ARAB MEDIA OUTLOOK 2008-2012

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Prepared by Dubai Press Club, Dubai Media City, Dubai Studio City, International Media Production Zone and PricewaterhouseCoopers

The Dubai Press Club plays a vital role in the growth of the regional media industry through its many initiatives including the annual Arab Media Forum and the Arab Journalism Award. Dubai Press Club is dynamically involved in key issues affecting Arab journalism and regularly organises training workshops as well as hosting seminars on topics of regional and global significance. As a founding member of the International Association of Press Clubs it is a thriving forum for the exchange of ideas.

Over the past seven years, Dubai Media City (DMC), Dubai Studio City and the International Media Production Zone have established themselves as the region's leading media hub. With a thriving media community of over 1,200 regional and international media companies and hundreds of media freelancers, DMC is a place where every kind of media business can operate with collective synergy, including: publishing, music, film, new media, leisure and entertainment, broadcasting, media and marketing services and information agencies. DMC provides an advanced infrastructure for media-related businesses to operate globally out of Dubai.

PricewaterhouseCoopers provides industry-focused assurance, tax, and advisory services to public and private sector clients. More than 146,000 people in 150 countries combine their thinking, experience and solutions to build public trust and enhance value for clients and their stakeholders. The firm's Arab network has 21 offices in 13 countries

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/390FOREWORD -ASUCDUBAI PRESS CLUB

Dubai Press Club is proud to present the second edition of *Arab Media Outlook 2008-2012*. In this year's Outlook we review the changing nature of media in general and the effects that technology is having on media across the region.

Besides analysing the interface between media and technology, the Outlook also predicts the changes and trends that are expected in the media industry over the next five years. The report covers all media sectors and examines key user trends. Our analysis of the region's media is expanded to include twelve countries across the Arab world: Bahrain, Egypt, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, UAE and Yemen.

In keeping with our commitment to provide an accurate assessment of media trends in the region, we asked our Knowledge Partners, PricewaterhouseCoopers, to work with us to develop a better understanding of how global developments are being brought to market in the Arab world and how our regional media businesses can benefit from the latest technologies. We have great pleasure in reporting that the Arab region is well positioned to keep pace with the global trends of collaboration and convergence, although the degree of adaption to the changes differs from country to country.

This Outlook includes growth trends for both digital and traditional media and also looks at ways in which Arab media operators and regional governments can invest in new technologies to add value throughout the industry's value chain. You will see that the new technologies have unlocked immense value for new and traditional media, in ways that were unthinkable a decade before. The fact that a majority of citizens in Arab countries are young

makes the adoption of digital technologies a natural development for the region.

In this Outlook, we have also looked at the emergence of user-generated content in the region. We believe the surge of citizen journalism that we see today in the region will complement "mainstream journalism" and add to the depth and breadth of media content. We have seen many prominent examples of citizen journalism recently, both locally and internationally, that confirm that digital technology is transforming large sections of people from passive consumers into active creators of media content.

None of our work would have been possible without the kind cooperation of key members of the media industry. We thank them all for their time and insight. Their input was particularly valuable in our understanding of statistics where publicly cited data are not always as accurate as they appear. We are confident that, as with last year's *Arab Media Outlook*, our projections accurately represent the trends in the twelve countries we reviewed.

Our research indicates that the Arab media industry is going through a period of renewal and regeneration in terms of technology and content although there are challenges along with the opportunities. The latest challenge to surface is the unprecedented financial turmoil in the global economy. Media cannot remain untouched by these developments so we thought it prudent to include the implications of the upheaval for the Arab media industry. I am sure the insights and analyses, as well as the data and projections contained here will serve as a reliable source of reference for media experts, policy makers and the general public throughout the region and further afield.



Mona Al Marri, Chairperson Dubai Press Club



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The TECOM Investments media cluster—Dubai Media City (DMC), Dubai Studio City (DSC) and the International Media Production Zone (IMPZ)—represents a realisation of the vision of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, UAE Vice President and Prime Minister and Ruler of Dubai to transform Dubai into a knowledge-based society and economy and to develop Dubai as the media hub for the Arab region.

Over the past seven years, Dubai has developed a unique global media community that provides a strong regional platform for media companies. Our investment in infrastructure and the wide range of significant business incentives offered by DMC, DSC and IMPZ have generated an expansion in the media community that includes over 1,200 regional and international media companies and hundreds of media freelancers.

The media industry has also been expanded through DMC's sister organisations: DSC, which is dedicated to filming and broadcasting industries; and IMPZ, the world's first free zone to bring all elements of the printing, publishing and graphic art industries into one geographic cluster. We thank all the media companies who are now part of this wonderful growth story and invite media companies who are not yet a part of the Arab media scene to come and join us.

We hope that this edition of the Arab Media Outlook provides valuable insights that will influence decision-making within media companies, infrastructure providers and policy-making bodies across the region. There is no doubt that the Arab world is attracting global acclaim for the growth of its media industry and we must all work together to maintain the forward momentum of recent years. Complacency is not an option. It is clear that the media consumer in our region is as sophisticated as those anywhere in the world, and it is essential that Arab media companies respond to the needs of the new media consumer as well as continuing to satisfy the large population segment that happily receives their news and entertainment through traditional media channels.

With its key economic data, credible research and astute analysis of emerging technology as it relates to the media industry, the *Arab Media Outlook* is an essential tool for all media companies in the region. The media business model is changing and there are many opportunities where technology can unlock value for media companies in the Arab world. Information contained within *Arab Media Outlook 2008-2012* will help us all to achieve this.





Dr. Amina Al Rustamani Executive Director of Media, TECOM Investments







VIROFOREWORD IN PRICEWATERHOUSECOOPERS

It is our great pleasure to welcome you to this, the second *Arab Media Outlook*, which covers the projection period 2008–2012. Working closely with the Dubai Press Club and TECOM Investments we have kept the promises we made in last year's AMO and have expanded this edition to include six more Arab countries, as well as examining the use of new technology in the region and reviewing new media channels.

This Outlook covers the current status and future prospects of the Arab media industry with a focus on the emerging trends of convergence and collaboration. We have maintained a largely consistent format with last year so that year-on-year comparisons may be obtained.

There is tremendous potential for the media industry in the Arab region. From work conducted on our Global Entertainment & Media Outlook we know that the Arab entertainment and media market is growing faster than any other region. Traditional media such as newspapers and television are performing in line with the strong growth of the region's economies and are achieving growth rates that are the envy of the rest of the global industry. Digital media are also growing although there are variations across the region depending largely on differences in the level of development of broadband access infrastructure. Opportunities for investment in this area abound.

Digital media will thrive in the Arab market because the market has a large, technologically accomplished demographic group—its youth—who are comfortable with it and will customise it to their own requirements. The digital future is now clearly the digital reality, and its impact is being seen across many industry sectors.

The media industry is dealing with a range of emerging business models that are affecting participants across the content production and distribution value chain. These developments reflect the emergence of a new type of consumer who wants "anytime, anywhere, anyhow" access to media. Notwithstanding such trends, traditional and physical media formats are still growing strongly and continue to form the backbone of most of the industry segments covered in the Arab Media Outlook. The ever-expanding Entertainment and Media industry continues to provide opportunities for entrepreneurial innovation as well as for collaboration across the entertainment, media and communications value chains.

We would like to thank everybody involved in the research and feedback that enabled the preparation of this report. We are proud to be associated with the Dubai Press Club and TECOM Investments and thank them for the opportunity to work with them on this project.

Mariel



Marcel Fenez
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Al Riyadh Newspaper, Saudi Arabia Al Sahifa Al Maghribia Newspaper, Morocco

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As Safir Newspaper, Lebanon

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Weghat Nazar Magazine, Egypt

Yemen General Corporation for Radio and TV

Yemen Journalists Union Yemen News Agency Yemen Observer Yemen Today



We are pleased to present the second edition of *Arab Media Outlook*. In this year's edition, *Arab Media Outlook* 2008-2012, we have expanded the publication to encompass the vibrant media markets in twelve Arab countries from the Atlantic to the Arabian Gulf: Bahrain, Egypt, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, the UAE and Yemen. We also look at developments relating to Arab publications and television broadcasters that cover all, or part of, the region.

As in the first *Arab Media Outlook*, our focus is on "the business of media". In particular, we look at how global technology developments are impacting the media business in the region and at the opportunities that these developments present for media companies to unlock value across the content creation and delivery value chain.

In the first edition we also looked at a number of factors affecting revenue and profitability growth in the global media sector and how these impacted the media sector across the Arab region. Our study included demographic and economic forces that impact all areas of the economy, as well as the forces of convergence that are specific to the media, entertainment, telecoms and technology sectors. In particular, we focused on the rapid development of Web 2.0—the emerging second generation of internet services—which is being powered by various forms of user-generated content (UGC) and the growth in mobile telecoms as this is likely to be the future preferred means for accessing the internet in most countries in the region.

This year, in *Arab Media Outlook* 2008-2012, we build on these themes. In Section One: Worldview, we consider the development of Web 2.0 business models and web-enabled technologies that facilitate collaboration between content owners, software developers and the end user. UGC, as both a contributor and a rival to conventional news and entertainment media, is one high-profile aspect of this. We look at how traditional print and broadcast media are responding to these developments.

We then look at the repackaging and delivery of news and entertainment services via lowcost, mobile computing devices connected to the internet via WiFi and third-generation mobile networks. These include smartphones, vehicle navigation devices, UMPCs (ultra-mobile PCs), Apple iPods (and similar devices) and e-book readers. We point to the emergence of mobile television—the delivery of broadcast television to mobile devices—as a powerful means of distributing premium content. Mobile television represents an attractive commercial opportunity for content producers and owners and for mobile-network operators.

The power of mobile internet and mobile television is that it allows consumers to be connected to their content "anytime, anywhere". This is particularly relevant to the "net generation", the new generation of young consumers who have grown up with the internet and for whom mobile phones are an essential part of life.

In Section Two: Regional Update we analyse how global and regional developments are impacting Arab media. We focus on factors that directly drive revenues and profitability for the sector. First, we look at the economic and demographic trends that affect all sectors of the economy but which have a particularly strong impact on the media, and then we assess the effect on the region's media sector of the global trends considered in Section One. Among the issues which we cover are the impact of mobile and broadband penetration on the delivery of digital content, the effect of literacy rates on the development of the print media. the impact of changes in press legislation and the strong growth in outdoor advertising across the region.

A common feature across all twelve of the markets that we studied is that young people make up a relatively high percentage of the population. In some countries, over 50% are less than 21 years old and all countries have a large youth segment that is particularly receptive to new media. PricewaterhouseCoopers global media and entertainment research indicates that the "net generation", regardless of its geographic location or cultural background, tends to behave in a very similar way when they are online. They are comfortable with new technologies and prefer the speed and variety of content delivered through online and mobile channels. All they need is the right broadband infrastructure in place to access the internet. The positive news for media owners and advertisers is that younger media consumers are also likely to spend a higher proportion of

their income on media consumption and their mobile phone is considered a necessity, not a luxury item.

In the same section, we show illustrative projections for future circulation and advertising revenues for the twelve national media markets covered in this outlook. For each country, we comment on how the market trends are impacted by global developments and by factors specific to the individual national markets.

A key question now facing the region's media sector is the extent to which it is exposed to a potential slow down in economic growth resulting from the global financial crisis and lower oil prices. The region's economies have recently enjoyed very strong growth, particularly in the oil-producing GCC countries that benefited from the historically high oil prices that peaked early in 2008-Q3. The nonoil sectors have benefited in turn from the impact of oil-financed public spending and from policies to diversify economies and reduce dependence on oil revenues. The most obvious manifestation of this growth (and one of its main drivers) was the surge in activity across the property sector throughout much of the region that has been closely linked to cheap and readily available bank credit. Along with telecommunications and financial services, the property sector is the largest spender on advertising across the region. All three sectors are likely to be impacted by a downturn in economic growth.

The projections in Section Two were produced before the impact of the global financial crisis on the regional economies, and hence on the media sector, had begun to be felt. The impact of the crisis and of the associated fall in oil prices in the second half of 2008, on the region's economies is likely to be complex and both the extent of the impact and its timing are as yet unclear. A full analysis of the impact is well beyond our scope for the Arab Media Outlook 2008-2012, but it is clear that it will affect the economies of every country examined in this publication and it is likely that this impact will be uneven, with economies most closely linked to the global economy and most exposed to movements in oil prices being affected the most. Given the current uncertainty, we have based the projections on relatively conservative

assumptions compared with those used in last year's publication.

In the light of the global developments outlined in Section One and the review of national markets in Section Two, we focus in Section Three: Unlocking value—The technology challenge on how technology has released value for both digital and traditional media. In this section we look at how technology has the potential to unlock value right across the content creation and delivery value chain, and at the state of the required technology infrastructure in the countries covered by this Outlook. We then consider the role of governments in stimulating investment in these areas. Finally, we look at the implications for traditional media companies in the region.

Our analysis points to significant opportunities for media companies in the region to use the power of Web 2.0 to develop new revenue streams and to maximise the value of both new and existing premium content. Distribution to mobile broadband devices including mobile television will play an important part in this. Another priority area is the development of audience measurement processes for both print and broadcast media. The absence of reliable audience figures makes it difficult for advertisers to target their advertising and to assess its effectiveness which reduces their willingness to spend.

Our assessment of priorities for traditional print and broadcast media companies, network operators and government policy makers and regulators is summarised below

Priorities for traditional media:

- Develop strategies for online and mobile content production and distribution
- Review archive entertainment content and assess potential for mobile distribution
- Repurpose content for distribution to mobile devices
- Develop "snack TV" content for mobile-TV distribution
- Develop best-practice online presences incorporating interactivity, RSS, video etc.
- Strengthen online profiles for star journalists and columnists e.g. using video podcasts
- Enter into content distribution agreements with mobile telecoms operators
- Commence implementation processes for audience measurement

 Initiate dialogues with governments and regulators on the "digital dividend" -- the re-allocation of spectrum currently used for analogue terrestrial television broadcasting

Priorities for network operators:

- Expand broadband coverage and quality
- Increase the region's connectivity to the global internet
- Build micro-payment payment platforms for digital content

Priorities for government policy makers and regulators:

- Actively monitor global developments in content creation and distribution
- Create the regulatory environment required to encourage broadband investment
- Licence mobile-TV network operators
- Initiate dialogues with the private sector on the "digital dividend"
- Develop practical training programs for Arabic media professionals at all levels

The scope of this publication currently reflects the media side of the wider entertainment and media business. In practice, the two sectors are very closely related and a number of our conclusions, for example those relating to mobile television and the mobile internet, are also directly relevant to the entertainment sector. This sector is becoming increasing sophisticated in the region and is growing very fast in a number of cities with the building of sophisticated theme parks and concert venues capable of attracting top international artists. Entertainment content is increasingly important to the region's print and broadcast media and is crucial for attracting advertising spend. It will also be crucial to the development of online media.

This is the second *Arab Media Outlook*. We have chronicled a wide range of exciting developments and pointed to the great potential for growth of the media sector across the region. Next year we will expand our coverage to cover aspects of the entertainment sector that directly impact the media, add coverage on mobile television developments and look at the impact on the region's media sector of the global financial crisis.

SECTION ONE: OWWORLD VIEW



In last year's publication, *Arab Media Outlook* 2007-2011, we looked at a number of factors affecting revenue and profitability growth in the global media sector and how these factors impacted the media sector across the pan-Arab region. Some of these factors are general in nature, influencing most sectors of the economy; some are specific to the media sector.

We pointed first to the importance of general economic and demographic developments, both of which strongly support growth in media sector revenues in the region. Strong population growth in most Middle East markets, particularly in the key 15-25 age group, is increasing the addressable market of those consumers most likely to adopt new technologies and to experiment with new ways of accessing content. Strong economic growth, driven by historically high oil prices and by economic diversification policies, has created high levels of disposable income, which feeds both consumer media spend and advertising revenue.

Emerging trends and industry response

We drew attention to powerful forces of convergence across the media value chain and the rapid development of Web 2.0, the emerging second generation of internet services, including social networks and content-sharing sites powered by various forms of usergenerated content (UGC). These developments have resulted in the emergence of media exchanges such as Facebook, MySpace and YouTube which are already international household names and have challenged the established media's business models that had remained largely undisturbed for a generation or more.

We also looked at the response of traditional media companies, both in their investment in new media companies, and also their development of new online channels to customers and their adoption of UGC as a complement to conventional professional content. We noted that these developments were starting to have some positive impact in the region but that this was constrained by the lack of affordable broadband access in most markets. In the absence of fixed broadband access we pointed to the important role of mobile services in the region as potentially being the future preferred route for accessing the internet. We also pointed to the dominance

of satellite TV across the region and the continued growth of conventional print media although the latter is constrained by relatively low literacy levels in some markets in the region.

Web 2.0 and user-generated content

This year we build on these themes. Our analysis of the economic and demographic factors that continue to have a major influence on the media sector in the Middle East is updated in Section Two of this year's publication. In Section One we focus on two areas having an increasingly strong influence on the media sector in developed markets and which we expect to become increasingly relevant across the pan-Arab region.

First, we consider the development of Web 2.0 business models and web-enabled technologies that facilitate collaboration between content owners, software developers and the enduser. UGC, as both a contributor and a rival to conventional news and entertainment media, is one high-profile aspect of this. We look in particular at how traditional print and broadcast media are responding to these developments.

Secondly, we look at the repackaging and delivery of news and entertainment services via low-cost, mobile computing devices connected to the internet via WiFi and third-generation mobile networks. These include smartphones, vehicle navigation devices, UMPCs (ultra-mobile PCs), Apple iPods (and similar devices) and e-book readers.

Unlocking value

A particular focus of this section is how technology has unlocked value for both new and traditional media. We highlight lessons industry participants have learned from managing and facilitating the user experience as consumers access content offline, online, in their homes, workplaces, public places and on the mobile internet. Their use can be summed up as, "anything, anytime, anywhere".

Web 2.0 technologies and business models are challenging news and entertainment content production and delivery, yet also present opportunities for existing content owners, service providers and network operators across the emerging new media value chain.

What is Web 2.0?

Web 2.0 is a trend that aims to facilitate collaboration amongst users, service providers and software developers. These concepts have led to the development and evolution of web-based communities and hosted services such as socialnetworking sites, wikis, blogs and metatagging.

Although the term Web 2.0 suggests a new version of the World Wide Web, it actually refers to changes in the ways software developers and end-users use the internet. Coined by influential technology publisher, Tim O'Reilly, Web 2.0 is a strategic response by entrepreneurs and established industry participants. As the battle for limited consumer attention continues to intensify, traditional and new media participants are developing new methods to engage and collect information on the consumer.

The underlying principle behind Web 2.0 is to generate network effects by allowing application development to become open sourced. By allowing their data to be accessible, companies enable open-source developers to combine information in new and unique ways thereby increasing the intrinsic value of their content.

Web 2.0 services leverage the viral nature of social networks to enable the distribution and creation of content relevant to a specific niche, in a self-sustaining manner. By providing a framework for interactivity between users, the aggregate network effects allow Web 2.0 sites such as social networks to generate large volumes of valuable psychographic data which can be leveraged for highly targeted advertising.

Mobile internet and advanced messaging services will be a major source of future growth for mobile telecoms operators. This growth requires access to a range of new data services for mobile customers that go beyond the simple short messaging services (SMS) that currently comprise the main source of mobile data revenue. Some of these services will be similar to those available on the fixed internet or television but will be available "anytime, anywhere" on mobile devices. Other services will be developed specifically for mobile devices.

Implications for investors

New methods of content production and content delivery continue to have far-reaching implications across the media value chain, providing new channels of revenue generation as well as lower costs for content creation and distribution, but they also raise concerns regarding intellectual property protection and the appropriate compensation for creators of original content.

By understanding these trends, investors across the new media value chain can make informed strategic decisions. Investments in infrastructure such as the access network and media production facilities will provide the key connectivity for these new broadband services. The ease-of-use and responsiveness of these services are key factors in successful revenue-generating media products. Regional content producers and distributors, broadband network operators and smart-city infrastructure investors have the opportunity to exploit the commercial potential of these services by establishing early positions in the development of domestic infrastructure

The impact of Web 2.0

Web 2.0 technologies and services have transformed the internet into a platform enabling collaborative access to a wide range of media and entertainment services that consumers now use on a daily basis. The current generation of consumers, particularly teenagers and young adults, are constantly creating and sharing content through instant messaging, social networking sites and their mobile phones.

Much of the recent focus of attention on Web 2.0 content has concentrated on the tremendous volume of creation, posting and viewing of video content on media marketplaces such as MySpace, Orkut, YouTube and Facebook. In 2007, this activity led to a number of highprofile transactions including the purchase of YouTube by Google for US\$1.65 billion and the US\$250 million advertising commitment from Microsoft to Facebook.

With tens of millions of unique visitors a day, social networking sites have become important marketing channels. This has transformed many of these new start-up companies into serious competitors for advertising dollars. Furthermore, telecommunication companies are expanding their business models beyond voice and internet gateway services into the delivery of high definition (HD) video via internet protocol television (IPTV).

During 2008, media companies increasingly embraced Web 2.0 for content production and delivery as well as teaming with new media companies and device manufacturers to take their programmes beyond the TV screen. As consumers continue to "snack" and maintain a greater constant online presence as they "multi-task", industry participants must address how they can measure, and then turn, the value of the massive amount of content being generated into a profitable business. The following sections of this report will explore these issues.

Snacking

Habit of net generation to self-package content from the internet or TV and consume it anywhere they want.

Multi-tasking

Consuming different types of content simultaneously. For example, watching TV and surfing the web at the same time.

Mobility and the new generation of convergent services

The steady pace of convergence has led to a series of new services where mobility, time-and place-shifting are the keys to growth. During the last few years, we have seen the adoption of subscription services that allow consumers to time-shift and place-shift music, games, movies and television programmes. Services such as TIVO and iTunes allow consumers to record or download content to their personal computers for consumption at their own convenience. Meanwhile, Sony has begun to offer its massive content library for purchase through the Sony Playstation 3 gaming/home media center platform.

Time-shift

Recording and watching content at a time convenient to the individual. For example, by recording a TV show on a digital video recorder.

Place-shift

Copying television content to digital media to watch anywhere. For example, downloading a favorite television program to watch later on an iPhone.

Recent developments have expanded the range of mobile devices that feature broadband wireless data connectivity, featuring faster processors, Wi-Fi connectivity, wide-screen touch-sensitive (haptic) screens and GPS functionality. Devices such as the Blackberry and the iPhone are examples of the commercial acceptance and success of mobile-enabled content. The trend is clear: manufacturers, operators and content providers are testing new ways to capture value from the "net generation" consumers that are willing to pay for content "anytime and anywhere".

Pure play

Where users of the service create all the content produced.

Current TV - Pure play UGC

Short form television programs such as, "America's Funniest Home Videos", or "You've Been Framed!" have existed for well over ten years but have never expanded beyond TV.

While the commercial success of broadcasting pure-play UGC has yet to be fully validated by the market, industry participants continue to experiment. Cable channel startup, Current TV, (founded by former US Vice President Al Gore) is one of the first to create an entire channel around UGC. Current TV is unique in that it provides free training to all its content contributors. The site provides extensive training for young producers on the ins and outs of content production from storyboarding to sophisticated film techniques.

Established in 2005 in the United States, it has expanded into the UK on satellite. In a similar move, CableFox is running MySpace video content on their FX branded channels.

The "net generation" comprises young consumers born after 1977 who have grown up with the internet and mobile communications and have a strong and diverse appetite for content. This is both a result of convergence and one of its main drivers. Members of the net generation have come to expect services that give them control over the times and places where they consume content. They have the ability to self-package content and services into "bite-size" pieces for future consumption.

Recent studies conducted by PricewaterhouseCoopers in the United States provided several insights into consumer viewing behaviour. Where parents consume 20 hours a week watching television, members of the net generation can consume 20 hours of media every day, all of it consumed in parallel over a seven-hour period. Statistics are even higher for the technologically competent and well-equipped youth of Asia Pacific. These consumers actively multitask their way through social networking sites, UGC, music listening, video games, television and other content

Potential for traditional media

By 2007, time-shifting and place-shifting of content became commonplace. With a wide range of mobile-enabled devices available to the consumer, it became possible for the consumer to take content anywhere and view it at their convenience. This potential still remains largely untapped by traditional media and represents a tremendous opportunity for industry participants to take on the challenges of customising content for the mobile environment.

The importance of a commuter culture

Cities with high population densities, such as Tokyo and Seoul, have large portion of the population who regularly use mass transit. Commuters represent a population of consumers who typically have idle periods ranging from a half an hour to an hour each day.

Capturing this idle time is a significant opportunity. The initial success and continuing success of NTT DoCoMo's iMode mobile data services can be attributed to the service's ability to capture idle time by meeting the news & entertainment needs of this segment. Consequently, for the next generation of services, which includes mobile television, many mobile operators with high-density populations are actively optimising these services and their programming offering for their commuting consumers.

Infrastructure has been key to this development. The wide availability of high-speed broadband internet access allows consumers to download and share their favorite television programmes, movies, music and related content via their PCs or mobile devices. Deep broadband penetration in North America, Europe and Australasia has created a generation of consumers that has been educated to go online to meet their content needs. Driven by lifestyle considerations, consumers are repackaging content taken from traditional channels and digitalising the content for their anytime, anywhere lifestyles.

Until recently, content consumers were essentially tied to their TVs, PCs or game consoles but with the advent of personal video/gaming platforms such as the Apple iPod Touch and convergent mobile phones from vendors such as Nokia, Samsung, Sony-Ericsson and Apple, the transportation and viewing of content during free time has been made considerably easier. The following section provides an overview of how consumers and the market are changing.

Repackaging of content

Mass digitalisation of content has quietly revolutionised how consumers access content. For several years the use of free media players such as Windows Media Player and Realplayer has enabled the portability of content that started with the proliferation of MP3 music files.

Open-source software products with easyto-use interfaces are widely available on the internet and have made it possible for consumers to "rip," i.e. digitise, content from various sources. For example, a wide range of music and video content can easily be found online using peer-to-peer file-sharing tools such as BitTorrent. Despite a number of highprofile lawsuits against network providers and individuals by the Recording Industry Association of America and the Motion Picture Association, and the widespread use of digital rights management software, the availability of copyrighted content and the software to repackage it remains easily available and piracy continues unabated. Computers networked over the internet continue to distribute games, music, film, and television content that meets a wide range of consumer niche interests. This desire for control is well known to operating system software corporations who also provide

commercial versions of repackaging software found on the internet and often integrate them into their operating software. Examples include Microsoft's Windows Media Center and Apple's iTunes and AppleTV offerings that allow users to share their content within a discrete wireless network or amongst friends.

Changes in behaviour

The effort to make the repackaging of content easier is a key focus of content owners as they attempt to wean users away from the freeware/shareware tools that they currently use to self-package content and shift those potential consumers toward corporate content channels. While some companies have forgone the expense of implementing digital rights management on their content, the important change in behaviour is how they are selling content. Industry participants have begun to do away with the sale of content online in an album or series format. In most cases. consumers can now purchase individual songs or television episodes. Industry participants have also focused on developing user interfaces that assist in the search for content through the creation of customised playlists that rely upon the extensive use of meta-tagging. For example, in 2007, Nike and Apple collaborated on the Nike+ music player for runners. This device featured software that shuffled music into playlists specific to the sport enthusiast's lifestyle or training needs. From movies to games to music, consumers are only limited by data storage, battery life and the bandwidth of their mobile devices.

Consequently, these new media services have generated volume sales of individual songs, movies and TV episodes as well as compilation albums and full-season subscriptions. This has been a successful business model generating new revenues from library titles. The 're-captured' revenues represent what were effectively 'lost revenues' from a market segment that had successfully pirated content that it wanted.

Embracing the snack culture

By 2007, traditional media was embracing the snack culture by diversifying the channels where their content could be seen. Notably, broadcasters provided prime time content as well as library titles across multiple distribution platforms ranging from their own streaming

websites to third-party content distribution platforms via IPTV platform resellers such as Amazon Unboxed.

BBC's highly successful iPlayer service allows free streaming of high-quality news and entertainment content to UK viewers. In a 2007 landmark collaborative venture, broadcasting competitors NBC Universal and Fox Television launched an IPTV platform branded Hulu.com to leverage their combined content libraries. By the 2008 Beijing Olympics, the provision of live, free content from the broadcasters had become commonplace in the United States.



YDUTS BRACCASE STUDY

At a Glance:

Subject: Radiohead Established: 1993

Headquarters: England

Media type: Online music sales

Focus: Remodelling the recording industry

URL: www.radiohead.com

Recording artists are beginning to take advantage of changes in consumer buying behaviour. Following the expiration of their recording contract with a traditional music label, popular UK rock band, Radiohead, launched their seventh album, "In Rainbow" in October 2007. For a limited period the band made their album available as a digital download online and did not set a price for its purchase. Instead, they allowed consumers to pay what they felt was "fair value" for the music

Although the band has declined to comment officially on the exact success of this experiment it should be noted that the album entered the UK's Album Chart and the US's Billboard 200 at Number 1. In various interviews with the artists they reported that

during the first month of release approximately 40% of fans paid for the album at an average price of US \$6-\$8.

The band recovered 100% of the revenue generated, as they did not have to share ownership with a record label. The revenue recovered stands in sharp contrast to the typica 50-60% of gross revenue retained by the record label. Because the band also retained the rights to the master, Radiohead is now selling the album via traditional means as part of a boxed set.

The album continues to engage consumers through Radiohead's online presence on their Dead Air Space interactive website where they have recently adopted a user-generated video as the official animation for one of their "In Rainbow" tracks.

In the recorded music sector, MySpace has grown from a generic social networking site into a marketplace for emerging, independent artists. An increasing number of traditional performers opt to distribute their content online. Even established classical music brands such as the New York Philharmonic sell live concert recordings on Apple's iTunes online music store. Some established performers have taken steps to end long relationships with their record labels. UK rock band, Radiohead, not only released their latest album online but allowed consumers to choose how much money they were willing to pay for it. (See Case Study.)

MySpace - online success

Colbie Caillat, a 22 year-old Californian singer-songwriter launched her career by posting her songs on MySpace. One song in particular—"Bubbly"—went viral, generated millions of plays and was picked up by the mainstream media. With a huge existing fan base, negotiating a deal with a traditional recording label gave the performer greater control over her musical direction and her first album "Coco" featured content that had proven appeal.

Diversification of broadband

Radio stations have also aggressively timeshifted and place-shifted their content by providing content online and leveraging technologies such as real-simple syndication (RSS) to notify their audiences when a show is available to download. Similarly, the publishing sector has also seen transformation. For example, the Economist and fashion magazine Elle now feature video podcasts of editorials and columnists to enhance brand stickiness. Consumers can listen or watch their favorite columnists on their mobile devices during their weekday commute. The Financial Times has gone further than this with an extremely developed online presence that allows the premium user to access a wide range of highvalue business content via specialized mobile clients. These shifts represent a considerable shift in management thinking by traditional media.

Client

Software applications that reside on mobile phones that are designed to "push" or "pull" content from a file server as per the needs of the end-user.



Citizen journalism

Launched in 2007, CNN I-Reporter represents an early attempt to leverage the UGC trend by creating an official online platform to aggregate first-hand news accounts. The brand became more widely known when CNN paid an undisclosed sum for exclusive rights to a video clip uploaded by a student during the Virginia Tech student shooting incident in 2007.

The success of the I-Reporter platform has led other broadcasters to incorporate UGC platforms into their operations. In September 2008, CBS News, an American network broadcaster, began distributing free software to enable citizen views, reports and comments on submissions uploaded directly from iPhone users.

Diversity of mobility products

An increasingly wide range of mobile devices enabled through Web 2.0 technology facilitates the delivery of content and the layering of UGC. Hand-held and vehicle-mounted GPS devices now dominate personal navigation. Maps contain geo-located markers for retail shopping, gas stations and other commercial points of interests. Manufacturers such as TomTom and Garmin have proliferated low-cost consumer-oriented navigation devices that allow consumers to input their own destinations, further personalising the experience to the consumer's individual needs.

In publishing, Sony and Amazon launched consumer-focused online e-book stores in 2007. Amazon's Kindle e-book reader, now in its second version, and Sony's eBook reader allow consumers to download books wirelessly using a cellular connection into a readable device about the size of a small novel. In 2008, UK start-up, Plastic Logic, announced a thin, lightweight, large-screen e-ink document storage and reader that can replace paper documents and allows users to mark up documents as they would in the real world.

In music and video, a wide range of low- to high-cost digital media players exists, from the Apple iPod Touch to the Yepp from Samsung. However, mobile phones are increasingly dominating what was once a market for dedicated music or video-playing devices. Mobile phones have converged into music and video devices. With approximately 2.2 billion mobile subscribers globally, 33% of the world's population is mobile enabled. With the convergence of these devices we are seeing an even greater range of possible permutations as evidenced by Apple's iPhone 3G and Nokia's N-series consumer smartphone which integrate a wide range of functionalities into a single device.

UGC meets mobility

These same devices not only transport content, but also allow consumers to integrate and author content. Consumers are rarely without their mobile phones/digital cameras/content players. The ubiquity of these devices allows consumers to create and tag digital content for sharing anywhere. It is no surprise that international news organisations such as the BBC, CNN, Al Arabiya and Al Jazeera are actively encouraging consumers to submit eyewitness accounts for possible broadcast. The success of citizen journalism projects such as CNN's iReporter is largely due to the prevalence of low-cost devices that enable consumers to record and immediately share their content with news organisations for mass dissemination.

The Net neutrality debate

The exponential growth of video sharing and social networks has lead to the debate on net neutrality and who should bear the cost of infrastructure build out. Net neutrality is the principal that all traffic is treated equally across the internet and there is no discrimination amongst users. Proponents believe that this is necessary to ensure both the growth of the next generation of internet services and unimpeded access to all who use it.

Critics of net neutrality posit that the shaping of specific traffic is necessary to ensure "quality of service" agreements between peer operators or with the consumer. They also cite the rising costs associated with bearing such traffic that is potentially pirated content. This debate and many others will continue and change as convergent technologies affect the relationship between operators, regulators and consumers.

Infrastructure: the enabler for convergence

Depending on which method is used to measure internet traffic, various public estimates find 25-40% of backbone network traffic is comprised of video and file-sharing traffic. Unquestionably, the rise of UGC and the level of consumer interactivity found in Web 2.0 services directly benefit from the heavy investment in broadband access and backbone networks over the least decade. Dozens of Wi-Fi hotspot companies have sprung up worldwide providing infrastructure from airports, hotels and city streets.

This growth has enabled the development of home media appliances such as the SlingPlayer which allows consumers to broadcast their favorite content from home to wherever they are in the world. These hotspot infrastructure investments have also enabled a wide range of new services. Starbucks, in conjunction with Apple, entered the music business by leveraging their Wi-Fi network investments. In January 2008, Starbucks and Apple launched the iTunes Wi-Fi Store and a Starbuck's branded music label allowing consumers to download music directly to their Wi-Fi-enabled iPods. For the first time consumers did not need to be connected to their home PC in order to purchase music. Starbucks worldwide coffee shops became music retailers and dramatically changed consumer-purchasing behaviour.

Increasingly, the delivery of content will shift away from fixed-line, broadband-connected PCs to the mobile device as consumers demand anytime, anywhere services. In the US, experiments have been made between Verizon's V-Cast platform with programmes such as ABC Television's "Lost" and Fox Television's "24" mobi-sodes. These trials demonstrate that by collaborating, media companies can deliver compelling content customised to the mobile phone users. This venture demonstrates the symbiotic relationship that advertisers, distributors and the telecom operators must achieve in other markets.

Investments in high-speed wireless access technologies such HSPA (High Speed Packet Access), LTE (Long-Term Evolution), Wi-MAX and mobile-TV technologies such DMB-S, DVB-T/H will play a key role in future content delivery. These technologies are dependent on the spectrum allocation and coordination decisions made at both national and international levels through the International Telecommunication Union (ITU).

Mobile TV

Currently, more than 50 mobile television trials are ongoing worldwide. Mobile television promises multi-channel DVD-quality video in a broadcast format to the handset. This is a significant improvement from the current streamed content model found on third generation (3G) networks. Furthermore, mobile television will use a separate frequency from 3G, relieving network operators seeking to preserve scarce network resources.

Telecom operators in Italy, Korea and Japan currently represent the leading edge of providers who have commercially launched mobile television. The respective markets have deployed a variety of technologies ranging from terrestrial to satellite transmission. In the Korean and Japanese markets, competing mobile television technologies in the same market have been launched. The Korean (TUMedia, a SK telecom subsidiary) and Japanese (MBco) markets use a shared satellite-based transmission system augmented by ground-based repeaters. In 2006, closely following the Asian mobile television launches, Italy's Hutchinson 3 launched the DVB-H-based mobile television service. The UAE is currently considering both DVB-H and MediaFlo. (See Case Study in Section Two.) A range of technical and commercial challenges face industry participants as they deploy these new services.

Anytime, anywhere services will also be enabled through satellite, particularly for those areas where the telecommunications infrastructure continues to lag behind because of economic and geo-political reasons. For many developing nations, the backhaul network fails to meet the needs of the mobile networks, particularly in rural areas. With increasing demand for mobile services, companies such as Globalstar and the Google-backed start-up, O3B Networks, are upgrading and building new satellite networks to provide backhaul in these markets. 03B Networks have proposed a constellation of 16 low-earth orbit satellites to provide backhaul capacities to telecoms that are building out their mobile communication networks. (See Case Study in Section Three.) If successful, it would accelerate the pace of internet adoption and, it is hoped, entrepreneurship in those markets.

Infrastructure investment

Media-rich services require a delivery infrastructure that can support reliable connections and sustain the exponential growth in demand. The crippling effects of the January 2008 international submarine cable breaks in the Gulf underscore the importance of network redundancy and flexibility to ensure the flow of commerce is sustained both regionally and globally. (See Case Study in Section Three.) The same will apply for mobile networks delivering broadcast television. New media and traditional media participants are only now beginning to leverage the broadband and wireless infrastructure and understand the challenges involved. Nevertheless, the growth of these applications is expected to be exponential. For the developers of smart cities of the future, understanding these trends will help guide decisions on what types of infrastructure investments will yield the best long term returns.

Web 2.0, social networking and user-generated content

Growing in parallel with the emergence of the snack culture and the broadening diversity of low-cost, mobile-enabled devices is the emergence of a diverse range of Web 2.0 services. These services are designed to enable mass-consumer interaction in such a way that the content consumer is also the content creator. In the future, this interactivity will expand beyond the borders of wired internet and into mobile-enabled devices as users stay connected to each other during the course of their daily lives.

Web 2.0 applications are typically pre-existing applications or services provided by companies that are integrated in a common application interface to deliver added value. In this way, for example, a Yahoo finance page can allow users to integrate their news feeds from their Bloomberg stock portfolio which is then stored in their personal finance program on Quicken. Another example might be a service that allows users to find the gas station with the cheapest price within a ten-kilometer radius using a handset enabled with Yahoo! maps.

Web 2.0 services leverage the viral nature of social networks to enable self-sustaining distribution and creation of content that is relevant to a specific niche. By providing a framework for interactivity between users, the aggregate network effects allow Web 2.0 sites such as social networks to generate large volumes of valuable psychographic data which, potentially, can be used to improve the targeting accuracy of advertising.

Of all the Web 2.0 applications, UGC and social networking have received the most attention. Across the broadband connected world, huge numbers of consumers are spending an increasing portion of their time online participating in social or blogging networks. The following section will discuss the growth of UGC and its impact.

What is user-generated content (UGC)?

The rising tide of Web 2.0 services has emphasised the importance of user-generated content as a key driver for success. Web 2.0 social networks generate self-sustaining content that naturally diversifies to meet niche markets. Content creators write about their likes and dislikes, which is then broadcast to a broader group of individuals who share their views. The network effects generated by social networks and UGC have been the source of their widespread success.

Voter-candidate interaction

During the presidential primaries of the 2008 US presidential elections, YouTube and CNN collaborated to air user-submitted questions during the presidential candidate debates. Similarly, Yahoo in conjunction with the Huffington Post and Slate magazine held an online debate entitled, "The Election '08 Democratic Candidate Mashup."

Of the million viewers watching, approximately 15% voted on the candidate's performance. MTV and MySpace held a virtual townhall meeting under the think.mtv brand where participants—via instant messaging—submitted questions and voted on the performance of the candidates in real-time. MTV has extended this

format through their "Choose or Lose" and "streetteam08.com" voter participation programs by employing college students across the US to blog the 2008 presidential elections. These collaborative efforts represent continuing media experiments by broadcasters to enable voter-candidate interaction.

Created outside of professional routines and practices, UGC refers to various kinds of media content produced by Web 2.0 end users. UGC ranges from news, gossip, podcasts and wikis to video blogs. The sharing of this content has been enabled through affordable internet access and the ubiquity of mobile phones and personal computers. Without question, the most significant growth during this past year has been seen in blogging and video sharing.

UGC is created, for the most part, on a non-commercial basis. Users create content for their friends and family, but also for a potentially wider audience. UGC has become an important economic phenomenon since it first started in Korea with the 1999 launch of a social networking, blogging, music-sharing and games site named Cyworld.

Who participates, what do they create and why do they do it?

Connected at home and work, consumers are constantly in conversation with each other via instant messaging or their social networking site. Most UGC is produced without expectation of remuneration or profit. Content is created as a means of self-expression or to achieve peergroup (or wider) recognition. Users, particularly teenagers and young adults, are in the habit of regularly updating their personal blogs with photos, new clips or simply their status during the course of the day. As users update pages, their friends receive near instantaneous notification of these additions via news feeds. As their friends comment or add to those pages, further notifications are sent to their network of friends.

UGC is distributed through free services that facilitate sharing of specific media types, for example: text (blogger), photos (Flickr) or video (YouTube). Social networking sites also enable consumers to create real world items such as calendars, mugs, t-shirts or photo books through services such as Kodak's Easy Share or HP's Snapfish. Additionally, traditional print media have tried to make their online content friendlier by allowing the posting of their articles to external blogs, or permitting their content to be ranked by platforms such as Digg. com.

Increasingly, social networking sites are becoming more integrated, with programs such as Twitter updating the user's status on multiple sites and platforms simultaneously. Users can embed hyperlinks in their various blogs and picture-sharing sites to provide cross-platform interactivity. Successful social networking sites not only allow users to post messages or facilitate in-browser instant messaging, they also allow users to share, tag and rate content. These functions increase the reach of the content and subsequently facilitate viral dissemination of content. Despite privacy concerns, in studies conducted by PricewaterhouseCoopers, internet users have demonstrated the willingness to trade personal information for features they find useful or informative.

Technology unlocking value

A range of hardware and software technologies has enabled the success of Web 2.0 services and the UGC revolution. Figures reported in the *PwC Global Entertainment and Media Outlook:* 2008-2012 show that in 2007, the global internet advertising market expanded by 33.2%—the fourth consecutive annual increase in excess of 30%—and makes up over 10% of global advertising revenue.

Three key technology trends have allowed new media companies to unlock value from the consumer. First, the open software source movement that has enabled rapid application development; second, the development of notification software facilitating content subscription; and third, the use of meta-tags, behavioural mapping and the development of advanced recommendation engines.

Mash-up

The combination of two different web applications joined together using an application protocol interface to create a new service with a unique function.

Open-source development has revolutionised the software development business. Independent and corporate developers alike are creating software development toolkits (SDKs) and application protocol interfaces (APIs) that facilitate inter-application communication and access to their services and data. Making these development tool kits publically available, and facilitating a developers' community has resulted in unparalleled development collaboration resulting in faster time-to-market and a broader range of applications to meet various consumers.

Collaboration cuts costs, adds value

This trend has generated the "mash-up", defined as the integration of web applications owned by different software developers via a standardised software application interface. Mash-ups allow software developers to create a distinct web service that was not originally provided by either source. Some of the most common mash-ups join cartographic information with gas stations, or wikis about points-of-interests.

Facebook Applications is a recent successful example of how a social network site can harness third-party developers around the world to develop localised applications without having to bear the cost of in-house developers. Open-source development in its various forms lowers the barriers to development and creates a channel for outsourced application development where emphasis is on the user experience (interface and functionality) rather than on the nitty-gritty details of back-end software programming. The open-source movement has, in effect, transformed the internet into a platform where software and data from different companies or programmers can be combined in new and different ways to deliver greater value to the consumer.

Push and pull

The second trend is the use of technologies to enable presence detection and the push and pull of content between users. Technologies such as real-simple syndication (RSS) and ATOM allow the distribution of UGC by enabling the subscription to new content on an opt-in basis. These technologies allow users to subscribe and review content from various blogs or new sites in a central reader, more easily. As the originator updates content, that content is automatically published without needing the end-user to go to the site. These technologies also enable the syndication of content, such that bloggers can easily disseminate content and properly credit each other's creative output. Recent innovations include presence-detection technologies, previously only used in instant

messaging clients, which have migrated into web browsers and games. These technologies facilitate real-time communications or game play between users now commonly found on social networking websites.

The last technological trend is perhaps the most important: the use of tagging data and the development of recommendation engines facilitating the sharing of UGC and the delivery of advertising.

Tagging and targeting

With respect to tagging, successful sites such as metacritic.com pulls tagged data from a variety of sites to compile an aggregated statistic for rated content. Consumers or editors tag content whenever they add metadata such as: time, place, names of people, ratings or comments. Tagging occurs when the consumer shares bookmarks on de.li.cious or the labelling of people and places in an online photo album or video site. The use of multiple keywords, or the click-through path plays a critical role in generating data that can be used to organise UGC. Online content is abundant, but not all content is relevant to the consumer. Moreover, the static delivery of news and current affairs is not enough for sophisticated internet users. They want to personalise their entertainment experience as it relates to their lifestyle and their available time. Tagging gives cataloguing and recommendation engines the means to generate personalised playlists of entertainment or products specific to a given psychographic profile. These engines can also organise content to generate psychographic data for use in target advertising.

Ad-targeting faces the same behavioural and technical challenges as content recommendation engines. Advertising that is unrelated to the consumer's needs are ignored and thus do not generate revenue. Revenue-sharing models between advertising networks and advertising buyers are now being modified to reflect conversion, i.e. actual purchases, so site owners are under significant pressure to ensure sales conversion.

The conversation

Social networking and the use of UGC are two of the most powerful means to engage consumers in a continuous "conversation." With the launch of Facebook Applications, social networking was transformed from being just a fun way of keeping up with peers into an immense psychographic database. Individual applications are produced to measure specific consumer behaviour for a given social group and then subsequently used to more accurately target advertising. Psychographic data are then combined with the user's browsing history and click path to generate insightful views into the consumer's behaviour.

Psychographic data improve targeting of advertisements by identifying behavioural data within the context of a given social group or the complete range of social networks. Clickpaths are identified as consumers traverse through various websites, and browser cookies are culled to generate previous session data. Advanced behavioural tracking is then used to predict relevant advertisements or even relevant websites to the consumer during their browser session. Furthermore, market analysts can identify "tastemakers", those key individuals who have a strong influence over other individuals in a network, as their network traffic and sharing of information is tracked during the course of the browser session. By targeting these individuals, their endorsement can have a powerful ripple effect within a given social network and subsequently drive conversion.

Advertising networks such as AOL, 24/7 Real Media, Glam Media and Google have expanded their display inventory by integrating usergenerated websites. It is interesting to note that the US Olympic team sponsors drove 9.9 billion online advertising impressions before and during the Beijing Games. The top three advertisers: AT&T, General Motors and Bank of America accounted for a combined total of more than a billion impressions. Advertising networks exploit UGC by aggregating multipleniche market segments; capturing the psychographic data and leveraging advanced

ad-targeting software algorithms to generate impressions. UGC is the means by which they engage, capture data and monetise these niche markets. As the battle for limited attention span intensifies, intelligent advertising placement becomes critical for leveraging the network effects of social networks, and UGC will be the key to developing a more meaningful interaction with the consumer and delivering improved results to the ad-buyer. Companies are aggressively improving their ad-targeting algorithms not only horizontally, e.g. generic shampoo advertising, but optimising them for specific verticals, e.g. female health and fitness.

Future value - mobility

In the previous section we discussed advertising targeting. As time-shifting and place-shifting continue to decrease the number of viewable advertising spots, mobile devices will provide the only constant means of communication – a channel that is well-suited to generate detailed psychographic data on individual consumers.

With an estimated 2.2 billion mobile subscribers worldwide, the mobile market easily outnumbers broadband subscribers. These advertising networks, while strong on the broadband internet, do not generate nearly as many page views as they could on the mobile phone. Technological considerations had prevented the unlocking of value. Mobile manufacturers have made progress by improving device input and sharing capabilities by extending battery life through software optimisation, integrating touch screens, adding haptic controls that permit interaction through touch and movement of the device, and improving the core software to deliver greater reliability.

Over the past year, the major handset manufacturers have pre-loaded popular instant messaging clients and provided embedded access to major social networking brands such as YouTube. By increasing interactivity they have laid the groundwork not only to encourage UGC but to turn mobile into an advertising platform to capture the long tail, a concept discussed below.

Reaping returns on investment

Similarly, by the end of 2007, many social networking sites had begun to reap returns on investments directed at optimising their online interfaces for mobile devices. Nearly all the social networking sites have iPhone-specific interfaces and have struck deals with other handset manufacturers to embed a customised interface, as well as engaging in sponsorships and advertising deals.

Android's transition to open source

Originally conceived as a Google proprietary mobile operating system (it looks like a phone), Android has evolved into an open-source application framework. The Android software stack includes an operating system, middleware and key applications (browser, database, graphics support and media support for a variety of audio, video and image formats) as well as application interfaces for haptic controls.

Android is the first non-proprietary mobile operating system that features an open architecture allowing the developers outside the equipment vendor to create third-party applications. This represents a major break from traditional "walled-garden" business models long used by device manufacturers and mobile operators.

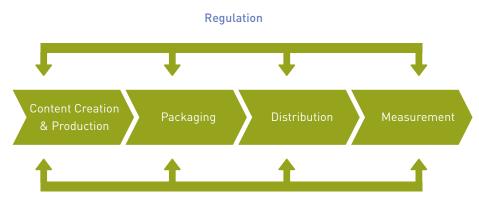
Branded as the G1 by T-Mobile in the United States, the HTC manufactured handset is the first in a series of Android smart phones. Sold for US\$199, the device is priced in line with the benchmark pricepoint set by the Apple iPhone 3G.

Mobile advertising is still in its early stages of development. It includes internet advertising (search, display, classified, etc.) targeted at mobile devices, plus advertising via text messaging and location-based adverts. Yahoo! and Google are early players in the mobile advertising market. They are actively developing ad-support mobile clients for various phones. Yahoo Go!, its mobile portal, is available for a wide range of handsets and advertising is localised for several countries.

Google's announcement of Android, an opensource mobile phone application framework, is another key step in the integration of the broadband internet to the mobile internet. Originally conceived as a Google proprietary mobile operating system, Google transformed Android into an open-source application framework and developed software tools to reduce the time-to-market necessary to deliver rich media content. The broad adoption of the Android software stack by device manufacturers and community developers creates new opportunities for Google to provide a wider range of software applications than it could have developed by itself. Furthermore, by integrating services such as email, instant messaging and news delivery, Android, unlike Symbian OS is aiming not just at the smartphone OS market by creating a single, integrated platform but is laying the groundwork to be the dominant mobile adserving platform and consolidating what was once a fragmented mobile market.

The impact of UGC - Changing the face of media

Figure 1.1



Technology

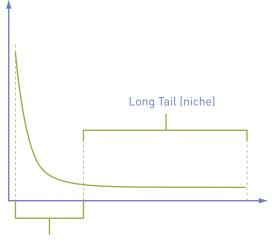
Figure 1.1 represents the content creation and distribution value chain which starts with the creation and production of content which is then packaged and distributed to viewers and readers. The final link in the chain relates to audience measurement, which plays an increasingly important role in helping advertisers to understand how to get best value from their budgets. Each of these links in the value chain is impacted by the technology developments that are outlined in this section and by how governments regulate the sector. While it is likely that the individual links in the value chain will remain, the way in which each of those links contributes to overall value creation will change, as will the dependencies between the links.

Social networking and UGC have emerged as powerful new drivers of change in the industry and generated a rich source of new revenue. Over the past several years we have seen content consumers become content creators as the ease of uploading and sharing content on a many-to-many basis has been enabled through social networks and media exchanges. The viral nature of this content has resulted in diverting a growing proportion of "eyeballs" away from traditional content channels.

The massive improvement in behavioural tracking and ad-targeting technologies has expanded both reach and granularity and has reduced the cost of pursuing niche markets by enabling business to efficiently derive revenues

from the "long tail". This refers to those people with interests that are uneconomical for traditional media to pursue and describes their place at the tail end of a sales chart. The phrase was coined by Chris Anderson in an October 2004 Wired magazine article which he developed into his influential 2006 book, "The Long Tail: Why the Future of Business is Selling Less of More". The pursuit of the long tail and the successful aggregation of niche markets have resulted in substantial profits for advertising networks.

Figure 1.2 - The Long Tail



Mass Consumer

Huffington Post

The Huffington Post was created by Greek-born, Arianna Huffington as a Liberal alternative to American conservative websites such as the Drudge Report and Townhall.com.
Created in 2005, the Huffington Post attracts nearly two million unique readers a month. The website and blog are complex, far-reaching and constantly updated. In addition to opinions from Huffington herself, eminent writers cover politics, entertainment, media, business, style and the environment.

Notable to this site, citizen journalists and bloggers everywhere are invited to participate in "Off the Bus", a citizen journalist organisation that generates up-to-the-minute news and opinions from ordinary people across America. The site has links to more than 100 blogs and news sources across the globe.

In 2007-2008, a number of high-valuation merger and acquisition deals in the market underscored the importance of this trend and how UGC is changing the consumer's relationship with traditional media.

Advertisers and content producers are increasingly working with online advertising networks to target and collect consumer data. Advertising targeting technology is steadily improving such that a rapidly increasing proportion of advertising spend is allocated to acquiring search and display inventory online. The recent industrial dispute between the Writers Guild and the TV and movie studios in the United States underscores the growing proportion of revenues that are generated through digital distribution channels and the fight to capture those dollars. As a result we are witnessing the flattening of the value chain.

Content creation and production

Content creation has never been easier. The proliferation of high-definition digital cameras. video cameras and GPS devices combined with low-cost computing power is enabling the usercontent revolution. In 2007, Nikon announced that they had sold over 100m still and video digital camera units worldwide. Combined with the ubiquity of mobile phones and web cameras, consumers have a wide range of all-in-one devices to create audio/video content for the web. The sheer number of bloggers and video podcasters has led to a cottage industry of lowcost yet powerful production support software. The barrier to entry for a consumer to become a producer of content has been significantly lowered. Handset manufacturers such as Sony Ericsson and Nokia are embedding software on their handsets to facilitate the blogging activities of mobile users, thus removing the need to sync the handset to a personal computer. Bloggers around the world are updating their sites with video taken from their mobile phones or digital cameras.

Prior to the emergence of the UGC phenomenon, a clear separation existed between it and industry-produced content. That separation still remains. Professional content is still clearly distinguishable from amateur content. Professional acting talent is distinguishable from amateur; good writers prefer the security of working for a large production house. High-definition content production is notoriously difficult to film and requires significant time in post-production. An army of photography, lighting and makeup professionals found in traditional media is almost always required to deliver the high-production values such as consistent professional audio and visual quality that consumers have long enjoyed.

Traditional media have the financial and operational stability to bring to bear well-established techniques and resources to ensure consistent quality over time. This is perhaps the greatest strength of all professional broadcast media.

The citizen challenge

The production pipeline for news and information services will continue to be challenged by content created by individuals. Personalities such as Ariana Huffington in the United States, and Jordan's Queen Rania, (See Case Study) use blogs to promote their views and connect with audiences. Blogs have become the standard medium in cyberspace by which consumers share news, experiences, thoughts or debate with their particular niche audiences. Bloggers such as the environmentally-focused TreeHugger or luxury goods site, Luxist have quickly filled the gap by producing niche content that mass media does not have the incentive to cover extensively.

Nevertheless, there remains the need for credible information from reputable sources that can stand above the noise. News organisations have extensive factchecking resources that bloggers do not. Moreover, bloggers are not yet held to the same professional standards as journalists, nor do they suffer the penalties for protecting their sources or for misreporting. This will change in the near future as market forces consolidate individual bloggers into networks, or as traditional media acquire individual blogs or blogging networks, or as bloggers chase corporate sponsorship. As bloggers develop brands and become more corporate in attitude they will also become more accountable to those who pay them and the journalistic standards they define.

Content packaging

Packaging is composed of two elements, the bundling of programmes for sale and distribution, and advertising planning for a specific bundle of television, print or radio content. Established content producers and distributors in film and television such as Time Warner, Sony and NBC Universal dominate this segment and will do so for the near future.

Broadcasters, leveraging their economies-of-scale, have long-established relationships which join together advertisers and content, strongly influencing what and when content is produced and how it is bundled. Broadcasters also control the limited number of time-slots and channels in which content and advertising are assigned. While large account advertisers have an influence via their media buyers, no single entity has yet to consolidate the complete range of distribution channels in an integrated fashion.

Measurement and targeting

This dominance will continue so long as content creators and producers continue to be satisfied with traditional media's ability to generate revenue. Sales conversion and measurement remain a significant challenge. Advertisers guided by ratings, circulation numbers and other general metrics select specific television programmes, newspaper sections or magazines that attract a certain demographic audience. Traditional broadcast and print packaging largely remains an art not an exact science. As such, traditional media are designed to reach audiences not individual consumers-for now. Audience fragmentation continues as evidenced by the UGC phenomenon which is leading consumers to allocate more time online.

YouTube and MySpace have both successfully leveraged the mass appeal of UGC to strengthen their position in the value chain. They are the first to establish their brands as media exchange portals for both professional and user-generated content. They have both established a position on the value chain as a targeted advertising channel. The UGC phenomenon has shown that consumers are willing to forgo some measure of privacy in return for entertainment. The next-generation portals leverage their position as low-cost media exchanges with their increasing ability to generate large volumes of detailed psychographic consumer information to transform themselves into powerful sales conversion tools.

Content distribution

With respect to distribution, Web 2.0 services support a distribution infrastructure parallel to traditional media allowing widespread dissemination of professional and UGC via the internet and internet-enabled mobile phones. "Live blogging" is enabled through the uploading of video, photo and text from mobile phones with cameras and Wi-Fi-enabled laptops as companies such as Facebook and Google strike deals with handset manufacturers to embed their software to facilitate this.

Media exchanges such as MySpace and YouTube have become powerful methods of disseminating UGC. YouTube, in particular, is expanding its distribution network beyond the desktop computer to handsets. By working with a variety of manufacturers they have successfully embedded their player software onto set-top boxes and mobile handsets.

Now bloggers have the ability to stream live video footage to the internet from their mobile handset using a software client developed by Silicon Valley start-up Qik. Congressman John Culberson of the US House of Representatives has stirred controversy through his use of Twitter's social networking services to post short messages and comments and the use of Qik to broadcast live video from the floor of the House. Now, bloggers have capabilities to deliver news and video comparable with those of an Associated Press reporter.

What about the affiliates?

Local affiliates in television and radio broadcasting play a key role in the distribution and promotion of programmes created by the national broadcasters in the United States. These terrestrial broadcasters—who are already under threat from satellite TV and radio as well as the cable industry—face yet another new technology that allows national broadcasters and producers to bypass the affiliate.

With major US broadcasters NBC, CBS, ABC and Disney providing content through Amazon UnBoxed, Hulu, Apple's iTunes and other media exchanges, affiliates under traditional contracts did not get a cut of the revenues generated through these premium content sites.

In April 2006, FOX and its local affiliates ironed out a revenue-sharing model where affiliates would receive a percentage of the online revenues as well as revenues for programs shown through the local affiliate sites. Similar revenue-sharing arrangements were also found in radio broadcasting. The US's National Public Radio also hammered out a revenue-sharing deal with local affiliates before it went ahead with its podcast initiative.

Traditional media continue to provide the dominant means of delivering high-quality broadcast content, although this too is changing. Traditional broadcasting faces not only a threat from new media companies but also from telecommunications and cable companies. As mentioned earlier in this report, mobile operators are expanding their thirdand fourth-generation high-speed wireless networks that will deliver rich media content directly to the handset or computer.

IPTV

Internet Protocol Television – a series of technologies that enable video content to be streamed over the internet to viewers.

Telecommunication companies such as PCCW in Hong Kong with its NOW! IPTV service, are already successfully generating revenue by delivering HD content. Services such as the AT&T U-verse and BT Vision deliver highdefinition television and broadband services bundled into a consolidated bill. Verizon and Hutchinson Italia have already commercially launched multi-channel mobile-TV services using, respectively, MediaFLO and DVB-H technology. British Telecom and Taiwan's Chunghwa Telecom are extending their optical fiber-to-home next-generation networks to deliver triple-play services that include high definition television channels. As the subscriber levels expand these alternative delivery channels, the relationship between broadcaster, content producer and advertiser will be challenged as each attempts to ensure their access to key audiences and expand revenue opportunities through targeted advertising.

Audience measurement issues

As internet content continues to diversify, audience fragmentation increases and audience measurement becomes more uncertain.

Web 2.0 search engines and subscription management technologies have allowed consumers to bypass content portals and directly view the pages that interest them.

Ad buyers have increasingly placed pressure upon advertising networks and search engine providers to deliver more accurate measurements.

The measurement of conversions to sales is a constant area of focus. It requires proprietary data capture technology and longitudinal data, which is data collected and statistically compared over time and across consumer market segments. Page views, duration of engagement and a variety of other metrics are used to measure behaviour. These various pieces of consumer data are stored on "cookies" found in browsers, server-side logs and click-stream data. Browser plug-ins, file-sharing applications and other widgets may have embedded functions that relay users' activity to a central server for analysis

and later sale. These data are then combined with demographic data and survey panel data to provide a comprehensive picture of user behaviour.

Different parties own various pieces of consumer online data and depending upon their user-privacy agreements with the consumer the data is then sold to other marketing analysis firms. This value chain segment above all others receives the most significant amount of scrutiny from regulators and consumer groups.

Privacy issues aside, next-generation advertising serving technologies collect as much data as possible to support analysis of consumer behaviour. The collection of this data allows advertisers to make smarter decisions about advertising content or display placement which will lead to an increase in sales conversions. As such, the bundling of content to draw consumers to online content channels is critical to the long-term success of these new media startups. Furthermore, as online advertising networks and media exchanges successfully enable conversions through better targeting, their position on the value chain segment will draw advertising revenues away from traditional channels.

Across the pan-Arab region, audience measurement is an issue for all forms of media, not just for online. This issue is explored in Section Two.

How new media is changing traditional media

In the face of these trends, traditional media are adopting Web 2.0 technologies to reach new customers by giving consumers more control of their content. Broadcasters, in particular, are repackaging content, utilising new media exchanges and building their own. They are also experimenting with new channels.

Lastly, this section discusses how traditional media is attempting to aggregate and analyse the accumulated pools of data from the various channels to better understand consumer behaviour and accurately target advertising.

P 32ACCASE STUDY

At a Glance:

Subject: Apple iPhone

Introduced: June 29, 2007, 3G version July 11, 2008

Headquarters: California, USA

Media type: Internet-connected mobile smartphone

Focus: Anytime, anywhere connectivity

URL: www.apple.com

The Apple iPhone has revolutionised the mobile phone industry by demonstrating how rich media content can be delivered on a size-limited device. It is expected that 12 million iPhones will be shipped out within its first year, generating hundreds of millions of dollars in music sales as well as from the other applications sold in their latest offering.

The iPhone permits internet browsing and email and operates as a camera, a portable media player (equivalent to an iPod) as well as providing text messaging and visual voicemail. It has local Wi-Fi connectivity.

The iPhone's Application store commercialises third-party development

by providing open-source access to the iPhone application development software tools. Thousands of user-generated applications are created and then sold through Apple's iTunes stores allowing consumers to personalise their handsets to their individual needs. Through the App Store, Apple has increased the frequency of use and deepened the interaction of the consumer at a marginal cost to their organisation.

The success of Apple's iPhone is only possible through the broadband infrastructure (wired and wireless) found in developed broadband markets. Deep penetration of Wi-Fi hotspots makes it possible for Apple's iPhone to download music and applications directly to the handset over the open internet.



Traditional media players have enabled time-shifting and place-shifting of content through participation in media exchanges such as Hulu.com, Google Video and Amazon UnBoxed. Television and radio broadcasters, once zealous of protecting their online and offline content, have now built their own media storefronts to facilitate online distribution and syndication. Print media have also undergone similar changes by flooding a variety of online distribution channels to extend the reach of their content, particularly via mobile devices.

The time-shifting and place-shifting of content was initially enabled through Apple's iTunes distribution platform, enabling pod casting and video casting through iPod and iPhone product lines.

Radio broadcasters were among the first to time-shift and place-shift their content through podcasting. National Public Radio (NPR) in the United States is one of the most successful examples of this trend. While operators found limited success via internet radio rebroadcasting, the use of the "podcasting" format has fared better. Since 2005, NPR has converted the bulk of its popular radio programmes and marketed them through content aggregation sites such as iTunes. Unable to control unauthorised recordings, podcasting has allowed NPR to generate a new source of advertising revenue and sponsorship dollars for its content by flooding their content across the internet. The popularity of its radio programming and the ease of searching its library archives has generated sponsorship dollars as well as advertising dollars for its pre-roll and closing spots on each podcast. This is a significantly different model from the government and listener funding on which NPR used to rely.

Established print media have also adopted the podcasting format. Newspaper, book and magazine publishers are actively producing audiovisual versions of their content for online download and are making it available through popular UGC distribution channels. The Financial Times has been producing audio podcasts of Martin Wolf's popular economics column for well over a year. The UK's Guardian newspaper regularly produces five-minute "fast-food" cooking video podcasts by celebrity chef, Gordon Ramsey, Similarly, David Poque, a well-known New York technology columnist also has a popular video blog. Interestingly, both video podcasts intentionally use the amateur, "shaky", shooting style often found in UGC to give it an "authentic" look. J.K. Rowling, British author of the Harry Potter series, uses "The Harry Potter Podcast" to sustain her fan base and generate new consumer interest in her book and film projects.

Engaging consumers

Looking beyond Apple's contribution, traditional media have also co-experimented with telecom operators in an example of the emerging trend of collaboration and convergence. Television producers have created television content specifically for mobile handsets in order to extend their interaction with consumers beyond their home-based television. ABC Television's "Lost" and Fox Television's "24" worked with Verizon's mobile-TV service V-Cast to deliver mobi-sodes (episodes for mobile devices) to US audiences. Season 5 of Fox Television's acclaimed hit "24" ran a parallel storyline to augment the broadcast version.

Broadcasters have also focused on ways to engage fans and encourage participation in-between broadcast seasons. Freemantle Media, the producer of the "American Idol" reality TV competition, uses the "American Idol Underground" talent website to bolster the TV brand by allowing artists to upload their content for viewing and audience rating during season breaks.

Television has the longest experience of incorporating new media principles. Nearly ten years ago, Endemol's Big Brother franchise incorporated user participation through SMS voting and the broadcasting of viewer comments. Broadcasters are now involving the net generation via online comic books and games designed to engage them during and after the program broadcast. NBC won the 2008 Interactive Media Emmy Award for its innovative program "Heroes" which adopted these practices.

Program producers are also encouraging users to not only join fan forums to discuss plot lines but also to generate HD content. In the case of the SciFi Channel, producers provided HD-quality interstitials, music and special effects so that fans could reproduce their favorite show episodes or submit new storylines. Consequently, they generated new content of interest to a niche audience at a minimal cost to the producers.

High value content in the Web 2.0 world

The challenge for the producers, owners and distributers of premium content is to defend and maximise their value in the face of the challenges from the piracy, disintermediation and audience fragmentation associated with Web 2.0.

As previously discussed, traditional television networks are now actively providing content to third-party distributors such as iTunes and Amazon. In addition, they are also leveraging their own distribution and packaging competencies to build their own infrastructure. As mentioned earlier, network competitors, NBC Universal and Fox Television, have collaborated in a joint venture called Hulu as an IPTV-enabled media exchange for their combined content library in competition with Apple's iTunes platform. Similarly, the BBC has launched iPlayer, which integrates the broadcaster's television and radio content. Depending on the program, some content is released the day after broadcast, or made online before the terrestrial broadcast. All platforms have limited advertising relative to the terrestrial version. Depending on the platform provider, advertising appears during the pre-roll, between scenes or even during the show.



2 32AOCASE STUDY

At a Glance:

Subject: NBC TV coverage of the Olympic Games

Date: 2008

Headquarters: New York, USA Media type: Digital distribution Focus: Leveraging content URL: www.nbcolympic.com

For the 2008 Beijing Olympic Games, television networks worldwide showcased their digital distribution infrastructure investments. The BBC, NBC and CCTV all offered streamed content to consumers in concert with their live terrestrial and cable broadcasts. Concerns that streamed content could potentially cannibalise viewers were largely allayed as these companies demonstrated their integrated approaches to terrestrial, cable and online broadcasting strategy. Most notable was NBC, which provided extensive coverage of the 2008 Beijing Olympic Games online. Viewers were able to see four different live events streamed to their computer, as well as online commentary and statistics to augment the experience.

According to NBC, over 3,600 hours of both live and encore video footage were created. The NBCOlympic.com site continues to

generate revenue well after the games have ended. By providing expanded coverage online NBC not only expanded its display advertising inventory, it also created a long-tailed revenue effect and generated a wealth of data on the 18 million unique visitors each week of the Olympics - user-behaviour highly coveted by ad-buyers.

According to Alan Wurtzel, NBC's President of Research, 90% of viewers watched the Games on television with nearly 10% watching on TV and online during the first two days of the games. Viewers watching online clips were organically sharing content through social networking sites which also expanded the react of the content. NBC reported that for Michael Phelps's 200-metre freestyle competition 1.7 million streams were initiated that were then shared with 1.5 million additional viewers over the open internet, completely bypassing the mobile operators.

Challenges and opportunities

In this section we have looked at how Web 2.0 developments and the emergence of mobile internet devices for content delivery—"anything, anytime anywhere"—are radically changing the economics of the global media business. These developments have implications for all market participants across the media content creation and distribution value chain. For these participants there are both challenges to existing business models and new opportunities to create value.

A strong message from this analysis is that, while traditional media's established business models are certainly being challenged by these developments, if they can develop the right business models, they should be able to protect and enhance the value of their premium content. We have pointed to some examples of global media companies that are successfully achieving this.

Placing a value on online content

A key challenge facing traditional media trying to succeed in this new world is to understand how and when readers and viewers look at content online and what value they attach to it. Much online content is free to the consumer and some of it is of high quality. Well-established newspaper brands have struggled to develop online subscription revenues and their advertising revenues face direct competition from a wide range of competing online media. Success requires the development of new ways of engaging customers in conversations that encourage them to recognise the value of premium content and then translating that engagement into sustainable and profitable revenues.

We touched on this issue in last year's *Arab Media Outlook*, and recent global research undertaken by PwC on the magazine sector confirms that in that sector, migration of readership to online platforms is happening but

readers typically expect to pay significantly less for online content than for the corresponding print content. Magazine publishers that have been most successful in developing online revenues are those who have been able to develop their brands across multiple media platforms so as to maximise revenues from the full range of online sources, including search advertising and e-commerce. This is a very different model from the print world.

A key focus of this year's Arab Media Outlook is how technology can unlock value for both new and traditional media. In order to unlock value, technology enablers are required at each link in the value chain. A particular issue in this region, which is explored in Section Three, is that in order to benefit from Web 2.0 developments, consumers and businesses require high-speed broadband access, which in turn depends on high-quality telecommunications access and backbone networks. These are the most visible (and the most costly) of the technology enablers. Other important enablers, for example in content production and in audience measurement, have a lower profile (and lower costs) but are equally important.

Collaboration

Smooth integration of the various technologies is crucial for the user experience. This applies equally to news and entertainment content. This close integration is also reflected in emerging business models for content creation and delivery, which as we have shown in some global examples are much more based on collaboration than is the norm in the traditional media environment.

In the following sections we develop the themes discussed in Section One. In Section Two we look at how global developments are reflected in media markets across the Arab region and in Section Three we analyse how technology must be deployed to realise the commercial potential of Web 2.0 and the mobile internet for both new and traditional Arab media.

Section Two: penRegional update



In this section of *Arab Media Outlook* we analyse the characteristics and dynamics of the regional media markets. We focus, in particular, on factors that directly drive revenues and profitability for the sector. First, we look at the economic and demographic trends that affect all sectors of the economy but which have a particularly strong impact on the media, and then we assess the effect on the region's media sector of the global trends considered in Section One above.

Based on this analysis, we then develop illustrative projections for future circulation figures and advertising revenues in twelve national media markets: Bahrain, Egypt, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, the UAE and Yemen. For each country, we comment on how the market trends are impacted by global developments and by factors specific to the individual national markets.

Regional characteristics and dynamics

In last year's issue of *Arab Media Outlook* 2007-2011, we emphasised the importance of economic and demographic factors in driving media market growth. We noted that media in the region were in the fortunate position of having both of these factors provide a positive stimulus to market revenue growth.

These factors continued through into 2008. During the first three-quarters of the year, the

high-income oil producers in the GCC benefited strongly from historically high oil prices and enjoyed strong economic growth. At the same time, governments in oil-producing countries continued their programmes to diversify their economies and reduce their dependence on oil revenues. The most obvious manifestation of these programmes was the surge in activity across the property sector. Along with telecommunications and financial services, the property sector was the largest spender on advertising across the region.

The consistent pattern of high GDP growth across most of the region noted in last year's outlook has continued into 2008. Table 2.1 below shows the historic and projected nominal GDP in US\$ for the twelve markets covered in this section for the years 2006 and 2007 (actual) and 2008 (projected). These projections were produced before the impact of the global sub-prime mortgage crisis on the regional economy had begun to take effect. Driven by failling demand in industrialised countries, the oil price started to fall in 2008-Q3 and by the end of the year was down to around one third of the peak level reached during the summer. The overall impact of the crisis on the region is as yet unclear, and is beyond the scope of this outlook, but its however clear that its effects were already being felt by the last quarter of 2008, particularly in the property sector. The downturn will affect the projections for every country examined in this section and it is most likely that this impact will be uneven, with

Table 2.1

GDP (nominal) and GDP growth - 2006 to 2008

(US\$ Billions)	200	06	200	07	2008		
	GDP (nominal)	GDP growth	GDP (nominal)	GDP growth	GDP (nominal)	GDP growth	
Bahrain	16	17.6%	17	10.0%	20	13.1%	
Egypt	107	19.6%	128	19.2%	158	23.7%	
Jordan	14	11.8%	16	12.3%	19	20.8%	
Kuwait	99	22.2%	112	13.0%	160	43.2%	
Lebanon	23	5.6%	25	8.3%	28	13.7%	
Morocco	66	10.3%	75	14.4%	90	20.4%	
Oman	36	15.5%	40	13.0%	56	39.4%	
Qatar	57	34.0%	73	28.7%	117	59.5%	
Saudi Arabia	357	12.9%	382	7.1%	528	38.3%	
Tunisia	31	6.7%	35	13.1%	42	19.3%	
United Arab Emirates	164	21.4%	191	16.2%	270	41.5%	
Yemen	19	13.9%	22	14.4%	28	26.3%	

Source: International Monetary Fund

World Economic Outlook Database, October 2008.

economies most closely linked to the global economy and most exposed to movements in oil price being affected the most. As advertising tends to act as a leading indicator of economic activity, we have made the conservative assumption that for the next two years advertising revenues will grow by no more than the rate of GDP growth in all regional markets.

In 2007, reported nominal growth ranged from 28.7% in Qatar to 7.1% in Saudi Arabia. While real economic growth has been strong across most of the region, inflationary pressures have continued to cause concern with retail price inflation rates of over 10% being reported in some markets, as shown in Table 2.2. There have also been suggestions in some markets that reported inflation understates underlying inflation rates.

Table 2.2

Consumer price inflation - 2006 and 2007

	2006	2007	2008
Bahrain	2.2%	3.4%	4.5%
Egypt	4.2%	11.0%	11.7%
Jordan	6.3%	5.4%	15.8%
Kuwait	3.1%	5.5%	9.0%
Lebanon	5.6%	4.1%	11.0%
Morocco	3.3%	2.0%	3.9%
Oman	3.4%	5.9%	11.2%
Qatar	11.8%	13.8%	15.0%
Saudi Arabia	2.3%	4.1%	11.5%
Tunisia	4.5%	3.1%	5.1%
United Arab Emirates	9.3%	11.1%	12.9%
Yemen	18.2%	12.5%	17.2%

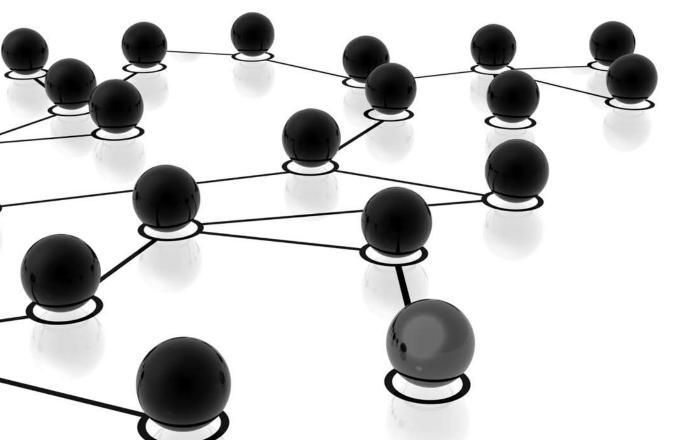
Source: International Monetary Fund World Economic Outlook Database, October 2008. Overall, and despite the impact of inflation, strong economic growth continues to be the main driver for both consumer media spend and for advertising revenues. Similarly, the strong demographic forces benefiting the media sector continue and are particularly powerful in some of the high-growth GCC markets. As shown in Table 2.3 below, Qatar and the UAE continue to experience high levels of immigration as expatriate workers are drawn in to work on major infrastructure projects that continue to support the strong growth in the non-oil sectors, including the media.

Table 2.3

Illustrative population projections - 2006 to 2012

(Millions)	2006	2007	2008	2009	2010	2011	2012	"CAGR 07-12"
Bahrain	0.7	0.8	0.8	0.8	0.8	0.8	0.8	2.0%
Egypt	72.1	73.6	75.0	76.5	78.1	79.6	81.2	2.0%
Jordan	5.6	5.7	5.9	6.0	6.1	6.3	6.4	2.3%
Kuwait	3.2	3.3	3.4	3.6	3.7	3.8	4.0	3.6%
Lebanon	3.7	3.8	3.8	3.8	3.9	4.0	4.0	1.3%
Morocco	30.5	31.0	31.2	31.3	31.5	31.7	31.9	0.5%
Oman	2.5	2.6	2.6	2.6	2.6	2.7	2.7	1.0%
Qatar	0.8	0.9	1.1	1.2	1.4	1.5	1.7	12.4%
Saudi Arabia	23.7	24.3	24.9	25.5	26.2	26.8	27.6	2.6%
Tunisia	10.1	10.2	10.4	10.5	10.6	10.8	10.9	1.3%
United Arab Emirates	4.2	4.5	4.8	5.0	5.3	5.6	5.9	5.7%
Yemen	21.6	22.3	23.0	23.7	24.4	25.1	25.9	3.0%

Source: International Monetary Fund World Economic Outlook Database, October 2008.



When age profile is considered, the picture is even more favourable for supporting enhanced spending on media and entertainment, as shown in Table 2.4 below, which summarises the age profile for the twelve countries covered by this report.

Table 2.4

Population age profile - 2007

Age Group Breakdown

(of total %)	0 - 14	15 - 24	25 - 34	35 - 44	→ 45
Bahrain	27%	17%	14%	16%	26%
Egypt	32%	19%	16%	12%	20%
Jordan	33%	20%	18%	14%	15%
Kuwait	27%	20%	27%	12%	14%
Lebanon	27%	18%	18%	16%	21%
Morocco	31%	20%	17%	13%	19%
Oman	43%	17%	13%	11%	17%
Qatar	23%	17%	15%	15%	31%
Saudi Arabia	38%	19%	21%	13%	10%
Tunisia	24%	20%	18%	15%	23%
United Arab Emirates	21%	15%	30%	22%	13%
Yemen	46%	21%	14%	7%	12%

Source: U.S. Census Bureau International Database.

A common feature across all twelve markets is that young people make up a relatively high percentage of the population. In particular, over 50% of the population in Yemen, Oman, Saudi Arabia, Jordan, Morocco and Egypt are estimated to be currently less than 25 years old, while in the rest of the countries the under-25, "net generation" makes up around 35% to 47% of total population. As covered in Section One, a somewhat surprising finding from our research is that "net generations", regardless of their geographic location or cultural background, tend to behave in a very similar way when they are online. New technologies are often second nature to them, and content delivery via online and mobile channels are

probably their preferred methods given that the appropriate infrastructure is in place. Younger media consumers are also likely to spend a higher proportion of their income on media consumption than their older counterparts. This unique demographic profile of the region presents exciting opportunities for online media owners, content developers, operators, and all parties along the media value chain. In the Maktoob.com story (See Case Study) we take a look at an Arabic online portal that has successfully captured a significant group of "net generation" individuals onto a single platform.

P 32AOCASE STUDY

At a Glance:

Subject: Maktoob.com Established: 2000

Headquarters: Amman, Jordan Media type: Internet community

URL: www.maktoob.com

first Arabic web-based email solution. Called Maktoob Mail, users could send and receive e-mails in both English and Arabic. Its development constituted an important milestone in the region's internet

discussion forums, news, blogs, instant messaging, games, mobile services, content for women, etc. Maktoob's success has been acquisitions of regional sites that showed

as al-mobile.com, a Saudi website specialising in downloadable mobile content. It also has a majority stake in Sport4ever.com, the online Arab sports community.

is a popular choice with advertisers. An audit conducted by UK-based ABC Electronic certified in April 2008. These figures confirm Maktoob's position as the most visited website in the Arab world. Maktoob sees these figures as evidence growing place within the Arab community and has set itself an ambitious target of attracting 50% of all online Arab users to Maktoob

Notwithstanding the large proportion of young consumers in the region, traditional media still play an extremely important role in this region, because of the established newspaper reading culture in some Arab countries, which is demonstrated in the second part of this section where we examine the dynamics between different advertising media and trends of growth.

However, literacy is clearly a key enabler for meaningful access to many kinds of media, especially print, and there are wide differences in literacy across the twelve countries covered in this outlook. These range from about 50% in Yemen and Morocco to over 90% in Kuwait. While significant progress is being made in some countries, the overall pattern of literacy levels in the region is predicted to improve slowly. Therefore, the literacy level of a country continues to be an important indicator of

ranges from 0.4% in Morocco to 6.7% in Saudi Arabia. This illuminates the dominant position of free-to-air television in most of these markets and the high level of consumer satisfaction with the current free-to-air channels available via satellite. Nevertheless. in some of the wealthier GCC countries such as Qatar, the UAE and Kuwait, pay-TV has started to gain traction and is being accessed by more sophisticated television viewers with household penetration of 41%, 24% and 10% respectively. On the other hand, broadband subscriptions as a percentage of households remains extremely low throughout the region, at below 10% in seven of the 12 countries. Broadband penetration of population is significantly higher in the three GCC countries mentioned above, where Qatar has the highest reported broadband penetration at 70% of households, followed by Bahrain with 60% and the UAE with 53%.

Table 2.5

Pay TV and Broadband Penetration in 2007

(Thousands)	Pay TV Housholds	Household Penetration	Broadband Connections	Household Penetration
Bahrain	30	10%	72	60%
Egypt	485	3%	437	3%
Jordan	32	5%	57	5%
Kuwait	116	18%	31	6%
Lebanon	18	2%	180	23%
Morocco	19	0%	470	8%
Oman	21	6%	19	5%
Qatar	43	41%	74	70%
Saudi Arabia	271	7%	595	15%
Tunisia	21	1%	130	6%
United Arab Emirates	176	24%	382	53%
Yemen	N/A	N/A	20	1%

Source: Informa Telecoms and Media, Point Topic.

the level of print media adoption, including circulation and print-advertising revenues in each market. In those markets where print media have limited reach due to the low literacy levels and where oral traditions are strong, television is likely to be the main source of information and entertainment.

As telecoms and media converge, consumers have the option of accessing news, current affairs and entertainment content over televisions (free or pay), personal computers or their mobile phones. As shown in Table 2.5, pay-TV adoption in most of the region is still at an early stage and penetration of households

Low broadband penetration and slow broadband speeds remain major constraints on the distribution of content via the internet, on the development of Web 2.0 services, on the growth of online advertising and on making voice calls over the internet. The reasons for the relatively slow development of consumer broadband vary across the region but they include: cultural barriers, high retail pricing and poor telecommunications access network infrastructure outside high-income countries and urban areas.

For many developing countries with a large and sparsely distributed population, broadband delivered via fixed infrastructure is not an efficient way to increase broadband penetration as the amount of capital investment required is significant and may not be justifiable given the large geographic area. For this reason, mobile technology and mobile phones are rapidly emerging as rival means of broadband access to internet content and, with new developments in technology, are also developing as an alternative means of watching television. In Section Three we examine another possibility, a satellite initiative, which hopes to bring broadband access to remote areas of the world.

As shown in Table 2.6 below, an important feature of the region is the very high market penetration of mobile phones, particularly in the higher income GCC countries where 2007 penetration levels exceeded 100%, such as the

UAE (169%), Bahrain (146%), Qatar (118%) and Saudi Arabia (116%). For the other countries in our study, all except Lebanon and Yemen are expected to reach and pass 100% mobile penetration by the end of the projection period. Lebanon's mobile penetration is expected to reach 51% by 2012, while Yemen is projected to have 88% mobile penetration by 2012—up from its current 18%. This makes Yemen the fastest growing mobile market in the region at a CAGR of 41%, while Egypt is the second fastest with mobile penetration expected to grow at 26% CAGR from 2007 to 2012.

While penetration data should be interpreted with some caution because of differences in the way in which the numbers of prepaid mobile customers are recorded, the overall trend of growth is clear and represents a great opportunity for the sector across the region.

Table 2.6

Illustrative mobile subscriber projections - 2008 to 2012

(Millions)	2006	2007	2008	2009	2010	2011	2012	CAGR 07-12
Bahrain	0.9	1.1	1.3	1.4	1.5	1.5	1.6	7.0%
Penetration % of population	115%	146%	165%	174%	180%	184%	185%	
Egypt	17.7	30.6	44.5	58.4	72.3	85.3	97.2	26.0%
Penetration % of population	25%	42%	59%	76%	93%	107%	120%	
Jordan	4.2	4.8	5.3	5.9	6.4	6.9	7.4	9.1%
Penetration % of population	74%	84%	91%	98%	104%	110%	116%	
Kuwait	2.5	2.8	3.0	5.9	6.4	3.6	3.8	6.6%
Penetration % of population	79%	84%	87%	90%	93%	95%	97%	
Lebanon	1.0	1.2	1.4	1.5	1.7	1.8	2.0	10.9%
Penetration % of population	27%	31%	36%	40%	44%	46%	50%	
Morocco	15.9	21.1	25.7	1.5	1.7	32.7	33.6	9.7%
Penetration % of population	52%	68%	83%	92%	100%	103%	106%	
	1.8	2.5	3.3	3.9	4.4	4.8	5.1	15.3%
Penetration % of population	72%	97%	126%	150%	166%	178%	187%	
Qatar	0.9	1.1	1.4	3.9	4.4	1.9	1.9	11.9%
Penetration % of population	107%	118%	130%	133%	130%	124%	116%	
Saudi Arabia	19.8	28.2	32.4	35.1	37.0	38.4	39.4	7.0%
Penetration % of population	83%	116%	130%	138%	141%	143%	143%	
Tunisia	7.3	8.9	9.4	1.6	1.8	11.1	11.4	5.1%
Penetration % of population	72%	87%	91%	97%	102%	103%	105%	
United Arab Emirates	5.5	7.6	9.0	10.0	10.7	11.2	11.4	8.5%
Penetration % of population	130%	169%	189%	200%	203%	199%	193%	
Yemen	3.0	4.1	5.7	10.0	10.7	16.1	22.7	40.7%
Penetration % of population	14%	18%	25%	34%	47%	64%	88%	

Source: Informa Telecoms and Media

Business Monitor International (BMI) forecast, PwC forecast.

Delivery of content via new media channels, UGC and the collaboration between media players and consumers along the media value chain

As noted in Section One, there is a trend

towards the generation of personal content on the internet. Last year we looked at the ways in which citizen journalists were using blogs to bring the latest information from communities affected by war to the attention of the wider world. Recent developments now permit ordinary people to upload information from their mobile cameraphones straight into local newsrooms or cable television companies. Celebrities and world leaders have all adopted the new media to make conversations with the world, one person at a time. In the region this occurs through sites such as Maktoob, Facebook and YouTube or through personal blogs or websites. The region is starting to see the emergence of news and current affairs websites that rely on input from citizen journalists. An example is jaridtak.com in Lebanon which was founded in March 2008 and carries a wide range of user-generated news content in Arabic, English and French. The site is open to contributions on a wide range of social topics and encourages users to collect and create print, audio, and video content.

P 32ACCASE STUDY

At a Glance:

Subject: H.H. Queen Rania Al Abdullah's Vlog

Established: 2007

Headquarters: Amman, Jordan Media type: Video Blog (Vlog)

Focus: Social media

URL: www.youtube.com/queenrania

In March 2007, her Highness Queen Rania Al Abdullah of Jordan established a video blog (Vlog) on YouTube.com. Founded in February 2005, YouTube is a video-sharing website where users can upload, view and share video clips. Initially, ordinary citizens created and uploaded their own video content. Its massive success soon led to its expansion, and within months corporations, including TV and movie companies, began using the site to promote their products and services. YouTube was acquired by media giant Google in 2006 and

Queen Rania is well known both in the region and throughout the world. Many of her activities are designed to fight prejudice and promote greater understanding between cultures. She places a special emphasis on deconstructing stereotypes

that hinder relations between Arab and non-Arab communities. In March 2007, she took her mission to the worldwide web through YouTube.com.

Queen Rania's Vlog uses a simple and direct approach. She talks directly to a webcam and delivers her message of international understanding. She then invites people to send her their video clips. The success of her Vlog was immediate. She has over 9,000 subscribers and 400,000 channel views. Many of the videos that have been posted are humorous, some are moving but all are dedicated to the eradication of cultural stereotyping. The Queen Rania Vlog is an innovative, technology savvy approach to promoting, through digital media, a more balanced image of the Arab world in general and Arab women in particular.

Collaboration

Aside from the collaboration between media and users, another theme of Section One was of collaboration between players along the media value chain. The media industry has historically been known for its intense rivalry. TV networks have traditionally been engaged in wars over viewing figures; newspapers have always tried to "out-scoop" each other; record labels have protected their rights to a signed artist's work with the full force of the law. Nowadays, the boundaries between media, entertainment and their delivery vehicles are blurring. TV networks will offer their collective libraries (e.g. hulu. com) to take on a company famous for selling music (e.g. Apple). Artists will use social networking sites (e.g. MySpace) to generate a fan base that changes the dynamic between a traditional record label and their signed talent.

In the Arab region one of the greatest challenges to every aspect of media and entertainment is the shortage of local talent. In interviews with media owners and publishers conducted for this outlook, this issue was commented upon repeatedly. Newspapers complained that potential writers were lured away by the so-called glamorous professions of public relations and advertising. Broadcasters bemoaned the lack of technical, behind-thescenes talent. Media professionals wanted more "hands-on" experience for media students across the region. It is hoped that the media clusters springing up around the region will gradually work to develop home-grown Arab media talent. An example of an attempt to bring local and global media organisations together is being created in Abu Dhabi, where the Twofour54 Media Zone will not only bring international talent to the region but will use it to train regional media professionals in all aspects of media creation and production.

In the rest of this section we look at how the above influences are reflected in the region in market spend and circulation trends and summarise market spend and circulation projections for the twelve markets covered by this report.

Circulation trends

In last year's publication we looked at the circulation trends of daily newspapers in six Arab countries and discussed the unique economic and social characteristics and drivers for newspaper circulation growth in these Arab markets. We highlighted the distinct differences between these Arab markets and the more mature media markets in North America and Europe where newspaper circulation growth is currently slowing or has started to show negative growth in recent years.

It is worth noting that, out of the twelve Arab countries studied, we identified only three, namely Morocco, Oman and the UAE, that have daily newspapers whose circulation is currently audited by approved circulation audit firms. Meanwhile, in 2008, a Saudi-based newspaper, Al Jazirah, announced its intention to be audited by international circulation audit firm, BPA Worldwide, making it the first newspaper in the country to come under a circulation audit. Despite the fact that there is still a large number of newspapers that publish claimed or unaudited circulation figures (usually inflated), the few companies that commit to circulation audits are making significant steps towards facilitating a more transparent and sophisticated media-buying environment for print newspaper media overall. In one interview conducted for this publication, a senior staff member of a media group observed that auditing would probably work to their advantage and that far from being something to fear, audited figures would probably justify an advertising rate increase.

Table 2.7 shows historic and illustrative projected newspaper circulation for the twelve countries covered in this report. The strongest growth potential amongst these countries are Egypt, Bahrain and Qatar, which are projected to grow at CAGRs of 4%, 2.6% and 2.6% respectively during the projection period. Key factors that will have an impact on circulation growth include the level of competition in the dailies market, literacy level, the demographic profile of the country (e.g. the percentage of population aged over 50), as well as the number of newspapers published.

Table 2.7

Illustrative total circulation projections by country - 2006 to 2012

(Thousands)	2006	2007	2008	2009	2010	2011	2012	CAGR 07-12
Bahrain	175	178	182	186	191	196	202	2.6%
% growth		2.0%	2.2%	2.4%	2.5%	2.7%	3.0%	
Egypt	3,274	3,406	3,543	3,684	3,830	3,981	4,136	4.0%
% growth		4.0%	4.0%	4.0%	4.0%	3.9%	3.9%	
Jordan	296	302	308	313	318	322	325	1.5%
% growth		2.0%	2.0%	1.8%	1.5%	1.3%	1.0%	
Kuwait	463	472	481	490	499	507	514	1.7%
% growth		2.0%	1.9%	1.8%	1.7%	1.7%	1.5%	
Lebanon	382	386	390	393	397	400	403	0.9%
% growth		1.0%	1.0%	0.9%	0.9%	0.8%	0.8%	
Morocco	575	580	587	594	602	611	623	1.4%
% growth		1.0%	1.1%	1.2%	1.3%	1.6%	1.9%	
Oman	233	234	235	236	237	238	239	0.4%
% growth		0.5%	0.5%	0.4%	0.4%	0.4%	0.3%	
Qatar	163	167	170	174	179	183	189	2.6%
% growth		2.0%	2.2%	2.4%	2.5%	2.7%	3.0%	
Saudi Arabia	1,722	1,756	1,800	1,838	1,868	1,890	1,913	1.7%
% growth		2.0%	2.5%	2.1%	1.6%	1.2%	1.2%	
Tunisia	351	355	358	361	363	364	365	0.6%
% growth		1.0%	0.8%	0.7%	0.6%	0.5%	0.2%	
United Arab Emirates	1,874	1,907	1,938	1,965	1,990	2,015	2,037	1.3%
% growth		1.8%	1.6%	1.4%	1.3%	1.3%	1.1%	
Yemen	164	165	165	165	166	166	166	0.2%
% growth		0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	

Source: Middle East and North Africa Media Guide 2007 (for historic data) and PwC analysis

It should be of little surprise that newspaper circulation in one of the most traditional media markets, Egypt, continues to achieve the highest compound annual growth in the region, at a CAGR of 4% within the next five years. Meanwhile, growth of newspaper circulation in countries such as Morocco and Yemen, where there are relatively low literacy levels and a high proportion of young people in the population, is expected to be limited given the dominance of television in these markets as the primary source of information and entertainment.

Bahrain and Qatar are expected to see moderate growth within the projection period at CAGRs of 2.6%. In Bahrain, a strong newspaper reading culture together with the country's high literacy level is expected to support newspaper circulation growth. In Qatar, there is a vibrant newspaper market with six, privately-owned titles that are expected to create intense competition. This should have a positive impact on the quality of newspapers in the market and

support a moderate growth in circulation over the projection period.

Regulation and licensing of newspaper titles also play an important part in facilitating competition in the market and, as a result, improving the quality of newspapers. Kuwait is a good example of this. The country's New Press Law reversed a thirty-year ban on new newspapers and consequently six new titles were launched in 2007, along with four other newspapers in 2008 (See Case Study).

As with many mature newspaper markets, 100% ad-supported free sheets have also become a trend in this region, offering consumers the convenience of receiving free tabloid-type newspapers as well as creating a new source of media for advertisers. In Oman, two free weekly newspapers were launched under this free sheet model and have proved to be extremely popular with consumers and advertisers. These publications are usually prepared in tabloid

format with a strong focus on human interest, entertainment and sport rather than current affairs. The key to successful free sheets is to capture consumers' interest, which can be done either through a series of light comic or continuous short stories, such that the free sheet can become more "sticky" and eventually become an indispensable part of the consumer's daily or weekly habit.

Overall, our projections in this area in last year's *Arab Media Outlook* were considered conservative, especially for the Kuwaiti market which experienced a number of newspaper launches following market liberalisation. We have adjusted this year's circulation and growth rates to reflect recent data.



P B SACCASE STUDY

At a Glance:

Subject: New Law of Publications and Publishing, No. 3 of 2006

Country: Kuwait

Media type: Newspapers Focus: Market liberalisation

The Kuwait Parliament unanimously passed a Press Act in March 2006 that its members hailed as a positive reform and a sign of their commitment to press freedom. The new law reversed the ban on the launching of new newspapers that had existed for over 30 years

The 2006 press law revitalised the licensing system so that new publications could be established, specifying the minimum amount of capital necessary to establish a daily newspaper publishing company to be around US\$950,000. The new law allows for any party that is denied a publishing license the right to appeal the decision in court, a major improvement on the old system. Al Osbueya Al Eqtsadiya was launched in 2006; six new newspapers were launched in 2007: Al Jarida, Al Wasat, Alam Alyawm, Annahar, Awan and Al Shahed; and four new newspapers were launched in 2008: Assabah, Al-Dar, Arrouiah and Assawt

The 2006 law also saw the abolition of the order to detain journalists in jail while they are under investigation. The Kuwaiti constitution protects certain freedoms of the press under Articles 36 and 37 and the government generally respects these principles. However, the government does enforce what it interprets as breaches of the law so it is common for journalists to practice self-censorship and approach sensitive issues cautiously. This approach to the enforcement of the 2006 press law appears to have been effective in creating dynamic and forthright print media.

Kuwait is widely accepted to be the freest media environment in the Arab world and was top of the Arab media list in the Freedom House 2008 Freedom in the World Survey of print, broadcast and internet media freedom.

Advertising revenue trends

The outlook for advertising revenue continues to be positive across the region, although the global financial crisis which accelerated in the last quarter of 2008 will continue to suggest uncertainties relating to the global economy in the near- and medium-term future. Implications for the region in general, and its advertising markets, are unclear, but it is evident that the property sector which generates a high proportion of advertising revenues across the region is being impacted.

In the Arab region, 2007 turned out to be an exceptional year for advertising agencies and media owners as advertising revenues surged in many markets of the region creating doubledigit growth in eight of the twelve countries covered. Pan-Arab advertising spend across the region also achieved double-digit growth of over 17%.

Interviews with media agencies in the region suggested that the global financial crisis would not have much of an impact on 2008 advertising budgets as these were already set - although there is a suggestion that some pre-booked campaigns may be cancelled. However, going forward, it is clear that major multinational and regional advertisers are reviewing their regional advertising budgets for 2009. It is typical in many industries for advertising spend to be one of the first cuts in a recession. Should the financial crisis develop into a recession in any of the regional markets, it is realistic to expect that for many companies advertising will become a discretionary cost subject to deep scrutiny. Nevertheless, it is believed that annual events that can always be relied on to spur advertising in the region, such as Ramadan and "back to school", will remain important stimulants for advertising.

According to interviews with media agencies, Saudi Arabia and UAE remain the most important markets in the region, for slightly different reasons. Saudi Arabia is important because of its size and large consumer market, which presents lucrative potential to advertisers. UAE is utilised differently as media agencies tend to use it as a showcase for new campaigns or new advertising technologies in order to attract media owners or advertisers to advertise in the region.

The breakdown by sector of GDP is also important. In particular, the current, rapid developments in the property sectors and the telecommunications markets in some parts of the region have resulted in heavy advertising expenditure relating to market entry and the development of mass-market residential complexes and other properties. Later in this section, we discuss each of the twelve markets in detail, highlighting the major advertising spenders in the region.

Out-of-home is one of the fastest growing sectors in the region. One issue that has been noted from our interviews is the increasing fragmentation of out-of-home advertising media. The price of outdoor media has increased significantly in recent years due to the prominent use of high-profile outdoor advertising, which is popular with advertisers. In Saudi Arabia and Egypt, the outdoor market is expanding rapidly and there is a wide selection of delivery alternatives including: unipoles (typical highway signs), building ad-wraps (where the building is encased in photographic quality advertising), sky-poles (high visibility three-sided displays), shopping mall digi-signs, blimps (small airships) and rooftop billboards. Outdoor advertising often serves a dual purpose by both promoting a product and concealing a construction site. Some LED digital billboards have been installed regionally but they are not widely deployed. Trends in Europe and the US suggest that digital billboards and digital networks will become key drivers of growth. Digital billboards expand the effective out-ofhome inventory as multiple ads can be shown on the same display, thereby generating multiples of revenue. Street furniture, airport and transit advertising are other rapidly growing out-of-home sectors.

However, the fragmentation of the out-of-home advertising industry (there is no clear leader in the industry, and a number of outdoor media owners have entered the market), and the inconsistent pricing structure of this media make it difficult for media agencies scientifically to plan outdoor advertising and there is an aversion to outdoor advertisements in general. This is an area of potential improvement.

Our illustrative projections for overall advertising market growth for the 12 countries covered in this report are summarised in Table 2.8 below. Projected compound annual growth rates (CAGRs) for the period 2007 to 2012 range from 5.5% for Bahrain to 12.4% in the pan-Arab region. These projections are expressed in nominal terms, that is, before adjusting for the impact of inflation.

Table 2.8 Illustrative total advertising revenue projections by country - 2006 to 2012

(US\$ Millions)	2006	2007	2008	2009	2010	2011	2012	CAGR 07-12
Bahrain	69	74	83	85	89	92	96	5.5%
% growth		7.0%	13.1%	1.5%	5.1%	3.9%	4.3%	
Egypt	366	437	540	682	793	879	977	17.5%
% growth		19.2%	23.7%	26.3%	16.3%	10.8%	11.1%	
Jordan	77	86	104	116	129	143	157	12.8%
% growth		12.3%	20.8%	11.2%	11.5%	10.8%	9.9%	
Kuwait	312	359	514	515	552	599	647	12.5%
% growth		15.0%	43.2%	0.2%	7.3%	8.4%	8.0%	
Lebanon	171	186	212	230	246	270	298	9.8%
% growth		9.3%	13.7%	8.3%	7.2%	9.8%	10.3%	
Morocco	200	231	278	295	322	354	389	11.0%
% growth		15.4%	20.4%	6.0%	9.1%	10.0%	10.1%	
Oman	64	73	102	107	116	125	136	13.1%
% growth		15.0%	39.4%	4.2%	8.7%	8.1%	8.4%	
Qatar	123	161	257	312	395	442	486	24.7%
% growth		30.7%	59.5%	21.3%	26.7%	11.7%	10.0%	
Saudi Arabia	650	710	982	1,037	1,162	1,315	1,484	15.9%
% growth		9.1%	38.3%	5.7%	12.0%	13.2%	12.9%	
Tunisia	24	27	33	34	36	39	43	9.3%
% growth		14.1%	19.3%	3.1%	7.5%	8.7%	8.3%	
United Arab Emirates	755	892	1,263	1,348	1,513	1,705	1,913	16.5%
% growth		18.2%	41.5%	6.7%	12.2%	12.7%	12.2%	
Yemen	7	8	10	13	15	17	19	18.7%
% growth		12.4%	26.3%	22.9%	16.5%	13.7%	14.4%	
Pan Arab (Regional)	683	802	939	1,051	1,167	1,295	1,438	12.4%
% growth		17.4%	17.0%	12.0%	11.0%	11.0%	11.0%	

Source: PwC analysis (2007 to 2012), 2006 data derived from Zenith and PARC Note: Pan Arab is mainly regional satellite television

It should be noted that the advertising revenue data shown in Table 2.8 and in the later tables in this section are net of estimated discounts and commissions given to advertising agencies by media owners, and hence correspond to revenue from the standpoint of the media owners. The magnitude of these discounts varies across markets and media and is commercially sensitive, which indicates that publicly available data may not be reliable. This implies that, while the projections provide a useful indication of trends, individual figures are subject to considerable uncertainty and hence comparisons between countries may not be valid. The treatment of discounts in the projections is explained in more detail in the Methodology Annex.

Future trends

We now consider likely future trends in the allocation of advertising spend across the different media. Here the pattern varies very widely across the region, with newspapers being the dominant advertising in eight of the twelve markets, including Bahrain, Egypt, Jordan, Kuwait, Oman, Qatar, Saudi Arabia and the UAE, whereas in other markets such as Morocco and Tunisia, television is dominant. In Yemen, out-of-home currently dominates the advertising market.

In Tables 2.9 to 2.20 below we summarise our projections for each of the countries covered in this report showing the split-of-the-total, projected advertising spend across television, newspapers, magazines, radio, out-of-home (outdoor and cinema) and the internet. Since robust and consistent data across the 12 countries for the historic revenue breakdowns for 2006 and 2007 (the base years for the projections) are incomplete, we emphasise that our projections are solely designed to highlight trends and that detailed comparisons of projected figures between countries may not be valid. In Table 2.21 below we show the corresponding projections for pan-Arab media

Bahrain

Of all the countries we studied this year Bahrain has the smallest population at around 800,000 but a strong economy with a GDP of US\$17 billion (2007 figures).

Bahrain has the highest penetration of broadband use with around 60% of households having a subscription and the highest mobile penetration at a massive 165% of population. These factors are key drivers of internet advertising.

Total advertising revenues are projected to grow at a CAGR of around 5% over the projection period (See Table 2.9).

"CACD

Table 2.9

Illustrative projected total advertising revenue by media: Bahrain

								"CAGR
(US\$ Millions)	2006	2007	2008	2009	2010	2011	2012	07-12"
TV	10	11	9	9	9	9	7	-7%
Newspaper	45	49	56	58	63	66	70	8%
Magazine	6	6	7	6	6	6	6	0%
Radio	2	0	2	2	2	1	2	31%
Out of home	6	7	8	8	8	8	8	3%
Internet	1	1	1	1	2	2	3	27%
Total	69	74	83	85	89	92	96	5%

Source: PwC analysis

With a literacy rate of over 85%, newspapers form the dominant advertising media in Bahrain, accounting for over 66% of the total advertising revenue, while magazines account for around 8%. Bahrain has eight major newspapers, all of them privately owned. Bahrain's constitution guarantees freedom of speech and publishing rights are protected by a press law, however, some offences are still subject to possible prosecution and may result in journalists practising self-censorship. Newspaper advertising revenues are expected to continue to increase steadily at a CAGR of 8% over the projection period, taking share away from most of the other advertising media such as television, despite the increasing competition and rising costs of newspaper printing. One newspaper owner commented that, "text, pictures and audio can now be simultaneously used, in a fast manner, which allows better coverage of news and an interactive rapport with readers". He indicated that his company would be investing in audio and video technology for online services to complement the newspaper's offering.

Although Bahrain has been promoting itself as a regional media hub in recent years, advertising revenue for domestic television remains small (only 15% of overall ad spend) and is projected to lose out to newspapers and the internet over the projection period. This is mainly due to the state-owned nature of the local television sector and the dominance of the much-preferred, regional satellite-TV, which is also the first choice for advertisers. One example of such a satellite-TV broadcaster is MBC, a Dubai-based, pan-Arab satellite broadcaster that has chosen Bahrain as the base for its English-language movie channel, MBC-2. Multichannel-TV penetration of television households stood at a relatively high 42%, while pay-TV penetration is about 10% of television households. Orbit Communications (based in Bahrain), Showtime, and TV Land are among the key, multichannel satellite-TV services available in Bahrain.

In terms of distributing television content over the mobile network, both the Bahrain Telecommunications Company (Batelco) and Zain Bahrain—the country's two rivalling mobile operators—offer mobile television via their 3G mobile network. Given the level of mobile penetration in the country (currently standing at 165% of population), it is expected that a significant portion of the rapidly growing internet advertising revenue will come from the mobile internet sector, as more consumers surf the internet and consume media via their mobile handset.

With one of the highest broadband penetration rates in the region, at around 60% of households, internet advertising revenue in Bahrain is projected to grow at a CAGR of 27% over the projection period, albeit from a small base. In 2005, the Bahrain government founded the Bahrain Internet Exchange (BIX) as a non-profit organisation with the mission of ensuring that information on the internet could be accessed by all sectors of society. This action is expected to further drive broadband growth over the next five years. Currently, the BIX is helping smaller internet service providers (ISPs) to compete with Batelco—the incumbent ISP—and the government has issued 18 ISP licenses to provide internet services.

Bahrain is the base for many financial services institutions and this is expected to be a key driver for internet ad spend, as financial services are generally more sophisticated buyers of advertising media and there is a trend for banks and other financial institutions to use internet advertising to reach their target customers. Other industries driving Bahrain's advertising revenues include the government sector and the retail industry.

Egypt

Egypt's population is approximately 75m and its GDP is US\$128 billion (2007 figures). When compared with the rest of the region both mobile and broadband penetration rates are relatively low at 59% of population and 0.3% of households respectively (June 2008).

Total advertising revenues for Egypt are projected to grow at a CAGR of around 17% over the projection period (Table 2.10)

Table 2.10
Illustrative projected total advertising revenue by media: Egypt

(US\$ Millions)	2006	2007	2008	2009	2010	2011	2012	"CAGR 07-12"
TV	122	146	182	231	270	301	336	18%
Newspaper	199	236	290	364	420	461	510	17%
Magazine	25	28	33	38	37	40	38	6%
Radio	18	22	27	34	39	42	47	16%
Out of home	2	4	7	14	24	32	43	61%
Internet	1	1	1	2	2	3	4	43%
Total	366	437	540	682	793	879	977	17%

Source: PwC analysis

As a major regional media hub in the Arab region, Egypt's media industry boasts a growing number of private media outlets that contribute to the robust growth of advertising revenue in the country. Egypt is home to one of the oldest Arabic newspapers, Al Ahram, which was launched in 1876. With daily sales of one million copies (claimed circulation), Al Ahram is the country's, and the region's, highest circulated daily. Unsurprisingly, newspapers form the strongest advertising sector in Egypt, currently accounting for 54% of total advertising revenue. Magazines account for only 6% and are forecast to grow at a modest rate of 6% CAGR over the projection period. One of the drivers of magazine growth is the growing middle class in Egypt which looks to magazines as an alternative source of specialist information on topics such as beauty, luxury living and travel.

Egypt's television and film industry is among the largest in the Arab world and the country is known within the region for its strong content production capability. State-run operator, Egyptian Radio and Television Union (ERTU), operates 12 terrestrial and satellite channels. ERTU was the first in the Arab region to operate its own satellite, NileSat. Other leading satellite TV operators include Arab Radio and Television (ART), Showtime and Orbit. As a result of the strong television culture in Egypt, television-advertising revenue accounts for a large portion of total advertising at 34%, and this is expected to continue to grow at a CAGR of 18%. Radio has seen strong growth in Egypt ever since

the first private radio station, owned by Nile Radio Productions, opened in 2003, leading the way for revenue opportunities in what was previously a government-owned media sector.

While the overall split between media segments is forecast to remain relatively stable, out-of-home advertising is forecast to see tremendous growth over the projection period. Growing at a CAGR of 61% from 2008-12, the growth can be attributed to both effective outdoor advertising on major highways leading to tourist destinations, especially during the holiday seasons, and the emergence of innovative outdoor advertisements such as blimps and flags along major roads and highways.

Despite growing from a small base, internet advertising is projected to grow at the rapid pace of 43% over the projection period, although it currently accounts for less than 1% of total advertising revenue due to low broadband penetration in the country. Since 2006, major domestic ISPs, Telecom Egypt and LINKdotNET, have started to provide IP-based television services. User-generated content has also gained popularity in Egypt, with some traditional media such as the newspaper *Al Akhbar* beginning to integrate UGC into their online business strategy.

Key sectors driving the advertising revenue in Egypt include the telecommunications industry and the public sector.

Jordan

Around six million people live in Jordan. It has a GDP of about US\$16 billion (2007 figures). Low incomes, unemployment and a large foreign debt remain problems for Jordan, however, improvements begun in 1999 have been noted. Total advertising revenues are projected to grow around 13% CAGR between 2008 and 2012 as shown in Table 2.11.

and grow at a CAGR of 10% between 2007 and 2012, while radio and out-of-home advertising are predicted to see more solid growth at 11% and 8% CAGRs respectively.

At just over 1% fixed broadband penetration, Jordan's internet advertising market is at an early stage. Despite plans by newspapers such as *Al Ghad* and *Ad-Dustour* to enhance their current websites, online revenues are still

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Table 2.11

Illustrative projected total advertising revenue by media: Jordan

								"CAGR
(US\$ Millions)	2006	2007	2008	2009	2010	2011	2012	07-12"
TV	5	5	6	7	7	8	9	10%
Newspaper	61	68	82	91	102	113	124	13%
Magazine	4	5	6	6	6	7	7	10%
Radio	2	2	3	3	4	4	4	15%
Out of home	5	6	7	8	9	10	11	13%
Internet	0	0	0	0	0	1	2	N/A
Total	77	86	104	116	129	143	157	13%

Source: PwC analysis

Despite historically tight government controls over media content, the majority of Jordan's print media market is privately owned, with the highest circulated daily newspaper being the Arabic-language *Al Ra'i*, at 85,000. With 90% of the population literate, newspapers remain by far the most dominant advertising sector in Jordan, accounting for around 79% of total media advertising revenues. Magazines account for around 6% of total ad spend.

Since its liberalisation in 2003, Jordan's broadcasting sector has seen the launch of several commercial radio stations, although there are no commercial television stations yet. In fact, the opening of Jordan's first private television broadcaster, ATV, has been delayed since late 2006 but is expected to drive growth in local television revenue when it is finally launched. The country's incumbent state-operated, terrestrial TV-broadcaster, JRT, has been facing strong competition from numerous free-to-air satellite channels available in the market. At 6% of total ad spend in 2007, television advertising in Jordan is projected to maintain its share of overall advertising revenue

predicted to be negligible over the projection period.

However, with mobile penetration of over 90%, and the recent issuance of several technology-neutral broadband wireless licenses in 2006 and 2007, wireless broadband is expected to take off soon, which will potentially stimulate internet advertising via mobile access of the internet.

Telecommunications companies and public utilities remain the major contributors to Jordan's media advertising revenue, especially after the liberalisation of the Jordan telecoms sector, which has led to intensified competition and increased advertising spend amongst the four major mobile operators. These sectors are followed by financial services, real estate and the retail industry.

Kuwait

Kuwait has a population of almost 3.3m and GDP of around US\$112 billion (2007 figures). The country's economy remains heavily reliant on oil, with over 95% of export revenues being derived from petroleum.

Total advertising revenues are projected to grow at a CAGR of around 13% over the projection period as shown in Table 2.12.

Table 2.12
Illustrative projected total advertising revenue by media: Kuwait

(US\$ Millions)	2006	2007	2008	2009	2010	2011	2012	"CAGR 07-12"
TV	14	15	22	21	22	24	25	10%
Newspaper	231	267	385	388	416	450	489	13%
Magazine	30	33	45	43	46	50	51	9%
Radio	4	4	6	5	6	6	4	0%
Out of home	34	39	57	58	62	67	73	13%
Internet	0	0	0	0	0	2	4	N/A
Total	312	359	514	515	552	599	647	13%

Source: PwC analysis

Kuwait has a relatively open media environment with less government control than many other countries in the region, although restrictions relating to religious and political topics are in place.

With a 93% literacy rate, newspapers are the country's dominant advertising media, accounting for 74% of total advertising spend in 2007. After the introduction of Kuwait's new press law in 2006, which lifted a 30-year old ban on granting publishing licenses for daily newspapers, the domestic market has seen the launch of several new titles (See Case Study). Advertising revenues from newspapers are expected to grow at a robust CAGR of 13%, accounting for about 76% of total ad spend by 2012. The country currently has 12 major daily newspapers, of which nine are published in Arabic.

Kuwait's local television sector is largely state owned. Alrai TV's entrance into the market in 2004 as the first private Kuwaiti broadcaster put an end to the monopoly of the state-owned television broadcaster. Around 50% of terrestrial television households in Kuwait also have access to a variety of channels via satellite pay-TV operators: Showtime Arabia, Orbit and TV Land. Due to its geographic location, Kuwait has become the home to many regional satellite

transmission companies who uplink and distribute both free-to-air and pay-TV satellite signals to the Arab region.

As most Kuwaitis watch television on regional satellite-TV channels, advertising on the local television channels remains limited and only accounts for 4% of total media advertising revenue. In addition to print media, out-of-home advertising is seen as another driver of overall advertising spend over the projection period. The sector has seen 11% growth in 2007 and is forecast to grow at a CAGR of 13%.

With current broadband penetration remaining low at under 1%, online advertising remains insignificant and currently has little impact on overall advertising in Kuwait.

The country's top advertisers are in the retail, government and financial services sectors.

Lebanon

Lebanon's population is around 4m and the country has a GDP of around US\$25.3 billion (2007 figures).

Total advertising revenues are projected to grow at a CAGR of around 10% over the projection period shown in Table 2.13.

Table 2.13
Illustrative projected total advertising revenue by media: Lebanon

		3						"CAGR
(US\$ Millions)	2006	2007	2008	2009	2010	2011	2012	07-12"
TV	82	89	101	108	115	125	136	9%
Newspaper	28	29	31	31	31	32	32	2%
Magazine	25	28	32	36	40	45	50	13%
Radio	10	12	13	15	17	18	21	13%
Out of home	26	29	34	38	42	48	54	13%
Internet	0	0	0	1	2	3	4	81%
Total	171	186	212	230	246	270	298	10%

Source: PwC analysis

Strongly affected by the 2006 war and political turmoil, Lebanon's media market saw a doubledigit decrease in overall advertising spend in 2006. The country has very active print media with dozens of newspapers and hundreds of periodicals published in Arabic, French, English and Armenian. Advertising is the primary revenue driver for the country's domestic media industry. However, other revenue sources from sales and subscriptions for print media, as well as DVD sales and outsourced productions for television companies, are also robust. Lebanon has a high literacy rate of 87% and newspaper and magazine advertising account for around 30% of overall advertising revenue, while 48% of advertising spending goes to the vibrant, terrestrial television sector.

Lebanon was the first Arab country to open its broadcasting sector to private investment. The current media market reflects the country's political and cultural diversity and stations are often affiliated with political factions. Known as a production hub for local television content, TV-advertising revenues are projected to grow at a healthy CAGR of 9% throughout the projection period. LBC and Future TV are the dominant players in the FTA market, taking the lion's share of advertising revenue. Both

LBC and New TV have plans to further invest in technologies and partnerships with ISPs and mobile operators enabling IPTV and mobile television.

Accounting for 15% of total media ad spend, out-of-home advertising takes a significant share of the overall advertising pie, while internet advertising is currently insignificant, accounting for less than 1%. There are signs that popular Lebanese newspaper websites such as *Al Balad's* are starting to run banner ads and Google-powered advertising boxes which are expected to increase their revenue source from internet advertising. Although it is from a small base, internet advertising is projected to grow at the rapid rate of 81% CAGR over the projection period.

The fast moving consumer goods and food, beverage and tobacco sectors are currently the largest advertising spenders in Lebanon.

Morocco

Morocco has a population of around 31m and a GDP of US\$75 billion (2007 figures).

Total advertising revenues are projected to grow at a CAGR of around 11% over the projection period as shown in Table 2.14.

Table 2.14

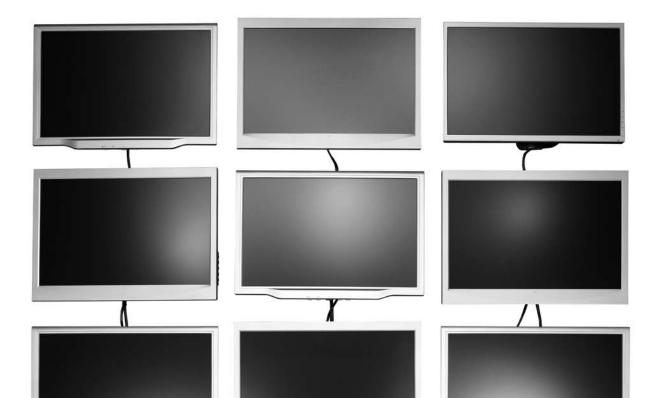
Illustrative projected total advertising revenue by media: Morocco

(US\$ Millions)	2006	2007	2008	2009	2010	2011	2012	"CAGR 07-12"
TV	105	128	162	178	200	227	250	14%
Newspaper	22	23	25	24	23	24	26	2%
Magazine	18	18	19	18	16	16	18	-1%
Radio	10	12	13	15	15	11	12	1%
Out of home	45	50	59	60	67	74	82	10%
Internet	0	0	0	0	1	1	1	N/A
Total	200	231	278	295	322	354	389	11%

Source: PwC analysis

Television remains the dominant medium in Morocco, accounting for an estimated 55% of advertising spend in 2007. This share is expected to continue to increase as the local television sector sees the introduction of IPTV one of the first in the region—by Maroc Telecom in May 2006 and the launch of digital terrestrial television (DTT) by national broadcaster, SNRT, and 2M in 2007. As a result, televisionadvertising revenue is projected to grow at a CAGR of 14% over the projection period. Against this background, mobile television is expected to be a successful advertising medium and the country is one of the first in the region to launch commercial mobile-TV services (See Case Study).

Print advertising currently accounts for about 18% of overall ad spend in Morocco and is projected to be flat with CAGRs of 2% for newspapers and -1% for magazines over the next five years. This is mainly due to the fragmented nature of the newspaper sector in Morocco where a very wide range of publications in both Arabic and French exist and over 20 national daily newspapers compete for advertising budgets. Furthermore, the low literacy level and the country's strong television culture further drive advertisers away from the print industry. In 2007, Eco-Media, a leading news and financial information publisher, launched Radio Atlantic, thus leveraging their print content onto the airwaves (see Case Study, Section Three).



P BRACCASE STUDY

At a Glance: Subject: SNRT Established: 2005

Headquarters: Morocco

Media Type: National broadcaster

Focus: Deregulation

The state monopoly of radio and television in Morocco ended in 2002. In January 2005, Moroccan broadcasting was deregulated further by the introduction of a law that changed the investment structure of the media industry. Soon afterwards, the Société Nationale de Radiodiffusion et de Télévision (SNRT) was created as a state-owned limited company from both private and public sector investment

SNRT immediately invested in technology and personnel to achieve market dominance. In 2006, in collaboration with the NEC Corporation, SNRT commisioned 12 digital, terrestrial-television transmitters, the first full-scale commercial digital terrestrial broadcasting in the MENA region. This launched in March 2007 and by June 2008, 100,000 receivers had been sold and coverage was available to 77% of the population. Morocco expects to finalise its switch from analogue to digital in 2015.

In May 2008, SNRT launched a DVB-H personal mobile-TV service which allows mobile phone users to receive television programmes in real time. The new service was launched in collaboration with Nokia, the phone manufacturer, and carried five Moroccan television channels: two general channels, Al Aoula and 2M; and three specials: Arryadia, Arrabiâ, and Assadissa. Initially launched in Casablanca and Rabat, a total of 20 cities will be covered by the end of 2009. The service is being implemented on a trial basis for a period of two years and is currently free of charge. Morocco is the second African country to launch personal mobile TV after South Africa, where it is paid for, and the second Arabic country after the

Investment in personnel and quality broadcasting is reflected in the agreement that SNRT signed in October 2006 with the BBC World Service Trust to train all journalists working for SNRT for 23 weeks on editorial values and journalism ethics and practice.

Oman

Oman's population is almost 3m and the country's GDP is approximately US\$40 billion (2007 figures).

Total advertising revenues are projected to grow at a CAGR of around 13% over the projection period as shown in Table 2.15.

Table 2.15
Illustrative projected total advertising revenue by media: Oman

								"CAGR
(US\$ Millions)	2006	2007	2008	2009	2010	2011	2012	07-12"
TV	10	12	16	16	18	19	20	12%
Newspaper	50	58	81	85	93	101	109	14%
Magazine	1	1	1	1	1	1	1	4%
Radio	0	0	0	0	0	0	0	N/A
Out of home	2	3	4	4	5	5	5	11%
Internet	0	0	0	0	0	0	0	N/A
Total	64	73	102	107	116	125	136	13%

Source: PwC analysis

With a literacy rate of 81%, newspaper is the dominant advertising medium in Oman, accounting for almost 80% of total advertising spend; while magazine ad spend is insignificant. Seven daily newspapers are currently published in the country, three of which are in English and four in Arabic. Most daily newspapers are similar in size, with claimed circulation ranging between 30,000 and 40,000. In 2007, two free weekly newspapers were launched in Oman, Hi!, in English, and Alyoum Alsades, in Arabic. They are available through shopping and service outlets or by free subscription. Within a year, Hi! claimed that its circulation had reached 50,000.

Despite Oman's relatively small and immature media market, both newspaper and television advertising revenues saw double-digit growth in 2007 and are forecast to grow at CAGRs of 14% and 12% respectively over the projection period. The Omani broadcasting sector was government-owned until 2004 when private investment in the broadcasting sector was allowed, although only by Omani nationals. The main government-owned television broadcaster is Oman TV. Satellite dishes are widely available in Oman, and the major, pan-Arab pay-TV satellite channels are available in the country

through the leading pan-Arab pay-TV platforms: Orbit, Showtime Arabia and ART.

As with a number of countries in the region, the media sector with the highest ad spend growth in 2007 was out-of-home advertising, which grew 31% over 2006, albeit from a relatively small base. With out-of-home advertising still mainly concentrated in Oman's capital, Muscat, it currently accounts for only 4% of total advertising revenue, but it is forecast to grow at a healthy CAGR of 11% throughout the projection period.

Broadband penetration is very low at just 5% of households so internet revenue does not yet account for any material share of total domestic advertising revenues. However, recognising the future market potential of online advertising several domestic media companies are starting to invest in new technologies. One notable example is a major newspaper in Oman that is reported to have an investment plan in the range of US\$8m allocated to develop its electronic newspaper business over the next five years.

Given current mobile penetration of over 100%, the future of internet advertising via wired and mobile means looks positive, especially with

the wireless local-loop project currently being undertaken by Omantel which aims to increase broadband penetration in rural areas of Oman, and the continual development of 3G mobile services by mobile operator, Nawras.

As the smallest advertising market in the Gulf, advertisers tend to opt for pan-Arab media such as satellite channels in order to reach a broader audience. The government sector, financial services and the automotive industry currently account for the largest advertising categories in Oman.

Qatar

Qatar has a population of around 1m and a GDP of US\$73 billion (2007 figures). With an estimated per capita GDP of US\$80,000 in 2008, Qatari consumers are amongst the wealthiest in the world.

Total advertising revenues are projected to grow at a CAGR of around 25% over the projection period as shown in Table 2.16.

as in most other Arab countries, self-censorship is common practice. With a literacy rate at 89%, Qatar's advertising revenue is dominated by newspapers which account for 90% of total media advertising spending. Qatar currently has six daily newspapers, all of which are privately owned.

Television is the second largest media sector and accounts for 6% of total advertising spend, followed by out-of-home, magazine and radio. Owing to the limited number of television households, there are only two terrestrial television channels, although Qatar's pay-TV penetration rate is amongst the highest in the region at 41%. Pay-TV platforms such as ART and Orbit are widely available through Qatar Cablevision's pay-TV services. The governmentowned satellite-TV news channel, Al Jazeera, continues to raise the country's international broadcasting profile significantly.

Qatar Telecom (Qtel) is the major telecoms operator and the only ISP in the country. Despite the country's high household broadband penetration rates of around 70%,

Table 2.16

Illustrative projected total advertising revenue by media: Qatar

(US\$ Millions)	2006	2007	2008	2009	2010	2011	2012	"CAGR 07-12"
TV	6	9	16	21	26	29	32	30%
Newspaper	112	145	228	272	343	381	417	23%
Magazine	1	2	3	3	4	5	5	26%
Radio	1	1	2	2	2	2	2	6%
Out of home	2	4	6	8	12	14	17	37%
Internet	0	1	3	6	9	11	13	82%
Total	123	161	257	312	395	442	486	25%

Source: PwC analysis

Growing at 30% in the period 2006-2007, Qatar's advertising revenue had the highest year-on-year growth of all the countries we measured, and is also forecast to achieve the highest CAGR over the projection period. Much of this growth can be attributed to the Asian Games, held in Doha in 2006, which significantly boosted local and even international ad spend in the country.

Since the country formally lifted media censorship in 1995, Qatar's press has relative freedom from government influence; however, internet advertising has only just started to emerge, although it is forecast to grow at a rapid CAGR of over 82% between 2007 and 2012. Much of this advertising spend on the internet is expected to be generated from mobile, as penetration has already surpassed 150%. 3G penetration of mobile is forecast to grow rapidly from a small base of 70,000 (5% of total mobile subscribers as of June 2008) as Qtel expands coverage of its 3G network. A surge in mobile data usage and mobile internet browsing is also likely when the iPhone 3G enters the Qatari market. Apart from expanding its 3G coverage, Qtel is currently in the process of developing

value-added services. These include IPTV, which is based on its existing telecoms network and mobile broadcast television services based on DVB-H technology. It is currently seeking partners to launch commercial mobile-TV services.

Other media owners are expanding their businesses to provide online services. Qatarbased *Al Raya* newspaper has plans to develop its newspaper business beyond its current print format and offer round-the-clock online news. Al Jazeera has also developed its online presence with podcasts, contributions to YouTube and its sophisticated website, Aljazeera.net.

In 2007, Qatar's largest advertising spenders came from the government sector, the financial services industry and retail.

Saudi Arabia

Saudi Arabia's population of 25m had an estimated GDP of around US\$382 billion in 2007, making it by far the highest GDP in the region.

Being an important and major market for advertisers in the region, total advertising revenues for Saudi Arabia are projected to grow at a CAGR of around 16% between 2008 and 2012 as shown in Table 2.17.

Saudi Arabia has one of the most tightly controlled media environments in the Arab region. The country currently has nine Arabiclanguage daily newspapers. All newspapers are privately owned and can only be established by royal decree. Print is Saudi Arabia's dominant advertising media (the literacy rate is 79%) with newspaper advertising accounting for 78% of total ad spend.

With one of the largest consumer markets in the Gulf, Saudi Arabia's local media is expected to continue its historical growth. Out-of-home advertising is projected to grow significantly at 20% between 2007 and 2011, partly because the country is so vast and partly because there are many opportunities to place outdoor advertising. However, due to the difficulty of working out how many "eyeballs" the outdoor signage has attracted, out-of-home is not generally favoured by media agencies as the media price is difficult to determine scientifically.

Television advertising growth is expected to slow down over the projection period. Despite the fact that the country pioneered the development of pan-Arab satellite-TV, the television industry is rigidly controlled and private television and radio broadcasters are not allowed to operate from within Saudi Arabia. This has led to large investments by Saudi investors in pan-Arab satellites, and by

"CACD

Table 2.17 Illustrative projected total advertising revenue by media: Saudi Arabia

(US\$ Millions)	2006	2007	2008	2009	2010	2011	2012	07-12"
TV	44	45	59	58	60	63	65	8%
Newspaper	504	550	763	808	905	1,025	1,158	16%
Magazine	45	47	65	67	75	82	92	14%
Radio	12	13	19	21	23	26	30	19%
Out of home	46	54	75	84	97	117	137	20%
Internet	0	0	0	0	1	1	2	N/A
Total	650	710	982	1,037	1,162	1,315	1,484	16%

Source: PwC analysis

pay-TV broadcasters who operate from outside Saudi Arabia. Analogue and digital terrestrial television, as well as FTA satellite and pay-TV services are available.

Due to a lack of local commercial radio stations, share of radio ad spend remained low at around 2%. With new radio stations scheduled to open in 2009, radio advertising is forecast to grow at a healthy rate of 9% while maintaining its share of total media spend at around 2%.

With a low broadband penetration (15% of households) and strong government security systems in place to restrict access to websites deemed to contain sensitive content, internet advertising has not yet made any significant impact on Saudi Arabia's media advertising environment and online revenues are generally negligible. For example, for a Saudi media conglomerate with multiple publications and advertising companies, online revenues accounted for only 0.2% in 2007. However, both Al Watan and Al Riyadh newspapers have plans to enhance their websites to integrate print and online services and extend their advertising offering, while Al Riyadh has plans to offer news services via mobile phones.

Major advertising revenue drivers in Saudi Arabia include the government sector, the telecommunications and utilities sector and the financial services industry.

Tunisia

Tunisia has a population of around 10m and GDP of US\$35 billion (2007 figures).

Illustrative advertising revenue projections for Tunisia are shown in Table 2.18.

Television has historically been Tunisia's dominant advertising media, accounting for almost 60% of total media advertising spending in 2007, and it is expected to grow at around 4% CAGR over the next five years. Almost all Tunisian households receive terrestrial television, and more than one-third of television households are able to receive satellite television. Tunisian Radio and Television Establishment (TRTE) is the incumbent staterun broadcaster and it operates national television channels and radio stations. Television channels are financed by advertising revenue and government subsidies.

Tunisia's major publishing houses publish daily newspapers in both Arabic and French. Print media ad spend is still comparably low, with the newspaper and magazine sectors accounting for 11% and 5% of total media advertising spend respectively. As with the broadcasting sector, newspapers receive financial support from the Tunisian government in the form of custom exemptions and subsidies.

Out-of-home advertising currently makes up for a large portion of Tunisia's total media spend, accounting for 20% in 2007. Out-of-home advertising is forecast to grow at a CAGR of 13% over the projection period.

Tunisia was the first Arab country to connect to the internet and it is available throughout the country. However, with current broadband penetration remaining low at around 6% of households, online ad spend has yet to gain significant levels and currently has little impact on overall media ad spend.

Table 2.18

Illustrative projected total advertising revenue by media: Tunisia

(US\$ Millions)	2006	2007	2008	2009	2010	2011	2012	"CAGR 07-12"
TV	14.4	16.3	19.2	19.6	20.9	22.5	24.1	8%
Newspaper	2.6	3.1	3.9	4.2	4.7	5.3	5.9	14%
Magazine	1.2	1.4	1.6	1.7	1.8	2.0	2.1	9%
Radio	1.0	1.0	1.0	0.9	0.7	0.5	0.3	-21%
Out of home	4.8	5.6	6.9	7.4	8.2	9.1	10.2	13%
Internet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Total	24.0	27.4	32.7	33.7	36.2	39.4	42.6	9%

Source: PwC analysis

United Arab Emirates (UAE)

UAE has a population of around 5m and the Emirates have an estimated GDP of US\$191 billion (2007 figures).

Total advertising revenues are projected to grow at a CAGR of around 16% between 2008 and 2012 as shown in Table 2.19.

language broadsheet was launched in Abu Dhabi to cover national and international news. In addition to the print edition, *The National* was launched with a sophisticated interactive website. The publication employs around 200 journalists and has 30 foreign correspondents. The launch of *The National* represents another step in the development of the UAE as a media hub.

Table 2.19
Illustrative projected total advertising revenue by media: UAE

								"CAGR
(US\$ Millions)	2006	2007	2008	2009	2010	2011	2012	07-12"
TV	27	27	33	31	30	29	32	3%
Newspaper	553	650	913	971	1,085	1,218	1,366	16%
Magazine	113	129	177	182	197	213	239	13%
Radio	2	5	11	11	29	51	57	60%
Out of home	15	19	30	37	41	47	52	22%
Internet	8	9	10	11	12	13	14	9%
Total	755	892	1,263	1,348	1,513	1,705	1,913	16%

Source: PwC analysis

The UAE has developed an effective media hub which provides regional headquarters for a number of international media companies as well as regional and national media. The country has a complex media-planning environment which has arisen because of the country's diverse population (UAE is home to around 160 different nationalities). However, a strong economy and solid economic growth enabled UAE's advertising spend to grow 18% in 2007. The UAE's constitution guarantees freedom of speech, however, self-censorship concerning topics deemed culturally sensitive is commonly practiced. A new Press and Publication Law is currently being drafted.

As over 78% of the UAE population is literate, and the local television industry has historically been less compelling than its regional satellite counterpart, print is the country's dominant advertising media, accounting for 88% of total advertising spend in 2007. Within print media, newspapers still account for the largest slice of the advertising pie at 73% of total spend. In April 2008, a new 80-page, quality English-

In terms of magazine advertising, the increasingly fragmented magazine market with its many new launches is likely to reduce the average media price of magazines and increase the difficulty in planning for magazine media buying. However, the availability of niche and specialist magazine titles still provides advertisers with specially targeted platforms.

Radio is projected to experience particularly strong growth of 61% CAGR between 2007 and 2012 as most media agencies see radio as an important supplementary channel. It is considered particularly effective during trafficjam hours in Dubai.

Out-of-home and the internet are also on the rise. In particular, the price of outdoor advertising is reported to have gone up significantly in recent years, with property developers being major advertisers. Despite the fragmented nature of the outdoor media segment, which makes outdoor advertising more difficult to buy, outdoor advertising revenue is projected to continue to grow at a CAGR of 22%. This growth will be boosted by new business opportunities such as the Dubai

Metro Network. The Dubai Road and Transport Authority (RTA) put out a tender in 2008 for the advertising rights in the Metro Network. This attractive business opportunity led to a number of collaborative ventures between local and international firms to complement their capabilities: AMG's Shoof with Ströer Concept Outdoor; Kassab Media with Wellmark and SMRT from Singapore; and Right Angle Media

Yemen

Yemen has a population of around 23m and in 2007 its GDP was estimated at around US\$22 billion.

Total advertising revenues are projected to grow at a CAGR of around 19% over the projection period as shown in Table 2.20.

"CACD

Table 2.20

Illustrative projected total advertising revenue by media: Yemen

(US\$ Millions)	2006	2007	2008	2009	2010	2011	2012	07-12"
TV	0.5	0.6	0.9	1.2	1.5	1.9	2.4	31%
Newspaper	0.1	0.2	0.3	0.4	0.6	0.8	1.2	42%
Magazine	0.1	0.1	0.1	0.1	0.2	0.2	0.2	21%
Radio	0.1	0.1	0.1	0.2	0.2	0.2	0.2	21%
Out of home	6.5	7.3	9.0	10.9	12.4	13.8	15.5	16%
Internet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Total	7.4	8.3	10.5	12.9	15.0	17.0	19.5	19%

Source: PwC analysis

with Singapore's SBS Transit Ltd. and JCDecaux Middle East.

Recent investments by media companies in the UAE have focused on investments in internet and mobile technologies that are expected to continue to fuel advertising spending on the internet. The launch of 3G mobile-TV by mobile operators, Etisalat and Du in 2007 has not only provided its 3G mobile consumers with a new means of viewing television, it also offered advertising potential for advertisers via the 3G networks.

With pan-Arab satellite television being more attractive than local television channels, domestic television currently accounts for only 3% of total media ad spend in the UAE. It is projected to grow at the modest rate of 3% CAGR over the next five years.

Major advertising revenue drivers in the UAE are the government sector, financial institutions and the real estate and retail industries.

The Yemeni government heavily controls print and broadcast sectors. Radio and television broadcasting networks are operated by the government through the Public Corporation for Radio and Television.

With one of the youngest populations in the region (49% younger than 14), Yemen has the lowest literacy rate of all the countries studied for the Arab Media Outlook. At 50%, it explains the dominance of television and radio as the primary information sources for Yeminis. The World Bank has been working to help Yemen raise its literacy levels, but progress has been slow and major changes are not anticipated in the near future. Out-of-home advertising currently accounts for the vast majority of advertising spending in Yemen, an estimated 88% in 2007. While internet connection is virtually non-existent in Yemen, other media such as radio, print and television are showing solid double digit growth over the projection period, albeit from an extremely small base.

Major advertising revenue drivers in Yemen are the telecom and financial services industries.

Pan-Arab region

Pan-Arab regional advertising is predominantly spent on the satellite-TV operations that cover the region from the Arabian Gulf in the east, to the Atlantic Ocean in the west. Advertising revenues are projected to grow at a CAGR of around 12% over the projection period as illustrated in Table 2.21.

between 2007 and 2012. It should be noted that pan-Arab internet advertising spend refers to internet advertising campaigns that are targeted to the region as a whole, rather than to any individual domestic market.

Major pan-Arab regional advertisers are multinational companies in the fast moving consumer goods market; the food, beverage

Table 2.21

Illustrative projected total advertising revenue by media: Pan-Arab

(US\$ Millions)	2006	2007	2008	2009	2010	2011	2012	"CAGR 07-12"
Satellite TV	550	702	819	914	1,012	1,123	1,242	12%
Newspaper	19	11	12	13	13	13	13	3%
Magazine	107	80	95	109	120	132	149	13%
Radio	7	8	11	15	19	23	29	29%
Internet	0	1	1	1	4	4	5	45%
Total	683	802	939	1,051	1,167	1,295	1,438	12%

Source: PwC analysis

Television accounts for the large majority of pan-Arab regional advertising spend, accounting for 88% of total media spend. Given that the current lack of content censorship by local governments remains, and assuming good coverage of satellite TV, growth will remain robust at a CAGR of 12% from 2007-2012.

Regional print media currently accounts for 12% of total regional ad spend, with magazines accounting for the bulk of this category. Pan-Arab newspapers published out of London are targeted at Arab expatriates in Europe as well as the larger Arab markets. Communication technologies have enabled pan-Arab newspapers such as *Al Hayat, Asharq Al-Awsat* and *Al-Arab*, which are all based in London, to be published across the Arab region, while domestic newspapers, including the Egyptian *Al Ahram*, have made international editions available.

With increased access to the internet, online ad spend is forecast to grow at a CAGR of 45%

and tobacco sector and telecommunications industries. Very rarely do domestic brands use satellite TV as the medium is expensive and few local brands could justify the cost.

P BRACCASE STUDY

At a Glance:

Subject: MBC Group Established: 1991 Country: Pan-Arab

Media type: Satellite-TV channels, print and radio Focus: Innovative initiatives for content creation

Middle East Broadcasting Corporation (MBC) is one of the leading free-to-air, pan-Arab satellite-TV operators. Established in London in 1991 MBC has been based in the Dubai Media City since 2001. The company is privately owned by Saudi business interests including CEO Sheikh Waleed Bin Ibrahim Al Ibrahim, a relative of the Saudi Royal Family.

MBC's portfolio of free-to-air satellite-TV channels and brands includes mbc1 (general family entertainment), mbc2 (24-hour movies), mbc3 (children's entertainment), mbc4 (entertainment for the new Arab women), mbc Action (action series and movies), and Al Arabiya (the 24-hour Arabic language news channel). In July 2008, MBC further expanded its television portfolio with the launch of mbc Persia, a free-to-air satellite-TV movie channel subtitled in

Farsi and targeting the growing Farsi speaking community across the region. In addition to its television channels, the company operates FM radio stations and provides events and production services.

The company has been quick to embrace new approaches to distributing its high-quality television content. It distributes a number of channels via 3G mobile-TV services operated by Du in the UAE and STC in Saudi Arabia. In September 2008, MBC entered into an agreement with Etisalat in the UAE to stream nine channels to global viewers over the internet. It has also entered into partnerships with toy manufacturers, and in June 2008 entered into an agreement with CDC Corporation, a Chinese online games developer to develop a portfolio of massive multi-player online games in both English and Arabic.

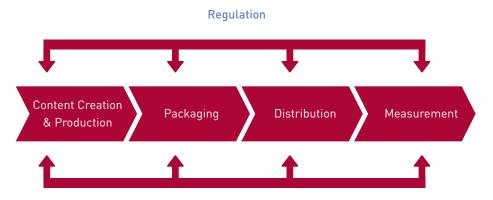
DESECTION THREE: JAVUUNLOCKING JAVVALUE - THE DESTRUCTION THREE: AND LOCKING A



In this section we look at how technology has the potential to unlock value right across the content creation and delivery value chain and at the state of the required technology infrastructure in the countries covered by this report. We then consider the role of governments in stimulating investment in these areas. Finally, we look at the implications for traditional media companies in the region.

Technology is an enabling factor along the sector's value chain. The importance of technology in the development of the media sector was recognised in discussions at the Arab Media Forum 2008 held in Dubai and attended by industry executives, journalists, investors and government officials from around the region. (See Box)

Figure 3.1



Technology

The figure above, which is reproduced from Section One, shows the content creation and distribution value chain starting with the creation and production of media content. This content is then packaged and distributed to viewers and readers and the process is completed with audience measurement. In order to create value, each of the links in the value chain requires the effective working of complex, interrelated processes, which in turn require investment in enabling technologies. Some of these are telecommunications technologies, illustrating the significance of the convergence between the broadcasting and telecoms sectors. Others are specific to the media sector.

Each of the links in the value chain is also impacted by government sector policy and regulation. Government policies, and how those policies are implemented in practice, impact what content can be produced, how and where it is produced, how it is distributed, what devices it is distributed to, and how the resulting audiences are measured.

Arab Media Forum 2008

Held under the patronage of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, the Arab Media Forum 2008 was the seventh such Forum hosted by the Dubai Press Club and it focused on the theme of "Bridging Arab Media through Technology". Over 500 toplevel regional and international media professionals and intellectuals attended to examine the impact of technological developments on local, regional and international media.

The key "take-away" points of the Arab Media Forum 2008 for media operators in the region are summarised as follows.

 Technology and the internet are transforming the Arab media landscape and causing a radical change. Media organisations in the region are being compelled to adapt to the new transformations in technology and the information world of blogs and citizen journalism.

- The internet has enabled people in the region to share their opinions, developing an identity through selfexpression.
- Opportunities exist in the region: the Arab world has a younger population on average than any other part of the world and the popularity of multimedia applications is high among youth and children. Growth drivers in the region include the support and involvement of public sector firms and the reality that commercial aspects are forcing GCC media to be more financially driven.
- Challenges exist across the region: some areas of illiteracy; lack of trained resources; reluctance and unpreparedness of the Arab media to adapt to and accept new technology.
- Media leaders need to focus on development of content and the use of technology to serve that content.
- There is a need for better awareness and education as well as a need for training and practical experience, especially in the development of content.
- Call for collaboration among media organisations and institutions to fill gaps and encourage talent to join the industry.
- Call for a move towards digitisation of media in the region.
- Infrastructure issues include the potential for internet bottlenecks and the fragile nature of existing internet infrastructure which requires investment.
- Other issues include: data transmission applications and the impact of new media and integration difficulties facing IT players in the region.

Regional developments

We look now at the regional developments in deploying technology across the different elements of the value chain. Some of this is highly visible, "hard" investment in physical technology assets and some is less visible, "soft" investment in processes and skills. Both kinds of investment are equally important to the future success of the region's media. Without these enabling investments, consumers in the Arab region will not be able to benefit from the developments outlined in this section and both media sector development and broader economic development will suffer.

Content Creation & Production

The region's traditional print and broadcast media have a long tradition of producing high-quality Arabic language content. The relatively recent proliferation of pan-Arab, free-to-air satellite-TV stations confirms that there is no shortage of Arabic television news, sport and entertainment content and much of it is of very high quality. Some markets, such as Egypt and Lebanon, have mature, established content creation capabilities that are adapting successfully to the digital media era. International broadcasting companies are establishing partnerships with regional media companies to provide Arabic language television content. [See Case Study]

P BRACCASE STUDY

At a Glance:

Subject: Nickelodeon Arabia

Established: 2008

Headquarters: Dubai, UAE

Media type: Satellite TV channel Focus: International collaboration

URL: www.nickarabia.net

Nickelodeon Arabia is the region's first Arabic language, free-to-air channel dedicated exclusively to children aged 2-14 years. It was launched in July 2008 as a partnership between MTV Networks International and Arab Media Group (AMG). Nickelodeon Arabia is a brand of Arabian Television Network, AMG's television broadcasting arm, which has another collaborative content venture in MTV Arabia. Nickelodeon is the first global children's media brand to create a free-to-air Arabic service across the region. The channel's coverage currently includes the GCC and Egypt. Nick Arabia will generate revenue from TV advertising, events and

Nickelodeon Arabia conducted extensive pre-planning and audience research prior to launch in order to gauge Arab children's

preferences and needs. The station observes advertising ethics regarding children and will not carry advertising for products prejudicial to children's health. The channel incorporates a mixture of international content programming. From Nickelodeon global there are SpongeBob, Jimmy Neutron and Dora the Explorer, a bilingual character who helps children to learn English. Locally provided content includes Shoof Kids. Nickelodeon Arabia is supported by a dedicated website available in both Arabic and English that provides users with Nickelodeon content, games and scheduling details.

Brand expansion of this multi-platform product includes a partnership with Al Ahli Group, a UAE-based corporation, to include a Nickelodeon theme park within the Al Ahli leisure development in Dubai scheduled to oper in 2011

There is strong demand for Arabic language content and moves are in place across the region to meet this need. In the UAE there is Dubai Media City, a well-established media hub that hosts national, regional and international broadcasters and attracts media talent from Arab countries and further afield. Similar developments are planned in other markets, including Abu Dhabi, which has recently launched the Abu Dhabi Media Zone, known as "twofour54". (See Box)

New media zone

In October, 2008, Abu Dhabi launched the region's latest media zone. Named "twofour54" in reference to the map coordinates for the UAE capital, this 200,000m² media zone will begin operation in 2009, and will provide an international environment for media content creation in the Arab world. The zone will house production facilities, training and infrastructure for a variety of media sectors including film, broadcast, digital, gaming, publishing and music. This new development places a strong emphasis on skills development and includes an academy where young Arabs will receive world-class training in a range of practical skills designed to equip them for successful careers in all media sectors across the region. It aims to foster a thriving and international media environment where media companies of all types, including, the BBC, HarperCollins, Rotana Studios, Comedy Arabia and imagenation abu dhabi can collaborate and cultivate valueadded partnerships and develop, finance and produce content for Arabic and international markets.

Globally, the industry is moving to the production of high-definition (HD) digital content, a development that brings many new challenges. While HD equipment is readily available, the HD content production process is notoriously difficult to manage efficiently. HD cinematography places demands not just on the director but also on the entire production crew, all of whom must work closely together to produce good quality high-definition content.

Mobile television will also require new approaches to content creation, with the need for content that works effectively on the small screen and for very short average viewing times. A point strongly made in one of the interviews for this publication was that because mobile is a very personal medium, viewers are less "forgiving" of mobile content than of content viewed on large screens. This means that content has to be consistently of a higher standard. Another issue is that some of the most popular large screen content, including some sports, can be difficult to watch on a small screen. Once mobile-TV services are in commercial operation in the region there is likely to be a period of experimentation during which television channels seek to establish what works best for their target Arabic language viewer markets.



P 32AOCASE STUDY

At a Glance:

Subject: Radio Atlantic

Established: 2007

Headquarters: Casablanca

Media Type: Radio

Focus: Unlocking value with technology

Leading press group Eco-Media launched its new radio station, Atlantic, following deregulation of the Moroccan broadcasting market. Building on Eco-Media's expertise as publisher of *L'Economiste*, the country's leading French-language economics-oriented newspaper, and *Assabah*, Morocco's leading daily, Radio Atlantic delivers news and financial information to listeners.

Radio Atlantic is built on Radio-Assist software from NETIA, a global provider of software solutions, which manages both television and radio content. This system allows content holders to manage their processes over different types of distribution channels including internet, terrestrial and mobile devices. Radio Atlantic's station has integrated news broadcasting software that extends across the entire operation of radio content delivery. A single application allows

staff to cover each stage of the broadcast process from acquisition, sound-file editing, commercial and music production, newsroom systems, scheduling, multicasting and administration. The radio station facility is equipped with two On-Air studios running Air-DDO, 17 journalist workstations, two recording booths, one planning workstation, one feed workstation, and one administration workstation. NETIA's Script dispatch-processing module is used in the Atlantic newsroom to capture, filter and process news feeds from other news agencies.

possible by the liberalisation of the Moroccan broadcasting environment and the deployment of the latest technology to unlock value within this specialised media sector. It is an interesting example of how traditional print media can leverage their content to capture more market share.

Packaging

Packaging refers to the pairing of advertising content with news, sports and entertainment content in a way that advertisers hope will be attractive to audiences. In the Arab region this is an area where old-established business models dominate. Corporate advertising budgets in the region are shared among a number of participants across the sales and distribution channels for advertising space and the resulting commercial arrangements tend to be somewhat opaque. It is likely that these arrangements will ultimately be challenged by the advent of online media. Experience from those markets that have been most successful in developing online advertising suggests that the online distribution of premium massmarket online content can generate significant advertising revenues. Content owners and advertisers can also benefit from the long-tail effects discussed in Section One above.

The Saudi owned Rotana Group is an example of how media organisations in the region are forging cross-boarder alliances and leveraging technology to maximise the value of their content through new distribution channels. The Rotana Group has a substantial content library with over 100 music stars from the MENA region and over 2,000 Arabic films. In addition to its traditional means of content distribution through its six, free-to-air television channels (Rotana Mousica, Rotana Clip, Rotana Tarab, Rotana Khalijiyya, Rotana Cinema and Rotana Zaman), and the recently announced merger with the Lebanon based LBC, the Rotana Group is seeking new ways to distribute its content through new partnerships and alliances. In October 2008, Rotana signed a new deal with UAE-based mobile operator Du to offer music downloads to customers from PCs and mobile devices. This move to a new digital delivery platform is made possible through an earlier initiative taken by the Rotana Group to digitise its content library in conjunction with IBM.

Figure 3.2



The distribution element of the value chain represents the largest amount of required investment in technology. Distribution includes three distinct value chain elements: backbone networks, access networks and internet access devices, each of which employs different technologies and each of which is crucial to the value creation process.

Backbone networks

Backbone networks primarily comprise overland and undersea high-capacity fibre-optic cables, augmented by satellite capacity. These networks are used to connect sources such as broadcast studios and hosting centres, to other backbone networks and to access networks. The region's reliance on undersea fibre-optic cables for access to the global internet was highlighted early in 2008 when a number of cable systems in the Arabian Gulf suffered damage causing severe disruption to all internet services, including access to the websites of regional media companies. (*See Case Study.*)

P BRACCASE STUDY

At a Glance:

Subject: Submarine cable breakages

Date: 2008

Region: The Arabian Gulf

Media type: Internet

Focus: Investing in regional infrastructure

On January 30th, 2008 an internet cable belonging to Flag Telecom (now known as Reliance Globalcom) was severed by an anchor. A cable lying nearby, the SEA-ME-WE 4 cable, owned by an international consortium of telecommunications companies was also cut but it is not clear how its damage was sustained. On February 1st, another undersea cable—the FALCON (also owned by Flag Telecom)—sustained two cuts within the Gulf region. No connection between these events has ever been identified and despite widespread internet chatter of a conspiracy none was ever proved.

The region's response was swift and efficient and the authorities speeded up their approvals processes to ensure that the complex "at sea" repairs could be made as soon as the weather permitted. However, the disruption to the region's internet supply was severe, as just one terrestrial route across Saudi Arabia remained to serve the internet needs of the entire Gulf area. This event highlighted weaknesses in the region's internet structure and the vulnerability of the existing communications network. If comparisons are made with the US-Europe internet cables it can be seen that the trans-Atlantic internet links carry a great deal of redundancy and the sheer numbers of cables would make it virtually impossible to eliminate the internet link

The region's dependence on a small number of cable systems was again highlighted

in December 2008 when simultaneous breakages again occurred in a number of systems connecting the Middle East t0o Europe via the Mediterranean. On this occasion the affected systems were SEA-ME-WE 4, its sister cable SEA-ME-WE 3 and FLAG FEA, a cable owned by Reliance Globalcom. The breakages were attributed to either an undersea earthquake or to damage from a ship's anchor.

These events, while disruptive at the time, also indicated that opportunities exist for organisations prepared to invest in large regional infrastructure projects. New cable systems between Europe and Egypt are planned, including Telecom Egypt's US\$125m deal with Alcatel-Lucent to build the planned 3,100km TE North system linking Sidi Kerir in Egypt to Marseille in France, as well as Orascom's MENA system and the IMEWE consortium cable. Since the January 2008 cable breaks, Du, the UAE telecoms operator, has invested in the new US\$700m Europe-India Gateway consortium cable system. Gulf Bridge International, a newly formed GCC-based submarine cable operator founded by Knowledge Ventures, Al Madar Telecom and Metel, recently announced plans to lay a new submarine cable in conjunction with British Telecom to link the GCC area. The new cable, which is expected to be completed by 2011, will help to increase the region's bandwidth and will provide a platform for IP television services such as video-on-demand and high-definition television.

For markets with limited access to fibre-optic cable systems, including some of the less developed markets covered in this report, satellite provides the main connection to the global internet. The recent announcement by O3B, a US-based consortium, of planned satellite services to provide broadband backhaul internet access services to telecoms operators in emerging markets in Africa, Latin America and the Middle East promises to extend broadband access to presently underserved areas. (See Case Study.) Within the region, satellite operator Yahsat from the UAE recently announced plans to offer a satellite broadband service from its Yahsat 1B satellite scheduled for launch in 2011. The "YahClick" service will be able to provide broadband to millions of people who are either underserved or have no internet access, at costs comparable with terrestrial services. Their service area will include the Middle East, North Africa, sub-Saharan Africa and southwest Asia.



P BRACCASE STUDY

At a Glance: Subject: 03B Time: 2008

Region: Africa, Asia, Latin America, pan-Arab Media type: Broadband access by satellite Focus: Internet access to remote areas

03B is short for the "Other three billion," and refers to the number that approximates the half of the world's population with little or no access to the worldwide web. Its plan is to provide cost-effective wholesale internet access and mobile backhaul to telecoms operators in emerging markets. At present, these operators can build broadband wireless access networks relatively cheaply but face prohibitive costs in connecting these networks to the global internet.

03B Networks is the brainchild of Grey Wyler, a US technology entrepreneur, who identified the opportunity while working on the development of internet services in Africa. He saw satellite access as an effective means of addressing the internet problem and hence stimulating economic development in poor regions of the world. 03B's mission is to "make the internet accessible and affordable to everyone on the planet".

03B Networks plan to launch a network of 16 low-earth-orbit satellites by the end of 2010, which will provide wholesale services to telecoms operators in Africa, Asia, MENA and Latin America. This new infrastructure will offer high-speed wholesale broadband connectivity to mobile and fixed network operators in these emerging markets. In September 2008, the company announced operational and financial support from Google, Liberty Global and HSBC.

Entrepreneurs were quick to tap into the potential of mobile technology in Africa, MENA and Asia. 03B hopes that local entrepreneurs will be keen to build local ground-based networks based around their satellite system and replicate their mobile success with the internet. Currently, less than 3% of Africans use the internet but 03B hopes that increased connectivity will help these regions to develop commercially, as improvements in communications tend to drive local economic growth wherever they are implemented.

Access networks

In terms of value, the largest investments are currently in fixed and mobile broadband access networks. As we discuss in Section Two of this report, this investment is taking place against a background of rapid economic growth across the region. An important driver of this growth has been very high levels of investment in property development, particularly in the GCC countries. The new residential and business properties currently being planned, or already under construction, provide an ideal opportunity for putting in place the high-speed fixed and mobile broadband access infrastructure required for the successful delivery of "anything, anytime, anywhere" services.

In the higher-income GCC markets, fibreoptic access networks capable of very high
broadband speeds using "next-generation"
technologies such as gigabyte passive optical
networks (GPON), are being rolled out not just
to new property developments, but also in
established urban areas. This is the technology
being used in the high-profile broadband
deployment by Verizon in the United States and
in a number of large telecoms operators in
Europe. Fibre-optic access networks provide an
excellent means of delivering Web 2.0 services
and are also likely to be the dominant future
means of delivery for residential multichannelTV services using IPTV.

The pattern of broadband development across the Arab region is somewhat uneven. Broadband investment in some markets in the region has been constrained by high upgrade costs for existing copper-access networks and by relatively low income levels. Some established telecoms operators have shown a reluctance to make the investment required for broadband services because of concerns regarding high investment costs. There has also been a tendency to focus on maximising shortterm returns from price insensitive broadband customers by setting retail prices at high levels. The effect of this has been to limit market growth and it is one of the factors accounting for the relatively low broadband penetration seen in parts of the region.

The most successful access networks for content delivery in the region are those provided by the region's broadcast satellite operators. Pan-Arab, free-to-air satellite-TV dominates

television broadcasting across the region. It has a well established and apparently profitable business model which relies on strong Arabic language content and benefits from the ability of satellite to bypass national restrictions on media content that affect terrestrial media delivery in some markets in the region.

The emergence of WiMAX broadband access technology has attracted considerable interest worldwide and is being licensed in a number of countries in the region. It is particularly appropriate for markets where copper- or fibrebased fixed broadband networks are not yet well developed and/or the required geographic coverage extends into rural areas with low population densities. Atheeb Telecom, a new fixed-line operator in Saudi Arabia, is currently using this technology.

Internet access devices - the region's strength

Internet access devices are used to connect to fixed access networks and include PCs, TVs and gaming platforms. They also include a wide range of mobile internet devices produced by mobile handset manufacturers such as Nokia, Sony-Ericsson, Samsung and Apple. All these devices are readily available in the region at competitive prices although at the time of writing, Apple, which has a different business model from the other handset vendors, had not yet established its revenue sharing agreements with regional mobile operators.

In Section One of this outlook we emphasise the significance of content delivery to mobile internet devices. The very high (and still growing) levels of mobile penetration in virtually all markets in the region clearly offer considerable growth potential in this area. In the more developed mobile markets in the GCC countries, much of the required investment in broadband 3.5G mobile networks has already been made. The opportunity facing content owners and mobile network operators is to develop business models and retail pricing strategies which develop these services not only for the high income postpaid mobile market but also in the mass prepaid mobile market.

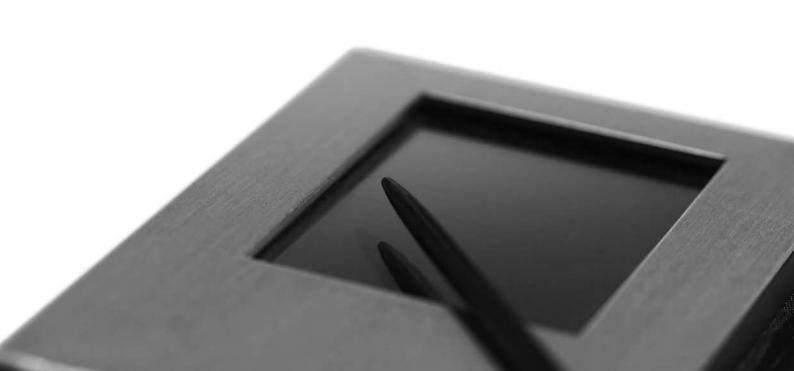
An area of great potential to advertisers both globally and within the region lies in the growth of video games played online. Currently, this is the fastest growing advertising sector in the world, albeit from a currently small base. The

ability of operators to identify the IP addresses of gamers downloading games allows them to target advertising that is appropriate to the region as well as the demographics of the consumer. The advertising content, including the lucrative area of product placements, can be delivered to the "anytime, anywhere" generation at home on their PCs or while they are out and about on their smartphones. While this type of advertising is in its infancy, the potential for growth within the net generation is real and particularly significant to a region with such a high penetration of mobile phone ownership.

The advantage of mobile delivery for content is that the required customer relationships as well as the billing and payment platforms

are already in place. As the success of the Philippines mobile market clearly demonstrates, mobile can provide an effective platform for micro-payments and can support large volumes of e-commerce transactions in a relatively low-income mass market dominated by prepaid services. The Smart and Globe companies have both effectively transformed their mobile networks into powerful, nationwide payments platforms. The Philippines has emerged as a world leader in mobile payment services and is exporting its knowhow to markets around the world including those in this region.

The use of mobile phones as bar-code readers has potentially powerful advertising applications. (See Case Study.)



TE BEACCASE STUDY

At a Glance:

Subject: 2-D barcodes Established: 1994

Origin: Japan

Media type: Mobile phones

Focus: Unlocking value from the mobile market

Japan—one of the world's most advanced mobile markets—has seen the development of advanced marketing techniques that close the gap between the phone and the internet. One such innovative development is the 2-D barcode that was originally pioneered by Denso-wave—a part of Toyota—as an inventory-monitoring device. Nowadays, it has been absorbed into the modern Japanese advertising industry and almost all mobile phones in Japan are able to scan and

The system is straightforward. Using commercially available software a user creates a barcode containing the details they would like to share with a client or consumer and prints it onto a business card, newspaper advertisement, flyer, billboard, T-shirt or whatever they feel would be appropriate for the message they are trying to spread. Then, when their clients or consumers see the 2-D barcode, they simply scan the barcode with cameraphones

enabled with the appropriate software. Using the embedded software, the barcode opens into a file that delivers the information that had been encrypted in the barcode. Some barcodes are large enough to be captured from moving vehicles, which makes it an interesting marketing tool for out-of-home advertisers.

Success of this innovative technology will depend upon buy-in from advertisers, which in turn will rest on the ability of the operator and the system integrator to deliver measurement data. As each advertising campaign is unique, considerable coordination is required between the advertiser, the advertising channel and the ad-buyer to ensure not only that the campaign metrics are embedded but that they are properly distributed across channels. As improved measurement statistics become available this advertising medium could take off, especially among the net generation who have already demonstrated their willing acceptance of this product throughout Japan.

Direct-to-phone media opportunities

To date, ringtones and wallpaper for mobile devices are the main forms of content delivered to mobile devices in the region and mobile internet access tends to be restricted to highend smartphones used by postpaid customers. As technologies found on smartphones proliferate to low-cost devices and service prices fall, there are exciting opportunities for regional content providers to exploit mobile as a channel for the delivery of paid content. Individual transactions for "snack" news and entertainment content are likely to be small, particularly in the prepaid mobile market, but the potential volume and hence the potential revenue is high.

High levels of mobile phone penetration across the region mean that mobile television represents a particularly exciting new development for the delivery of content (and advertising) to mobile devices. It is likely that mobile-TV services will become widespread throughout the region within the next few years. (See Case Study.) The local model for mobile television is likely to be "snack TV" which features relatively short news, sport and entertainment features. The entertainment is likely to include specially produced short programmes, or "mobi-sodes", that are based on conventional television soap operas and dramas. Access to the mobile television network will be sold to television operators on a wholesale basis.

The commercial opportunities of mobile television for the region are twofold. Telecom operators can leverage their existing base of consumers by providing mobile-TV services at an incremental cost. It also offers new commercial opportunities for broadcasters and content producers as a means to reach new customers beyond the living room

YDUTS BRACCASE STUDY

At a Glance:

Subject: Technology selection

Time: 2008

Region: UAE and Qatar Media type: Mobile TV

Focus: Collaboration across the value chain

Mobile television is currently attracting considerable interest as a potential massmarket revenue stream for mobile telecome operators and a new method of delivering premium content. The new mobile-TV services are based on mobile digital broadcast technology that makes efficient use of spectrum compared with direct streaming of video content across mobile networks. They are seen as providing a very attractive channel for advertising.

Several technology standards are currently in use. Korea and Japan were the first commercially to deploy mobile television in 2005, and Korea's TuMedia and Japan's MBCo both use the DMB-S standard for commercial service. DMB-S is a satellite broadcast solution that uses ground-based repeaters to augment indoor and subway coverage. In the United States, MediaFlo, a technology standard developed by Qualcomm, is commercially deployed through Verizon. In Europe, DVB-H is likely to be the dominant technology.

These technologies are broadcast centric and serve as a low-power alternative to streaming video over 3G networks. Streamed mobile-TV is already available in the GCC, where a number of mobile operators deliver the service across existing 3G and 3.5G mobile networks including Etisalat and Du in

the UAE, and QTel in Qatar. However, streaming video over 3G networks is extremely power intensive and quickly drains the limited battery capacity of a mobile handset. Furthermore, if used by large numbers of viewers, streaming over the 3G network quickly fills available spectrum.

These broadcast mobile-TV technologies require significant infrastructure investment, as the transmission platform is entirely separate from an operator's existing 3G network. They also require consumers to buy new receiverenabled mobile handsets. Telecom operators are experimenting with technologies to improve the user experience including enhanced user-interfaces and the bundling of channels as well as attempts to eliminate channel-switching delays as viewers wait for the picture to resolve.

The commercial models for mobile television are unproven but early indications are that it has considerable commercial potential. Uptake will be dependent upon the successful collaboration between the mobile-TV network provider, content producer, aggregator and all parties across the value chain. Licensing of mobile television services is underway in some of the GCC countries. In 2008, the Telecommunications Regulatory Authority of the UAE invited proposals for the provision of a mobile-TV broadcasting service using either DVR-H or Media-Flo technology.

Measurement

In developed media markets the techniques for audience measurement in traditional print and broadcast media are very well established and the issues for online media, though more complex, are now well understood. Robust audience measurement requires some capital expenditure (e.g. for viewer-metering devices) but the main requirement is for commitment from the media distributors to put in place the required processes, including independent verification. The verification process opens up new commercial opportunities. Recently published research by PricewaterhouseCoopers on the advertising market in the United States points to the emergence of a wide range of companies in the audience measurement and verification area focusing on different aspects of digital media.

Few of these developments are in place in the Arab region where there is a lack of even basic measurement for traditional print and broadcast media. This represents a real constraint on development but also a significant commercial opportunity. Without accurate figures on readers and viewers, advertisers, particularly sophisticated consumer goods manufacturers, are reluctant to grow advertising budgets. This leaves advertising revenues exposed to the cyclical volatility of the property and financial services sectors, which, along with mobile telecoms are currently the region's largest sectors for advertising. These issues apply equally to both print and broadcast media, and within broadcast media. to both terrestrial and satellite broadcasters. Some organisations have taken the initiative to put in place transparent mechanisms for circulation audits. For example, XPRESS, a UAE weekly tabloid published by Al Nisr Group has circulation audits conducted by international audit circulation firm BPA Worldwide and Saudibased newspaper. Al Jazirah, has announced its intention to do the same. By choosing to have their circulation audited, individual publications enhance their credibility with advertisers and improve the overall reputation of the sector.

The reasons for the general failure in the region to put in place measurement required to increase the visibility of advertising effectiveness are not clear. It may, in part, be due to the immaturity of the regional advertising market and the general lack of transparent business models across the advertising distribution chain. What is clear however is that it constrains the financial and (potentially) the creative development of the sector.

Going forward, the region's media need to work towards putting the required measurement processes in place. This is recognised by media industry leaders and advertisers, but progress is slow. If online advertising is to develop successfully in the region, and the advertising potential of content delivered to mobile phones is to be realised, there is also a requirement to start to put in place the necessary elements for effective online measurement. This will require collaboration between regional content owners and advertisers and with internet access device suppliers and online measurement specialists. It also represents a commercial opportunity for potential measurement technology vendors and service providers.

Outdoor media, which is a high growth area in the region, poses a different set of challenges for audience measurement. Because of its ubiguity and 24-hour presence, outdoor media should in principle have very large audiences. Where outdoor faces captive audiences-for example on public transport-its impact should be particularly high. However, even defining what constitutes the audience for an outdoor advert is difficult. For example, is everybody driving past a roadside advert a member of the audience or is the audience just those people who look at the display? In mature outdoor markets a number of technologies are being put in place to address these issues including the use of GPS devices given to sample groups to measure how often individuals pass relevant outdoor sites and how long they spend in proximity to those sites.

Implications for government policy makers and sector regulators

Government policy makers and sector regulators have an important role in putting in place and maintaining the right policy and regulatory environment to encourage the investment required for sector development. There is now a wide acceptance across the region that broadband infrastructure is crucial for the future development, not only of the telecoms and media sectors, but also for wider economic development.

As noted above, however, the level of broadband development around the region is uneven and is low compared with mobile development. The figure below, which compares mobile and broadband penetration levels with per capita income, suggests that income levels account for some but not all of these differences, with some countries having broadband penetration well below the levels consistent with their per capita GDP. However, governments in a number of countries in the region are now addressing these issues and it is likely that the next two years will see this gap significantly reduced.

Governments also have an important role in supporting the development of the soft infrastructure. This includes training and the putting in place of the necessary legal framework for media development, in particular, protection for intellectual property rights. In general, the regulatory frameworks in most of the countries in the region have not kept up with the fast pace of technology development which presents new challenges to regulators for the ubiquitous internet-based or satellite-based content distribution models.

With regard to training, the successful development of Web 2.0 services requires both creativity and a diverse range of creative, commercial and technical skill sets, some of which are not typically seen in traditional media. These range from product design specialists to database and applications software specialists. Consumers have come to expect well-designed user-interfaces and natural language querying, all requiring complex software design and development. There is also a requirement for specialised applied mathematicians who play a crucial role in developing software algorithms used to conduct behavioural analysis and advertising targeting.

Figure 3.3

Arab countries by GDP per capita, mobile and broadband penetration of population



Issues relating to intellectual property rights for digital content arise in a number of areas. First, where there is piracy of physical media (e.g. DVDs). If piracy is allowed to go unchecked, it can quickly destroy the value in content. This is a particular issue for governments keen to develop homegrown creative talent as this will not grow if the value of what they produce is immediately stolen by content pirates or distributed over internet file-sharing networks. The problem is particularly problematic for music content, as CD piracy is prevalent in most of the region and made even easier by access to CD-copying devices and illegal people-to-people exchanges over the internet.

Secondly, there is the issue of the property rights attached to content posted online. Here content owners and intellectual property law drafters need to strike a difficult balancing act between encouraging online growth and protecting the rights of content owners. The success of many Web 2.0 services depends on openness and collaboration. For example, many blogger sites build their business by taking content from other online sites where the content may or may not be properly referenced. For established media companies giving access to bloggers and other sources of UGC, this raises issues regarding intellectual property protection and the need to ensure the consistency and accuracy of reported information.

The challenge for copyright owners, or media exchanges that facilitate the distribution of content, is whether the promotional value of content that is spread virally outweighs the potential loss in royalties or subscription revenue. Scraping, (the automated collection of content from websites) is technically difficult to stop since internet technology is designed to be open. Over time, intellectual property issues will increasingly impact content owners in the region.

High-profile intellectual property issues arise from video-sharing sites such as YouTube that have had problems preventing users from uploading copyright material and have been subject to legal action from content owners. The 2007 lawsuit in the United States by Viacom against Google, the parent company of YouTube, was one example of this. Governments face important decisions regarding how intellectual property law for the online world should be drafted and enforced. For example, how should

video sharing sites be required to indentify copyright material, and what time limits should be set for the removal of such material? How these issues are addressed in the region will strongly influence how future value is created in the online world.

Spectrum allocation is another area where policy makers and regulators in the region can support the development of the media sector, but also where there is the risk of wrong decisions inhibiting development. There are an increasing number of broadband services that utilise spectrum. These include satellite and terrestrial television, 3G mobile, mobile TV, broadband wireless access delivered using WiMAX and other technologies as well as the backhaul services used to link base stations and other access network infrastructure.

The move from analogue to digital terrestrial television is an example of where future government spectrum allocation decisions will unlock value. The television world is currently moving from analogue to digital technology for terrestrial broadcasting. Because digital broadcasting technology makes much more efficient use of the spectrum, this switchover will potentially release very large amounts of spectrum for other purposes. This release of spectrum, known as the "digital dividend", is potentially very valuable because the relatively low frequencies that will be released are particularly suitable for the provision of broadband services.

Implications for traditional media

What then are the implications of technology deployment for traditional media companies around the region? The developments outlined in this section are all positive for the sector and suggest that if the right investments are put in place, there is considerable financial potential in the sector.

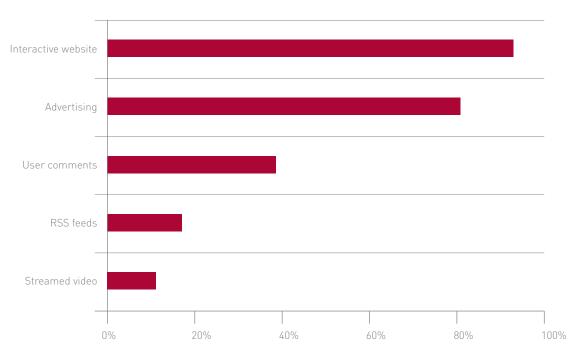
Figure 3.4 shows the results of a PwC survey on the adoption of sophisticated features by a sample of 26 Arab and pan-Arab media websites. We considered five criteria: site interactivity, advertising, RSS feeds, readers' comments and video streaming, which were based on typical websites from mature media markets. The survey indicated that the pan-Arab newspapers were the most advanced in the region in the use of websites. However, it should be noted that none of the sites surveyed

used audio or video podcasts which are growing in popularity due to the ubiquity of MP3 players and smartphones; a good example of a lost opportunity by media owners. The online advertising on the sites was generally restricted to banner advertising although a small amount of Google advertising was observed. As the low numbers of sophisticated website features suggest, there is great potential within the region for traditional media to leverage their content on the internet and develop their revenue stream online.

stations such as LBC group and New TV intend to invest in HD-content production and in the distribution of content via IPTV and distribution to mobile devices. In Oman, *Al Shabiba* has investment plans in the pipeline to invest in news broadcasting over mobile platforms to speed up content delivery. News agencies and newspapers in the region are also recognising the potential of 3G mobile devices for the rapid transmission of news photographs taken by either professional photojournalists in the field or by members of the public.

Figure 3.4

**Criteria adopted by a sample of regional sites*



PwC analysis of online presence of regional newspapers

Interviews conducted for this publication highlighted a strong commitment across the region to investment in digital content creation and distribution. The Qatar News Agency, the Lebanese newspapers Al Balad and As-Safir, the Jordanian newspapers Al Ghad and Ad-Dustour, as well as Arab News from Saudi Arabia have all announced plans to expand their online offering. The Saudi Research and Marketing Group (SRMG) intends to establish an electronic platform that links all its content providers together to create an 'information society' where readers can obtain information anywhere, any time. In the UAE, Al Emarat al Youm, Dar Al Sada and Emirates Business 24/7 plan to focus on digital media and become more interactive online. Lebanese television

The regional investment in mobile broadband and mobile-TV networks has real potential to create value for the content providers, particularly if content providers can syndicate their content across multiple media formats, across multiple channels. In order to realise this potential, content owners will need to collaborate closely with network providers and advertisers. Governments will need to ensure that the policy and regulatory environment is supportive of continued investment.

"SO WHAT DO WE DO NEXT?"

Priorities for traditional media:

- Develop strategies for online and mobile content production and distribution
- Review archive entertainment content and assess potential for mobile distribution
- Repurpose content for distribution to mobile devices
- Develop "snack TV" content for mobile-TV distribution
- Develop best-practice online presences incorporating interactivity, RSS, video etc.
- Strengthen online profiles for star journalists and columnists e.g. using video or audio podcasts
- Enter into content distribution agreements with mobile telecoms operators
- Commence implementation processes for audience measurement
- Initiate dialogues with governments and regulators on the "digital dividend" i.e. the reallocation of spectrum currently used for analogue terrestrial television broadcasting

Priorities for network operators:

- Expand broadband coverage and quality
- Increase the region's connectivity to the global internet
- Build micro-payment payment platforms for digital content

Priorities for government policy makers and regulators:

- Actively monitor global developments in content creation and distribution
- Create the regulatory environment required to encourage broadband investment
- License mobile-TV network operators
- Initiate dialogues with the private sector on the "digital dividend"
- Develop practical training programs for Arabic media professionals at all levels



Methodology for advertising-spend projection 2008-2012

We developed illustrative projections for each of the twelve countries and a pan-Arab category. These covered newspaper circulation and advertising market expenditure for each country and the breakdown of advertising revenue among the main categories of media: television, newspapers, magazines, radio, out-of-home (outdoor and cinema) and the internet.

For revenues, the projections cover the period 2008 to 2012. The 2007 figures are estimated based on the 2006 base-year figures. For circulation, 2007 estimates of actual circulation were used as the base year and projected for the years 2008-2012. For each country, newspaper circulation projections were developed based on the historic 2007 circulation data and considerations of the maturity of the print media, literacy levels and competition from other media, particularly television. Advertising market projections for each country were then developed based on assumptions regarding the relationship between GDP growth and advertising spend growth in each market. These assumptions were derived from considerations of the current macroeconomic environment, the maturity of each market and the probable development of the mass-market consumer sectors that are likely to drive advertising growth. Because of the potential impact on regional media markets of the global economic crisis which emerged during 2008, and the associated fall rapid fall in oil prices in the second half of 2008, we have used relatively conservative assumptions, particularly with regard to the relationship between advertising expenditure and GDP growth.

It should be noted that the advertising revenue data shown in the tables in Section Two are net of estimated discounts and commissions given to advertising agencies by media owners and hence correspond to revenue from the standpoint of the media owners. The magnitude

of these discounts varies across markets and media and is highly commercially sensitive which indicates that publicly available data may not be reliable. This implies that, while the projections provide a useful indication of trends, individual figures are subject to considerable uncertainly and hence comparisons between countries may not be valid.

For the projections we have established different discount rates to be applied to different advertising media including television, newspaper, magazines, out-of-home (outdoor and cinema) and radio. Such information was derived from in-depth industry interviews with media agencies, advertisers and media owners, and aims to provide a more realistic view of the magnitude of the market size and revenues from the standpoint of media owners. We have applied this media-specific discount to all the countries covered, based on the specific country's advertising media split.

We note that public revenue estimates for advertising spend (or revenue) published in the region are generally in gross terms (i.e. before adjusting for discounts). Gross measures are, however, of very limited usefulness as they correspond neither to revenue nor to market spending and therefore we have decided to adjust for the discounts while recognising the uncertainties inherent in this estimate. The 2006 historic data that form the base years for our projections are based on gross figures published by ZenithOptimedia and Pan-Arab Research Centre (PARC). These are then adjusted for discounts as explained above. The estimated figures for 2007 and the projected revenue figures for 2008 to 2012 are extracted from the PwC projection model developed for this project.

The projections for market advertising spend for each of the twelve countries were then analysed among the main categories of media. This was based on a qualitative assessment of the advertising market share prospects of each category of media in each national market. The underlying assumptions were specific to the background of each market and were informed by the country interviews. Online, although not yet well developed in the region, is treated as a separate category except for online newspaper advertising which is included with newspapers.

As robust and consistent data across the twelve countries for the historic revenue breakdowns for 2006 and 2007 (the base years for the projections) are not available, we emphasise that our projections are solely designed to highlight trends and that detailed comparisons of projected figures between countries may not be valid. The projections should certainly not be used as a basis for any form of investment decision. The sources for other data used in this report (nominal GDP, inflation, population, age profiles, television penetration, broadband penetration and mobile penetration) are taken from publicly available sources that are credited in the relevant tables. In some cases it has been necessary to use multiple sources, which means that comparisons across countries may not be valid. For macroeconomic data (nominal GDP and inflation) we have used data published by the IMF as a reputable source of consistent international data.

PricewaterhouseCoopers welcomes comments on the projections and the base year data and, where appropriate, will incorporate suggestions into next year's *Arab Media Outlook*. Please address any comments to ian.sanders@ae.pwc.com.

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