

“Accelerating the Digital Economy in the Middle East, North Africa and Turkey”

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“ACCELERATING THE DIGITAL ECONOMY IN THE MIDDLE EAST, NORTH AFRICA AND TURKEY”

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Executive Summary

- ⊙ The use of digital technologies is growing quickly in the region, driven by the increased use of local languages for digital communication and social media
- ⊙ For many people in the region, connectivity is either unavailable or unaffordable. Governments here need to accelerate network deployment and address affordability issues
- ⊙ Elsewhere, action is needed to make the Internet more relevant for local populations. Digital Government services and more use of the Internet by businesses are urgently needed
- ⊙ Business use of the Internet is hampered by a number of factors, including the ease with which domain names can be registered and the availability of local hosting services
- ⊙ Governments can support the digital economy by nurturing a business environment that is open for investment and innovation; investing in the development of the digital skills; ensuring a consistent, predictable and digitally-relevant rule of law; and coordinating and cooperating with neighbours and trading partners.

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“The UAE remains the region’s tech startup hub” – so [tweeted](#) HRH the Crown Prince of Dubai in May 2017, demonstrating not only how Twitter has become an important communications tool for the region’s leaders, but also how attractive the region’s entrepreneurs have become for investors. Yahoo!’s acquisition of Jordan’s [Maktoob](#), eBay’s entry into Turkey through [GittiGidiyor](#), Delivery Hero’s purchase of Istanbul-based [Yemeksepeti](#), and MTN’s investment in Tehran’s [Snapp](#) are just a few, welcome examples of entrepreneurship becoming a successful and rewarding career.

Further underscoring this development are the recent emergence of the [first Arabian unicorns](#) – the online retailer souq.com, bought by Amazon, and the ride-sharing company Careem – and the fact that startups in the region attracted roughly [\\$1B of investment](#) in 2016 alone.

Without a doubt, the region’s digital economy has great potential. The population is young, literate and digitally savvy, and the opportunity for a digitally driven demographic dividend is enormous. At 56 percent [Internet penetration](#) is well above the world’s average and growing quickly, already exceeding 90 percent in some of the smaller GCC states. Social media is [extraordinarily popular](#) and has played a big role in shaping public opinion nationally and internationally. Twitter has the highest penetration globally in [Saudi Arabia](#), where around 10M tweets are sent per month, and the [Saudis](#) use YouTube on a per capita basis more than any other country globally.

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Some of the region's governments see enormous opportunities to digitally transform their countries, and have developed visionary, long-term goals. The aims of the "[Smart Dubai 2021](#)" initiative are far reaching, and include extensive applications of the Internet of Things (IoT), as well as the use of [blockchain](#) for the majority of the Emirate's business. Saudi Arabia's "[National Transformation Program 2020](#)", part of the Kingdom's "Vision 2030 program", has prioritized the digital transformation of the entire economy. Several countries are racing to become [fintech hubs](#) for Islamic banking. With about half of work activities in the region susceptible to [automation](#), many countries have recognized the urgent need to transform their economies. It would seem that data is indeed the new oil.

Yet the region's digital economy lacks the depth and vibrancy of China's or India's, even though Internet penetration is, on average, higher than in both of these countries. This article explores how this can be changed, how the development of the region's digital economies can be accelerated, and the challenges mastered – challenges, which the advantages of youth and the benefits of long-term vision cannot fully mask.

The Region in a Nutshell

Bordering the Atlantic to the West and the Caspian Sea and Pakistan to the East, the Black Sea to the North, the Sahara to the South, the region spans six time zones. We focus on 410M people who live in 15 countries – Algeria, Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Tunisia, Turkey, and the UAE. Each country and community in this group – which we choose to call MENAT – has its own unique and rich heritage, business practices, challenges and opportunities. Indeed, the region is geographically, economically, linguistically, ethnically, socially and digitally highly diverse:

- ⦿ *Geographically*: Although some countries, like Bahrain and Qatar, are densely populated, and others are more or less empty deserts, two thirds of MENAT's population lives in urban areas, and one in ten of its people live in the ten largest cities. Perhaps surprisingly, MENAT is [more urbanized](#) than China.
- ⦿ *Economically*: Qatar is one of the wealthiest countries in the world, enjoying a per capita GDP of almost \$130,000 (on a purchasing power parity basis), or 30 times that of the poorest country in the region. [Current economic growth](#) varies from 1-2 percent annually in the GCC to around 5 percent annually in Iran and Turkey. Populations are [growing quickly](#), with the working age population projected to rise by about a quarter in the next decade.
- ⦿ *Socially*: MENAT's population is young, educated, and yet often unemployed. Almost half the population is under 25, and while levels of school enrolment and literacy are generally high, especially in Turkey and the Middle East, the generational and urban-rural gap is significant. Almost [30 percent](#) of the 80M 15-24 year olds are unemployed, and unemployment amongst those with tertiary education is sometimes higher than for the less well educated.
- ⦿ *Ethnically*: One in ten of the population is [foreign born](#), with voluntary economic migrants from South and South East Asia accounting for [roughly half](#) of the GCC's population, helping to power these economies and enrich their linguistic and culinary diversity. Critically, displaced people make up [one in twenty](#) of the Middle East's population, with refugees accounting for [more than a third](#) of the population in Lebanon, Palestine and Jordan.

- ⦿ *Linguistically:* Most countries in the region are linguistically diverse, with many languages and dialects being spoken by small minorities. Berber is widespread in North Africa, as is Kurdish in Iran and Turkey. Urdu and Tagalog are frequently heard in some parts, as are French and English.
- ⦿ *Digitally:* Although [56 percent](#) of MENAT's population – or 230M people – regularly use the Internet, this masks the relatively low usage in Algeria and Egypt and the very high usage in the GCC. It also masks a significant and pernicious [digital gender gap](#), particularly in the Arab states, where 25 percent more men use the Internet than women. Globally, only Sub-Saharan Africa is worse.

Despite these economic extremes and cultural diversity, MENAT can be segmented into four country groups:

- ⦿ The six high-income countries of the GCC (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE), which account for 9 percent of MENAT's population, and 42 percent of its GDP. These states have high Internet penetration, high literacy rates, and in most cases relatively low youth unemployment.
- ⦿ The non-Arab giants, Turkey and Iran: the largest and third largest economies in the region, accounting for 40 percent of the population and over a third of the region's GDP. Their per capita GDP is around \$20,000, but levels of Internet penetration are much lower than those in the GCC. Together, they account for almost 60M of MENAT's unconnected citizens.
- ⦿ The small countries of the Levant – Jordan, Lebanon, Palestine. Squeezed between troubled neighbours and the Mediterranean, these states are less wealthy than Turkey and Iran, but their Internet penetration is higher due in part to their compact, urban nature.
- ⦿ The rural, lower-middle income countries of North Africa – Algeria, Egypt, Morocco, Tunisia. Despite GDP levels similar to their Levantine cousins, literacy rates are lower; a total of 100M unconnected citizens live here.

A final group of Arab countries comprise a fifth segment with an additional 144M people and roughly 40M Internet users. War-torn, violent or poor, these countries are not considered further here.

The priorities for accelerating the digital economy will depend on which segment a country is in. There is no digital silver bullet, but there are lessons to be learned from other countries elsewhere in the world.

The value of connectivity

BCG's 2014 report introduced the concept of e-friction and showed that countries are able to boost their GDP by 2-3 percent by reducing the barriers to Internet accessibility, affordability and usage.

Within MENAT, Qatar and the UAE score best on BCG's e-friction Index, landing at the bottom of the second quintile and performing better than some European countries. With improved infrastructure, both countries could quite easily score better. Bahrain lies at the top of the third quintile, while Kuwait, Jordan, Saudi Arabia, and Turkey are all fourth quintile countries; Morocco and Egypt are fifth quintile. (Algeria, Iran, Lebanon, Oman, Palestine, and Tunisia are not currently covered in the e-Friction Index.) Compared with countries with

similar geographies and income levels, Kuwait, Qatar, and Saudi Arabia punch below their weights. Although much has changed since this report was published, the general picture today is likely to be little different.

Accelerating the region's digital economies needs to reflect these starting positions as well as the diversity of the region. Concerted, consistent, coordinated and long-term efforts are required in [multiple areas](#), in particular:

- ⦿ Providing ubiquitous, affordable connectivity: This is relevant everywhere, but especially in the rural, lower-middle income countries of North Africa
- ⦿ Creating a local ecosystem of digital services and applications: Converting access and usage into social and economic impact is a first step on a journey of transformation for the region's economies, and participation in the [Fourth Industrial Revolution](#).

Whatever their priorities, governments can set the direction while recognizing that successful countries have taken a holistic approach to their digital agendas and ensured involvement of all kinds of stakeholders from government, the private sector, NGOs and civic society, as well as technical experts.

Ubiquitous, Affordable Connectivity

For many countries in the region, providing ubiquitous, affordable connectivity must be a key priority. This is particularly true for Egypt, where a third of MENAT's unconnected people live, as well as Algeria, Iran, and Turkey, which together account for a further 45 percent of the total.

Building infrastructure across the vast rural areas of these countries, especially in regions far from the sea is a big challenge. But access on its own is not sufficient – connectivity needs to be affordable, even for the lowest income groups. In some countries, the poorest households would need to pay about one third of their disposable income to afford [mobile broadband](#). Addressing this is often a bigger challenge than providing connectivity.

The average price of [international communications](#) in many countries is about five times higher than in Europe or the US, with Turkey, Egypt and the UAE being notably inexpensive exceptions. Highly affordable mobile networks can be found in Turkey and Morocco, and Jordan has improved its affordability significantly in recent years as a result of implementing a simplified licensing regime and mandating [infrastructure sharing](#) among service providers.

To make connectivity ubiquitous and affordable, governments and policy makers can leverage the experience gathered elsewhere. For example:

- ⦿ Define a long-term digital strategy, including a national broadband plan and the establishment of a transparent and predictable regulatory framework. Clarity here encourages investments in networks and other types of digital infrastructure. Most MENAT countries have developed [national broadband plans](#), but several have either expired or are outdated, and rarely do the plans comprehensively address the long-term digitalization agenda.
- ⦿ Harmonize spectrum and infrastructure policies in the region, for example through the GCC or the League of Arab States, as a way of encouraging investors – including large

telecommunications groups – to see region as more than a collection of individual economies.

- ⦿ Encourage the supply of international bandwidth, especially for [intra-regional connectivity](#). Despite all countries in the region having a coastline, submarine connectivity between the Middle East and North Africa is patchy, as international submarine cables were built primarily with the goal of linking individual MENAT countries with Europe and Asia.
- ⦿ Promote competition in the telecommunications market. Some countries remain [two-company markets](#) in mobile telephony; Bahrain and Jordan are the only countries to have removed all barriers to entry in the telecommunications sector.
- ⦿ Incentivize collaboration between network providers to raise the attractiveness of investments, especially for remote areas. Tower-company deals are [much less frequent](#) in the region than elsewhere. Cooperation with utility companies as well as coordination of civil works projects – as seen in Tunisia, Bahrain and Oman – can also help reduce investment cost, [particularly in rural areas](#).
- ⦿ Treat spectrum auctions as opportunities to attract investment and drive infrastructure deployment, rather than simply revenue generating opportunities: operators subsequently pass on spectrum costs to users.
- ⦿ Allow experimentation with different pricing models for Internet services, including service-specific plans and [zero-rated services](#). Several countries, including Saudi Arabia, UAE, Bahrain, Kuwait, and Tunisia, have [instances](#) of zero-rating being used.

The need for relevance: Creating a local digital ecosystem

Providing ubiquitous, affordable connectivity does not guarantee its use. Multiple studies confirm that people are more willing to use the Internet if they appreciate its value: Ubiquity and affordability are not substitutes for relevance.

Relevance starts with people being able to enjoy digital media in a language they feel comfortable with. Take the use of Arabic: since 2014 its use on social media in the Arab world has increased substantially and is now used in [the majority of social media activities](#). Over 70 percent of tweets in the region are now in Arabic, rising to over 90 percent in Saudi Arabia. In Algeria, Lebanon, Morocco, and Tunisia, the share of Facebook users posting in Arabic has more than doubled in two years, and in Egypt, Jordan, Palestine over 85 percent of Facebook users use Arabic. These social interactions motivate people to go online, stimulate engagement and help build [digital skills](#). Evidence also suggests that social media is being used to preserve culture and heritage, including minority or [endangered languages](#).

But relevance is more than just a question of language – the content, services and applications need to be appealing too, defined by a broad range of attractive, local, online offerings, including government services, created in a local digital ecosystem.

Digital government services stimulate engagement in the Internet, due to their high relevance for many people's everyday lives. They can help increase [citizen involvement](#), improve the quality of the services, and raise efficiency, too. Encouragingly, several countries in the region score highly on the UN's [e-Government Development Index](#), with the UAE achieving a very high score.

Businesses have a central role to play in the local digital ecosystem. Being able to transact online with a local store, get local travel advice, or, in a B2B context, collaborate with local

partners and suppliers or provide customer support, makes the Internet significantly more relevant for its users. The growth potential in MENAT in this area is considerable:

- ⦿ Online retail spending [is very low](#), at little more than \$100 per Internet user annually. Even in countries where online retailing is taking off, spending levels are a fraction of those in elsewhere: people in Qatar, the UAE, and Saudi Arabia spend about \$500 per year, compared to over \$700 in China and \$1,500-2,000 in the US and parts of Europe. Interactive gaming is also [significantly less widespread](#) in the region compared to North America and Asia Pacific.
- ⦿ Small and medium sized businesses (SMBs) in MENAT barely use the Internet, despite evidence that doing so results in more growth, more exports and more employees. In Turkey, for example, Internet-affine SMBs grow by more than [seven percentage points per annum faster](#) than their less Internet savvy competitors. Yet only 7 percent of Egyptian SMBs and 18 percent of those in the UAE have an online presence. Turkey does better with [37 percent](#). Digitally savvy, “micro multinational” SMBs are well placed [to trade internationally](#).
- ⦿ One good Turkish example is [Trendyol](#), an online fashion retailer, which uses Turkish and its proximity to over 1,000 local suppliers to nimbly test small batches and move from concept to sales in about a week.
- ⦿ The global e-commerce giants have been slow to offer local-language sites. eBay has a Turkish site, but no other local-language sites in the region; Alibaba provides localized sites in the region, but does not have an Arabic language interface; Amazon has no localized sites for the region, but will presumably use its acquisition of souq.com for this [purpose](#).

Businesses need support as they develop their online presence and engage in online commerce. Not only do they depend on having effective [online payment systems](#), good physical logistics, employees with the necessary digital skills, but they also need a supportive legal and regulatory environment.

Important too is the presence of Internet Service Providers, IT and networking companies, domain name registries and registrars, providers of hosting services, and carrier-neutral Internet Exchange Points, through which Internet service providers and content delivery networks exchange traffic. Here many countries in the region [lag internationally](#):

- ⦿ Of roughly 500 IXPs worldwide, [only a dozen](#) are in MENAT, and many of these are dormant. The lack of adequate IXP infrastructure drives up latency and cost, as [85 percent of local traffic](#) is routed through Europe. Promoting carrier-neutral IXPs is a highly cost-effective way of enhancing local connectivity and reducing costs.
- ⦿ Only 1 percent of the world’s domain names are in the region, and only 4 countries in the region – Iran, Qatar, Turkey, and UAE – have more than 10 domain names per 1,000 population, or less than a tenth of comparable numbers for countries such as the UK or the Netherlands.
- ⦿ Only 5 percent of popular web content is hosted in the region, and hosting markets are weak everywhere, apart from in Iran and Turkey where [over half of popular sites](#) are hosted locally. [Studies](#) show a strong correlation between the availability of local hosting and the occurrence of local language content – in Iran and Turkey local online retail businesses and SMBs going online have driven this trend. However, if strict legislation or regulation affecting Internet content and intermediaries results in offshore hosting, the availability of local content is likely to suffer.

- ⦿ Users have a strong preference for websites in local languages, yet English sites still account for 71 percent of sites in the region. In China, Russia, and South Korea the situation is different: as local language web-based content has grown and overtaken the use of English, the [use](#) of Internationalised Domain Names (IDNs) has grown too. A similar shift can be expected in MENAT. The launch of .shabaka (شبكة) as the first Arabic new gTLD was heralded as providing Arabic-speaking Internet users with an alternative to, say, .com or .net, yet without sufficient [Arabic content](#) its potential will not be fulfilled.
- ⦿ [Competition in local registrar markets](#) is often weak, and most international registrars are not present in the region, leading to limited customer choice and higher prices. Some ccTLD registries require complex, notarized documentation to register a domain name, slowing the process considerably, rely on manual processes, or insist on stringent eligibility criteria. Where registries have liberalized – as in Morocco, Tunisia, and the UAE – strong growth has been achieved.

The Role of Government

Many of MENAT’s governments see digital transformation – coupled with entrepreneurship – as core to the re-balancing of their economies away from natural resources, and to the creation of jobs for their young and growing populations. They see enormous opportunities to offer better health care, better education and address climate change through the implementation of digital technologies, including the Internet of Things, in smart cities.

Governments can set the direction by defining and pursuing a national digital transformation agenda, and several countries in the region already have programs in development or implementation. Encouragingly, some of these plans go far beyond simply national broadband plans, recognizing that digital transformation requires much more than the provision of digital infrastructure. Successful transformation agendas combine boldness and long-term vision with an attention to immediate initiatives, details and specifics, as short-term results are needed to demonstrate progress. They also evolve, as regular updates and course corrections are to be welcomed, not avoided, and are very specific on where governments should get involved, and where [they should step back](#).

The transformation agendas themselves need to contain four common elements: nurturing a business environment that is open for investment and innovation; developing the digital skills of the whole population; ensuring a consistent, predictable and digitally-relevant rule of law; coordinating and cooperating with neighbors and trading partners. Let’s examine these in turn.

Nurturing a business environment that is open for investment and innovation requires:

- ⦿ Improving competitiveness. The World Economic Forum lists the UAE and Qatar as the most competitive MENAT countries, but with the exception of the UAE, Jordan, Morocco, and Egypt, all countries in the region [have lost competitiveness](#) in recent years.
- ⦿ Encouraging the creation of jobs requiring digital skills. Tunisia’s education system produces highly educated youth, for example, but in an economy dominated by low-skill industries they have [too few job opportunities](#).
- ⦿ Defining policies to enable a vibrant start-up scene. Today, [just one startup per day](#) is founded in the Middle East, just one-thirtieth of the population-adjusted figure for the USA.

- ⦿ Encouraging fintech. Most countries in the region rank poorly in terms of retail access to [financial services](#). Digitisation of purchases, businesses, and financial products will expedite [financial inclusion](#).

Developing the digital skills of the whole population requires:

- ⦿ Committing to improving the [quality of education](#), especially in public schools. Several countries in the region, such as Algeria, Bahrain, Egypt, Iran, Morocco, Qatar, Tunisia and the UAE, have close to [universal primary enrolment](#), but standards often lag internationally.
- ⦿ Equipping children with digital skills, and encourage the use of new educational platforms. Across the region many edtech startups are creating and disseminating digital content, which they strongly believe can help reduce the strain on educational systems caused by burgeoning populations: in Egypt alone, about 2M children enter the education system annually.
- ⦿ Updating tertiary-level curricula to ensure that degrees remain relevant for the digital economy.
- ⦿ Supporting the development of entrepreneurial skills through tech hubs and educational programs. [Flat6labs](#), with five locations, is one of the best-known accelerators in the region, supporting well over 200 companies.
- ⦿ Creating digital literacy programs for those no longer in formal education, including reverse mentoring of older people, to ensure that it is not only the young who are digitally literate.

Ensuring a consistent, predictable and digitally relevant rule of law requires:

- ⦿ Implementing a supportive legal and regulatory framework for entrepreneurs and the investment community that allows new business ideas to be launched and scaled rapidly.
- ⦿ Improving the judiciary's understanding of issues related to the digital economy – for example, fighting cybercrime, or protecting intellectual property.
- ⦿ Addressing restrictions on Internet content and intermediaries. Governments should encourage the [free flow of information online](#), while recognizing that some Internet content can be illegal. In particular, Tunisia is “on track to achieve positive political reform which has been an enabler of Internet openness”, according to [Hivos](#).

Coordinating and cooperating with neighbors and trading partners requires:

- ⦿ Coordinating regulations to promote the [free flow of data](#) across borders as this helps advance e-commerce, fuels economic growth and drives innovation. MENAT is one of the [least regionally integrated regions](#) in the world – improving this would encourage investment in physical logistics systems and payment platforms to support the digital economy.
- ⦿ Reducing market fragmentation due to different regulations, currencies, payment systems, and customs, which pose particular challenges for startups and export-oriented SMBs. This would be especially attractive for companies operating in the region's smaller economies. Avoidance of data localization requirements would also contribute to reducing fragmentation.
- ⦿ Encouraging SMBs to develop a digital presence to improve their competitiveness in [international trade](#). Very often the most important trading partners for businesses in

MENAT are customers in Europe, Asia or the Americas, where the Internet plays a much bigger role and digital commerce is commonplace.

Conclusion

Within a few short years the Internet has become a global resource, connecting billions of people and influencing their lives in myriad ways. It already contributes significantly to the world's social and economic development, and the opportunity for MENAT to participate more fully in its potential cannot be underestimated. Young, digitally savvy people across the region are already massive users of the Internet and social media services, but the elderly, the less well off, and those living in rural areas participate much less or not at all.

To reach its full potential the Internet will need to be accessible and affordable for all, remain open, and be secure and trustworthy. Governments across the region, but particularly in North Africa, need to ensure that infrastructure is built to provide millions of unconnected citizens with access to affordable connectivity. In addition, they need to ensure that the pre-conditions for local language content and services are met, for example by liberalizing registrar markets and promoting carrier-neutral IXPs. Their focus, too, should be on nurturing a business environment that is open for investment and innovation, developing the digital skills of the whole population, ensuring a consistent, predictable and digitally-relevant rule of law, and coordinating and cooperating with neighbors and trading partners.

Businesses should grasp the opportunity to use digital technologies for their interactions with customers and partners. This will also enable them to grow faster and expand their addressable markets, including outside of their home countries. They should also recognize the opportunity to provide local content, applications and services in the local languages. Entrepreneurs seeking new business opportunities have a crucial role to play here too.

Some governments may balk at the size of the challenge, but government leaders and policy makers should ask themselves what the costs of *inaction* are—the costs of *not* connecting the unconnected, the costs of *not* pursuing a digital transformation of their economies, the costs of *not* equipping their populations with the skills to prosper in the Fourth Industrial Revolution. These are high too. For farsighted leaders, the answer will be clear.

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