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International
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Regional Workshop on Information Society Measurement in Africa

ICT Indicators for Households

MOROCCO CASE

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Synopsis

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 - Usage

General framework

- The Moroccan Telecommunications Act (55/01) : mission of the information technologies development follow-up, on behalf of the State ;
- ANRT : centralizer, interlocutor and provider of reliable and up dated information on the ICT indicators in Morocco ;
- Implementation of the Moroccan Information Technologies Observatory in 2005 :
 - Mechanism of data collection, analysis and dissemination on the ICT sector ;
 - First ICT indicators collection survey launched by the ANRT in 2005 for households and businesses ;
 - Tool supporting decision-making and policy formulation regarding ICT development at the national level.

ICT Observatory Objectives

- An accurate and an assessed knowledge of the information society in Morocco ;
- Follow up of the moroccan ICT sector ;
- Providing a set of core/relevant indicators enabling :
 - A good decision-making process for the information society take-up ;
 - A follow up in time of the politics impact ;
 - An A postero evaluation of the politics efficiency aiming the information technologies development ;
 - Morocco classification at the international level regarding access, usage and development of the ICT sector.

International references

- Conformity with the recommendations of the international organizations allowing a relevant comparison with other countries ;
- WSIS Recommendations regarding follow-up and measurement of the information society ;
- Follow-up of work led at the international level in matter of ICT sector statistics collection and production for households (ITU); ;
- Partnership on measuring ICT for development (UNCTAD, ITU, OECD, Eurostat, etc.) :
 - Core list of ICT indicators for households.

The Survey Methodology

Methods, Indicators, Sample construction

Survey Methodology 1/3

Methods

- ICT indicators collection survey for households is conducted annually (since 2005) ;
- A sample survey specific to the ICT sector ;
- Date of launch : january/february of year (n) in order to collect data of year (n-1) ;
- ICT indicators collection survey for year 2006 (3rd edition) is in process (launched in february 2007) ;

Survey Methodology 2/3

List of indicators

- The indicators selected may be classified into three major groups, according to subject :
 - Level of equipment for households ;
 - ICT access for households and individuals ;
 - ICT usage for households and individuals.

- The indicateurs list* is in conformity with the last list recommended by the ITU (The Information Society measurement meeting, Geneva, February 2006) ;

- The list has been completed from the “Core list” of the Partnership for measuring ICT for development.

* List in appendices

Survey Methodology 3/3

Sample construction (1)

- Moroccan population structure

100% of urban households and 81% of rural households (ONE source) are electrified (against 71,9% in 2004 following the same source).

	Total	Urbain	Rural
Moroccan Population	29 680 069	16 339 561	13 340 508
	%	55%	45%
Households	5 665 264	3 439 755	2 225 509
	%	61%	39%
Population between 12 and 65 years (electrified zones)	20 252 295	12 521 397	7 730 898
	%	62%	38%
Households	3 765 438	2 455 116	1 310 322
	%	65%	35%

Base : The population distribution (2004 census).

Survey Methodology 3/3

Sample construction (2)

▪ Sample representativeness

- The reference base for the population is the main sample resulting from the last census available (2004) ;)
- The target population is made of 12 and over (till 65) residing in electrified zones corresponding to 20.2 millions of individuals, or 68% of national population ;
- In urban area, the category 12-65 years old represents 77% of national population while it represents 72% of the same population in rural area;
- Through Individuals, the survey directly reaches 3.8 millions of households, corresponding to 66% of national households (and indirectly the whole households residing in electrified zones corresponding to 5.2 millions of moroccan households).

Survey Methodology 3/3

Sample construction (3)

- In constructing the sample, structural population quotas were taken into account to provide a distribution of the population based on the following:
 - Residential environment : distinction between urban and rural zones. The choice of this criteria refers to the households behaviour (IT equipment) and life style ;
 - Gender and age of individuals : age criteria of 12 and over, given that public Internet use in Morocco concerns a large part of young population under 16 ;
 - City region and size : considering the weight of economic developed regions in terms of IT equipment and usage by individuals and households ;
 - The occupational group of the head of the household (with an assumed relationship with his education level, enabling IT access).

- Conducted on a person-to-person basis, the survey covered in 2006 a sample of 1327 individuals : 869 urban et 458 rural (against a sample of 1019: 866 urban and 153 rural in 2005) ;

- Confidence intervals :
 - Urban: +/- 3.3% with 95% probability
 - Rural: +/- 7.9% with 95% probability.

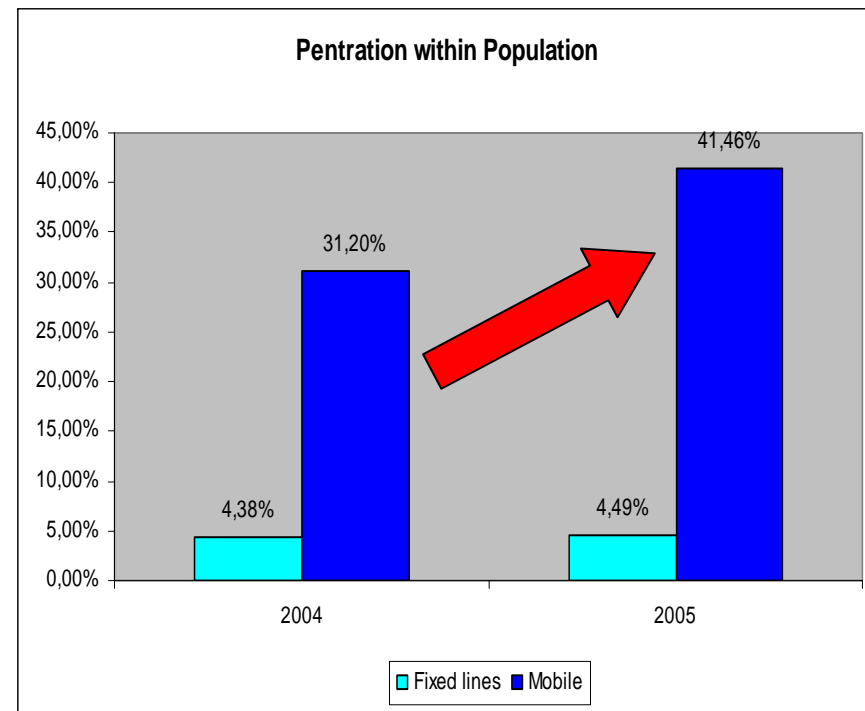
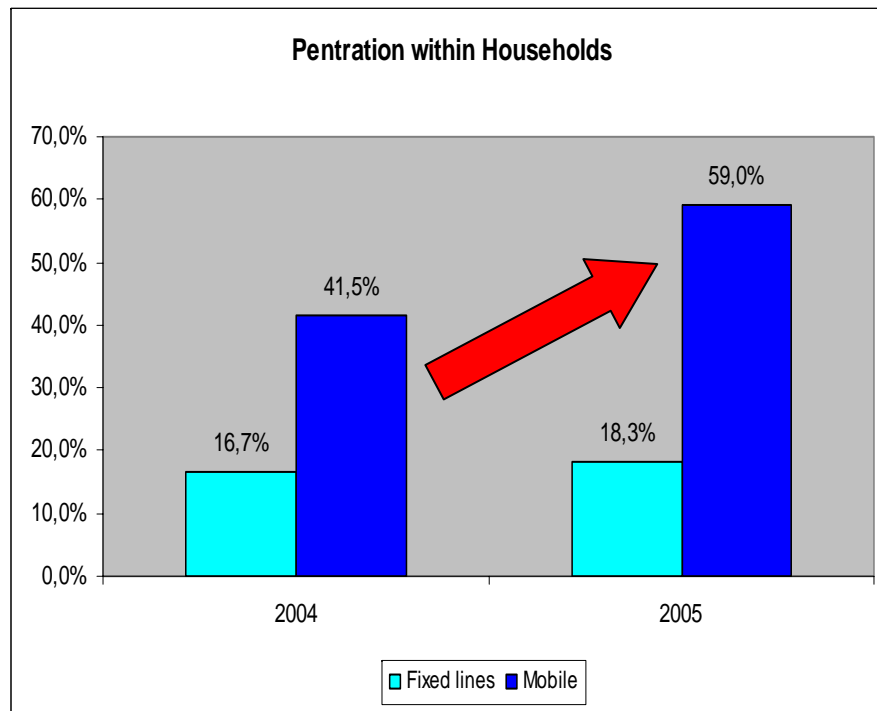
The Results

ICT Indicators

For households and individuals

Fixed and mobile telephony (1/2)

- Telephony equipment indicators



Fixed and mobile telephony (2/2)

- Telephony equipment indicators

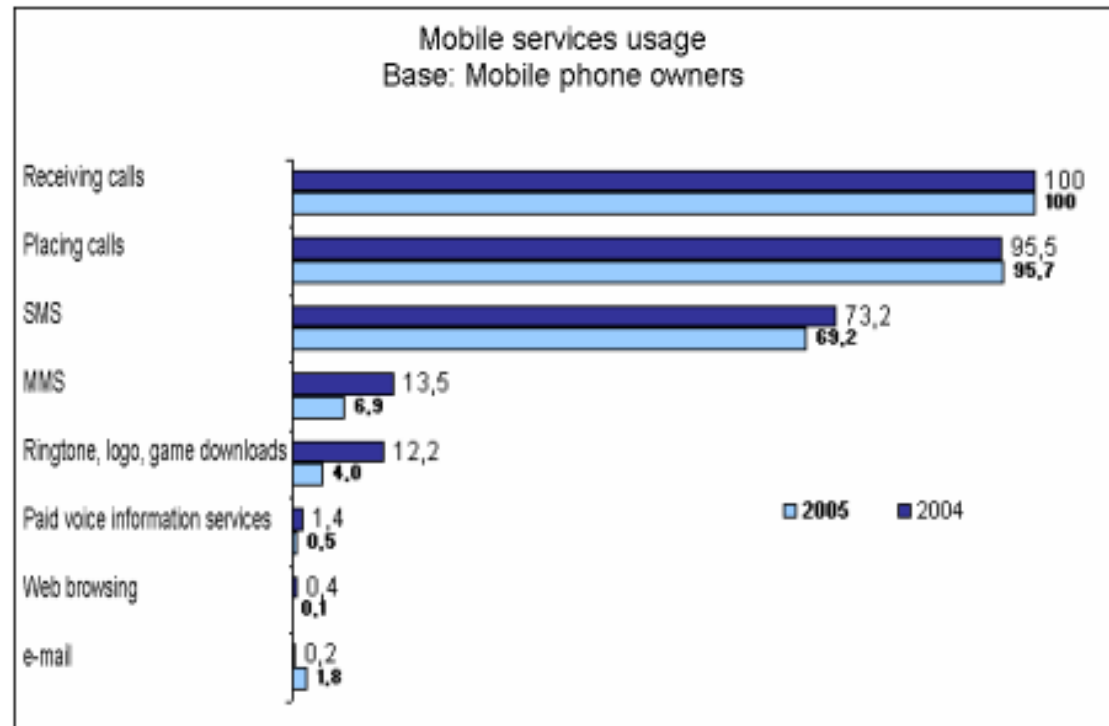
- Strong increase of Mobile within individuals which confirms the national trend watched over the boom of the number of subscribers...

	Individuals owning in the Household 2004 Survey	Individuals owning in the Household 2005 Survey	Evolution	Penetration within Population (2004)	Penetration within Population (2005)	Evolution
Fixed lines						
In %	28,5%	26,8%	-1,7	4,38%	4,49%	2,3%
In Millions	-	-	-	1,31	1,34	+0,03
Residential	-	-	-	0,89	0,88	-0,01
Mobile						
In %	48,1%	88,5%	+40,4	31,2%	41,4%	33,3%
In Millions	-	-	-	9,3	12,4	+3,1

- ... It hides the weak evolution of fixed penetration at a national level.

Mobile telephony Usages

Mobile telephone usage

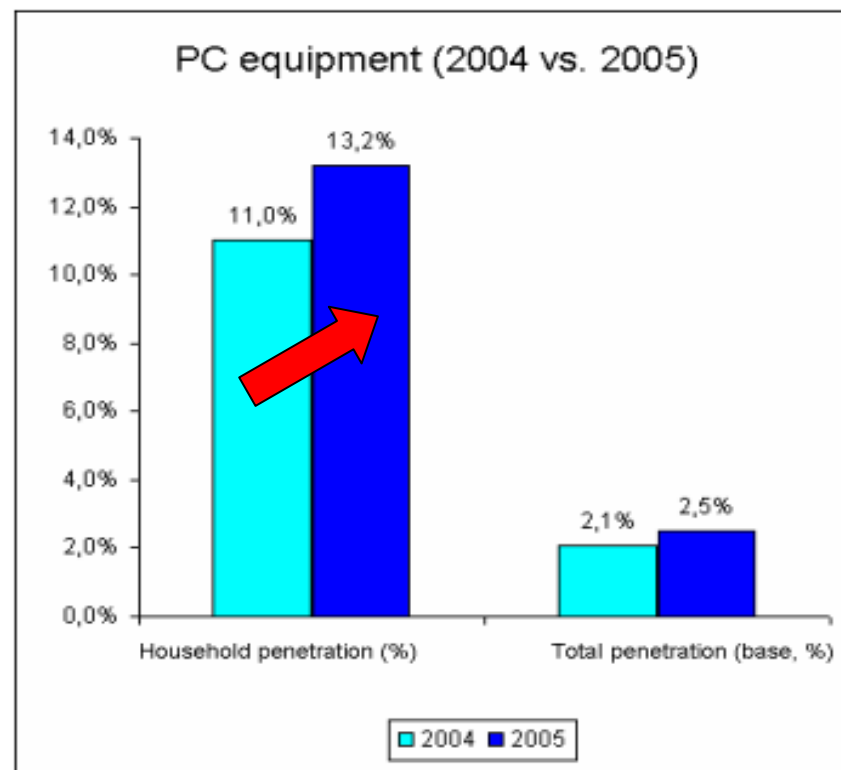


A part from SMS, value added services remain less developed.

Personal computers (1/3)

- PC equipment indicators

Personal computers penetration (2005 vs 2004)



Personal computers (2/3)

- PC equipment indicators
 - The PC penetration is increasing...

Personal Computer	Households penetration 2004	Households penetration 2005	Overall Population penetration 2004	Overall Population penetration 2005	Evolution 2004-2005
In %	11,0%	13,2%	2,1%	2,5%	19%
In millions	0,62	0,74	0,62	0,74	+0,12

- ... but the more equipped households are always those which have a purchasing power (an average monthly income exceeding 2500 DH) and already well equipped in ICT equipment and having a high education level allowing new technologies acquisition.

Personal computers (3/3)

■ PC usages

Use made of household PCs (according to location)

	Total 2004	Rural zone 2005	Urban zone 2005	Total 2005	Growth
e-commerce	1,4%	7,7%	1,5%	1,8%	→
Internet	23,2%	7,7%	53,3%	50,8%	↗↗
Home office	34,8%	38,5%	35,5%	35,6%	↗
Gaming	63,9%	61,5%	70,1%	69,6%	↗
Word processing	66,2%	84,6%	69,3%	70,1%	↗
Leisure/photos	85,0%	69,2%	67,1%	67,2%	↘↘

- In addition to classic uses, such as word processing/desktop publishing and gaming/leisure, personal computers are being more and more to surf the web.

Computers

Reasons for non equipement

Reasons for not using a PC

Reasons for non-equipment	% rural 2004	% rural 2005	% urban 2004	% urban 2005
Illiteracy	50,8	46,3	24,2	28,4
Too expensive	30,1	44,0	55,3	50,5
No need	22,4	24,5	27,0	30,5
Lack of means	17,0	5,8	4,9	1,8
Too complicated to use	16,1	8,3	20,0	15,4

In rural areas, “illiteracy” was cited by over 46% of respondents while, among city-dwellers, “too expensive” was the reason given by 50.5% of respondents as the main obstacle to buying a computer.

Internet (1/6)

■ Internet equipment indicators

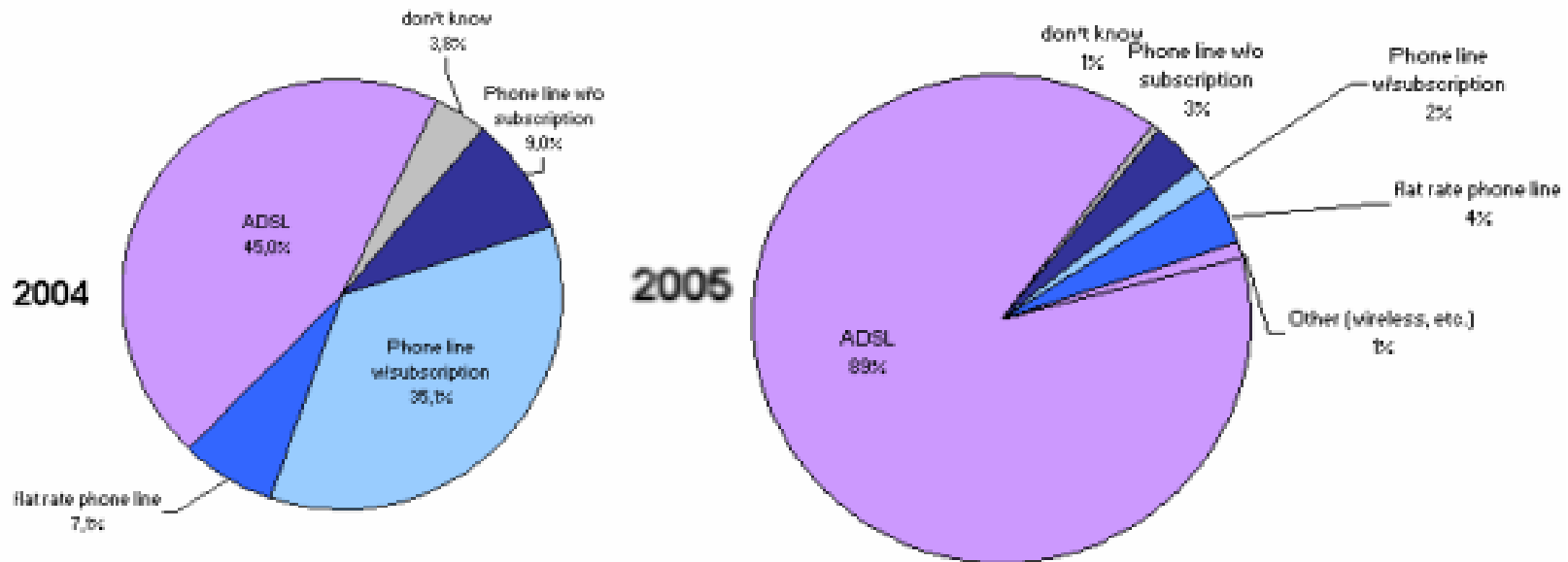
- Confirmation of Internet penetration within the population : the estimated number of households connected has doubled in one year to reach 240 000 lines (all access modes combined).

Internet acces	Penetration in households 2004 Survey	Penetration in households 2005 Survey	Evolution	Penetration in the Population 2004	Penetration in the Population 2005	Evolution
All access Types (%)	2,1%	4,3%	100%	-	-	-
In Millions	0,12	0,24	+0,12	0,113	0,262	+0,149
ADSL Access (%)	1,2%	3,9%	166%	-	-	-
In millions	0,0-	0,22	+0	0,063	0,248	+0,185

Internet (2/6)

- A High ADSL penetration :
 - 220 000 lines
 - It accounts for 89% of households connections to the Net.

Type of residential access (%)
Base: individuals with an internet connection at home



Internet (3/6)

- A large number of Internet users : a part from Internet access at home 34% of the population surveyed have an acces outside the home (83% accessing to the Net via an Internet Cafe).

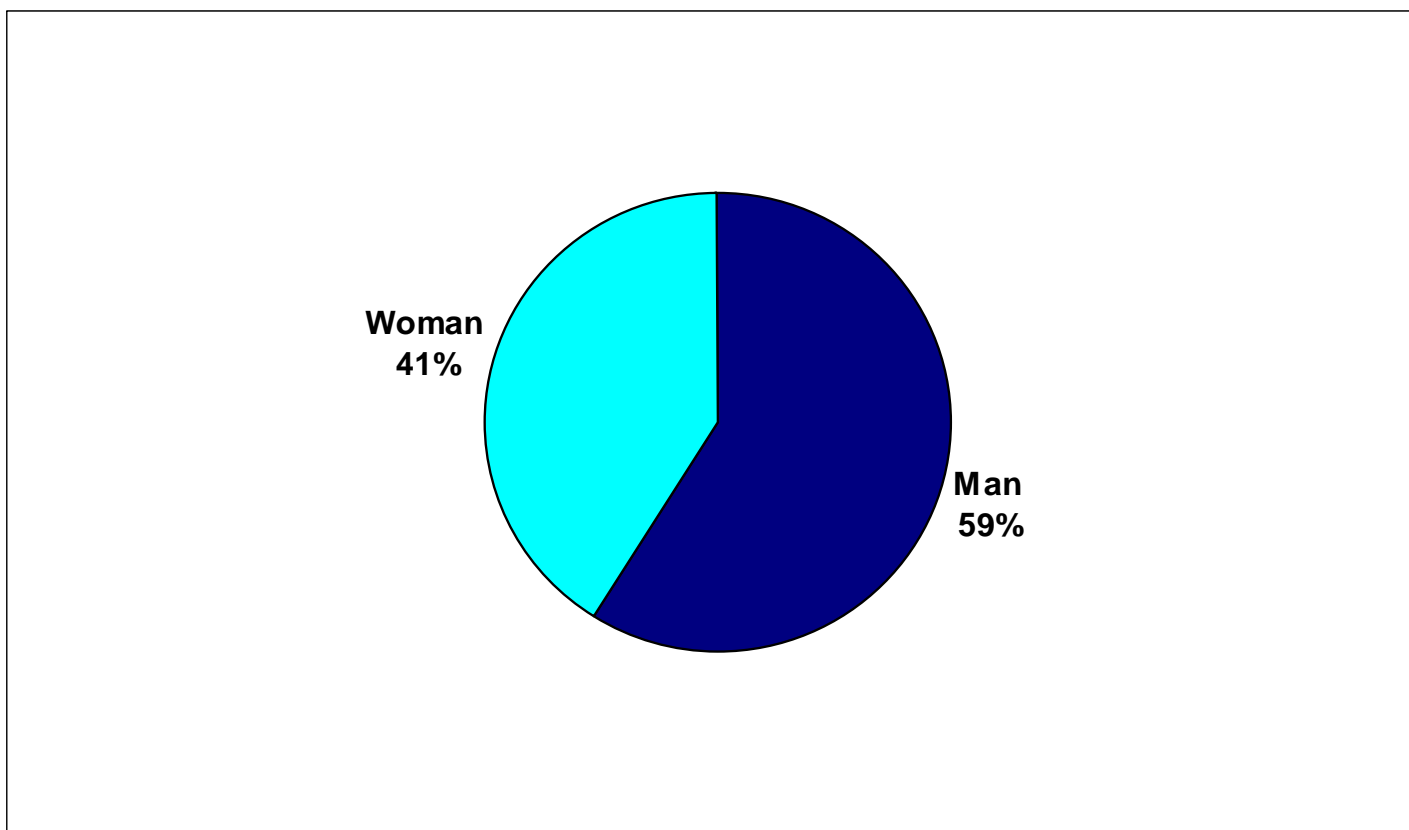
Number of netizens in 2005 (projection to entire population)

Netizens	Connected	as % of the population (2005)	Million (2005)	Growth 2004/2005 (%)	Growth 2004/2005 (Million)
Tiers 1	December 2005	15,6%	4,6	+31%	+1,1
Tiers 2	Year 2005	16,2%	4,8	+33%	+1,2

- In 2004, 96% of individuals with an internet connection (all locations combined), used the web to perform searches, compared to 91% in 2005: entertainment and use of the different messaging applications (IM and e-mail) are once again among the most common uses made of the internet.

Internet (4/6)

- Breakdown by sex of individuals claiming to have accessed the Internet during the past 12 months.



Internet (5/6)

- Obstacles to accessing the web

Main reasons for having no internet access at home (according to location)

	Total 2004	Rural zone 2005	Urban zone 2005	Total 2005	Growth
No need for it	21,9%	18,3%	13,9%	15,8%	↘
Do not have a computer	34,1%	30,1%	37,4%	34,3%	→
Illiteracy or lack of training	36,5%	48,7%	28,8%	37,2%	→
Too expensive	52,8%	38,2%	43,5%	41,3%	↘

Base : individuals with no Internet access at home

- While the lack of a computer is still the chief obstacle to gaining access to the internet, the price of internet access itself is now an obstacle to only just over 40% of individuals polled (compared to close to 53% in 2004).

Internet (6/6)

- Average monthly spending relating to the Internet Access
 - Among individuals who access the Internet, the average monthly spending is mainly less than the spending for the mobile telephony : 112 DH for 2005 :

2005	Rural	Urban	Overall
Average monthly spending (in DH)	61,1	122,8	112,0

- ...But very few households express the desire to shop online in the next 12 months, only 2,9% (and 98% have never do it during the last 12 months).

Thank you.

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Appendices

- ICT indicators list for households ;
- Households Questionnaire ;
- « Core list » of the Partnership on measuring ICT for development.

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