

Key Insights from 2011 and What They Mean for the Coming Year



### Introduction

2011 was a pivotal year for the mobile industry, marked by the dramatic rise of smartphones in the mainstream, the burgeoning of tablets and other web-enabled connected devices, and a cultural shift toward cross-platform digital media consumption. With mobile becoming an increasing part of comprehensive digital marketing strategies, it becomes more important than ever to understand how the current trends are shaping the mobile environment, with an eye to what lies ahead for 2012.

This report examines the mobile and connected device landscape across the mobile markets measured by comScore – primarily the United States, United Kingdom, France, Germany, Italy, Spain, Japan, and Canada – through an exploration of dominant themes in smartphone adoption growth, mobile media use in areas such as social networking and retail, platform ecosystem dynamics, and shifts in multi-device digital media consumption.

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#### DATA NOTE

This report is based on a combination of sources in the comScore mobile suite of products, including behavioral data from comScore Device Essentials, comScore Mobile Metrix 2.0 and GSMA Mobile Media Metrics (MMM). The majority of this report utilizes data from comScore MobiLens, which is based on a nationally-representative survey of mobile subscribers age 13+ in the U.S., and Canada. All monthly data from comScore MobiLens are averaged over for Canada which is currently measured on a monthly basis, and unless otherwise mentioned. Smartphones are defined that use the Google Android, Apple iOS, RIM Blackberry, Microsoft, and other similar platforms. For more information on

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### **Executive Summary**

### SMARTPHONES GAIN TRACTION AMONG 'EARLY MAJORITY' DRIVING MOBILE MEDIA CONSUMPTION

Smartphones gained rapid adoption among mainstream consumer segments across markets. Nearly 42 percent of all U.S. mobile subscribers now use smartphones, along with 44 percent of mobile users across the EU5 (comprised of France, Germany, Italy, Spain, and the UK). Mobile media usage – defined as browsing the mobile web, accessing applications, or downloading content – saw a surge in activity and surpassed 50 percent penetration in many markets, supported by the proliferation of high-speed networks and increased public WiFi availability.

#### SMARTPHONE PLATFORM WARS INTENSIFY AS ANDROID AND APPLE TAKE THE LEAD IN MOST MARKETS

The Google Android and Apple iOS smartphone platforms emerged as the leaders of the U.S. smartphone market in 2011, with Android capturing just shy of half the smartphone market and iOS accounting for nearly 30 percent of the market, ousting other platforms in the process. Android's rapid rise is notable given its relatively recent emergence on the scene. In the EU5, Android saw similarly significant gains, unseating market leader Symbian in 3 out of the 5 European markets measured. But the platform race is far from over as other players fight to reclaim market share. Under new leadership, RIM held on to the leading position in Canada's smartphone market, albeit followed closely by iOS. Microsoft took steps to rebuild its platform share with a Nokia partnership in the works and the launch of its Metro user interface across multiple devices.

### SURGE IN MOBILE APP USAGE SHAPES A DUAL MOBILE BROWSING EXPERIENCE, FUELING CATEGORY GROWTH

Along with the growth in smartphone adoption, investment in mobile applications by publishers has fueled increasing app usage among total mobile users. In 2011, both the U.S. and EU5 saw strong growth in the usage of apps, reaching parity with the mobile browser audience by year's end. Health ranked as the fastest-growing mobile media category in the U.S. in 2011, followed by Retail and other commerce-related categories such as Electronic Payments and Auction Sites.

### 'SMART SHOPPERS' DISRUPT TRADITIONAL RETAIL AS SMARTPHONES ENTER BRICK-AND-MORTAR STORES

More than half of the U.S. smartphone population used their phone to perform retail research while inside a store in 2011, illustrating the emergence of savvy smartphone shoppers who bring online shopping behaviors in-store. At the end of 2011, nearly 1 in 5 smartphone users scanned product barcodes and nearly 1 in 8 compared prices on their phone while in a store. Male and female smartphone users exhibited mobile retail behaviors to differing degrees, as females were more likely to use their devices to share their shopping experience socially while males were more likely to do product research. As mobile retail usage grows not just in the U.S. but also across other markets, retailers face the challenge of understanding how audiences interact with their mobile devices while shopping to take advantage of any opportunities to increase customer conversion.



## **EXECUTIVE SUMMARY**

#### MOBILE DEVICES FUEL SOCIAL NETWORKING ON-THE-GO. DRIVING REAL-TIME ONLINE INTERACTION

With the means to connect on-the-go, mobile users have not only adopted real-time social networking on their devices at a growing rate but they are doing so with increasing frequency. 64.2 million U.S. smartphone users and 48.4 million EU5 smartphone users accessed social networking sites or blogs on their mobile devices at least once in December 2011, with more than half of these mobile social networking users accessing social media almost every day. While mobile social networking users showed the highest propensity to read posts from people they knew personally, more than half of those in the U.S. and nearly half in the EU5 also reported reading posts from brands, organizations, and events. With people increasingly using social networking sites not just to interact with their friends but also with brands and organizations, this platform will only grow in importance for those advertisers seeking to engage their social networking audiences through mobile with location-based services.

### MOBILE CONNECTIVITY AND CONNECTED DEVICES ENCOURAGE CROSS-PLATFORM DIGITAL MEDIA CONSUMPTION AMONG 'DIGITAL OMNIVORES'

Tablets quickly rose in popularity in 2011, taking less than two years to reach nearly 40 million tablets in use among the U.S. mobile population, significantly outpacing smartphones which took 7 years to reach similar levels of adoption. By the end of 2011, nearly 15 percent of U.S. mobile users also had tablets - a trend seen across other markets as well. Combining portability with powerful computing functionality in a sleek, user-friendly package, tablets have emerged as the fourth screen, heralding a shift to an increasingly multi-device lifestyle that is becoming the norm for many consumers we call "digital omnivores" who engage seamlessly with multiple online touchpoints throughout a day. Even when accessing the same content, each device has very different peak usage times throughout a typical day, highlighting their varying use cases and value propositions to the digitally-connected consumer.

### Mobile and Connected Device Landscape

Mobile media usage in the U.S. and UK surpassed 50% in 2011

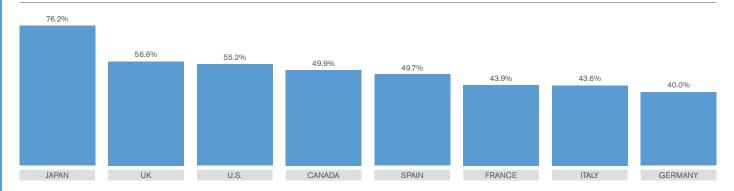
#### **MOBILE MEDIA USE SOARS IN 2011**

2011 saw mobile media use accelerate across markets, fueled by the popularity of smartphones, the growing availability of WiFi paired with the proliferation of 3G and 4G wireless networks, and continuing shifts towards a constantly connected consumer lifestyle. A significant percentage of mobile users reported engaging with mobile media – which is defined as browsing the mobile web, accessing applications or downloading content – with penetration of this behavior increasing 9.2 percentage points across the EU5 (France, Germany, Italy, Spain, United Kingdom) and 11.6 points in the United States.

Among the eight markets analyzed, Japan had the highest penetration of mobile media usage at 76.2 percent in December 2011. The UK followed with more than 56 percent of its mobile population using mobile media, having crossed the 50-percent threshold halfway through the year. Mobile media usage in the U.S. showed similar penetration of 55.2 percent, with more than half of mobile subscribers using mobile media at the beginning of Q3 2011. The strong rise in penetration of mobile media usage and continued adoption of different means of accessing digital content indicate significant opportunity for content creators, publishers and app developers as this behavior becomes even more ubiquitous.

#### Share of Mobile Media Users Across Markets

Source: comScore MobiLens, 3 mon. avg. ending Dec-2011





# MOBILE AND CONNECTED DEVICE LANDSCAPE

#### RISE OF SMARTPHONES DRIVES SURGE IN MOBILE MEDIA CONSUMPTION

The significant increase in mobile media usage can be attributed to the widespread adoption of smartphones throughout 2011. The smartphone audience in the EU5 achieved a significant 44-percent increase to 104 million subscribers, representing 44.0 percent of all mobile users. The U.S. saw an even stronger increase of 55 percent to 98 million smartphone subscribers, representing nearly 42 percent of all U.S. mobile users.

In July 2011, smartphones surpassed feature phones in the U.S. in terms of new mobile acquisitions for the first time, buoyed by the continued development of smartphone models and rollout of more affordable device options –

#### **Smartphone Installed Audience (000)**

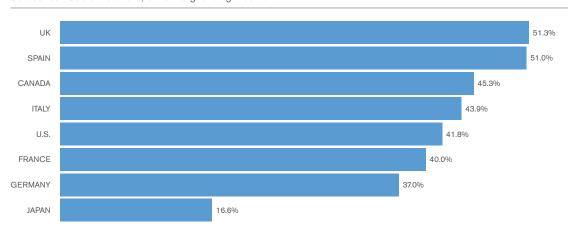
Source: comScore MobiLens, 3 mon. avg. ending Dec-2011

UK	25,386
Spain	17,855
Canada	9,103
Italy	21,067
US	97,865
France	18,788
Germany	21,300
Japan	16,902

particularly on the Android platform – across all carriers. By the end of the year, nearly 60 percent of all recently acquired mobile devices in the U.S. were smartphones, illustrating how pervasive these devices have become among the mobile audience. In comparison, less than 20 percent of new devices acquired were smartphones at the end of Q1 2009.

#### **Share of Smartphone Users Across Markets**

Source: comScore MobiLens, 3 mon. avg. ending Dec-2011





# MOBILE AND CONNECTED DEVICE LANDSCAPE

8% of total U.S. Internet traffic comes from mobile and connected devices

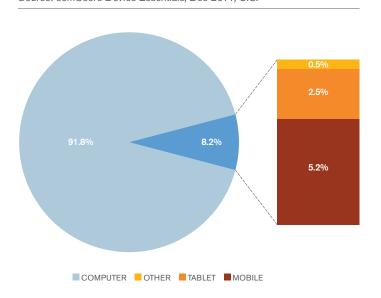
#### MOBILE AND CONNECTED DEVICES GENERATE INCREASING SHARE OF INTERNET TRAFFIC

In 2011, tablets, e-readers and other web-enabled handheld devices – collectively known as "connected devices" – grew in popularity alongside smartphones as they provided consumers with new ways to connect digitally. The rapid adoption of smartphones coupled with the growth of connected device usage ushered a period of expansion for Internet use on-the-go, introducing shifts in online visitation away from "classic web" use on desktop and laptop computers to mobile platforms.

By December, mobile and connected devices were driving approximately 8 percent of observed Internet traffic\* in the United States. Mobile phones drove the majority of the traffic at 5.2 percent, while tablets delivered 2.5 percent of all digital traffic in the market. Other mature technology markets show similar trends in share of Internet traffic coming from mobile and connected devices, illustrating the impact of such devices on Internet use. 2012 will see device manufacturers continue to develop more affordable and innovative connected device offerings, as wireless carriers continue to make significant investments in 4G networks and WiFi hotspots. As the availability of devices and network improvements fuel mobile and connected device usage, we expect to see Internet traffic from these devices secure a growing share of total digital traffic in the year to come - an important trend that will affect the entire ecosystem, including advertisers, publishers, app developers, among others.

\*Internet traffic is measured here and throughout the paper as census-level page view data collected from more than a million domains tagging with comScore.

Share of Connected Device Traffic in the U.S. Source: comScore Device Essentials, Dec-2011, U.S.

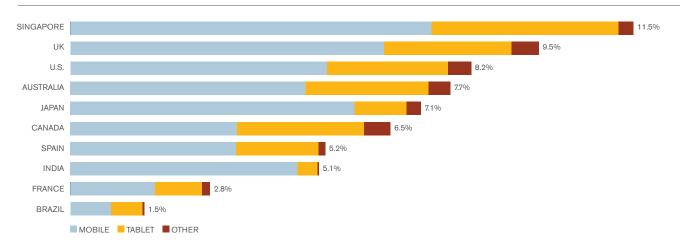




Around the world, similar trends can be seen in varying degrees as mobile phones and tablets increasingly become a gateway to the web. In an analysis of 10 selected worldwide markets, Singapore led in driving the highest share of non-computer Internet traffic at more than 11 percent at the end of the year. The UK followed, with nearly 10 percent of traffic coming from mobile phones, tablets and other connected devices. These two markets also drove the highest percentage of mobile Internet traffic among the markets studied. Japan ranked third in driving mobile Internet traffic at nearly 6 percent. This shift in global device consumption is not only of paramount importance to local brands and digital ecosystems, but also for multinational brands seeking to understand their audiences across borders and across screens.

#### **Non-Computer Traffic for Selected Markets**

Source: comScore Device Essentials, Dec-2011





### **Mobile Handsets**

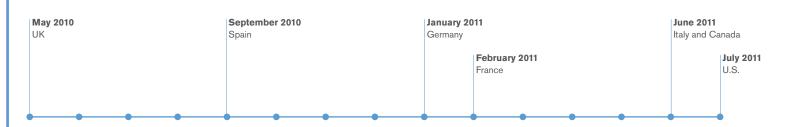
Apple iPhone 4 ranked as top acquired phone in the U.S. and EU5 in 2011

#### SMARTPHONES SHAPE THE GLOBAL DEVICE LANDSCAPE

2011 saw consumers face an ever-growing number of device options to consider when making a mobile phone purchase, particularly when shopping for a smartphone. In the U.S. alone, there were more than 400 smartphone devices on the market at the end of 2011, supplying consumers with a plethora of options when making a purchase. In several markets, smartphones surpassed feature phones to account for the majority of new device purchases for the first time during 2011. During the year, Germany, France, Italy, Canada and the U.S. all achieved this milestone, joining the UK and Spain which passed this threshold in 2010. The UK and Spain, which both see smartphone ownership account for more than half of their total mobile populations, foreshadow the trend that will occur in other markets as smartphone devices make their way into the majority of mobile users' hands during 2012.

#### Smartphones Surpass Feature Phones as the Top Acquired Device Type

Source: comScore MobiLens





Looking at the past year's most acquired devices further demonstrates this device shift, as all five of the most acquired devices in the U.S. and EU5 were smartphones. Apple displayed its strength by ranking in the top three spots in the U.S. and 3 of the 5 slots in the EU5, with the iPhone 4 ranking #1 in both markets. Although not released until October, the iPhone 4S rapidly gained transaction to secure the #4 ranking in the U.S. and the #5 ranking in the EU5 as Apple once again delivered a device instantly popular with consumers.

In the U.S., the BlackBerry Curve 8530 took the #4 spot despite RIM shedding a significant portion of its smartphone share throughout 2011. The HTC – EVO 4G secured the #5 slot and was the only device in the top 5 running the Android operating system, demonstrating that even though Android leads in smartphone platform share, its fragmentation across devices keeps OEMs in a constant competition over platform users. In the EU5, Samsung secured the #3 and #4 spots with the Galaxy Ace S5830 and the Galaxy S II, as Samsung increased its market share in each of the five European markets.

#### Top Acquired Phones in the U.S.

Source: comScore MobiLens, Jan-2011 to Dec-2011

1	Apple iPhone 4
2	Apple iPhone 3GS
3	Apple iPhone 4S
4	RIM - BlackBerry Curve 8530
5	HTC - EVO 4G

#### **Top Acquired Phones in the EU5**

Source: comScore MobiLens, Jan-2011 to Dec-2011

1	Apple iPhone 4
2	Apple iPhone 3GS
3	Samsung - Galaxy Ace S5830
4	Samsung - Galaxy S II
5	Apple iPhone 4S



#### U.S. AND EU SMARTPHONE BUYERS RATE OS BRAND AS VERY IMPORTANT IN THEIR PURCHASE DECISION

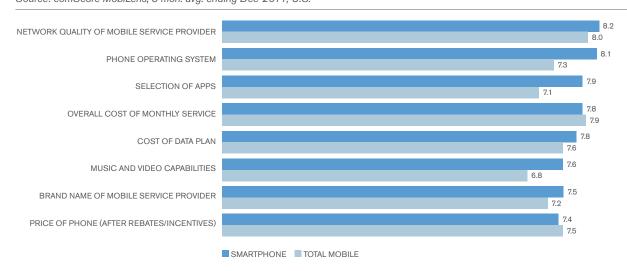
In this rapidly developing and increasingly competitive market, it is critical for OEMs, operating systems and carriers to understand what is driving consumers' mobile purchase decisions. Among both the total U.S. mobile audience and smartphone purchasers exclusively, both segments ranked network quality as the most important factor in purchasing a new device.

For U.S. smartphone purchasers, phone operating system immediately followed with a rating of 8.1 on a 10-point scale, demonstrating the importance of OS brand awareness in purchase decisions. OS was more important for purchasers than handset brand, as consumers placed a higher degree of value on the mobile ecosystem than the phone itself. Further

demonstrating the importance of the ecosystem experience, smartphone owners rated selection of apps and music/video capabilities as significantly more important than the total mobile market. Meanwhile social networking features were less important, falling outside of the top purchase factors for smartphone buyers, despite the overall popularity in accessing social networking sites on mobile devices.

Both the total mobile market and smartphone-specific purchasers rated cost, including overall cost of monthly service and price of phone, at nearly the same importance level, demonstrating that price still reigns as a central factor in nearly all consumers' purchase decisions and will be an important selling point in 2012 and beyond.

U.S. Top Purchase Consideration Factors for Smartphone Purchasers vs. Total Mobile (1-10 scale, 10=most important) Source: comScore MobiLens, 3 mon. avg. ending Dec-2011, U.S.

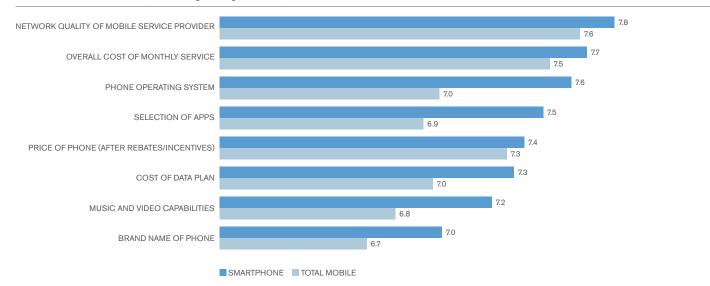




When looking at the EU5, network quality of mobile service provider also ranked as the most important factor when making a purchase decision for both the smartphone and the total mobile market. Compared to the U.S., Europeans ranked cost as relatively more important compared with other factors in their purchase decision, while operating system and selection of apps remained highly important to smartphone purchasers on both sides of the Atlantic.

#### EU5 Top Purchase Consideration Factors for Smartphone Purchasers vs. Total Mobile (1-10 scale, 10=most important)

Source: comScore MobiLens, 3 mon. avg. ending Dec-2011, EU5





Samsung and Nokia handsets account for largest share of device market in North America and Europe

#### TOP OEMS - SMARTPHONES SHAKE UP THE HANDSET MARKET

Across markets, the battle between OEMs continues to intensify, especially among smartphone device makers as partnerships with operating systems and carriers become ever-more strategically important in today's ecosystem.

Analysis across European markets revealed that Nokia accounted for the largest share of total mobile handsets (feature phone and smartphones combined) across four of the five EU5 markets in December 2011, including the UK (24.4 percent), Germany (29.1 percent), Italy (43.8 percent) and Spain (40.7 percent), while coming in second to Samsung in France with 18.5 percent share. Samsung secured more than one-third of the total mobile market in France at 37.9 percent and led in the U.S. (25.3 percent) and Canada (24.3 percent). Apple, which was absent from the top 3 OEM rankings last year, made its way to the #3 position in the UK (13.6 percent) and France (10.1 percent) driven by continued smartphone adoption and the recent introduction of iPhone 4S.

Japan's ranking of top OEM providers did not overlap at all with any of the markets in Europe, Canada or the U.S., highlighting the uniqueness of this market. Sharp led as the top OEM in Japan, securing 24.4 percent of the market, followed by Panasonic (13.6 percent) and Fujitsu (11.5 percent). None of these brands had significant penetration elsewhere.

When looking exclusively at smartphone manufacturers, Apple secured the top ranking in the U.S. (29.6 percent), UK (26.4 percent) and Japan (33.6 percent), Nokia led in Germany, Italy and Spain's smartphone markets, and Samsung commanded the top position in France. RIM, which was the top smartphone operating system in Canada, was also the top handset with 32.6

Top OEMs by Share of Total Mobile Market and Smartphone Market Source: comScore MobiLens, 3 mon. avg. ending Dec-2011

	Tot	Total Mobile		Smartphone		
	Nokia	24.4%	Apple	26.4%		
	Samsung	19.9%	нтс	18.5%		
	Apple	13.6%	RIM	18.3%		
	Samsung	37.9%	Samsung	27.3%		
	Nokia	18.5%	Apple	25.2%		
	Apple	10.1%		15.8%		
	Nokia	29.1%	Nokia	25.1%		
	Samsung	24.3%	Apple	22.2%		
	Sony Eric.	13.5%	Samsung	20.3%		
		43.8%	Nokia	51.7%		
	Samsung	24.2%	Apple	15.8%		
		7.2%	Samsung	14.1%		
	Nokia	40.7%	Nokia	37.2%		
iŽi	Samsung	20.4%	Samsung	17.9%		
	Sony Eric.	8.4%	Apple	11.5%		
	Sharp	24.4%	Apple	33.6%		
	Panasonic	13.6%	Sharp	27.7%		
		11.5%	Sony Eric.	12.8%		
	Samsung	24.3%	RIM	32.6%		
	LG	18.8%	Apple	31.2%		
,	RIM	14.8%	Samsung	11.0%		
5000		25.3%	Apple	29.6%		
		20.0%		16.0%		
	Motorola	13.3%	нтс	14.6%		

percent of the market. With smartphones surpassing feature phones as the most acquired device type in the majority of these markets in 2011, this already heated landscape will only see competition intensify among OEMs and operating systems as they vie to win consumers' investment and their loyalty.

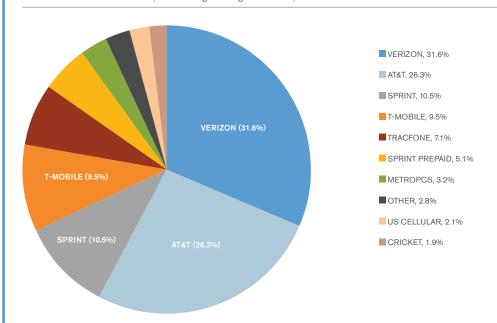


#### SMARTPHONE CARRIER NETWORKS SEE INCREASED COMPETITION

Analysis of the network operator landscape in the U.S. found that the four largest mobile network providers – Verizon, AT&T, Sprint and T-Mobile – combined to account for nearly 78 percent of the total U.S. mobile subscriber market in December 2011. Verizon led the U.S. mobile market as the carrier for 31.6 percent of mobile subscribers. AT&T, which ended its bid to buy T-Mobile USA in December, ranked second at 26.3 percent, followed by Sprint (10.5 percent) and T-Mobile (9.5 percent).

An exclusive look at the smartphone market reveals a different story, with AT&T accounting for the largest share at 33.5 percent, followed closely by Verizon at 30.4 percent share. Verizon grew its share 3.7 percentage points from the previous year, bolstered by its growing menu of smartphone options, including the introduction of a Verizon iPhone in early 2011, which marked the end of AT&T's arrangement with Apple as the exclusive carrier of the iPhone. Sprint, which also saw the iPhone debut on its network near the end of 2011, reached 13.7 percent of smartphone subscribers, while T-Mobile accounted for 11.3 percent of the market.

U.S. Network Operator Share of Total Mobile Market Source: comScore MobiLens, 3 mon. avg. ending Dec-2011, U.S.





### **Smartphone Adoption**

Smartphone adoption surpasses 50% penetration milestone in the UK and Spain

#### SMARTPHONE ADOPTION GAINS ACROSS MARKETS

2011 saw smartphone adoption experience strong gains across much of the developed world. In the U.S. and EU5 markets, smartphone penetration grew at least 8 percentage points and in many cases, significantly more than that. Both the UK and Spain saw smartphone adoption surpass 50 percent penetration, representing an important milestone in the evolution of this market. Meanwhile, the U.S., France, and Italy all saw smartphone penetration surpass 40 percent of the market.

Some key factors accelerating smartphone adoption across these markets are the proliferation of 3G and 4G networks, innovations in device functionality and applications, and aggressive pricing. While the newest models of many high-demand smartphones continue to have higher price points, earlier models are increasingly being offered to consumers at very low costs – or in some cases, for free – with the purchase of a wireless service contract. In the U.S. for instance, Apple currently offers a free 8GB iPhone 3GS with the purchase of a two-year service contract. As smartphones become more accessible for an increasing segment of the market, we should expect adoption to accelerate even faster throughout 2012.

#### **Smartphone Share of Total Mobile Audience**

Source: comScore MobiLens, 3 mon. avg. ending Dec-2011 vs. Dec-2010





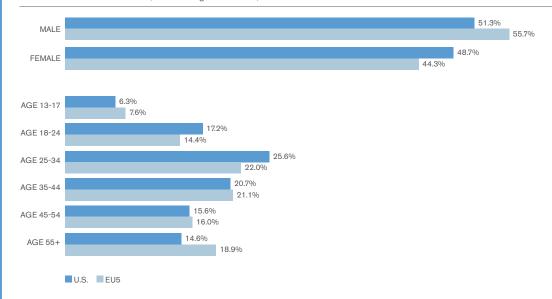
#### **SMARTPHONES MOST POPULAR AMONG 25-34 YEAR OLDS**

Smartphone adoption, while quickly breaking into mainstream consumer segments, continues to be more popular among certain segments of the market. While in the U.S., smartphone users are fairly evenly split among males and females, EU5 markets have a higher incidence of male

users (55.7 percent). In both the U.S. and Europe, 25-34 year olds comprise the largest proportion of the respective markets, followed by 35-44 year olds. Europe has a slightly higher profile of smartphone users age 55 and older, while the U.S. has a higher percentage of 18-24 year old users.

#### Percent Composition of Smartphone Users by Age

Source: comScore MobiLens, 3 mon. avg. Dec-2011, U.S. and EU5



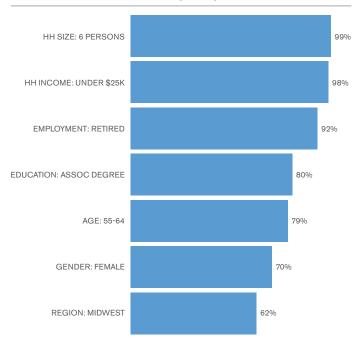


#### FASTEST-GROWING SEGMENTS OF SMARTPHONE ADOPTERS SUGGEST AFFORDABILITY DRIVING GROWTH

The current age and gender dynamics indicate that the smartphone market has not yet fully matured with many demographic segments remaining partially penetrated. While smartphone adoption grew across nearly every demographic segment in the past year, certain segments achieved significantly faster growth than their peers. An analysis of the fastest-growing U.S. demographic segments within age, gender, household income, household size, education and census region paints a vivid portrait of how the market dynamics are changing. The most significant growth (99 percent) occurred among 6-person households, a segment that is typically very cost-conscious due to the household size, which suggests that the proliferation of low-cost smartphones subsidized by carriers with the purchase of a new wireless contract or additional family plan subscriber lines may be driving adoption. This hypothesis is supported by other fast-growing demographic segments, including those making less than \$25,000, retirees, and people age 55-64, all of whom tend to be more costconscious segments. In addition, women and people living in the Midwest are adopting smartphones at a much faster than average rate.

U.S. Fastest Growing Demographic Segments Among Smartphone Users

Source: comScore Mobilens, 3 mon avg. ending Dec-2011 vs. Dec-2010, U.S.



This profile of fast-growing smartphone adopters in 2011 suggests that traditional late adopter segments are the ones climbing aboard the smartphone bandwagon with the most vigor. Although these segments are in many cases still small relative to other segments, their rapid growth trajectory suggests the smartphone market is quickly going mainstream. The increasing affordability of smartphones continues to be an important growth driver, with many Americans now feeling like they are a part of a club that once seemed exclusive.



Android and iOS account for 3 in 4 smartphones in the U.S.

#### ANDROID CAPTURES NEARLY HALF OF U.S. SMARTPHONE MARKET

The U.S. smartphone market has seen significant shifts in market share in the past couple of years with Android and iOS devices gaining share at the expense of everyone else. Android, in particular, has quickly captured a significant percentage of the market and now reigns as the leading smartphone platform at 47.3 percent. Where are all these new Android owners coming from? Data suggest that many RIM users are actually shifting to Android when they purchase a new smartphone. Specifically, of RIM users who purchased a new smartphone in 2011, 31 percent purchased Android phones while 43 percent stuck with a RIM device. Despite being a longtime market leader in the U.S., RIM faced challenges in reacting to rapidly-changing consumer preferences for a better browsing experience, sleeker touch interface, and an expanded app marketplace.

Source: comScore MobiLens, 3 mon. avg. ending Jun-2010 to Dec-2011, U.S.

100%
90%
80%
70%
60%
50%
40%
30%

■MICROSOFT ■SYMBIAN ■PALM ■RIM ■IOS ■ANDROID

U.S. Smartphone Market Share by OS

The iOS smartphone share gains were somewhat more deliberate in nature throughout much of the year, never gaining more than 0.6 percentage points in a month until the end of the year. However, 1.5 percentage points of its 4.6 point gain for the year came in the final two months of 2011 on the heels of the iPhone 4S launch in October. RIM, currently the third leading platform in U.S. market share, has seen the greatest attrition with its market share halving in the past year to 16.0 percent.

20%

10%

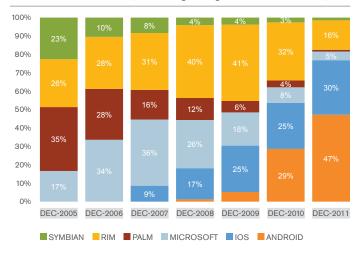
O comscore

2012 will be a significant year in the U.S. smartphone market as adoption soars past 100 million owners and more than half of the market use smartphones as their primary mobile devices. iOS and Android will continue to maintain a stronghold on the platform market with the most advanced ecosystems of apps and complementary products. RIM continues to face a significant challenge in regaining market share, as it promises to address product weaknesses under new leadership. Finally, Microsoft could emerge as a strong contender with its new Metro user interface promising to unify Windows-based phones, tablets, and computers and a partnership with Nokia to serve as the primary platform for its smartphones.

If it looks like Android and Apple are positioned to lock up the smartphone market, one would be well-advised to recall the history of this market and how quickly leadership positions can change. If we travel back in time to 2005, Palm was the smartphone market leader at 35 percent, followed by RIM and Symbian, each with more than 20 percent of the U.S. market. By 2006, Microsoft had grabbed the lead, only to be overtaken by RIM in 2008, which would emerge as a strong leader for the next few years. In 2011, Android vaulted into the lead while Apple solidified a strong #2 position. While the lead has switched hands numerous times over the course of the entire history of the U.S. smartphone market, Apple has never claimed that mantle.

U.S. Smartphone Market Share by OS Expanded Trend

Source: comScore MobiLens, 3 mon. avg. ending Dec-2005 to Dec-2011, U.S.



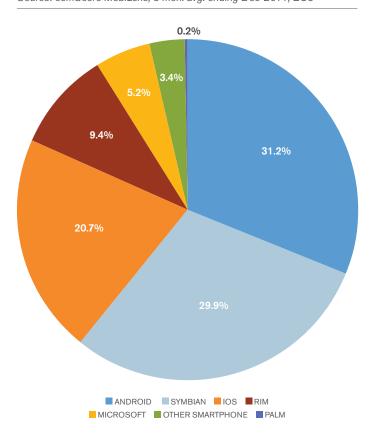
What does the future of the U.S. smartphone market look like? One could argue that the emergence of apps and more well-developed ecosystems around particular platforms might create a higher degree of customer lockin and help the leaders maintain and even extend their positions. While Microsoft overhauls its platform and user interface and aligns with Nokia, and as RIM aims to reboot under a new CEO, the only thing we know is that we just can't be sure how this rapidly changing market will play out.



#### ANDROID GRABS TOP POSITION IN EU5 SMARTPHONE MARKET

The European smartphone market has seen significant shifts in market share in the past couple of years with Android and iOS gaining share at the expense of other platforms. In recent months, Android captured the top position from Symbian in the EU5 and has seen substantial share gains across each of the markets in the past year. Overall, Android's EU5 market share jumped from 12.0 percent in December 2010 to 31.2 percent in December 2011. Symbian, meanwhile, has seen its market share erode in each of these markets but is still maintaining the leading position in Italy and Spain. iOS has mostly maintained or slightly extended its market share across Europe. Despite accounting for a smaller percentage of the smartphone market, RIM actually expanded its market share in Europe in the past year, despite losing significant share in the U.S.

EU5 Smartphone Market Share by OS Source: comScore MobiLens, 3 mon. avg. ending Dec-2011, EU5



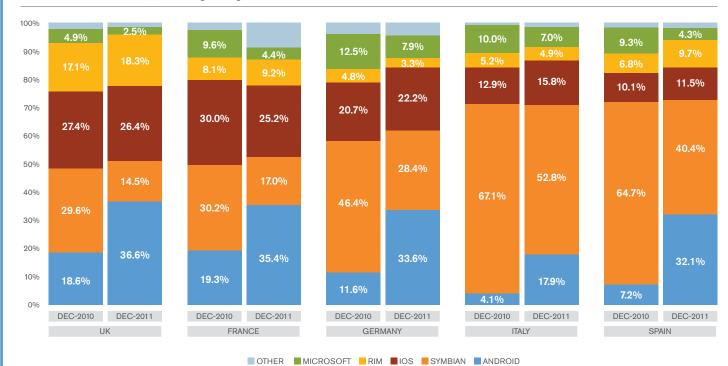


The European market may prove to be especially competitive in the coming year given the migration of Nokia phones to the Microsoft platform. If Nokia can maintain a similar market share in the OEM market, then Microsoft will establish itself as a very strong third platform in Europe to contend against the likes of iOS and Android. This platform

triumvirate promises the emergence of three robust app ecosystems that will benefit consumers but might force difficult choices among app developers. RIM also should not be discounted, particularly in the UK. Such competition is likely to propel even greater operating system and app innovation.

#### **EU5 Smartphone Market Share by OS**

Source: comScore MobiLens, 3 mon. avg. ending Dec-2011 to Dec-2010



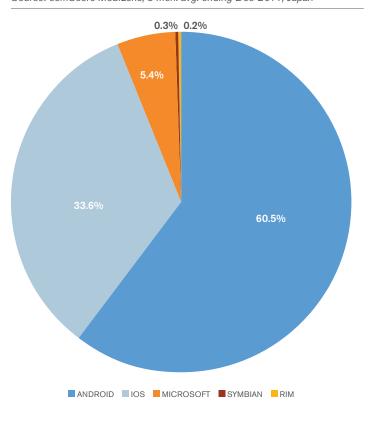


#### SMARTPHONE MARKETS IN JAPAN AND CANADA HAVE DIFFERENT COMPLEXION

comScore introduced measurement of the mobile market in Canada during 2011 and in Japan during 2010, highlighting these two markets' unique industry dynamics in smartphone usage. The market in Japan is particularly interesting in that smartphones currently represent just 17 percent of the market – far below what is seen for the North American and European markets reported by comScore. However, the Japanese market is unique in that consumers have long had access to advanced phone capabilities through feature phone offerings exclusive to the Japanese market, presenting an initial barrier to entry for smartphones.

Today, Japan's smartphone market is heavily dominated by the Android and iOS platforms, with the two combining for 94.1 percent of the smartphone market. Microsoft was the only other platform with any notable slice of the market at 5.4 percent. While smartphone penetration still remains low in this market, we should expect to see the numbers climb substantially in the next year given continuing innovations made to smartphone functionality and the wide availability of these devices at more affordable price points.

Japan Smartphone Market Share by OS Source: comScore MobiLens, 3 mon. avg. ending Dec-2011, Japan





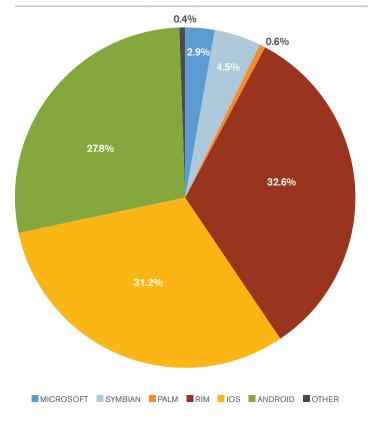
Canada was the only smartphone market reported by comScore in which RIM still maintained the lead

Meanwhile, Canada also shows a very different complexion than most other markets due to the strength of the RIM/Blackberry platform. In fact, with 32.6 percent of the market, Canada was the only smartphone market reported by comScore in which RIM still maintained the leading position. Also notable is that the iOS platform (31.2 percent market share) held a slight advantage over Android (27.8 percent). Symbian (4.5 percent) and Microsoft (2.9 percent) rounded out the top five platforms.

While RIM currently maintains the top position in Canada, the market dynamics are shifting and its hold is tenuous at best. Apple looks poised to assume the top position during the first few months of the year, though Android could surprise and get there first. Over the past six months, RIM has lost 6 percentage points of market share with most of it going to Android. It should be noted, however, that RIM's January appointment of a new CEO likely signals some upcoming strategic changes that may result in more innovative product offerings. Should this change in leadership and enhancement in product offerings prove successful, RIM's home market Canada represents perhaps the best opportunity to stem the tide and regain lost market share.

Canada Smartphone Market Share by OS

Source: comScore MobiLens, Dec-2011, Canada





### **Mobile Media Consumption**

In the U.S. and EU5, mobile app audience growth exceeded that of mobile browser growth

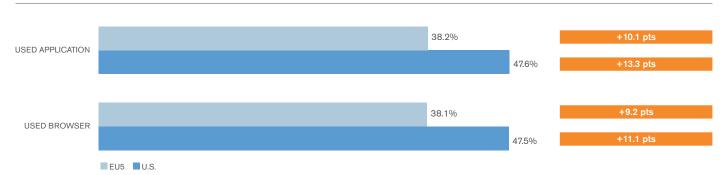
#### APP AND BROWSER AUDIENCES REACH PARITY AS DUAL ACCESS METHODS SHAPE USERS' EXPERIENCE

At the conclusion of 2011, more than 127.6 million mobile users in the U.S. and 108 million users in Europe consumed mobile media through their mobile browser or applications, with both geographies seeing nearly 30 percent increases in these audiences. In 2011 both geographies saw mobile app audience growth exceed that of mobile browser growth, as smartphone adoption and growing app options fueled a

surge in app users. In December 2011, 47.6 percent of the total mobile audience in the U.S. used apps, an increase of 13.3 percentage points, while 47.5 percent used mobile browsers, up 11.1 points. In Europe, 38.2 of the total mobile audience accessed mobile media via application, up 10.1 percentage points, while 38.1 percent used their browser (up 9.2 points).

#### Percent Share of Browser and App Users Among Total Mobile Audience

Source: comScore MobiLens, 3 mon. avg. ending Dec-2011 vs. Dec-2010



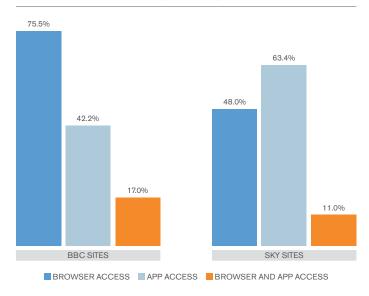


Apps and mobile browsers offer brands distinct ways to engage with their audiences. Analysis of two news brands in the UK, BBC Sites and Sky Sites, found mobile access methods vary significantly between the two. Three of four visitors reached BBC Sites via their mobile browser, while more than two in five (42.2 percent) accessed content via mobile apps. In comparison, Sky Sites, which launched its mobile app nearly a year prior to the BBC, witnessed 63.4 percent of its visitors access content via mobile apps and just 48 percent of the Sky Sites mobile audience accessing via mobile browser, demonstrating how app adoption influences the relationships between these two access methods.

For both brands, a substantial percentage of their respective mobile audiences accessed content via both app and mobile browser, highlighting the importance of both channels for mobile media consumption. In December, 17 percent of mobile visitors reached BBC Sites through a combination of app and browser usage compared to 11 percent of Sky Sites visitors.

### UK Mobile Access Method by Share of Total Visitors to BBC Sites and Sky Sites

Source: comScore GSMA MMM, Dec-2011, UK





Facebook app ranks as #3 most popular app for iPhone and #4 for Android users

#### GOOGLE APPS MOST-VISITED BY BOTH IPHONE AND ANDROID USERS

Apps are a critical component of the mobile media ecosystem, playing an important role in consumers' mobile device purchase decision while shaping their engagement with mobile media content. A look at the top U.S. mobile apps, using comScore's forthcoming Mobile Metrix 2.0 behavioral mobile audience measurement product, found that Google-owned apps led across both iPhones and Android devices in terms of total unique active users. For iPhone users, YouTube ranked as the top app by unique visitors, followed by Google Maps, Facebook, Yahoo! Weather and Pandora Radio. Analysis of the Android market found that Google Search led as the top app, followed by Gmail, Google Maps, Facebook and Google News & Weather. Other top apps among both ecosystems include popular games such as Angry Birds and Words with Friends. Both platforms saw Twitter join Facebook as the only other social network to crack the top 15 ranking.

U.S. Top Mobile Apps for iPhone and Android by Unique Active Users (Age 18+)

Source: comScore Mobile Metrix 2.0, Beta Data, Dec-2011, U.S.

iPhone Top Mobile Apps	Android Top Mobile Apps
YouTube	Google Search
Google Maps	Gmail
Facebook	Google Maps
Yahoo! Weather	Facebook
Pandora Radio	Google News and Weather
Angry Birds	YouTube
Yahoo! Stocks	Pandora Radio
ESPN ScoreCenter	Angry Birds
The Weather Channel	Adobe Reader
Google Search	Words With Friends
Words With Friends	Twitter
Netflix	Yahoo! Messenger
Fruit Ninja	Amazon Appstore
Twitter	Yahoo! Mail
Movies by Flixster	Google Talk
Facebook Messenger	The Weather Channel



#### 1 IN 3 NORTH AMERICANS ACCESS SOCIAL NETWORKS ON THEIR PHONE

Analysis of the top mobile (feature phone and smartphone) activities across the U.S., Europe, Canada and Japan revealed varying degrees of mobile content usage and preferences. Americans and Canadians showed the strongest propensity to access social networks and blogs on their mobile phones with more than one in three mobile users doing so in the U.S. (35.2 percent) and 31.2 percent of Canadians doing so. Americans were also most likely to access maps and news on their phone with 1 in 4 engaging in these behaviors in December 2011.

Europeans were the heaviest texters with nearly 85 percent sending a text message during the month of December. Europeans were also most likely to use their phone to capture video and listen to music with more than 1 in 4 doing so. In Japan, mobile users demonstrated a high affinity for content consumption, leading the four geographies in mobile media use. Across the markets studied, Japanese mobile users were most likely to access email on their phones with nearly 3 in 5 doing so during December, while 17.9 percent accessed financial news/stock guotes.

Selected Mobile Activities by Share of Total Mobile Audience

Source: comScore MobiLens, 3 mon. avg. ending Dec-2011

	U.S.	EU5	Canada	Japan
Sent text message	74.3%	84.4%	69.2%	44.4%
Took photos	60.3%	59.8%	55.1%	63.9%
Used email	40.8%	30.0%	35.9%	57.3%
Accessed social networking/blog	35.3%	25.7%	31.2%	19.6%
Accessed weather	35.2%	23.2%	29.8%	35.1%
Played games	31.4%	27.5%	30.8%	15.3%
Accessed search	29.5%	20.4%	25.6%	30.8%
Accessed maps	26.5%	18.2%	21.6%	19.4%
Accessed news	25.5%	20.0%	20.1%	24.3%
Listened to music	23.8%	27.4%	23.0%	13.3%
Accessed sports info	21.8%	16.5%	16.0%	19.7%
Accessed financial news or stock quotes	15.1%	11.3%	11.4%	17.9%
Accessed online retail	12.2%	8.2%	6.1%	10.0%



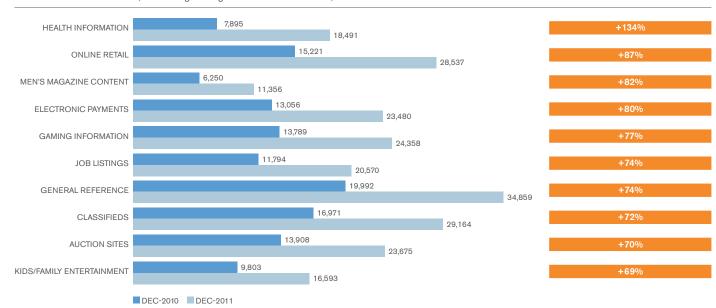
Analysis of the fastest-growing activities for mobile users in the U.S. showed that consumers increasingly turn to their devices for retail and commerce, a trend that many analysts would highlight as among the most important stories for 2012. The disruptive force of mobile in the retail environment provides brands with a significant opportunity to reach customers through a highly personal digital channel while at the same time posing a challenge, as consumers increasingly consult their new favorite shopping companion – their smartphone – inside stores. In December 2011, 28.5 million mobile users accessed online retail content on their mobile devices, up 87 percent from the previous year and

showing no signs of slowing in the year ahead. Commerce-related content, including Electronic Payments (up 80 percent), Classifieds (up 72 percent), Auction Sites (up 70 percent) and Shopping Guides (up 67 percent), all realized strong gains over the past year.

Health Information has continued to gain popularity for mobile users leading as the top-growing content category in 2011, surging 134 percent to reach 18.5 million U.S. mobile users as this emergent category amassed a significant audience base. With more mobile health startups entering the field and traditional health information providers improving their mobile strategies, we expect to see this area develop even further in 2012.

U.S. Top Mobile Categories by Growth in Audience (000)

Source: comScore MobiLens, 3 mon. avg. ending Dec-2011 vs. Dec-2010, U.S.





More than half of the U.S. smartphone population used their phone to shop while in a brick-andmortar store

#### SMARTPHONES POISED TO BECOME CONSUMERS' FAVORITE SHOPPING COMPANION IN 2012

The rise of mobile retail has become both an on-screen and in-store phenomenon. More than half of the U.S. smartphone population used their phone to perform retail-related activities while in a brick-and-mortar store, bridging the gap between the physical and digital worlds. This dynamic has created what some have deemed "retailers' worst nightmare" as they are forced to directly compete with others for the sale while the customer is inside their store.

The retail industry, which already experienced an upheaval with the advent of online shopping, is poised for further disruption as smartphones enter brick-and-mortar stores, bringing the Internet right onto retailers' home turf and further complicating customer conversion. For retailers, this environment demands true prowess in order to understand how consumers are using these devices while in stores. The challenge for retailers will be to develop marketing strategies that recognize how their audiences are using mobile devices while shopping and

look for new opportunities to use these mobile habits to their advantage. Retailers that fail to address this shifting shopping paradigm in 2012 risk losing dollars as savvy smartphone shoppers become a reality across many global markets.

A look at the most popular in-store smartphone behaviors, found that 1 in 5 U.S. smartphone owners took a picture of a product while in store and nearly the same number texted or called family or friends about a specific product. Nearly 1 in 5 scanned a product barcode, while 12.1 percent of all smartphone owners used their phone to compare product prices while in a store. Finally, nearly 10 percent used their device to find coupons or deals.



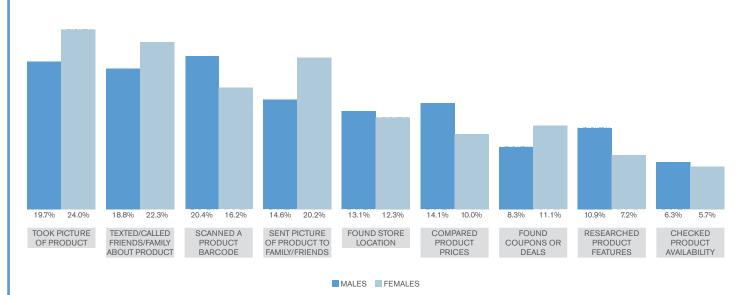
Males and females displayed differing patterns of smartphone shopping behavior. Females were more likely to use their smartphone to make shopping a more social experience as they engaged in behaviors such as taking product pictures (24 percent), sending these pictures to friends/family (20.2 percent) and calling/texting family or friends about a specific product (22.3 percent). Males were more likely to use their smartphone to find information, with male respondents reporting to have scanned a product barcode (20.4 percent),

compared prices (14.1 percent), and researched product features (10.9 percent).

The rising trend seen for the smartphone shopping companion is not limited to the U.S. In Canada, 53 percent of smartphone owners used their phone for retail-related activities in a store, while Spain, bolstered by its strong smartphone penetration, saw 52 percent of smartphone owners engage with their phone while shopping.

Share of U.S. Smartphone Owners Performing Activities in Retail Store

Source: comScore MobiLens, 3 mon. avg. ending Dec-2011, U.S.





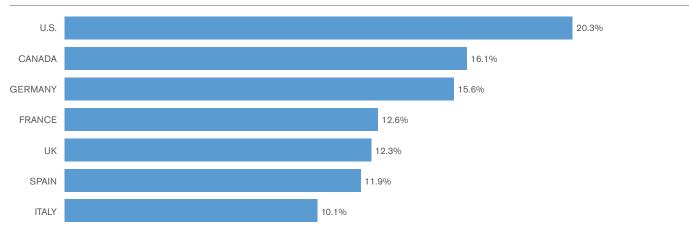
#### OR CODES LINK MOBILE TO TRADITIONAL MARKETING MEDIA

During 2011, QR codes came onto the scene as a way to bridge mobile and traditional media across various mediums including print publications, product packaging, outdoor kiosks and more. A QR ("Quick Response") code is a specific matrix bar code (or two-dimensional code) that is readable by smartphones. In December 2011, 1 in every 5 smartphone owners in the U.S. scanned a QR code with

their phone, leading Canada and European markets as the top scanning market. Canada and Germany both saw near 16 percent of smartphone owners scanning QR codes during the month, while the UK and Spain (home to the most penetrated smartphone markets) saw just 12 percent of their audiences scanning QR codes.

#### Percent of Smartphone Audience that Scanned a QR Code

Source: comScore MobiLens, 3 mon. avg. ending Dec-2011





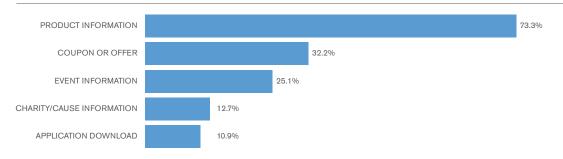
Of those U.S. smartphone owners that scanned a QR code in December 2011, the most popular source of scanning was product packaging (done by 42 percent of the scanning population), while the most popular location for scanning was at home (done by 57 percent of scanners). Product information was the most popular result of scanning a QR code with nearly 3 in 4 of the scanning audience directed to product info. Nearly one-third of those that scanned a QR code resulted in a coupon or offer, while 1 in 4 received event information.

QR codes demonstrate just one of the ways in which mobile marketing can be integrated into existing campaigns to help reach desired consumer segments and further bridge the gap between mobile and traditional marketing strategies at relatively low risk and investment for brands. But in order for it to become a truly effective marketing tool, marketers must understand how consumers are engaging with these codes and how these codes can complement marketing strategies to create another connection point with consumers.



Source: comScore MobiLens, 3 mon. avg. ending Dec-2011, U.S.

\*Percentages will not sum to 100% as respondents may select more than one source of QR code scanned





In the U.S. and EU5, more than half of mobile users accessing social networks did so on a near daily basis

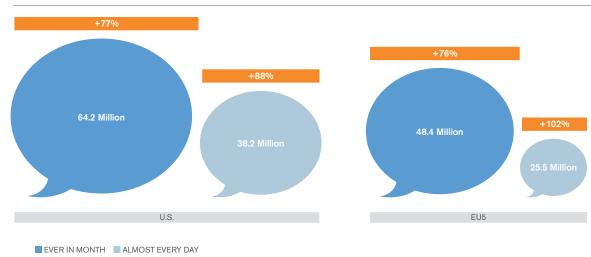
#### MOBILE SOCIAL NETWORKING SURGES IN U.S. AND EU5

2011 saw the continued rise of social networking via smartphone devices and the increasing frequency of this behavior. In the U.S., 64 million smartphone owners accessed social networking or blog destinations via their mobile device in December 2011, an increase of 77 percent from the previous year, while 48.4 million consumers

accessed social media in Europe, an increase of 76 percent. In both markets, more than half of mobile social networkers accessed these destinations on a near daily basis demonstrating the increasingly central role mobile media plays in consumers' daily lives.

#### **Accessed Social Networking or Blog via Smartphone**

Source: comScore MobiLens, 3 mon. avg. ending Dec-2011 vs. Dec-2010





In both the U.S. and EU5, the most popular social networking activity was reading posts from people known personally (84.6 percent of U.S. smartphone social networkers and 79.5 percent of EU5), followed by posting status updates (73.6 percent U.S., 65.2 percent EU5).

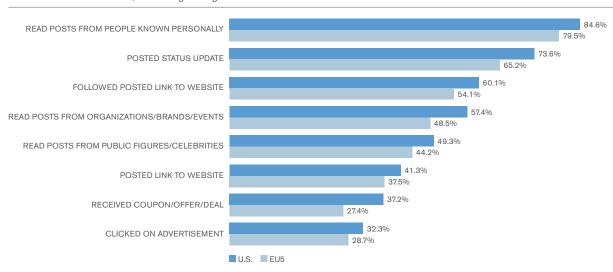
Mobile social networkers also were likely to interact with brands on these sites, with more than half of U.S. users (57.4 percent) reading posts from organizations/brands/ events, while nearly half did so in the Europe. U.S. users were more likely to receive a coupon/offer/deal via social networking sites (37.2 percent) and click on advertisements while social networking (32.3 percent), when compared to mobile social networkers in the EU5. These insights demonstrate the immense opportunity for social networks to

monetize their mobile platforms and the potential for brands to engage with their audiences through these channels. As Facebook gears up for its 2012 IPO and attention turns to mobile as an incremental monetization channel, it appears likely that the mobile advertising market will blossom in the year ahead.

Social networking is poised to play an increasingly important role in the mobile ecosystem in 2012, not just for people to connect with their friends, but also for brands and advertisers to connect with consumers. With a growing portion of mobile users already engaging with branded content via social networks this platform will only continue to grow in importance, particularly for those advertisers utilizing location-based services to engage friends and followers on-the-go.

#### Smartphone Social Networking Activities by Share of Social Networking Audience

Source: comScore MobiLens, 3 mon. avg. ending Dec-2011





### **Tablets and Multi-Platform Consumption**

Nearly 1 in 6 U.S. mobile subscribers own a tablet

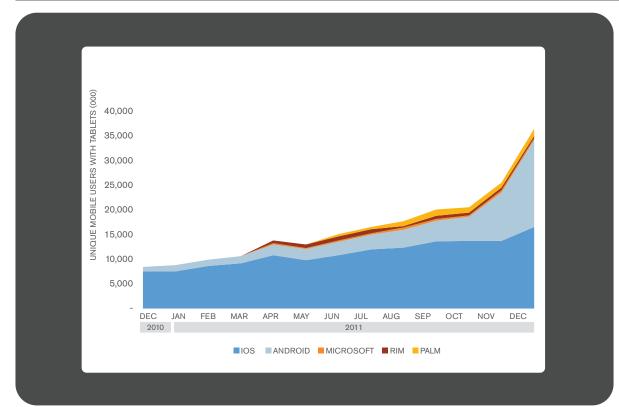
#### **EXPONENTIAL TABLET ADOPTION IN 2011 USHERS IN ERA OF CONVERGENT CONSUMPTION**

Tablets were a pivotal force in the mobile space in 2011 as they provided consumers a unique mobile user experience, combining portability with powerful computing functionality while offering a screen size more reader-friendly than a smartphone. While tablets were introduced to the mass market just a few years ago, these devices are rapidly reaching critical mass in the consumer marketplace. In less than two years, nearly 40 million tablets were in use among mobile subscribers in the U.S., outpacing smartphones which took 7 years to achieve the same level of adoption.

#### The Rise of Tablets in the U.S.\*

Source: comScore MobiLens, Dec-2010 to Dec-2011, U.S.

\* Among unique mobile users in the U.S. age 13+





One factor contributing to the growth in popularity of tablets over the past year was the continued development of new tablet options catering to multiple price points and audiences. 2011 saw of the release of numerous tablets across multiple platforms, including the Apple iPad 2, Samsung Galaxy Tab, Amazon Kindle Fire, and Barnes & Noble NOOK.

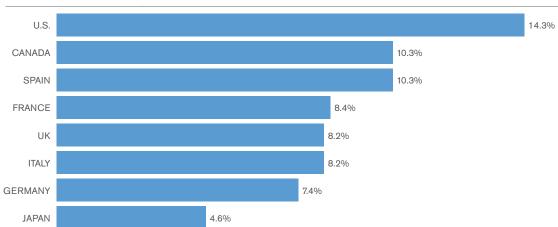
It is important to note that as tablets gain popularity among users, they are not replacing mobile phones or computers. Rather, it would seem that tablets are supplementing a multidevice diet that is increasingly becoming the norm among consumers. As smartphones, tablets, and other connected devices provide the means to connect outside of homes and workplaces, these devices have changed the way many consumers seek information, communicate, and engage online. While smartphones may have provided consumers with a first taste of mobile Internet connectivity, tablets have furthered

the rise of the "digital omnivore" – consumers who now go about their days engaging seamlessly through multiple online touchpoints.

To illustrate this trend, an analysis across markets reveals that a growing percentage of mobile subscribers now own tablets in addition to their phones. The U.S. has the highest percentage of mobile subscribers who own tablets at more than 14 percent. Canada and Spain followed with approximately 10 percent of mobile subscribers in both countries reporting owning tablets. Across EU5 markets, 8.3 percent of all mobile subscribers reported having a tablet device. As more tablets promise to hit the mainstream in 2012, it is highly likely that the percentage of tablet ownership among mobile subscribers in these markets will rise. For more insights into cross-platform consumption in the European digital environment, read our recently-released report on Connected Europe: How Smartphones and Tablets are Shifting Media Consumption.

## Percent of Mobile Owners That Also Own a Tablet

Source: comScore MobiLens, Dec-2011



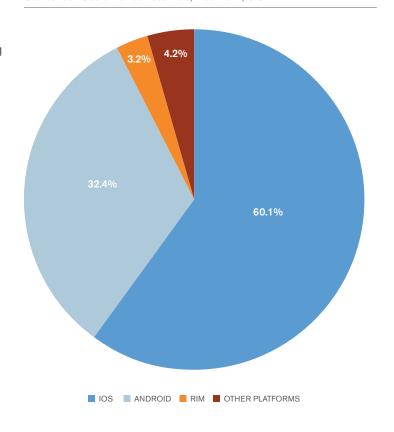


### APPLE IOS ECOSYSTEM DRIVES MAJORITY OF CONNECTED DEVICE TRAFFIC

For a holistic understanding of the mobile, tablet and connected device landscape, it is important to look at the reach of the various platforms shaping this landscape. Through an analysis of each platform's overall share of Internet traffic, one can see how these platforms are driving and changing digital media consumption.

An analysis of Internet traffic flowing through classic web devices (such as desktop computers or laptops), mobile phones, and connected devices in the U.S. shows that while Google's Android OS has taken the lead in terms of mobile device market share in the U.S., Apple iOS continues to account for the highest share of traffic across the board. By the end of 2011, iOS was driving 60.1 percent of all connected device traffic in the U.S. from iPads, iPhones, and iPod Touches. In contrast, the Android OS accounted for only 32.4 percent of traffic.

U.S. Connected Device Digital Traffic Market Share by OS Source: comScore Device Essentials, Dec-2011, U.S.



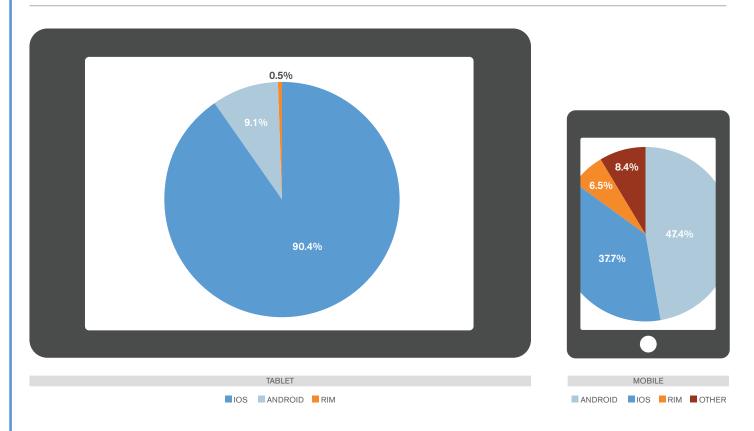


A closer inspection of the types of devices driving the most traffic within these platforms shows that iPads drove more than half of all iOS traffic – a significant percentage that not only considerably increases overall iOS traffic share, but is also noteworthy considering that iPhones have been around much longer than iPads.

### **OS Share of Device Traffic**

Source: comScore Device Essentials, Dec-2011, U.S.

A breakdown of tablet traffic by platform indicates that iOS has a substantial lead, driving 90.4 percent of all tablet traffic in December 2011. While the Android platform still contributes only a fraction of tablet traffic at the moment, it is highly probable that this percentage will increase in 2012 with the increasing popularity of new Android tablets such as the Kindle Fire and continued development of tablets meeting a lower price point and catering to various audience needs.





WiFi connections drove 40% of mobile Internet connections and 92% percent of tablet Internet connections in the U.S.

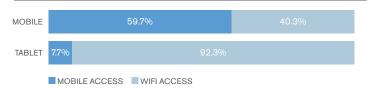
# CONNECTIVITY ON-THE-GO FLOURISHES WITH INCREASED WIFI AVAILABILITY

One key trend that has been pivotal in shaping the mobile and connected device landscape is the growth in connectivity options available to consumers away from home and work locations. In recent years, WiFi connections have become more commonplace not just at home, but also in public spaces such as libraries, coffee shops, and airports. In December 2011, WiFi connections drove 40.3 percent of mobile Internet connections and 92.3 percent of tablet Internet connections in the U.S. In this illustration, it is interesting to note that despite the availability of data plans providing Internet access to mobile users, a significant portion of traffic from mobile devices still come through WiFi connections. This could be due to multiple factors, such as consumer desires to save on data plan fees or needs for higher data transmission capacities met by WiFi connections. Regardless of the reason, with 40 percent of all mobile Internet traffic coming over this channel, WiFi remains a key connectivity channel for mobile users.

Tablets tell a somewhat different story. As tablets provide a convenient means for users to connect and engage frequently in online activities such as social networking, online gaming and the like, mobile broadband plans have emerged as popular options catering to heavy tablet users. However, only 8 percent of tablet traffic currently comes via mobile broadband. As tablets continue on their upward climb in 2012 and mobile broadband plans become more accessible, it is highly likely that the share of mobile broadband traffic seen over tablets will rapidly increase and may eventually reach levels consummate with mobile phones.

# Connection Type by Device in the U.S.

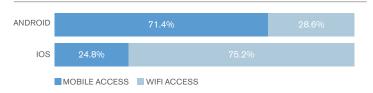
Source: comScore Device Essentials, Dec-2011, U.S.



There are some notable differences in connection types driving traffic by operating systems. 75.2 percent of all Internet traffic coming from iOS devices comes through a WiFi connection, while 71.4 percent of Android traffic come through mobile broadband access – virtual mirror images of one another. Until recently, iOS devices – particularly the iPad – led the market in offering a better browsing and entertainment experience, leading to heavier content consumption that can account for a significant share of traffic coming through WiFi on the iOS platform. But with more innovative Android tablets on the rise in 2012 and tablet data plans becoming more popular across the board, it is possible that these connection dynamics will look very different in the coming months.

# Connection Type by OS in the U.S.

Source: comScore Device Essentials, Dec-2011, U.S.





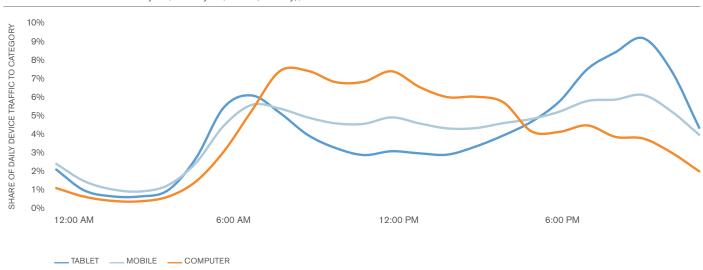
### CONNECTED DEVICES ENCOURAGE CROSS-PLATFORM MEDIA CONSUMPTION

An analysis of Internet traffic to properties within the Newspaper category throughout the course of a day offers a glimpse into how tablets and other connected devices are changing the way consumers access and engage with online information. Since the advent of the Internet, the newspaper industry has had to adapt to changing demands from consumers now able to turn to the Internet for quick and convenient access to real-time news updates from a variety of sources. As audiences now increase their consumption of information across multiple platforms, it becomes more important than ever for newspaper companies and those in similar industries to understand the dynamics of such varied media consumption.

Different patterns of relative consumption appear across the three main device categories driving traffic to Newspaper sites, showing that consumers are likely to turn to different devices for news at various points in a day. On a given weekday, mobile phones and tablets drive less traffic to Newspaper sites in the middle of the workday relative to the total traffic these devices drive to these sites in a day. In contrast, computers display higher relative consumption of Newspaper traffic in this period, as most people spend the majority of this time on weekdays interacting with their computers.

# Share of U.S. Device Page Traffic for the Newspaper Category Over a Day (Weekday)

Source: comScore Custom Analytics, January 24, 2012 (Tuesday), U.S.





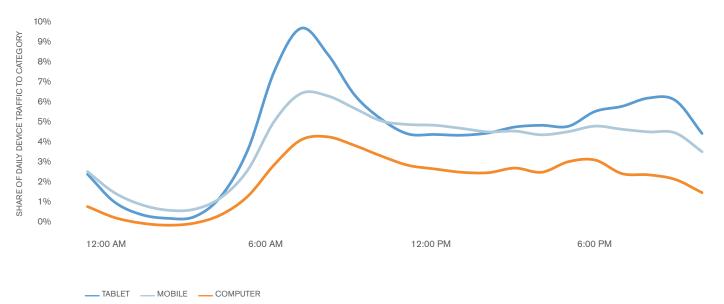
The trend for Newspaper site consumption on tablets shows highest relative use in the evening, just before midnight. This indicates that tablet owners are most likely to turn to their tablets for news late in the evening after unplugging from their computer screens and before getting ready to turn in for the night. Mobile devices, on the other hand, display a moderately steady trend for relative news consumption through the day, suggesting that people turn to their phones for news in small, regular doses as they move from location to location throughout the day.

The relative traffic trends for weekend news consumption paint a different picture. Computers drove less relative news consumption throughout the day, compared to tablets and mobile devices. Tablet use saw significantly higher relative use in the morning, as tablet owners were more likely to browse news leisurely through these devices on a weekend morning.

These differing trends highlight how consumers depend on a variety of devices to consume information depending on their needs at the moment – broadly illustrating an overall shift toward cross-platform digital media consumption through multiple device touchpoints. In 2012, it will be interesting to see how such digital media consumption habits continue to be shaped by tablets and connected devices to be released.

Share of U.S. Device Page Traffic for the Newspaper Category Over a Day (Weekend)

Source: comScore Custom Analytics, January 28, 2012 (Saturday), U.S.





# 2012: Putting the Future in Focus

# CONCLUSION

### MOBILE ECOSYSTEM BATTLE BECOMING A WAR

The competition between operating systems is poised to intensify in 2012 as brands compete for the tens of millions of consumers that will adopt smartphones during the year. In 2012, expect smartphone penetration to cross the 50 percent threshold in the U.S., Canada and EU5, with the UK and Spain already reaching this milestone during 2011. In both the U.S. and Europe, operating systems already play a critical role in device purchase decisions, ranking just under network quality in importance. With smartphone ecosystems constantly growing in sophistication and offerings, expect consumers to put increasing weight in this factor when making their purchase decision.

Operating systems are not only competing for first-time smartphone owners, but also for the loyalty of their current audience base, as attractive offers from carriers and improving features from competitors are constantly putting market share at risk. As seen with RIM, which shed half of its U.S. market share in the last 12 months, competition is fierce and market position can drastically change in a very short period of time in this rapidly evolving mobile landscape.

Android and iOS are set to define the smartphone landscape in 2012 as both delivered solid performances across North America, Europe and Japan during the past year, teeing up what some envision as a two-horse race in 2012. Fighting an uphill battle, the year will be critical for both RIM and Microsoft, as both brands attempt to

rejuvenate their OS in the minds of consumers. RIM, which led the smartphone market from 2008 to the end of 2010, appointed a new CEO as it attempts to halt attrition and regain its leadership position in consumers' consideration set. Microsoft, which started off 2012 with the release of the highly publicized Nokia Lumia 900, could emerge as a strong contender with its new Metro user interface promising to unify Windows-based phones, tablets, and computers and a partnership with Nokia to serve as the primary hardware partner for its smartphones.

In 2012, platform wars will also extend beyond the smartphone screen, as tablet adoption continues to surge while driving a growing share of digital media consumption across the globe. Apple has largely dominated the narrative in the tablet market, but the status quo is set to be challenged as devices such as the lower-cost Android tablets offer consumers a more affordable alternative to the iPad.

With brands waging battle to raise awareness and capture loyalty, the true winner in this war will be the consumer, benefitting from the innovative technology and price cuts wrought by this competitive landscape.



2012: Putting the Future in Focus

## TABLETS - THE FOURTH SCREEN IS GOING MAINSTREAM

Tablets are taking their place as the fourth screen in consumers' lives, joining TV, PCs and smartphones as the gateway to digital media consumption. Tablet adoption rapidly ascended in the past year, fueled by a growing number of devices coming to market, which created a wide variety of options available for today's tablet consumer. Among the most important trends that defined tablet adoption at the end of 2011 and will be critical in shaping 2012 is the rise in affordable tablet devices that cater to various price point considerations. The U.S. release of the Kindle Fire and NOOK Tablet was a critical turning point in the mass adoption of tablet devices, bringing to market the first tablets that combined an affordable price point with competitive specs anchored by a strong brand, already established distribution channels and major marketing dollars. This lower price point is critical in bringing tablet devices to the mass market and will be integral to this competitive landscape in 2012.

Although facing growing competition, the iPad still reigns as the leader in the tablet space and will look to solidify its position with the much anticipated release of a new version of the iPad in 2012. Although the iPad's higher price point keeps it out of the consideration set for some consumers, Apple's loyal following of 'fanboys' and its highly-publicized product launches will no doubt make the new iPad among the most talked about product releases of 2012.



2012: Putting the Future in Focus

## MIND THE DIGITAL OMNIVORE

The surging global adoption of smartphones and tablets is changing the how, when and where consumers connect to digital content, creating the most dramatic shift in digital media consumption since the advent of the personal computer. Understanding today's multi-device consumer, aka the 'Digital Omnivore,' will be increasingly important for advertisers and publishers in 2012 with an eye on the two critical factors to building effective digital strategies: the incremental effect and platform cannibalization.

The incremental effect of smartphones and connected devices on reach and engagement is often substantial, especially for those categories such as news and entertainment that lend themselves particularly well to the mobile and tablet environments. For publishers, this means the potential to reach incremental audience and deliver more advertising. For advertisers, understanding unduplicated audiences across these various platforms will be critical to optimizing campaigns. For both publishers and advertisers, understanding how these devices are shifting content engagement will provide a more complete picture of today's digital consumer and further inform the allocation of digital dollars and resources.

But while these incremental opportunities abound with emerging platforms, they will likely serve as disruptive forces to current paradigms. As consumers develop preferences for using new devices in instances where they once relied on other platforms, existing monetization streams are disrupted and may not be adequately replaced by the emerging channel. In 2011 we observed the marked decline of such categories as webmail, weather, maps and others on the classic web, as audiences have turned with increasing frequency to their mobile devices for these activities. Digital commerce continues to take share from traditional retail channels, a trend that will only accelerate with smartphones entering retail stores and tablets becoming a preferred source of late-night surfing. We will also see the continued transition from physical products such as CDs and books to digital content.

The incremental effect and potential for cannibalization point to the rising importance of understanding complementary device usage in the coming year. Devices influence the way people consume content and it is important to remember that they do not exist in isolation of one another, but rather have a complementary relationship in consumers' lives. Understanding how consumers behave across multiple environments is the key for businesses to stay ahead of the curve and ensure their digital businesses minimize the effects of disruption and maximize the incremental opportunities.



2012: Putting the Future in Focus

## MOBILE DISRUPTING THE TRADITIONAL RETAIL SALES FUNNEL

Smartphones have become consumers' most-valued shopping companion, a trend that is poised to continue in 2012 as smartphone adoption surges past 50 percent in many markets. What has been referred to by some as retailers' worst nightmare, smartphones are bringing the power of the Internet right into brick-and-mortar stores, arming consumers with the pricing power that was once reserved for the confines of their home or work online shopping experience. With just a few swipes on their touchscreen, consumers are now able to compare prices, locate a store that offers a better deal, read reviews, send product photos and more, all while standing within arms' reach of a product on the shelf and within feet of the checkout, defying the old adage that getting shoppers in the store is half the battle in making a sale.

Not only are smartphones influencing the physical shopping world, these devices, along with tablets, are disrupting the traditional sales funnel. It is not uncommon for a consumer to call upon multiple devices before completing a purchase. They may browse products on their smartphone on the commute to work, research prices on their tablet while curled up in bed for the night, and finally complete the purchase on their PC at work the next day. This new paradigm means that for traditional retailers' to successfully navigate this changing landscape in 2012 they must build strategies that address audiences across these devices throughout their shopping and purchasing process, or risk losing that customer's sale to the savvy retailer who looks for the interception by being in front of the consumer at every step of the sales funnel.



2012: Putting the Future in Focus

# CONSUMERS READY TO HIT PLAY ON MOBILE VIDEO

Fueled by 4G adoption, device advancements and app proliferation, mobile video is poised to be an increasingly prominent activity for mobile users in 2012. In the U.S., 4G subscribers are 33 percent more likely to watch mobile video on their smartphone than an average user, demonstrating the critical role 4G networks will play in bringing video to the small screen for mass mobile consumption. Similarly WiFi hot spots continue to spring up offering mobile consumers an increasing number of opportunities to engage with mobile video on-the-go and in turn engage with mobile ads, which will be a growing component of the mobile video landscape and its monetization.

Beyond content videos, the emergence of video communication is changing not only how people communicate with their phone, but also how OEMs themselves are evolving to address shifting consumer behaviors. With video chat on the rise, more handsets are integrating front-facing cameras into their devices to support this communication activity as mobile phones evolve from much more than their original voice-to-voice purpose.



# **Methodology and Definitions**

This report utilizes data from the comScore suite of products, including comScore MobiLens, comScore Device Essentials, GSMA MMM and comScore Mobile Metrix 2.0.

## **COMSCORE MOBILENS**

comScore MobiLens provides market-wide insight into mobile digital media consumption, brand-level audience metrics, and details of device ownership and technology penetration. Using proprietary data collection methods, we survey nationally representative samples of mobile subscribers age13+ in the U.S., UK, France, Germany, Spain, Italy, Canada, and Japan. The MobiLens sample is substantial enough to provide projected data for sub-segments as small as 1 percent of mobile subscribers. The MobiLens' sampling and survey methods undergo extensive analysis and market validation including comparisons to known network operator market shares, leading handset model shares, downloading activity, and other usage metrics.

For 2011, the following represent the estimated monthly survey completes by market utilized for this report:

- U.S.: 10,000 mobile phone owners
- UK and Germany: 5,000 mobile phone owners
- France, Spain and Italy: 4,000 mobile phone owners
- Canada (reported quarterly): 5,000 mobile phone owners

For more information, please visit: www.comscore.com/Products Services/Product Index/MobiLens

## **COMSCORE DEVICE ESSENTIALS**

comScore Device Essentials provides insight into digital traffic share across all devices worldwide, offering detail into device characteristics, connection type, and category consumption. The product is based on the comScore Unified Digital Measurement (UDM) approach, measuring browser-based page views coming from computers, mobile, and other connected devices to more than one million domains tagging with comScore. Device Essentials also utilizes the comScore Client Focus Dictionary to segment connected device usage into content categories.



For more information, please visit: www.comscore.com/Products\_Services/Product\_Index/Device\_Essentials

# METHODOLOGY AND DEFINITIONS

## **GSMA MOBILE MEDIA METRICS (MMM)**

GSMA Mobile Media Metrics (MMM) is a partnership between the GSM Association (GSMA), comScore, and the UK's 4 mobile operators: O2, Vodafone, EverythingEverywhere and 3UK. MMM provides a census-level solution for mobile media reporting, taking irreversibly anonymised mobile internet usage data from 3 of the 4 UK mobile operators. The census data collected from the operators is ascribed with demographic data collected from a permission-based sample of mobile users. MMM delivers key market-level mobile web visitation and engagement metrics, as well as usage figures for connected apps.

For more information, please visit: www.comscore.com/Products Services/Product Index/GSMA Mobile Media Metrics MMM

### **COMSCORE MOBILE METRIX 2.0**

comScore Mobile Metrix 2.0 provides direct and continuous monitoring of actual U.S. consumer behavior on smartphones across the Android, iOS and RIM platforms for mobile users age 18 and older. Utilizing comScore's Unified Digital Measurement approach, Mobile Metrix 2.0 combines panel and census measurement to provide a comprehensive picture of mobile activity across browser and application usage including metrics such as unique visitors, reach, frequency and duration as well as demographic insights in order to best understand today's smartphone audience. The product is currently available in beta.

For more information, please visit:

http://www.comscore.com/Products Services/Product Index/Mobile Metrix

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