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MADAR Research  
& Development

# ARAB ICT USE AND SOCIAL NETWORKS ADOPTION REPORT

Arab ICT Use Index  
Country ICT Profile  
Regional Analysis  
Market Size & Share  
Arab Social Networks Adoption  
Arabic Digital Content  
Service Providers & Telecom Players

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Madar Research & Development (MRD) is a Dubai Internet City organization established in June 2012 as a knowledge-creating company with two main departments: ICT market research and research-based software development. Madar Research & Development is a successor of Madar Research (ICT market research company), which had operated in Dubai Media City from 2002 until 2010.

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## INTRODUCTION

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Despite the political turmoil that had swept up the region over the past two years, the Arab world continued to make significant progress in the adoption of information and communication technology (ICT) in 2011, taking big strides towards enhancing ICT infrastructure and performance. Saudi Arabia remarkably continued to dominate the region in the mobile phone sector, registering a penetration of 189.24%, ranking fourth globally ahead of most developed countries. All GCC countries achieved penetration rates over 125% in terms of mobile penetration. Although growth in the mobile sector in the Arab world has been witnessing a general steady decline over the past few years, driven mainly by saturated GCC markets, the natural population growth and the influx of expats will be the main factors impacting the future growth of mobile phone subscriptions in the GCC. Driven by the GCC's remarkable mobile penetration figures, mobile phone subscriptions in the Arab world nearly matched the region's population – to reach 346 million as of end 2011.

The Internet sector in the Arab region also continued to make notable progress, as Internet users totaled almost 96 million by of end 2011, with Bahrain holding on to its dominating position as the only Arab country with zero narrowband Internet subscribers.

The MENA region had witnessed a dramatic growth in international Internet bandwidth over the last year, with growth rates averaging 40% and Syria, who led the region in terms of growth, registering a sky-high 184% - shortly before political turmoil swept the country. The ever improving ICT infrastructure in the region, however, means that there is still much room for achieving even more impressive growth rates in the few years to come.

In 2011 the Arab world certainly remained eager to adopt new technology, as is currently the case with fourth generation networks (4G). While certain countries have already deployed 4G packages for consumers and businesses alike, such as Saudi Arabia and the UAE, many other less developed Arab countries have indeed already begun upgrading their networks and will be able to offer 4G services to their customers in the near future. Moreover, the future seems especially bright for developing nations where access to fixed line broadband connections is inadequate, as 4G will usher in a new age of super-high-speed connectivity, propelling them to compete on a global scale for the first time.

This is the first year in which we add two additional sections to the Arab ICT Report, one which deals with Arab social networks and their adoption, the other concerned with Arabic digital content. The Arab world was slow in its adoption of social networking, but the rise of political activism and the subsequent uprisings witnessed in several countries in the region prompted the explosion of sites such as Facebook, Twitter and YouTube on the Arab scene.

In 2006, Time Magazine awarded its 'person of the year' award to 'You'. What the magazine intended to say was that the user 'controls the information age'. This is not only an accurate representation of the situation in the MENA region over the past two years, but is in fact also a testament to things to come. User generated news, under the wider umbrella of user generated content, has seen a tremendous increase in popularity and usage in the Arab world over the past two years, unsurprisingly coinciding with the political events that took place in several countries in the region.

## PART I: ARAB ICT USE

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## STATISTICAL IRREGULARITIES AND ITS IMPACT ON MEASURING THE INFORMATION SOCIETY

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Several global, regional and national information technology reports covering one or more Arab countries were reviewed and analyzed. This produced a set of statistical irregularities in existing measurements for countries in the region in the following areas:

- The population factor
- Time reference
- The illiteracy factor
- The unskilled worker factor
- Definition of indicators



## THE POPULATION FACTOR

### 1. STATISTICAL IRREGULARITIES

A country's population figure is no doubt of primary importance, since it forms the basis for calculating numerous key indicators, whether it be per capita gross national product, tertiary enrollment ratio, or ICT penetration. While such indicators are most vital for governments to draw their development strategy and adjust their policies, they are also important for international organizations to benchmark the performance of world countries against each other in various areas of development. Additionally, such indicators are invaluable for business planning and development. If a population estimate presents a significant deviation from reality, indicators would be skewed or distorted and business decisions based on them may lead to catastrophes. A census, if carried out properly, is the most accurate figure for the population in a given year, while a growth rate is used to provide a reasonable population estimate for successive years. Unless there is a dramatic change forced by war or natural disaster, a population figure usually follows a more or less steady growth pattern based on new birth rates, mortality rates and immigration levels.

The six Gulf Cooperation Council (GCC) member states, for example, represent a population case whose growth rate and peculiar demographics have defied the norms and have led to largely overlooked or underrated misrepresentation of the population and the numerous indicators that depend on it.

Unlike most countries of the world, the GCC states have for the past four or five decades been relying on a large expatriate workforce to fuel one of the largest and fastest construction and development booms in the world. This workforce, which covers the whole spectrum of manpower, from unskilled labor to highly qualified professionals, has grown over the years to constitute anything between 28 percent and 87 percent of individual countries' populations in the GCC by end 2011.

Censuses carried out in individual GCC countries provided the first official population figures to be used widely, nationally and internationally, regardless of their varying degrees of reliability. Reliability suffered most when population breakdown was considered, especially in GCC countries with the highest expatriate populations, due to a number of reasons including political sensitivity.

The following table presents the most accurate population figures in Arab countries, collected from official sources in each country.

The table also details the population figures used by the International Telecommunication Union (ITU) in each of the Arab countries under study. As shown, ITU figures can vary greatly from official figures. They can be as low as nearly 24 percent than official figures, as is the case with Kuwait, or as high as almost 10 percent, as in the case of Qatar.





POPULATION END 2011 ITU VS. NATIONAL BASED FIGURES				
COUNTRY	NATIONAL BASED SOURCES <sup>1</sup>	ITU <sup>2</sup>	DIFFERENCE <sup>1</sup>	% <sup>1</sup>
BAHRAIN	1,316,750	1,323,535	-6,785	-0.52%
KUWAIT	3,697,292	2,818,042	879,250	23.78%
OMAN	2,859,457	2,846,145	13,312	0.47%
QATAR	1,707,756	1,870,041	-162,285	-9.50%
KSA	28,376,355	28,082,541	293,814	1.04%
UAE	8,494,707	7,890,924	603,783	7.11%
EGYPT	81,348,421	82,536,770	-1,188,349	-1.46%
IRAQ	33,564,325	32,664,942	899,383	2.68%
JORDAN	6,249,000	6,330,169	-81,169	-1.30%
LEBANON	4,222,836	4,259,405	-36,569	-0.87%
PALESTINE	4,231,084	4,152,369	78,715	1.86%
SYRIA	21,381,111	20,766,037	615,074	2.88%
ALGERIA	37,100,000	35,980,193	1,119,807	3.02%
LIBYA	6,000,000	6,422,772	-422,772	-7.05%
MOROCCO	32,419,800	32,272,974	146,826	0.45%
TUNISIA	10,732,470	10,594,057	138,413	1.29%
SUDAN	41,919,368	44,632,406	-2,713,038	-6.47%
YEMEN	24,312,000	24,799,880	-487,880	-2.01%
<b>TOTAL</b>	<b>349,932,731</b>	<b>350,243,202</b>	<b>-310,471</b>	<b>-0.09%</b>

Source: <sup>1</sup>MRD (from national sources) <sup>2</sup>ITU

The impact of using inaccurate or outdated population figures on the values of key performance indicators in Arab countries – and consequently on their global rankings – can be staggering at times and thus of dire consequences to development strategies and plans targeting the information society and knowledge-based economy in these countries. Inaccurate indicators also negatively impact business planning and strategies based on those misleading indicators.

### IMPACT ON INTERNET USER PENETRATION AND RANKING

The palpable discrepancy that occurs when altered population figures are used can be demonstrated by looking at data concerning two GCC countries; Kuwait and Qatar. As noted in the previous table, Kuwait's population figures presented the largest variance, coming in at 23.78%. This in turn had a tremendous impact on the country's Internet penetration rate and global rank in the sector. According to ITU, Kuwait registered an Internet penetration figure of 74%, ranking it 32<sup>nd</sup> in terms of global Internet penetration. When altering the penetration figure using population numbers based on official national sources, however, Kuwait's penetration significantly drops to about 57%, positioning it in the 59<sup>th</sup> spot globally. On the opposite end of the spectrum, Qatar, which had registered a negative penetration variance, saw its rank move up eight places, from 10<sup>th</sup> to second, as more accurate population figures increased its Internet penetration from ITU's 86% to 94%.



<b>2011 INTERNET PENETRATION AND GLOBAL RANKING</b> <b>ITU POPULATION FIGURES VS. NATIONAL BASED POPULATION FIGURES</b> <b>CASE STUDY: KUWAIT AND QATAR</b>						
COUNTRY	ITU FIGURES <sup>1</sup>		ITU FIGURES DIVIDED BY NATIONAL BASED POPULATION FIGURES <sup>2</sup>		VARIANCE <sup>2</sup>	
	PENETRATION	RANK	PENETRATION	RANK	PENETRATION	RANK
KUWAIT	74.20%	32	56.55%	59	17.65%	-26
QATAR	86.20%	10	94.39%	2	-8.19%	8
Source: <sup>1</sup> ITU <sup>2</sup> MRD (based on national sources)						

It is important to note, however, that these figures, particularly those used for Qatar, remain highly inaccurate due to great discrepancies arising from the original figure of Internet users used by ITU. This vital issue will be addressed in detail in the section titled "Figure Discrepancies".

### IMPACT ON MOBILE PHONE PENETRATION AND RANKING

Similar to Internet penetration, mobile penetration rates also exhibit variances when the population figures used are those based on official national sources instead of those used by ITU. Kuwait, with the highest population variance in the region, once again demonstrates a vast inconsistency between the penetration figure calculated based on the population figure collected from national sources and that based on population figures presented by ITU. It should be noted that ITU did not have mobile subscription figures for Kuwait for the year 2011 at the time this report was written. Official mobile subscription figures collected from Kuwait's mobile operators were therefore used to determine the variance. It is evident from the table below that the difference between the two penetration figures is staggering, with the variance in penetration registering 41.97%, moving Kuwait 22 spots on the global ranking scale, from eighth to 30<sup>th</sup> place.

<b>2011 MOBILE PENETRATION AND GLOBAL RANKING</b> <b>ITU POPULATION FIGURES VS. NATIONAL BASED POPULATION FIGURES</b> <b>CASE STUDY: KUWAIT, UAE AND QATAR</b>						
COUNTRY	ITU FIGURES <sup>1</sup>		ITU FIGURES DIVIDED BY NATIONAL BASED POPULATION FIGURES <sup>2</sup>		VARIANCE <sup>2</sup>	
	PENETRATION	RANK	PENETRATION	RANK	PENETRATION	RANK
KUWAIT	176.48% <sup>3</sup>	8	134.51%	30	41.97%	22
QATAR	123.11%	45	134.81%	29	-11.70%	15
UAE	148.62%	18	138.06%	28	10.56%	-10
Source: <sup>1</sup> ITU <sup>2</sup> MRD (based on national sources) <sup>3</sup> based on figures collected from Kuwaiti mobile operators						

Qatar, on the other hand, with the second highest population variance in the region, displays moderate differences in penetration rates when the ITU population figure is swaped. The country sees its mobile penetration rise from 123% to almost 135%, while its global ranking improves from 45<sup>th</sup> to 29<sup>th</sup> place; an important 15 spot variance.

Moreover, the UAE, with a modest population variance of 7% is also nevertheless impacted by the population figure swap; while ITU figures maintain that the UAE's mobile penetration rate is 149%, the figure MRD calculated based on official national population figures was 138%. This caused the UAE's global rank to drop by 10 spots; from 18 to 28.

It should be noted that these figures are certainly much closer to reality than those for Internet penetration. This is mainly due to the fact that the numbers collected for Internet users are based on considerable estimations, while the mobile subscription figures are certainly easier to reliably collect and subsequently publish by a country's TRA.

Similarly, Socialbakers.com, the most trusted online source for social media statistics, makes a unique case for the misrepresentation of data concerning Qatar in particular. Socialbakers.com cites Qatar's Facebook penetration of the population to be 83.08% or 699,420 users (figure as of September 6<sup>th</sup>, 2012), ranking second worldwide, behind only Monaco, in terms of Facebook penetration. Calculating the population figure from this percentage presents a number far from reality, approximately around 841,000. Had socialbakers.com used Qatar's population figure collected from national sources (published by Qatar Statistics Authority on August 31<sup>st</sup>, 2012 to be 1,687,173), Qatar's Facebook penetration would have literally been halved: 41.46%, dropping Qatar's global Facebook penetration ranking from second to 48<sup>th</sup>.



## THE TIME REFERENCE FACTOR

### 1. STATISTICAL IRREGULARITIES

When using indicators calculated based on population figures, one of two time references are usually utilized. The 'end-of-year' reference refers to population figures collected at the end of the calendar year. Since data related to the numbers of subscribers in fixed-line and mobile telephones, as well as the Internet users, usually refers to year end, penetration indicators should also be based on the end-of-year population figure. The 'mid-year' reference refers to population figures collected at the end of June in any given calendar year. Indicators such as Gross Domestic Product (GDP) per Capita or Gross National Product (GNP) require the use of a mid-year population figure. Most ICT reports use a single time reference for calculating penetration rate indicators, which is usually the mid-year population reference. While this is appropriate when calculating financial indicators such as a country's GDP, it produces inaccurate results when used to calculate penetration indicators.

Population growth over a period of six months is marginal in developed countries, where the error resulting from the use of one reference instead of another in calculating penetration indicators is insignificant. The situation in the Arab region, however, is quite different, since population figures could fluctuate dramatically due to several reasons, such as shifts in the influx of migrant workers, for example.

Population growth rate in some GCC countries, for example, exceeded 16 percent annually over the years 2003-2008 due to an increased inflow of expatriate labor, which meant that the population might have increased by eight percent or more during a six month period. As a consequence, the use of a mid-year population figure in a high-growth year in the GCC would have led to significant errors in penetration indicators for the year in question.

As an example, the number of mobile phone subscribers in Qatar was 946,343 by end 2008, with total country population set at 1,553,729 then, rising from 1,448,446 in mid-2008, according to official figures collected from the Qatar Statistics Authority. When the mid-year population figure was used, mobile phone penetration registered 134 percent. However, the indicator would drop to 125 percent when year-end population is used, leading Qatar to shed seven ranks globally.

Furthermore, even when growth figures register a moderate rate of less than five percent, this translates to differences of around 1% in ICT penetration rates, which in turn can affect a country's global rank in terms of ICT penetration by a few positions.

QATAR POPULATION 2005-2011							
END 2004	END 2005	END 2006	END 2007	END 2008	END 2009	END 2010	END 2011
824,699	965,092	1,133,972	1,337,329	1,553,729	1,631,728	1,637,443	1,707,756
<b>GROWTH</b>	17.02%	17.50%	17.93%	16.18%	5.02%	0.35%	4.29%

Source: Qatar Statistics Authority and the Planning Council

## THE ILLITERACY FACTOR

### 1. STATISTICAL IRREGULARITIES

Illiteracy plays an important role in determining the levels of ICT penetration in the MENA region. At the lowest end of the scale, Morocco, Yemen and Egypt register an illiteracy rate of 43.92%, 37.61% and 33.63%, respectively. When looking at the Internet penetration of the three countries, for example, we notice that all register a penetration lower than 40% (according to MRD figures). While Yemen's extremely low penetration rate can also be attributed to poor ICT infrastructure amongst other factors, countries like Morocco and Egypt, which fare far better in terms of Internet accessibility, continue to exhibit stunted growth in Internet penetration due mainly to their high illiteracy figures.

To put the consequences of this into global terms and according to ITU figures, only Qatar manages to make the top 20 list of the top performing countries in terms of Internet penetration, the closest second being Bahrain at number 27. Qatar's figures are also highly questionable, in any case, for reason outlined in sections titled "The population Factor" and "Figure Discrepancies". Similar discrepancies come into the forefront when examining Qatar's literacy rate, published by UNESCO, which seems to ignore the largely uneducated expatriate worker population living in labor camps, which accounts for 54% of the country's population. The same concerns hold true for the majority of the GCC countries.

INTERNET USERS, PENETRATION AND LITERACY RATES 2011				
COUNTRY	POPULATION <sup>1</sup>	USERS <sup>1</sup>	PENETRATION <sup>1</sup>	LITERACY RATE <sup>2</sup>
QATAR	1,707,756	854,958	50.06%	94.72%
PALESTINE	4,231,084	1,280,172	30.26%	94.60%
OMAN	2,859,457	1,146,880	40.11%	93.91%
JORDAN	6,249,000	2,187,519	35.01%	92.20%
BAHRAIN	1,316,750	715,928	54.37%	91.36%
UAE	8,494,707	4,574,578	53.85%	90.03%
LEBANON	4,222,836	1,730,914	40.99%	89.61%
LIBYA	6,422,772	1,355,796	22.60%	88.86%
KUWAIT	3,697,292	1,853,394	50.13%	86.62%
KSA	28,376,355	13,600,000	47.93%	86.13%
SYRIA	21,381,111	5,113,749	23.92%	84.19%
IRAQ	33,564,325	5,510,556	16.42%	78.06%
TUNISIA	10,594,057	3,432,988	31.99%	77.56%
ALGERIA	35,980,193	7,767,641	20.94%	72.65%
SUDAN	44,632,406	6,959,517	16.60%	70.21%
EGYPT	81,348,421	21,671,400	26.64%	66.37%
YEMEN	24,799,880	3,327,558	13.69%	62.39%
MOROCCO	32,272,974	12,728,464	39.26%	56.08%

Source: <sup>1</sup>MRD <sup>2</sup>ages 15 and older; source: UNESCO Institute for Statistics (2011)

The MENA region fares much better, however, in terms of mobile penetration. This is partially due to the fact that mobile connectivity requires little to no literacy as a term of usage. Subsequently, we find that four Arab countries make their way into ITU's top 20 global countries in terms of mobile penetration, namely Saudi Arabia, Oman, Libya and the UAE, ranking fourth, eighth, 13<sup>th</sup> and 18<sup>th</sup>, respectively. These figures are quite impressive as the countries fare better than leaders of the developed world such as Germany (30<sup>th</sup>), UK (31<sup>st</sup>) and the USA (80<sup>th</sup>).

There seems to be a gap, therefore, between the Internet penetration rates in the Arab region and the developed nations caused mainly due to high literacy rates, which make it almost impossible for that particular segment of the population to join the digital age. Nevertheless, while this gap is not going to be closed in the near future, it is nonetheless narrowing as developed countries reach near saturation levels, with the vast majority of their population now using the Internet in some capacity, while the Arab world continues to register healthy growth rates.



## THE UNSKILLED WORKER FACTOR

### 1. STATISTICAL IRREGULARITIES

The ratio of nationals to expatriates in the GCC ranges from 72:28 in Oman, to as low as 13:87 in the UAE, as shown in the table below. While in most countries around the world part or most of these expatriate populations would eventually become permanent residents and ultimately be naturalized, especially those who have resided in the GCC for several years, GCC countries have extremely restricted their naturalization laws to a point which allows for only a trickle of expatriate residents to gain local nationalities and be absorbed into the rest of the population.

The presence of such wide gaps between the number of expatriates and nationals continues to affect national performance indicators in so many ways and in such a dynamic manner from year to year. What adds much complexity and confusion to the performance indicators, however, is the presence among those expatriates of a large transient population of unskilled or poorly skilled laborers.

DEMOGRAPHIC CHARACTERISTICS UNSKILLED WORKERS IN THE GCC		
COUNTRY	LOCALS <sup>1</sup>	EXPATRIATE WORKERS IN LABOR CAMPS <sup>2</sup>
BAHRAIN	49%	9%
KUWAIT	32%	13%
OMAN	72%	5%
QATAR	17%	54%
KSA	69%	8%
UAE	13%	25%

<sup>1</sup>Based on Official Figures <sup>2</sup> Rough Estimate by MRD

In 2011, these laborers, which are brought mainly from South and South-East Asia, constituted an estimated 25 to 54 percent of the total population in the UAE and Qatar, with lower percentages in the rest of the GCC. This particular segment of the population is too frequently not accounted for in population figures used to determine some ICT indicators such as Internet penetration, which in turn leads to the utilization and dissemination of highly skewed data. This issue will be discussed in more detail in section titled "figure Discrepancies".

## THE DEFINITIONS FACTOR

### 1. STATISTICAL IRREGULARITIES

#### DEFINITIONS OF INDICATORS

When reviewing the parameters used for key ICT indicators, which are in turn translated into definitions of the same, inconsistencies become apparent. The road to these inconsistencies is two-folds, an error in the parameter/definition setting stage and an error at the implementation stage.

#### INTERNET USERS

"Refers to the estimated number of Internet users out of total population. This includes those using the Internet from any device (including mobile phones) in the last 12 months. A growing number of countries are measuring this through household surveys. In countries where household surveys are available, this estimate should correspond to the estimated number derived from the percentage of Internet users collected. If the survey covers a percentage of the population for a certain age group (e.g., 15-74 years old), the estimated number of Internet users should be derived using this percentage (notes indicating the scope and coverage of the survey should be provided). In situations where surveys are not available, an estimate can be derived based on the number of Internet subscriptions" (ITU).

The definition of an Internet user differs from one country to another. Some countries define the Internet user as a person over the age of six who uses the Internet at least more than once a month. Another definition states that an Internet user is someone over the age of six who uses the Internet on average at least one hour per week.

The ITU HH7 indicator defines this as Internet use in the previous 12 months from any location by in-scope individuals. (Source: Core ICT Indicators 2010)

During the 9<sup>th</sup> World Telecommunication/ICT Indicators Meeting (WTIM-11) held in Mauritius, 7 - 9 December, 2011, under the name "Revisions to Core ICT Household indicators", some participants called to revise the HH7 indicator to a "Proportion of individuals who used the Internet in the last three months" (instead of 12).

This proposed modification, however, remains inadequate, as it needs to be more specific i.e. indicating the number of hours/number of times per week/month. ITU should consider modifying the definition of Internet user to meet the fast changes in Internet usages as the current definition has become obsolete.

Furthermore, many countries in the region are slow to follow through on implementing these parameters. Qatar, for example, collected data related to internet penetration covering not the entire population but the "mainstream population aged 15+", which does not take into account the population living in labor camps/group quarters (54% in Qatar), over valuating its Internet penetration rates by considerable amounts. Further inconsistencies arise when taking into account that while Jordan, for example, considers Internet penetration figures based on population over the age of five, Lebanon takes into account the population over 15 years while the UAE follows the ITU definition and takes into account the total population. The lack of standardization across the board leads to misleading data.





## BROADBAND

It has been noticed that certain Arab countries count all types of DSL as a broadband connection, while the ITU definition clearly states that **“DSL at speeds below 256 Kbit/s, should be classified as narrowband”**.



## FIGURE DISCREPANCIES

### 1. STATISTICAL IRREGULARITIES

After careful review of several numbers published by the International Telecommunication Union (ITU) regarding Internet penetration in the Arab world, certain discrepancies become evident. Internet penetration rates for several countries in the GCC, for example, do not seem to correspond to the population figures. As a labor importing region, the GCC hosts large expatriate populations which exceed the local populations by size, except in Saudi Arabia and Oman. Moreover, significant numbers of these expatriates, particularly in Qatar and the UAE, are expatriate workers living in labor camps or group quarters. When looking at the UAE, for example, it is difficult to accept that a country with 25% of its population residing in labor camps or group quarters can register an Internet penetration figure of 70%, as reported by ITU.

Similarly, Qatar's penetration rate of 86.20% is unfathomable when compared to the percentage of workers residing in labor camps, which comes in at a whopping 54%. Moreover, official data indicates that 32.45% of these workers have not completed elementary education. It should be noted, however, that ITU in this particular case states that the figure used relies on a population figure estimated for the "mainstream population aged 15 years and older". No further detail is given to the exact parameters used when defining a "mainstream population", but it can be safely assumed that this does not include workers residing in labor camps. This in turn represents a stark inconsistency to the universally accepted definition of a population, which includes all people residing within the boundaries of a country.

DEMOGRAPHIC CHARACTERISTICS EXPATRIATE WORKERS IN THE GCC				
COUNTRY	LOCALS <sup>1</sup>	EXPATRIATES <sup>1</sup>	HOUSEHOLD EXPATRIATES <sup>2</sup>	EXPATRIATE WORKERS IN LABOR CAMPS <sup>2</sup>
BAHRAIN	49%	51%	42%	9%
KUWAIT	32%	68%	55%	13%
OMAN	72%	28%	23%	5%
QATAR	17%	83%	29%	54%
KSA	69%	31%	23%	8%
UAE	13%	87%	62%	25%

<sup>1</sup>Based on Official Figures <sup>2</sup> Rough Estimate by MRD

ITU figures for Qatar also indicate that the number of Internet users comes in at about 1,612,000, with the total population registering 1,870,041. When calculating Internet penetration using these figures, the number indeed comes up to ITU's reported Internet penetration figure for Qatar; 86.20%. Further complications arise when we realize that this figure is in fact calculated using a population figure which includes the total population and not only the 'mainstream' one.



INTERNET USERS AND PENETRATION 2011 (GCC) AS PER ITU					
COUNTRY	POPULATION <sup>1</sup>	USERS <sup>1</sup>	PENETRATION <sup>1</sup>	LITERACY RATE <sup>2</sup>	POPULATION IN LABOR CAMPS <sup>3</sup>
BAHRAIN	1,323,535	1,019,100	77.00%	91.36%	9%
KUWAIT	2,846,145	1,935,400	68.00%	86.62%	5%
OMAN	2,818,042	2,091,000	74.20%	93.91%	13%
QATAR	1,870,041	1,612,000	86.20%	94.72%	54%
KSA	28,082,541	13,339,200	47.50%	86.13%	8%
UAE	7,890,924	5,523,600	70.00%	90.03%	25%

<sup>1</sup>Source: ITU <sup>2</sup>ages 15 and older; source: UNESCO Institute for Statistics (2011) <sup>3</sup>Rough estimate by MRD based on official figures

Figures for the Levant and North Africa seem to be more logical in general, mainly due to the insignificant percentage of expatriate workers living in labor camps or group quarters. Nonetheless, figures for certain countries remain alarming, as is the case for Morocco. ITU reported a figure of 51% when it comes to Internet penetration in Morocco. This is impossible when considering that the adult literacy rate as published by UNESCO comes in at only 56.08%, rendering 43.92% of the population illiterate. Adding to this figure the number of children aged 5 years and younger, we can reasonably conclude that it is simply implausible for Morocco to register an Internet penetration rate of 51%.

Moreover, further discrepancies arise when examining the methodology used when calculating Internet penetration figures reported for several other countries. In Jordan's case, for example, ITU reports figures that include individuals aged 5 years and older. In Lebanon, however, ITU uses figures that include only individuals aged 15 years and older. It seems logical to conclude, therefore,

INTERNET USERS AND PENETRATION 2011 AS PER ITU (LEVANT AND NORTH AFRICA)				
COUNTRY	POPULATION <sup>1</sup>	USERS <sup>1</sup>	PENETRATION <sup>1</sup>	LITERACY RATE <sup>2</sup>
EGYPT	82,536,770	29,399,600	35.62%	66.37%
IRAQ	32,664,942	1,633,200	5.00%	78.06%
JORDAN	6,330,169	2,209,200	34.90%	92.20%
LEBANON	4,259,405	2,214,900	52.00%	89.61%
PALESTINE	4,152,369	2,283,803	55.00%	94.60%
SYRIA	20,766,037	4,672,400	22.50%	84.19%
ALGERIA	35,980,193	5,037,200	14.00%	72.65%
LIBYA	6,422,772	1,091,700	17.00%	88.86%
MOROCCO	32,272,974	16,459,200	51.00%	56.08%
TUNISIA	10,594,057	4,142,300	39.10%	77.56%
SUDAN	44,632,406	8,480,200	19.00%	70.21%
YEMEN	24,799,880	3,696,400	14.90%	62.39%

<sup>1</sup>Source: ITU <sup>2</sup>ages 15 and older; source: UNESCO Institute for Statistics (2011)

that without using figures calculated through the utilization of a unified methodology for all countries across the board, it will continue to be very difficult to compare and contrast the Internet penetration figures fairly.



## ICT USE INDICATORS

### 2. ICT USE INDICATORS

The annual Arab ICT Use Index examines four major indicators for each of the 18 MENA economies: mobile phone subscribers, fixed-line subscribers, Internet users and installed computers. The index is calculated by adding the values of these four indicators for each country and dividing the sum by its population. A higher score on the index indicates more aggressive ICT adoption. Moreover, three other indicators were also analyzed, namely mobile-to-fixed-line subscribers, fixed broadband subscribers and Internet-user-to-PC ratio. Although these three indicators do not contribute towards calculating the Arab ICT Use Index, they nevertheless help provide a more comprehensive picture of the ICT sector in the MENA countries under study.

Before the global economic downturn, the oil rich countries of the MENA region had largely benefited, to varying degrees depending on their reserves and production quotas, from the very high oil and gas prices. Although these countries are certainly faring much better than others in the region, as their economics continue to stabilize and flourish, they now realize, more than ever, the need to use this wealth for upgrading their infrastructure, developing their human resources and diversifying their economies. They are also keen to use the wealth for enhancing the knowledge component of their economies as a safeguard against a risky and perhaps less profitable future. All these factors can be seen as a major contributor to growth in the telecom industry across the MENA region. Meanwhile, certain countries in the region continue to struggle with a tumultuous political climate, making their future extremely difficult to predict.



## THE ARAB ICT USE INDEX

### 2. ICT USE INDICATORS

Saudi Arabia topped the 2011 index with a score of 2.82. Saudi Arabia was among the top five in all but one of the ICT sectors. Saudi Arabia's position was mostly driven by its mobile penetration figure, 189.24%, ranking it first in the MENA region and fourth worldwide. The Kingdom came in fifth place for both computers installed and Internet penetration, while placing seventh for fixed line telephone penetration.

Coming in second place, Qatar scored an overall 2.78 on the 2011 Arab ICT Use Index, moving from first place and a score of 2.76 in 2010. Qatar now has the highest computer installed base in the MENA region, with 46.77% penetration, and the fourth highest Internet user and mobile penetration rate of 50.06% and 163.61%, respectively. Fixed line penetration registered 16.33%, landing the country in fifth place.

ARAB ICT USE INDEX - 2011							
	COUNTRY	POPULATION	MOBILE PHONE SUBSCRIPTIONS	FIXED LINE SUBSCRIPTIONS	INTERNET USERS	PC INSTALLED BASE	ICT INDEX
1	KSA	28,376,355	53,700,000	4,633,100	13,600,000	8,098,276	2.82
2	QATAR	1,707,756	2,794,043	305,969	854,958	798,715	2.78
3	UAE	8,494,707	11,727,401	1,825,496	4,574,578	3,862,177	2.59
4	OMAN	2,859,457	4,809,248	287,323	1,146,880	551,714	2.38
5	BAHRAIN	1,316,750	1,693,650	242,407	715,928	469,360	2.37
6	KUWAIT	3,697,292	4,973,160	523,161	1,853,394	1,305,955	2.34
7	LIBYA	6,000,000	10,000,000	1,012,100	1,355,796	892,601	2.21
8	JORDAN	6,249,000	7,483,000	424,000	2,187,519	1,108,866	1.79
9	MOROCCO	32,419,800	36,554,000	3,566,076	12,728,464	3,045,939	1.72
10	TUNISIA	10,732,470	12,387,656	1,217,781	3,432,988	1,272,643	1.71
11	LEBANON	4,222,836	3,389,000	912,132	1,730,914	910,965	1.64
12	EGYPT	81,348,421	83,430,000	8,714,200	21,671,400	5,878,810	1.47
13	ALGERIA	37,100,000	35,711,159	3,153,500	7,767,641	3,763,607	1.36
14	PALESTINE	4,231,084	2,865,000	385,057	1,280,172	396,770	1.16
15	SYRIA	21,381,111	12,791,647	4,381,100	5,113,749	1,819,690	1.13
16	IRAQ	33,564,325	24,413,656	1,945,000	5,510,556	2,545,761	1.03
17	SUDAN	41,919,368	25,107,343	483,617	6,959,517	2,068,436	0.83
18	YEMEN	24,312,000	12,530,235	1,075,412	3,327,558	938,623	0.74
	TOTAL	349,932,731	346,360,198	35,087,431	95,812,012	39,728,908	1.48
Source: MRC							

Source: MRD

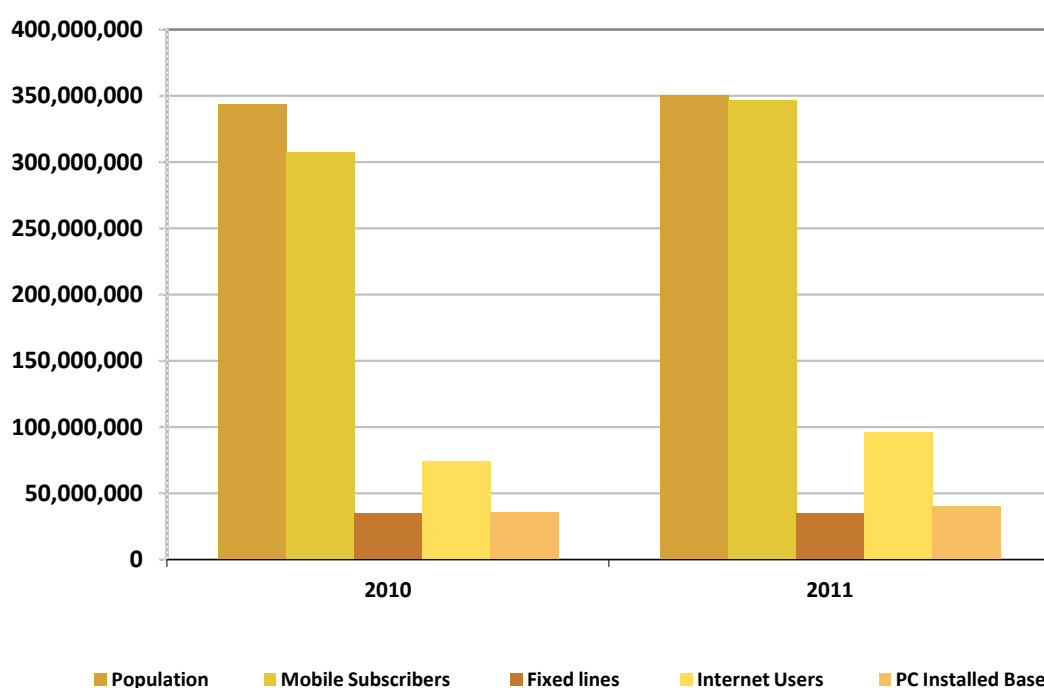
In third place, the United Arab Emirates' (UAE) overall score of 2.59 on the 2011 Arab ICT Use Index leaves it in the same spot it occupied in 2010 with a score of 2.41. The UAE ranked second in Internet penetration with a rate of 53.85%, as well as fixed line penetration with 21.49% and computers installed penetration with 45.47%. Meanwhile, it remained in fifth

place in mobile phone penetration, with a penetration of 138.06%, behind Saudi Arabia, Oman, Libya and Qatar.

Similarly, Oman remained fourth on the index, with 168.19% mobile penetration, ranking the country in second place on the indicator. Oman's Internet penetration (40.11%) and computer installed penetration (19.29%), on the other hand, awarded it the seventh spot for both in the MENA region. The country's fixed line penetration rate remained around 10%, placing it in 12th place for the second year in a row. The country scored 2.38 overall on the index, 0.21 points behind the UAE.

Bahrain occupied the fifth place on the 2011 index for the second year in a row, with an overall score of 2.37. Although Bahrain ranked first in Internet penetration with 54.37%, its mobile penetration position remained stagnant; at seventh place with a rate of 128.62%. Bahrain ranked third in the Arab world in computer installed penetration (35.65%), and fourth in terms of fixed line penetration (18.41%).

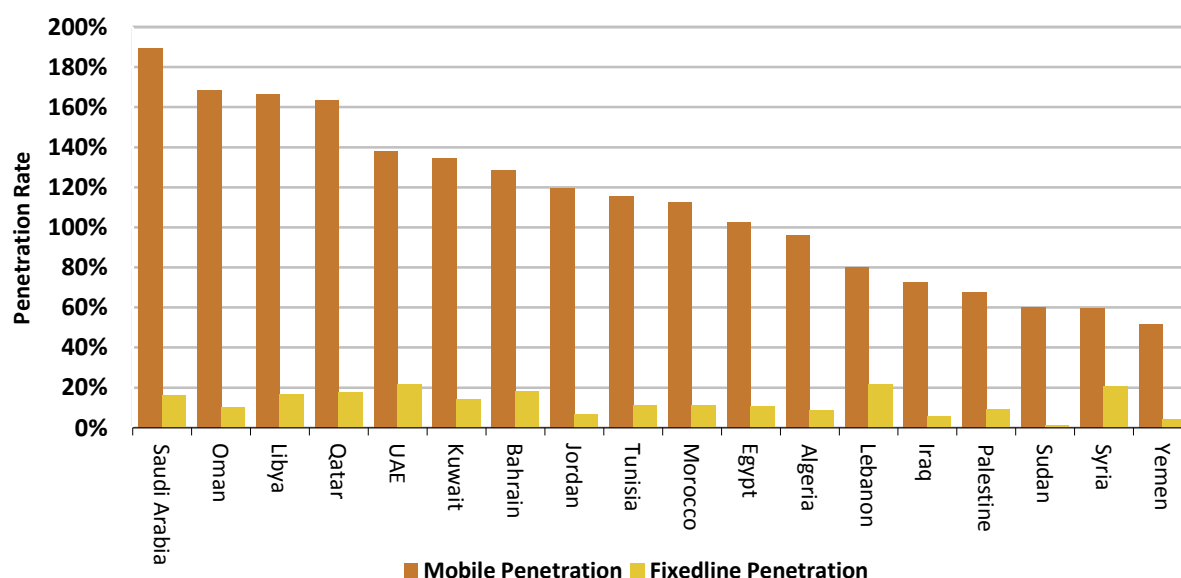
**Arab ICT Use Indicators 2010-2011**



Although GCC countries dominated the Arab ICT Use Index by occupying the top five positions, in terms of growth only the UAE and Saudi Arabia placed in first and second place for fixed line growth, respectively, while Oman and Saudi Arabia placed fifth in terms of Internet and PC growth, respectively. The top five privileges went to a selection of other MENA economies, with largely underdeveloped ICT markets where growth tends to be more visible. Sudan achieved a considerable 37.18% growth in the number of mobile line subscriptions in 2011 – the strongest in the Arab world – followed by Yemen and Lebanon with 22.03% and 19.27% growth, respectively. Iraq ranked third in terms of fixed line growth with a rate of 11.11%, while Algeria (7.90%) and Syria (7.62%) rounded up the top five for the sector. Morocco held the highest growth rate in the region for Internet users, while Algeria

held the top spot for computer installed base, at 46.45% and 27.08%, respectively. Sudan registered the region's second highest growth rate in the Internet segment, 40.89%, while Yemen ranked third with 39.83%. Trailing Algeria, growth in the PC installed sector in 2011 was dominated by Iraq (23.13%), Morocco (20.06%), and Sudan (13.22%).

**Mobile Vs. Fixedline Penetration Rate - 2011**



Iraq, Sudan and Yemen continued to trail the Arab world on the 2011 Arab ICT Use Index, ranking in 16<sup>th</sup>, 17<sup>th</sup>, and 18<sup>th</sup> place, respectively. Yemen's score of 0.74 reflects the lowest penetration rate in the MENA region on three of the four indicators, namely mobile phone penetration (51.54%), Internet penetration (13.69%), and computer penetration (3.89%). Yemen's fixed line penetration couldn't save it from bottoming out on the ICT Use Index, with the country achieving 4.42% penetration, ranking Yemen 17<sup>th</sup> on the indicator. Meanwhile, Sudan fared slightly better with 0.83 points on the overall index and Iraq scored 1.03 points.

In 2011, growth surged in the number of Internet users, from 74,377,285 users in 2010 to 95,812,012 users in 2011, registering an impressive growth rate of 28.82%. Mobile subscriptions registered the second-fastest growth in 2011, with total subscription numbers increasing by 12.61% – from 307,563,412 subscribers in 2010 to 346,360,198. Computers installed base recorded a lower figure, with computers witnessing a 12.05% growth – from 35,457,349 computers in 2010 to 39,728,908 in 2011. The slowest growth rate was recorded in the fixed line sector, registering a negligible growth of 0.63%; from 34,869,247 in 2010 to 35,087,431 in 2011.

It must be noted that discrepancies in historical data for the indicators (whenever present) are generally the result of corrections made by the various providers to their subscriber bases, mainly to account for new definitions of subscribers or due to tighter control over statistical data exercised by newly-established regulatory authorities. In the case of the four indicators, MRD has revised some figures as a result of new developments or data that have come to light since the estimates were first made.

## MOBILE PHONE SUBSCRIPTIONS

### 2. ICT USE INDICATORS

Eleven countries in the region had mobile penetration levels over 100%. Total mobile phone subscriptions in the MENA region numbered 346,360,198 in 2011, marking a growth rate of 12.61%, from 307,563,412 subscriptions in 2010. Sudan registered the highest growth in the Arab world (37.18%) in terms of mobile subscription in 2011, followed by Yemen (22.03%) and Lebanon (19.27%). In terms of mobile penetration, the figures showed that Saudi Arabia, once again, had the highest penetration, 189.24%, followed by Oman and Libya at 168.19% and 166.67%, respectively.

ARAB MOBILE PHONE PENETRATION BY COUNTRY, 2011					
	COUNTRY	POPULATION	SUBSCRIPTIONS	PENETRATION	GLOBAL RANK
1	KSA	28,376,355	53,700,000	189.24%	4
2	OMAN	2,859,457	4,809,248	168.19%	8
3	LIBYA*	6,000,000	10,000,000	166.67%	10
4	QATAR	1,707,756	2,794,043	163.61%	15
5	UAE	8,494,707	11,727,401	138.06%	29
6	KUWAIT	3,697,292	4,973,160	134.51%	32
7	BAHRAIN	1,316,750	1,693,650	128.62%	37
8	JORDAN	6,249,000	7,483,000	119.75%	53
9	TUNISIA	10,732,470	12,387,656	115.42%	61
10	MOROCCO	32,419,800	36,554,000	112.75%	65
11	EGYPT	81,348,421	83,430,000	102.56%	95
12	ALGERIA	37,100,000	35,711,159	96.26%	106
13	LEBANON	4,222,836	3,389,000	80.25%	131
14	IRAQ	33,564,325	24,413,656	72.74%	139
15	PALESTINE	4,231,084	2,865,000	67.71%	148
16	SUDAN	41,919,368	25,107,343	59.89%	156
17	SYRIA	21,381,111	12,791,647	59.83%	157
18	YEMEN	24,312,000	12,530,235	51.54%	166
	<b>TOTAL</b>	<b>349,932,731</b>	<b>346,360,198</b>	<b>98.98%</b>	<b>-</b>

Source: MRD \*ITU

Sudan ranked in first place in terms of growth, with a surge in growth totaling 37.18%. Mobile subscriptions increased from 18,303,000 in 2010 to 25,107,343 in 2011. Meanwhile, mobile penetration remained sluggish, landing Sudan in the 16<sup>th</sup> place on the penetration index with a rate of 59.89%.

Libya's mobile subscriber base witnessed a sharp decline in 2011, placing the country last in terms of growth rates in the MENA region, with a negative growth rate of -8.26%. The decline can largely be attributed to the political unrest that swept the country in 2010. Mobile subscriptions fell from 10,900,000 in 2010 to 10,000,000 in 2011. Nevertheless, Libya still managed to maintain a decent position on the mobile penetration index, placing third with a penetration rate of 166.67%. Three other countries that registered low growth in 2011 were



Qatar (1.10%), Oman (4.41%) and the UAE (7.33%), placing the countries in 17<sup>th</sup>, 15<sup>th</sup> and 14<sup>th</sup> place, respectively (in terms of growth rates).

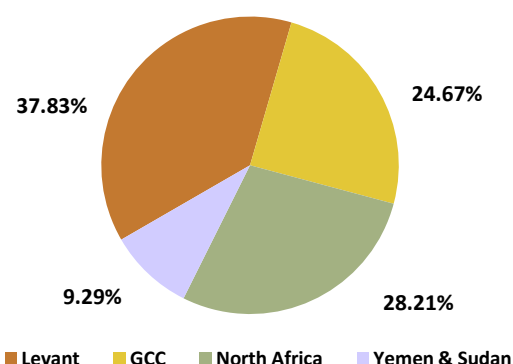
Saudi Arabia's mobile phone subscriber base grew by a modest 4.07% in 2011. Mobile subscriptions increased slightly from 51,600,000 in 2010 to 53,700,000 in 2011, placing the country in 16<sup>th</sup> place on the growth index. Slow growth in the mobile sector did little to undermine Saudi Arabia's place on the mobile penetration index; it retained the first spot with an impressive rate of 189.24%. Similarly, all other GCC member countries registered penetration rates in excess of 125% in 2011: Oman (168.%), Qatar (163.61%) and UAE (138.06%) and were in second, fourth and fifth place, respectively. Sixth and seventh place in the standings were occupied by Kuwait with a penetration rate of 134.51% and Bahrain with 128.62% penetration.

ARAB MOBILE PHONE GROWTH BY COUNTRY, 2010-2011				
RANK	COUNTRY	SUBSCRIPTIONS 2010	SUBSCRIPTIONS 2011	GROWTH
1	SUDAN	18,303,000	25,107,343	37.18%
2	YEMEN	10,268,045	12,530,235	22.03%
3	LEBANON	2,841,385	3,389,000	19.27%
4	EGYPT	70,620,000	83,430,000	18.14%
5	SYRIA	11,050,421	12,791,647	15.76%
6	MOROCCO	31,982,000	36,554,000	14.30%
7	JORDAN	6,620,000	7,483,000	13.04%
8	KUWAIT	4,450,000	4,973,160	11.76%
9	TUNISIA	11,114,206	12,387,656	11.46%
10	BAHRAIN	1,530,000	1,693,650	10.70%
11	PALESTINE	2,604,000	2,865,000	10.02%
12	ALGERIA	32,780,165	35,711,159	8.94%
13	IRAQ	22,604,498	24,413,656	8.00%
14	UAE	10,926,019	11,727,401	7.33%
15	OMAN	4,606,133	4,809,248	4.41%
16	KSA	51,600,000	53,700,000	4.07%
17	QATAR	2,763,540	2,794,043	1.10%
18	LIBYA*	10,900,000	10,000,000	-8.26%
<b>TOTAL</b>		<b>307,563,412</b>	<b>346,360,198</b>	<b>12.61%</b>

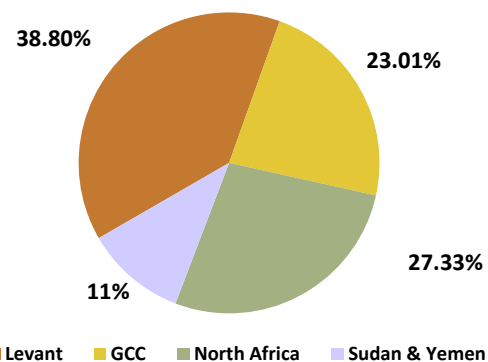
Source: MRD \*ITU

The region's weakest mobile penetration in 2011 was recorded by Yemen. Although mobile phone subscriptions witnessed a healthy growth in 2011 of 22.03% and a rise from 10,268,045 subscribers in 2010 to 12,530,235 in 2011, the country still only managed to register 51.54% on the penetration index, a moderate rise from 43.54% in 2010. Following Yemen on the bottom of the penetration index were Syria (59.83%), Sudan (59.89%), Palestine (67.71%) and Iraq (72.74%).

Mobile Phone Subscription by Region 2010



Mobile Phone Subscription by Region 2011



Source: MRD

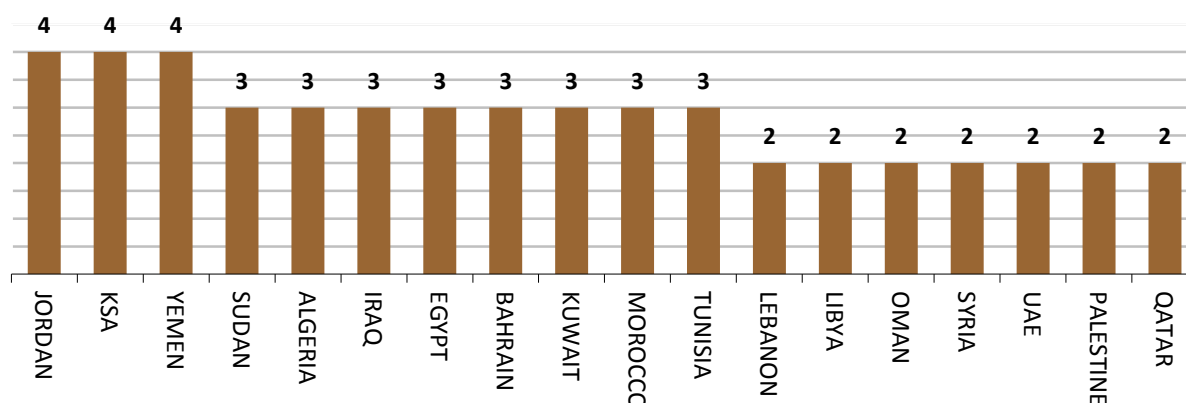
## ARAB MOBILE PHONE SUBSCRIPTIONS BY REGION, 2010-2011

COUNTRY	SUBSCRIPTIONS 2010	SUBSCRIPTIONS 2011	GROWTH
LEVANT	116,340,304	134,372,303	15.50%
GCC	75,875,692	79,697,502	5.04%
NORTH AFRICA	86,776,371	94,652,815	9.08%
SUDAN & YEMEN	28,571,045	37,637,578	31.73%
<b>TOTAL</b>	<b>307,563,412</b>	<b>346,360,198</b>	<b>12.61%</b>

Source: MRD

Levant countries grew by a stagnate 15.50% from the 15.54% in 2010, to register 18,031,999 new mobile phone subscriptions and bring the total base to 134,372,303 by year end 2011, against 116,340,304 in 2010. Meanwhile, GCC countries registered the lowest growth in 2011; 5.04% compared to 11.85% growth in 2010. Growth in the GCC has been witnessing a steady decline as markets in the region reach saturation. North Africa witnessed a growth of 9.08% in 2011, marking a slight decline from 12.26% in 2010. Sudan and Yemen registered the highest growth rates; 31.73%; the combined growth rate in these two countries contributed to a positive surge from the 13.51% growth experienced in 2010.

Active Mobile Phone Operators 2011



Competition among mobile operators in the MENA region is unique and depends on factors like regulatory environment, demand, tariffs and geography, coverage and promotional approaches. Saudi Arabia, Jordan and Yemen have four active operators, followed by Algeria, Iraq, Sudan, Egypt, Morocco, Tunisia, Bahrain and Kuwait, with three mobile operators each. The majority of MENA region countries, therefore, operate with three mobile phone operators.

It should be noted that figures published by the country's TRA were used to calculate growth and penetration, when available. Figures published by operators were used in certain cases, as well as when performing per country analysis.



## FIXED LINE SUBSCRIPTIONS

### 2. ICT USE INDICATORS

The number of fixed-line subscriptions in the 18 MENA economies totaled 35,087,431 in 2011, up from 34,869,247 subscriptions in 2010. Fixed-line subscriptions in the region had witnessed a sharp decline in 2009; 33,951,390 subscriptions down from 35,161,551 in 2008. In 2010, however, fixed line growth witnessed a healthy recovery. Nevertheless, compared to 2010's 1.09% growth, 2011 witnessed an overall decline in growth of 0.63% in the region. Fixed line penetration within the 18 economies stood at about 10%. The most recent growth can be seen to have taken place among emerging markets with high population and relatively low penetration rates, as well as several GCC countries who have seen their numbers surge during the post economic meltdown recovery.

ARAB FIXED LINE PENETRATION BY COUNTRY, 2011					
RANK	COUNTRY	POPULATION	SUBSCRIPTIONS	PENETRATION	GLOBAL RANK
1	LEBANON	4,222,836	912,132	21.60%	75
2	UAE	8,494,707	1,825,496	21.49%	76
3	SYRIA	21,381,111	4,381,100	20.49%	81
4	BAHRAIN	1,316,750	242,407	18.41%	91
5	QATAR	1,707,756	305,969	17.92%	94
6	LIBYA	6,000,000	1,012,100	16.87%	97
7	KSA	28,376,355	4,633,100	16.33%	98
8	KUWAIT	3,697,292	523,161	14.15%	109
9	TUNISIA	10,732,470	1,217,781	11.35%	111
10	MOROCCO	32,419,800	3,566,076	11.00%	114
11	EGYPT	81,348,421	8,714,200	10.71%	116
12	OMAN	2,859,457	287,323	10.05%	120
13	PALESTINE	4,231,084	385,057	9.10%	123
14	ALGERIA	37,100,000	3,153,500	8.50%	127
15	JORDAN	6,249,000	424,000	6.79%	135
16	IRAQ	33,564,325	1,945,000	5.79%	138
17	YEMEN	24,312,000	1,075,412	4.42%	144
18	SUDAN	41,919,368	483,617	1.15%	168
TOTAL		349,932,731	35,087,431	10.03%	-

Source: MRD

Lebanon, which had topped the growth index list in 2010 with 18.63% witnessed a decline in growth; 2.52% in 2011, ranking 10<sup>th</sup> on the growth scale. It stood first on the Arab region's fixed-line penetration rate index, however, at 21.60% keeping its lead from 2010. Growth in subscriptions in the country translated into 912,132 total subscriptions, up from 2010's 889,700. Syria, meanwhile, remained third in the Arab world in terms of fixed line penetration, which stood at 20.49%. The Syrian Telecommunications Establishment, a state-owned body holding a monopoly over Syria's landline network, had started expanding into

rural areas as a part of its fully fledged 2010 reform strategy. Syria ranked fifth on the growth scale among MENA regions; a slight jump from sixth place in 2010. Fixed line subscription base grew from 4,070,749 subscribers in 2010 to 4,381,100 in 2011 – representing a growth of 7.62%.

The UAE, perhaps surprisingly, had the fastest growth rate in the MENA Region, with 24.95% compared to the negative growth rate of -6.42% of 2010. The reason for this accelerated rise in growth could be analyzed as two-folds: the 2008 economic crash led to the closing down of many businesses in 2009/10, which in turn meant that a sizable number of fixed-lines were disconnected. 2011 witnessed a surge in the economy which translated into a healthy re-growth in business ventures. Moreover, competition between the UAE telecom duopoly, Du and Etisalat, led both providers to offer competitive bundled packages which included fixed-lines at a nominal fee. Subscription for fixed lines in this country was 1,825,496 in 2011, which is 364,511 more subscribers than in the previous year. The UAE's penetration rate also saw an increase; from 17.54% in 2010 to 21.49% in 2011 ranking the country second on the penetration scale for the MENA region.

ARAB FIXED LINE GROWTH BY COUNTRY, 2010-2011				
RANK	COUNTRY	SUBSCRIPTIONS 2010	SUBSCRIPTIONS 2011	GROWTH
1	UAE	1,460,985	1,825,496	24.95%
2	KSA	4,130,000	4,633,100	12.18%
3	IRAQ	1,750,500	1,945,000	11.11%
4	ALGERIA	2,922,731	3,153,500	7.90%
5	SYRIA	4,070,749	4,381,100	7.62%
6	BAHRAIN	227,353	242,407	6.62%
7	PALESTINE	363,000	385,057	6.08%
8	QATAR	291,478	305,969	4.97%
9	YEMEN	1,046,200	1,075,412	2.79%
10	LEBANON	889,700	912,132	2.52%
11	OMAN	281,000	287,323	2.25%
12	KUWAIT	519,418	523,161	0.72%
13	MOROCCO	3,749,364	3,566,076	-4.89%
14	TUNISIA	1,289,585	1,217,781	-5.57%
15	EGYPT	9,620,000	8,714,200	-9.42%
16	SUDAN	544,684	483,617	-11.21%
17	JORDAN	485,000	424,000	-12.58%
18	LIBYA	1,227,500	1,012,100	-17.55%
TOTAL		34,869,247	35,087,431	0.63%
Source: MRD				

Saudi Arabia, ranking second, also witnessed a dramatic rise in fixed-line growth. The country registered a negative growth rate of -0.98% in 2010 but shot up to 12.18% in 2011, adding 503,100 subscribers to its base. Penetration rates remained relatively steady; 14.98% in 2010 and 16.33% in 2011, keeping the country in the seventh spot on the penetration index.

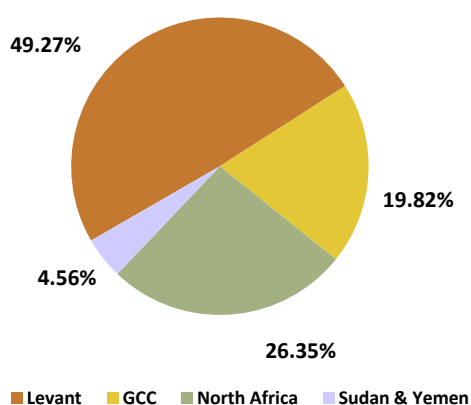
Placing third on the growth rate index, Iraq saw its fixed-line growth almost double; from 6.08% in 2010 to 11.11% in 2011, adding 194,500 subscribers to its growing fixed-line base. Penetration remained low, however, at 5.79%, witnessing a negligible increase from 2010's 5.32% and leaving the country in the 16<sup>th</sup> spot on the index.

Six countries in the MENA region recorded negative growth in fixed line subscriptions, namely Libya, Jordan, Sudan, Egypt, Tunisia and Morocco. Fixed line subscriptions in Libya fell by a significant -17.55%, from 1,227,500 to 1,012,100 subscriptions in 2011. Fixed line penetration in Libya registered 16.87%, placing the country sixth on the penetration index. Jordan recorded the second highest negative growth in the Arab region in fixed line subscriptions; -12.58%, with subscriptions dropping from 485,000 in 2010 to 424,000 in 2011. Jordan has been steadily registering a drop in fixed-line subscriptions for the past few years, mainly due to the continuing popularity of mobile lines over fixed one; Jordan has the second highest mobile-to-fixed-line ratio in the region. Fixed line penetration in Jordan dropped slightly from 7.93% in 2010 to 6.79% in 2011, maintaining the country's 15<sup>th</sup> spot on the Arab fixed line penetration index.

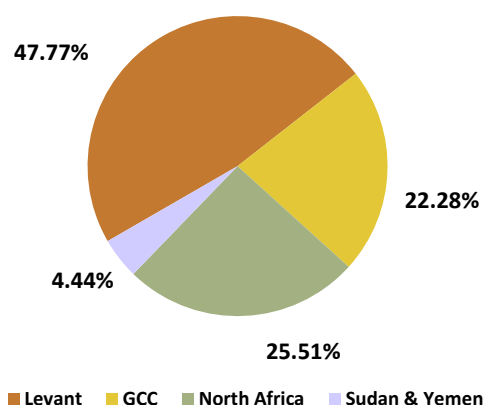
Morocco witnessed a sharp decline in fixed-line growth rates; from a positive growth of 6.63% to -4.89% in 2011. Subscriptions fell from 3,749,364 to 3,566,076 in 2011. In terms of penetration, Morocco experienced a slight decline; from 11.69% in 2010 to 11.00% in 2011, ranking it 10<sup>th</sup> on the penetration index.

Sudan ranked last on the index in terms of fixed-line penetration with 1.15% penetration rate, comparable to the 1.31% registered in 2010. Sudan also witnessed a negative growth rate of -11.21% with subscribers falling from 544,684 in 2010 to 483,617 in 2011. Sudan ranked first in terms of mobile-to-fixed-line ratio, pointing to the preference of mobile lines over fixed ones. Iraq and Yemen followed Sudan in terms of economies having the lowest fixed-line penetration rates – at 5.79% and 4.42%, respectively. Yemen's 2.79% fixed line growth in 2011 placed the country in ninth place in the MENA region. Fixed line subscriptions rose slightly from 1,046,200 in 2010 to 1,075,412 in 2011.

**Fixed Line Subscription by Region, 2010**



**Fixed Line Subscription by Region, 2011**



Source: MRD



Gulf Cooperation Council countries accounted for 7,817,456 subscriptions in 2011, growing at a significant rate of 13.13%. Considering the region's growth rate in 2010 registered a negative growth of -0.98%, the rate of growth in 2011 is indeed astounding. Several factors may have contributed to this accelerated growth, namely the resurgence of the economy following a period of decelerated growth which occurred after the financial crisis of 2008/09. As the economy in most of the GCC countries began to flourish again, population growth witnessed healthy increases in 2011 with the rise of the inflow of expats. This could have had a substantial positive effect on the growth of fixed-lines in the region.

ARAB FIXED LINE SUBSCRIPTIONS BY REGION, 2010-2011			
REGION	SUBSCRIPTIONS 2010	SUBSCRIPTION 2011	GROWTH (%)
GCC	6,910,234	7,817,456	13.13%
SUDAN & YEMEN	1,590,884	1,559,029	-2.00%
LEVANT	17,178,949	16,761,489	-2.43%
NORTH AFRICA	9,189,180	8,949,457	-2.61%
<b>TOTAL</b>	<b>34,869,247</b>	<b>35,087,431</b>	<b>0.63%</b>

Source: MRD

Inversely, Sudan and Yemen went from scoring a positive growth rate of 4.47% in 2010 to a negative rate of -2.00% in 2011. Fixed line subscriptions in the Levant continued to decline; from -1.58% in 2010 to -2.43% in 2011 with 16,761,489 subscriptions. North Africa's 2011 fixed line subscriptions registered the lowest growth in the region; -2.61%, compared to 8.47% in 2010.



## MOBILE-TO-FIXED-LINE SUBSCRIBERS

### 2. ICT USE INDICATORS

According to recent industry reports, fixed line subscribers and revenues worldwide have been falling, partly due to increased mobile substitution. The need for stationary landlines for voice has been replaced by roamable, reachable and convenient mobile phones. This notion, mixed with the general concurrent stagnation of fixed line markets in the Arab world has contributed to a phenomenal rise in mobile phone subscriptions across the Arab world and to a higher mobile-to-fixed-line ratio in all MENA countries. Fixed line subscribers growth in the MENA region totaled a modest 0.63% compared to 1.09% mobile growth in 2011, resulting in a ratio of 9.87 (i.e. 9.87 mobile phone subscriptions for every fixed line subscription), rising from 8.82 in 2010.

Keeping its 2010 record, Sudan had the highest ratio in 2011, at 51.92 mobile phone subscriptions for every fixed line subscription. Sudan can be seen as a vastly underexploited country in terms of fixed line, mobile and Internet use, with much potential for growth in all sectors.

Jordan ranked second this year with a 17.65 ratio, while Oman ranked third with 16.74. Comparing the growth rates of both these countries in fixed line and mobile phone subscriptions shows that mobile growth supersedes fixed line growth, with Sudan and Jordan registering negative growth rates in 2011.

Iraq saw its gains in the mobile phone to fixed line ratio decline, marginally dropping from 12.91 in 2010 to 12.55 mobile phones for every fixed line subscription in the country. The gap between the two indicators widened moderately in Yemen, with the country's mobile phone to fixed line ratio rising from 9.81 in 2010 to 11.65 in 2011. Meanwhile, the lowest mobile phone to fixed line ratio was recorded in Syria and Lebanon, once again, respectively having 2.92 and 3.72 mobile phones for every fixed line subscription. Both ratios, however, represented an increase over 2010 ratios. The average across the 18 Arab countries surveyed for the study was 9.87 mobile phones for every fixed-line subscription, rising from 8.82 in 2010.

### MOBILE-TO-FIXED LINE SUBSCRIBERS, 2010-2011 (RANKED BY RATIO)

RANK	COUNTRY	2010	2011
1	SUDAN	33.60	51.92
2	JORDAN	13.65	17.65
3	OMAN	16.39	16.74
4	IRAQ	12.91	12.55
5	YEMEN	9.81	11.65
6	KSA	12.49	11.59
7	ALGERIA	11.22	11.32
8	MOROCCO	8.53	10.25
9	TUNISIA	8.62	10.17
10	LIBYA	8.88	9.88
11	EGYPT	7.34	9.57
12	KUWAIT	8.57	9.51
13	QATAR	9.48	9.13
14	PALESTINE	7.17	7.44
15	BAHRAIN	6.73	6.99
16	UAE	7.48	6.42
17	LEBANON	3.19	3.72
18	SYRIA	2.71	2.92
<b>TOTAL</b>		<b>8.82</b>	<b>9.87</b>

Source: MRD





## INTERNET USERS

### 2. ICT USE INDICATORS

The total number of Internet users in the 18 Arab economies under study has been rising quickly. Internet users in the 18 Arab countries numbered 95,812,013 in 2011, rising at a rate of 28.82% over the 2010 figure of 74,377,285. The most recent and highest growth rates are taking place in emerging markets with high population and relatively low penetration rates.

Internet user growth is being driven by steady progress shown in traditionally low-penetrated countries, such as Algeria, Yemen and Sudan. There is, however, a considerable gap between countries when it comes to penetration, with Bahrain at the high end and Sudan at the low end. Morocco, which had witnessed slow growth in the mid 2000's then went on to lead the Arab World in 2010 with a growth rate of 39.36%, registered the strongest growth once again in Internet users in 2011, 46.45%, for a total of 12,728,464 users. An increase in public access to the Internet, coupled with high youth unemployment rates and the rise of social media may have contributed to Morocco's soaring growth rates. Sudan ranked second in terms of growth, with Internet users rising by 40.89% to register 6,959,517 by the end of 2011. In third place in the MENA region in terms of growth, Yemen recorded 39.83% growth in Internet users; from 2,379,724 in 2010 to 3,327,558 in 2011.

ARAB INTERNET USER GROWTH BY COUNTRY, 2010-2011				
RANK	COUNTRY	INTERNET USERS 2010	INTERNET USERS 2011	GROWTH (%)
1	MOROCCO	8,691,338	12,728,464	46.45%
2	SUDAN	4,939,678	6,959,517	40.89%
3	YEMEN	2,379,724	3,327,558	39.83%
4	ALGERIA	5,648,315	7,767,641	37.52%
5	OMAN	842,722	1,146,880	36.09%
6	PALESTINE	966,781	1,280,172	32.54%
7	EGYPT	16,670,308	21,671,400	30.00%
8	TUNISIA	2,737,805	3,432,988	25.39%
9	KSA	11,015,185	13,600,000	23.47%
10	IRAQ	4,516,849	5,510,556	22.00%
11	SYRIA	4,294,791	5,113,749	19.07%
12	QATAR	734,583	854,958	16.39%
13	JORDAN	1,884,599	2,187,519	16.07%
14	LEBANON	1,495,521	1,730,914	15.74%
15	BAHRAIN	621,567	715,928	15.18%
16	KUWAIT	1,611,162	1,853,394	15.03%
17	UAE	4,093,815	4,574,578	11.74%
18	LIBYA	1,232,542	1,355,796	10.00%
<b>TOTAL</b>		<b>74,377,285</b>	<b>95,812,013</b>	<b>28.82%</b>

Source: MRD



The bottom five countries in the region in terms of growth were Lebanon (14<sup>th</sup>), Bahrain (15<sup>th</sup>), Kuwait (16<sup>th</sup>), the UAE (17<sup>th</sup>) and Libya (18<sup>th</sup>). The latter had registered a modest growth of 10.00% in 2011, with Internet users rising from 1,232,542 in 2010 to 1,355,796. The remaining countries all registered healthy growth, surpassing overall figures of 2010. In total, eleven countries grew at a rate lower than the Arab average of 28.82%. A significant reason for this comes from the wide gap in growth rates between the top five countries and the bottom five. Moreover, many countries registering low growth rates top the region in penetration rates. As Internet penetration goes up, growth rates go down. Over the course of the coming years, as penetration levels continue to rise and growth rates continue to drop, the growth rates will eventually closely match those of population growth.

Average Internet penetration for the 18 MENA economies this year was higher from the previous 21.64%; 27.38%. Bahrain topped the index with 54.37%, registering a healthy growth from 2010's 47.68%. The UAE came in second place, losing its dominant run over the past few years with 53.85% penetration. Hot on the heels of the UAE is Kuwait, which recorded 50.13% Internet penetration in 2011, followed by Qatar with 50.06%. Saudi Arabia rounded off the top five, with Internet penetration at 47.93%.

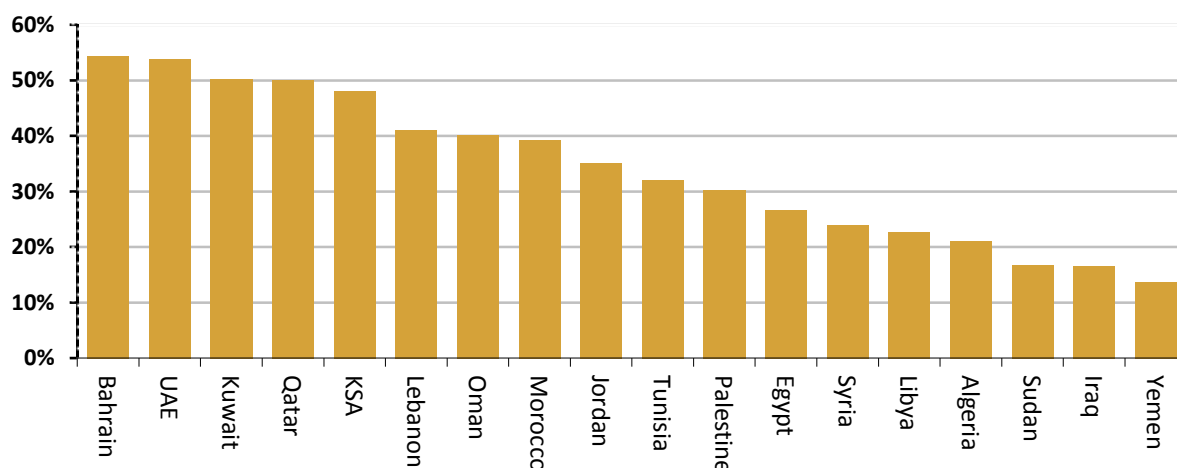
At the other end of the scale, Yemen, yet again, registered the lowest penetration in the Arab world; 27.38%, ranking the country in 18<sup>th</sup> place. Faring slightly better, Iraq's penetration rate of 16.42% ranked it in 17<sup>th</sup> place among the MENA economies. Sudan overtook Iraq and ranked in 16<sup>th</sup> place with 16.60% penetration and Algeria found itself in what seems to be the perpetual 15<sup>th</sup> spot with 20.94%. Libya came in 14<sup>th</sup> place, yet again, registering an Internet penetration rate of 18.46% in 2010 and 22.60% in 2011.

#### INTERNET PENETRATION FOR ARAB COUNTRIES 2011

	COUNTRY	INTERNET USERS	PENETRATION RATE	GLOBAL RANK
1	BAHRAIN	715,928	54.37%	57
2	UAE	4,574,578	53.85%	59
3	KUWAIT	1,853,394	50.13%	64
4	QATAR	854,958	50.06%	65
5	KSA	13,600,000	47.93%	74
6	LEBANON	1,730,914	40.99%	85
7	OMAN	1,146,880	40.11%	88
8	MOROCCO	12,728,464	39.26%	91
9	JORDAN	2,187,519	35.01%	99
10	TUNISIA	3,432,988	31.99%	107
11	PALESTINE	1,280,172	30.26%	111
12	EGYPT	21,671,400	26.64%	120
13	SYRIA	5,113,749	23.92%	122
14	LIBYA	1,355,796	22.60%	126
15	ALGERIA	7,767,641	20.94%	130
16	SUDAN	6,959,517	16.60%	138
17	IRAQ	5,510,556	16.42%	139
18	YEMEN	3,327,558	13.69%	145
	<b>TOTAL</b>	<b>95,812,013</b>	<b>27.38%</b>	-

Source: MRD

Internet Users Penetration , 2011



Source: MRD

There was a significant rise across the board in regional growth levels in 2011, with Yemen and Sudan registering a whopping 40.55% growth rate with 10,287,075 users compared to 20.19% and 7,319,402 users in 2010. North Africa also registered a significant growth rate of 38.09% (25,284,889 users), compared to 27.28% and 18,310,000 in 2010. The Levant region registered a growth rate of 25.70% compared to 18.67% in 2010. The Gulf Cooperation Council countries registered the slowest growth of 20.23% and 22,745,738 users, compared to 18.31% and 18,919,034 users in 2010. Overall, Internet users in the MENA region grew by a healthy 28.82% in 2011.

Internet Users by Region, 2010-2011			
Region	Internet Users 2010	Internet Users 2011	Growth (%)
Yemen & Sudan	7,319,402	10,287,075	40.55%
North Africa	18,310,000	25,284,889	38.09%
Levant	29,828,849	37,494,310	25.70%
GCC	18,919,034	22,745,738	20.23%
<b>TOTAL</b>	<b>74,377,285</b>	<b>95,812,013</b>	<b>28.82%</b>

Source: MRD



## FIXED BROADBAND SUBSCRIBERS

### 2. ICT USE INDICATORS

Palestine recorded the highest growth in terms of fixed broadband subscribers; 52.78%, which totaled 165,000 in 2011, up from 108,000 in 2010. Syria ranked in second place with 52.01% growth and 121,300 subscribers, while Oman placed third with a total of 78,214 subscribers, up from 2010's 52,630, registering a growth rate of 48.61%.

FIXED BROADBAND INTERNET GROWTH, 2011				
RANK	COUNTRY	POPULATION	SUBSCRIBERS	GROWTH
1	PALESTINE	4,231,084	165,000	52.78%
2	SYRIA	21,381,111	121,300	52.01%
3	OMAN	2,859,457	78,214	48.61%
4	KUWAIT	3,697,292	181,750	43.36%
5	BAHRAIN	1,316,750	162,608	42.20%
6	ALGERIA	37,100,000	1,200,000	33.33%
7	YEMEN	24,312,000	109,000	29.76%
8	EGYPT	81,348,421	1,800,000	28.39%
9	SUDAN	41,919,368	198,500	20.67%
10	MOROCCO	32,419,800	589,679	18.50%
11	QATAR	1,707,756	191,000	17.54%
12	TUNISIA	10,732,470	541,635	13.20%
13	KSA	28,376,355	1,950,000	12.07%
14	UAE	8,494,707	870,144	10.13%
15	LEBANON	4,222,836	220,000	10.00%
16	JORDAN	6,249,000	199,888	2.10%
17	IRAQ	33,564,325	N/A	N/A
18	LIBYA	6,000,000	N/A	N/A
TOTAL		349,932,731	11,084,906	22.05%*

Source: MRD \*Without Iraq & Libya

Bahrain, the smallest market in the region with a population size of just over 1.3 million, turned out to be the most competitive state in terms of fixed broadband penetration; 12.35% by the end of 2011. There were about 162,608 Internet subscribers in Bahrain, all of which were utilizing broadband as the country phased out dial-up services in 2010. The number of broadband subscribers in Bahrain had increased by 42.20%; from 114,350 subscribers in 2010 to 162,608 in 2011.

At 11.18%, Qatar has the second highest fixed broadband penetration in the GCC. The estimated total number of broadband subscribers by the end of 2011 stood at 191,000. The figure represents a moderate growth rate of 17.54% over 2010's 162,500 broadband subscribers.



The UAE, once again, had the third highest fixed broadband penetration in the MENA region which stood at 10.24%. It also had the third highest number of fixed broadband subscribers in the GCC – next to Saudi Arabia – with a total of 870,144 subscribers by the end of 2011. Saudi Arabia came in fourth place, having over 1.9 million fixed broadband subscribers, with a penetration rate of 6.87%. Surprisingly, Lebanon came in the fifth place with 220,000 fixed broadband subscribers and a penetration rate of 5.21%.

FIXED BROADBAND INTERNET PENETRATION, 2011			
RANK	COUNTRY	SUBSCRIBERS	PENETRATION
1	BAHRAIN	162,608	12.35%
2	QATAR	191,000	11.18%
3	UAE	870,144	10.24%
4	KSA	1,950,000	6.87%
5	LEBANON	220,000	5.21%
6	TUNISIA	541,635	5.05%
7	KUWAIT	181,750	4.92%
8	PALESTINE	165,000	3.90%
9	ALGERIA	1,200,000	3.23%
10	JORDAN	199,888	3.20%
11	OMAN	78,214	2.74%
12	EGYPT	1,800,000	2.21%
13	MOROCCO	589,679	1.82%
14	SYRIA	121,300	0.57%
15	SUDAN	198,500	0.47%
16	YEMEN	109,000	0.45%
17	IRAQ	N/A	N/A
18	LIBYA	N/A	N/A
TOTAL		11,084,906	3.17%*

Source: MRD \*Without Iraq & Libya

The GCC region registered the highest fixed broadband penetration rate compared to other regions, with 7.39% by year end 2011, while North Africa came in second with a fixed broadband penetration rate of 5.61%.

FIXED BROADBAND PENETRATION BY REGION		
REGION	BROADBAND SUBSCRIBERS	BROADBAND PENETRATION
GCC	3,433,716	7.39%
NORTH AFRICA*	4,837,502	5.61%
LEVANT *	2,506,188	1.66%
YEMEN & SUDAN	307,500	0.46%
TOTAL	11,084,906	3.17%

Source: MRD \* Without Libya or Iraq



## COMPUTER INSTALLED BASE

### 2. ICT USE INDICATORS

The computers installed base in MENA economies witnessed declined rate of growth from 18.85% in 2010 to 12.05% in 2011, totaling 39,728,908, from 35,457,349 the year before. Growth in the number of installed computers seemed to reach a standstill, with three countries registering a growth above 20% (compared to seven countries in 2010). Algeria ranked first in the Arab world in terms of growth; its computer installed base rising by 27.08% to 3,763,607, followed by Iraq which registered a 23.13% growth rate in its computer installed base to reach 2,545,761 computers from 2,067,489 in 2010. Morocco ranked third, with 20.06% growth, followed by Sudan (13.22%) and Saudi Arabia (13.21%). Meanwhile, Syria and Libya recorded the lowest growth rates in the MENA region, with Libya registering a negative growth rate of -10.00% and 892,601 installed computers in 2011 compared to 991,779 in 2010. Bahrain preceded Syria with 469,360 computers, ranking 16<sup>th</sup> on the index and registering a 3.19% growth. The UAE and Palestine (who had ranked first in 2010) rounded up the bottom five, ranking in 14<sup>th</sup> and 15<sup>th</sup> place, respectively.

ARAB COMPUTER INSTALLED BASE BY COUNTRY, 2010-2011 (RANKED BY GROWTH)				
RANK	COUNTRY	PC INSTALLED BASE 2010	PC INSTALLED BASE 2011	GROWTH (%)
1	ALGERIA	2,961,551	3,763,607	27.08%
2	IRAQ	2,067,489	2,545,761	23.13%
3	MOROCCO	2,536,986	3,045,939	20.06%
4	SUDAN	1,826,908	2,068,436	13.22%
5	KSA	7,153,148	8,098,276	13.21%
6	OMAN	498,911	551,714	10.58%
7	KUWAIT	1,184,631	1,305,955	10.24%
8	LEBANON	829,520	910,965	9.82%
9	JORDAN	1,012,413	1,108,866	9.53%
10	EGYPT	5,413,972	5,878,810	8.59%
11	YEMEN	866,192	938,623	8.36%
12	QATAR	737,184	798,715	8.35%
13	TUNISIA	1,175,191	1,272,643	8.29%
14	UAE	3,579,752	3,862,177	7.89%
15	PALESTINE	368,989	396,770	7.53%
16	BAHRAIN	454,847	469,360	3.19%
17	SYRIA	1,797,886	1,819,690	1.21%
18	LIBYA	991,779	892,601	-10.00%
<b>TOTAL</b>		<b>35,457,349</b>	<b>39,728,908</b>	<b>12.05%</b>

Source: MRD



Qatar led the region in terms of computer penetration in 2011, with 46.77% (798,715 computers). The UAE was closely behind Qatar with 45.47% computer penetration. Bahrain ranked third this time with 35.65% penetration, leaving Kuwait fourth with 35.32%. Saudi Arabia remained in fifth place, registering an improved 28.54% penetration in 2011. Seven countries from the MENA region recorded a penetration rate below 10%, including Morocco (9.40%), Palestine (9.38%), Syria (8.51%), Iraq (7.58%), Egypt (7.23%), Sudan (4.93%) and Yemen (3.86%). The latter is the least penetrated country in the region in terms of computer installed base.

The Gulf Cooperation Council's computer installed base registered a relatively low growth rate of 10.86%, second last to the Levant countries. The latter recorded the slowest growth of 10.19% in its computer installed base (12,660,862), while North Africa, Yemen and Sudan recorded slightly better growth at 17.08% and 11.66%, respectively.

COMPUTER INSTALLED BASE FOR ARAB COUNTRIES 2011			
	COUNTRY	COMPUTER INSTALLED BASE	PENETRATION
1	QATAR	798,715	46.77%
2	UAE	3,862,177	45.47%
3	BAHRAIN	469,360	35.65%
4	KUWAIT	1,305,955	35.32%
5	KSA	8,098,276	28.54%
6	LEBANON	910,965	21.57%
7	OMAN	551,714	19.29%
8	JORDAN	1,108,866	17.74%
9	LIBYA	892,601	14.88%
10	TUNISIA	1,272,643	11.86%
11	ALGERIA	3,763,607	10.14%
12	MOROCCO	3,045,939	9.40%
13	PALESTINE	396,770	9.38%
14	SYRIA	1,819,690	8.51%
15	IRAQ	2,545,761	7.58%
16	EGYPT	5,878,810	7.23%
17	SUDAN	2,068,436	4.93%
18	YEMEN	938,623	3.86%
	<b>TOTAL</b>	<b>39,728,908</b>	<b>11.35%</b>

Source: MRD

COMPUTER INSTALLED BASE BY REGION, 2010-2011			
COUNTRY	PC INSTALLED BASE 2010	PC INSTALLED BASE 2011	GROWTH (%)
LEVANT	11,490,269	12,660,862	10.19%
GCC	13,608,473	15,086,197	10.86%
NORTH AFRICA	7,665,507	8,974,790	17.08%
YEMEN & SUDAN	2,693,100	3,007,059	11.66%
<b>TOTAL</b>	<b>35,457,349</b>	<b>39,728,908</b>	<b>12.05%</b>

Source: MRD



## INTERNET-USER-TO-PC RATIO

### 2. ICT USE INDICATORS

As shown in the adjacent table, oil-rich countries like the GCC states as well as Libya performed better than the others in terms of Internet user-to-PC ratio. For example, there are about 1.07 Internet users per PC in Qatar compared to about 4.18 Internet users per PC in Morocco.

This data further underscores the widespread use of computers provided by PIACs (public Internet access centers), libraries and education centers for Internet access in non oil dependent economies such as Yemen, Sudan, Egypt and Morocco.

INTERNET USER-TO-PC RATIO, 2011	
COUNTRY	RATIO
QATAR	1.07
UAE	1.18
KUWAIT	1.42
LIBYA	1.52
BAHRAIN	1.53
KSA	1.68
LEBANON	1.90
JORDAN	1.97
ALGERIA	2.06
OMAN	2.08
IRAQ	2.16
TUNISIA	2.70
SYRIA	2.81
PALESTINE	3.23
SUDAN	3.36
YEMEN	3.55
EGYPT	3.69
MOROCCO	4.18

Source: MRD



## INTERNATIONAL INTERNET BANDWIDTH

### 2. ICT USE INDICATORS

The international Internet bandwidth in the Arab region has witnessed impressive growth in the past few years. This is mainly due to the enhancement of infrastructure and the entry of fiber optic connections to the more developed parts of the region. In 2011, Syria led the region in terms of International bandwidth growth with a rate of 184.22% (major development took place shortly before the political turmoil), followed by Oman with 113.94% and Lebanon in third place at 100%. Meanwhile on the opposite end, Sudan found itself in last place with 0% growth, preceded by Jordan with 7.69% growth.

INTERNATIONAL INTERNET BANDWIDTH GROWTH, 2010-2011				
RANK	COUNTRY	BANDWIDTH Mbit/s 2010	BANDWIDTH Mbit/s 2011	GROWTH
1	SYRIA	5,735	16,300	184.22%
2	OMAN	10,537	22,543	113.94%
3	LEBANON	2,500	5,000	100.00%
4	MOROCCO	75,000	124,400	65.87%
5	BAHRAIN	10,000	15,000	50.00%
6	QATAR	24,502	36,000	46.93%
7	UAE	105,100	152,500	45.10%
8	EGYPT	142,964	198,570	38.90%
9	KSA	317,944	440,000	38.39%
10	IRAQ	80	100	25.00%
11	ALGERIA	36,000	45,000	25.00%
12	YEMEN	3,200	4,000	25.00%
13	LIBYA	10,000	12,000	20.00%
14	TUNISIA	51,200	61,440	20.00%
15	JORDAN	13,000	14,000	7.69%
16	SUDAN	13,300	13,300	0
-	KUWAIT	10,000	-	-
-	PALESTINE	-	-	-

Source: ITU

The 'bandwidth per user' is the most reliable measure used internationally to determine the advancements of countries in terms of Internet development. In 2011, Qatar registered the highest score in the region in terms of international bandwidth per user; 42,107 bit/s per user. UAE came in second with 33,336 bit/s, followed by the Saudi Arabia with 32,353 bit/s. It is no surprise that the GCC countries held the top spots in this area as the top three countries have been investing heavily in Internet infrastructure. Meanwhile, Iraq held the last position in this category with a mere 18 bit/s per user (If the international bandwidth figure provided by ITU is correct). Figures for Kuwait and Palestine could not be calculated due to the unavailability of data.



INTERNATIONAL INTERNET BANDWIDTH (PER USER), 2011					
RANK	COUNTRY	INTERNET USERS	BANDWIDTH MBIT/S*	BANDWIDTH PER USER BIT/S	INTERNATIONAL RANK
1	QATAR	854,958	36,000	42,107	43
2	UAE	4,574,578	152,500	33,336	50
3	KSA	13,600,000	440,000	32,353	51
4	BAHRAIN	715,928	15,000	20,952	66
5	OMAN	1,146,880	22,543	19,656	70
6	TUNISIA	3,432,988	61,440	17,897	77
7	MOROCCO	12,728,464	124,400	9,773	99
8	EGYPT	21,671,400	198,570	9,163	102
9	LIBYA	1,355,796	12,000	8,851	104
10	JORDAN	2,187,519	14,000	6,400	113
11	ALGERIA	7,767,641	45,000	5,793	116
12	SYRIA	5,113,749	16,300	3,187	137
13	LEBANON	1,730,914	5,000	2,889	141
14	SUDAN	6,959,517	13,300	1,911	148
15	YEMEN	3,327,558	4,000	1,202	160
16	IRAQ	5,510,556	100	18	178
-	KUWAIT	1,853,394	-	-	-
-	PALESTINE	1,280,172	-	-	-

Source: MRD \*ITU

The per capita measure assumes the international internet bandwidth figure for every individual in the country. This measure is useful when used to give a future perspective in the case of high growth of bandwidth, as well as for future planning. In terms of country ranking under the international internet bandwidth per capita in the region, Qatar placed first with 21,080 bit/s per capita. The UAE came in second with 17,952 bit/s per capita, followed by Saudi Arabia with 15,506 bit/s. The top per capita spots correspond to the number for the per user measure. Consequently, Iraq placed last with a mere 3 bit/s per capita, preceded by Yemen with 165 bit/s, while Sudan came in the third last spot with 317 bit/s per capita.

Although the Arab region is showing significant improvements in terms of international internet bandwidth growth per user, the region in general still lags far behind when compared with international figures. Coming in at number one, Hong Kong, with a bandwidth of 964,616 bit/s per user registers 23 times the bandwidth of Qatar, the first in region with a bandwidth of 42,107 bit/s per user, a figure which lands the country the 43rd place, internationally. With the current rate of growth, however, the future looks positive for the region, as Denmark, landing in the 10th place with 159,511 bit/s per user registers a figure only 3.8 times that of Qatar and the EU Average is about 90,000 bit/s per user (2.1 times of Qatar).

## INTERNATIONAL INTERNET BANDWIDTH (PER CAPITA), 2011

RANK	COUNTRY	POPULATION	BANDWIDTH MBIT/S*	BANDWIDTH PER CAPITA BIT/S
1	QATAR	1,707,756	36,000	21,080
2	UAE	8,494,707	152,500	17,952
3	KSA	28,376,355	440,000	15,506
4	BAHRAIN	1,316,750	15,000	11,392
5	OMAN	2,859,457	22,543	7,884
6	TUNISIA	10,732,470	61,440	5,725
7	MOROCCO	32,419,800	124,400	3,837
8	EGYPT	81,348,421	198,570	2,441
9	JORDAN	6,249,000	14,000	2,240
10	LIBYA	6,000,000	12,000	2,000
11	ALGERIA	37,100,000	45,000	1,213
12	LEBANON	4,222,836	5,000	1,184
13	SYRIA	21,381,111	16,300	762
14	SUDAN	41,919,368	13,300	317
15	YEMEN	24,312,000	4,000	165
16	IRAQ	33,564,325	100	3
-	KUWAIT	3,697,292	-	-
-	PALESTINE	4,231,084	-	-

Source: MRD \*ITU

## INTERNATIONAL INTERNET BANDWIDTH RANKINGS (PER USER), 2011

	COUNTRY	BANDWIDTH BIT/S PER INTERNET USER
1	HONG KONG, CHINA	964,616
2	ST. VINCENT AND THE GRENADINES	637,784
3	SAN MARINO	635,301
4	SINGAPORE	547,064
5	ICELAND	287,139
6	SWEDEN	244,440
7	SWITZERLAND	167,636
8	UNITED KINGDOM	166,073
9	NETHERLANDS	162,532
10	DENMARK	159,511

Source: ITU



## ICT PENETRATION IN THE GCC

### 3. GCC ICT PROFILES

Similar to last year, the six Gulf Cooperation Council states led the MENA region on the 2011 ICT Use Index. Saudi Arabia took a commanding lead, scoring 2.82 on the index, followed by Qatar (2.78), the UAE (2.59), Oman (2.38), Bahrain (2.37) and Kuwait (2.34). With a score of 2.34, Kuwait placed sixth in the GCC and the Arab world overall. All six countries scored above the 2.00 mark on the ICT Use Index, with the average score for the region at 2.70.

The Gulf Cooperation Council recorded an average of 171.57% in 2011 an increase of 3.66 percentage points from the 167.91% mobile phone penetration in 2010, with Internet penetration a far second at 48.97%. Overall, computer penetration registered 32.48% while the lowest penetration witnessed in the region was still recorded in fixed line penetration at 16.83%, although increasing from 2010's penetration rate of 15.29%.

ICT PENETRATION IN GCC – 2011						
RANK	COUNTRY	FIXED LINE PENETRATION	MOBILE PHONE PENETRATION	INTERNET PENETRATION	COMPUTER PENETRATION	ICT USE INDEX
1	KSA	16.33%	189.24%	47.93%	28.54%	2.82
2	QATAR	17.92%	163.61%	50.06%	46.77%	2.78
3	UAE	21.49%	138.06%	53.85%	45.47%	2.59
4	OMAN	10.05%	168.19%	40.11%	19.29%	2.38
5	BAHRAIN	18.41%	128.62%	54.37%	35.65%	2.37
6	KUWAIT	14.15%	134.51%	50.13%	35.32%	2.34
TOTAL		16.83%	171.57%	48.97%	32.48%	2.70

Source: MRD

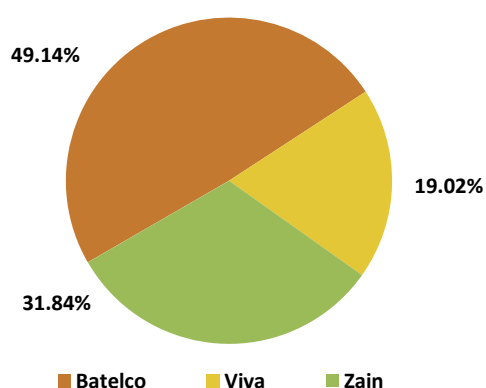
## BAHRAIN

Bahrain ranked fifth overall on the 2011 Arab ICT Use Index, it also ranked fifth among GCC economies and seventh for mobile phone penetration among MENA economies. The number of mobile phone subscribers has increased quite steadily since 2002. Mobile phone subscriptions outnumber fixed lines, at 6.99 mobile subscriptions for every fixed line in 2011, up from 6.73 in 2010.

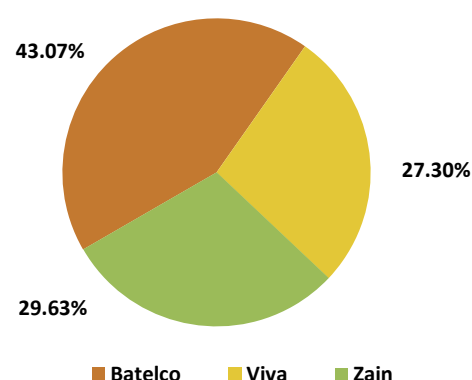
COUNTRY ICT PROFILE – BAHRAIN					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	203,500	220,386	230,000	227,353	242,407
Mobile Phone Subscriptions	1,116,000	1,453,000	1,482,000	1,567,000	1,714,500
▪ Batelco	668,000	767,000	820,000	770,000	738,500
▪ Zain	448,000	686,000	662,000	499,000	508,000
▪ Viva	-	-	-	298,000	468,000
Internet Users	330,000	435,600	488,094	621,567	715,928
Computer Installed Base	295,000	357,100	410,105	454,847	469,360

Source: TRA & Mobile Operators

Bahrain Mobile Operator Market Share, 2010



Bahrain Mobile Operator Market Share, 2011



Source: Mobile Operators

In a move designed to stimulate competition in the kingdom, the country's Telecommunications Regulatory Authority (TRA) had invited bids for Bahrain's third mobile phone license in September 2008. Six companies had expressed their interest in competing for the license. Among the interested bidders in May 2009, the TRA selected the Saudi Telecom Company with a bid capital of 86.69 million Bahraini Dinars (230 million US\$), and handed over its third mobile license to STC, a step that symbolized the official closure of the license auction process. STC soon established STC Bahrain B.S.C(c) to be the licensed operator for Bahrain. The new operator branded as Viva began operating in 2010 and has since contributed to a dramatic change in the dynamics of the country's mobile market.

The country's three mobile operators, Batelco (Bahrain Telecommunications Company) Zain (formerly MTC-Vodafone, rebranded in September 2007) and Viva (STC Bahrain) saw their total subscribers reach 1,714,500 in 2011, up by a substantial 10.70% from 1,567,000



subscribers in 2010. This rise in growth placed Bahrain 10<sup>th</sup> in terms of mobile growth. While the country's former telecom monopoly, Batelco, continued to dominate the market with some 738,500 subscribers in 2011, its overall subscriber base witnessed a decline from 770,000 in 2010, registering a negative growth rate of -4.09%. Batelco's market share therefore decreased in 2011, falling from 49.14% to 43.07%. Moreover, Zain's market share also fell; from 31.84% to 29.63%. The latter's subscriber base increased slightly by the end of 2011, from 499,000 in 2010 to 508,000 in 2011. Viva, the newest addition to the market, came in with strong numbers. In 2010, the year Viva began operating, it managed to accumulate a subscriber base of 298,000. Viva's subscriber base grew exponentially in 2011 to 468,000 subscribers, registering an impressive growth rate of 57.07%. Viva's explosion on the mobile scene has greatly affected Batelco and Zain. Viva's market share in 2011, just one year after entering the market, came in at 27.30%, almost overtaking that of Zain. In December 2011 mobile penetration in Bahrain was calculated to be 128.62%; the seventh highest among the Arab countries.

Bahrain perhaps was the first country in the region to liberalize all aspects of telecoms. Bahrain's fixed line sector was liberalized in 2005, when two new service providers were granted fixed line licenses to operate alongside Batelco, the incumbent operator. The country's fixed line market grew 6.62% in 2011 to register 242,407 subscribers; from 227,353 at the end of 2010. The resulting penetration rate for fixed lines is 18.41%, the fourth highest rate in the MENA region.

In 2011, Bahrain recorded a 15.18%% rise in Internet users, registering 715,928 users over 2010's 621,567. These are serviced by 10 Internet service providers, the largest of which is Batelco. The 10 offer three types of Internet services: wired broadband, wireless broadband and mobile broadband. Dialup Internet was phased out in Bahrain in 2010. Notably, there are 22 licensed Internet service providers in the kingdom, but many of the licenses acquired (including those for fixed line services, international telecommunication services and others) remain inactive. Bahrain ranked first in the MENA region in terms of Internet penetration, with 54.37%. The total number of fixed Internet broadband subscribers registered 162,608 by end 2011. The figure represents a strong growth rate of 42.20% over end 2010 Internet broadband subscribers (114,350).

Bahrain's computer installed base, meanwhile, grew by 3.19% to register 469,360 computers in 2011; up from 454,847 in 2010. This resulted in a healthy computer penetration rate of 35.65%, the third highest in the MENA region.

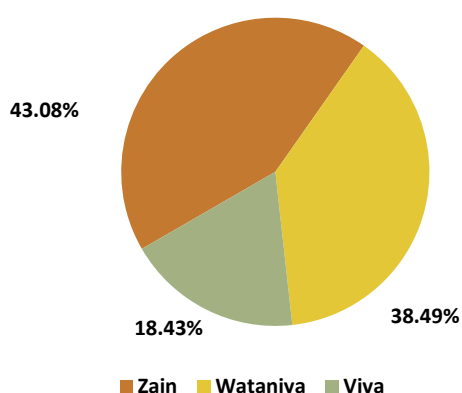
## KUWAIT

Possessing one of the oldest mobile markets in the Arab world, Kuwait's current subscriber base registered a growth of 11.76%; comparable to the 11.93% growth of last year. Viva, the third GSM mobile network in Kuwait, entered the market in 2007 and has witnessed steady growth since. Viva's subscriber base increased in 2011, reaching 1,016,000 subscribers at a healthy growth rate of 27%. With 2,104,000 and 1,853,160 subscribers respectively, the country's other mobile operators, Zain and Wataniya Telecom, ended 2011 with market shares (42.31% and 37.26%) slightly lower than those in 2010. Out of the two, Zain had been steadily losing the biggest market share as it had dominated with a convincing 52.29% in 2008, while Wataniya's figures were relatively unchanged, hovering around 38% since 2008. As mentioned previously, the decline in the market shares of the country's two dominant mobile operators can be attributed to the youngest GSM mobile operator, Viva, which had a convincing market share of 20.43% in 2011. Kuwait placed sixth on the current Arab ICT use index, preceded by Bahrain.

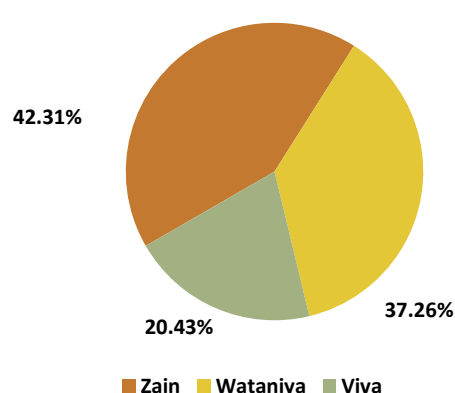
COUNTRY ICT PROFILE – KUWAIT					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	538,219	519,966	528,497	519,418	523,161
Mobile Phone Subscriptions	2,773,688	3,382,733	3,975,715	4,340,695	4,973,160
▪ Zain	1,576,000	1,769,000	1,838,000	1,870,000	2,104,000
▪ Wataniya	1,197,688	1,313,733	1,537,715	1,670,695	1,853,160
▪ Viva	–	300,000	600,000	800,000	1,016,000
Internet Users	1,050,000	1,272,433	1,399,427	1,611,162	1,853,394
Computer Installed Base	740,300	921,614	1,043,143	1,184,631	1,305,955

Sources: Ministry of Communications and Telecom & Mobile operators

Kuwait Mobile Operator Market Share, 2010



Kuwait Mobile Operator Market Share, 2011



Source: Mobile Operators

In 2011, Kuwait was amongst 11 Arab countries registering a mobile penetration rate over 100% and seven countries registering a rate over 125%. Kuwait ranked sixth on the mobile penetration index with 134.51%. The figure is still relatively low when compared to its surrounding GCC countries, especially Saudi Arabia, which has a penetration rate of 189.24%.

Kuwait Telecommunications Company was established in June 2008, and in August launched an initial public offering (IPO) open only to Kuwaiti citizens for 50% share of the company.



These shares had received the highest subscription in the history of Kuwait. A total of 915,009 people subscribed to Kuwait Telecommunications Company's Viva, 843,300,500 shares from August 24 to September 18, 2008, at a lump sum of KD 88.54 million, covering the value of shares by 3,339 times. The company capital was set at KD 50 million for 500 million shares, 50 percent of which is reserved for the founding members; such as the Kuwait Investment Authority, 6 percent, and the Public Authority for Social Security 6 percent. Other founding members include Zakat House, Awkaf General Secretariat and Public Authority for the Minors' Affairs, each of which owns four percent of the shares. The mother company, STC, has the lion's share, 26 percent of the total amount of shares.

Kuwait remains the only GCC country without an independent telecommunications regulatory authority, with the Ministry of Communications taking on the temporary role at present. However, given that the government retains a minority interest in Kuwait Telecommunications Company, Zain and Wataniya Telecom and is the sole provider of fixed line services in the country through the Ministry of Communications, the need to establish an independent regulatory authority has become more pressing.

While Kuwait's fixed-line sector did not witness negative growth, its growth rate was in fact low, registering a mere 0.72% with only 3,743 new subscribers. This marked an improvement, however, from the 2010 scenario where Kuwait had witnessed the loss of 9,079 subscriptions and a negative growth of -1.72%. The current growth rate of 0.72%, however, did not affect the country's fixed line penetration rate much; 14.15% in 2011 compared to 14.50% in 2010, ranking Kuwait eighth on the fixed line penetration index for both years.

The number of Internet users rose slightly from 1,611,162 to 1,853,394 by the end of 2011, with growth measuring 15.03%, the third lowest in the Arab World. Penetration, however, remained high and rose to 50.13%, ranking the country third in the Arab world behind Bahrain and the UAE. In terms of broadband Internet, Kuwait registered a growth rate of 43.36%, with the total number of subscribers increasing from 126,780 in 2010 to 181,750 in 2011, translating into a penetration figure of 4.92%.

The relatively slow rise in Internet users was mirrored by a similar growth in Kuwait's computer installed base, which registered 1,305,955 computers and a moderate growth rate of 10.24%, ranking the country seventh on the computers installed base growth index and fourth in computer penetration.



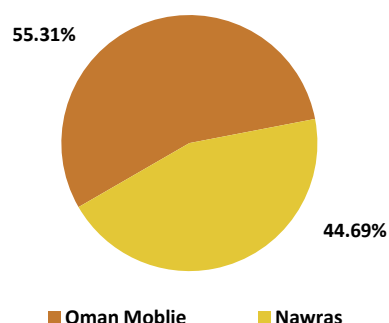
## OMAN

Oman ranked fourth overall on the 2011 Arab ICT Use Index with a score of 2.38 (2.25 in 2010). The country's overall growth was driven by sustained growth in mobile phone subscriptions, Internet users, and computers installed base.

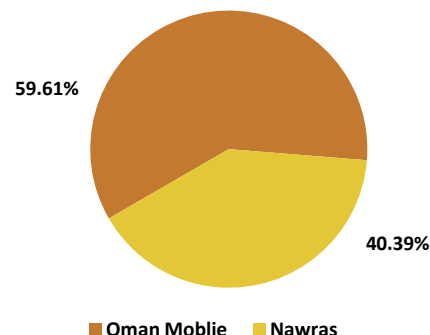
COUNTRY ICT PROFILE – OMAN					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	268,065	274,178	267,317	281,000	287,323
Mobile Phone Subscriptions	2,500,115	3,219,865	3,730,000	4,504,840	4,730,496
▪ Omantel	1,483,115	1,709,000	1,870,000	2,491,637	2,819,858
▪ Nawras	1,017,000	1,510,865	1,860,000	2,013,203	1,910,638
Internet Users	390,000	540,150	619,138	842,722	1,146,880
Computer Installed Base	320,000	416,000	482,162	498,911	551,714

Source: TRA & Mobile Operators

Oman Mobile Operator Market Share, 2010



Oman Mobile Operator Market Share, 2011



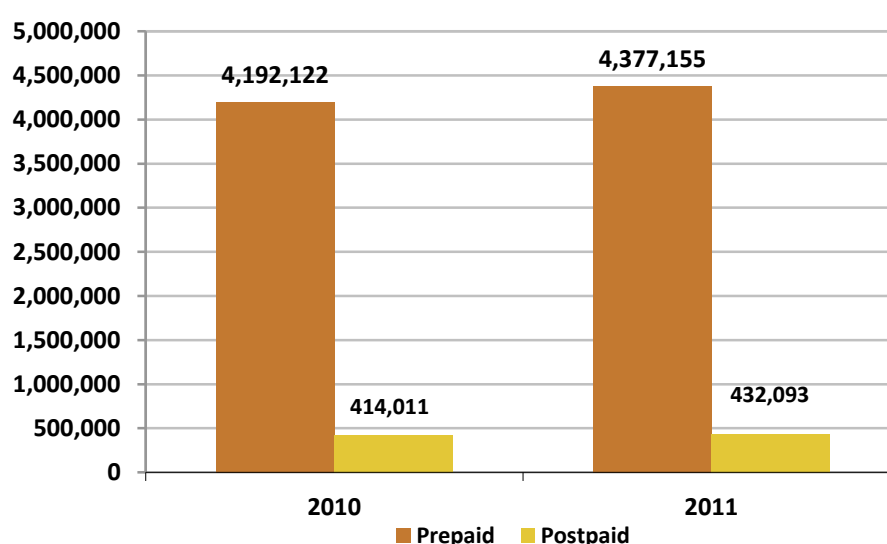
Source: Mobile Operators

In 2008, Omantel Group, the parent company of Oman Mobile decided to begin a merger operation between Omantel and Oman Mobile. In January 2012 the merger was officially complete and the new company born was Omantel, provider of Internet, Fixed and Mobile telephony.

The country's mobile phone sector has maintained steady growth since the introduction of competition in the country. Oman's mobile phone subscription base in 2011 (4.41%), however, was lower in growth compared to the previous year which came in at 16.01%. Total subscriptions by the end of 2011 numbered 4,809,248, with Omantel gaining additional market lead; 59.61% market share compared to 55.31% in 2010. The mobile phone operator had lost considerable market share in 2008 with the rise of the second operator Nawras. As Oman Mobile began intensifying its operation with its eminent merger with Omantel, the newly rebranded Omantel began gaining back significant Subscribers. Nawras' market share fell from 44.69% in 2010 to 40.39% in 2011. Nawras' subscriber base therefore witnessed a negative growth of -5.09% in 2011 compared to the 8.24% growth of 2010. Nawras registered about 102,565 less subscribers in 2011, bringing the subscriber base grand total to 1,910,638

subscribers by the end of 2011. Nawras and Omantel had come very close to having an equal market share in the mobile market, but Omantel quickly recuperated and firmly reestablished itself as the undisputed market leader.

Omantel also became the very first company in Middle East region to grant resale rights to firms using its infrastructure. The telecom company had signed contracts with two new mobile operators Renna and FRIENDi allowing them to resell mobile services to subscribers across Oman using their own brands and marketing and sales channels. The UAE based FRIENDi mobile, the first mobile virtual network operator (MVNO) in the Middle East and the Sultanate's first mobile reseller went live on April 2009 and its rival the fully Omani owned MVNO operator Renna on May 2009. Both firms are focusing on transforming the telecommunication industry in Oman by providing value added products and services to its customers. Oman became the first country in the region to have adopted a Mobile Virtual Network Operator (MVNO) business model.



Source: TRA

Oman's overall growth in subscriptions registered a modest rise and the total mobile subscriber base reached 4,730,496 in 2011. Although growth rates were lower than the years before (16.01% in 2010, 4.41% in 2011), mobile phone subscriptions have nonetheless achieved a decent increase over the past year; the number increasing by 225,656 new subscribers. This reflected modestly on the country's mobile phone penetration rate, which rose to 168.19%, a rate slightly higher than the 166.08% attained by the end of 2010, moving Oman from third to second place on the mobile penetration index.

After a trend which witnessed the decrease of fixed line subscriptions, Oman observed renewed growth of 5.12% with 281,000 subscribers in 2010. Fixed line subscription continued to increase in 2011 as the total number of subscriptions rose to 287,323 subscribers. Growth in 2011 was less than the previous year, however, registering 2.25% from the same quarter in 2010. Meanwhile, Oman's fixed line penetration rate also rose between 2009 and 2010, increasing from 8.61% in 2009 to 10.13% in 2010, eventually marginally decreasing to 10.05% in 2011.



Oman's Internet user base rose by a healthy 36.09% in 2011, from 842,722 to 1,146,880 users, resulting in a penetration rate of 40.11%. By the end of December 2011, there was a total of 78,214 fixed broadband Internet subscribers reported by the TRA, up from 52,630 subscribers from 2010.

Of all GCC countries, Oman continues to have the lowest penetration rate for computers installed base in 2011; 19.29%. Although the country's computer installed base did achieve moderate double-digit growth in 2011 (10.58%) to register a total of 551,714 computers, it still lags roughly 25 percentage points behind Qatar, the leader of the PC indicator in terms of penetration. The scarceness of installed computers is one of the greatest obstacles to ICT growth in Oman.

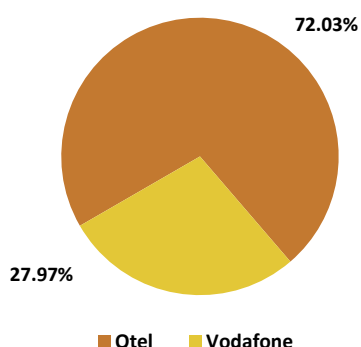
## QATAR

Qatar ranked second among MENA economies on the 2011 Arab ICT Use Index with a score of 2.78, losing the number one spot it had held in 2010 to Saudi Arabia.

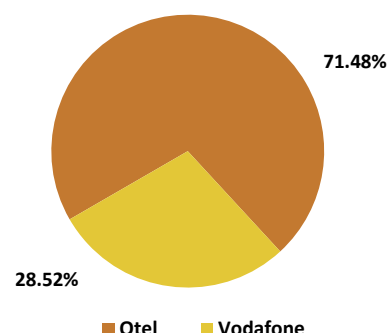
COUNTRY ICT PROFILE – QATAR					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	242,000	263,363	285,300	291,478	305,969
Mobile Phone Subscriptions	1,260,000	1,680,000	2,472,100	2,763,708	2,794,043
▪ Qtel	1,260,000	1,680,000	2,118,520	2,052,540	1,997,043
▪ Vodafone	-	-	353,580	711,168	797,000
Internet Users	420,000	592,200	665,715	734,583	854,958
Computer Installed Base	392,000	478,080	566,928	737,184	798,715

Source: ictQatar & Mobile Operators

Qatar Mobile Operator Market Share, 2010



Qatar Mobile Operator Market Share, 2011



Source: Mobile Operators

When it was first established in 1987, Qatar Telecom (Qtel), which is 51% government-owned, was promised exclusive control of the country's telecommunications market until 2013, but the promulgation of a new Telecommunications Law in 2006 had moved up the date considerably. The law gave the country's regulator, the Supreme Council for Information and Communications Technology (ictQATAR), the power to issue new mobile and fixed-line licenses, and the regulator immediately announced that one of each would be awarded by end 2007.

The regulator awarded Qatar's second mobile phone license to the Vodafone and Qatar Foundation consortium in December 2008 for US\$2.12 billion. The consortium holds 45% of the share capital of Vodafone Qatar, while government institutions hold 15%. Meanwhile, the remaining 40% were allocated in an Initial Public Offering (IPO) open only to Qatari nationals. Vodafone Qatar launched its services in July 2009.

Soon after ictQATAR awarded the second mobile phone license, the regulator invited bids for the country's second fixed line license, which would bundle WiMAX services into the license.



Vodafone Qatar, which had already broke the monopoly of Qatar Telecom QTEL, was awarded the country's second fixed-line phone license.

Shortly after the market liberalization, Qtel began achieving substantially lower growth rates than past years. In 2011, Qtel witnessed a negative growth rate of -2.70% in mobile phone subscriptions, bringing the number of subscribers down from 2,052,540 in 2010 to 1,997,043 in 2011. Vodafone Qatar, on the other hand, succeeded in gaining a healthy 28.52% market share with 797,000 subscribers by the end of 2011.

Qatar registered 1.10% mobile growth rate in 2011, which is the lowest compared to other competitive markets in the region; the UAE (7.33%), Saudi Arabia (4.07%), and Oman (4.41%), with growth dropping substantially from the 11.79% registered in 2010. The country ranked second last among MENA economies in terms of mobile growth. Mobile phone penetration, however, registered a high 163.61% in 2011 with 2,794,043 subscribers. Based on the current figures, Qatar ranked fourth among Arab countries, after Saudi Arabia, Oman and Libya in terms of mobile penetration rate.

Meanwhile, Qatar witnessed a positive growth in its fixed line subscriptions in 2011; 4.79%. Fixed line penetration registered a convincing 17.92% with 305,969 fixed line subscriptions, slightly up from 2010's 17.08%.

Qatar's Internet user base rose to 854,958, at a growth rate of 16.39% over 2010's 734,583 users. The resulting penetration rate was 50.06%, ranking Qatar fourth in the Arab world. There were 191,000 fixed broadband Internet subscriptions in 2011, a growth rate of 17.54% from 2010's 162,500. Although Qatar leads the MENA region in terms of Internet bandwidth per capita as well as per Internet user, it still lags behind its GCC neighbors in terms of high speed broadband options, with residential Internet packages offering a maximum connection of 8Mbps. In August 2012, Qatar National Broadband Network (Q.NBN) received a 25 year license to provide Qatar with first class fiber optic broadband. The plan to connect the entire country with broadband Internet had already been in motion, aiming to complete its first phase of offering 95% of the country with faster, fiber optic connections by 2015. Q.NBN signed agreements with both Qtel and Vodafone to enable both operators to deliver first class Internet connections through Q.NBN's infrastructure.

Meanwhile, Qatar ranked first in computer penetration (46.77%) with the number of installed computers rising 8.35% to 798,715 by the end of 2011.

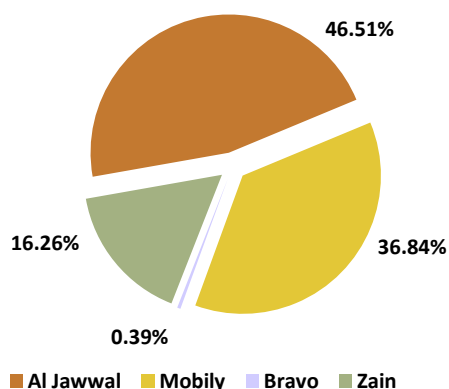
## SAUDI ARABIA

With the largest geographical area and population of all GCC states, Saudi Arabia has still managed to make remarkable progress over some of its peers in promoting the use of information and communication technology. Mobile service revenues represent around 80% of all telecom sector revenues. Scoring 2.82 on the Arab ICT Use Index, Saudi Arabia placed first and continued to have the highest mobile penetration among Arab economies, its advancement driven largely by the steady growth in the country's mobile phone sector.

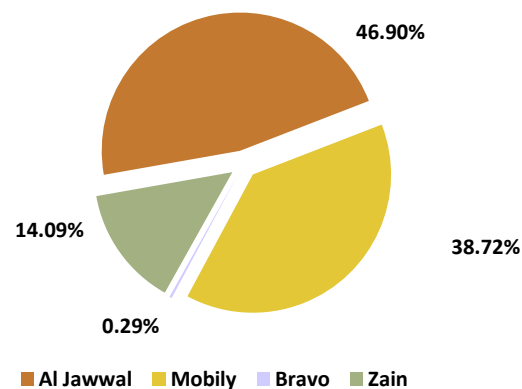
COUNTRY ICT PROFILE – SAUDI ARABIA					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	4,000,000	4,123,000	4,171,000	4,130,000	4,633,100
Mobile Phone Subscriptions	28,400,041	36,059,212	44,717,539	51,603,959	53,700,000
▪ Al Jawwal	17,300,000	19,100,000	21,100,000	24,000,000	25,185,300
▪ Mobily	11,008,200	14,800,000	18,200,000	19,010,000	20,791,488
▪ Bravo	91,841	149,212	185,539	200,959	156,212
▪ Zain	-	2,010,000	5,232,000	8,393,000	7,567,000
Internet Users	6,400,000	7,936,000	9,168,238	11,015,185	13,600,000
Computer Installed Base	3,548,800	4,755,392	5,724,269	7,153,148	8,098,276

Source: CITC & Mobile Operators

KSA Mobile Operator Market Share, 2010

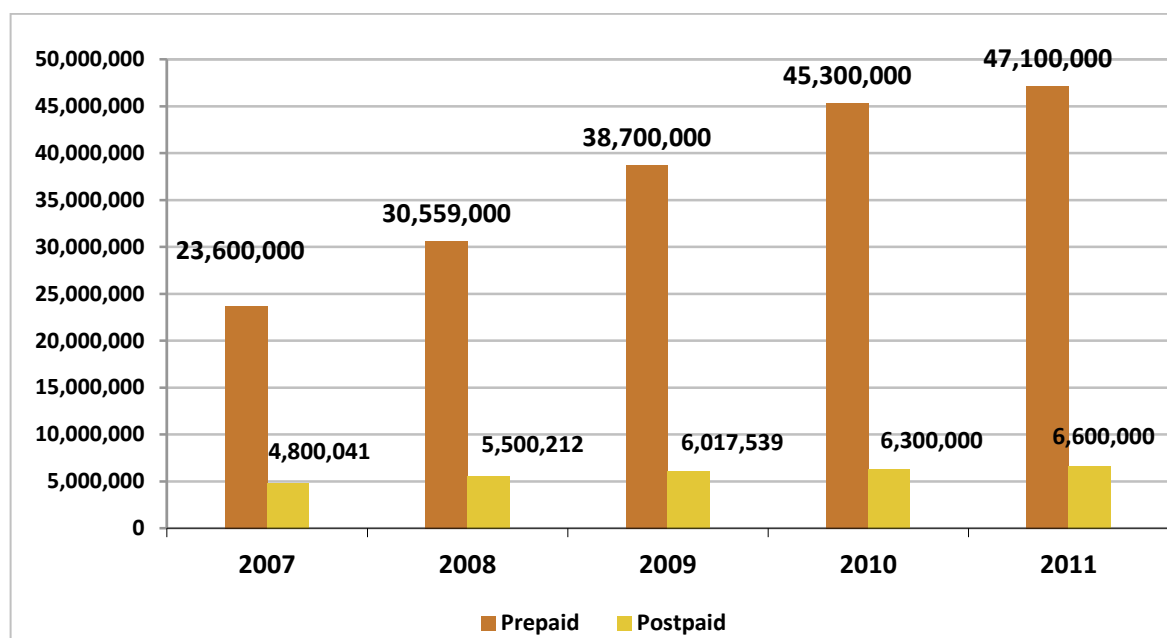


KSA Mobile Operator Market Share, 2011



Source: Mobile Operators

The number of Saudi mobile phone subscriptions registered a growth of 4.07% in 2011 to 53,700,000 subscribers from 51,603,959 in 2010. As the mobile market in the Kingdom reaches saturation, we see that growth begins to decline; growth in 2010 was 15.39%. The previously strong growth in mobile phone subscriptions has certainly been leveled and is reflected in the evolving mobile phone penetration rate, from 187.20% in 2010 to 189.24% in 2011, keeping Saudi Arabia in the top spot among the MENA countries (fourth worldwide) for this indicator. It is expected that the Kingdom will not have any major shifts in mobile growth unless a major shift in population growth is registered. From over 53 million subscribers in 2011, almost 88% were prepaid subscribers and about 12% were postpaid subscribers.



Source: CITC & Mobile Operators

The state-run and partially-privatized operator Saudi Telecom (Al Jawwal) continued to dominate the mobile sector in 2011 with 25,185,300 subscribers and a market share of 46.90%, a negligible increase from 46.51% in 2010. It should be noted that in 2011 several of the mobile operators adjusted their figures which resulted in apparent negative growth for some. With subscriber growth of about 9.37%, the greatest gains in subscriber growth were therefore presumably made by mobile operator Mobily, which registered 20,791,488 subscribers by the end of 2011, compared to 19,010,000 subscribers in 2010, increasing its market share from 36.84% to 38.72%. According to figures published by mobile operator Zain, the latter's subscriber base fell by about 826,00 subscribers in 2011. Saudi Arabia's fourth mobile operator, Bravo, entered the market in 2005 as a specialized wireless operator offering Push-to-Talk and other mobile telephony services via the region's first integrated Digital Enhanced Network (iDEN). Majority-owned (55.6%) by Wataniya Telecom since March 2007, Bravo also experienced negative growth in 2011, remaining with only 0.29% market share and witnessing a decrease in its base by 44,747 subscribers. Again, figures for both Zain and Bravo have been adjusted by the operators.

The liberalization of Saudi Arabia's fixed telephone market was in line with a national ICT plan to provide fixed-line service to 25% of Saudis and to increase PC penetration to 30%. According to CITC the liberalization of the telecom sector and the resulting competition within the market has also helped to create remarkable benefits for the economy at large and for consumers in particular – in terms of increased service availability, better quality service, improved customer care, more choices and lower prices. However, Saudi Telecom has still been unable to achieve a fixed-line penetration rate anywhere near 25%. Fixed line penetration marginally increased in 2011; from 14.98% in 2010 to 16.33%. Nevertheless, fixed line subscriptions growth witnessed a substantial increase in comparison to the rest of the region in 2011 of about 12.18% to reach 4,633,100, from 4,130,000 in 2010, placing the Kingdom second on the index.

Computer penetration was around 28.54% with a growth of 13.21% in computers installed base. Internet penetration, however, was much closer to national target levels, as the number

of Internet users increased by 23.47% from 11,015,185 to 13,600,000 for a penetration rate of 47.93%.

The CITC had indicated that "broadband services will be the main driver for growth of telecommunication and information technology in the coming years, and an important source of income for the sector." Total fixed broadband subscribers stood at about 1.95 million by the end of 2011. Despite the high growth rates over the last few years, there is a strong potential for more growth in broadband services. The broadband market is significantly underserved in many suburban and rural areas. With the opening of the fixed telecommunications market to competition, the intense competition in mobile broadband offerings, and the increased consumer demand for fast Internet connections, the broadband market is expected to continue to grow at a fast pace, as the mobile and fixed service providers continue to roll out their broadband networks with competitors fulfilling the growing demand.



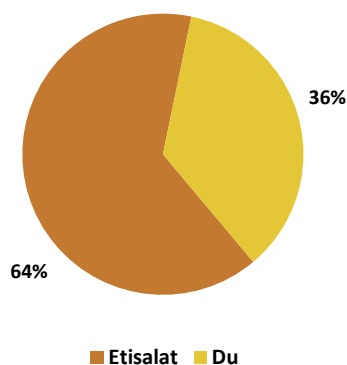
## UNITED ARAB EMIRATES

The United Arab Emirates ranked third among MENA economies on the 2011 Arab ICT Use Index, the same position it had occupied since 2009. Its score increased from 2.41 in 2010 to 2.59 in 2011.

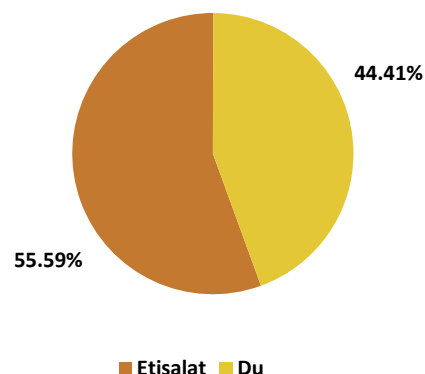
COUNTRY ICT PROFILE – UAE					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	1,371,000	1,640,000	1,561,196	1,460,985	1,825,496
Mobile Phone Subscriptions	7,872,000	10,079,000	11,218,000	12,064,000	11,710,000
▪ Etisalat	6,372,000	7,300,000	7,741,000	7,764,000	6,510,000
▪ Du	1,500,000	2,779,000	3,477,000	4,300,000	5,200,000
Internet Users	2,560,000	3,353,600	3,777,900	4,093,815	4,574,578
Computer Installed Base	1,780,900	2,475,451	2,757,333	3,579,752	3,862,177

Source: TRA & Mobile Operators

UAE Mobile Operator Market Share, 2010



UAE Mobile Operator Market Share, 2011



Source: Mobile Operators

Etisalat continued to hold the majority of market share in 2011, although its figures had been adjusted which led to an apparent negative growth rate. It has also acquired an impressive set of overseas assets in 18 countries. The presence of the second mobile operator Du has considerably increased competition in its home market with Du continuing to close the gap between the two operators.

Etisalat and Du continue to enjoy a duopoly over fixed line, mobile phone and Internet access services. Notably, the United Arab Emirates is required to fully liberalize its telecommunications sector by 2015 (negotiated from an earlier deadline of 2010) as dictated by its commitment to the World Trade Organization's Basic Agreement on Telecommunications, to which it is a signatory. While there has been talk of infrastructure sharing no details have been provided, Etisalat would however be tasked with maintaining and enhancing its existing infrastructure.



Du reported 5,200,000 mobile phone subscribers by the end of 2011 to Etisalat's 6,510,000, bringing the total number of mobile phone subscribers in the United Arab Emirates to 11,710,000 (11,727,401 as reported by the TRA). Due to adjustments of the 2010 figures, active mobile subscribers for Etisalat declined at a rate of -16.15% in 2011 compared to the 20.93% growth for Du. Du continues to invest in its network, expanding its base stations for greater coverage and capacity around the country. Meanwhile, mobile phone penetration came in at 138.06%, the fourth highest penetration rate in the GCC in 2011.

Analysts believe that there will be positive growth in revenues for both the telecom operators in the country, Etisalat's growth in revenue is driven by Internet and data revenue growth in the UAE and an increasing contribution from overseas subsidiaries whereas Du should continue to capture net mobile and increase ARPU (average revenue per user) through increased usage driven by promotional offers. Offering its fixed line service outside the "New Dubai" area should provide an additional boost to revenues.

At 21.49%, the United Arab Emirates' fixed line penetration rate in 2011 was the second highest in the Arab world. The country's fixed-line subscribers numbered 1,825,496 in 2011, rising at a rate of 24.95% from 1,460,985 in 2010, registering the highest growth in the region.

Similar to previous years which saw the country ranking first in terms of Internet penetration in the region, the United Arab Emirates' Internet penetration figure of 53.85% in 2011 was the second highest in the Arab world. However, despite its strong position, growth proved sluggish in the number of Internet users; 11.74%, from 4,093,815 in 2010 to 4,574,578 in 2011, placing the country in the second-last spot in terms of Internet growth.

At the beginning of 2012, both Du and Etisalat deployed their new mobile broadband 4G networks, delivering super high-speed 4G long-term evolution (LTE) mobile data services to their customers. Both operators claim the newly built networks can provide consumers with speeds reaching past 100Mbps. The UAE and Saudi Arabia were the first countries in the region to launch 4G networks, while most of their neighboring GCC countries gear up to launch their own fully operational 4G networks by end of 2012, beginning of 2013.

Meanwhile, the United Arab Emirates' computer installed base rose to 3,862,177 in 2011, up only 7.89% from 2010's 3,579,752 computer installed base, with a penetration rate of 45.47%, the second highest in the MENA region after Qatar.



## ICT PENETRATION IN THE LEVANT

### 4. LEVANT ICT PROFILES

Jordan ranked eighth in the Arab world on the 2011 ICT Use Index. Jordan easily led all competitors in the Levant, taken here as comprising Egypt, Syria, Lebanon, Palestine and Iraq. The driver of Jordanian growth has without a doubt been its competitive mobile phone market, with mobile phone penetration rising to 119.75% in 2011. Lebanon maintained its regional lead, however, in Internet (40.99%) and fixed line penetration (21.60%) ranking second in the Levant and 11<sup>th</sup> overall in the MENA region. Iraq, meanwhile, topped the region in terms of computer penetration (at 21.57%). Overall, the Levant region averaged a score of 1.33 on the new ICT Use Index, with average mobile phone penetration registering a higher 88.99% compared to the 78.75% of 2010, fixed line penetration was 11.10%, falling from 11.63% in 2010, Internet penetration 24.83% and computer penetration 8.38%.

ICT PENETRATION IN LEVANT – 2011						
RANK	COUNTRY	FIXED LINE PENETRATION	MOBILE PHONE PENETRATION	INTERNET PENETRATION	COMPUTER PENETRATION	ICT USE INDEX
1	JORDAN	6.79%	119.75%	35.01%	17.74%	1.79
2	LEBANON	21.60%	80.25%	40.99%	9.38%	1.64
3	EGYPT	10.71%	102.56%	26.64%	8.51%	1.47
4	PALESTINE	9.10%	67.71%	30.26%	7.58%	1.16
5	SYRIA	20.49%	59.83%	23.92%	7.23%	1.13
6	IRAQ	5.79%	72.74%	16.42%	21.57%	1.03
<b>TOTAL</b>		<b>11.10%</b>	<b>88.99%</b>	<b>24.83%</b>	<b>8.38%</b>	<b>1.33</b>

Source: MRD

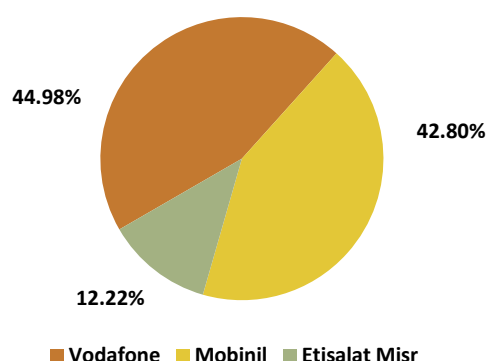
## EGYPT

Egypt remained in 12<sup>th</sup> place overall on the 2011 Arab ICT Use Index, scoring 1.47, which represents an 14.31% growth over the country's 2010 score of 1.29. The country witnessed sluggish growth on all indicators, with mobile phone subscriptions registering the strongest growth. Egypt landed fourth in terms of mobile phone growth, with 18.14% and 83,502,000 subscribers. Egypt's Internet user sectors fared slightly worse, placing Egypt in seventh place on the indicator.

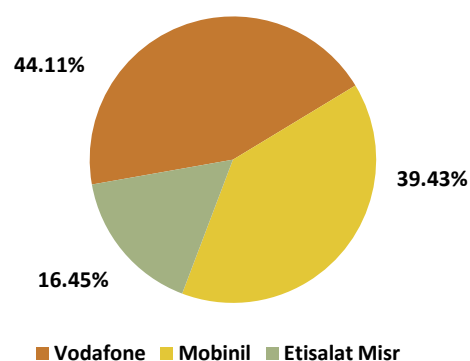
COUNTRY ICT PROFILE – EGYPT					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	10,900,000	11,853,000	10,312,600	9,620,000	8,714,200
Mobile Phone Subscriptions	31,550,626	41,295,000	55,352,540	70,642,888	83,502,000
▪ Mobinil	15,117,626	20,115,000	25,350,000	30,224,888	32,900,000
▪ Vodafone	13,333,000	17,611,000	23,330,000	31,768,000	36,802,000
▪ Etisalat Misr	3,100,000	3,560,000	6,672,540	8,627,112	13,728,000
Internet Users	8,620,000	12,570,000	13,890,851	16,670,308	21,671,400
Computer Installed Base	3,304,300	4,295,590	4,822,468	5,413,972	5,878,810

Source: MCIT & Mobile Operators

Egypt Mobile Operator Market Share, 2010



Egypt Mobile Operator Market Share, 2011



Source: Mobile Operators

Mobinil lost its place as Egypt's largest mobile phone operator in 2010. Its shareholders comprise the Egyptian Company for Mobile Services (51.03%), Orascom Telecom Holding (20%) and public shareholders (28.97%). The Egyptian Company for Mobile Services is, in turn, jointly owned by Orange Group (71.25%) and Orascom Telecom Holding (28.75%). On the other hand, Vodafone Egypt, now holding the biggest market share, is 44.79% owned by Telecom Egypt, the country's monopoly fixed-line provider, but the majority of shares (55.04%) are held by Vodafone Group.

Etisalat Misr launched commercial operations in May 2007. Etisalat Misr's subscribers reached 13,728,000 in 2011, a substantial 59.54% increase from the previous year and totaling a 16.45% market share. Its subscriber base appears to have created erosion for Mobinil's subscription figures, losing market share from 42.80% to 39.43% in 2011, while Vodafone's



market share continued to impressively hold on to its recently acquired majority share with a negligible drop from 44.98% to 44.11% over the same period. Despite the loss in market share, both operators witnessed strong growth in mobile phone subscriptions, Mobinil's subscriber base grew by a slower 8.85% to 32,900,000 subscribers by end 2011, while Vodafone Egypt's subscription base grew by 15.85% to 36,802,000 subscribers. Total mobile phone subscriptions in Egypt numbered 83,502,000 by the end of 2011. The figure represents a growth rate of 18.14% from 70,642,888 in 2010 – the fourth fastest growth rate in mobile phone subscriptions in the Arab world behind Lebanon, Sudan, and Qatar. Egypt's mobile phone penetration registered a rate of 102.56%, ranking the country in 11<sup>th</sup> place among Arab countries on the penetration indicator.

Fixed line growth in Egypt fell to -9.42% in 2011, down from -6.72% in 2010, due to a decrease in subscriptions from 9,620,000 to 8,714,200 subscribers. Egypt registered a negative growth and landed 15<sup>th</sup> on the fixed line indicator. The country's placement for fixed line penetration ranked it 11<sup>th</sup> in the MENA region, dropping from the 10<sup>th</sup> position it held in 2010 with 12.09%, in comparison to the 10.71% of 2011.

Egypt added an additional 5,001,092 Internet users to its tally (21,671,400) for 2011, at a growth rate of 30.00%, moving the country to seventh place in terms of growth rates in the MENA region for the year. Internet penetration rose to 26.64% in 2011, placing Egypt in 12<sup>th</sup> place in terms of Internet penetration. Effective February 2006, Egypt's regulator made it unnecessary for the country's Internet service providers to go through carrier-level and data service providers to obtain international bandwidth.

With a highly competitive market, several licensed service providers offer ADSL services in the country, with TE Data, a subsidiary of Telecom Egypt, dominating the market. A new policy framework developed by the Egyptian Ministry of Communication and Information Technology in September 2007 enabled broadband services through wireless communications, especially High Speed Packet Access (HSPA) and WiMAX. The move is expected to further boost the fast-growing broadband market in Egypt. By the end of 2011, Egypt's broadband subscriptions numbered 1,800,000 growing at a healthy rate of 28.39% over end 2010's 1,402,000 subscriptions.

Egypt is still facing a challenge in the low number of installed computers. The total computers installed base was 5,878,810 in 2011, up slightly from 5,413,972 in 2010, and registering a growth rate of 8.59%. Egypt landed in 16<sup>th</sup> place in terms of computer penetration, with a rate of 7.23%.

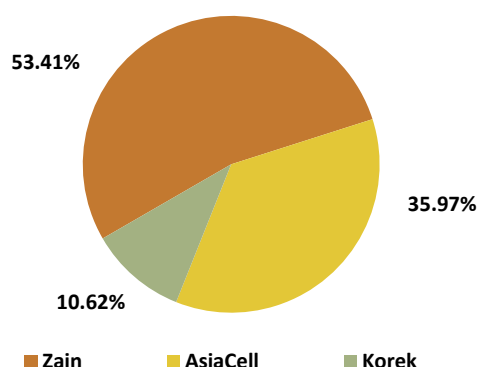
## IRAQ

Iraq witnessed moderate growth on the 2011 Arab ICT Use Index, its index score rising by 9.55% to 1.03. Growth was largely driven by the expansion in the computers installed and Internet sectors. Iraq's mobile sector, however, grew at a slower pace. Subscribers grew by a modest 8.00% in 2011, compared to 9.49% in 2010. Iraq placed 13<sup>th</sup> in 2011 in terms of mobile growth, with total subscribers estimated at 24,413,656 by the end of 2011, up from 22,604,498 in 2010. Iraq's mobile phone sector has been the scene of a number of sales, mergers and acquisitions since its official launch in 2003.

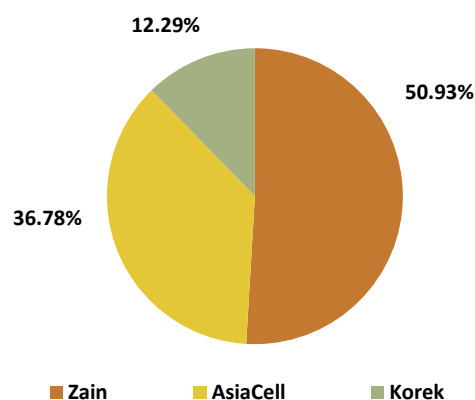
COUNTRY ICT PROFILE – IRAQ					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	1,364,500	1,082,300	1,108,400	1,750,500	1,945,000
Mobile Phone Subscriptions	12,777,000	18,287,470	20,646,000	22,604,498	24,413,656
▪ Zain	7,287,000	9,681,000	10,296,000	12,074,000	12,435,000
▪ AsiaCell	4,290,000	6,106,470	7,350,000	8,130,498	8,978,656
▪ Korek	1,200,000	2,500,000	3,000,000	2,400,000	3,000,000
Internet Users	1,990,000	3,084,500	3,797,267	4,516,849	5,510,556
Computer Installed Base	935,000	1,337,050	1,662,629	2,067,489	2,545,761

Source: Ministry of Telecommunications & Mobile Operators;

Iraq Mobile Operator Market Share, 2010



Iraq Mobile Operator Market Share, 2011



Source: mobile Operators

Zain attracted only 316,000 new subscribers in 2011 compared to 1,788,000 in 2010, growing at a rate of only 2.99%. Although this helped in boosting its existing total subscriber base, Zain in fact lost market share to its competitors to reach 50.93%, compared to its 2010 market dominance of 53.41%.

In December 2007, Zain paid \$1.2 billion for Orascom Telecom's Iraqna network, merging the two networks and acquiring the Egyptian provider's existing subscribers in the process. The merged network was rebranded in January 2008 as Zain. By the end of 2011, Zain had 12,435,000 mobile phone subscribers in the country. Meanwhile, AsiaCell, majority-owned by Qatar's Qtel, ended the year with 8,978,656 subscriptions (36.78% market share) to Korek Telecom's 3,000,000 subscriptions (12.29% market share). In early 2011, France Telecom-

Orange and its partner Agility, a leading logistics company, announced a binding agreement with the shareholders of Korek Telecom to acquire a 44% stake in the Iraqi mobile operator. In addition, France Telecom-Orange will have the opportunity to exercise an option in 2014 to increase its indirect stake in Korek Telecom to 27% and, in the process, gain indirect control of the company, thereby consolidating Korek Telecom into its accounts. If this option is exercised, Agility will be able to sell part of its indirect stake in Korek Telecom to France Telecom-Orange, resulting in France Telecom-Orange's indirect interest in Korek Telecom increasing up to 39% in 2014 and up to 51% by 2016. Asiacell and Korkek Telecom registered varying growth rates; 10.43% and 25.00%, respectively. Mobile penetration, on the other hand, changed from 68.69% in 2010 to 72.74% in 2011, placing Iraq in 14<sup>th</sup> place among Arab economies on the indicator, behind Lebanon.

In September 2006, the Iraq Telecommunications and Posts Company (ITPC) lost its status as the country's sole fixed-line provider with the successful conclusion of a tender by the Iraq National Communications and Media Commission to award licenses for local telecommunications services through Wireless Local Loop (WLL) technologies. Six WLL licenses, bundled with WiMAX licenses, were issued, three of which are national and three provincial, including one national license awarded to ITPC. The remaining five licenses were awarded to local and foreign investors. The country witnessed a healthy growth in 2011, with estimated fixed line subscriptions rising by 11.11% to register 194,500 new subscriptions. Growth in fixed line subscriptions, however, did little to boost the country's penetration rate, which stood at only 5.79% in 2011 – the third lowest rate among Arab countries, ahead of Yemen and Sudan.

Iraq's Internet users, meanwhile, grew by a modest 22.00% during 2011, placing 10<sup>th</sup> in the MENA region, with numbers rising from 4,516,849 to 5,510,556 users. This was reflected in Iraq's poor Internet penetration of 16.42% placing the country second last on the index in 2011. Computer penetration was even more modest, merely 7.58%. Iraq experienced the second highest growth rate in the MENA region, however, with 27.08% growth in the country's computer installed base; from 2,067,489 subscribers in 2010 to 2,545,761 subscribers in 2011.

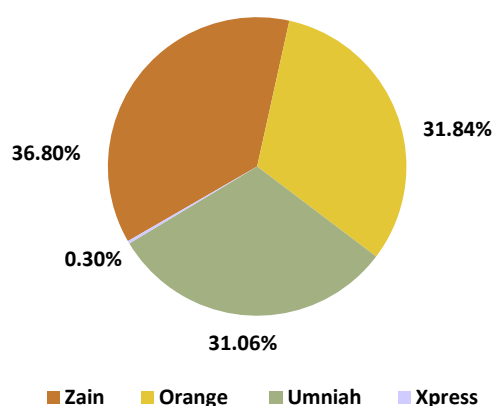
## JORDAN

With four mobile operators, Jordan is still among the most competitive telecommunications markets of all MENA economies. Jordan remained in eighth place overall this year, ranking after Libya on the ICT Use Index 2011, with a score of 1.79. This represented a total growth rate of 9.40%.

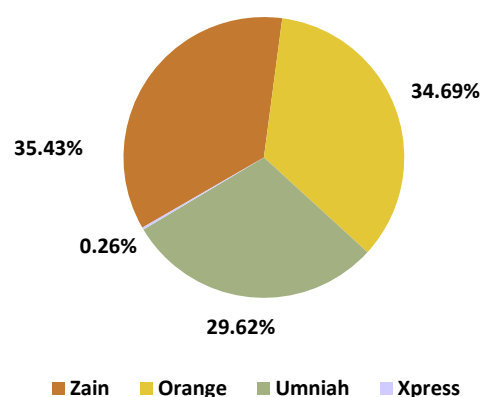
COUNTRY ICT PROFILE – JORDAN					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	559,000	519,000	501,000	485,000	424,000
Mobile Phone Subscriptions	4,772,000	5,585,500	6,121,700	6,761,126	7,765,061
▪ Zain	1,858,000	2,345,000	2,493,000	2,488,000	2,751,000
▪ Orange	1,711,200	1,755,500	1,938,700	2,153,000	2,694,000
▪ Umniah	1,000,000	1,430,000	1,630,000	2,100,000	2,300,000
▪ Xpress	202,800	55,000	60,000	20,126	20,061
Internet Users	1,100,000	1,441,000	1,612,486	1,884,599	2,187,519
Computer Installed Base	708,400	814,660	908,170	1,012,413	1,108,866

Source: TRC & Mobile Operators

Jordan Mobile Operator Market Share, 2010



Jordan Mobile Operator Market Share, 2011



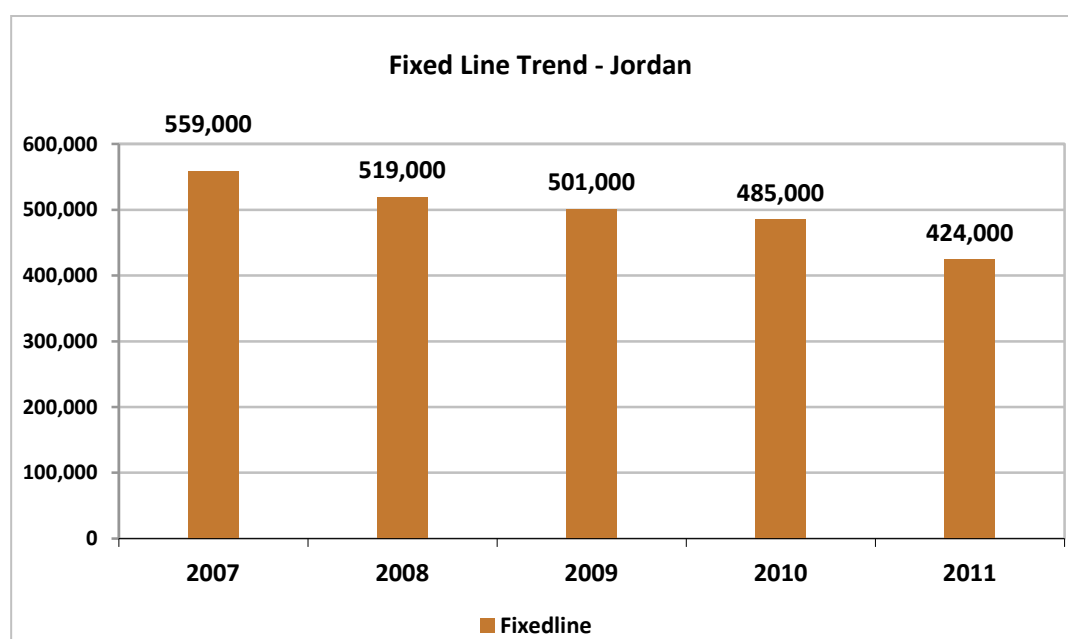
Source: Mobile Operators

While Zain continued to dominate Jordan's mobile market, the company's share continued on a declining trend; from 40.72% in 2009, 36.80% in 2010 to 35.43% in 2011. Zain ended the year with a comparatively sluggish growth rate of 10.57%, adding only 263,000 new subscribers in 2011. On the other hand, Jordan Telecom subsidiary, Orange, attracted 541,000 additional customers in 2011, for a total of 2,694,000 subscriptions or an ever growing 34.69% of the market. The latter was privatized through a series of share sales that saw the Jordanian government reduce its stake in Jordan Telecom from 100% in 2000 to only 3.00% in January 2008.

Batelco's Umniah (96% stake) also experienced modest progress in 2011, rising 9.52% to 2,300,000 subscriptions in 2011 while seeing its market share marginally drop from 31.06% in 2010 to 29.62%. Jordan's fourth competitor, XPress, which introduced iDEN technology to the



Arab world in 2004, achieved ever declining results, losing more of its largely business-oriented customer base; from 20,126 to 20,061 in 2011, at a negative growth rate of -0.32%. By the end of 2011, Jordan's overall mobile subscriptions had risen from 6,761,126 to 7,765,061, with mobile phone penetration rising from 108.29% to 119.75%, ranking the country eighth on the mobile penetration scale.



In mid 2012, the Jordanian subsidiaries of both Zain and Orange announced plans to upgrade to 4G networks. Zain is set to spend JOD 80 million (about US\$ 113.3 million) on the development in order to expand its network in the kingdom during 2012, targeting voice networking and broadband, while increasing its number of towers to more than 2,000. Zain Jordan's advanced technological infrastructure allows it to implement 4G services within 40 days of receiving the access license from the Telecommunications Regulatory Commission. Orange Jordan, on the other hand, will invest roughly JD 50 million (about US\$70.8 million) in 2012 to upgrade all 2G and 3G networks, and to begin the implementation of 4G networks in about 3 years. Orange Jordan signed a contract with Ericsson to modernize its 3G and 4G networks.

Jordan's fixed-line sector continued the negative growth trend it had followed since 2005, decreasing further from -3.19% in 2010 to -12.58% in 2011, with subscriptions dropping down to 424,000 from 485,000 in 2010. Consequently, fixed line penetration also dropped from 7.93% in 2010 to 6.79% in 2011. Internet users, meanwhile, rose 16.07% to 2,187,519 from 1,884,599 users in 2010. Internet penetration rose to 35.01%. Twelve Internet Service Providers offer various Internet access services to the Jordanian public.

Growth in computers installed base registered 9.53% in 2011 as the country added 96,453 new computers in 2011 to the 2010 base of 1,012,413. Jordan's computer penetration rate, at 17.74%, ranked it eighth in the Arab world, between Oman and Libya.

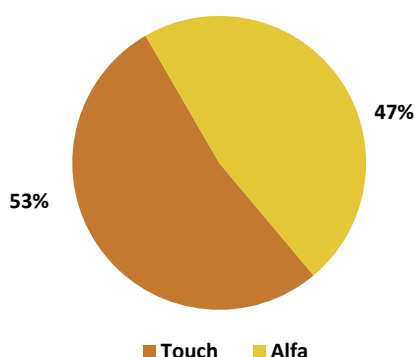
## LEBANON

Currently operated by Kuwait-based Zain (as Touch - the only network where the operator did not rebrand as Zain but rebranded from MTC Touch in 2012) and the German-Saudi consortium Fal Dete (as Alfa), Lebanon's two mobile networks were originally established through 10-year build-operate-transfer (BOT) contracts that were prematurely terminated in 2002 by the government, which compensated the two private firms involved (Cellis and Libancell). According to the terms of the new agreement, all mobile revenues go directly to the state, which pays the new operators a monthly fee of approximately US\$4 million. Although the government earns some US\$1.30 billion a year (approximately 40% of total state income) from the networks, it hopes to collect as much as US\$5-6 billion from the sale of the two licenses.

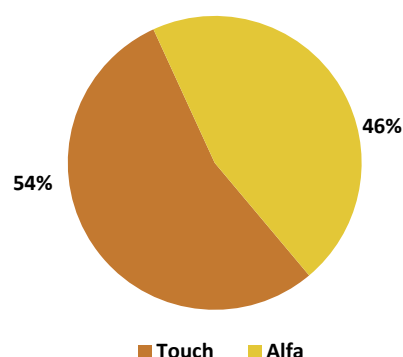
COUNTRY ICT PROFILE – LEBANON					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	693,000	527,500	750,000	889,700	912,132
Mobile Phone Subscriptions	1,216,000	1,436,000	2,380,552	2,841,385	3,389,000
▪ Touch	630,000	836,000	1,313,000	1,499,000	1,839,000
▪ Alfa	586,000	600,000	1,067,552	1,342,385	1,550,000
Internet Users	935,000	1,196,800	1,300,940	1,495,521	1,730,914
Computer Installed Base	586,400	674,360	747,927	829,520	910,965

Source: Ministry of Telecommunications & Mobile Operators

Lebanon Mobile Operator Market Share, 2010



Lebanon Mobile Operator Market Share, 2011



Source: mobile Operators

However, the country's ongoing political crisis has set back the privatization process repeatedly. In the interim, Zain's and Fal Dete's four-year licenses expired in June 2008, but the Lebanese government is set to renew them until the privatization process is complete. Furthermore, Liban Telecom has yet to be established.

In 2011, the number of Lebanese mobile subscribers grew by a convincing 19.27%, the third highest in the MENA region, reaching 3,389,000 subscriptions from 2,841,385 in 2010. In an environment where the Lebanese government sets the prices and the two operators receive a fixed annual amount, regardless of the revenue they may generate, both Zain and Fal Dete lack incentives to invest in their networks or expand their subscription base. In 2011, however, Touch added 340,000 new subscribers to its base resulting in a subscription growth of 22.68%. Alfa, on the other hand, continues to try and bridge the gap between itself and its regional competitor, registering a moderate growth of 15.47% in 2011. Alfa's subscriptions rose from 1,342,385 in 2010 to 1,550,000 in 2011.

Reflected by its modest growth rates, Lebanon placed 13<sup>th</sup> on the mobile penetration index in the MENA region behind Algeria with 80.25%. This was nevertheless an improvement from 2010, where the country ranked 14<sup>th</sup> in the Arab world in terms of penetration, with a rate of 68.07%. Lebanon, however, remained second-last, ahead of only Syria, in the MENA region in terms of mobile to fixed ratio: at only 3.19 mobile phone subscriptions for every fixed line in the country in 2011.

Lebanon also declined dramatically in terms of fixed line growth, falling from 18.63% and the highest fixed line growth rate in the MENA region in 2010, to 10<sup>th</sup> place with 2.52%. Subscriptions grew from 889,700 in 2010 to 912,132 in 2011. Lebanon, however, continued to rank first in the region in terms of fixed line penetration, with a rate of 21.60% in 2011. OGERO is the sole fixed-line operator in Lebanon and is 100% owned by the government, acting under the Ministry of Telecommunication's supervision. In September 2008, the Ministry of Telecommunications had announced its plans to install over 4,000 payphones across the country, in an effort to boost overall fixed line usage and revenues from the payphone segment for government coffers (US\$43 million in 2007).

Lebanon remained sixth in the Arab world in terms of both computer and Internet user penetration, while ranking 14<sup>th</sup> in terms of Internet user growth. At 9.82%, growth in Lebanon's computer installed base over the past year registered a decline from 2010's 10.91%, placing the country eighth in terms of computers installed growth. By the end of 2011, Lebanon added 81,445 computers to reach a total of 910,965. Computer penetration improved, albeit slightly, to 21.57% from 19.87% in 2010.

Meanwhile, Internet users grew by a disappointing 15.74% to register 1,730,914 users from 1,495,521 in 2010. Penetration rose, however, to 40.99%. Lebanon had only launched broadband ADSL services in May 2007, with broadband subscribers reaching 220,000 by end 2011. Growth has been slow, with service providers complaining that state-owned Ogero is controlling the market, since it owns key infrastructure, such as fixed lines. Lebanon's Internet market is served by five Data Service Providers and 17 Internet Service Providers, most of which provide dialup services only. The future of Lebanon's Internet sector looks bright, however, as its Cabinet passed a decree on August 23<sup>rd</sup>, 2011 to increase the current Internet connection speeds, setting the minimum speed at 1Mbit/s, as well as significantly lowering subscription prices. This should certainly help boost Lebanon's broadband subscriber numbers, as well as positively contribute to the growth of the sector as a whole.



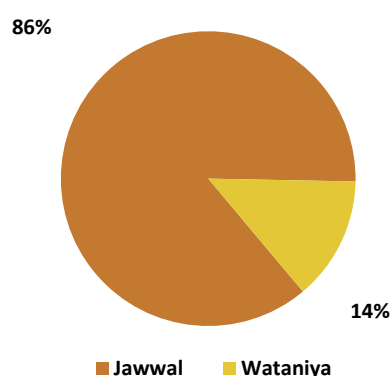
## PALESTINE

Palestine occupied the 14<sup>th</sup> spot on the Arab ICT Use Index in 2011 with a score of 1.16, after achieving a 10.77% overall growth rate. Like most developing MENA economies, Palestine's ICT growth was historically largely dependent on the country's mobile phone sector. In 2011, however, Palestine also witnessed a healthy growth in terms of its computers installed base and Internet users.

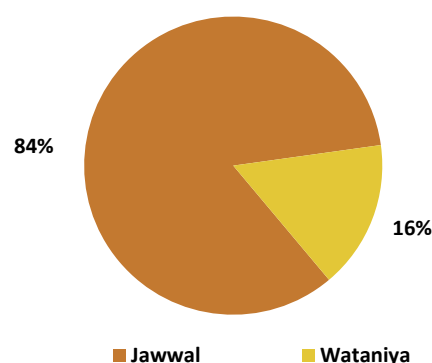
COUNTRY ICT PROFILE – PALESTINE					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	350,442	358,000	370,638	363,000	385,057
Mobile Phone Subscriptions	1,471,481	1,664,406	2,171,404	2,603,582	2,888,964
▪ Jawwal	1,021,481	1,314,406	1,800,000	2,250,000	2,424,000
▪ Wataniya	-	-	110,835	353,582	464,964
Internet Users	552,500	596,700	698,430	966,781	1,280,172
Computer Installed Base	269,900	300,993	338,232	368,989	396,770

Source: Ministry of Telecommunications & Mobile Operators

Palestine Mobile Operator Market Share, 2010



Palestine Mobile Operator Market Share, 2011



Source: Mobile Operators

Palestine's mobile phone subscriptions grew by a modest 10.02%, to register 2,888,964 subscriptions by the end of 2011. In 2009 "Wataniya" became the second licensed mobile operator in Palestine. Wataniya was awarded its license to operate in 2006 through a competitive process; operations were successfully launched in the West Bank in November 2009 after a final grant of necessary radio spectrum in Q3 2009. Paltel's wholly owned subsidiary, the Palestine Cellular Communications Company (Jawwal) and Wataniya Palestine compete with several Israeli mobile phone service providers that operate illegally in the Palestinian Territories. Wataniya acquired 16% of the mobile subscription market while Jawwal remained dominant with an 84% market share in 2011, although down from 86% in 2010; the company's subscriptions numbered 2,424,000 by year end. Jawwal's 2011 subscription figures reflect a growth rate of 7.73% in total subscriptions.

Four Israeli mobile phone companies compete unfairly with local Palestinian operators. The four companies, Cellcom Israel, Orange, Pelephone and MIRS, are effectively competing



illegally with local Palestinian operators Wataniya Palestine and Jawwal, as they do not pay licensing fees or taxes to the Palestinian Authority. It is estimated that the Israeli operators make around US\$150 million annually from their illegal operations in the Palestinian market.

Mobile penetration rose from 63.38% in 2010 to 67.71% in 2011, ranking Palestine in 15<sup>th</sup> place in the MENA region on the indicator, and fifth in the Levant followed by Syria. The penetration rate represents quite an accomplishment given the challenges faced by both service providers and the general population in a war torn country.

Palestine witnessed a considerable shift in growth in the fixed line sector, at 6.08% in 2011, up from the negative growth of -2.06% in 2010. Fixed line subscriptions, exclusively provided by Paltel, numbered 385,057 by end 2011. This reflected in a fixed line penetration rate of 9.10%, slightly higher than 2010's penetration rate of 8.84%.

The country also improved in terms of Internet user growth, coming in 6<sup>th</sup> in terms of Internet growth, rising from 966,781 users in 2010 by 32.54% to 1,280,172 users in 2011. Internet penetration also rose to reach 30.26%. Paltel's subsidiary Internet Service Provider Hadara (the outcome of a merger of four ISPs: Palnet, Palestine online, PIS and Interpal) dominates the Internet access market in Palestine.

In addition to showing an improved growth in Internet users in 2011, Palestine also recorded a modest growth in the computers installed base. Palestine came in second last in 2010, while ranking 15<sup>th</sup> in 2011 with a growth rate of 7.53%. Computers installed base increased from 369,989 in 2010 to 396,770 in 2011. Computer penetration remained low, placing Palestine in 13<sup>th</sup> place with 9.38%.

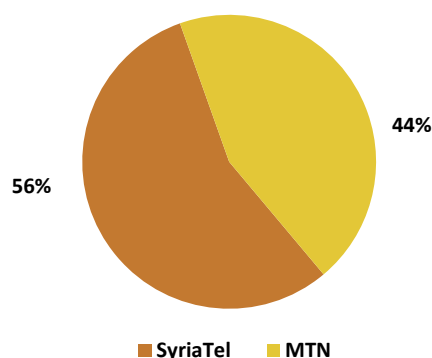
## SYRIA

Syria registered 11.18% overall growth on the 2011 Arab ICT Index, its score rising to 1.13 from 1.02 in 2010. The country ranked in 15<sup>th</sup> place among the MENA economies on the index, ahead of Iraq, Sudan, and Yemen. Internet user growth was the main driver in Syria's growth on the index.

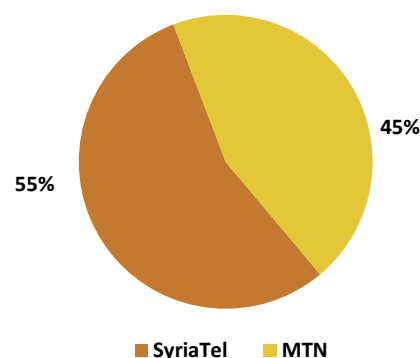
COUNTRY ICT PROFILE – SYRIA					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	3,455,523	3,636,405	3,871,000	4,070,749	4,381,100
Mobile Phone Subscriptions	6,451,104	7,789,563	9,697,000	11,050,421	12,791,647
▪ SyriaTel	3,342,104	4,250,563	5,448,000	6,152,421	7,075,647
▪ MTN	3,109,000	3,539,000	4,249,000	4,898,000	5,716,000
Internet Users	2,400,000	3,432,000	3,836,232	4,294,791	5,113,749
Computer Installed Base	1,100,000	1,430,000	1,603,426	1,797,886	1,819,690

*Source: Ministry of Communications and Technology, Mobile Operators and Central Bureau of Statistics*

Syria Mobile Operator Market Share, 2010



Syria Mobile Operator Market Share, 2011



*Source: Mobile Operators*

Syria's mobile phone subscriptions grew by 15.76% by the end of 2011 compared to the 13.96% growth of 2010, rising from 11,050,421 to 12,791,647 subscriptions. The country ranked fifth overall in mobile phone growth among Arab countries. The market was shared by the country's two mobile operators, SyriaTel, which is owned by local investors, and MTN (formerly Areeba).

SyriaTel registered 7,075,647 subscribers by the end of 2011, a 15.01% increase, while MTN counted 5,716,000, an increase of 16.70%. By year end 2011, MTN's share of the mobile phone subscription market in Syria had risen to 45% from its 44% market share of 2010, with SyriaTel holding on to a dominant 55% of the market. As a result of the rise in subscriptions, the country's mobile penetration rose to 59.83%, a moderate improvement over the 52.95% achieved a year earlier.

Both mobile phone operators commenced operations in February 2000 as one-year pilot projects before being awarded 15-year Build-Operate-Transfer (BOT) licenses a year later. The licenses were granted by the Syrian Telecommunications Establishment (STE), a government body that is both de facto regulator and monopoly provider of all fixed-line, Internet and data services, and require the companies to hand over a significant share (30% to 60%) of their revenues to the regulator.

In August 2010, the government of Syria had approved plans to allow a third mobile network operator in the country. According to the Syria Arab News Agency, the new operator will enter the market in a three-phase process, "including initial rehabilitation, investment and technical rehabilitation, and the financial auction". The government has also granted an initial approval to offer full mobile licenses to Syria's existing operators, SyriaTel and MTN Syria, which currently operate under the Build-Operate-Transfer (B.O.T.) agreements. Such a move, however, will rely on the two operators honoring certain unspecified financial obligations to the public treasury. State-owned incumbent fixed line service provider, STE, had been putting considerable effort into improving fixed-line coverage and services. With US\$1.50 billion investments planned for the network between 2008 and 2013, the company was targeting the expansion of its capacity by four million fixed lines, especially in underserved and remote areas of the country. These aspirations, however, have been deeply disrupted by Syria's current chaotic political climate, rendering the fate of the country's ICT infrastructure in danger. Syria's fixed line subscriptions rose to 4,381,100 by the end of 2011, at a 7.62% growth from 4,070,749 of 2010. Penetration rose to 20.49% by the end of 2011, from 19.50% in 2010, ranking Syria in third place among MENA economies on the fixed line penetration indicator, right behind Lebanon the United Arab Emirates.

Syria's total Internet users grew by 19.07% to register 5,113,749 users by the end of 2011. Internet penetration, in turn, rose by an uninspiring 23.92%, ranking the country in 13<sup>th</sup> place among Arab countries on the indicator. Access to the public is provided through seven active Internet Service Providers, including two STE wholly-owned subsidiaries.

Syria's state-owned fixed line monopoly, Syrian Telecommunications Establishment (STE), was looking to expand its ADSL network through the installation of around 40,000 new broadband ports. The firm had signed a contract with China's Huawei Technologies, ahead of its implementation during the fourth quarter of 2010. The contract includes the expansion of ports at 82 existing sites, as well as the supply of 33,000 ADSL ports at 106 sites. Around 150,000 broadband ports were expected to be installed by the end of 2010, 70,000 of which had already been commissioned. The initiative faces tremendous difficulties, however, due to the present volatility of the country.

The increase in Syria's computer installed base was certainly most impacted by the country's civil unrest, registering a low 1.21% in 2011, to register 1,819,690 computers. Penetration remained modest; 8.51%, ranking the country in 14<sup>th</sup> place overall among Arab countries on the indicator.





## ICT PENETRATION IN NORTH AFRICA

### 5. NORTH AFRICA ICT PROFILES

North Africa has some of the most developed ICT markets on the continent. Despite its tumultuous political climate, Libya has once again made great inroads on the ICT Use Index in 2011, with an overall index score of 2.21, bolstered mainly by the country's phenomenal growth in the mobile phone and fixed line subscriptions markets. In addition to leading the region in mobile phone penetration, Libya also topped the index in computer penetration, with an overall computer penetration rate of 14.88%, as well as fixed line penetration, coming in at 16.87%. Meanwhile, Morocco, with an index score of 1.72, ranked second in the region. The country led the North Africa region in terms of Internet penetration (39.26%).

Overall, North Africa scored 1.60, up from the 1.42 of 2010, on the index, with 109.74% mobile phone penetration. Internet penetration registered 29.32%, while fixed line penetration registered 10.38%. The region's computer penetration rate, on the other hand, was a modest 10.41%.

ICT PENETRATION IN NORTH AFRICA – 2011						
RANK	COUNTRY	FIXED LINE PENETRATION	MOBILE PHONE PENETRATION	INTERNET PENETRATION	COMPUTER PENETRATION	ICT USE INDEX
1	LIBYA	16.87%	166.67%	22.60%	14.88%	2.21
2	MOROCCO	11.00%	112.75%	39.26%	9.40%	1.72
3	TUNISIA	11.35%	115.42%	31.99%	11.86%	1.71
4	ALGERIA	8.50%	96.26%	20.94%	10.14%	1.36
<b>TOTAL</b>		<b>10.38%</b>	<b>109.74%</b>	<b>29.32%</b>	<b>10.41%</b>	<b>1.60</b>

Source: MRD

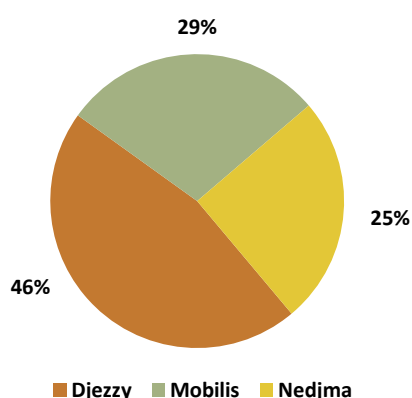
## ALGERIA

Algeria's mobile phone subscriptions grew a decent 8.94% in 2011, to register 35,711,159 subscriptions overall. The pace of growth picked up from an almost negligible 0.15% in 2010. Algeria placed in the top 5 when it came to fixed line, Internet and PC growth, but placed 12<sup>th</sup> in terms of mobile phone subscriptions. Overall, Algeria placed 13<sup>th</sup> on the Arab ICT use Index, with a score of 1.36.

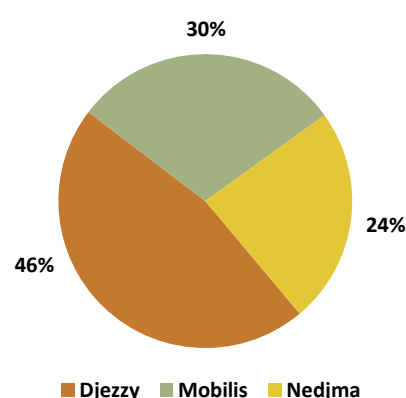
COUNTRY ICT PROFILE – ALGERIA					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	3,068,409	3,687,603	2,576,200	2,922,731	3,153,500
Mobile Phone Subscriptions	25,500,000	26,926,569	32,729,800	32,780,165	35,711,159
▪ Djazzy	12,000,000	14,108,859	14,618,166	15,087,393	16,595,233
▪ Mobilis	9,500,000	7,703,689	10,078,952	9,446,773	10,611,147
▪ Nedjma	4,000,000	5,114,021	8,032,682	8,245,999	8,504,779
Internet Users	3,050,000	3,965,000	4,664,409	5,648,315	7,767,641
Computer Installed Base	1,482,000	2,000,700	2,434,168	2,961,551	3,763,607

Source: MRD

Algeria Mobile Operator Market Share, 2010



Algeria Mobile Operator Market Share, 2011



Source: Mobile Operators

There are three operators in Algeria's mobile marketplace, making it one of the most competitive in North Africa. Mobilis, the country's oldest mobile operator and a subsidiary of state-owned Algerie Telecom, had lost some market share to its dominant regional competitors. However, Mobilis, which faced a negative growth in 2010, regained significant subscription numbers; from 9,446,773 in 2010 to 10,611,147 in 2011, and increased its market share from 29% in 2010 to 30% in 2011. Launched in early 2002, the largest operator in the country, Djazzy, is majority-owned by Egypt's Orascom Telecom. Djazzy continued its dominance over mobile market share in Algeria with a steady market share of 46% in both 2010 and 2011. Subscriptions increased strongly from 15,087,393 in 2010 to 16,595,233 in 2011, registering a healthy 9.99% growth rate.

The country's third and newest mobile phone service provider, Nedjma, saw its base drop slightly to 24% market share from 25% in 2010. Nedjma, which launched in 2004, registered

8,504,779 subscriptions by the end of 2011, growing at a rate of 3.14% from 8,245,999 in 2010. Nedjma is majority owned by Kuwait's Wataniya Telecom.

Algeria remained in 13<sup>th</sup> place on the Arab ICT use index, but improved in terms of mobile phone growth rate; from 0.15% in 2010 to 8.94% in 2011. The country's mobile phone penetration rate rose from 90.19% in 2010 to 96.26% in 2011. In absolute figures, Algeria's mobile phone subscriptions ranked it second in North Africa, behind Morocco.

Algeria's fixed line sector witnessed a moderate growth in 2011, although dropping from 13.45% in 2010 to 7.90% in 2011, with total subscriptions rising from 2,922,731 to 3,153,500. These results placed Algeria fourth in Arab fixed line growth in 2011. One of the prime reasons regarded by analysts for the poor development of fixed line telephone services in Algeria lies in the lack of competition and the persistent monopoly held by the public operator which ironically can't meet the public demands. The country ranked 14<sup>th</sup> in terms of fixed line penetration.

Algeria made significant gains in the number of Internet users, placing fourth in the MENA region for 2011 in terms of growth. Internet users rose 37.52%, from 5,648,315 in 2010 to 7,767,641 users by the end of 2011. Some 76 Internet Service Providers provide Internet access to the Algerian market, including two – Algerie Telecom subsidiary Djaweb and EEPAD – who provide ADSL access. Internet user penetration reached 20.94% by the end of 2011. This left Algeria in 15<sup>th</sup> place on the Internet user penetration indicator in the MENA region, the same position it had occupied in 2010.

Fixed broadband services in Algeria have also been witnessing an impressive growth; 33.33% and a total of 1,200,000 subscribers, placing the country sixth on the same indicator. Algeria's broadband capacity nearly doubled in 2011, while Algerie telecom, the country's main Internet provider, announced several new projects to increase Algeria's broadband capacity, including a boost in the number of installed high-speed Internet lines from 1.8 million to six million by 2014 and a roll out of 500,000 multi-service access node lines in 2011 alone. The country ranked ninth in terms of fixed broadband penetration, with a rate of 3.23%.

Growth in the computers installed base was healthy – ranking Algeria first in the MENA region in terms of growth rate – at 27.08%. The number of computers installed rose from 2,961,551 in 2010 to 3,763,607 in 2011. Although the penetration rate reached the double digits registering 10.14%, Algeria remained in 11th place among Arab countries for the indicator.



## LIBYA

Libya continued to lead its North African counterparts on the 2011 Arab ICT Use Index, with a score of 2.21, and placed seventh overall among MENA economies. In 2011, Libya placed last in terms of growth on all indicators. The negative growth registered in the country's computer installed base, mobile and fixed line indicators was certainly largely fueled by the political events which took place in the country over the course of 2010-2011.

COUNTRY ICT PROFILE – LIBYA					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	517,750	910,000	1,100,700	1,227,500	1,012,100
Mobile Phone Subscriptions	5,105,073	7,250,000	9,500,000	10,900,000	10,000,000
▪ Libyana	4,500,000	6,000,000	7,200,000	N/A	N/A
▪ Al-Madar	605,073	1,250,000	2,300,000	N/A	N/A
Internet Users	805,000	966,000	1,130,935	1,232,542	1,355,796
Computer Installed Base	517,500	729,675	850,692	991,779	892,601

Source: GTA & Mobile Operators

The Libyan telecommunication network is the core of the ICT sector for the country. The telecommunication network, however, is poor and has suffered significantly from the lack of competition and essential experience. Consumers complain of low coverage, poor connections and dropped calls at peak times. The modest rise in mobile phone penetration from 163.21% in 2010 to 166.67% in 2011 was driven by the negative growth in the sector, which registered -8.26%, causing the country subscriptions to drop from 10,900,000 in 2010 to 10,000,000 in 2011. Mobile subscription figures for Libya could not be found through the country's two state-owned mobile operators, Libyana and Al-Madar Al-Jadeed, and figures provided by ITU were used.

GPTC, the General Posts and Telecommunications Company, had expanded landline coverage to many parts of Libya, although the quality of its infrastructure and service as mentioned previously needs substantial improvement. Libya's fixed line subscriptions dropped to -17.55% in 2011 to reach an estimated 1,012,100 subscriptions; down from 1,227,500 in 2010. The country had sustained a low growth rate in the sector for several years, but, as expected, witnessed a sharp drop in 2010 and 2011, mainly due to the unstable political climate which caused many residents to leave the country and many businesses to close down. Fixed line penetration fell from 18.38% in 2010 to 16.87% in 2011. The fixed line penetration rate placed Libya in sixth place in the MENA region, ahead of Tunisia, Morocco and Algeria – with a strong potential to grow given the country's comparative wealth.

In addition to managing the country's fixed line sector, LPTIC's monopoly effectively extends to Internet services, although there are some seven licensed ISPs in the country. International connectivity is in the hands of the state-owned provider, the Libya Telecom and Technology Company (LTT). The latter dominates the Internet access market, which numbered 1,355,796 users in 2011. Internet users rose by a mere 10.00% in 2010, from 1,232,542 users, with Internet penetration registering a modest 22.60% by the end of 2011. While low, the penetration rate ranked Libya in 14<sup>th</sup> place in the MENA region on the Internet User penetration indicator, and third in the North Africa region behind Tunisia and Morocco.

On the computer front, Libya registered a negative growth of -10.00% in its computer installed base, to list 892,601 computers in 2011 down from 991,779 in 2010. This affected the country's penetration, moreover, registering 14.88%, marginally higher than the 14.85% attained in 2010. Libya maintained its position in ninth place among MENA countries in terms of penetration, however, for the seventh year in a row.

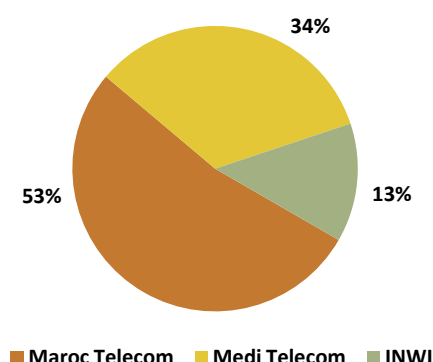
## MOROCCO

The World Information Technology Report (a joint report of the ITU and UNCTAD) in 2007 had applauded Morocco's efforts and the progress the country had made in the field of new information and communication technology (ICT) development. Liberalization of the telecom sector along with the added competition and providing viable laws and opportunities by the authorities for FDI (foreign direct investments) had helped Morocco's rapid development of this sector.

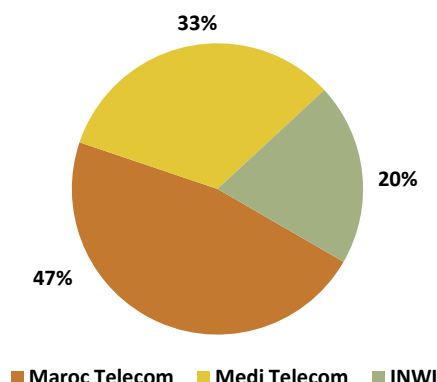
COUNTRY ICT PROFILE – MOROCCO					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	2,393,767	2,991,185	3,516,281	2,991,185	3,516,281
Mobile Phone Subscriptions	20,029,000	22,816,000	25,311,000	31,982,000	36,554,000
▪ Maroc Telecom	13,327,000	14,456,000	15,272,000	16,890,000	17,126,000
▪ Medi Telecom	6,702,000	7,925,000	9,434,000	10,789,000	12,035,000
▪ INWI	-	435,000	605,000	4,303,000	7,393,000
Internet Users	3,500,000	4,200,000	4,836,724	8,691,338	12,728,464
Computer Installed Base	1,700,000	1,904,000	2,197,822	2,536,986	3,045,939

Source: Agence Nationale de Réglementation des Télécommunications & Mobile Operators

Morocco Mobile Operator Market Share, 2010



Morocco Mobile Operator Market Share, 2011



Source: Mobile Operators

Morocco this year gained 0.26 points on the 2011 Arab ICT Use Index to a score 1.72, from 1.46 in 2010, ranking in ninth place overall in the MENA region, up from 10<sup>th</sup> place in 2010. The country registered 36,554,000 mobile phone subscriptions by the end of 2011, with net additions numbering 4,572,000 subscriptions. Growth in the sector slowed down to 14.30% in 2011, compared to a soaring 26.36% in 2010. The introduction of better customer loyalty plans, the downward trend in prices and the enhancement of service offerings over the last three years have further boosted mobile telephony. Morocco's resulting mobile phone penetration has risen to a rate of 112.75% (99.73% in 2010), which nevertheless ranked it second last in the North Africa region on the indicator.



The mobile telephony segment comprises three operators: Maroc Telecom (47% market share), Méditel (33%) and INWI (20%). Despite a drop in market share (from 53% to 47% in 2011) incumbent Maroc Telecom, which is 51%-owned by Vivendi Universal and listed on the Casablanca and Paris stock exchanges, continued to be the country's dominant mobile operator, with total subscribers rising from 16,890,000 to 17,126,000 at the end of 2011. Taking 33% of the market was Medi Telecom, which saw subscriptions grow by 11.55%, from 10,789,000 to 12,035,000. Medi Telecom, whose primary shareholders are Telefonica Moviles and Portugal Telecom, purchased its GSM license in 1999 for US\$1.1 billion and has invested over twice that sum in its mobile network since its launch. Wana, Morocco's third mobile operator went through complete rebranding in 2010 and emerged as INWI, currently 32% owned by Kuwait's Zain/Ajial consortium. The aggressive marketing strategies of the newly branded INWI, along with popular services such as per second billing paid off for the company, as subscriptions grew by an impressive 71.81% in 2011, adding 3,090,000 additional subscribers, reaching 7,393,000 in 2011.

Morocco has a higher number of prepaid than postpaid users. From the 36,554,000 mobile subscribers, 34,997,000 were prepaid; about 94.74% of all Morocco's mobile phone subscriptions. The remaining 5.26% of the subscribers were postpaid.

In 2006, Morocco had the highest mobile-to-fixed line ratio in the Arab world at 12.64 mobile subscriptions for every fixed line subscription, indicating a weak fixed line sector. However, in 2011, the sector had made some improvements, resulting in a drop to eighth place in the mobile-to-fixed line ratio, with 10.25 mobile phone subscriptions for every fixed line.

In the fixed-line telephony segment, new-generation telecommunications licenses have been granted to two operators, Méditel and INWI. Morocco registered a negative growth in fixed line subscriptions in 2011; -4.89%, a significant decrease from 6.63% in 2010. Fixed line subscriptions fell to 3,566,076, down from 3,749,364 in 2010. Of these, 2,245,023 were restricted mobility fixed line subscriptions. Total fixed-line penetration for 2011 fell marginally, however, to 11.11%, from 11.69% in 2010, ranking Morocco in 10<sup>th</sup> place among Arab countries on this indicator, up from 11<sup>th</sup> place in 2010.

Morocco's Internet users grew by an impressive 46.45% in 2011, the highest growth in the Arab world, to 12,728,464 users from 8,691,338 in 2010. Internet penetration rose to 39.26%, ranking the country first in the North Africa region on the indicator and eighth in the MENA region. According to the ANRT, there were 3,182,116 Internet subscribers in Morocco by the end of 2011, up from 2,881,973 in 2010. Fixed broadband connections accounted for 589,679 subscribers.

Meanwhile, growth in the country's computer installed base rose by a healthy 20.06% in 2011, bringing the total number of computers up to 3,045,939 from 2,536,986 in 2010. At 9.40% penetration, Morocco ranked in 12<sup>th</sup> place in the MENA region on the indicator, and last in North Africa.

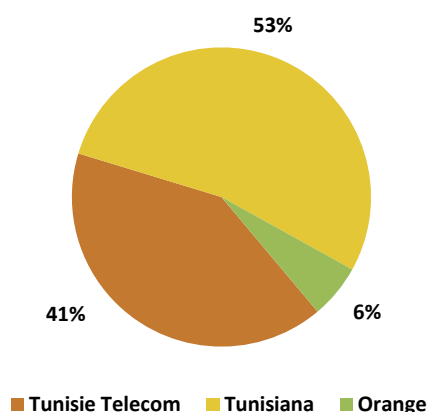
## TUNISIA

In 2011, Tunisia was overtaken by Morocco as the second-highest ranking North African country on the Arab ICT Use Index, leaving it in third place for the region. The country scored 1.71 on the index, up from 1.54 in 2010. Tunisia witnessed a modest improvement in growth in the mobile phone subscriptions sector in the MENA region, moving from 10<sup>th</sup> place on the list in 2010, to ninth place in 2011. Mobile phone growth registered a modest 11.46%, with 1,272,497 net additions in mobile phone subscriptions by year-end.

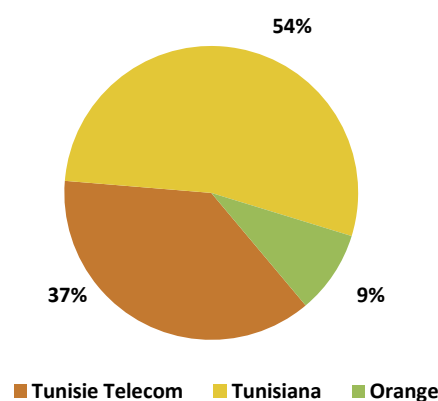
COUNTRY ICT PROFILE – TUNISIA					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	1,273,000	1,239,000	1,278,500	1,289,585	1,217,781
Mobile Phone Subscriptions	7,842,619	8,602,164	9,760,926	8,602,164	9,760,926
▪ Tunisie Telecom	4,190,806	4,345,591	4,550,000	4,536,600	4,635,379
▪ Tunisiana	3,651,813	4,256,573	5,210,926	5,929,651	6,619,670
▪ Orange	-	-	-	648,908	1,132,607
Internet Users	1,722,190	2,066,628	2,353,077	2,737,805	3,432,988
Computer Installed Base	767,500	902,521	1,029,871	1,175,191	1,272,643

Source: Ministry of Communication Technologies & Mobile Operators

Tunisia Mobile Operator Market Share, 2010



Tunisia Mobile Operator Market Share, 2011



Source: Mobile Operators

Tunisia mobile sector used to be a duopoly shared by incumbent Société Nationale des Télécommunications (Tunisie Telecom) and Tunisiana. Tunisiana entered the market in 2002. In a move that signaled the start of the privatization of state-owned Tunisie Telecom, TECOM Investments and Dubai Investment Group, both members of Dubai Holding, jointly purchased a 35% stake in Tunisie Telecom in March 2006 from the Tunisian government for US\$2.25 billion. Tunisiana, on the other hand, is jointly owned by Orascom Telecom (which has a 50% interest in Tunisiana through two wholly owned subsidiaries) and Wataniya Telecom. The two local operators were expected to maintain market exclusivity until 2010, as indicated by Tunisia's regulatory authority, L'Instance Nationale des Télécommunications.





In June 2009, local telecommunications company Divona, backed by France Telecom, won the country's third license in with a bid of TD257.25m (US\$178.8m). The company had gone up against competition from leading Turkish telecoms firm Turkcell in the final stage of bidding. Divona was then rebranded as Orange Tunisie, remaining majority Tunisian-owned, although France Telecom holds a substantial share in the new firm. In April 2010 the long-awaited launch of Tunisia's third telecommunications operator took place. Orange Tunisie joined private mobile operator Tunisiana and the partially privatized state outfit, Tunisie Telecom. Orange entered the market commercially in April, following the technical launch of its 2G and 3G services in February 2010. The 15-year license not only covers mobile services, including 3G exclusivity for the first year of operation, but also Internet and fixed-line services. Orange Tunisie is expected to invest more than TD1bn (US\$694.9m) by 2015.

Total mobile subscriptions numbered 9,760,926 in 2011 and 8,602,164 subscriptions in 2010. In 2009, Tunisie Telecom lost its dominance to Tunisiana, who continues to be the market leader with 54% market share. Tunisiana, meanwhile, registered a growth rate of 11.64% in 2011, compared to 13.79% in 2010. Orange Tunisie, on the other hand, witnessed the highest growth in the sector in 2011, with a soaring rate of 74.54% and 1,132,607 subscribers by the end of the year. Healthy growth in the sector reflected on the country's mobile penetration rate, which rose to 115.42% from 104.75%, leaving the country in ninth place for the MENA region.

Fixed line subscriptions declined with a negative growth rate of -5.57% in 2011, compared to the 0.87% registered in 2010. This reflected a drop in penetration from 12.15% to 11.35% in 2011. Most of the rural areas in Tunisia still rely on wireless local loop (WLL) for communication. Fixed line services in the country registered 1,217,781 subscriptions by the end of 2011, losing 71,804 subscribers from its base.

Tunisia's Internet user and computer installed base markets fared much better than its fixed line counterpart in 2011, with Internet users rising by 25.39% to register 3,432,988 from 2,737,805 users in 2010. Moreover, by the end of 2011, there were around 604,102 fixed broadband Internet subscribers, 541,635 of which were ADSL service subscribers. The sector is serviced by 11 Internet Service Providers, six of which are public sector providers including the Agence Tunisienne d'Internet (ATI) run by the Ministry of Communication Technologies. Tunisia's Internet penetration rose to 31.99% by the end of 2011, ranking the country in second place among its North Africa counterparts on the indicator and in 10<sup>th</sup> place overall in the MENA region.

ADSL SUBSCRIBERS IN TUNISIA				
2007	2008	2009	2010	2011
114,166	212,489	367,538	478,457	541,635
Source: Ministry of Communication Technologies				

Finally, an 8.29% growth in the computers installed base increased the number of computers from 1,175,191 in 2010 to 1,272,643 in 2011. The rise can be attributed to the continued success of the Family Computer initiative launched by the Ministry of Communication Technologies, which had been working to introduce one million computers in Tunisian households. Computer penetration increased to 11.86% by the end of 2011, the second highest penetration rate in North Africa behind Libya.



## ICT PENETRATION IN SUDAN & YEMEN

### 6. SUDAN & YEMEN ICT PROFILES

Sudan and Yemen occupied the last two positions on the 2011 Arab ICT Use Index. Sudan's score on the 2011 index rose to 0.83, while Yemen scored 0.74. Yemen's main advantage over Sudan was its fixed line penetration rate; 4.42% to Sudan's 1.15%. However, overall, Yemen achieved lower penetration rates on all other indicators. The low penetration rates could in both countries be deemed due to political instability, civil wars, high illiteracy rates, and low per capita income.

ICT PENETRATION IN SUDAN & YEMEN – 2011						
RANK	COUNTRY	FIXED LINE PENETRATION	MOBILE PHONE PENETRATION	INTERNET PENETRATION	COMPUTER PENETRATION	ICT USE INDEX
1	SUDAN	1.15%	59.89%	16.60%	4.93%	0.83
2	YEMEN	4.42%	51.54%	13.69%	3.86%	0.74
<b>TOTAL</b>		<b>2.35%</b>	<b>56.83%</b>	<b>15.53%</b>	<b>4.54%</b>	<b>0.79</b>
Source: MRD						

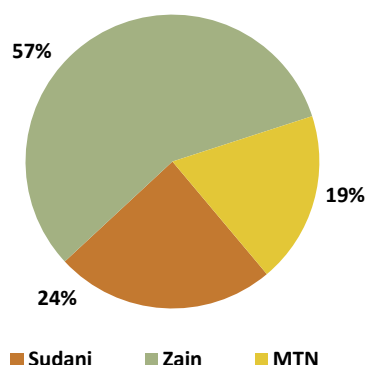
## SUDAN

Three companies provide mobile services in Sudan, namely Sudani, Zain Sudan and MTN Sudan. Zain Sudan continued its dominance over the market, although losing market share; from 57% in 2010 to 52% and a total of 13,060,000 subscribers by year end 2011. Sudani held on to its 24% of market shares, while MTN Sudan gained a significant increase in subscriptions; from 3,457,000 in 2010 to 6,013,000 in 2011. Sudan registered the second lowest score on the 2011 Arab ICT Use Index, with a growth of 34.22%. Mobile phone subscriptions in the country, however, grew significantly by 37.18% and placed Sudan first in Arab Mobile phone growth rates, compared to a mere 8.57% in 2010.

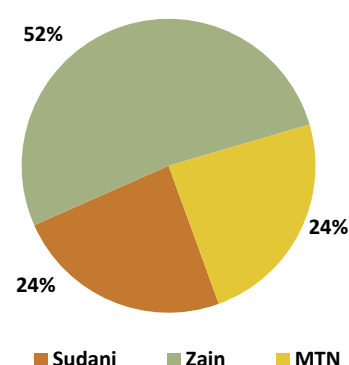
COUNTRY ICT PROFILE – SUDAN					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	345,194	356,077	525,780	544,684	483,617
Mobile Phone Subscriptions	8,218,092	11,186,548	16,858,157	18,303,000	25,073,300
▪ Sudani	2,241,000	4,010,000	4,665,157	4,430,000	6,000,300
▪ Zain	3,887,474	4,529,539	8,493,000	10,416,000	13,060,000
▪ MTN	2,089,618	2,647,009	3,700,000	3,457,000	6,013,000
Internet Users	2,450,000	3,479,000	4,181,566	4,939,678	6,959,517
Computer Installed Base	1,080,000	1,292,562	1,536,682	1,826,908	2,068,436

Source: Central Bureau of Statistics & Mobile Operators

Sudan Mobile Operator Market Share, 2010



Sudan Mobile Operator Market Share, 2011



Source: Mobile Operators

Zain's market share fell to 52%, giving away 5% of the market to its competitors in 2011. In February 2006, Kuwait-based Zain, which already owned 39% of Mobitel, purchased the company's outstanding shares from the Sudanese government for US\$1.3 billion, taking ownership in the country's second mobile phone operator to 100%. Mobitel was rebranded as Zain in September 2007. The company's mobile phone subscriptions grew by a moderate 25.38% in 2011, from 10,416,000 in 2010 to 13,060,000 in 2011. The decrease in Zain's market share did little to take away Zain's position as market leader for mobile subscription in the country.



Sudani's market share remained stable at 24%, with subscribers growing at a healthy 35.45% to register 6,000,300 in 2011, up from 4,430,000 in 2010. The company was established by incumbent fixed line operator, Sudatel, following the sale of the latter's interest in Mobitel to Kuwait's Zain. A CDMA technology-based voice and data service, Sudani was licensed by the country's regulatory authority, the National Telecommunications Corporation, at a cost of US\$230 million and began limited operations in April 2006.

Sudan's third mobile phone network, MTN Sudan, was the biggest winner in 2011, recuperating its market share from 19% in 2010 to 24% in 2011, a number it had registered in 2009. By the end of 2011, MTN Sudan's mobile phone subscriptions had risen from 3,457,000 to 6,013,000 at year end 2011. The network registered the fastest growth rate among Sudanese mobile phone service providers in mobile phone subscriptions, an impressive 73.94%.

Total mobile phone subscriptions in the country numbered 25,073,300 at the end of 2011, which landed Sudan the number one spot in Arab mobile growth rates, which came in at 37.18%. As a result of all this activity, Sudan's mobile penetration rose from 44.19% to 59.89% by the end of 2011. This placed Sudan third last in mobile penetration among Arab countries, remaining in 17<sup>th</sup> place on the Arab ICT Use Index and outranking Yemen yet again on the indicator.

The country's fixed line sector is served by two fixed line service providers – Sudatel and Canar Telecom. The latter began operations in February 2006, and is majority owned by the United Arab Emirates' Etisalat. Canar Telecom provides voice, data and wireless broadband Internet based on next-generation network (NGN) and CDMA technologies. By the end of 2011, the total number of subscriptions in the country was down to 483,617. The figure reflects a significant drop in growth of -11.21% from 544,684 fixed line subscriptions at the end of 2010, placing Sudan third-last on the list in terms of growth rate. The negative growth rate is caused by a declining interest in fixed line service due to its limited coverage and the long waiting periods before receiving a connection, as well as the surge in the popularity of mobile services due to their ease of connection and usage. Sudan's fixed line penetration registered 1.15% in 2011, a decrease from 1.31% in 2010, ranking the country last among the Arab countries on the fixed line penetration indicator.

By the end of 2011, the total number of Internet users in Sudan was 6,959,517 – an increase of 40.89% over the country's estimated 4,939,678 users a year earlier. This resulted in a rise in Internet penetration to 16.60%, outranking Iraq and Yemen on the Internet user penetration indicator.

The country's computer installed base rose 13.22% in 2011 from 1,826,908 computers to 2,068,436. Computer penetration registered 4.93% at end 2011, ranking Sudan in 17<sup>th</sup> place on the indicator among MENA economies.

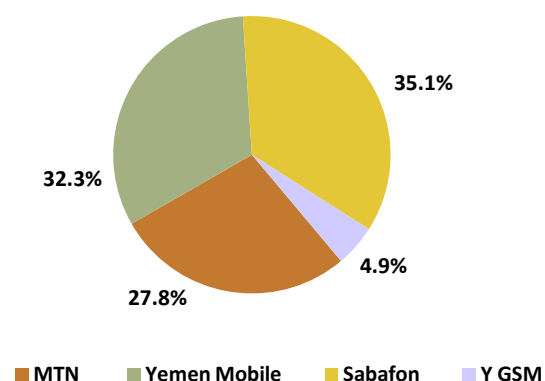
## YEMEN

Yemen bottomed out on the 2011 Arab ICT Use Index, once again, on three out of the four indicators. It remained in last place when it came to mobile phone, Internet and computer penetration, rising one place above last on only fixed line penetration to rank 17<sup>th</sup>. The country's score on the index increased to 0.75 from last year's 0.62. The country fared relatively well in terms of fixed line growth, landing in ninth place with 2.79%. This marked, however, a decline from last year's 4.49% which had positioned it in eighth place in terms of growth rate.

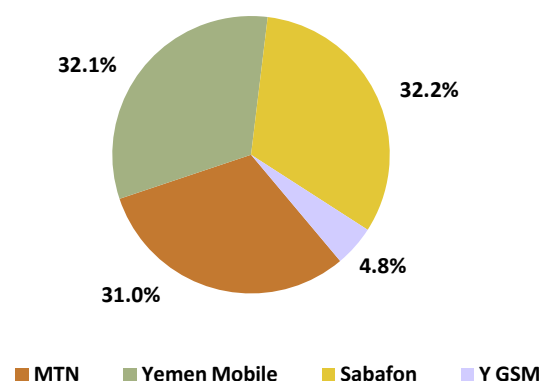
COUNTRY ICT PROFILE – YEMEN					
INDICATOR	2007	2008	2009	2010	2011
Fixed Line Subscriptions	1,021,988	960,588	996,981	1,046,200	1,075,412
Mobile Phone Subscriptions	4,348,264	6,445,033	8,312,773	10,268,045	12,530,235
▪ MTN	1,507,049	1,858,722	2,342,758	2,856,000	3,880,000
▪ Yemen Mobile	1,245,720	1,933,133	2,816,145	3,312,045	4,018,235
▪ Sabafon	1,529,788	2,383,870	2,896,717	3,600,000	4,032,000
▪ Y GSM	65,707	269,308	257,153	500,000	600,000
Internet Users	1,122,000	1,570,800	1,908,354	2,379,724	3,327,558
Computer Installed Base	448,800	592,551	716,424	866,192	938,623

Source: Mobile Operators

Yemen Mobile Operator Market Share, 2010



Yemen Mobile Operator Market Share, 2011



Source: Mobile Operators

Mobile phone subscriptions rose 22.03% to register 12,530,235 subscriptions by the end of 2011, from 10,268,045 subscriptions in 2010. The country's growth rate ranked it second among MENA economies in terms of mobile phone subscriptions growth.

Sabafon continued to dominate as the country's largest mobile phone provider in terms of subscriptions, with its market share dropping slightly from 35.1% in 2010 to 32.2% in 2011, registering 4,032,000 subscriptions by the end of 2011 and a slow growth rate of 12%. MTN was one of the other dominant providers, with 3,880,000 subscriptions (up to 31% in 2011).



from 27.8% market share in 2010). Yemen Mobile company, meanwhile, stood still in terms of market share, from 32.3% to 32.1% in 2011. Net additions to Yemen Mobile's subscription base registered 2,262,190 new subscriptions during the year, reflecting a growth rate of 22.03%. By the end of 2011, Yemen had a mobile penetration rate of 51.54%.

Yemen remained one of the few Arab countries without an independent telecommunications regulatory authority. The country's Ministry of Telecommunications and Information Technology (MTIT) acts as the de facto regulatory authority for the sector.

While the mobile phone sector has been fully liberalized, Yemen's fixed line sector remains a monopoly controlled by state-owned fixed line service provider, the Public Telecommunications Corporation. Yemen's fixed line subscriptions rose to 1,075,412 by the end of 2011, at a growth of 2.79% from 1,046,200, resulting in a penetration rate of 4.42%.

Meanwhile, Yemen registered a considerable 39.83% growth in Internet users, to reach 3,327,558 users by the end of 2011, up from 2,379,724 in 2010. This reflected in a rise in Internet penetration to 13.69%. Yemen's computer installed base sustained steady growth in 2011, growing at 8.36% to register 938,623 from 866,192 computers in 2010. Penetration remained marginal, however, at 3.86%; the lowest recorded penetration rate among MENA economies for 2011.

## PART II: ARAB SOCIAL NETWORKS ADOPTION

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## FACEBOOK USAGE

### 1. ARAB SOCIAL NETWORKS ADOPTION

Facebook knows who you and your friends are, Facebook knows everything about you and them; what you like to read, buy, the places you would like to visit. The information that Facebook collects from its subscribers is called a social graph. The relationships in Facebook's social graph take on a symmetrical aspect; where there is a relationship between 'Omar' and 'Zaid', the opposite is also true i.e. 'Zaid' also has a relationship with 'Omar'.

The social graph which Facebook continues to draw has enabled the company to display customized advertising for each individual user which corresponds to his/her interests, therefore decreasing the user's need to use Google to search for products and services appropriate for him/her. This is what has prompted Google to establish Google+, its very own social networking platform, enabling it to create a competitive social graph.

TOP FIVE COUNTRIES IN TERMS OF FACEBOOK USERS SEPTEMBER 6 <sup>TH</sup> 2012				
COUNTRY	USERS	6 MONTH CHANGE	% CHANGE	POPULATION PENETRATION
USA	163,220,540	+7,705,200	+4.94%	52.61%
BRAZIL	56,725,420	+14,363,640	+34.04%	28.21%
INDIA	53,624,320	+8,604,480	+19.11%	4.57%
INDONESIA	39,762,600	-3,761,140	-8.64%	16.37%
MEXICO	37,482,460	+3,885,200	+11.56%	33.33%

Source: [www.socialbakers.com](http://www.socialbakers.com)

The number of Facebook users has reached one billion in September 2012. The United States leads the world in terms of number of Facebook users, boasting 163,220,540 users. This number translates into a population penetration figure of 52.61%. Ranking second globally is Brazil, with 56,725,420 users, followed by India with 53,624,320 users. Rounding up the global top five are Indonesia and Mexico, with 39,762,600 and 37,482,460 total Facebook users, respectively. In terms of Facebook penetration of the total population, Monaco tops the list with 100.77% penetration.

In the MENA region, Egypt leads in terms of sheer number of Facebook users with 11,472,400 users, ranking the country 21st globally. This number represents a growth of 9.83% over a period of six months. Saudi Arabia ranks second, registering 5,240,720 users, followed by Morocco in third place with 4,764,560 users. On the other end, Bahrain records the lowest number of users; 355,500, preceded by Oman and Yemen, registering 485,140 and 576,500 users, respectively.





ARAB FACEBOOK USERS (RANKED BY NUMBER OF USERS) AS OF SEPTEMBER 6 <sup>TH</sup> 2012				
GLOBAL RANK	COUNTRY	USERS	6 MONTH CHANGE	% CHANGE
21	EGYPT	11,472,400	+983,820	+9.39%
32	KSA	5,240,720	+97,080	+1.89%
37	MOROCCO	4,764,560	+338,240	+7.67%
43	ALGERIA	3,736,440	+407,880	+12.25%
47	TUNISIA	3,157,860	+204,060	+6.90%
48	UAE	3,078,000	+168,140	+5.78%
N/A	SYRIA*	2,932,680	-	-
56	JORDAN	2,456,100	+232,100	+10.43%
62	IRAQ	2,087,760	+536,220	+34.58%
71	LEBANON	1,519,660	+78,660	+5.45%
N/A	SUDAN*	1,440,740	-	-
81	PALESTINE	1,012,980	+95,760	+10.47%
86	KUWAIT	772,440	-127,520	-14.19%
89	QATAR	699,420	+126,600	+44.99%
95	LIBYA	633,640	+168,960	+36.36%
96	YEMEN	576,500	+140,420	+32.20%
102	OMAN	485,140	+63,780	+15.11%
110	BAHRAIN	355,500	+10,620	+3.07%
<b>TOTAL</b>		<b>46,422,540</b>	<b>3,524,820</b>	<b>N/A</b>
Source: www.socialbakers.com *Arab Social Media Report by Dubai School of Government, figures dated June '12				

In terms of penetration of Facebook users in relation to Internet users, Jordan ranks first in the MENA region with 90.85% penetration. Tunisia comes in second with 81.54% penetration, followed by Lebanon, scoring a healthy 78.99%. The UAE ranks fourth with 60.53% penetration and Syria rounds off the top five with a penetration figure of 57.35%. On the opposite end of the scale, Yemen occupies the last place in the region with the only single digit penetration figure; 9.57%. Sudan and Iraq rank in 17th and 16th place, scoring 20.70% and 23.66%, respectively. In terms of Facebook penetration of the population, the UAE ranks first registering a figure of 32.60%. Although socialbakers.com provides figures for Facebook penetration of a country's population, we have used population figures collected from official sources due to the presence of visible inaccuracies in the figures used by socialbakers.com. (please refer to chapter titled "The population factor" for more details).

It should be noted that certain factors contribute to the seemingly high Facebook penetration rates of Internet users in certain countries. Jordan's score of 90.85% is no doubt in part due to the creation of several Facebook account by the same user. This could also be the case in most of the countries in the region, as restrictions on freedom of speech make people, especially those involved in political activism, weary of using their personal accounts to disseminate information that could be frowned upon by the authorities.

ARAB FACEBOOK USERS, 2011 (RANKED BY PENETRATION OF INTERNET USERS)					
COUNTRY	POPULATION	INTERNET USERS	FACEBOOK USERS <sup>1</sup>	FB PENETRATION (POPULATION)	FB PENETRATION (INTERNET USERS)
JORDAN	6,249,000	2,187,519	1,987,400	31.80%	90.85%
TUNISIA	10,732,470	3,432,988	2,799,260	26.08%	81.54%
LEBANON	4,222,835	1,730,914	1,367,220	32.38%	78.99%
UAE	8,494,706	4,574,578	2,769,020	32.60%	60.53%
SYRIA	21,381,110	5,113,749	2,932,680*	13.72%	57.35%
PALESTINE	4,231,084	1,280,172	711,440	16.81%	55.57%
KUWAIT	3,697,292	1,853,394	880,720	23.82%	47.52%
BAHRAIN	1,316,750	715,928	316,340	24.02%	44.19%
EGYPT	81,348,421	21,671,400	9,391,580	11.54%	43.34%
QATAR	1,707,756	854,958	323,280	18.93%	37.81%
ALGERIA	37,100,000	7,767,641	2,835,740	7.64%	36.51%
KSA	28,376,355	13,600,000	4,534,760	15.98%	33.34%
MOROCCO	32,419,800	12,728,464	4,075,500	12.57%	32.02%
OMAN	2,859,456	1,146,880	362,280	12.67%	31.59%
LIBYA	6,000,000	1,355,796	391,880	6.53%	28.90%
IRAQ	33,564,325	5,510,556	1,303,760	3.88%	23.66%
SUDAN	41,919,367	6,959,517	1,440,740*	3.44%	20.70%
YEMEN	24,312,000	3,327,558	318,420	1.31%	9.57%

Source: internetworldstats.com , \*Arab Social Media Report by Dubai School of Government, figures dated June '12

In terms of regional growth of Facebook users, the Levant registers the highest growth with 11.59%, followed by North Africa with 10.02%. The GCC's score of 3.29% is certainly much lower than that of its regional counterparts.

ARAB FACEBOOK USERS BY REGION AS OF SEPTEMBER 6 <sup>TH</sup> 2012			
REGION	USERS	6 MONTH CHANGE	GROWTH
LEVANT*	21,481,580	1,926,560*	11.59%
GCC	10,631,220	338,700	3.29%
NORTH AFRICA	12,292,500	1,119,140	10.02%
SUDAN & YEMEN*	2,017,240	-	-
<b>TOTAL</b>	<b>46,422,540</b>	<b>3,524,820</b>	<b>9.15%</b>

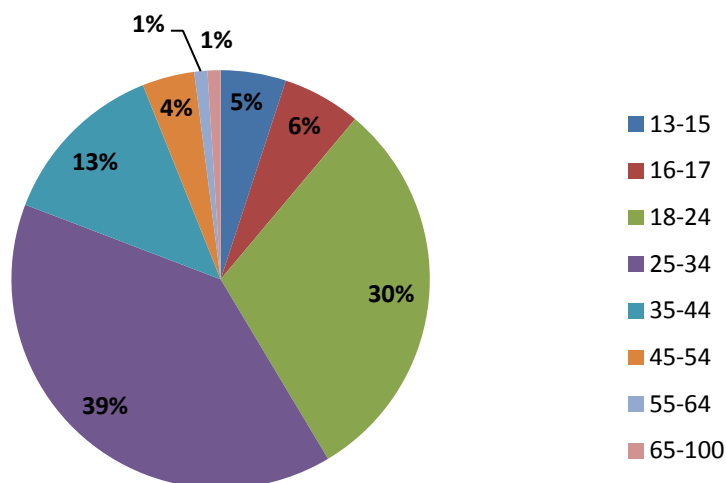
Source: MRD

\* Figures of Sudan and Yemen could not be calculated due to the unavailability of Sudan's figures. Moreover, the figure for the Levant has been calculated without Syria's figures, as we were unable to find the same.

### SPOTLIGHT: FACEBOOK IN SAUDI ARABIA

According to socialbakers.com, the largest demographics (age) using Facebook are represented by those between the ages of 25-34. The second largest segment is those between the ages of 18-24. Overall, this demonstrates the dominance of a younger population of Saudi's on Facebook, although the mid-to-late twenties segment overtakes the teenagers.

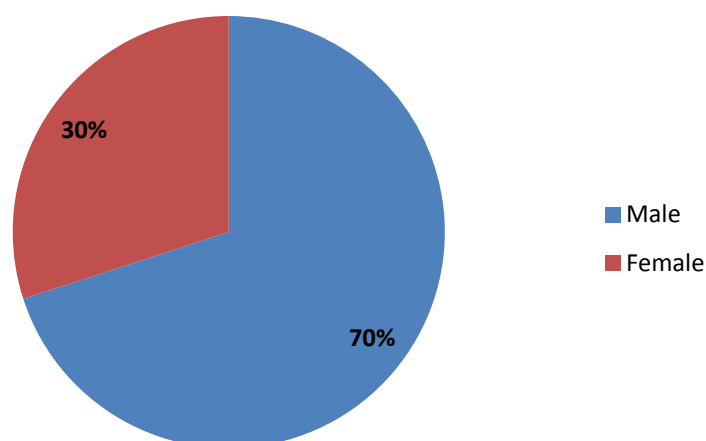
**User Age Distribution on Facebook in Saudi Arabia - September 2012**



[www.socialbakers.com](http://www.socialbakers.com)

In terms of gender demographics, there is a wide gap between males and females utilizing Facebook, with men dominating with a persuasive 70%. Several reasons contribute to the divide, namely the restrictions women face in the Kingdom, as well as their interest in popular Saudi female-only social forums such as hawaaworld.com instead.

**Male/Female User Ratio on Facebook in Saudi Arabia - September 2012**

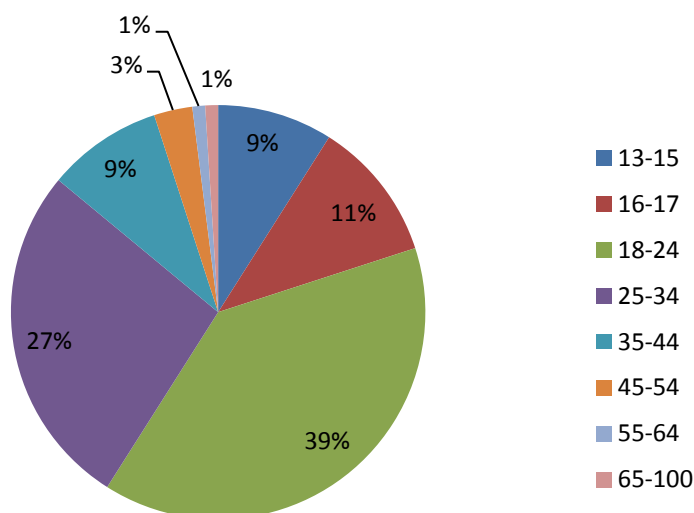


[www.socialbakers.com](http://www.socialbakers.com)

## SPOTLIGHT: FACEBOOK IN EGYPT

The picture differs slightly in Egypt when compared to Saudi Arabia. The demographics which dominates Facebook users are those between 18-24 (39%), demonstrating a greater popularity of the social networking site amongst the younger generation (on par with most developed countries). The second largest segment is those between the ages of 25-34, registering a solid 27%.

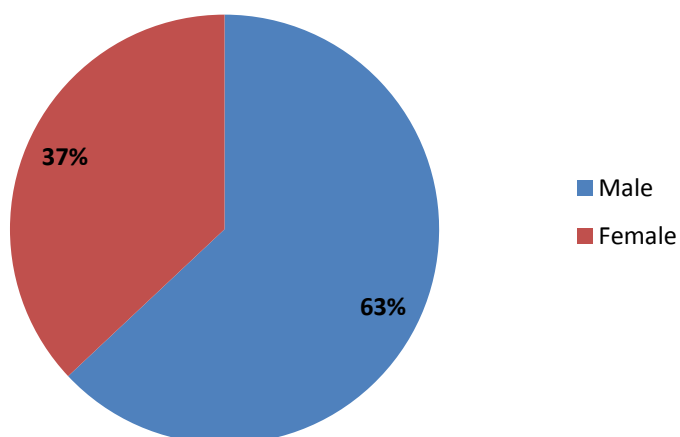
**User Age Distribution on Facebook in Egypt - September 2012**



[www.socialbakers.com](http://www.socialbakers.com)

Women fare slightly better in Egypt than their Saudi counterparts, claiming 37% of the total Facebook users.

**Male/Female User Ration on Facebook in Egypt - September 2012**



[www.socialbakers.com](http://www.socialbakers.com)



## LINKEDIN USAGE

### 1. ARAB SOCIAL NETWORKS ADOPTION

LinkedIn is a professional network servicing the business world by pairing professionals or job seekers with employers and business owners. LinkedIn is not an entertainment focused social network like Facebook, but instead targets those wishing to network with like-minded business professionals.

LinkedIn provides every member with the ability to post a simplified resume on the site, a starting point towards building their network, which in turn enables the job seeker to connect with suitable work opportunities, also allowing the employer to search for and locate the right employee. LinkedIn allows you to invite friends or professional acquaintances to join your network, in turn also offering them the option to invite their own. The amount of members or connections you make on the network plays an important role in increasing your chances of landing a job through recommendations by friends or professional acquaintances to the party interested in hiring you. The information that LinkedIn collects about its members contributes towards building a unique professional graph.

#### TOP FIVE COUNTRIES IN TERMS OF LINKEDIN USERS SEPTEMBER 2012

COUNTRY	USERS	POPULATION PENETRATION
USA	65,445,702	21.10%
INDIA	15,396,526	1.31%
UK	9,582,299	15.37%
BRAZIL	8,726,127	4.34%
CANADA	5,875,157	17.40%

Source: [www.socialbakers.com](http://www.socialbakers.com)

On August 2<sup>nd</sup> 2012, LinkedIn members reached over 175 million members worldwide. The United States landed first in terms of number of users, registering 65,445,702 users, as well as in terms of penetration with 21.10% of the total population.

As for the MENA region, the UAE came in first in terms of users (1,002,568), penetration per population (11.80%) and penetration per Internet user (21.92%).

#### ARAB LINKEDIN USERS - SEPTEMBER 2012 (RANKED BY PENETRATION OF INTERNET USERS)

GLOBAL RANK	COUNTRY	POPULATION	INTERNET USERS	LINKEDIN USERS	PENETRATION (POPULATION)	PENETRATION (INTERNET USERS)
22	UAE	8,494,706	4,574,578	1,002,568	11.80%	21.92%
45	QATAR	1,707,756	854,958	181,593	10.63%	21.24%
49	BAHRAIN	1,316,750	715,928	92,529	7.03%	12.92%
47	JORDAN	6,113,000	1,884,599	178,425	2.92%	9.47%
48	KUWAIT	3,697,292	1,853,394	169,572	4.59%	9.15%
23	KSA	28,376,355	13,600,000	681,939	2.40%	5.01%
37	EGYPT	81,348,421	21,671,400	596,163	0.73%	2.75%

Source: [www.socialbakers.com](http://www.socialbakers.com)

## TWITTER USAGE

### 1. ARAB SOCIAL NETWORKS ADOPTION

Since its launch in 2006 Twitter quickly grew in popularity to claim 500 million active users worldwide by end of March 2012. Its success rests on the fact that it came to complement the world's fastest growing Internet segment – the Facebook-led social media – not to compete with its major players. Twitter's niche innovation was to allow short text messages, including photo or video links, to be shared instantly among millions of subscribers via Internet-enabled devices and, through them, to reach the wider population of mobile phone users as SMS messages. As much as it is a social media platform used by celebrities and average users to update their followers, Twitter has turned into a powerful influencing tool in the domains of activism, governance, business, media and many other areas.

Initial uptake of Twitter in the Arab world, which focused on news of superstars and other celebrities, was sluggish and its users today remain only a small slice of most Arab societies, led mainly by the youth. However, a spike in the number of users and frequency of use in 2011 heralded an awakening as to the usefulness, if not sometimes indispensability, of Twitter in national-crisis situation, as well as to its wider benefits in influencing opinion and driving change. The so-called "Arab Spring" which swept away several Arab countries run by totalitarian regimes such as Egypt, Tunisia and Yemen with popular uprisings and turned into all-out military confrontations such as in Libya and the ongoing bloody conflict in Syria, has been the driving force for a growing, systematic use of Twitter, largely for organizing protests and dissemination of critical information and timely news.

Today, as popular movements succeeded in effecting a regime change in four Arab countries, activism over Twitter has not completely subsided, not only because Arab Spring continues in other countries. There are signs today that the sense of empowerment discovered in Arab societies over the past 12 months or so, along with a rise and increasing maturity of civic society organizations, is slowly driving activism towards wider social change in various areas, which is expected to feed growth in social media, including Twitter, in the Arab world.

Moreover, the use of Twitter is increasingly spreading to Arab governments, businesses, the media and various institutions as a tool to inform, influence or muster support. Today, there are more than 17 political leaders, including heads of state, and dozens of business and religious leaders, entertainment celebrities, activists and others who regularly tweet, each to tens of thousands of Arab followers. Thus, notwithstanding the current relatively small numbers of users, Tweeter seems set for high growth, especially among the youth, and more innovative use across the Arab world.

### METHODOLOGY

The main data sources used are Twitter user numbers for end of June, 2012, as provided in Dubai School of Government's Arab Social Media Report (which used Twitter application programming interface developed specifically for its study), and latest country population figures taken from official government sources and adjusted by Madar Research & Development, using growth rates and certain considerations, to reflect the populations for end of June. Primary data also includes Internet user figures and penetration rates which Madar Research & Development has been generating over the past 15 years as based on

individual ISP figures gathered in each of the 18 countries. The term “active user” (or simply, user) in this chapter refers to – as officially defined by Twitter – someone who logs in (but does not necessarily tweets) once a month.

### TWITTER USER NUMBERS

According to Dubai School of Government by end of June 2012 there were nearly 2.17 million active Twitter users in the 18 Arab countries covered in this report. This compares with an estimated 530 million users worldwide or less than a half percent (0.4%) of total users. Four Levant and Gulf Cooperation Council (GCC) countries account for more than 80 percent of all Twitter users in the Arab world. These are respectively Saudi Arabia, Kuwait, Egypt and the UAE, which account for 57 percent of Arab countries’ total population.

ARAB TWITTER USERS BY COUNTRY, JUNE 2012 (RANKED BY TWITTER USERS)				
RANK	COUNTRY	POPULATION	INTERNET USERS	TWITTER USERS*
1	KSA	28,794,804	14,892,408	830,291
2	KUWAIT	3,756,764	1,974,510	370,987
3	EGYPT	82,257,937	24,171,946	296,219
4	UAE	8,579,653	4,814,868	263,070
5	LEBANON	4,247,539	1,848,611	77,722
6	BAHRAIN	1,323,333	763,109	72,468
7	QATAR	1,744,422	915,146	59,835
8	JORDAN	6,318,512	2,338,979	59,726
9	MOROCCO	32,596,863	14,747,027	38,018
10	PALESTINE	4,294,135	1,436,868	33,750
11	TUNISIA	10,794,181	3,780,580	12,000
12	IRAQ	33,899,968	6,007,410	11,040
13	SYRIA	21,642,137	5,523,228	10,839
14	OMAN	2,903,778	1,298,959	9,832
15	ALGERIA	37,484,039	8,827,304	8,415
16	YEMEN	24,687,236	3,801,475	5,907
17	SUDAN	42,170,883	7,969,437	4,507
18	LIBYA	6,100,000	1,417,423	4,393
<b>TOTAL</b>		<b>353,596,184</b>	<b>106,529,288</b>	<b>2,169,019</b>
Source: MRD, *Arab Social Media Report				

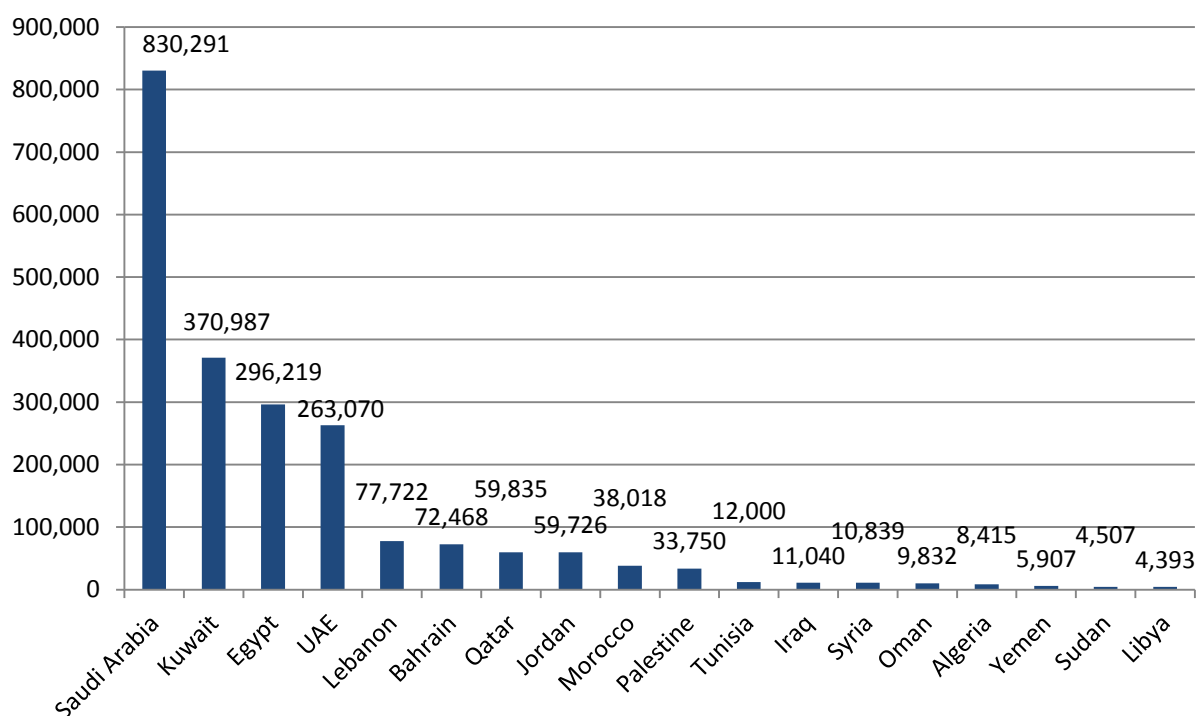
Leading the Arab world, two GCC countries, Saudi Arabia and Kuwait, combined are responsible for more than 55 percent of all Twitter user population in the Arab world. Saudi Arabia represents by far for the largest Twitter users, with almost 830,300 users – or 38% of total Arab users – while it accounts for only the sixth largest country population in the Arab world. Meanwhile, Kuwait has become home to nearly 371,000 users – 10 percent of total Arab users – though its total population is the fifth smallest among the 18 Arab countries.

Egypt, which is home to the largest Arab population, comes in third place with more than 296,200 Twitter users, which is equivalent to almost 14 percent of the region's total Twitter users. The UAE ranks fourth with 263,070 users, accounting for more than 12 percent of total Arab users while ranking 10<sup>th</sup> in terms of its country population.

Lebanon has the fifth largest Twitter users, 77,700 users, followed closely by Bahrain, 72,470 users, in sixth position. This stands respectively for 3.58 percent and 3.34 percent of total Twitter users, while they rank 14th and 18th in country population.

Similarly, at seventh and eighth place, Qatar and Jordan share almost equal numbers of Twitter users, with about 59,800 and 59,700, respectively, each standing for about 2.75 percent of total Arab Twitter community. In ninth and tenth place in terms of Twitter users are Morocco (38,000) and Palestine (33,750), respectively, with each representing less than two percent of total Arab users. All the remaining eight Arab countries combined have 67,000 users, representing a mere three percent of the total number of users.

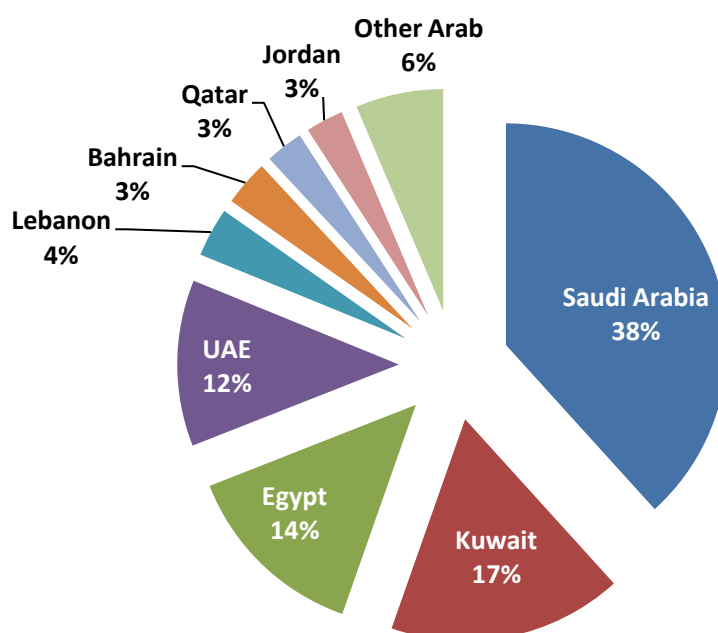
**Number of Twitter Active Users in Arab World – June 2012**



Source: Arab Social Media Report



### Percentage Breakdown of Twitter Active Users in Arab World – June 2012



Source: Arab Social Media Report

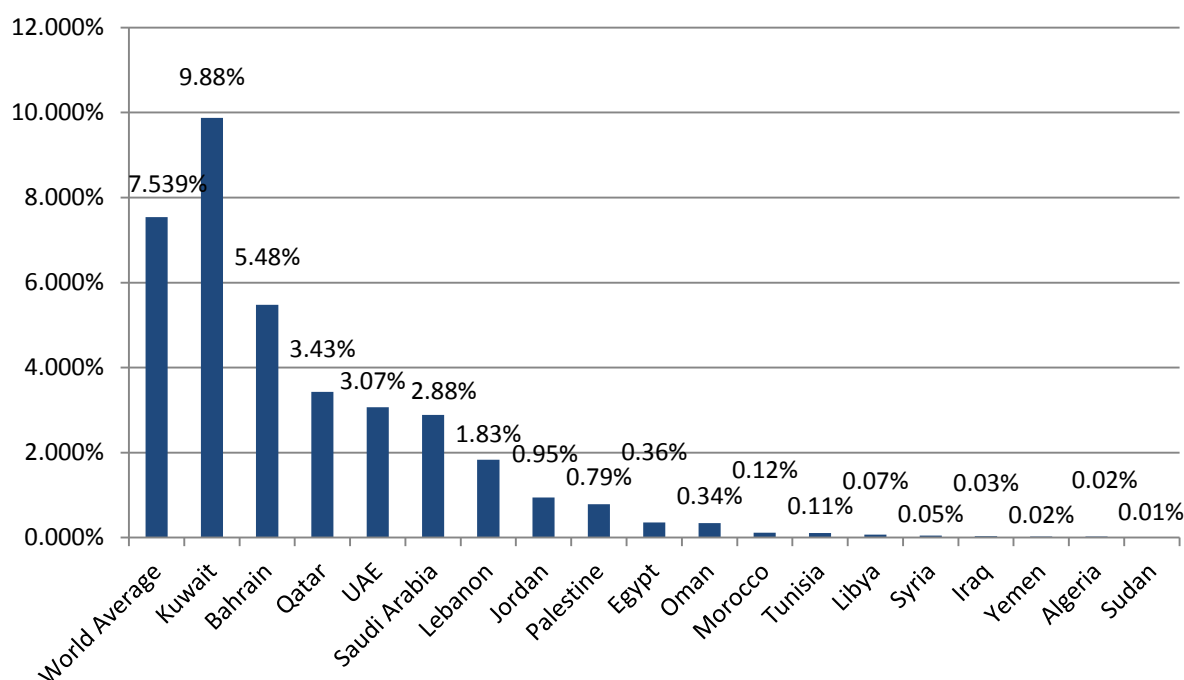
### TWITTER PENETRATION RATES

Countries with smaller populations recorded the highest penetration rates, with the top five positions occupied by GCC states. Kuwait is the Arab leader by far in Twitter user penetration. With almost 10 percent of the population using Twitter, Kuwait is the only Arab country that exceeds the world's average user penetration, which stands at around 7.5 percent. The nearest Arab penetration rate is recorded in Bahrain, at 5.5 percent. Qatar comes in third place, with a penetration rate of nearly 3.5 percent, followed by the UAE which barely crossed the three-percent mark. Saudi Arabia's largest GCC population pushed the penetration rate to less than three percent, placing the country in the fifth position.

Lebanon is the only non-GCC country to rank among the top six in Twitter penetration, notwithstanding a low rate of only 1.8 percent. Two other Levant countries, Jordan and Palestine, followed in seventh and eighth positions, respectively, with the former slightly falling short of one percent and the latter recording 0.79 percent – both scores, however, remain above the total Arab world average of about 0.6 percent. Despite ranking third in terms of having the largest Twitter community in the Arab world, Egypt's population – the largest in the Arab world – depressed its penetration rate to a mere 0.36 percent, leaving it with the ninth Arab rank.

Oman is the only GCC country to underperform, ranking with the bottom nine Arab countries in 10<sup>th</sup> place with a Twitter penetration rate of only 0.34. Each of the remaining Arab countries scored less than 0.2 percent, with Sudan ranking at the bottom of the list with a penetration rate of a mere 0.01 percent, outranked by Algeria and Yemen at 0.02 percent.

### Twitter Active User Penetrations in Arab World – June 2012



Source: Arab Social Media Report and MRD

### IMMEDIATE GROWTH POTENTIAL: TWITTER USERS AS PERCENTAGE OF INTERNET USERS

Since all Twitter users are virtually Internet users, their penetration rate among Internet users is one of the indicator for the immediate potential for growth in Twitter adoption, as current Internet users are more likely to turn to Twitter than new comers to the Internet. The ranking of Arab countries in terms of Twitter penetration is not identical to their Twitter ranking as a percentage of Internet Users (see Table below).

Conversely, countries with the lowest Internet user numbers and penetration rates hold the lowest potential for immediate growth in Twitter use, such as Sudan, Yemen, Algeria and Iraq, Syria and Libya, though from another perspective, they are high-potential-growth countries for the Internet, which puts them on course for potential Twitter growth. The number of Internet users in these countries has also generally been witnessing high growth rates. Madar Research & Development recorded about 41 percent growth in Internet users in Sudan in 2011 as compared to 2010, while growth stood at 40 percent in Yemen, 22 percent in Iraq and 19 percent in Syria.

Kuwait, which has the highest Twitter penetration among Arab countries – but ranks third in Internet penetration after Bahrain and the UAE – comes on top of the Arab world in terms of the percentage of Twitter users among Internet users, which is nearly 19 percent. Thus more than 80 percent of Kuwait's Internet users are immediate potential users of Twitter. Bahrain comes with the second highest rate, at about 9.5 percent, followed by Qatar (6.5%), Saudi Arabia (5.6%), UAE (5.5%) and Lebanon (4.2%).



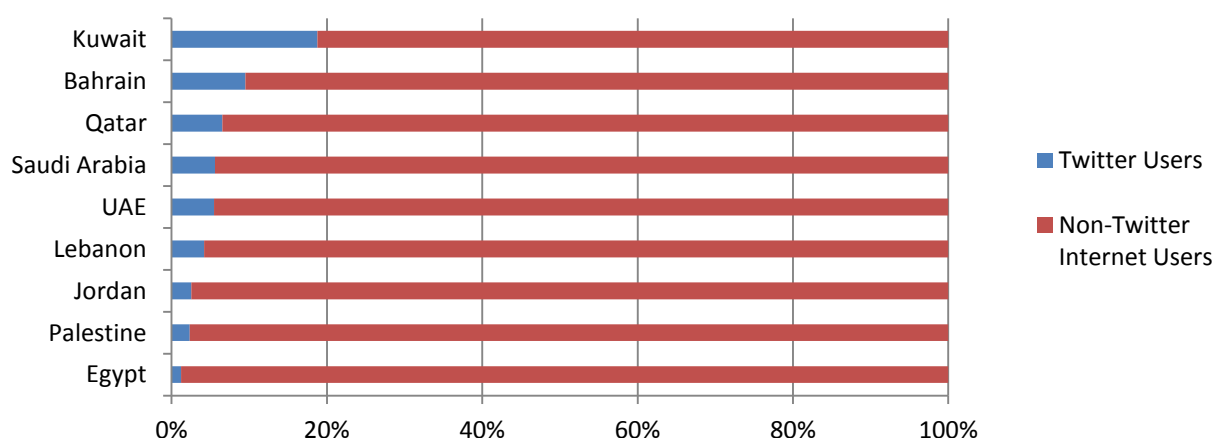
### ARAB TWITTER PENETRATION BY COUNTRY, JUNE 2012 (RANKED BY TWITTER PENETRATION)

RANK	COUNTRY	INTERNET PENETRATION	TWITTER PENETRATION*	TWITTER PENETRATION OF INTERNET USERS
1	KUWAIT	52.56%	9.88%	18.79%
2	BAHRAIN	57.67%	5.48%	9.50%
3	QATAR	52.46%	3.43%	6.53%
4	UAE	56.12%	3.07%	5.46%
5	KSA	51.72%	2.88%	5.58%
6	LEBANON	43.52%	1.83%	4.20%
7	JORDAN	37.02%	0.95%	2.56%
8	PALESTINE	33.46%	0.79%	2.35%
9	EGYPT	29.39%	0.36%	1.22%
10	OMAN	44.73%	0.33%	0.76%
11	MOROCCO	45.24%	0.11%	0.26%
12	TUNISIA	35.02%	0.11%	0.32%
13	LIBYA	23.24%	0.07%	0.31%
14	SYRIA	25.52%	0.05%	0.20%
15	IRAQ	17.72%	0.03%	0.18%
16	YEMEN	15.40%	0.02%	0.16%
17	ALGERIA	23.56%	0.02%	0.10%
18	SUDAN	18.90%	0.01%	0.06%
<b>TOTAL</b>		<b>30.13%</b>	<b>0.61%</b>	<b>2.04%</b>

Source: MRD, \*Arab Social Media Report

Egypt, with the largest single community of Internet users (exceeding 24 million) and with only 1.23 percent of these users are subscribed to Twitter, represents the largest potential for Twitter's growth in the Arab world. Morocco also has one of the highest growth potentials, with less than 0.3 percent of its nearly 15 million Internet users are also using Twitter.

### Twitter Active Users as Percentage of Internet Users in Arab World – June 2012



Source: Arab Social Media Report and Madar Research & Development

### TWITTER ADOPTION PER REGION

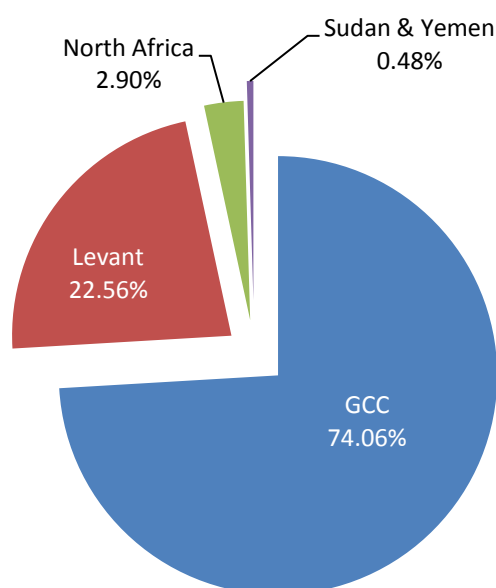
Among the four Arab regions specified in this report, the six GCC member states alone account for almost three quarters of Twitter users (74%) in the 18-country Arab world, with 1.6 million users. Consequently, the overall Twitter penetration in the region is the highest, at 344 users per 10,000 residents.

The six Levant member states follow with a Twitter community of nearly 490,000 users and penetration of 32 users per 10,000 population. North Africa comes third with Twitter users numbering nearly 63,000, at a penetration of only seven per 10,000 residents, while Sudan and Yemen trail behind, with a Twitter community of some 10,400 users and a penetration of a mere two users per 10,000 residents.

RANK	REGION	TWITTER ACTIVE USERS	REGIONAL PENETRATION
1	GCC	1,606,483	3.44%
2	LEVANT	489,296	0.32%
3	NORTH AFRICA	62,826	0.07%
4	SUDAN & YEMEN	10,414	0.02%

Source: MRD

### Breakdown of Twitter Active Users per Arab Region – June 2012



Source: Arab Social Media Report



## ANALYSIS OF GROWTH FACTORS & TRENDS: TWEET'S VOLUME, LANGUAGE & NATURE OF USE

More than any other online social medium, the Twitter sphere is a very dynamic environment since its frequency of use is highly correlated with certain major national or international events that affect large numbers of users, driving them to instantly share news or information, mobilize efforts, influence opinion or call for support. Such events could be a natural or manmade disaster, an election campaign, a major social or sports event or any other development that has the power to spark off widespread concern or controversy.

These events may cause a temporary spike in use or drive growth for longer periods before they subside. Such a factor – and the most predominant in the case of the Arab world – has been the popular political upheavals in several Arab countries, referred to as the “Arab Spring”. These events have contributed to high growth in the use of Twitter in the Arab world throughout most of 2011. As the intensity of events rises or declines, so does the frequency of Twitter use.

Accordingly, while the numbers of Twitter active users may be less affected by the rise or conclusion of Arab uprisings (since once they have developed a habit for social media, the majority of users are assumed more likely to keep the habit even after the initial event that drove their use ceased to exist) all statistics related to growth in Twitter's use (frequency or number of tweets), nature of use or demographics should be treated as more temporal than representative of cumulative growth and consistent trends on which reliable forecasts could be built. What adds to this complexity is the difficulty in gauging or gathering statistics on Twitter, especially since Twitter itself ceased to publish detailed data on its website.

According to Twitter there were over 280 million tweets worldwide per day in February 2012. In March, the 18 Arab countries combined generated an average of 3.64 million tweets per day according to Arab Social Media Report, which constituted 1.3 percent of global tweets. The report, which says that Arabic language use was increasing as compared to other languages, estimates that 62.1 percent of these tweets were in Arabic (or 2.26 million tweets) while 32.6 percent were in English and 5.3 percent were in other languages.

Four months earlier, the Paris-based social-media research agency, Semiocast<sup>1</sup>, reported that Arabic was the fastest growing language on Twitter, citing an average of 2.2 million tweets posted in Arabic per day in October 2011, up from almost 100,000 per day 12 months earlier, when the Arab Spring started to spread – a 22-fold growth in one year. Though Arabic tweets represented slightly over one percent of all tweets, Semiocast ranked Arabic eighth among top languages used on Twitter, with the top five spots occupied by English, Japanese, Portuguese, Spanish and Malay, respectively.

There appears to be consistency in growth when considering the statistics on Arab tweets reported by Semiocast and eight months later by the Arab Social Media Report, which suggests that growth continues in the number of tweets as well as Twitter users despite that protests almost completely subsided in Egypt, for instance, which attracted some of the largest numbers of tweets when the crisis was at its highest. According to Arab Social Media

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<sup>1</sup> [http://semiocast.com/publications/2011\\_11\\_24\\_Arabic\\_highest\\_growth\\_on\\_Twitter](http://semiocast.com/publications/2011_11_24_Arabic_highest_growth_on_Twitter)

Report, some of the most popular hash-tags across the Arab world in March 2012 were Syria and Egypt.

This supports the view that Twitter users in the Arab world are maturing and diversifying their use of Twitter as they continue to find new causes and reasons to campaign for and improve their lives. Social, economic and political debate is expected to continue fuelling Twitter networking in many Arab countries. NGOs and other civic associations and support groups, which are increasing in the Arab world, are resorting to Tweets to increase their outreach.

News media in the Arab world have been quick to offer news updates on Twitter, not only to cater for the large Arab Spring audience, but to cater to growing followers in businesses and various sectors of the economy. Twitter has also become a feature on all government website in the GCC and its use is increasing in other governments in the Arab world. Businesses, meanwhile, are leveraging Twitter and other social media to communicate their offers, increase brand exposure and promote their products and services. All these uses present high prospects for Twitter's growth in the Arab world.

### TOP TEN MOST FOLLOWED ARAB PERSONALITIES ON TWITTER

The most followed personality in the Arab world on Twitter is Dr. Mohamad Alarefe, a Saudi professor and Islamic preacher. Islamic preachers seem to dominate the top ten list of most followed Arab personalities, coming in with a total of five figures. Most of the Islamic preachers descend from Saudi Arabia, which is consistent with the country's domination by sheer number of Twitter users. Also featured in the top ten are two royal figures; Rania Alabdullah, Queen of Jordan and Sheikh Mohammed Bin Rashid, Ruler of Dubai, coming in at second and seventh place, respectively.

THE TOP TEN MOST FOLLOWED ARAB PERSONALITIES ON TWITTER (RANKED ON SEPTEMBER 20 <sup>TH</sup> , 2012)			
RANK	NAME	PROFESSION	FOLLOWERS
1	DR. MOHAMAD ALAREFE	Professor and Islamic Preacher	2,721,554
2	RANIA ALABDULLAH	Queen of Jordan	2,320,881
3	AHMAD ALSHUGAIRI	Saudi Media Figure	1,804,026
4	DR. AAIDH ALQARNEE	Islamic Preacher and Writer	1,774,879
5	DR. SALMAN ALODAH	Islamic Scholar and Thinker	1,652,759
6	NABIL ALAWADHY	Islamic Preacher and Media Figure	1,366,256
7	SHEIKH MOHAMMED BIN RASHED	Ruler of Dubai	1,116,855
8	TAMER HOSNY	Egyptian Singer	1,024,763
9	MOHAMAD ALAWADI	Islamic Preacher	982,317
10	MOHAMED ELBARADEI	Egyptian Politician and Nobel Peace Prize Laureate	938,899
Source: MRD			



## YOUTUBE USAGE

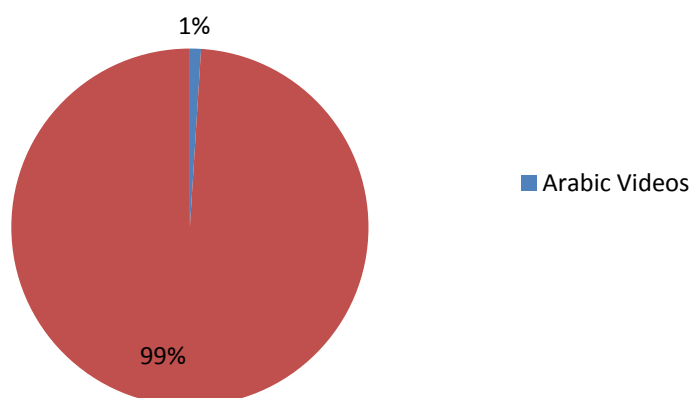
### 1. ARAB SOCIAL NETWORKS ADOPTION

Many international and Arabic website which offer video hosting exist on the world wide web. Namely; metacafe, dailymotion, clipat.maktoob, d1g.com/video, videochat.masrawy, ikbis and naqatube. Nothing, however, comes as close to YouTube's popularity.

YouTube is considered to be the most important video sharing website in the world. It allows members to post their videos and start their own channels, as well as recently providing corporation with a live feed service.

The number of Arabic videos has reached 1% by end 2011, which is about 6.5 million videos. If we wish to glean a more accurate number not reflecting videos with repeated titles, however, we must divide by 2.5 to reach a more realistic figure of 2.6 million videos. This is due to the fact that some users will upload the same video with a different quality, and we have estimated the repetition average to be around 2.5.

YouTube Videos - September 2012



Source: MRD

When analyzing the top ten most viewed Arabic YouTube videos, the dominance of music become extremely apparent. The number one spot is held by a popular Libyan children's song. The second and fourth spot is aptly held by a child; Hala Alturk, a Bahraini contestant on the popular TV show 'Arabs Got Talent'. The third spot is also held by child friendly song, one that teaches numbers to children. Moreover, ninth place is held by an educational song teaching children the alphabet. Looking at the top ten, however, we can see that the musical Artist most featured in the top ten is no other than Lebanese singing sensation, Nancy Ajram, who comes in at sixth, seventh and eighth place. In total, Nancy's most viewed three songs have over 70 million views.



TOP VIEWED ARABIC YOUTUBE CLIPS (RANKED ON SEPTEMBER 26 <sup>TH</sup> 2012)			
RANK	CLIP TITLE	VIEWS	URL
1	LIBYA - CHILDREN SONG	56,292,852	<a href="http://www.youtube.com/watch?v=hemZMthSYeU">www.youtube.com/watch?v=hemZMthSYeU</a>
2	ARABS GOT TALENT - HALA ALTURK	32,107,453	<a href="http://www.youtube.com/watch?v=AjyF34cer0c">www.youtube.com/watch?v=AjyF34cer0c</a>
3	NUMBERS CHILDREN SONG	30,641,444	<a href="http://www.youtube.com/watch?v=1wzrebzHJOs">www.youtube.com/watch?v=1wzrebzHJOs</a>
4	HALA ALTURK & MASHAEL - BNAYTY ELHABOoba	30,379,845	<a href="http://www.youtube.com/watch?v=qn3ITODjLiw">www.youtube.com/watch?v=qn3ITODjLiw</a>
5	ABDUL MONEM - KAN WAHED MIN AL NAAS	29,996,946	<a href="http://www.youtube.com/watch?v=Fvnnv3wRSQo">www.youtube.com/watch?v=Fvnnv3wRSQo</a>
6	NANCY AJRAM - FI HAGAT	28,522,042	<a href="http://www.youtube.com/watch?v=jnOfkb4YIPI">www.youtube.com/watch?v=jnOfkb4YIPI</a>
7	NANCY AJRAM - MASHY HADDY	23,259,861	<a href="http://www.youtube.com/watch?v=8NjZ-xKLGTY">www.youtube.com/watch?v=8NjZ-xKLGTY</a>
8	NANCY AJRAM - YA KETHAR	23,298,388	<a href="http://www.youtube.com/watch?v=Pt-elHx4Blc">www.youtube.com/watch?v=Pt-elHx4Blc</a>
9	ALPHABET CHILDREN'S SONG	22,929,686	<a href="http://www.youtube.com/watch?v=cAzXdkgwpfo">www.youtube.com/watch?v=cAzXdkgwpfo</a>
10	SHEIKH YASER AL DOSARY - SURET AL FAJER	21,287,540	<a href="http://www.youtube.com/watch?v=IFq9cjtrWlQ">www.youtube.com/watch?v=IFq9cjtrWlQ</a>

Source: MRD

### SPOTLIGHT: YOUTUBE IN EGYPT

Almost all of the most viewed top ten Egyptian channels deal with music, film and television. The Melody Group holds four spots in the top ten, coming in at number one, two, three and seven. Holding the fourth spot is one of Egypt's favorite singers; Tamer Hosny, while the Egyptian pop icon Amr Diab ranks ninth. The blogger Wael Abbas, who gained fame after the 25<sup>th</sup> of January as he filmed and uploaded footage from the revolutionary streets of Egypt, holds the eighth spot. Rounding up the top ten is a channel dedicated to one of Egypt's most popular football club; Al Zamalek.

THE TOP TEN MOST VIEWED EGYPTIAN YOUTUBE CHANNELS (RANKED ON SEPTEMBER 27 <sup>TH</sup> , 2012)			
RANK	CHANNEL	VIEWS	URL
1	MELODY MUSIC GROUP	437,143,093	<a href="http://youtube.com/user/MelodyMusicGroup">youtube.com/user/MelodyMusicGroup</a>
2	MELODY TV GROUP	435,835,136	<a href="http://youtube.com/user/MelodyTvgroup">youtube.com/user/MelodyTvgroup</a>
3	MELODY DRAMA TV	130,216,647	<a href="http://youtube.com/user/MelodyDramaTV">youtube.com/user/MelodyDramaTV</a>
4	TAMER HOSNY	89,493,622	<a href="http://youtube.com/user/tamerhosny">youtube.com/user/tamerhosny</a>
5	CINEMA CUT2	63,202,241	<a href="http://youtube.com/user/cinemacut2">youtube.com/user/cinemacut2</a>
6	MAZZIKA	58,136,741	<a href="http://youtube.com/user/mazzika">youtube.com/user/mazzika</a>
7	MELODY MUSIC RECORDS	55,336,335	<a href="http://youtube.com/user/MelodyMusicRecords">youtube.com/user/MelodyMusicRecords</a>
8	WAEI ABBAS	54,655,629	<a href="http://youtube.com/user/waelabbas">youtube.com/user/waelabbas</a>
9	AMR DIAB	50,892,425	<a href="http://youtube.com/user/amrdiab">youtube.com/user/amrdiab</a>
10	ZAMALEK FANS ABU MIDO	50,156,659	<a href="http://youtube.com/user/ZamalekFansAboMido">youtube.com/user/ZamalekFansAboMido</a>

Source: socialblade.com





### SPOTLIGHT: YOUTUBE IN SYRIA

The current tumultuous political climate in Syria has dramatically contributed to the rise in viewership of channels related to the Syrian revolution. Five out of the top ten channels are dedicated to providing content and footage related to events taking place on the streets of Syria, namely Sham SNN, Ugarit News, Eagle from Syria, Syrian Revolution Archive and Baba Amr News Network. Leading the top ten, however, is Kasthaleeb, a channel dedicated to Islamic learning. Occupying the second place is Ramadan 2010, which provides clips of popular Syrian Television shows broadcasted during the holy month of Ramadan.

THE TOP TEN MOST VIEWED SYRIAN YOUTUBE CHANNELS (RANKED ON SEPTEMBER 27 <sup>TH</sup> , 2012)			
RANK	CHANNEL	VIEWS	URL
1	KASTHALEEB	80,391,292	youtube.com/user/kasthaleeb
2	RAMADAN 2010	37,843,580	youtube.com/user/Ramdan2010
3	SHAM SNN	36,636,253	youtube.com/user/SHAMSNN
4	UGARIT NEWS	21,291,072	youtube.com/user/UgaritNews
5	ZEN LOUNGE	7,883,628	youtube.com/user/progressima
6	EAGLE FROM SYRIA	7,840,096	youtube.com/user/eaglefromsyria
7	SYRIAN TOP MODEL	6,248,090	youtube.com/user/syriantopmodel
8	SYRIAN REVOLUTION ARCHIVE	5,327,106	http://www.youtube.com/user/0syria
9	BABA AMR NEWS NETWORK	4,309,713	youtube.com/user/syriapioneer
10	FRH	4,293,230	youtube.com/user/farahmanar

Source: socialblade.com

### SPOTLIGHT: YOUTUBE IN SAUDI ARABIA

Saudi Arabia is perhaps one of the only Arabic countries where the popularity of channels populated with content produced by the channel's owner leads them to occupy the top ten. Coming in at number one, Saudi channel Eysh Elly holds the largest number of views; over 106 million. The channel runs a comedy program dedicated to poking fun at the Internet's most watched humorous clips. The program is hosted by young Saudi talent Bader Saleh. Another channel which relies on local content is Sa7i, coming in at number four. The channel provides short clips from those previously broadcasted on sa7i.com, the channel's official website, which broadcasts several online shows of a comedic nature. In number six, La Yekthar Show is a program which discusses social issues in a comedic manner. Masameer is another locally produced channel, holding the eighth spot, belonging to an animated series of the same name. Rounding up the top ten is 3al 6ayer, another user produced program, focused on dealing with daily news in a light hearted manner.

**THE TOP TEN MOST VIEWED SAUDI YOUTUBE CHANNELS  
(RANKED ON SEPTEMBER 27<sup>TH</sup>, 2012)**

RANK	CHANNEL	VIEWS	URL
1	EYSH ELLY	106,525,301	youtube.com/user/EyshElly
2	CRAASH 1200	94,232,877	youtube.com/user/CRAASh1200
3	SHK. YASER AL DOSARY	77,441,405	youtube.com/user/shda1016
4	SA7I CHANNEL	56,718,797	youtube.com/user/sa7iChannel
5	SHERY'S DIARY	48,306,562	youtube.com/user/sherynawar
6	LA YEKTHAR SHOW	47,221,483	youtube.com/user/Layektharshow
7	DORARR	45,297,370	youtube.com/user/dorarr
8	MASAMEER	45,148,572	youtube.com/user/nejercom
9	SMILE RELAX ENJOY	35,097,893	youtube.com/user/SmileRelaxEnjoy
10	3AL 6AYER	34,070,444	youtube.com/user/3al6ayer

Source: socialblade.com

## PART III: ARABIC DIGITAL CONTENT

SPONSORED BY:





## ARABIC ONLINE CONTENT

### 1. ARABIC DIGITAL CONTENT

It is almost impossible to accurately discern the number of web pages in existence; the best estimate indicates that there are at least a trillion web pages. What is important to know, however, is the number of web pages that can be reached through existing search engines.

MRD estimates that there are about two billion Arabic web pages which can be reached through existing search engines, representing two percent of the total visible web pages on the Internet. Given that Arabic speakers make up about five percent of the world's population, this humble Arab presence does not even match the percentage of Arabic speakers among total Internet users worldwide, which stands at four percent.

This picture, however, has slowly started to change. During the last five years (2007-2012) total Web content, including both Arabic and English Web pages, produced in Arab countries has been growing by a convincing annual average of 50 percent.

ESTIMATED NUMBER OF ARABIC WEBPAGES IN MILLIONS								
2010	2011	2012	2013	2014	2015	2016	2017	2018
847	1,271	1,906	2,860	4,290	6,435	9,653	14,480	21,720

Source: MRD using Google, Yahoo and Netcraft

Madar Research & Development undertook a study to estimate the language distribution of websites in the Arab countries. Global search engines available on the Internet (Yahoo and Google) were used to estimate the language distribution on websites carrying top level domain (TLD) names of Arab countries. Arab-owned websites registered under generic TLDs, such as dot-com and dot-org were not included in the language survey. Thus, the survey – in spite of a higher than average margin of error due to the exclusion of generic TLDs – still paints a very reasonable assessment on the usage of Arabic content on the Internet in the Arab region. The results of the survey were as follows:

Only 42% of all Web pages published in the region (under the top level domain (TLD) names) are in Arabic.

**Saudi Arabia** accounted for the largest Arabic content posted on the Internet in the Arab region (28.37%). The UAE came second in the total number of Internet Arabic pages (18.75%).

**The UAE** accounted for the largest content (Arabic and English) posted on the Internet in the Arab region (33.31%). Saudi Arabia came second in the total number of Internet pages (21.71%).

**Morocco** placed third among the Arab countries in total content posted on the Internet, with a 8.23 percent share. Morocco, however, is responsible for 11.32 percent of all Arabic Web pages posted in the Arab Countries.

**Syria** came first in featuring the largest share of Arabic content from the total number of pages it developed in both English and Arabic languages. Syria, however, is responsible for

only 1.84 percent of all content developed in the Arab countries. Meanwhile, Lebanon has the smallest share of Arabic content in relation to the total number of pages in both languages.

ARAB COUNTRIES RANKED ACCORDING TO ARABIC LANGUAGE USE (Q3/2012)			COUNTRY'S CONTRIBUTION TO ONLINE ARABIC CONTENT (Q3/2012)		
RANK	COUNTRY	SHARE OF ARABIC WEB PAGES FROM A COUNTRY'S TOTAL ENGLISH-ARABIC PAGES	RANK	COUNTRY	SHARE OF ARABIC WEBPAGES
1	SYRIA	82.45%	1	KSA	28.37%
2	IRAQ	81.36%	2	UAE	18.75%
3	PALESTINE	71.52%	3	MOROCCO	11.32%
4	SUDAN	71.07%	4	EGYPT	6.77%
5	MOROCCO	57.56%	5	PALESTINE	6.28%
6	KSA	54.67%	6	JORDAN	4.32%
7	ALGERIA	52.42%	7	SYRIA	3.64%
8	YEMEN	50.72%	8	ALGERIA	3.28%
9	JORDAN	50.16%	9	LIBYA	3.11%
10	LIBYA	48.50%	10	TUNISIA	2.95%
11	EGYPT	46.24%	11	IRAQ	1.85%
12	OMAN	44.06%	12	KUWAIT	1.75%
13	TUNISIA	39.78%	13	YEMEN	1.45%
14	KUWAIT	38.33%	14	LEBANON	1.38%
15	BAHRAIN	35.71%	15	SUDAN	1.32%
16	UAE	23.56%	16	OMAN	1.30%
17	QATAR	20.94%	17	QATAR	1.25%
18	LEBANON	16.69%	18	BAHRAIN	0.92%
AVERAGE		41.84%	Source: MRD		

ARAB COUNTRIES BY SHARE OF WEBPAGES (Q3/2012)		
RANK	COUNTRY	SHARE OF ARABIC & ENGLISH WEB PAGES FROM TOTAL ARABIC & ENGLISH PAGES IN ARAB COUNTRIES
1	UAE	33.31%
2	KSA	21.71%
3	MOROCCO*	8.23%
4	EGYPT	6.13%
5	PALESTINE	3.67%
6	JORDAN	3.61%
7	LEBANON*	3.46%
8	TUNISIA*	3.10%
9	LIBYA	2.68%
10	ALGERIA*	2.62%
11	QATAR	2.49%
12	KUWAIT	1.91%
13	SYRIA	1.84%
14	OMAN	1.23%
15	YEMEN	1.20%
16	BAHRAIN	1.08%
17	IRAQ	0.95%
18	SUDAN	0.78%
* Country's share of Web pages would have been higher if French content was included. Source: MRD		

## WIKIPEDIA USAGE AND ARABIC CONTENT

### 1. ARABIC DIGITAL CONTENT

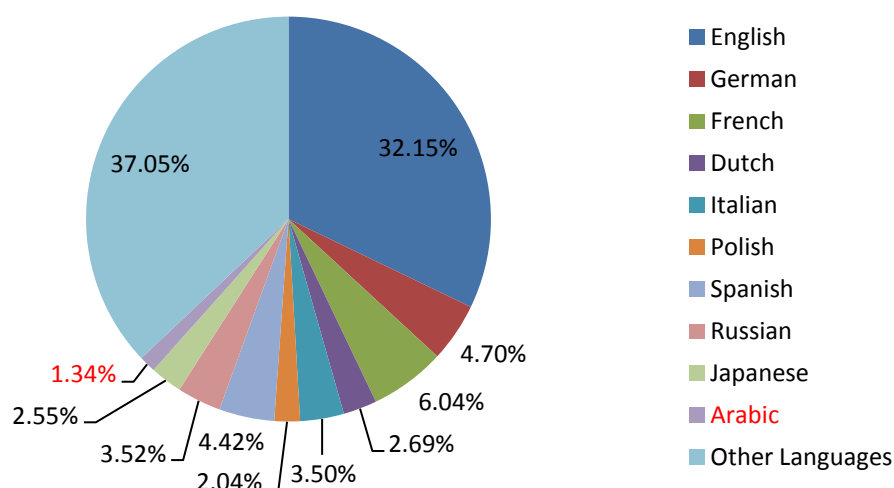
Wikipedia is a free online encyclopedia which allows any individual to add or edit its content. Wikipedia was launched on the 15<sup>th</sup> of January 2001 in its original English version, followed by a French version and subsequently in hundreds of other languages. As of September 2012, Wikipedia boasted customized versions in 285 languages, including Arabic, and in total hosted more than 23 million articles.

WIKIPEDIA WORLDWIDE - SEPTEMBER 2012 (RANKED BY NUMBER OF ARTICLES)								
	LANGUAGE	ARTICLES	PAGES	EDITS	ADMINS	USERS	ACTIVE USERS	IMAGES
1	ENGLISH	4,059,432	28,237,583	557,552,310	1,462	17,525,274	131,906	790,619
2	GERMAN	1,466,454	4,131,962	113,376,272	268	1,503,586	21,784	176,272
3	FRENCH	1,298,339	5,306,757	88,678,463	187	1,371,757	16,034	36,922
4	DUTCH	1,103,342	2,362,036	33,271,666	62	480,880	4,383	18
5	ITALIAN	959,439	3,070,575	57,299,788	104	794,187	8,770	109,395
6	POLISH	932,410	1,794,320	33,061,785	155	511,857	5,145	0
7	SPANISH	921,764	3,878,935	64,171,294	136	2,361,837	15,983	0
8	RUSSIAN	907,815	3,093,955	54,166,042	93	915,102	12,003	137,308
9	JAPANESE	824,212	2,243,600	45,191,246	59	661,770	11,883	78,072
10	PORTUGUESE	755,610	3,014,275	33,091,030	37	1,050,308	5,359	18,191
11	CHINESE	534,870	2,572,169	23,706,540	78	1,287,185	7,195	31,494
12	SWEDISH	499,099	1,394,402	18,478,210	89	291,478	2,930	0
13	VIETNAMESE	488,094	1,358,369	8,109,739	27	298,849	1,136	16,097
14	UKRAINIAN	400,643	1,234,327	10,654,448	24	148,080	1,830	69,476
15	CATALAN	384,363	935,988	10,325,234	28	124,179	1,227	6,915
16	NORWEGIAN	353,535	867,187	11,769,566	66	246,306	1,973	504
17	FINNISH	306,524	823,593	12,768,098	48	214,177	1,875	30,738
18	CZECH	243,020	630,802	9,282,668	28	197,618	2,026	2
19	HUNGARIAN	224,861	770,571	12,887,103	39	209,336	1,864	40,151
20	PERSIAN	221,971	1,089,020	11,100,030	24	303,566	2,296	23,532
21	ROMANIAN	218,053	860,611	7,207,653	23	235,047	1,066	28,535
22	KOREAN	215,700	689,680	10,913,466	28	200,918	1,945	11,122
23	ARABIC	195,792	1,172,726	11,635,203	27	543,136	3,319	13,204
24	TURKISH	194,993	982,594	12,779,347	26	425,674	2,513	26,547
25	INDONESIAN	194,728	862,373	6,918,128	17	394,197	1,722	33,577
	REMAINING LANGUAGES	5,254,048	14,455,539	166,272,090	1,406	4,203,381	23,398	353,053
	<b>TOTAL</b>	<b>23,150,111</b>	<b>87,833,949</b>	<b>1,424,667,419</b>	<b>4,541</b>	<b>36,499,685</b>	<b>291,529</b>	<b>2,031,744</b>

Source: [http://meta.wikimedia.org/wiki/List\\_of\\_Wikipedias](http://meta.wikimedia.org/wiki/List_of_Wikipedias)

English language content dominates Wikipedia, with 4,059,432 articles and 28,237,583 pages. German content ranks a distant second with 1,466,454 articles and 4,131,962 pages, while French places third with 1,298,339 published articles and 5,306,757 pages. Wikipedia's Arabic content totals 195,792 articles and 1,172,726 pages, ranking the Arabic version of Wikipedia in 23<sup>th</sup> place globally based on the number of published articles, up two places from the 25<sup>th</sup> place it had occupied in 2010.

**Percentage of Wikipedia Articles per Language - September 2012**

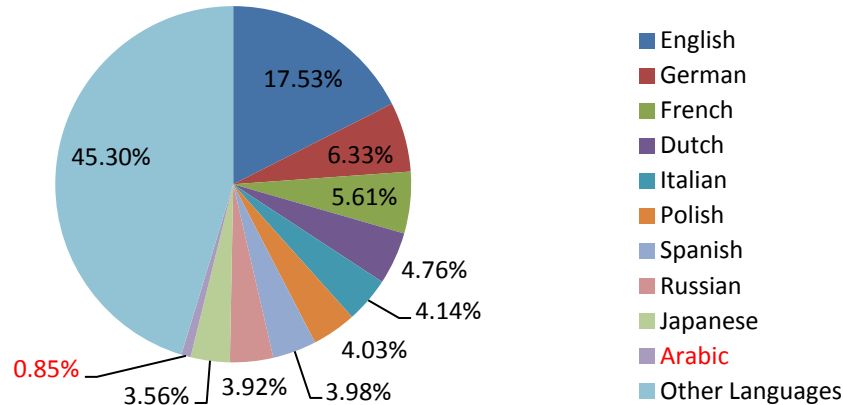


Source: [http://meta.wikimedia.org/wiki/List\\_of\\_Wikipedias](http://meta.wikimedia.org/wiki/List_of_Wikipedias)

The above chart indicates that Wikipedia's Arabic content totaled 1.34% of all published content in September 2012; a considerably low figure when compared to the number of Arabic speakers, who make up 5% of the world's total population.

Although there are several Arab initiatives in existence that aim at enriching the Arabic encyclopedias with Arabic and localized content, namely the Saudi Wiki Project, Wiki Egypt and Wiki Syria, as well as the Saudi endeavor Wikipedia Saafah Bint Al Watan (not affiliated with the Wikipedia organization but a similar initiative focused on coauthoring and documenting the history of Saudi Arabia), no plan to enrich these encyclopedias with Arabic content on a governmental level exists as of yet.

Percentage of Wikipedia Pages per Language - September 2012



Source: [http://meta.wikimedia.org/wiki/List\\_of\\_Wikipedias](http://meta.wikimedia.org/wiki/List_of_Wikipedias)

### OTHER ARABIC LANGUAGE PROJECTS ATTACHED TO WIKIPEDIA

**Wikinews** - a project which aims to present daily news on various subjects based on the contributions of users from all around the world. The Arabic version launched on 12<sup>th</sup> December 2005. <http://ar.wikinews.org>

**Wiktionary** - 'Wiki-moos' in Arabic, combining Wiki with 'Kamoos', the Arabic word for dictionary. This is a project which aims to compile an accurate and complete free dictionary, which anyone can contribute to. The Arabic version was launched on 24<sup>th</sup> May 2004. <http://ar.wiktionary.org>

**Wikibooks** - a free educational library containing titles on various subjects; from Finance to the rules of Arabic grammar. Everybody can participate in writing and editing these open source books. The Arabic version of Wikibooks was established in 2004 and currently contains 737 chapters. <http://ar.wikibooks.org>

**Wikisource** - a library that contains sources previously published and currently under public domain, such as historical books, holy scriptures, historical documents, legal texts and political data, as well as translations of these sources in other languages. The Arabic version launched in 2005. <http://ar.wikisource.org>

**Wikiquote** - an encyclopedia of quotes and famous sayings open to anyone to add to it. The Arabic version launched on September 30<sup>th</sup> 2004 and now holds 566 quotes. <http://ar.wikiquote.org>

**Wikispecies** - a free, editable directory of known species. It covers Animalia, Plantae, Fungi, Bacteria, Archaea, Protista as well as all other forms of life. <http://species.wikimedia.org>

**Wikiversity** - is a Wikimedia Foundation project devoted to learning resources, projects and research for use in all levels, types, and styles of education; from pre-school to university, including professional training and informal learning. This is a collaborative initiative which invites teachers, student and researchers to create a comprehensive online learning community. <http://ar.wikiversity.org>

Although all of the previous initiatives do indeed contribute towards enriching Wikipedia's Arabic content, extensive support remains needed in order to reach maturity.



## BLOGS AND ARAB BLOGGERS

### 1. ARABIC DIGITAL CONTENT

The emergence of blogs (or web logs) as we know them today started in the late 1990s with the advent of web publishing tools, which allowed Internet users who had no technical skills to publish on the web. This was followed by the emergence of blog hosting services, which in turn, were instrumental in promoting the concept of blogging. The closest thing to blogs until then were services like Usenet and bulletin boards, which allowed Internet users to exchange views and information on matters related to the topic of the bulletin, and thus create discussion groups. Blogs were among the first social media tools to surface, though their popularity spiraled only towards the mid 2000s.

Most of the earliest blogs served as a personal journal or diary for users as well as a platform for some professionals like academics and journalists to voice their opinions and ideas. Today, blogs have mushroomed to deal with all kinds of topics and serve various purposes, from activism to politics; trying to influence opinions, news, sports and technology; to inform, literature and movies; to entertain, and from healthcare to education; seeking to teach. Today's bloggers come from various walks of life; from students to housewives, superstars, columnists and heads of state. Blogs have as well become important commercial tools for businesses to promote and market their brands and services to growing numbers of bloggers and social network users.

Blogs also vary in type. While they primarily rely on text, some blogs focus to other media to deliver their content such as video blogs (vlogs), audio blogs (podcasts) or photographs (photoblogs). In the last couple of years blogging via mobile phones (mobilog) started to increase. Most blogs allow feedback from readers or make them partners in the blog, such as in multi-author blogs.

One of the main areas where blogs have gained prominence in the last few years is news, as they have become a source for news, analyses and commentaries, competing at times with mainstream media. Many prominent journalists, writers and columnists have set up blogs, while some citizen journalists are gaining credibility as their blogs offer a fresh grass-root perspective, especially on news and events that may not be covered by standard media.

The first signs of interest in blogging in the Arab world emerged in the early 2000s, but their presence in the blogosphere started to be felt only since 2004, with blogs springing up in Kuwait, Saudi Arabia, Egypt and other Arab countries, with the first bloggers tending to be elite professional and intellectuals, mostly technology-orientated and over the age of 30. The Allies' war on Iraq played an important role in propagating blogs globally and later in the region when blogs surfaced in support of the war in 2002, which was followed by anti-war blogs in 2003.

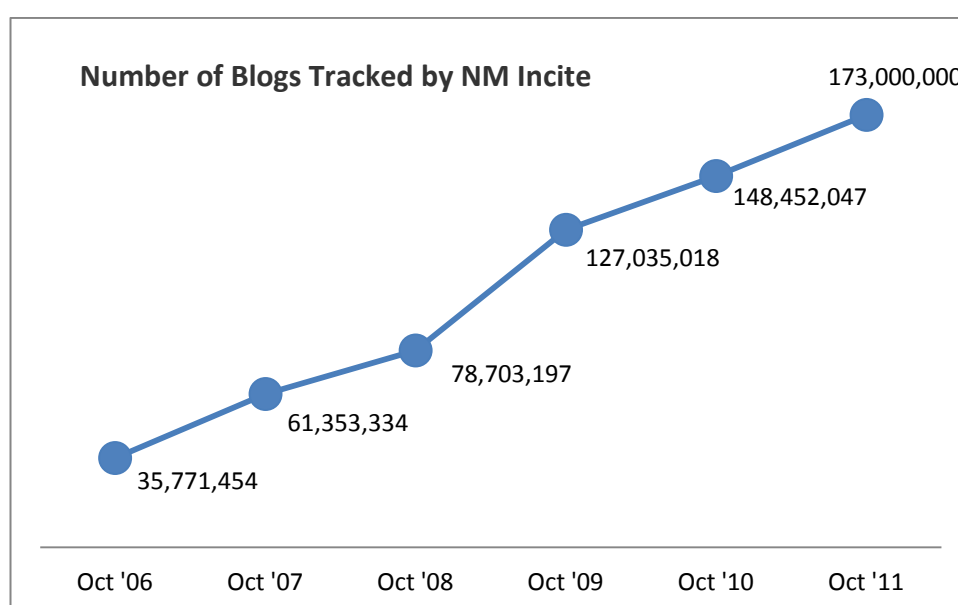
It is not clear when the first blog in the Arabic language was launched, but UAE national, Abdullah Al-Muhairi claims setting up the first personal blog in Arabic in 2003 ([www.serdal.com](http://www.serdal.com)).

As the number of users was multiplying over the past eight years, the demographics, nature and types of blogging and bloggers have changed to include a wide diversity in the Arab

blogosphere. Their numbers remain small compared to the world's total blogs, but they're growing at high rates, whether in terms of the number of bloggers or blog readers and commentators. Meanwhile, the Arab blogosphere became more organized, with several Arab website offering blogging services and others offering blogs under a country umbrella or specialized themes – though global service providers still have by far the dominant share in the Arab market.

### NUMBER OF BLOGS

The increasing popularity of blogs is evident by the high growth in their numbers. By August 2012, there were more than 180 million blogs worldwide, growing by more than 12 percent in less than a year, from 161 million in October 2011. This compares with just over 35 million in October 2006 and 127 million in October 2009, according to NM Incite.



Source: NM Incite

The number of blogs in the Arab world is estimated by Madar Research & Development to have reached around 750,000 by August 2012. This is based on weighting and extrapolation of estimates provided by a few sources including Arabic Network for Human Rights Information ([www.anhri.net](http://www.anhri.net)), which reported the total number of Arabic blogs to have stood at around 600,000 in 2009, though only 25 percent of these blogs were described as active, with users making posts on regular basis. The Information and Decision Support Centre, which is affiliated with the Egyptian Council of Ministers, reported the number of Arabic blogs to have reached 490,000 by mid 2008.

A Madar Research & Development study shows that the number of Internet users in the Arab world has reached more than 106 million by mid 2012; this means that there are only seven blogs for every 1,000 Arab Internet users – or one blog per 470 of total Arab population. The number of bloggers cannot be deduced from these figures since some bloggers keep more than one blog while other blogs have more than one author. Compared to the total number of blogs worldwide, it can be said that the share of Arabic blogs is just over four in every 1,000 blogs. Though other social media, such as Facebook, are more popular than blogs among Arab Internet users, blogs have high potential for growth in their own sphere. Undeniably, the most important growth factor for Arabic blogs, as well as other social media, has been the

unprecedented Arab Spring uprisings, which started in Tunisia and expanded to Egypt, Libya, Yemen and Syria. The number of blogs and volume of posts or blog entries evidently grew massively in the beginning of 2011 and apparently kept a good level of growth since, though activism related to protests may have subsided in some countries – while it assumed a different form in others. Till today, commentaries, critiques and other posts related to the Arab Spring, as well as other social, economic and political issues – which were triggered by the newly gained awareness of people's power to effect change and reforms – have a clear presence in the Arab blogosphere.

### DEMOGRAPHICS OF ARAB BLOGGERS

No statistics are yet available on the geographical distribution of bloggers in the Arab world. While Internet users in the GCC region may have been among the first to use blogs in the Arab world, at least in the Arabic language, a close look at the Arab blogosphere shows that Egypt, the most populous Arab country, is home to the largest and most dominant blogger population. Egyptian bloggers account for an estimated one third of all blogs in the Arab world.

Along with Egypt, three other countries are responsible for the majority of blogs in the Arab world. These are Saudi Arabia, Kuwait and Morocco. Saudi bloggers are quite active, with a significant volume of blogs, coming second to Egypt, followed by Kuwaitis and Moroccans. The least active Arab countries account for only a few thousand blogs each.

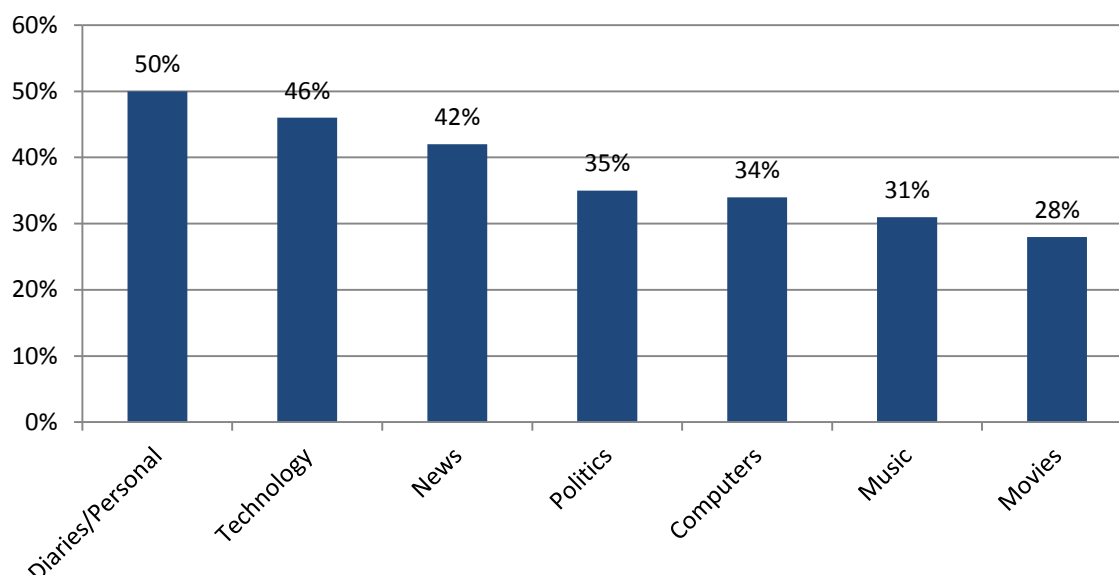
As the case with other social media in the Arab world, the youth constitute the majority of bloggers. A study conducted in 2009 by the Berkman Center for Internet and Society at Harvard University shows that young bloggers dominate the Arab blogosphere, with 75 percent of all bloggers were under 35 years of age. Within this group 55 percent were under 25 years, while 45 percent were between 25 and 34 years. Only nine percent of Arab bloggers were said to be in the age group 35 and above.

The Arab blogosphere is also dominated by men. The same study showed that almost two thirds (about 65 percent) of Arab bloggers were males, though in Saudi Arabia female bloggers were increasing to almost the same level as men - estimated at about 46 percent of Saudi bloggers.

### MAIN BLOGGING TOPICS

Blogs vary in their topics from the highly specialized to the general, with many blogs covering a variety of topics, and they are generally either personal (from diaries to personal interests such as music) or commercial (run by a company, company staff or a professional seeking profit) – with some blending the two domains. The latest available global survey to look into the main issues and interests covered in the global blogosphere was carried out in 2008 by Technorati, which specializes in the search and classification of blogs.

According to Technorati, diaries, technology and news were the top three topics in blogs. Its survey showed that 50 percent of all blogs were constituted fully or partly of personal diaries. Technology-related issues featured in 46 percent of blogs while 42 percent carried news in their content. Politics and computer-related discussions followed with almost equal presence; 35 percent and 34 percent of all blogs. Meanwhile, music featured in 31 percent of blogs, followed by movies, at 28 percent.

**Breakdown of Global Blogs by Main Topic, End 2008**

Source: <http://technorati.com>

No comprehensive survey has been published about the specific interests of Arab bloggers. However, judging by the topics covered by the most popular blogs in the Arab world, technology (computer hardware, software and devices, mobile phones, consumer electronics, etc.) comes first – at least for Saudi bloggers – while political and social activism, as well as news and general interests feature high among Arabic blogs. Other common topics of interest for Arab blog readers include entertainment, culture, sports, education and religion.

### LANGUAGE SHARE ON THE BLOGOSPHERE

As the case in all social media, the English language dominates the blogosphere. Taken as a sample, 66 percent of all blogs on WordPress, the third largest blog platform in the world, are in English. The nearest language in terms of use was Spanish, which had a share of only 8.7 percent. Ranking third in WordPress blogs was Portuguese at 6.5 percent, and Indonesian fourth, at 3.5 percent. Italian, German, French and Russian followed, respectively, among other languages as shown in the table below.

Arabic came at the near bottom of the 15-language scale, accounting for a mere 0.3 percent of WordPress' 56 million blogs, and sharing the 14<sup>th</sup> position with Mongolian. It is ironic that there are as many blogs in Mongolian as in Arabic since Mongolian is spoken by about five million people while Arabic is the mother tongue for 353 million people. Moreover, considering that Arabic is spoken by five percent of the world's population, blogs in Arabic need to grow by 17 folds to be in tune with Arabic speaking population.

Nevertheless, WordPress figures apply only to its subscribers, and the total share of Arabic might increase if other major blog providers are taken into account, where the number of Arabic subscribers might be higher, such as in the case of Blogger. Regardless of the actual scale, however, Arabic language remains poorly represented on blogs.



### BREAKDOWN OF WORDPRESS BLOGS BY TOP LANGUAGES, 2011

RANK	LANGUAGE	REGIONAL PENETRATION
1	ENGLISH	66%
2	SPANISH	8.7%
3	PORTUGUESE	6.5%
4	INDONESIAN	3.5%
5	ITALIAN	2.0%
6	GERMAN	1.8%
7	FRENCH	1.4%
8	RUSSIAN	1.1%
8	VIETNAMESE	1.1%
9	SWEDISH	1.0%
10	TURKISH	0.8%
10	DUTCH	0.8%
11	GREEK	0.7%
12	POLISH	0.5%
13	THAI	0.4%
13	HUNGARIAN	0.4%
14	MONGOLIAN	0.3%
14	ARABIC	0.3%
15	NORWEGIAN	0.2%
15	BULGARIAN	0.2%

Source: [www.wordpress.com](http://www.wordpress.com)

The language of preference for Arab bloggers today is Arabic, which accounts for about 95 percent of all blogs authored in the Arab world, with the remaining blogs authored in English and to a lesser extent in French. This, however, wasn't the case in the early days. About 50 percent of bloggers in Egypt in 2004-2005 were writing in English and French. This was also the case for early bloggers in Saudi Arabia and Kuwait, when English had a substantial share with respect to Arabic. It was only from 2006, when blogs were increasing significantly that Arabic started to increase its share.

### WORLD'S TOP TEN BLOGS

The standard success of a blog is measured by the number of links it has (the frequency at which the blog's URL appears on different websites) and the number of visitors per month. Technorati publishes a regularly updated list of the world's 100 most successful blogs according to these criteria. The majority of these blogs are highly developed websites, with rich content and several authors. The top 10 blogs in the list are largely focused on technology, general news and celebrities, as shown in the following table.

### INCOME GENERATING BLOGS

In addition to established businesses turning to blogs to promote their products and services, millions of bloggers seek to make an income from their blogs, and many of them have turned their blogs to successful businesses. A variety of income-generating techniques are used such as advertising banners, affiliate marketing and sales and pay-per-click, which rely mainly on the commission they make from other businesses, or fees for membership, advice or other services, which rely on the blogger's own selling points.



WORLD'S TOP TEN BLOGS, 2011			
RANK	BLOG'S TITLE	TOPIC	URL
1	THE HUFFINGTON POST	General news, authored by about 50 contributors	www.huffingtonpost.com
2	BUZZ FEED	General news, focuses on celebrities, with humorous undertone	www.buzzfeed.com
3	TECHCRUNCH	Technology, authored by more than 20 contributors	http://techcrunch.com
4	MASHABLE!	Technology, authored by more than 20 contributors	http://mashable.com
5	THE DAILY BEAST	General news	www.thedailybeast.com
6	ENGADGET	Technology, authored by about 30 contributors	www.engadget.com
7	GAWKER	General news, with about 18 authors, focused on New York City, celebrities and criticizing major US news agencies	http://gawker.com
8	THE VERGE	Technology, science, art, and culture	www.theverge.com/
9	BUSINESS INSIDER	General news with a business focus	www.businessinsider.com
10	THE NEXT WEB	Technology	http://thenextweb.com
Source: technorati.com			

The single most important asset a blogger relies on to generate income is the number of unique visitors to his or her blog. In other words, the size of his audience – or potential market – and their demographics decide how attractive the blog would be for established businesses to get involved – as well as for the blogger to make his or her own offerings worth paying for.

The Income Diary, which specializes in teaching starters how to make money online, publishes a list of top 30 money-making blogs worldwide. Topping the list was a blog run by The Huffington Post, which in the seven years since its launch has turned into a full-fledged business, with more than 50 authors and monthly earnings averaging at \$2.33 million. Its income comes mainly from the “pay per click technique”. Seven blogs of the Top 30 money-making list rely mainly on “pay per click”. However, the majority in the list relies on “advertising banners” as its main income generating tool, with almost half – 14 out of the 30 blogs – using it.

“Affiliate sales” ranks third among the income tool used by these blogs, with four blogs relying on it as the main technique, while two rely mainly on “membership area”. The remaining three blogs use either “affiliate commissions”, “CPM advertising” or “private advertising” as the main income generating tool.

It's worth noting that many blogs that generate smaller incomes – of less than \$5,000 per month, for instance – are quite simple in design and content, and most of them are authored by one person, but their strength lies in having attracted the critical mass of readership or audience required either for a general or niche market.



TOP EARNING BLOGS, 2011				
	LANGUAGE	OWNER	MONTHLY EARNINGS	MAIN INCOME
1	THE HUFFINGTON POST	Arianna Huffington	\$2,330,000	Pay Per Click
2	MASHABEL	Pete Cashmore	\$560,000	Advertising Banners
3	PEREZ HILTON	Mario Lavandeira	\$450,000	Advertising Banners
4	TECHCRUNCH	Michael Arrington	\$400,000	Advertising Banners
5	SMASHING MAGAZINE	Vitaly Friedman	\$190,000	Advertising Banners
6	TIMOTHY SYKES	Timothy Sykes	\$150,000	Affiliate Sales
7	GOTHAMIST	Jake Dobkin	\$110,000	Pay Per Click
8	TUTS PLUS	Collis Taeed	\$110,000	Membership Area
9	CAR ADVICE	Alborz Fallah	\$70,000	Advertising Banners
10	VENTURE BEAT	Matt Marshall	\$62,000	Pay Per Click
11	SLASH GEAR	Ewdison Then	\$60,000	Pay Per Click
12	LIFE HACKER	Nick Denton	\$60,000	Advertising Banners
13	DOOCE	Heather B. Armstrong	\$50,000	Pay Per Click
14	STEVE PAVLINA	Steve Pavlina	\$45,000	Pay Per Click
15	TALKING POINT MEMO	Joshua Micah Marshall	\$45,000	Advertising Banners
16	PROBLOGGER	Darren Rowse	\$40,000	Advertising Banners
17	KOTAKU	Nick Denton	\$32,000	Advertising Banners
18	SHOEMONEY	Jeremy Schoemaker	\$30,000	Private Advertising
19	COOLEST GADGETS	Allan Carlton	\$30,000	Advertising Banners
20	JOHNCHOW	John Chow	\$29,000	Affiliate Sales
21	SMARTPASSIVEINCOME	Pat Flynn	\$21,500	Affiliate Commissions
22	JOYSTIQ	AOL	\$18,000	CPM Advertising
23	PC MECH	David Risley	\$16,000	Affiliate Sales
24	FREELANCE SWITCH	Collis Ta'eed	\$15,000	Membership Area
25	ABDUZEEDO	Fabio Sasso	\$12,000	Advertising Banners
26	SIZLOPEDIA	Saad Hamid	\$11,000	Pay Per Click
27	OVERHEAD IN NEW YORK	Michael Malice	\$9,000	Advertising Banners
28	SIX REVISIONS	Jacob Gube	\$9,000	Advertising Banners
29	NOUPE	Noupe	\$8,000	Advertising Banners
30	RETIRE AT 21	Michael Dunlop	\$5,000	Affiliate Sales

Source: [incomediary.com](http://incomediary.com)

### BLOG SERVICE PROVIDERS

Blog service providers usually offer the service for free, though some bloggers chose to reserve and pay for a domain name for their blogs from companies that offer this service. The largest free blog service providers, which account for most blogs in the world, are Blogger



(Google), WordPress and Tumblr. Blogger has the largest share of blogs worldwide. Google has not disclosed the number of blogs it hosts on Blogger, but it is estimated at around 80 million. Blogger is followed by Tumblr and WordPress respectively, with the former boasting 72.6 million blogs and the latter 55.58 million blogs as of September 2012. Smaller shares of blogs are held by TypePad, Blogsome, LiveJournal and others.

Blog hosting service providers report interesting statistics to promote their services and brands, which substantiate the popularity, variety and huge volume of content generated in its blogs. In early 2012, Google announced that more than 400 million readers access its blogging platform to view some 500 million entries or articles, which total about 500 billion words – content equivalent to five million novels – with around a quarter of a million words added per minute to its blogs. Meanwhile, WordPress boasts 120 languages used by its blogging community.

Many Arab websites now offer blogging service to mainly attract Arab subscribers, though their market share – even among Arab bloggers – is by far smaller than those of their international counterparts. The most popular of these is Maktoob, which by mid 2009 hosted about 90,000 blogs, as part of other services it provides. Other Arab websites or portals which expanded their services to blog hosting include Elaph, Jiran, the Katib hosting service from Arabic Network for Human Rights Information's website, and the website of activists Manal and her husband Alaa, who became the most famous blogging couple in Egypt.

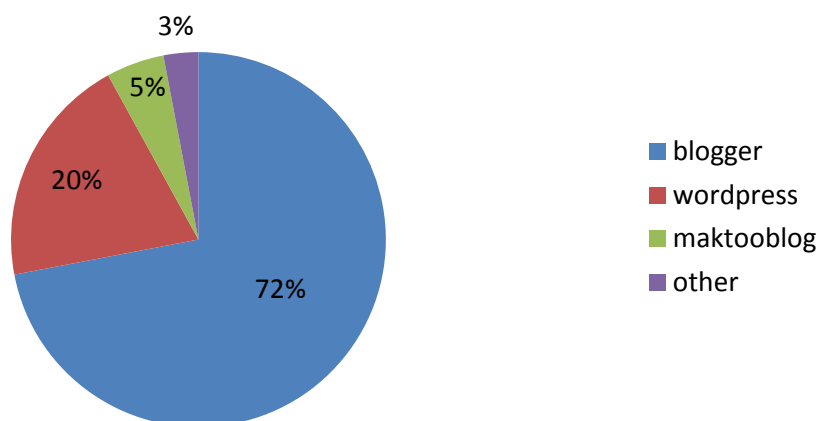
Tens of Arab websites dedicated to blogging also surfaced in the past few years, such as Tadween and Itoot, whose subscribers include many bloggers from outside the Arab world. Blogsrobot, on the other hand, is a directory of Arabic blogs classified according to topics. It also features a search engine for blogs which allows search by a blog's title, topic or key words, in addition to hosting over 2,350 blogs classified as general or specialized, as well as video or audio. Other Arab blog hosting providers established blogs dedicated to a specific country, such as Syria's SyPlanet and Almodawen, the Lebanese LebanonAggregator and the Moroccan MaghrebBlog, hosted by Maktoob.

Meanwhile, Google's Blogger remains the most popular host among Arab bloggers. By 2011, it hosted about 72 percent of the estimated 750,000 blogs generated in the Arab world, with WordPress holding a share of about 20 percent. Maktoob accounted for some five percent of Arabic blogs, with the remaining three percent shared by a number of websites.





### Arab Blogs Distribution on Global and Regional Blog Hosts, 2011



Source: MRD, based on data from blog service providers

### ARAB BLOGGING SCENE HIGHLIGHTS

The Arab blogging scene is dominated by Egypt and Saudi Arabia, which are home to the biggest numbers of Arabic blogs, with Egypt leading. Egypt assumes a leading role in the Arab blogosphere, not only because of the number of bloggers it has, but its blogging communities are highly dynamic and productive, whether in political and social activism, news reporting or other issues of concern or interest to Egyptians and other Arabs. Many Egyptian blogs attained high levels of success and popularity, such as the Egyptian Awareness blog, whose author, Wael Abbas, was named by the BBC as one of the most influential bloggers in the world after gaining a wide readership, which was estimated at 1.5 million visitors per month. Other famous Egyptian blogs include Tahyyes Popular Front, which is authored by celebrity activist, Nawara Najem, and Rantings of a Sandmonkey, an award-winning English-language blog.

Most of the early blogs to appear in Saudi Arabia in 2004 were in English, such as Saudi Jeans, which deals with socio-political issues, and Living in KSA – which is now offered in two separate blogs in English and Arabic. By 2009, there was an estimated 10,000 active blogs in the kingdom, according to the Arabic Network for Human Rights Information. Technology in its various disciplines features high in the Saudi blogosphere – which made them gain many visitors from around the Arab world. Nevertheless, a relatively wide range of topics that is mainly of concern to Saudis is covered such as social, political and cultural issues, as well as human rights and women's equality. Blogging has gained more popularity among Saudi women than in other Arab countries, though the majority of their blogs focus more on diaries and technology than women's issues.

Madar Research & Development compiled a list of top 30 Arabic blogs in terms of the links they have (the number of times the blog's URL appears on other websites). One of the main observations concerning the list is language use. Though only five percent of Arabic blogs are written in English, seven out of the top 30 were in English, which underlines the relative success they have over their Arabic-language counterparts. Two blogs were bilingual; English and Arabic, and one was offered in three languages, including French. The count for those that were purely in Arabic was 20 out of 30, as detailed in the following table.



### TOP THIRTY ARAB BLOGS IN NUMBER OF LINKS, 2011

	BLOG NAME	TYPE/NATURE	LANGUAGE	COUNTRY	URL
1	RASHEED	General/ Hadeel's top prize for general blog, 2010	Arabic	Palestine	ww.rasheed-b.com
2	TECHNOLOGY WORLD	Specialized/ technology / Hadeel's second prize for specialized blog, 2010	Arabic	KSA	www.tech-wd.com/wd
3	OSAMA AL-ROHM	Personal/ social, political, sarcastic / BOBs-Deutsche Welle Award for Best Arab Blog, 2010	Arabic	Jordan	http://osamaa.com
4	TAHYYES POPULAR FRONT	Personal/ political	Arabic	Egypt	http://tahyyes.blogspot.com
5	SAUDI JEANS	Social/ political, focusing on human rights, right for expression, women's right in KSA, since May 2004	English	KSA	http://saudijeans.org
6	IBDAA WORLD	Specialized on innovation	Arabic	-	www.ibda3world.com
7	IT SCOOP	News/ technology	Arabic	-	www.it-scoop.com
8	EGYPTIAN AWARENESS	Political/ blogger was named as one of the most influential personalities in the world (1.5 million visitor per month)	Arabic English	Egypt	http://misrdigital.blogspot.com
9	TWOFORTY EIGHTAM	General/ commercial	English	Kuwait	www.248am.com
10	SCIENCE HORIZONS	Specialized in academic scientific education	Arabic	Jordan	http://amjad68.jeeran.com
11	FIVE ONE EIGHT	Advertisement/ diverse	English	Kuwait	http://ansam518.wordpress.com
12	ARAB CRUNCH	Specialized/ technology	Arabic	-	http://arabcrunch.com/ar
13	ABDULLAH AL-MUHAIRI	Personal/ general, diverse	Arabic	UAE	http://abdulla79.blogspot.com www.serdal.com
14	BAHEYA	political	English	Egypt	http://baheyya.blogspot.com
15	GREEN DREAM	Social, focusing on poverty in KSA. Blogger awarded BOBs for Reporters without Borders' category, 2010, for documentary ("My Salary is 100 riyal")	Arabic	KSA	http://alasmari.wordpress.com
16	MANAL & AALAA	Blogging couple/ diverse/ BOBs Award for Reporters without Borders' category, 2010	Arabic English	Egypt	www.manalaa.net
17	FRANKOM	Mainly commercial/ advertisement	English	Kuwait	www.frankom.com
18	AWAH	General/ second prize, Hadeel 2010, and first prize, Hadeel 2011, for general blog	Arabic	KSA	www.4msk.com/blog
19	MADAD	Personal/ general	Arabic	Syria	http://nj180degree.com/about-2

*continued*

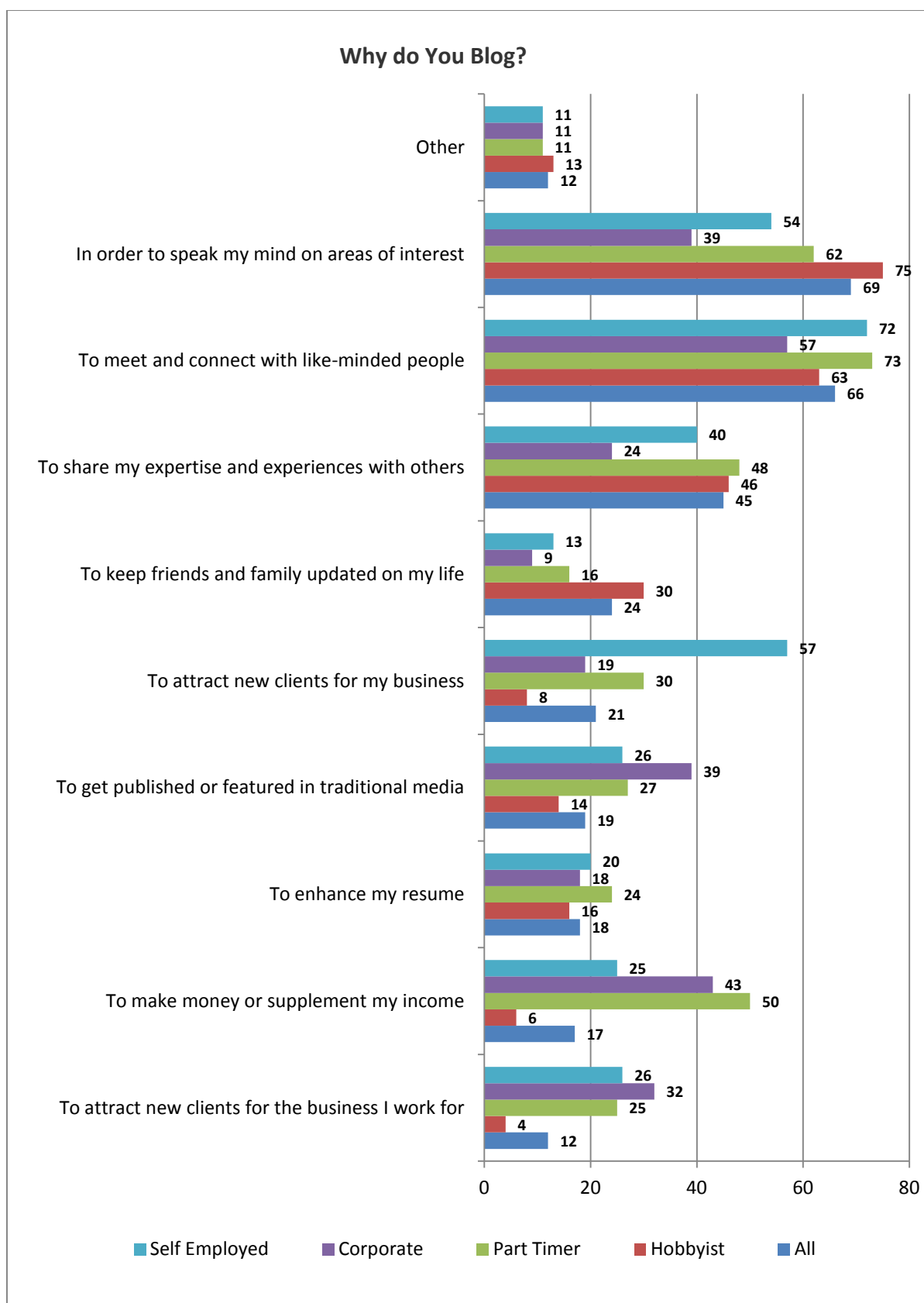
*continued*

20	DUBAI SESSION	General/ photo commentaries	Arabic	UAE	<a href="http://dubaisession.com">http://dubaisession.com</a>
21	BANDAR	Personal/ general	Arabic	KSA	<a href="http://bandar.raffah.com/wp">http://bandar.raffah.com/wp</a>
22	SHABAB WAYN	Specialized in entertainment/ Hadeel Award for podcast, 2011	Arabic	KSA	<a href="http://www.shabab-wayn.tv">www.shabab-wayn.tv</a>
23	ENTERTAINMENT WORLD	Specialized / Hadeel's third prize for specialized blog, 2011	Arabic	-	<a href="http://www.tt5.com">www.tt5.com</a>
24	AMAR YAL-KUWAIT	Mainly advertisement	English	Kuwait	<a href="http://www.ilsul6ana.com">www.ilsul6ana.com</a>
25	SAUDI WOMAN'S WEBLOG	Personal/ general, focusing on life and culture in KSA	English	KSA	<a href="http://saudiwoman.wordpress.com">http://saudiwoman.wordpress.com</a>
26	MAZEN AL-DHARRAB	Personal/ Hadeel's first prize for personal blog, 2011	Arabic	KSA	<a href="http://www.mazen.com.sa/blog">www.mazen.com.sa/blog</a>
27	BOOKS WEBLOG	Book reviews	Arabic		<a href="http://www.b-books.ws">www.b-books.ws</a>
28	HI KUWAIT	Personal/ general	Arabic	Kuwait	<a href="http://hikuwait.com">http://hikuwait.com</a>
29	TUNISIAN GIRL	Personal/ political, BOBs award for best blog, 2011	Arabic French English	Tunisia	<a href="http://www.atunisiangirl.blogspot.com">www.atunisiangirl.blogspot.com</a>
30	NETWORKS	Specialized/ networks	Arabic	Syria	<a href="http://www.networkset.net">www.networkset.net</a>

*Source: incomediary.com*

### WHY DO PEOPLE BLOG?

A 2010 Technorati survey of the main reasons why people blogged, whether they were company executives, self-employed or hobbyists, found out that “to speak my mind on areas of interest” was the top reason for most respondents, especially for hobbyists. This was followed by “to meet and connect with like-minded people.” The third top reason for hobbyists was “to share my expertise and experience with others,” but this ranked low for corporate executives. “Keeping friends and family updated on my life” came in fourth place for hobbyists. A full list of the proposed reasons and the responses is shown in the table below. If the same survey was carried out today with Arab bloggers it would probably yield comparable results in most reasons, but it is also bound to show significant variations in some areas due to the specific experience of Arab bloggers over the past couple of years, which was largely shaped by activism, a fast changing world and the relative novelty of the blogosphere experience in the Arab world.



Source: Technorati

## CITIZEN JOURNALISM

### 1. ARABIC DIGITAL CONTENT

On November 22<sup>nd</sup> 1963, American citizen Abraham Zapruder made his way to the city of Dallas in the state of Texas, along with his Bell and Howell camera, to film American President J.F Kennedy's procession. As he was filming, something unimaginable happened; the most popular American president to date was assassinated. Three days later, Zapruder sold the tape he had filmed, or better yet the most important 30 seconds of the tape, to Life Magazine for 150 thousand US dollars. Zapruder had no idea then that he would later become the most famous citizen journalist in history.

At the beginning of the third millennium, the concept of citizen journalism witnessed a tremendous growth, starting with the establishment of North Korean news website ohmynews.com by professional journalist Oh Yeon Ho in the year 2000. The website, whose motto was "Every Citizens is a Reporter", utilized the Internet as a collaborative news outlet, where over 700 people working as citizen journalists, along with over 60 thousand citizen reporters, all aged between 10 and 80 collaborated to write and feed the website with news. The said website held a high level of credibility, which enabled its reporters to enter any governmental ministry, for example, much like professional journalists. The website became famous worldwide after the New York Times, CNN and Christian Science Monitor reported about it. In 2007 the website recieved an hononorary medal for special service in journalism from Missouri State University's journalism department.

There are several other worldwide examples testifying to the success of citizen journalism, namely French website Agoravox.fr, which succeeded in attracting one million vistors per month and establishing a global network of citizen journalists reaching about 8 thousand, 600 of whom are active around the clock. Other examples include nowpublic.com and groundreport.com

Moreover, global news website have also began establishing citizen journalist centers attached to them, amongst those "citizen content" created by the BBC, which employs 23 journalists who sort and process information and images arriving from the general public. CNN has also establish a citizen content website separte from its main website; ireport.cnn.com, where news stories and videos sent by the audience are posted.

### ARAB CITIZEN JOURNALISM

The global voices website was the first to become available in several languages, including Arabic (found at [ar.globalvoicesonlines.com](http://ar.globalvoicesonlines.com)). On November 8<sup>th</sup> 2004, Wikipedia launched its Wiki News portal where citizens join in writing and distributing news. The Arabic version was established on the 12<sup>th</sup> of November 2005, aimed at delivering unbiased news content. In September 2005 the project's content became available under the collabortaive creativity license. ([ar.wikinews.org/wiki/الصفحة\\_الرئيسية](http://ar.wikinews.org/wiki/الصفحة_الرئيسية)).

In the MENA region, it is considered that the website "your newspaper" (<http://jaridtak.com>) was launched as the first real project aimed at citizen journalism in the region. The website was established on the 28<sup>th</sup> of March 2008, guided by international experiences.

The website allows for the publishing of articles, images and videos, and invites anybody with the desire to become an editor or an eye witness reporter to publish content; from news, information and comments. The website uses Arabic, English and French, aiming to attract a wide audience from around the world.

Moreover, several established Arabic news outlets have been encouraging citizens to send in news, images and videos through an email address or websites created for this purpose. One example is the "I see" website that Al Arabiya has launched, enabling citizens to upload and share videos. ([www.alarabiya.net/ana.ara](http://www.alarabiya.net/ana.ara))

Citizens journalists are regular people who enjoy contributing to their communities or are passionate about a particular cause. They feel the need to communicate with others who share similar interests. A citizen journalist can be any person willing to supply the community with information, provided it is accurate. A citizen journalist can be a seventh grader who is passionate about science, or a mother who wants to write about her son's football games, or a government employee with the desire to educate the public about the services his ministry or department provides.

### THE CITIZEN JOURNALIST PHENOMENON

In January 2011, when the Egyptian government decided to withdraw Al Jazeera's license and shut down its office in Cairo, rendering the news outfit liable for the movement of its reporters, the news channel immediately launched an initiative to gather a network of citizen journalists who provided it with field information through mobile phone, and those who worked as eye witnesses. This style of journalism faced doubts regarding its credibility at first, but as the coverage of the Egyptian state television provided an extremely biased view of the events, audiences had no choice but to trust the individuals supplying Al Jazeera with information, regardless of their age or affiliation, relying on the fact that they were present at the heart of the events.

The uprisings that had occurred (or are occurring) in certain Arab countries played an important role in the growth of this new media, which relies on unprecedented mechanics such as the eye witness phenomenon, whereby anyone could become a reporter relying on an event in voice and picture, through the Internet and a mobile phone.

The ongoing events in Syria and its spread on a large geographical scale to encompass hundreds of towns and villages, combined with the government's crackdown on Arab and international media, preventing them from covering the events taking place in the country, led to further widespread of the citizen journalist and citizen reporter phenomenon, as well as the advancement of the great role Facebook and YouTube played in both.

The citizen journalist phenomenon spreading through the Arab world does not stop at coverage of protests and political events. Saudi Twitter activist Abdulaziz Al Shalaan says that the change that the social networks play does not stop at political change. There are important uses for these networks in effecting social change and carrying out important services which citizens need during disasters or in times of crisis, pointing to his own

experience during the Jeddah flooding when he, along with a network of Twitter activists, went through extreme efforts to save those affected and direct the city's residents away from the flood's path. This clearly points to varying possibilities of utilizing citizen journalists and social media that to date remain unharnessed in Arab societies.



## APPENDICES

### Appendix 1: Internet Introduction and Commercial Use in Arab States

The first Internet access point in the Arab world launched in 1991 when the Tunis based Regional Institute for Computer Sciences and Telecommunications set up an IP connection on an X.25 leased line with the French Institute for Research in Computer Science and Control.

Commercial and public use of the Internet between 1994 and 1996 marked a turning point - as access was offered initially to businesses, or simultaneously to both businesses and home users depending on the country. Kuwait was the first to offer the public Internet access in 1994. It was followed by UAE, Bahrain, Lebanon, Palestine, Morocco and Algeria in 1995. Kuwait and the rest of the GCC, however, moved straight into the commercial use without having their academia connected first.

INTERNET INTRODUCTION AND COMMERCIAL USE IN ARAB STATES		
COUNTRY	INTRODUCED	COMMERCIAL
TUNISIA	1991	1997
MOROCCO	1992	1995
EGYPT	1993	1996
LEBANON	1993	1995
ALGERIA	1993	1995
KUWAIT	1994	1994
PALESTINE	1994	1995
UAE	1995	1995
JORDAN	1995	1996
BAHRAIN	1995	1995
YEMEN	1996	1996
QATAR	1996	1996
OMAN	1996	1996
KSA	1996	1999
LIBYA	1997	1998
SUDAN	1997	1998
SYRIA	1998	1999
IRAQ	1999	2000
Source: MRD		



## Appendix 2: Active mobile phone operators in the MENA Region

ACTIVE MOBILE PHONE OPERATORS, 2012				
COUNTRY	OPERATOR	NETWORK NAME	URL	NETWORK LAUNCH
ALGERIA	Algerie Telecom	Mobilis	www.mobilis.dz	2004
	Orascom Telecom	Djezzy	www.djezzygsm.com	2002
	Wataniya Telecom Algeria	Nedjma	www.nedjma.dz	1999
BAHRAIN	Bahrain Telecommunications Company	Batelco	www.batelco.com.bh	1995
	Zain	Zain	www.zain.com	2003
	Saudi Telecommunications Company	Viva	www.viva.com.bh	2010
EGYPT	Orascom Telecom	Mobinil	www.mobinil.com	1996
	Vodafone	Vodafone	www.vodafone.com.eg	1998
	Etisalat	Etisalat Misr	www.etisalat.com.eg	2007
IRAQ	Qtel	AsiaCell	www.asiacell.com	2003
	Zain	Zain	www.zain.com	2004
	Korek Telecom	Korek	www.korektel.com	2001
JORDAN	Zain	Zain	www.zain.com	1995
	Jordan Telecom	Orange Mobile	www.mobilecom.jo	2000
	Batelco	Umniah	www.umniah.com	2005
	XPress Telecommunications	Xpress	www.xpress.jo	2005
KUWAIT	Zain	Zain	www.zain.com	1994
	Wataniya Telecom	Wataniya Telecom	www.wataniya.com	1999
LEBANON	Fal Dete Telecommunications	Alfa	www.alfa.com.lb	1995
	Zain	Touch	www.touch.com.lb	1995
LIBYA	Libyana Mobile Phone Company	Libyana	www.libyana.ly	2004
	Madar Telecommunications Company	Al-Madar Al-Jadeed	www.almadar.ly	1996
MOROCCO	Maroc Telecom	Maroc Telecom	www.iam.ma	1994
	Meditel	Meditel	www.meditel.ma	2000
	Wana	INWI	www.inwi.ma	2010
OMAN	Qtel	Nawras	www.nawras.com.om	2005
	Omantel	Omantel	www.omantel.com	1996
PALESTINE	Palestine Cellular Communication Company	Jawwal	www.myjawwal.com	1999
	Wataniya Mobile	Wataniya	www.wataniya-palestine.com	2009
QATAR	Qatar Telecommunications Company	Qtel	www.qtel.com.qa	1993
	Vodafone Qatar	Vodafone	www.vodafone.com.qa	2009
KSA	Etihad Etisalat	Mobily	www.mobily.com.sa	2005

continued



continued				
	Public Telecommunications Company	Bravo	www.ptc.com.sa	2005
	Saudi Telecommunications Company	Saudi Telecom	www.stc.com.sa	1996
	Zain	Zain	www.sa.zain.com	2008
<b>SUDAN</b>	MTN Sudan	MTN Sudan	www.mtn.sd	2005
	Zain	Zain	www.zain.com	1997
	Sudan Telecommunications Company	Sudani	www.sudatel.net	2006
<b>SYRIA</b>	MTN Syria	MTN Syria	www.mtn.com.sy	2001
	Syriatel	Syriatel	www.syriatel.com	2001
<b>TUNISIA</b>	Orascom Telecom	Tunisiana	www.tunisiana.com	2002
	Tunisie Telecom	Tunisie Telecom	www.tunisietelecom.tn	1998
	Orange Tunisie	Orange Tunisie	www.orange.tn	2010
<b>UAE</b>	Emirates Telecommunications Corporation	Etisalat	www.etisalat.ae	1994
	Emirates Integrated Telecommunications Company	Du	www.du.ae	2007
<b>YEMEN</b>	MTN Yemen	MTN Yemen	www.mtn.com.ye	2001
	Sabafon	Sabafon	www.sabafon.com	2001
	Yemen Mobile	Yemen Mobile	www.yemenmobile.com.ye	2004
	Y-Telecom	Y GSM	www.y-gsm.com	2007
Source: MRD				

### Appendix 3: Active Fixed line Operators in the MENA region

ACTIVE FIXED LINE OPERATORS, 2012		
COUNTRY	OPERATOR	URL
ALGERIA	Algerie Telecom	www.algerietelecom.dz
BAHRAIN	Batelco	www.batelco.com.bh
EGYPT	Telecom Egypt	www.telecomegypt.com.eg
IRAQ	Iraq Telecommunications and Posts Company	N/A
JORDAN	Jordan Telecom	www.orange.jo
KUWAIT	Ministry of Communications	www.mockw.net
LEBANON	Ogero	www.ogero.gov.lb
LIBYA	GPTC	www.lptic.ly
MOROCCO	Maroc Telecom	www.iam.ma
	Meditel	www.meditel.ma
	Wana	www.inwi.ma
OMAN	OmanTel	www.omantel.om
	Nawras	www.nawras.om
PALESTINE	PalTel	www.paltel.ps
QATAR	Qtel	www.qtel.com.qa
SAUDI ARABIA	Saudi Telecom	www.stc.com.sa
SUDAN	SudaTel	www.sudatel.net
	Canar Telecom	www.canar.sd
SYRIA	Syrian Telecommunications Establishment	www.ste.gov.sy
TUNISIA	Tunisie Telecom	www.tunisietelecom.tn
UAE	Etisalat	www.etisalat.ae
	Du	www.du.ae
YEMEN	TeleYemen	www.teleyemen.com.ye

Source: MRD