

# Kyrgyzstan

PUBLIC ACCESS LANDSCAPE STUDY SUMMARY



### Overview

The country of Kyrgyzstan has a small, widely-dispersed, mostly impoverished population separated by 100,000 sq km of rugged mountains. The literacy rate is high but there is little local, relevant content at public access ICT centers. Developing more broadband access would help, but the terrain and unreliable power grid are limiting factors. The needs and readiness of Kyrgyzstan with regard to improving public access to ICT are low, but quick wins are possible.

PUBLIC ACCES LANDSCAPE	
Challenges ahead	Quick wins
Needs	Low
Needs (rank)	21/25
Readiness	Low
Readiness (rank)	22/25

## Findings

The overall literacy rate in Kyrgyzstan is very high around 98 percent. Those who speak Kyrgyz or Russian tend to be the most literate and have the highest interest in information and communication technologies.

Rural residents often live in remote villages that are difficult to reach because of the mountainous terrain, and many settlements are isolated in the winter by deep snow and treacherous roads. The topography of this country also makes it difficult to hardwire and blocks line-of-sight transmissions. Landline networks beyond the more populous communities are quite limited.

Also, largely because of the lack of reliable and stable electric power, rural areas rarely have the technology or infrastructure for digital access to information.

Residents of rural areas often migrate to seek work in the larger cities, or abroad in other countries such as Russia and Kazakhstan. This economically-driven migration is a drain on the able-bodied, predominantly younger work force, and on a generation more aware of digital services and technologies.

Given the numbers of rural residents moving to cities and abroad there is an increasing demand for affordable and reliable digital communication. Still, half of the rural population lives in poverty that impacts their ability to access information, especially when fees and charges are levied, as is often the case with commercial Internet centers.

Other findings from this study include:

- There is a distinct lack of practical local content among all of the venues and almost no content in any language other than Kyrgyz and Russian. This deficiency places the ethnic minority populations at a great disadvantage, especially the two larger minorities who speak the Uzbek and Tadjik languages.
- Despite the fact that the demand for ICTs is developing rapidly, no unified report exists that describes the progress, and it was not possible to identify the current status of ICT development with any accuracy. The lack of current information persists, although Kyrgyzstan in 2002

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#### **ACE Scores**



■ Country score ■ 25-country average

Shaded data points are outside standard deviation for 25-country set See the last page for country-specific definitions of these venues See the last page for a definition of the ACE scoring framework

### **Venue Distributions**

	ALL PUBLIC ACCESS			PUBLIC LIBRARIES			TELECENTERS			CYBERCAFES			OTHER VENUES*		
	Total			Total			Total			Total			Total		
	urban &	25-	25-	urban &	25-	25-	urban &	25-	25-	urban &	25-	25-	urban &	25-	25-
	non-	country	country	non-	country	country	non-	country	country	non-	country	country	non-	country	country
	urban	average	median	urban	average	median	urban	average	median	urban	average	median	urban	average	median
VENUES	6,380	10,017	5,489	289	1,111	1,062	11	1,273	366	6,000	8,693	3,225	80	398	46
number with ICT	6,149	9,802	5,122	58	349	96	11	1,149	257	6,000	8,507	3,251	80	146	13
% with ICT	96%	98%	87%	20%	31%	20%	100%	90%	100%	100%	98%	100%	100%	37%	92%
% OF PUBLIC VENUES	100%	100%	100%	5%	11%	20%	1%	12%	11%	94%	73%	67%	0%	4%	1%
POP. PER VENUE ('000)	1	8	5	18	93	37	472	205	68	1	52	9	65	419	103
with ICT ('000)	1	15	6	90	2,093	208	472	242	119	1	62	10	65	1,354	198

\*See the last page for country-specific definitions of these venues. For this country, other venues refers to E-Clubs

Data points are missing for some measures in some countries, which can result in oddities when comparing rows of data (for instance, the average number of venues with ICT appears high compared to the average number of venues). For a complete overview of comparative country data, please see the summary paper for this study.

#### **User Profiles**

			PUBLIC LI	BRARIES			TELEC	INTERS		CYBERCAFES				
		Urban	25- country average	Non- urban	25- country average	Urban	25- country average	Non- urban	25- country average	Urban	25- country average	Non- urban	25- country average	
INCOME	Low income	25%	28%	ND	35%	0%	26%	14%	24%	25%	26%	17%	24%	
	Medium income	58%	54%	ND	46%	100%	56%	86%	45%	63%	56%	17%	45%	
	High income	0%	7%	ND	6%	0%	9%	0%	4%	0%	9%	0%	4%	
EDUCATION	No formal education	0%	3%	ND	2%	0%	5%	0%	6%	0%	5%	0%	6%	
	Only elementary	8%	16%	ND	21%	0%	14%	0%	13%	0%	14%	0%	13%	
	Up to high school	75%	50%	ND	36%	0%	37%	57%	32%	28%	37%	28%	32%	
	College or university	17%	28%	ND	19%	100%	40%	43%	28%	72%	40%	72%	28%	
AGE	14 and under	0%	12%	ND	15%	0%	9%	10%	14%	9%	9%	50%	14%	
	15-35	100%	72%	ND	51%	100%	74%	60%	57%	82%	74%	50%	57%	
	36-60	0%	12%	ND	23%	0%	12%	30%	8%	9%	12%	0%	8%	
	61 and over	0%	2%	ND	2%	0%	0%	0%	1%	0%	0%	0%	1%	
GENDER	% female	54%	53%	ND	49%	ND	39%	ND	39%	ND	39%	ND	39%	

ND=No data

Percentages may not add up to 100% in all cases

See the last page for country-specific definitions of these venues

Data collected through interviews conducted by research teams. See country reports for details with regard to methodology, locations, timing, and data collection issues.

declared ICTs a development priority and adopted a National Strategy on Information and Communications Development Technologies. The strategy aimed to implement ICTs by 2010 to create a sustainable, democratic information-based society and establish e-government, e-education, and e-economy.

- The existing ICT infrastructure favors the two largest cities, Osh and Bishkek, and the privatization of telecommunications and services has led to an increasingly competitive ICT sector and decreased user access fees. Bandwidth also has experienced rapid growth and reduced costs.
- In 2006, the KazSat communications satellite was launched from Kazakhstan and was expected to reduce the dependence by all Central Asian countries on European and US telecommunications satellites. A second KazSat launch is planned for 2009.

There is an urgent need to expand the quantity and improve the quality of publicly accessible information to serve the needs of the population, especially among underserved communities and groups. The venues that exist have little relevant content, and the available information is difficult for many users to access for a variety of reasons including high access fees, bureaucratic hindrances, travel distances, and other factors. Most importantly, there is little demand for the information. Consequently, capacity-building programs, ICT skills training, public awareness campaigns, local content development, and increased competition in the telecom sector are essential to developing an information-based society.

Inexpensive and broadly available ICTs would play an essential role in providing access to information, and this study demonstrates that services such as e-government, e-commerce, e-education, and e-libraries are very appealing in Kazakhstan.

### Recommendations

Several key conclusions and recommendations emerged from this study:

- Greater nationwide support for ICTs is critical for improving public access to information, especially among underserved and disadvantaged populations.
- Capacity-building programs using training sessions, seminars, workshops, and conferences are urgently needed.
- There is a need for community-based information centers in this predominantly rural and mountainous environment.
- Government officials must learn the opportunities that are available to the population by using ICTs to deliver government information and services.
- Both the public and private sectors must cooperate and support the development of the online content, services, and information resources.
- More locally-relevant content in local languages is needed. There is a lack of locally-relevant content to meet the needs and demands of the public, and this drives the Kyrgyz people to access and use Russian language content.
- Subsequent studies to verify and validate the results of this present study are strongly recommended.

### **Geography & Economy**

Kyrgyzstan is a landlocked country in central Asia which borders Kazakhstan, Uzbekistan, Tajikistan, and China. Rugged mountains cover three-fourths of the country, and only thirty percent of the land area is suitable for habitation.

The population is heavily concentrated in just a few localities, and two-thirds live in urban areas. More than 64 percent of the total population and 50 percent of those in rural areas live in poverty. Still, the population in general is educated and literate. People in the north (home to the Russian minority) are relatively wealthier. The southern regions are less well developed economically and are home to a number of ethnic minorities including Uzbeks and refugees from neighboring countries. The south also is troubled by ongoing border disputes.

Kyrgyzstan declared its independence in 1991 after having been a republic in the former Soviet Union. Despite another political revolution in 2005, the country continues to be marked by political instability and corruption. Although the government officially condemns press censorship, the nation's media face constant pressure. The Kyrgyz print media and radio and television broadcasters function under sharp restraints regarding the freedom of expression, but the regulatory framework that surrounds ICTs is comparatively liberal.

COUNTRY PROFILE	
Total population* (millions)	5.2
Urban population* (millions)	1.9
Literacy (%)	98
E-readiness	ND
Gini coefficient	0.30

\*World Bank 2006 data ND=No data

### **Research Team**

Tracey Naughton Phone: 976-99-115717 E-mail: <u>tracey@pact.mn</u>

### **CIS Contact**

Prof. Ricardo Gomez Center for Information & Society (CIS) University of Washington 4311 11<sup>th</sup> Avenue NE, Suite 400 Box 354985 Seattle, WA 98195 cisinfo@u.washington.edu www.cis.washington.edu

### About this study

CIS's Public Access Landscape Study examined how people around the world access and use information and computers in public settings such as libraries, telecenters, and cybercafes. Understanding public access is particularly important in developing countries where there is often limited private access to information and communication technologies (ICTs).

This study covered a carefully-selected sample of 25 developing countries containing over 250,000 public access settings. Local research teams surveyed over 25,000 people and conducted interviews and focus groups in order to develop a detailed picture of the public access ICT landscape in each country. CIS collected, interpreted, and analyzed these detailed county-level results, and also conducted cross-country comparative analyses to uncover common themes, challenges and opportunities.

The goal of this work is to help strengthen public access to information and ICTs around the world.

This project was conducted in two phases. During the first phase, country-based research teams prepared draft reports describing the information access landscape, presented a national assessment, and compiled a preliminary set of recommendations. In the second phase, teams identified the principal locations where people seek information: public libraries, cybercafés, telecenters, and other locations (such as private and religious libraries).

Local research teams used a combination of research methods to: (1) observe how people access information; (2) conduct surveys in information venues where they interviewed operators and users; and (3) perform secondary research and analysis of existing reports and documents using both local and international sources. Teams combined site visits and interviews to review the physical infrastructure and human resources of a variety of venues, and to determine the information content, service usage patterns, communication, and knowledge development. Additionally, teams examined the effects of environmental factors such as government policies, geography, and ethnic and linguistic differences.

### Definitions

ACE scoring framework: Developed by CIS based on a modified bridges.org Real Access framework. The scale goes from zero to five, with 5 being the best possible score. ACE scores are calculated by evaluating dozens of variables having to do with ICT access, capacity and environment in public access ICT venues. "Access" includes variables such as accessibility, suitability, affordability, and the availability of technology; "capacity" includes training, relevant content and services, social appropriation, and collaboration capacity; and "environment" includes socio-cultural factors, popular support, political will, and a country's legal and regulatory framework.

**Challenges ahead** (from table on front page): Estimates based on combinations of ACE scores indicating difficulty in improving country's public access to ICT. From the fewest challenges to most, categories are: quick wins, steady gains, slow gains, and significant.

CIS: University of Washington Center for Information & Society (CIS)

eCenters: Mostly in rural areas, initially established through the Last Mile Initiative (LMI project) of USAID

**E-readiness:** The ability to use ICT for economic development, as determined by measures of connectivity and technology infrastructure, business environment, social and cultural environment, legal environment, government policy and vision, and consumer and business adoption. E-readiness is scored on a scale from 1 to 10. In 2008, the global e-readiness score was 6.4, with the highest levels in North America and the lowest in Africa and Asia.

**Gini coefficient:** Measures the inequality of income distribution. A low coefficient indicates more equal income distribution, while a high Gini coefficient indicates more unequal distribution. The global average is around 0.6; the US Gini is around 0.45.

ICTs: Information and communication technologies (especially computers and the Internet)

Information & Resource Centers: Usually equipped with 3-5 computers, connected to the Internet, provide printer/copier/scanner and library containing materials generally related to a specific agenda

Internet Clubs: Private businesses, found in all big cities and some villages

Needs & Readiness indexes (from table on front page): The needs index is comprised of three indicators: inequality, ICT usage and ICT cost. The readiness index is also comprised of three indicators: politics, skills and ICT infrastructure. Proxies are used for all indicators. See "Information Needs & Watering Holes" on the CIS Landscape Study website (www.cis.washington.edu/landscape) for a more detailed discussion of these indexes and proxies.

NGO: Non-governmental organization

Non-urban: Commonly labeled a rural area, but definitions of rural or periurban vary by country

Public libraries: Open to the public, mostly located in city centers, towns, or village

Front photo: Landlines around the rural community of Sary Tash, Kyrgyzstan. Photo courtesy of kindsir (Flickr).