



Programa de Formación de Alto Nivel en Gestión de la Ciencia, la Tecnología y la Innovación

NIVEL DE DESARROLLO DIGITAL DE COLOMBIA

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AGENDA DE LA PRESENTACIÓN

- SOCIEDAD DE LA INFORMACION
- DIGITAL OPPORTUNITY INDEX
- CONCLUSIONES

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SOCIEDAD DE LA INFORMACIÓN



Productividad y Poder

“Forma específica de organización social en la que la generación, el procesamiento y la transmisión de la información se convierten en las fuentes fundamentales de la **productividad y el poder...**

... Una economía en la que el **incremento de productividad** no depende del incremento cuantitativo de los factores de producción (capital, trabajo, recursos naturales), sino de la **aplicación de conocimientos e información** a la gestión, producción y distribución, tanto en los procesos como en los productos”.

Manuel Castells – La era de la información.

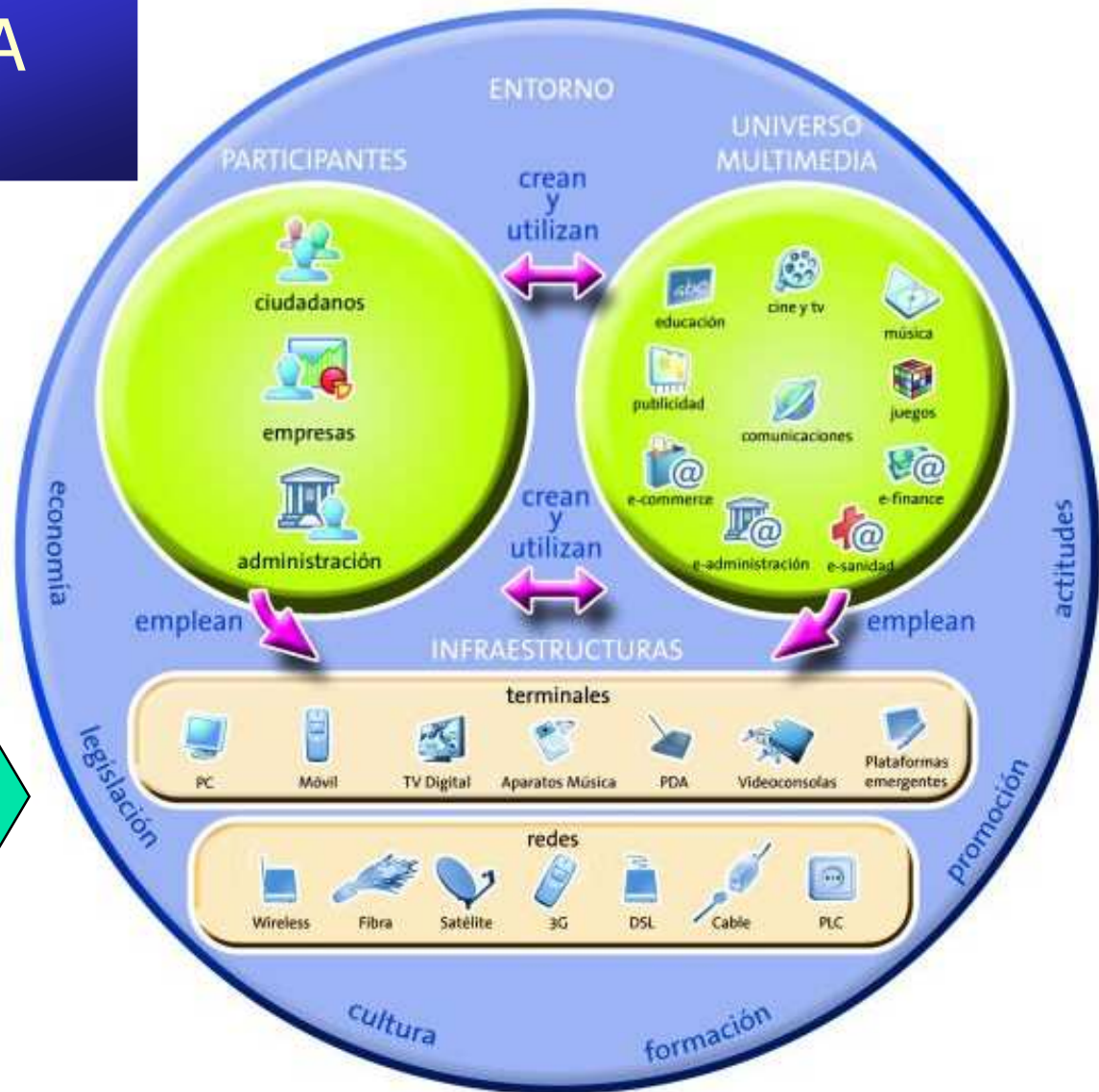
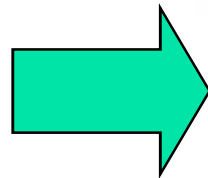
QUE SE ENTIENDE POR "TIC"

- TIC es una expresión usada actualmente para denotar un amplio rango de servicios, aplicaciones y tecnologías, las cuales emplean diversos tipos de hardware y de software, los cuales operan sobre redes de telecomunicaciones.
- La importancia de las TIC no es la tecnología en si misma, sino su función como habilitadora para el acceso al conocimiento y la información, los cuales son elementos importantes en la interacción económica y social.

European Commission: Communication from the Commission to the Council and the European Parliament; Information and Communication Technologies in Development. The role of ICTs in EC development policy; Brussels 14.12.2001; COM(2001)770 final;p.3

MODELO DE LA SOCIEDAD DE LA INFORMACIÓN

**ASEQUIBILIDAD
COBERTURA
REDES
TERMINALES
USO
CALIDAD**



CUMBRE MUNDIAL DE LA SOCIEDAD DE LA INFORMACION

Figure 5.2: WSIS Action Lines, themes and their focal points

Action Line	Focal Points
C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development	UN DESA
C2. Information and communication infrastructure	ITU
C3. Access to information and knowledge	UNESCO
C4. Capacity building	UNDP
C5. Building confidence and security in the use of ICTs	ITU
C6. Enabling environment	UNDP
C7. ICT Applications	
• E-government	UN DESA
• E-business	UNCTAD
• E-learning	UNESCO
• eHealth	WHO
• E-employment	ILO
• E-environment	WMO
• E-agriculture	FAO
• E-science	UNESCO
C8. Cultural diversity and identity, linguistic diversity and local content	UNESCO
C9. Media	UNESCO
C10. Ethical dimensions of the Information Society	UNESCO
C11. International and regional cooperation	UN DESA

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Table 1.1: Summary of the main composite indices for measuring Digital Opportunity

<i>Name of index (organisation)</i>	<i>Number of economies</i>	<i>Number of Indicators</i>	<i>Latest data</i>	<i>Comments</i>
Digital Opportunity Index (ITU/UNCTAD/KADO) ²⁰	180	11	2004/05	Three clusters: <i>Utilization, Infrastructure and Opportunity</i> (see Chapter two).
ICT Opportunity Index (ORBICOM/ITU) ²¹	139	17	2003	Compares 'infostates', 'Infodensity' and 'InfoUse' against an imaginary economy called 'Hypothetica'.
ICT Development Index (UNCSTD) ²²	180	8	2003	Four clusters: <i>Access, Connectivity, Usage and Policy</i> .
Informational Society Index (IDC) ²²	52	15	2004	Only sparse methodological data is disclosed.
E-Readiness Index (EIU/IBM) ²⁴	63	31	2004/05	Six clusters: <i>Connectivity, Business environment, Adoption, Legal and policy environment, social and cultural environment, Supporting e-services</i> . Uses a mix of quantitative and survey data.
Network Readiness Index (InfoDev/WEF/INSEAD) ²⁵	102	48	2003	Three clusters: <i>Environment, Readiness, Usage</i> . Uses a mix of survey, qualitative and quantitative data.
Digital Access Index (ITU) ²⁶	179	8	2002	Five clusters: <i>Infrastructure, Affordability, Knowledge, Quality, Usage</i> .
Mobile/Internet Index (ITU) ²⁷	171	26	2001	Three clusters: <i>Infrastructure, usage, market conditions</i> .
Technology Achievement Index (UNDP) ²⁸	71 (full data)	8	1998-2000	Four clusters: <i>Creation of technology, Diffusion of recent innovations, Diffusion of old innovations, Human skills</i> .

Source: ITU Research.

FUENTE: World Information Society Report – ITU – Jul 2006

COMO
COMPARAR EL
NIVEL DE
DESARROLLO
DIGITAL Y
MEDIR EL
IMPACTO DE
LAS
POLITICAS?

Figure 2.3: The DOI indicators

1 Percentage of population covered by mobile cellular telephony

2 Internet access tariffs as a percentage of per capita income

3 Mobile cellular tariffs as a percentage of per capita income

4 Proportion of households with a fixed line telephone

5 Proportion of households with a computer

6 Proportion of households with Internet access at home

7 Mobile cellular subscribers per 100 inhabitants

8 Mobile Internet subscribers per 100 inhabitants

9 Proportion of individuals that used the Internet

10 Ratio of fixed broadband subscribers to total Internet subscribers

11 Ratio of mobile broadband subscribers to total mobile subscribers

OPPORTUNITY

INFRASTRUCTURE

UTILIZATION

DIGITAL OPPORTUNITY INDEX

DIGITAL OPPORTUNITY INDEX

Structure of DOI

Category	Sub-Category	
Utilization	Usage Internet usage	Quality Broadband
Infra-structure	Network Tele-density Internet-density	Device Computer Hand held device
Opportunity	Affordability Affordability of ICT service	Coverage Geographic coverage of ICT service

Note: The indicators are averaged within each category and categories are averaged to obtain the Digital Opportunity Index value.

Source: ITU/Korea Digital Opportunity Platform.

VALORES DESEADOS POR CATEGORIA

Category / indicator	Goalpost	Weight within category (%)	Note
Opportunity			
Percentage of population covered by mobile cellular telephony	100	33	2003 data used. A number of countries have already reached the goalpost.
Mobile cellular tariffs as a percentage of per capita income	.16	33	2005 data used (divided by 2004 annual average exchange rates). The most affordable service was in Hong Kong at 0.16 of per capita income. The indicator is adjusted by the goalpost and subtracted from 100 to be consistent (since for other indicators, high values are the most desirable).
Internet access tariffs as a percentage of per capita income	.20	33	2005 data used (divided by 2004 annual average exchange rates). The most affordable service was in Hong Kong at 0.18 of per capita income. The indicator is adjusted by the goalpost and subtracted from 100 to be consistent (since for other indicators, high values are the most desirable).

VALORES DESEADOS POR CATEGORIA

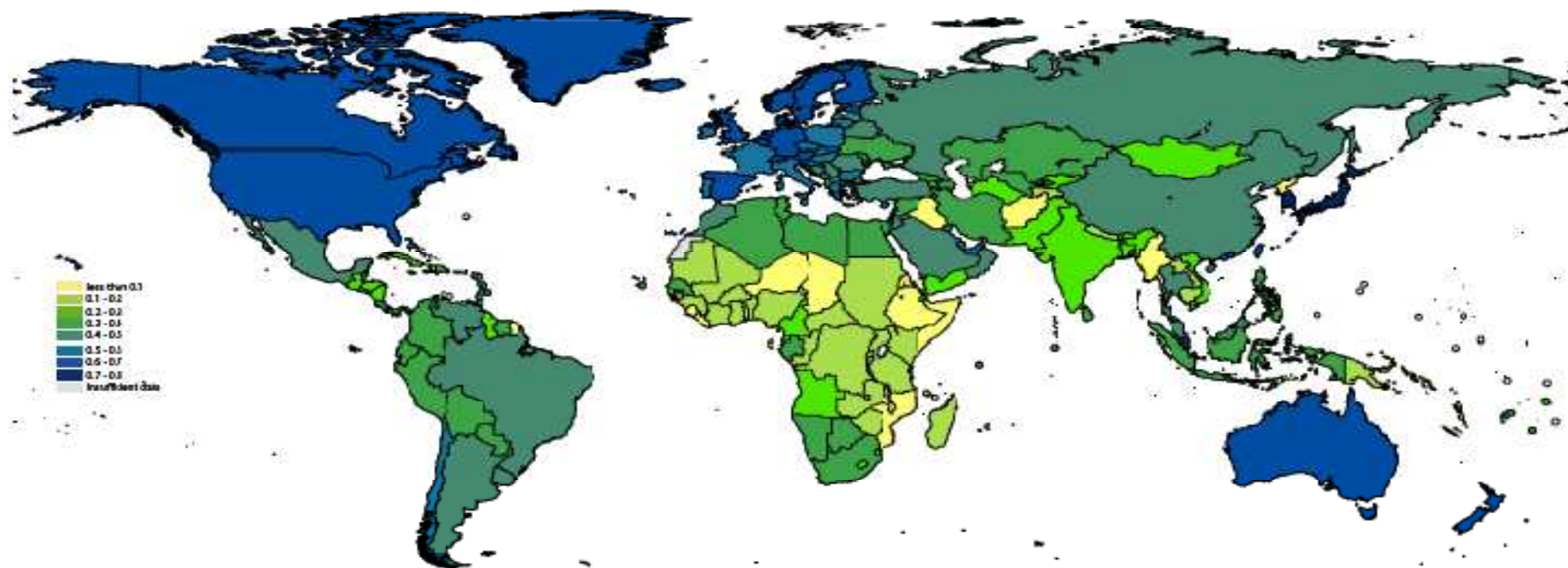
Infrastructure			
Proportion of households with a fixed line telephone	100	20	2003 data used. The highest value for this indicator was in Taiwan, China with 97.8.
Mobile cellular subscribers per 100 inhabitants	100	20	2003 data used. A few economies have already exceeded the goalpost.
Proportion of households with Internet access at home	100	20	2003 data used. The highest value for this indicator was in the Republic of Korea with 69.
(Mobile) Internet subscribers per 100 inhabitants	100	20	2003 data used. The highest value for this indicator was in Japan with 54.7.
Proportion of households with a computers	100	20	2003 data used. The highest value for this indicator was in Sweden with 80.

VALORES DESEADOS POR CATEGORIA

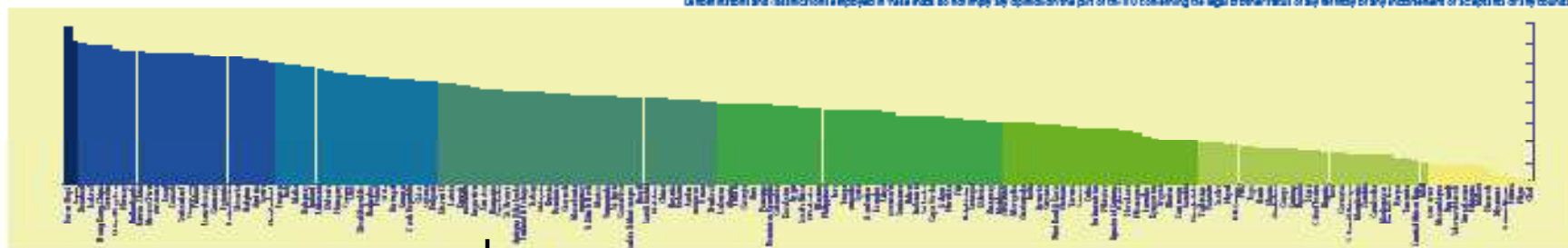
Utilization			
Internet users per 100 inhabitants	100	33	2003 data used. The highest value for this indicator was in the Republic of Korea with 61.2.
Ratio of (Fixed) Broadband Internet subscribers to total Internet subscribers	100	33	2003 data used. The highest value for this indicator was in the Republic of Korea with 100.
Ratio of (Mobile) Broadband Internet subscribers to mobile Internet subscribers	100	33	2003 data used. The highest value for this indicator was in the Republic of Korea with 22.4.

DOI AÑO 2005

The Digital Opportunity Index Worldwide, 2005

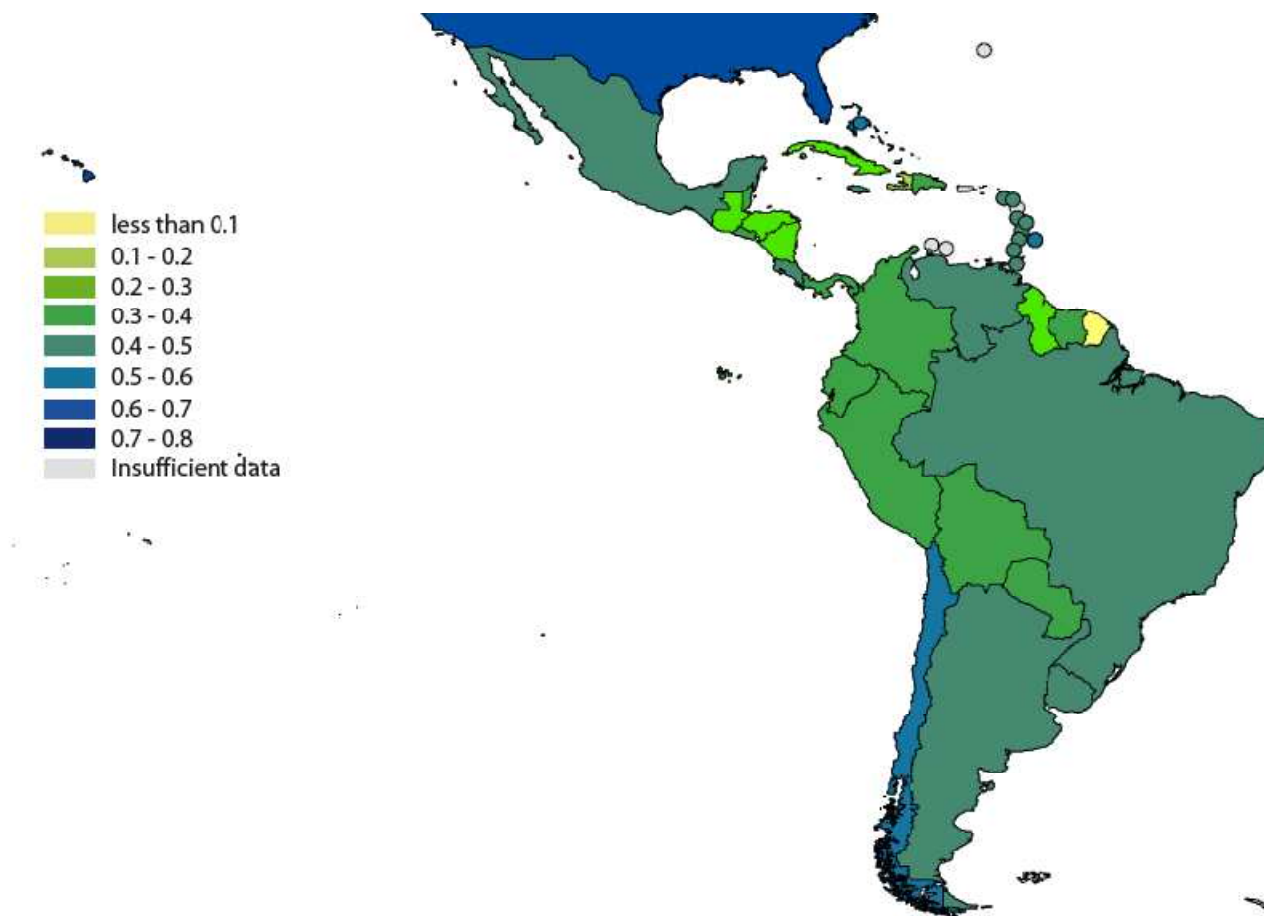


Discrepancies and classifications employed in these maps do not imply any opinion on the part of the ITU concerning the legal or other status of any territory or any endorsement or acceptance of its boundaries.

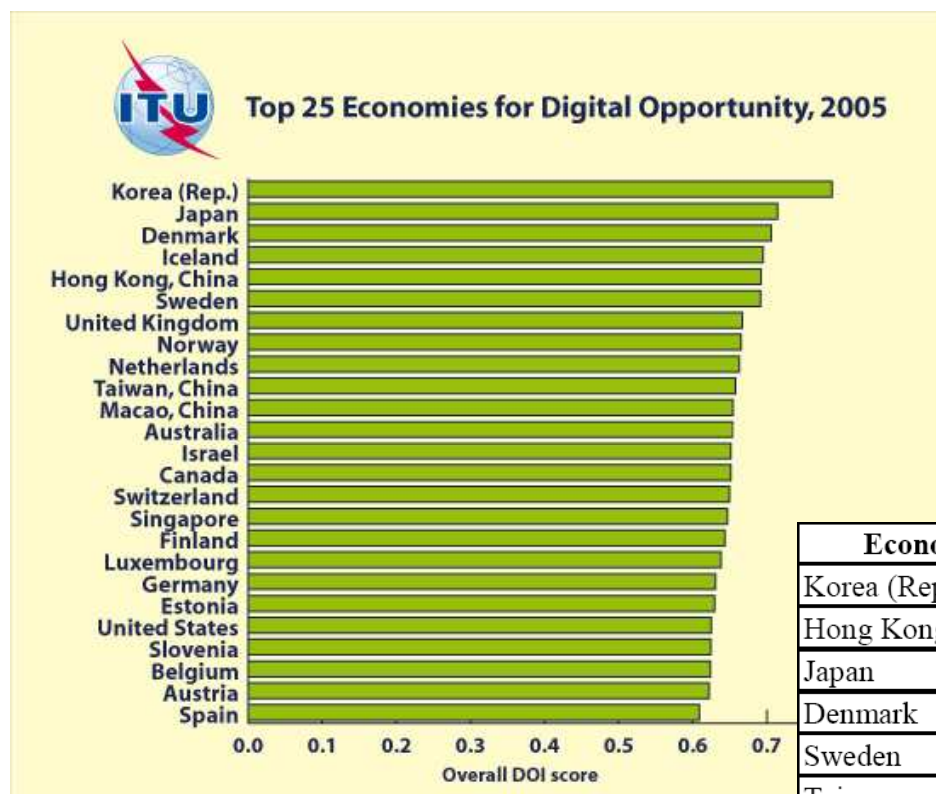


For more information about the Digital Opportunity Index, please see www.itu.int/dio.
This map is a part of the World Information Society Report 2006, available at www.itu.int/wisr.

DOI PARA LATINOAMERICA - AÑO 2005



LOS 25 PAISES CON MEJOR RANKING EN EL DOI

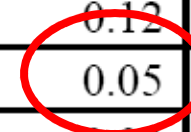
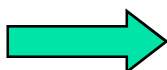


ALGUNOS EJEMPLOS

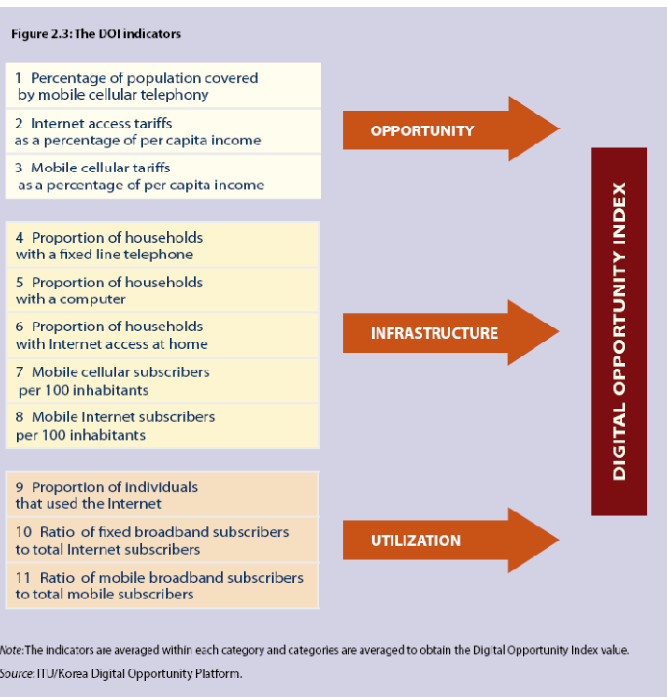
Economy	Opportunity	Infraestructure	Utilization	DOI
Korea (Rep.)	0.97	0.70	0.61	0.76
Hong Kong	0.99	0.67	0.34	0.67
Japan	0.96	0.66	0.35	0.66
Denmark	0.97	0.67	0.32	0.65
Sweden	0.97	0.69	0.29	0.65
Taiwan	0.98	0.65	0.26	0.63
Canada	0.96	0.53	0.40	0.63
Singapore	0.98	0.65	0.25	0.63
Netherlands	0.95	0.60	0.30	0.62
Switzerland	0.96	0.62	0.24	0.61

DOI - COLOMBIA

	OPPORTUNITY	INFRASTRUCTURE	UTILIZATION	DOI
Chile	0.79	0.26	0.23	0.43
Argentina	0.85	0.23	0.10	0.39
Mexico	0.78	0.20	0.08	0.35
Turkey	0.68	0.32	0.03	0.34
Thailand	0.82	0.16	0.04	0.34
Russia	0.78	0.18	0.04	0.34
Egypt	0.83	0.14	0.01	0.33
China	0.64	0.20	0.09	0.31
Venezuela	0.62	0.15	0.14	0.30
Brazil	0.49	0.21	0.12	0.27
Colombia	0.54	0.19	0.05	0.26
South Africa	0.59	0.12	0.03	0.25



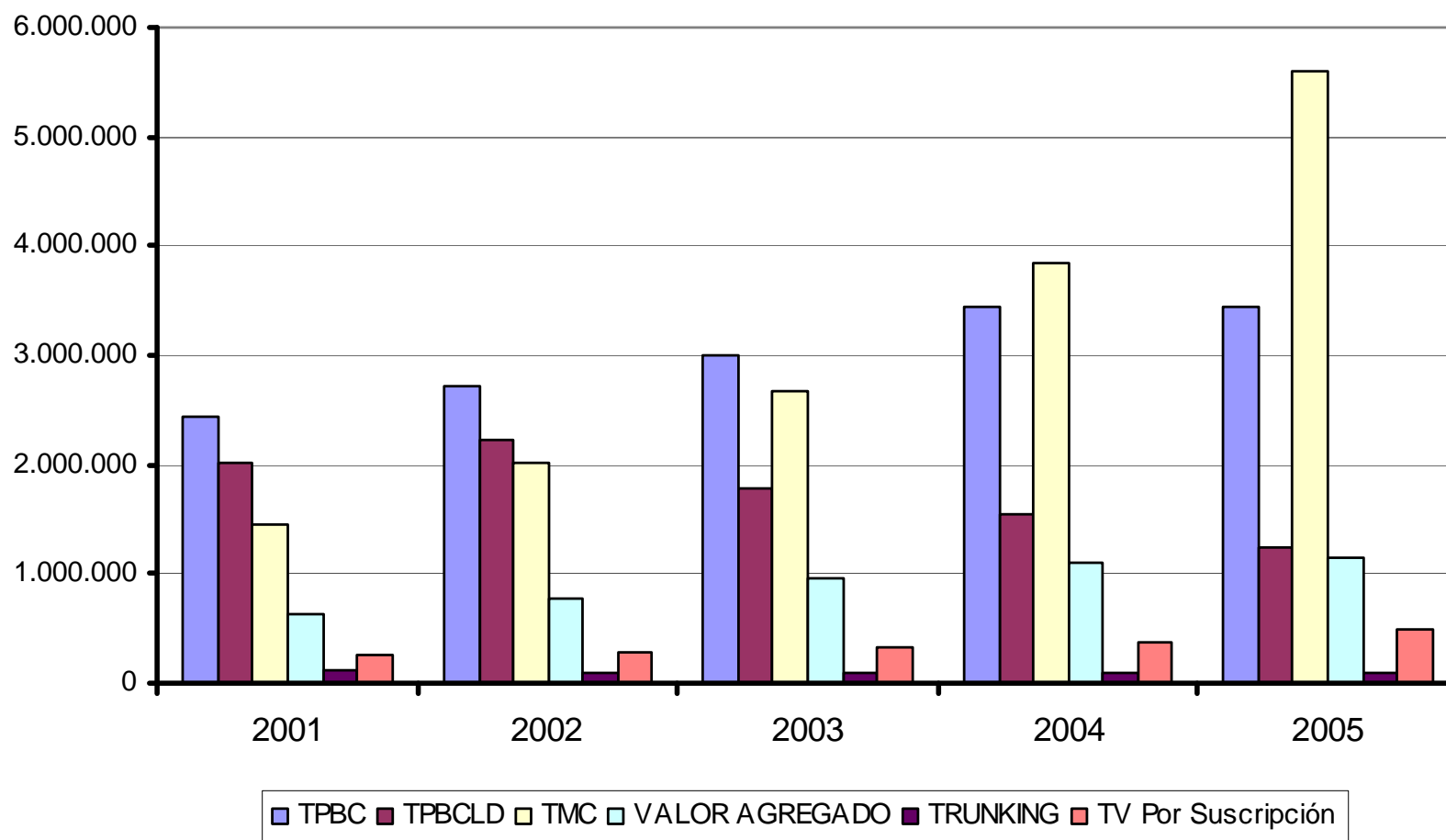
POR QUE TAN BAJOS RESULTADOS EN INFRAESTRUCTURA Y UTILIZACION EN EL DOI?



- DATOS A 2003 Y 2004
- PARAMETROS CRITICOS
 - INFRAESTRUCTURA:
 - COMPUTADORES EN HOGARES
 - NUMERO DE SUSCRIPTORES A INTERNET MOVIL
 - UTILIZACION
 - USO DE INTERNET
 - ACCESO BANDA ANCHA FIJO
 - ACCESO BANDA ANCHA MOVIL

INGRESOS POR TIPO DE SERVICIO TELECOMUNICACIONES - COLOMBIA

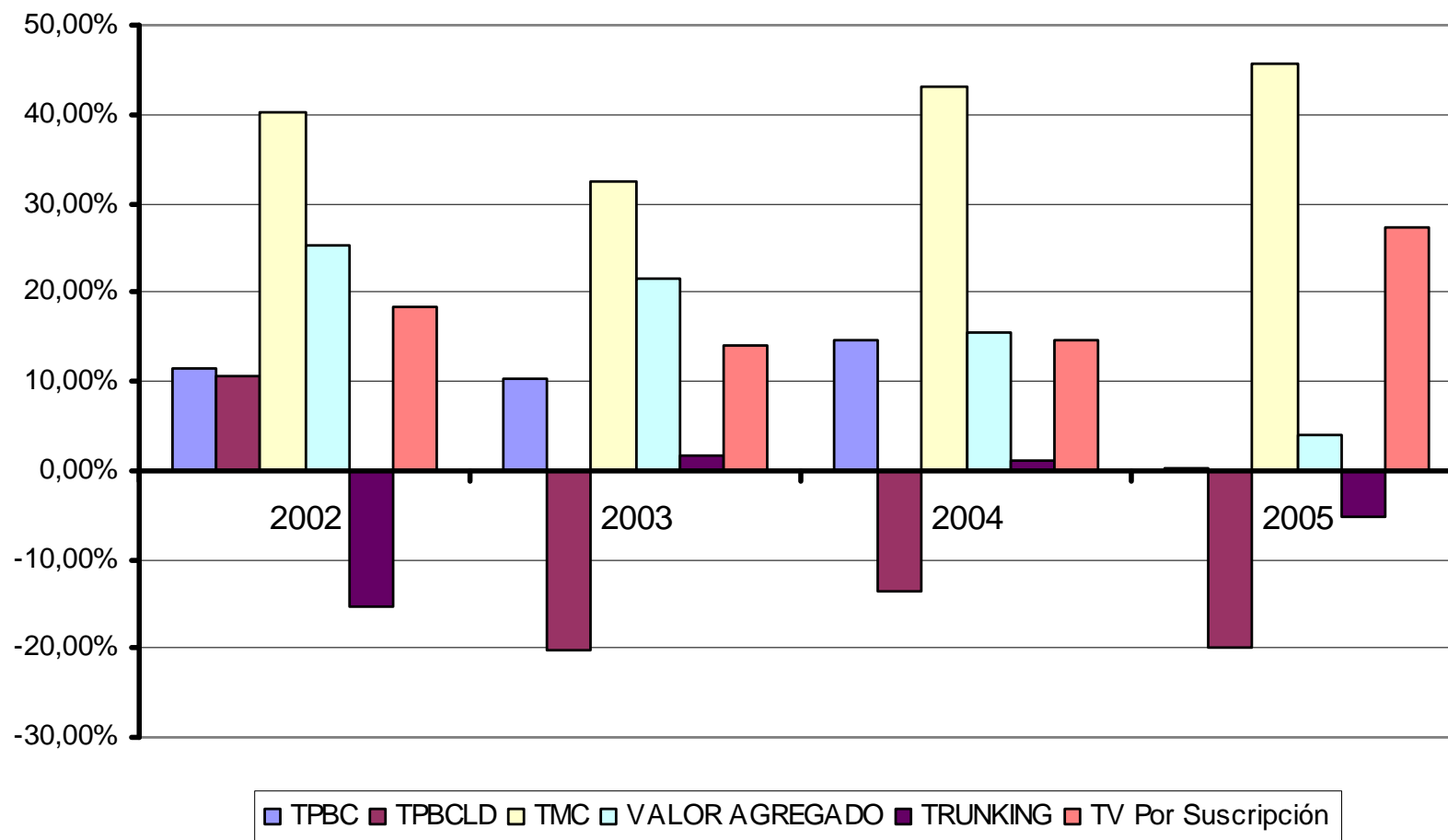
Millones de \$



Fuente: Cálculos CINTEL

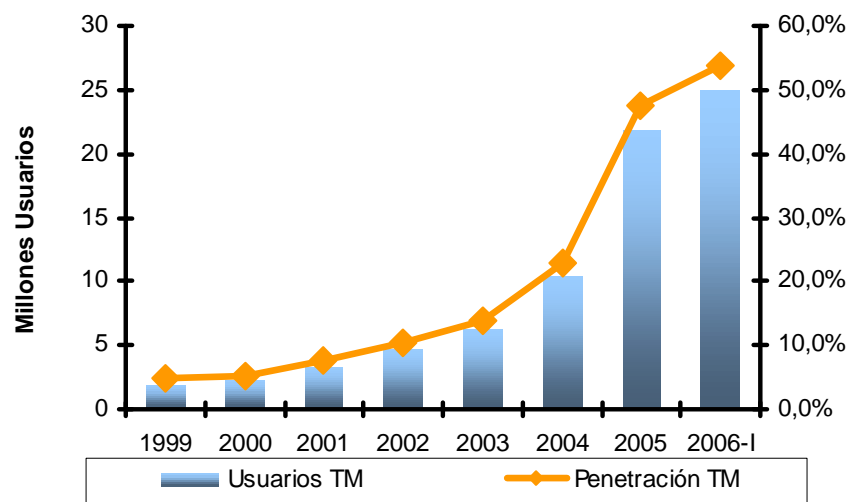
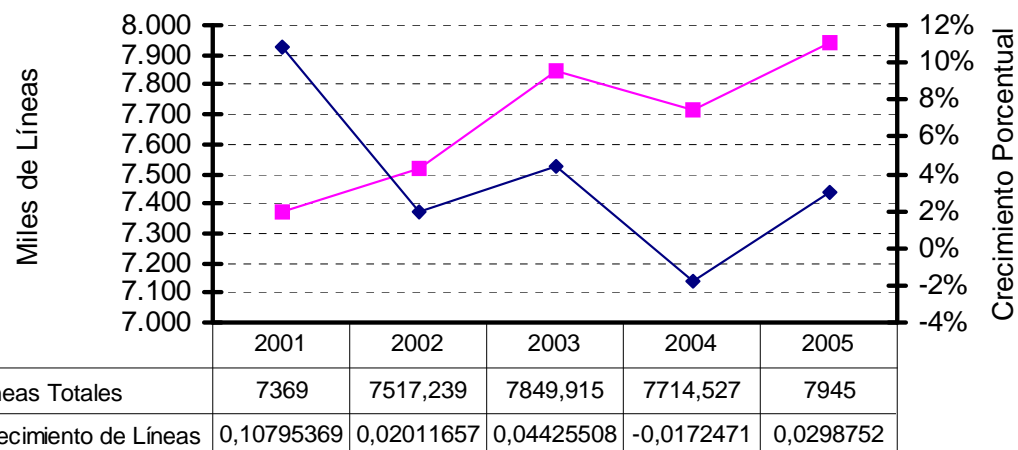
VENTAS SECTOR 2001: COL \$ 6.9 B
VENTAS SECTOR 2005: COL \$ 12 B

TASAS DE CRECIMIENTO VENTAS POR SERVICIO



TELEFONIA MOVIL Y FIJA EN COLOMBIA

TPBCL



MOVIL

INTERNET EN COLOMBIA

Cuadro 1. Distribución de suscriptores de Internet en Colombia a diciembre 2005

Medio de acceso	Diciembre 2005	Junio 2005	Variación
Acceso conmutado por suscripción	365.364	370.213	-1.31%
Acceso conmutado vía RDSI	3.590	4.057	-11.51%
SUBTOTAL CONMUTADO	368.954	374.270	-1.42%
Acceso dedicado (Co/FO/uO)	10.462	9.255	13.04%
Acceso xDSL	117.548	60.948	92.87%
Acceso cable	190.673	112.352	69.71%
SUBTOTAL DEDICADO	318.683	182.555	74.57%
TOTAL SUSCRITORES	687.637	556.825	23.49%

Fuente: Cálculos CRT

Penetración Internet: 10.7%

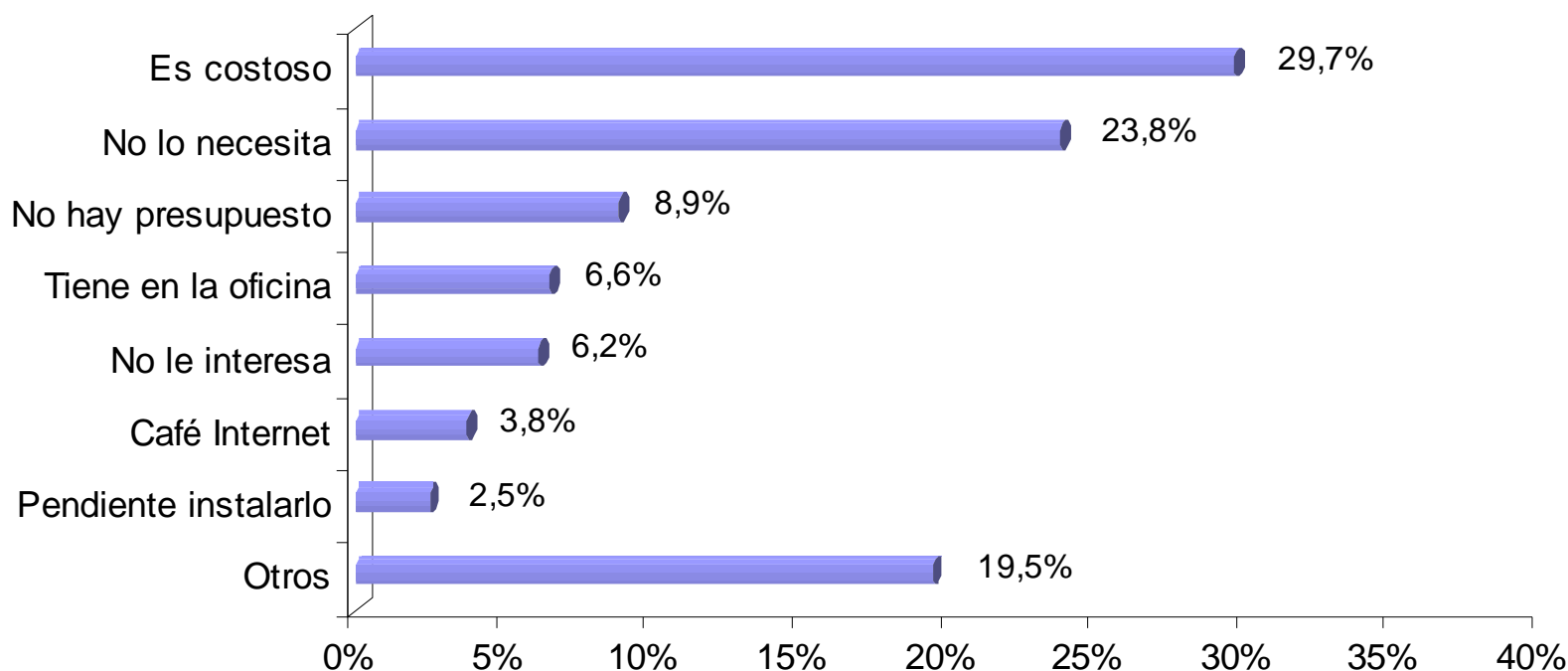
Cuadro 2. Distribución de suscriptores de Internet por segmento

Segmento	Medio de acceso	Suscriptores
Corporativos	Conmutados	
	Limitado – Ilimitado	26.757
	RDSI	497
	Total Conmutado	272.254
	Dedicados	
	Dedicado (Co, FO, uO)	6.974
	xDSL	29.735
	Cable	4.914
	Total Dedicados	41.623
	Total Corporativos	68.877
Residencial	Conmutados	
	Limitado – Ilimitado	338.607
	RDSI	3.093
	Total Conmutado	341.700
	Dedicados	
	Dedicado (Co, FO, uO)	2.094
	xDSL	86.820
	Cable	185.739
	Total Dedicados	274.653
	Total Residenciales	616.353
Centro Colectivo	Dedicados	
	Dedicado (Co, FO, uO)	1.394
	xDSL	993
	Cable	20
	Total Dedicados	2.407
	Total Centros Colectivos	2.407
	TOTAL	687.637

Fuente: Cálculos CRT

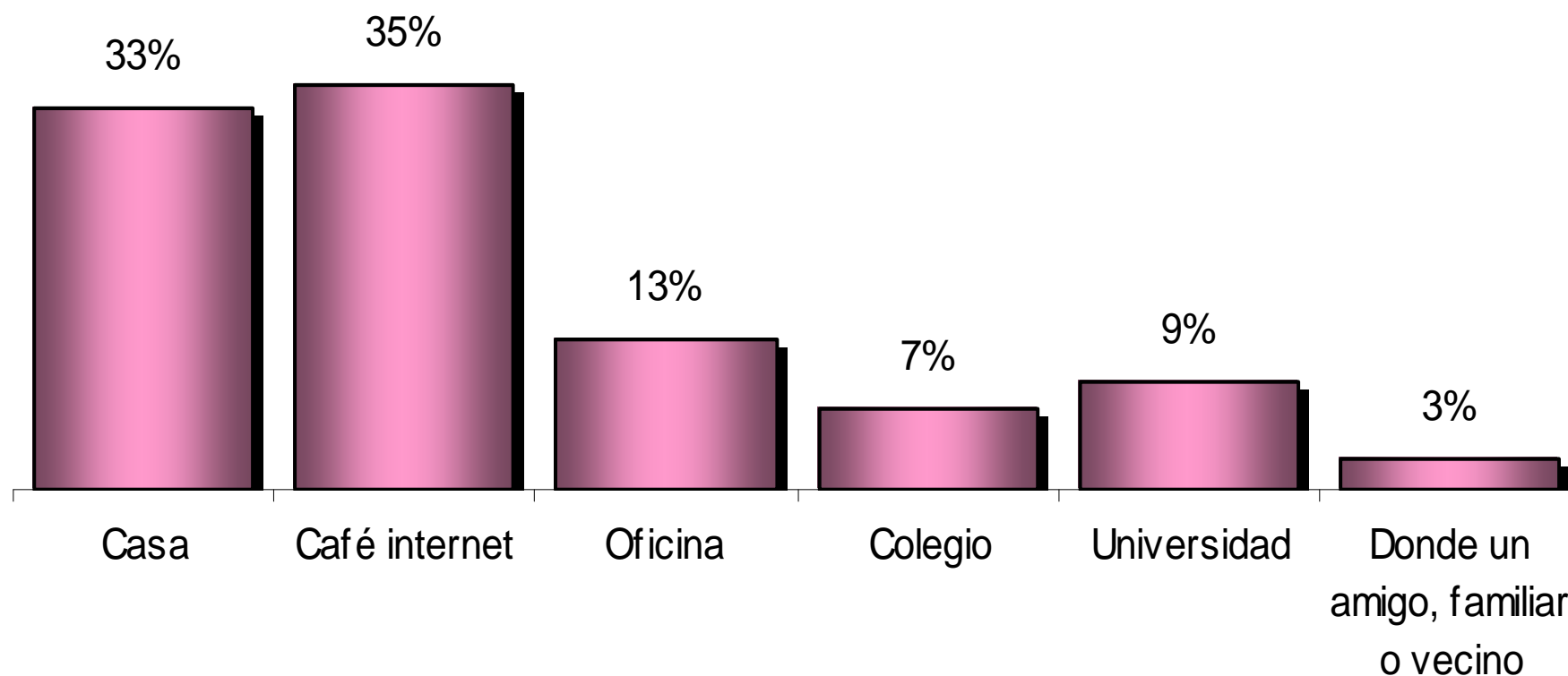
Fuente: Informe semestral Internet – Mayo 2006 - CRT

RAZONES PARA NO SUSCRIBIRSE A INTERNET RESIDENCIAL

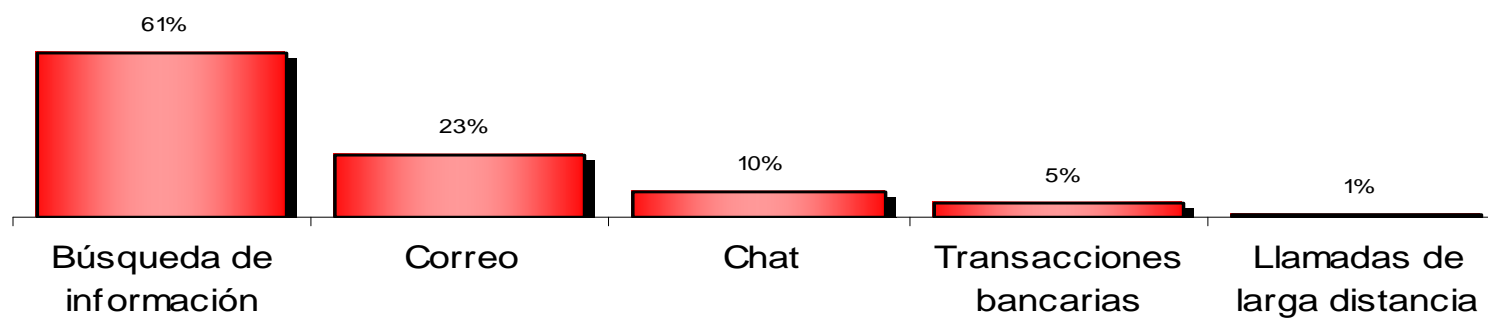


Fuente: INFORME FINAL, PROYECTO PNUD/COL/96/020, CINTEL- PYRAMID RESEARCH "ANÁLISIS DEL MERCADO SERVICIOS DE BANDA ANCHA EN COLOMBIA". 2004

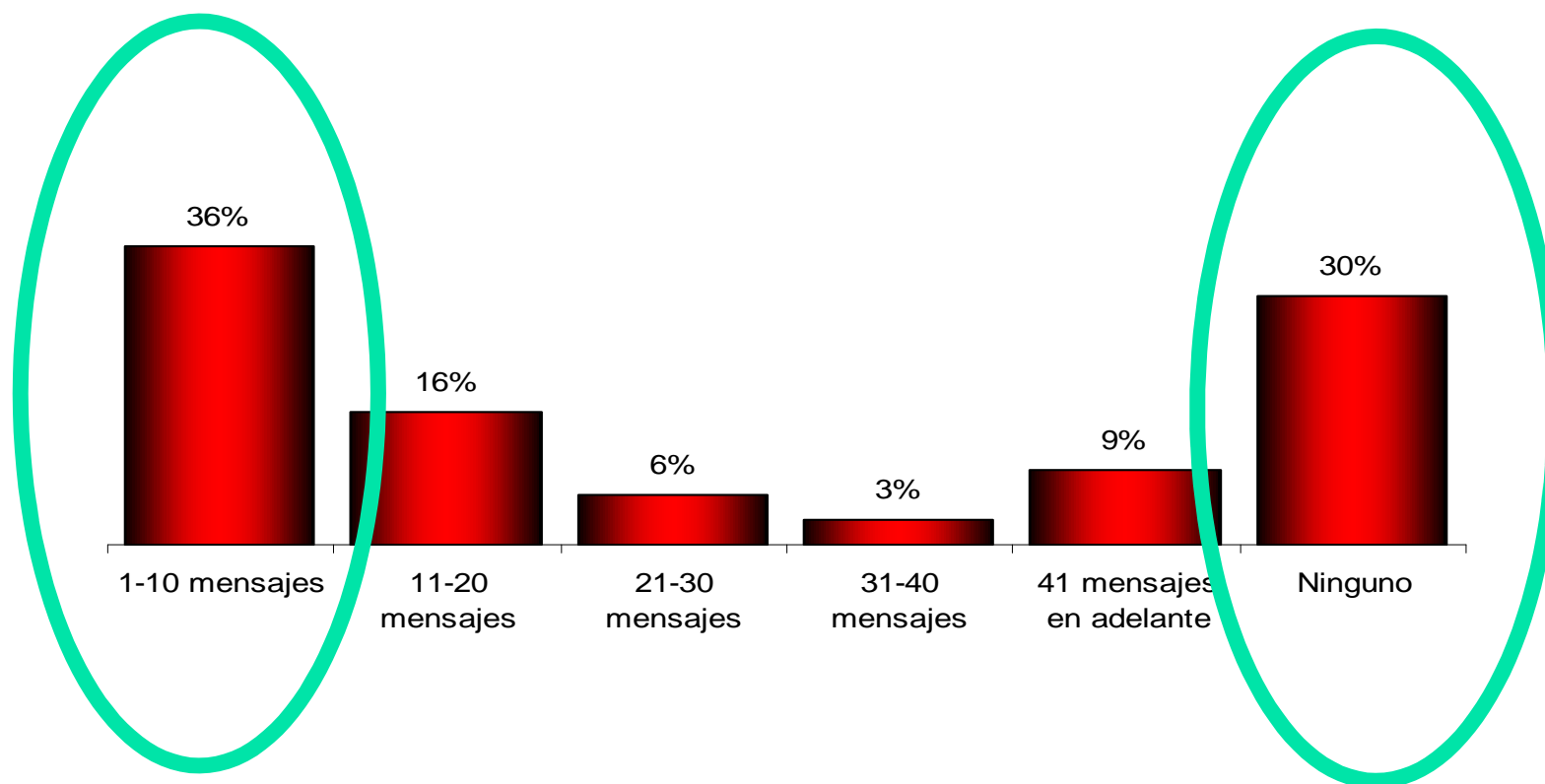
LUGARES DESDE DONDE SE CONECTAN LOS USUARIOS DE INTERNET



ACTIVIDADES DESARROLLADAS EN INTERNET



DISTRIBUCIÓN DEL NÚMERO DE MENSAJES POR USUARIO



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CONCLUSIONES

- Colombia debe fortalecer su política para fomentar la adquisición y reposición de PC y para incentivar el acceso banda ancha (fijo, **móvil**) a Internet
- Es igualmente importante potenciar la capacitación masiva en el uso de las herramientas provistas por la tecnología, y el desarrollo de contenidos adecuados a la realidad nacional
- Se deben considerar introducir modelos de negocios innovadores que hagan más asequible el acceso a los servicios de telecomunicaciones



Gracias!

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