INTERNATIONAL TELECOMMUNICATION UNION
Telecommunication Development Bureau

Workshop on ICT community access indicators
Mexico City, 6-8 October 2003

Recommendation 1 (Mexico, 2003)

Adoption of Information and Communication Technology (ICT) Community Access Indicators and Indices

The Member States of the ITU participating in the Workshop on ICT community access indicators

Background

a) Taking account of concerns expressed in Resolution 131 of the Plenipotentiary Conference of the International Telecommunication Union (Marrakesh, 2002), as follows:

> ***"recognizing***
> *…*
> *b) that the basic indicator traditionally used in the telecommunication field was the number of fixed telephone lines per hundred inhabitants, but that that indicator no longer reflects the actual penetration of telecommunication services in those countries where community access programmes have been implemented,*
>
> ***bearing in mind***
> *…*
> *b) that current indicators cannot serve to measure the real impact of the introduction of community connectivity;*
>
> *c) that new indicators are needed to analyse the development of communities where community connectivity is introduced, thereby enabling the true impact and effectiveness of each country's public policies to be measured;*
>
> ***resolves to instruct the Secretary-General***
>
> *to promote the adoption of measures necessary to ensure that community connectivity indicators are taken into account in regional and world meetings convened for the purpose of developing the plan of action of the World Summit on the Information Society,*
>
> ***resolves to instruct the Directors of the Telecommunication Development Bureau and the Telecommunication Standardization Bureau***
>
> *1 to promote the activities required in their respective Sectors to define and adopt new indicators for the purpose of measuring the real impact of community connectivity on the development of communities;*

invites Member States

to participate actively in the work to be carried out at the regional and world levels to prepare these new community connectivity indicators."

b) Considering the wish of the countries of Latin America and the Caribbean expressed in Section 2(u) of the Regional Preparatory Ministerial Conference of Latin America and the Caribbean for the World Summit on the Information Society, held in Bávaro (Dominican Republic) in January 2003, with regard to:

"2…
u) Furthering and promoting the development and establishment of performance evaluation and dissemination systems and mechanisms that include community measures and indicators that reflect the efforts and progress made by the countries of the region in establishing facilities for ICT access and use within a community context;"

c) Further taking into account the work entailed in the preparatory process for the World Summit on the Information Society (PrepCom-3):

Draft Declaration of Principles - 25 September 2003

18 Monitoring and evaluating, with appropriate indicators [under the auspices of ITU and other relevant organisations], taking into account different level of developments, is essential to measuring the progress in bridging the digital divide, internationally agreed development goals, including those contained in the Millennium Declaration, and to assessing the effectiveness of investment and international cooperation efforts in building the information society.

Draft Plan of Action - 26 September 2003
"
B. Objectives, goals and targets
…
7 *Based on internationally agreed development goals, including those in the Millennium Declaration, which are premised on international cooperation, indicative targets may serve as global references for improving connectivity and access in the use of ICTs in promoting the objectives of the Plan of Action, to be achieved by 2015. These targets may be taken into account in the establishment of the national targets, considering the different national circumstances:*

a) to connect villages with ICTs and establish community access points;
…
j) to ensure that more than half the world's inhabitants have access to ICTs within their reach.

E. Follow-up and evaluation

29. *A realistic international performance evaluation and benchmarking (both qualitative and quantitative), through comparable statistical indicators and research results, should be developed to follow up the implementation of the objectives, goals and targets in the action plan, taking into account different national circumstances.*
…
b) *Appropriate indicators and benchmarking, including community connectivity indicators, should clarify the magnitude of the digital divide, in both its domestic and international dimensions, and keep it under regular assessment, and tracking global progress in the use of ICTs to achieve internationally agreed development goals, including those of the Millennium Declaration.*

…

f) All countries and regions should develop tools so as to provide statistical information on the Information Society, with basic indicators and analysis of its key dimensions. Priority should be given to setting up coherent and internationally comparable indicator systems, taking into account different levels of development."

d) In addition, considering the concerns voiced at the 20 June 2003 meeting of the Statistical Conference of the Americas (SCA-ECLAC) regarding the need for statistics on ICTs and the creation of an observatory for the information society in Latin America and the Caribbean (OSILA).

e) La Agenda de Conectividad para las Américas y el Plan de Acción de Quito adoptada por la CITEL y apoyada por la CMDT-03 y la PP-03 que señala como una de las etapas fundamentales el efectuar una evaluación nacional que permita definir las estrategias, las políticas y los procedimientos, estableciendo los indicadores que correspondan.

Taking into account

the experiences and proposals of the following countries and international organizations: Barbados, Colombia, Cuba, Ecuador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Dominican Republic, Trinidad and Tobago, Centre for International Services - University of West Indies, ECLAC, CITEL, OSILA, UNDP and ITU, highlighting the factors involved in the establishment of various types of ICT community access centres, a first set of indicators and indices having been identified for measuring progress in community access to ICTs as presented in Annex 1 to this recommendation, while Annex 2 presents indicators and indices requiring further analysis and study,

recommends

to instruct the Director of the Telecommunication Development Bureau

1) at the various relevant regional and world meetings, to promote the adoption of the ICT community access indicators and indices agreed upon in this workshop and set out in Annex 1 hereto, as a means of starting to measure the real impact of community connectivity for the development of communities and initiating the process of collecting the necessary data and information to obtain the indicators in question periodically in a form that will highlight progress in the level of penetration of ICTs in the different countries;
2) to transmit the report and recommendation of this workshop to the "WSIS Side Event for Statistics for the Information Society" to be held in December 2003 in Geneva;
3) to incorporate the indicators agreed upon in this workshop, set out in Annex 1, in questionnaires to be sent to ITU-D members,

to instruct the Directors of the Telecommunication Development Bureau and the Telecommunication Standardization Bureau

1) to promote, within their respective Sectors, continued analysis and study of additional community connectivity indicators and indices for measuring other aspects of such

connectivity and gauging its impact on the population, using as a basis those identified in this workshop and set out in Annex 2;

2) to promote the organization of a global workshop on ICT community access indicators and indices in 2004, with the backing of other regional and international organizations, so as to continue identifying indicators and indices in addition to those recommended at this workshop,

Invites

international organizations present at the workshop (CITEL, OSILA of ICA/ECLAC, UNDP), as well as other international and regional organizations interested in the subject:

to promote in their respective areas of influence the adoption of the indicators and indices for community access to ICTs (included in Annex 1) that will allow measurement of the real impact that community connectivity represents for the development of communities, and initiate the process of collecting the data and information necessary to obtain the referenced indicators in a periodic way, as well as to continue the analysis and study of additional indicators that allow measurement of other aspects of community connectivity and their impact on the population, identified in Annex 2;

urges ITU Member States

1 to adopt the ICT community access indicators and indices agreed upon at this workshop;

2 to begin collecting the necessary data and information for submission in the formats established by ITU-D;

3 to continue participating actively in regional and global work being carried out on the elaboration of further community connectivity indicators and indices,

requests the Director of the Telecommunication Development Bureau

to submit this recommendation to all ITU Member States and international and regional organizations concerned by this subject,

invites the Administration of Mexico

to present this recommendation, in collaboration with ITU, to the World Summit on the Information Society in December 2003.

Mexico City, 8 October 2003

Annex 1

ICT COMMUNITY ACCESS INDICATORS AGREED UPON AT THE WORKSHOP

Introduction

Community connectivity policy has currently been implemented worldwide through universal access mechanisms involving community centres where the general public can use Internet and digital communication services. It is thus important to identify indicators capable of describing universal access and universal service in order to measure them and set targets in the context of ICT and national policy development.

Universal service

The following minimum indicators should be available for universal service.

Households with:

Indicator	Number	%
Electricity		
Radio		
Television		
Telephone: – only fixed – only mobile – fixed and mobile		
Computer		
Internet access		
[Pay TV]		

These data should generally be obtained from National Statistics Offices, which carry out periodical censuses and various surveys, in order to provide such figures and keep them up to date. If such data are not gathered, it is recommended that National Statistics Offices should include them in their censuses or surveys.

Universal access

Universal access relates to the number of people in a country covered by information and communication technologies, to which end the necessary infrastructure is required for the provision of the various services which constitute these new technologies. Universal access may be guaranteed in various ways, one being through public internet access centres.

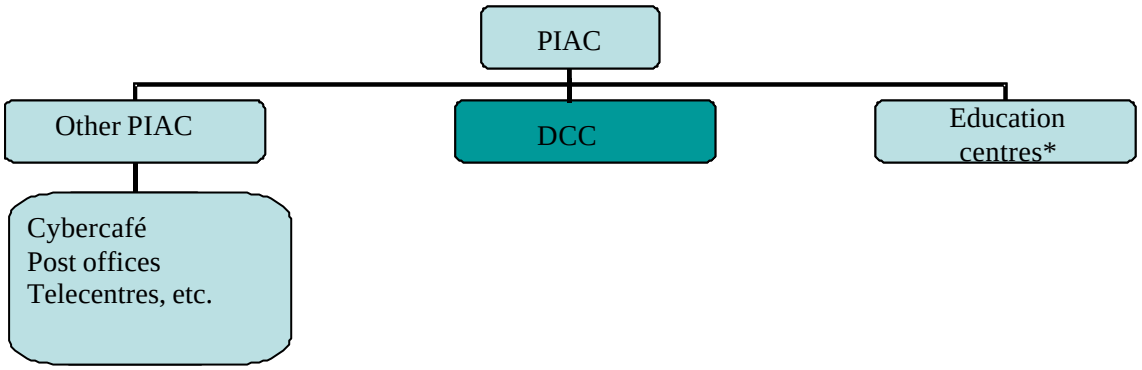
Public internet access centre

Definition

A public internet access centre (PIAC) is a site, location, centre or instruction at which Internet access is made available to the public, on a full-time or part-time basis. This may include digital community centres, Internet cafés, libraries, education centres and other similar

establishments, whenever they offer Internet access to the general public. All such centres should have at least one public computer for Internet access. It is very useful to classify centres by type, as illustrated by way of example in Figure 1. A further breakdown into private and governmental establishments is also necessary.

Figure 1



* When open to the general public, outside teaching hours.

Digital community centre

Definition

A digital community centre (DCC) is a place where the public can access Internet services from terminal facilities placed at their disposal. A DCC should offer equitable, universal and affordable access.

Minimum requirements for a PIAC to be considered as a DCC:

- At least two computers
- A minimum connection speed to the Internet service provider (ISP) of 64 Kbps per centre, with an acceptable amount of bandwidth available to users.
- At least one printer.
- Support and maintenance.
- Minimum opening hours per week: 20 hours.

INDICATORS

Number of localities with PIACs

This is the number of localities with PIACs. This indicator should be given by number or range of inhabitants. Also, governmental and private PIACs should be identified, with both absolute and relative values. Figure 2 shows a typical example (case of Mexico), although each country may classify data according to its own specific characteristics and statistics.

Percentage of the population with access to a PIAC

Figure 2

	Locality by range of inhabitants	Number of localities	Population	PIAC coverage							
				Governmental		Private		Total		Percentage	
				Localities	Population	Localities	Population	Localities	Population	Localities	Population
		199 369	**102 377 645**	**2 465**	**4 389 517**			**2 593**	**70 138 808**	**1.3%**	**68.5%**
Urban	> 500 000	30	27 081 194	30	181 360	30	27 081	30	27 081	100.0%	100.0%
	50 000-499 999	148	27 732 016	140	499 238	148	194	148	194	100.0%	100.0%
	10 000-49 999	572	12 591 472	452	974 793	572	27 732	572	27 732	100.0%	100.0%
	2 500-9 999	2 291	11 287 222	999	1 451 538	na	016	999	016	43.6%	12.9%
							12 591		12 591		
							472		472		
							na		1 451 538		
Rural	1 000-2 499	5 295	7 657 632	509	787 011	na	na	509	787 011	9.6%	10.3%
	500-999	8 698	5 852 496	196	294 383	na	na	196	294 383	2.3%	5.0%
	100-499	33 778	7 696 776	86	127 985	na	na	86	127 985	0.3%	1.7%
	1-99	148 557	2 478 837	53	73 209	na	na	53	73 209	0.0%	3.0%

Note: It is assumed that Internet access is available in all urban localities covered by private PIACs. Telmex provides Internet access service in all urban localities (3 043).

This indicator measures the number of inhabitants who enjoy PIAC coverage as a proportion of the total population of the country. It is considered that when a locality has at least one PIAC then the entire population in the community will be covered by that PIAC.

Users

Whereas the number of households with access to ICTs and ICT coverage reveal the number of potential users of the technologies, we have to count the actual number of users. This should be broken down according to the number of users utilizing the PIACs. The only reliable way of obtaining this information is through surveys carried out by National Statistics Offices or specialized companies.

Number of Internet users through PIACs

This is the number of people who use the Internet from PIACs, taking into account the technical records used in the different surveys. The data should at least show the age of the users and the frequency with which they use the service, for better international comparison.

The following data are suggested as an example:

Public Internet centre users:

Number of Internet users: 1 585 000
Percentage accessing Internet from public centres: 38%
Number of users accessing Internet from public centres: 602 300

Usage indicators

1) Potential population = A potential DCC user is anyone of age 6 years or more.

2) Target population for DCC services = Potential population minus Number of non-community Internet users.

3) Actual usage = Actual users/Target population for DCC services (an actual user being one who accesses Internet at least once a month).

4) Average DCC usage rate = Total DCC usage time/Total available DCC time.

5) DCC density in rural areas = (Number of DCCs in rural areas/Target population in rural areas) x 1 000 inhabitants.

6) DCC density in urban areas = (Number of DCCs in urban areas/Target population in urban areas) $\times$ 1 000 inhabitants.

Infrastructure indicators

Total number of DCCs.

Total number of computers in DCCs.

Annex 2

INDICATORS FOR FUTURE STUDY

A. Tariffs and financing

1) Average hourly access cost: Average hourly rates charged by DCCs.

2) Public subsidies to DCCs.

B. Other indicators

1) Distribution

2) Number of male/female DCC users.

3) Average age of users.

4) Content: It is acknowledged that content is one of the key drivers of the information- and content-based society, and it is recommended that a country should evaluate the prevailing situation in terms of content.

5) Quality of service: Transmission speed, availability, continuity of service, mean time between failures, mean fault clearance time at a DCC.

6) User satisfaction: Quality, training, availability. A correlation between quality of service and user satisfaction is anticipated.

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