropriation of

technologies and generation of knowledge? For example, how are users generating and disseminating new knowledge, products and services through their use of this venue? (see category 13 in Real Access Framework for Social Appropriation of Technology).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

KBIC clients are utilizing the Internet to communicate with friends and family through chat, e-mail and webcam. Others use the Internet at the KBICs to find information that they use in their daily routines and to support business activities.

Clients are also using the Internet services at the KBICs to access educational information.

Students are able to search for supplementary learning materials, and teachers use information

that they access to develop lessons, supplement available materials, and develop their skill sets in

areas such as languages and mathematics.

I own a small café. I have added many new dishes to my menu based on recipes and ideas that I get from the Internet. My customers really appreciate the variety that my café offers them. This means that they keep coming back, often with people who haven't come before. Because of this, profits are increasing. I've also been look at examples of interior design for cafes and the latest cooking equipment. As a businesswoman, accessing the Internet provides me with the information I need to operate successfully.

33 year old female, KBIC, Khongor soum, Darkhan-Uul aimag

I am a herder. I check the weather forecast regularly. It helps me manage my animals and protect them from storms, snow and rain.

27 year old male, KBIC Myangad soum, Khovd aimag

Business project advice for small and medium entrepreneurs is available on the Internet. I drafted a few proposals using the information that I got on the Internet.

47 year old male KBIC, Eroo soum, Selenge aimag

I sell Oriflame cosmetics. It is possible to place the orders online, which saves time and travels expenses. But the Internet connection here [at the KBIC] is very bad. When I open several windows, it gets stuck. So instead of waiting for it to be ok, it is better to go to the aimag center and place my order. It is possible for ICT to become a part of your daily life, but first it must work.

38 year old female, KBIC, Myangad soum, Khovd aimag

I am a bagh governor. I use the KBIC to send bagh reports to the soum government electronically. This is much quicker for me. Often I go to the government building, but no-one is there. This means I have to wait until the person I want to meet arrives. I am also able to get government related resources and materials electronically. This allows me to get the information a lot quicker than I used to. The result of this is that I can pass this along to the local citizens much faster.

58 year old male, KBIC, Khongor soum, Darkhan-Uul aimag

4.4.3.14 Trust, Safety & Privacy

What is the general perception or opinion of the population about the safety, security and privacy (TRUST) of the information and services offered in this venue?

Users do not worry about safety, security and privacy issues.As in all of Mongolia, there are continual problems with computer viruses. Public access Internet venues are at particular risk, and the KBICs are not immune.

4.4.3.15 Gaps and Opportunities in information & services offered

What other information gaps & opportunities exist, which are not being met? (other information / services

Computer capacity building skills for the local populations are needed. Training courses that teach the local residents how to browse the Internet as well as basic computer word processing skills are essential in facilitating increased access to the centre. In scheduling these, the local centers need to take into account community activities and patterns and in consultation with community representatives, develop a realistic schedule that will allow maximum participation. Running demand-led trainings at agreed times will help to establish realistic expectations and parameters. This could include, for example, hosting 2 people training courses, and making two of the three computers available for learners while leaving one terminal free for access.

An adapted and localized version of ICDL certification could provide a possible solution.

Pact Mongolia would like to support and work with this initiative. It is attractive because the KBICs have had humble beginnings and in that regard differ from Mongolia models of donor funded telecentres that have not sustained themselves post donor funding. The KBICs are basic and running on a shoestring and this presents a new, possibly more sustainable model for public access to information in remote areas.

4.4.4   Enabling Environment

2 – 3 Paragraphs:
What is your overall assessment of the ENVIRONMENT ecosystem in this type of venue (local economy, national economy, legal and regulatory framework, political will & public support, regional and international context)?

Soum level residents tend to have lower income levels than their aimag and city counterparts. A lack of disposable income may impact on their ability to visit their local KBIC, and conversely on the local KBIC's ability to generate income. Khan Bank has tried to address the economic situation of the soums by charging users a fee lower that those levied at aimag and city level.

Khan Bank covers all Internet costs for the centers and the Internet is accessed through existing Internet facilities of the local Khan Bank branches. The bank branches are necessary components of the soums and are well established within the communities. This means that the Internet sources for the centers are stable.

The KBIC also serve a large gap in the market by providing Internet access to rural populations. There are currently very few alternative venues. None of the state-funded public libraries or cultural centers offers Internet or digital services at soum level.

Khan Bank representatives have said that one soum governor requested the Bank to remove the center. The bank did so, and the KBIC opened up in a neighboring soum of the same aimag. A lack of local government buy-in means that the community loses a vital public information access point. A clearer understanding of the motivation behind the KBICs and the long term strategy of the bank would go far to dispel suspicion and support the development of the centers. An

improved entry negotiation process to ensure co-operation and buy-in will help to mitigate against problems such as these.

4.4.4.1   Local & National Economy

Describe the local & national economic environment and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

Soum level incomes are generally lower than they are in aimag centers and in the cities. Soum residents are also affected by increased fuel prices because of the distances that need to be travelled in order to procure goods for shops and markets. Increasing inflation and the climbing cost of living means that there is less disposable income available to many citizens. Soum residents are often unable to afford the same services and goods that their aimag counterparts are able. High Internet hourly rates would be prohibitive to the majority of soum residents.

Mongolia has well developed banking and non-banking financial systems. Some say that it is overbanked. Given this, it is not surprising that banks seek to add value at branch level. This scenario goes against global trends where banks are closing and consolidating branch numbers.

4.4.4.2   Legal & Regulatory Framework

Describe the legal and regulatory framework and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

The overall legal and regulatory framework has no direct impact on the functioning of the KBICs. Rather, it creates an enabling environment in which the centers are able to operate. Soum level local government resistance or suspicion has caused problems for the centers in the past. Transparency around the strategy and motives of the bank and consultation with community elders would help to ease this problem.

4.4.4.3   Political Will & Public Support

What is the level of political will and public support for this type of venue? (refer to & complement section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i)   If appropriate, indicate any specifics that apply to Digital ICT services alone.

Local administrations are not always receptive to the idea of the KBIC and are suspicious of the bank's motives in establishing the center. One soum asked Khan bank to remove the local KBIC, citing lack of space, staffing difficulties and general inconveniences as the reasons for the request. It later emerged that the soum governor did not want the local population to have increased access to information. Khan Bank moved the KBIC to another soum in the same aimag.

4.4.4.4 Organization and Networking

Describe if the facilities in this type of venue organized in any network, association or other collective body? (ie, national public library system, telecenter franchise or network, etc)?

The KBICs are not part of any network other than within the overall institution that exists nationwide. The centers do not coordinate or exchange experiences.

4.4.4.5 Partnerships

Describe notable public-private partnerships in support of this type of venue.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Khan Bank is private bank with the largest nationwide banking network in Mongolia. There are 465 branches spread across the country at city, aimag and soum level. Working with the local soum governments, the bank has established the KBIC in thirteen soums across Mongolia. The local administration finds housing for the centers in schools, cultural centers or local libraries, and, in doing so, assists in the provision of digital access to local citizens.

The first KBICs were set up in soums where Peace Corps Volunteers (PCV) were stationed. This was because the idea of setting up a public access Internet venue using the bank's infrastructure and resources was suggested by a PCV. The PCV was instrumental in the establishment of the pilot center, and later joined the bank as a full time employee. The PCVs that were involved helped the centers develop and run. This partnership soon came to an end as the KBICs were established in soums were PCVs were not present because they were located outside of the Peace Corps Mongolia operational boundaries.

4.4.4.6 Other Environment Factors

Other factors in the environment that affect access and use of information in this kind of venue, not covered above?

The attitude of the local government is essential in the success of the KBIC. If the local administration cannot see the value of the KBIC, it cannot function within the soum, and the local population loses a vital information access point. Rural populations contain few people with adequate skills to run the centers and teach the local population basic computer and Internet access skills. Many of the local residents cannot use the centers to access information because they do not have the skills required, and cannot gain these skills in their soums.

4.4.1 For Publicly Funded Venues only: Revenue Streams

This section is meant specifically for publicly-funded venues (public libraries, national connectivity programs, etc).

Provide a short descriptions and commentary for each type of venue, offering a realistic sense of what the venue looks and feels like in its day to day operation, the kind of people who visit, and the kind of services they receive. Also, the case example indicates what makes the case unique or what features are commonly shared with other venues. A photo and short quotes will make it even more real.

Galshar is a small, dusty soum in the south of Hentii Aimag, the aimag in which Chinggis Khan was born. Straddling the great steppes of Mongolia and the Gobi desert, Galshar soum centre is an isolated settlement facing many economic challenges.

On the 10th of November, 2007, Khan Bank opened an information centre in Galshar soum. Galshar was selected by Khan Bank because it has a poor population, no cell phone coverage, few fixed telephone lines, and limited means of communication for the general population- via post or a call placed at the local post office.

One day, an older woman came into the KBIC. She informed the KBIC staff member that she wanted to send a message to her son, who lives and works in Korea. With help from the staff, the woman managed to write a short letter and send it to her son. A few days later she returned to the centre, where the staff introduced her to Skype. She was amused and excited by the concept and had her first Skype conversation with her son.

User receiving advice at KBIC in Galshar

'It costs me 300 tugrugs to talk to someone in Ulaanbaatar for one minute on the phone at the post office,' she said. 'I can't even imagine how much it would cost to call Korea. But, with Skype, I can talk to, and see my son, for a full hour and it only costs me 300 tugrugs. The same as one minute to Ulaanbaatar! The next time I want to chat online with someone, I will come with my grandson, because he can type faster than me!'

Users at KBIC in Galshar

5 SUCCESS FACTORS & STRATEGIC RECOMMENDATIONS

5.1 Summary of Lessons in country

5.1.1 Information Needs

What are the most critical information needs by underserved communities that are currently not being adequately met by public access to information & communication venues?

There are limited Mongolian language knowledge sites available for Internet users in the country.

There are no known localization projects in Mongolian.

There are limited free public access Internet points in Mongolia. The four free public access Internet points that research has been able to uncover are situated in the center of the two largest cities in the country. This limits access by peri-urban ger district residents and rural residents. Ger district residents are often poorer migrants from other parts of the country who lack proper registration documents and are vulnerable to exploitation.

Public libraries, especially at soum level, are in need of rejuvenation including physical repair and stock replenishment. Updated Mongolian language materials should to be made available to readers, in both printed and electronic form. Providing a comfortable reading environment coupled with current, relevant and interesting reading materials will help the libraries draw local populations into the establishment. Aimag and soum libraries do not have digital technology available to help them catalogue resources, track activities and link with other branches.

The provision of one laptop and one mobile internet device per ger would help to bridge the digital and information divide experienced by many remote herding families and rural residents. This initiative would need to be supported by the development of user capacity.

Where people go

Where do people go for public access to information & communication in the country, especially underserved communities?

Historically, people have accessed the library to meet their information requirements. Since the collapse of the socialist state in 1990, libraries have not received enough funding to increase stocks and maintain infrastructure. The current inability of most libraries, especially at soum and aimag center level, to meet the needs of users is driving the population to seek information elsewhere.

Television and radio remain key information sources for all Mongolians. Herding families are reliant on radio, powered by battery or electricity generated by solar panels or wind, for updated information and relevant content such as weather forecasts, herding updates and agribusiness information. Nearly two thirds of herding households generate electricity, and over 50% of herding families have TVs and are able to pick up the national broadcaster.

Soum residents in soums that have KBICs are accessing the venues in order to seek information and communicate via chat. The KBICs are often the only public access Internet points for these users.

Access, Capacity & Environment affect Public Access

How do access, capacity and environment affect public access to information & communication venues in the country? (Refer to details under access, capacity & environment in research design document).

There is a lack of rejuvenation of old standards such as the libraries

Mongolia has seen a rapid take up on Mobile technology, evident in the number of mobile phone users.

There is a limited public awareness of the value of information or the rights of each person to enquire after information. This is a legacy typical in post soviet contexts

There is limited free Internet access. This is exacerbated by the existing free access points located in the two most developed and prosperous cities in the country. This leaves almost half the population with no free Internet access.

There is limited computer ownership amongst the underserved segments of the population.

A lack of creative thinking on cross-media opportunities results in reduced opportunities for the public to access information is a medium that is convenient and within economically viable parameters.

5.1.2   Role of ICT

What is the role of ICT in public access to information & communication? What untapped opportunities exist?

- ICT is key to the diversification of information sources, as set in a media ownership scenario that narrowly defines editorial content.

- The high cost structure for GPRS limits current public access information dissemination. The costs levied are prohibitive to most of the population. Affordable GPRS rates would facilitate a greater number of people accessing information,

especially in remote and rural areas

- The e-government program is essential in brining government services closer to the people. This is especially so for remote populations for whom the government, especially at national level, is a world away.

- ICT is fundamental is allowing isolated and distant population to access regular information and news.

5.2 Success Factors & Recommendations

5.2.1 Where to Invest Resources

How could additional resources (money, people, time, knowledge) be best used to strengthen public access to information & communication venues and practices in the country? (ie, solutions that would make it more accessible, affordable, appropriate?)

- Consider the development of libraries; improve existing infrastructure, including physical repair of the buildings and new furnishings to create a comfortable user environment. Replenish stocks and develop adequate storage and shelving for books and other resources. Establish digital technology and e-cataloguing services for all libraries and increase the number of materials available digitally.

- Develop an intranet that will allow electronic materials to be shared between libraries across the country thereby increasing the amount of materials available to users in the rural areas.

- Provide training and professional development for librarians in areas including customer service, use of digital technology in libraries, and training of clients.

- Create a Mongolian language websites dictionary for free distribution to Telecenters, schools, cybercafé, Internet enters and libraries.

- Develop infrastructure for users with mobility disabilities to access public libraries at city, aimag center and soum level.

- Integrate services into one information hub - possibly the library. This would entail melding the KBIC with the local library to provide users with a one-stop information shop. Included in here would need to be training courses for staff and clients, as well as support services such as photocopying and printing. This center could also house reference materials relevant to the local community, including topics such as herding and agricultural practice, environmental policies, artisanal mining laws etc

- Work in partnership with Khan Bank to continue the roll out of the KBICs through a participatory community process that allows local community members to identify needs.

- Make laptop computers available to remote herding families, along with portable Internet connection devices, such as those offered by G-Mobile. This would allow

nomadic herding families to connect to the Internet when required to seek information and to communicate. Support this with adequate training for the herding families.

5.2.2 Key Success Factors

What are the key success factors for public access to information & communication to meet information needs of the population, especially underserved communities, and especially through digital ICT?

- There are over one million mobile phone subscribers in Mongolia. Given that the population totals just over 2.5 million people, this means that almost forty percent of the population has a mobile phone. Mobile phone coverage is increasing, and all soum centers should have mobile phone coverage by the end of 2009. Mobile phones are perfect digital information access tools for mobile communities to access information, provided they have coverage and the costs are affordable.

- There is a lack of free public access Internet in Mongolia. There are three in total, two in Ulaanbaatar, and one in Darkhan. These are the two biggest cities in the country, with the most developed infrastructure. Rolling out free or low fee public access Internet points, supported by capacity development of users and operators would facilitate access to information in soum and aimag centers.

- There is a lack of computer literacy and Internet skills for users. Along with developing Internet access points, the skills of users need to be supported and developed. Data processing is a skill that requires cognitive thought. Users need to be taught how to read, interpret and utilize information that they may access on the web. These are new skills in a post Soviet context.

- Libraries hold a traditional position as a venue in which study happens, intellect is developed and newspapers are read. They are not perceived by the general public as electronic or Internet information sites.

5.2.3 Role of ICT

How can public access to information & communication venues in the country be strengthened to offer more meaningful and equitable access to information, especially using digital ICT?

Given the crisis of libraries and their state of decay, the question arises as to whether these institutions are too tired to revive, and whether the populations would be best served by placing local digital hubs in these venues.

It also needs to be considered how, in post soviet societies, where information represents power, do you change the culture around information for human development to include learning, wanting to know, knowing you have a right to know, and knowing where to ask.

5.2.4 Top Ten Recommendations

What are the Top Ten recommendations for public access to information & communication venues in your country? Make sure you include policy recommendations as part of them.

1. Undertake a focused risk and opportunity analysis to consider whether or not libraries could be rejuvenated given their current state of decay, lack of capacity and 'tired mentality'.

2. Create a culture of open learning, access to information, and the right to know among a traditionally information deprived society through targeted awareness raising activities

3. Promote ICT as a tool for nation building, cultural preservation, consolidating archives and traditions at risk.

4. Train and deploy digital information facilitators to create and meet local information needs including minority langauges.

5. Develop and appropriate computer literacy course for Mongolia, and train trainers

6. Introduce widespread computer literacy courses (such as ICDL) and trainers located in library digital hubs.

7. Promote the range of information vectors (including radio, TV and mobile phone) that can be developed at community level.

8. Support Khan Bank Information Centers as a low key, realistic and potentially sustainable model that reaches the information underserved in rural areas.

9. Develop and promote facilities for people with disabilities to access computing with custom built tools

10. Install physical access infrastructure to enable people with mobility issues to enter and use ICT facilities

6 APPENDICES

Please attach on the next pages any other relevant information, resources or materials that can help understand public access information venues in the country.

6.1 List of Countries included in Research

Algeria
Argentina
Bangladesh
Brazil
Colombia
Costa Rica
Dominican Republic
Ecuador
Egypt
Georgia
Honduras
Indonesia
Kazakhstan
Kyrgyzstan
Moldova
Mongolia
Namibia
Nepal
Peru
Philippines
South Africa
Sri Lanka
Turkey
Uganda

6.2   Overview of Research Design

The Center for Information & Society (CIS), in partnership with the Information School of the University of Washington, has as part of its core mission the investigation of how inequities in our global society can be reduced through improved access to information and communication technologies (ICT). As part of its research activities, CIS has brought together interdisciplinary teams of researchers to examine the needs, readiness and success factors for public access to information & communication venues through digital ICTs in 24 countries around the world.

Project Goal:

- Understand information needs, and opportunities to strengthen institutions that offer public access to information & communication, especially to underserved communities, and especially through the use of digital ICT: What are the needs, barriers, opportunities & success factors for public access to information and communication to help human development in countries around the world? For the purpose of this study, research is primarily focused on Libraries and Other institutional venues for which access to information has a significant role. This research includes understanding venues where digital ICT is currently offered, *and* also where ICT is not currently offered but there is potential and strong institutional support to include ICT (for example, some public libraries where digital ICT services are currently not offered, but there would be strong interest in offering them).

  Libraries include public libraries and other types of libraries that are open to the public. **Other venues** include national initiatives that offer public access to information, either with ICTs (telecenters, cybercafés and the like) or without ICTs (post offices, community centers and similar) and are of significant importance in local contexts.

Project Purpose:

- Inform policy & funding decisions: Inform funders and government decision makers about future program direction and funding allocations

- Contribute to public knowledge: Disseminate results of in-depth country and comparative analyses, including research design & analytical models

To inform project design, CIS adapted the Real Access framework (Bridges.org), analyzing public access to information & communication through a total of 14 research categories grouped under the dimensions of **Access**, **Capacity & Relevance** and **Enabling Environments**. Adaptation was done in consultation with research partners around the world for the purposes of this study.

The implementation of this project is organized as a two-phase process:

Phase 1:   Nov 07 – Feb 15, 2008

During Phase 1, a **Draft Country Report** will be prepared by local research teams in each country. The Draft Country Report includes a Country Profile, a Country Assessment and an early draft of Lessons & Recommendations.

The *Country Profile* is a collection of 50 general descriptive data points drawn from readily accessible sources; CIS pre-populates the reports for each country, and offers them for validation and comments by local teams. Country Profiles provide primarily statistical data that is intended to offer a quick snapshot of each country, including geography, political environment, demographics, economy, education and ICT infrastructure.

Using a common approach to define research processes, local teams will conduct initial fieldwork to inform a *Country Assessment*. The Country Assessment includes both a scan of information needs, especially for underserved communities; and an assessment of public access to information &

communication venues (with or without digital ICT services) and their environment, resulting in a better understanding of gaps, opportunities, and readiness of public access to information initiatives in each country.

During Phase 1, each country team will also complete an early draft of *Success Factors and Recommendations* focused on strengthening public access to information in the country, and identify potential themes and issues for further study in Phase 2.

Phase 1b: Feb 15-Mar 15, 2008

During this period, CIS will conduct a preliminary comparative analysis based on the Draft Country Reports from all participating countries, and suggest feedback and guidance for Phase 2 of the study. The comparative analysis will look for salient trends, emergent themes, patterns, and threads across regions. During this period, next steps will be determined for in-depth country research for Phase 2.

Phase 2: March 2008 – August 15, 2008

Phase 2 will involve a deeper assessment of public access to information and ICTs across all 24 countries. In particular, CIS is interested in deeper probing of the emerging themes and scenarios identified in Phase 1.   A **Final Country Report** will include high level analysis, success factors and recommendations to strengthen public access to information and ICTs in each country. Final comparative analysis across countries, with analytical models and scenarios, will be completed by CIS after receiving the Final Country Reports.

Findings will be disseminated publically through reports, academic publications, conferences and consortiums. Each country team is expected to produce at least one publishable paper on their research and findings, plus additional papers emerging out of the comparative analysis and global findings. Publications will be part of the public domain, with the CIS web site, partners' sites, and other publication channels to be identified.

6.3 Annotated Country Profile (form 2)

Attach here an updated copy of the annotated Country Profile (Form 2).

6.4   Other Appendices

Glossary of terms

Aimag	Sub-national province
Soum	Division of aimag
Bagh	Division of soum, smallest administrative unit in Mongolia
Ger	Traditional Mongolian felt dwelling
ADB	Asian Development Bank
AED	Academy for Education Development
CDMA	Code Division Multiple Access
CFIC	Child and Family Information Center
DIRC	Development Information and Resource Centers
EILNet	Electronic Information for Libraries Network
GSM	Global System for Mobile Communications
ICDL	International Computer Driving License
ICIDP	Information Communication Infrastructure Development Policy
ICT	Information Communication Technology
ICTA	Information and Communication Authority of Mongolia
KBIC	Khan Bank Information Center
LMI	Last Mile Initiative
MFOS	Mongolian Foundation for Open Society
MNT	Mongolia tugrug (unit of currency)
MS	Mongol Shuudan (Mongolian Post Office)
MTC	Mongolian Telecommunication Company
NHRCM	National Human Rights Commission Mongolia
OSF	Open Society Forum
PIC	Public Information Center
PCV	Peace Corps Volunteer
UNDP	United Nations Development Project
USD	United States dollar
USOF	Universal Science Obligation Fund
WiFi	Wireless Fidelity
WSIS	World summit on the Information Society