


Critical Mass

The Worldwide State of the Mobile Web

Nielsen Mobile

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Introduction

It is increasingly difficult to talk about the Internet, or media and marketing in general, without the conversation quickly turning to mobile phones.

40 million mobile subscribers in the US, plus millions more across Europe and Asia, surf the web through a mobile phone each month—checking email, exploring their social networks, making bank transactions and engaging in other web activities right from their hands.

How has mobile Internet so quickly become part of the consumer media experience for millions? Through a confluence of essential factors in mobile Internet adoption and use, mobile Internet reached a critical mass this year, offering a large and diverse enough base of users to support large-scale mobile marketing efforts.

By no coincidence, consumer devices, networks, data packages, content and interest have come together to turn the mobile Internet into a mass medium that deserves the close attention of marketers and media companies.

This paper pulls from Nielsen's broad portfolio of mobile research to provide an overview of the mobile Internet market in 2008 and the opportunities it presents.

We look closely at the universe and demographics of mobile Internet users, their devices, the cost of accessing the mobile Internet in the US, the sites and categories that are emerging as leaders on the mobile Internet, the relationship of PC and mobile Internet consumption, customer satisfaction, network quality and the state of the advertising opportunity in the mobile Internet space.

Key Takeaways

- The US, UK and Italy are leaders in mobile Internet penetration. 15.6 percent of mobile subscribers in the US, 12.9 percent of subscribers in the UK and 11.9 percent in Italy actively use the mobile Internet
- We believe mobile Internet has reached a critical mass as an advertising medium in the US. As of May 2008, there were 40 million active users of the mobile Internet in the US, with individual sites that attract millions of unique users. This provides scalable marketing potential with demographic breadth.
- Unlimited data packages are an important part of the growth of the mobile Internet and are increasingly popular with US consumers. Today 14 percent of US wireless subscribers have unlimited data packages, and 50 percent of data users say they would prefer to have such a package.
- 3G networks are greatly improving the quality of the mobile Internet experience and will help drive customer satisfaction with mobile Internet. 3G networks perform up to six times faster on data throughputs used for mobile Internet than 2G and 2.5G networks.
- Yahoo! Mail is the most popular mobile website in the US, with 14 million unique visitors per month, as of May 2008
- Mobile Internet provides audience "lift"—added reach over home PC traffic, at an average of 13% for leading mobile websites in the US
- As mobile Internet publishers build out an advertising inventory, advertising is becoming a common part of the mobile Internet experience: 26 percent of mobile Internet users recall seeing some form of advertising while using the mobile Internet. Mobile Internet users are 60% more likely to be open to mobile advertising than the average mobile data user.

Methodology

Nielsen Mobile, a service of The Nielsen Company, collects data on the mobile consumer and market through a range of industry-leading methodologies.

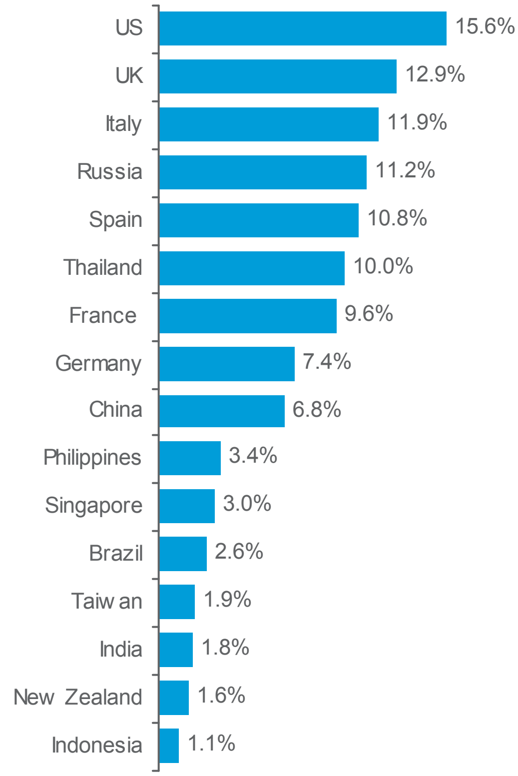
This year, Nielsen Mobile will:

- survey more than one million mobile subscribers worldwide
- analyze mobile bill behavior through an opt-in bill panel representing 50,000 US wireless lines
- analyze network voice and data quality through drive tests that annually take our testing fleet over one-million miles around the US
- monitor advertising expenditures and messaging of the leading US carriers through our Nielsen sister company, Monitor-Plus
- electronically meter the wireless activity of a panel of mobile phone users

These methodologies are the source of the insights contained in this analysis.

While Nielsen's research extends to over 100 countries globally, the mobile Internet experience varies greatly by country. This paper focuses primarily on the US opportunity, where the embedded base of users and the number of content creators presents the largest advertising opportunity.

Chart 1.
Mobile Internet Usage Penetration Across Sixteen Measured Countries (Q1 2008)



Source: Nielsen Mobile

The U.S., U.K, and Italy are Leaders in Mobile Internet Penetration

Nielsen currently tracks mobile Internet penetration in 16 countries. Among these countries, the US leads in mobile Internet penetration among wireless subscribers with 15.6 percent, followed by the UK (12.9 percent) and Italy (11.9 percent).

Of the countries tracked, Indonesia and New Zealand have some of the lowest mobile Internet penetration rates—just 1 out of 100 Indonesian subscribers uses the mobile Internet each month, and just 1.6 percent of New Zealand's mobile subscribers do so. (See Chart 1)

40 Million Strong in the U.S.

In the US, Mobile Internet has become a mass medium. As of May 2008, there were 40 million active users of the Mobile Internet in the US, based on past 30-day usage. And this is just a subset of the 95 million US mobile users who subscribed to the service but do not necessarily use it.

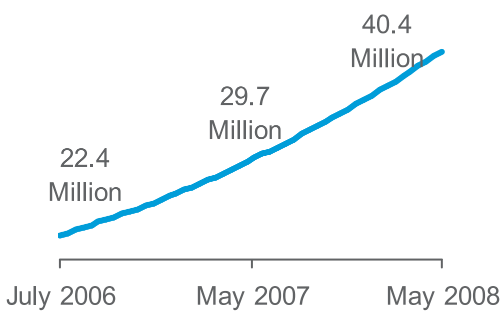
To break it down:

- There were 254 million US mobile subscribers in Q1 2008, according to CTIA, the wireless industry trade group
- According to Nielsen, 144 million (57%) US mobile subscribers were data users in Q1 2008 (defined as those subscribers who used their phone for any data use, be that SMS text messaging or accessing the mobile Internet)
- 95 million (37 percent) US mobile subscribers paid for access to the mobile Internet, either as part of a subscription or transactionally
- 40 million subscribers (15.6 percent in May 2008) were active users of mobile Internet services, using those services at least once on a monthly basis
- Mobile Internet use accounted for $1.7 billion in revenue in Q1 2008 (more than $5 billion in total revenue in 2007)

The number of US subscribers who paid for mobile Internet increased 28 percent between the first quarter of 2007 and the first quarter of 2008 (from 74 million to 95 million). The number of monthly unique users of the mobile Internet increased 73 percent from May 2006 (23.4 million) to May 2008 (40.4 million). (See Chart 2)

While the ongoing portion of mobile subscribers who have a mobile Internet subscription but do not use the service seems alarming, note that mobile Internet access is often included as part of a larger mobile media package. Through bundling, users may be either unaware or disinterested in the Internet access that is provided as part of that package. Though these users represent pure profit to the carriers from a mobile Internet perspective, they also pose a risk of churn, potentially leaving their operator if they become dissatisfied with a service they pay for but do not use.

Chart 2.
Active Users of Mobile Internet in the US



Source: Nielsen Mobile

Fixed Costs – Unlimited Data

While consumers are, on average, paying more to access the mobile Internet, a growing number of consumers access the Internet through unlimited data plans. By driving adoption and usage, unlimited data plans indirectly strengthen the mobile Internet and mobile web marketing opportunity.

As of Q1 2008, the average US mobile Internet subscriber paid $11.00 per month to have mobile Internet service, either independently or as a portion of a larger package price (for example, a larger package that may also include mobile video or access to a mobile application store). $11.00, as the average price paid to access mobile Internet, is up nearly two dollars from the year prior, when the average mobile Internet subscriber paid $9.22 for that access, either independently or as a portion of a larger package.

Increasingly, consumers are turning to all-you-can-eat data plans that allow them to access the mobile Internet as frequently as they'd like, for a fixed cost. As of Q1 2008, 14 percent of US wireless subscribers had a wireless plan that provided unlimited access to the mobile Internet, up from 10 percent in Q1 2007.

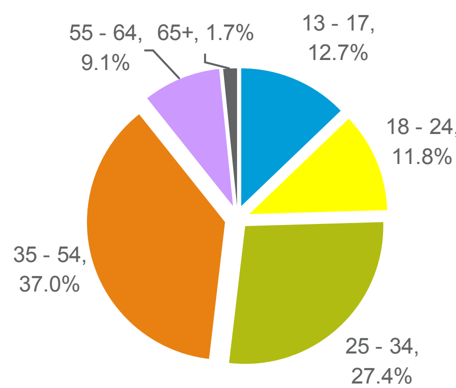
Fixed-fee, unlimited data use is the preferred subscription model for mobile data users. As of Q4 2007, 50 percent of mobile data users said they would prefer a fixed-fee unlimited data model, considerably more than favored the alternatives, such as fixed-fee limited (2 percent) or pay-per-use (1 percent). Still many subscribers prefer "other" pricing models, leaving the door open for creative data pricing solutions from the operators.

US carriers are now marketing their data and voice services together more often. In Q1 2008, the top carriers shifted a portion of their voice-only and data-only marketing dollars to advertisements that promoted both voice and data services, according to Nielsen Mobile's Advertising Insights service. Advertising promoting both services accounted for 59 percent of carrier advertising expenditures in Q1 2008 compared with 52 percent in Q1 2007.

A Demographically Diverse Audience

The audience using mobile Internet today is demographically diverse enough to present marketing opportunities for all types of products and services.

Chart 3.
US Mobile Internet User Profile (May 2008)



Source: Nielsen Mobile

As of May 2008, the US mobile Internet audience (over the age of 13) is about evenly split between those over the age of 35 (48 percent) and those under the age of 35 (52 percent). Additionally, there are approximately as many teenagers using the mobile Internet as there are persons over the age of 55 (5.1 million persons age 13–17 and 4.4 million persons 55 and older). (See Chart 3)

The audience was still slightly more male than female—56 percent of Mobile Internet users are male and 44 percent are female. The male bias of mobile Internet use is consistent across markets and is most pronounced in Germany, where 75 percent of mobile Internet users are male. In general, Internet users in European markets skew more male than those in the US: 66 percent of mobile Internet users in the UK and Spain are male, and 63 percent of users in France and Italy are. In Brazil, Russia, India and China, as well, males are more likely than females to browse the mobile Internet.

The mobile Internet audience is not, as some expect, overly concentrated in high-income households, either. While 24 percent of all mobile Internet users have household incomes of $100,000 or more, approximately the same portion of mobile Internet users have a household income of under $50,000 (26 percent).

Dozens of Capable Phones

Consumers access the mobile Internet through a broad range of devices. In fact, many cite the diversity of handsets and operating systems as one of the key challenges to the growth of the platform.

Overall, the Motorola RAZR series phones are the most owned devices among mobile Internet users in the US. Today, one in 10 US mobile Internet users accesses the web over a RAZR device. This reflects the RAZR's prominence in the handset market overall, where it accounts for 11 percent of all handsets in the embedded base of mobile users.

After RAZR series phones, Apple's first generation iPhone is the second most popular device among mobile Internet users, used by 5 percent of all US mobile Internet users (compared to just 1 percent of the total embedded mobile universe). Research In Motion's BlackBerry Pearl series, Research In Motion's BlackBerry 8700 series and Motorola's Q series phones are the next most used phones among mobile Internet users (each used by 2 percent of the mobile Internet audience). (See Table 1)

While the RAZR devices are the most popular amongst mobile Internet users in the US, Nokia phones are the most widely used by mobile Internet users internationally. The Nokia N95 and Nokia N70 are the most popular with Internet users in Europe, while the Nokia N72 is tops in China, the N73 is the most popular handset for mobile Internet users in India, and the Nokia 3250 is the most popular among users in Russia. (See Table 2)

Tables 1 and 2.

1. Top Devices – Mobile Internet Users (US), Q1 2008

	Device	%
1	Motorola RAZR/RAZR2	10%
2	Apple iPhone	4%
3	RIM BlackBerry 8100 series (Pearl)	2%
4	RIM BlackBerry 8800 series (8820, 8830)	2%
5	Motorola Q Series (Moto Q, 9h, 9c, 9m, Q Glo	2%

2. Top Devices – Mobile Internet Users (EU) , Q1 2008

	Device	%
1	Nokia N95	5%
2	Nokia N70	4%
3	Motorola RAZR/RAZR2	3%
4	Sony Ericsson K800i	3%
5	Nokia N73	3%

Includes France, Germany, Italy, Spain, Sweden U.K. mobile Internet users

Source: Nielsen Mobile

While the iPhone is the second most popular device among mobile Internet users, we believe the device's impact is amplified by the increased awareness its marketing campaign and buzz has driven. As a result, demand for advanced data services and more robust mobile media-focused handsets has increased. iPhone users, a small but growing segment of the overall mobile audience, are unique in their mobile behavior. For instance, 82 percent of iPhone users access the mobile Internet, making them five times as likely to do so as the average mobile consumer.

Which came first: the iPhone or the iPhone user? To date, the iPhone population has self-selected through price point as early adopters, they are über media consumers. As the price point lowers for this device and penetration increases to include more average consumers, the high data usage of iPhone users may be diluted. At the same time, we expect that the powerful user interface and increasing network speeds will continue to change the behaviors of many iPhone purchasers. Fundamentally, the iPhone, and competitive devices, will also affect consumer expectations for phone capabilities.

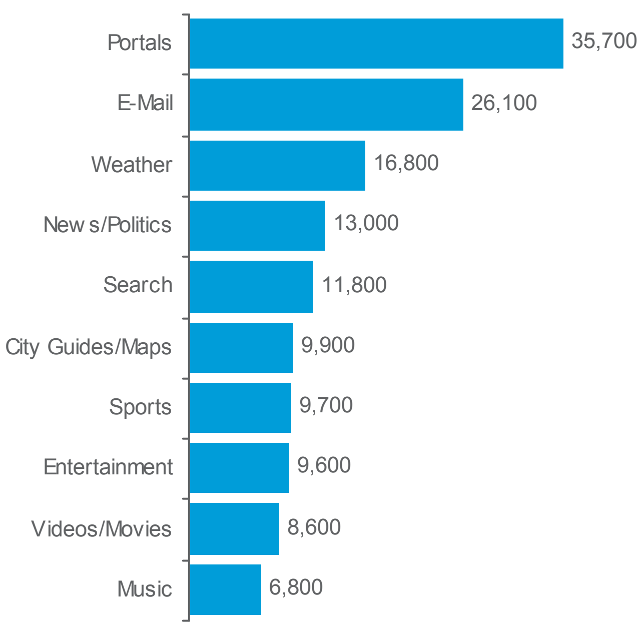
What more do mobile Internet users want from their devices? Mostly longer battery life. Mobile Internet users tell us that improved battery life is the single most important enhancement to be made to their mobile device: 38 percent of mobile Internet users say this is the most important feature that will improve their experience, followed by larger screen size (22 percent), more memory capacity (21 percent) and better data inputs (20 percent).

Familiar Names Lead on the Mobile Internet

Many brands are already succeeding in attracting large audiences on the mobile Internet, expanding the reach opportunity for mobile marketing.

While carrier portals (also referred to as “decks”) provide users with links to specific websites, most mobile Internet users actively seek out websites to visit. 40 percent of mobile Internet users say they find the sites through search engines, 22 percent say they type in the URL directly (underscoring the importance of mobile optimized or redirected sites) and 18 percent say they find the sites through their favorite links. Still, 17 percent of mobile Internet users say they find the sites they visit through their carrier’s portal.

Chart 4.
Top Mobile Web Categories (May 2008, US)



Source: Nielsen Mobile

On the mobile Internet, categories such as search, news, weather and sports perform well, as expected, but emerging mobile categories such as social networking and banking are attracting sizeable and growing audiences.

Portals, with brands such as Yahoo! and Google, were the most popular category of mobile websites as of May 2008. 36 million unique mobile Internet users (89 percent of the mobile Internet audience) accessed portals over the mobile Internet. Email is the next most visited category with 26 million unique users in May 2008 (65 percent of the mobile Internet audience).

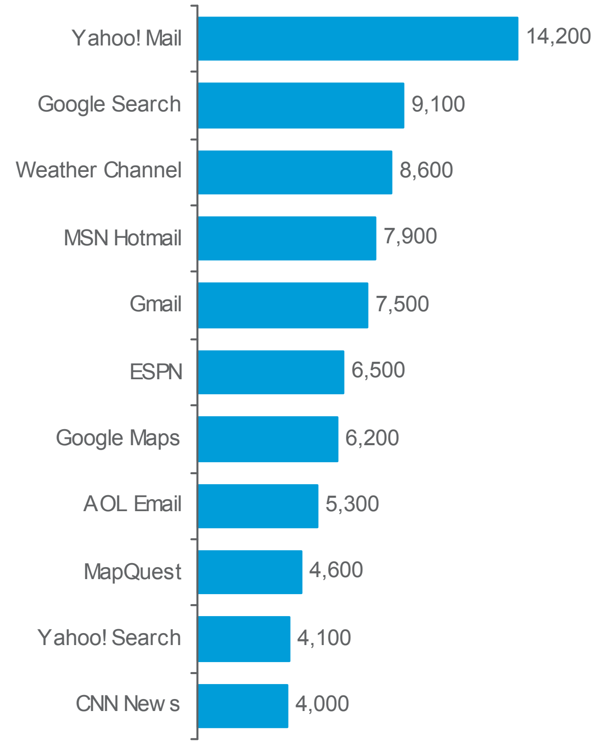
In the coming year, the audience for mobile search, social networking and mobile banking should expand as publishers in each of these categories enhance their offerings and consumers show a growing interest in accessing such content over their mobile phone. As of May, there were already 12 million active users of mobile search, 5 million users of social networks and 5 million users of mobile banking websites. (See Chart 4)

Mobile Internet users do not visit nearly the same number of individual sites as Internet users do over the PC. Nielsen Online reports that the PC Internet user visits more than 100 domains per month, on average. By contrast, the average mobile Internet user in the US visited 6.4 individual websites per month in Q1 2008. This is slightly higher than with UK mobile users (5.5 per month) and German users (4.4 per month), but lower than in Italy where, on sophisticated handsets, mobile Internet users visit an average of 8.2 individual websites per month.

In the US, Yahoo! Mail has the largest unique audience of any mobile website. As of May, Yahoo! Mail had 14 million unique monthly users. To put it differently, one third of US mobile Internet users access Yahoo! Mail over their phone each month. These users average 21 visits a month at a self-reported average of 10 minutes per visit.

Google Search and The Weather Channel are the next most popular mobile websites. Each month, 9 million mobile subscribers access Google Search, and 9 million mobile subscribers access The Weather Channel over their mobile phones. (See Chart 5)

Chart 5.
Top Mobile Web Channels (May 2008, US)



Source: Nielsen Mobile

Mobile Extends the Reach for Some Categories

As publishers consider taking their content mobile and marketers consider the added value of partnering with a website's mobile presence, we believe the mobile Internet bolsters the reach for some categories and sites.

For 200 leading websites accessed on both PCs and phones, Nielsen reports that mobile traffic provides an average 13 percent lift on total audience over home PC traffic alone. That is to say, if a website is able to attract 100 visitors over the home PC, the traffic from mobile phones can add, on average, another 13 unique visitors to the site's total cross-platform audience.

Weather and entertainment sites have the largest audience lift from mobile—more than 20 percent, on average. Nielsen Online and Nielsen Mobile have collaborated to produce TotalWeb, a service that reports this audience lift and overlap at the individual website level.

Network Quality Drives User Satisfaction—And It's Getting Much Better

To optimize mobile Internet for consumers, publishers and marketers, connection speeds must continue to improve. As with PC Internet use, faster data transfer speeds closely relate to consumer satisfaction and will help to drive overall interest and adoption of the platform.

While "content is king" in media, today network satisfaction is the largest driver of overall satisfaction with the mobile Internet. As of Q4 2007, Nielsen Mobile estimates that network quality is the most important driver, accounting for 79 percent of mobile Internet users' overall satisfaction with the experience, followed by content at 18 percent. After cost, network quality is the top reason former data users cancel their data services.

For many consumers, the early days of mobile Internet were filled with great potential, but experiences were throttled by network quality: like getting keys to a new sports car to discover it has the engine of a go-cart or, more aptly, like returning to dial-up speeds while having full knowledge of the breadth of content that lies just out of reach.

Thankfully, 3G (third generation) networks bring tremendous improvements to the consumer experience of mobile Internet. 3G networks, which first launched in Japan in 2001, are now becoming more ubiquitous in the US, greatly enhancing the consumer mobile data experience.

Nielsen Mobile tracks network quality for both voice and data services through a proprietary drive-testing service throughout the US. Looking at networks available in the top 50 markets, Nielsen reports that 3G networks can improve data transfer throughputs by about six times over 2G and 2.5G networks, on average (that is, a 200 kilobyte file that has a throughput of 531 KB per second on 3G networks would have an average of throughputs of 89 KB per second on 2G and 2.5G networks).

3G networks can improve data transfer throughputs by about six times over 2G and 2.5G networks

Today, each of the major US carriers offers a 3G network in some markets and that footprint continues to expand, enhancing the mobile Internet experience. Verizon Wireless, the first US wireless operator to deploy 3G in 2003, has the largest 3G footprint, while T-Mobile is the most recent member of the 3G family, having launched 3G in New York City starting this past spring. As 3G networks expand, the penetration of 3G-capable devices is expanding simultaneously. In the US today, 28 percent of consumers have a 3G-capable handset. Penetration of 3G handsets is higher in the US than in the EU, where 25 percent of embedded handsets are 3G enabled.

A Marketing Opportunity for Today

As device capabilities expand, network speeds improve and the amount of content available over the mobile Internet increases, consumer adoption of mobile Internet continues to increase and, accordingly, marketers are turning to the mobile Internet as a platform on which to reach target consumers.

consumers will continue to warm to the idea of mobile marketing

By the end of 2007, 29 percent of US mobile data users recalled seeing some form of advertising on their phone—including mobile Internet advertising, but also shortcode advertising via text messaging, mobile video advertising, mobile game advertising and other forms of mobile marketing. Among mobile Internet users, about a quarter of all subscribers (26 percent) recalled seeing some form of advertising while using the mobile Internet. This is consistent with what we've seen in the UK, where 28 percent of mobile Internet users recall seeing ads while browsing the mobile Internet. The UK is just behind Spain, where we report that 34 percent of mobile Internet users recall seeing some form of mobile advertising.

While consumer response to mobile advertising in surveys is still lukewarm (just 14 percent of US mobile data users say they don't mind relevant mobile advertising), self-reported advertising receptivity across all media tends to be low. Mobile, with its inherently personal nature may be an even harder sell with consumers. For mobile marketing to be truly successful and scalable, most consumers will need the medium to demonstrate that it will respect their privacy and engage them in unique and meaningful ways. Provided with a value-adding experience that respects the unique consumer access the mobile phone provides, we believe consumers will continue to warm to the idea of mobile marketing.

Already, many consumers expect to see more mobile advertising. 23 percent of US data users expect to see more of it, and many mobile data users are open to marketing as a means of subsidizing the cost of their overall mobile media experience. 32 percent are open to mobile advertising if it helps to lower their wireless bill.
Mobile Internet users, for their part, tend to be more open to mobile advertising than users of some other forms of mobile content. Mobile Internet users are 60 percent more likely than the average data user to find mobile advertising acceptable. We see a similar bump in receptivity among mobile video users, leading us to believe that mobile advertising is most acceptable to consumers via media types with which they are accustomed to receiving advertising messages in the non-mobile world.

The scalable ability to advertise through the mobile Internet has only recently been realized. Today, audience, inventory and planning toolsets have all arrived at a place where mobile becomes an important part of the media buying consideration set.

Audience
With 40 million active users of the mobile Internet and audiences of individual mobile Internet channels exceeding ten million, we feel the mobile Internet audience has evolved to a size that makes it an important part of the marketing mix.

Inventory
From a content perspective, the number of channels being reached successfully over mobile is expanding, both because content providers have started to optimize their sites for mobile consumption and because, increasingly, consumers can access HTML and JavaScript versions of websites over their phone. As the portfolio of mobile Internet content consumption expands, so to does the advertising inventory. Today, third party advertising networks help to aggregate that inventory into efficient buys for a media planner. At the same time, integrated media companies are doing a better job of enabling media buying across platforms and across mobile content types, bringing the mobile opportunity to the forefront of the media buying consideration set.

Planning tools
In order to fully realize the mobile Internet marketing opportunity, agencies and brands need tools to plan targeted ad campaigns and track performance relative to other media channels. In addition to audience measurement that reports the reach, frequency and demographics attained by individual mobile websites, marketers need to locate their precise target audience with audience profiling data.

Recently Nielsen Mobile launched Mobile @Plan, an extension of Nielsen Online's @Plan, which is used by PC Internet media buyers to find target audiences on the web. Mobile @Plan provides lifestyle, behavioral and purchase behavior information for the audiences of more than 200 mobile websites. For example, now marketers can determine where the highest concentration of business travelers is on the mobile Internet or can see airline preferences of audiences to particular mobile websites. This level of data is available across auto, finance, food & beverage, real estate, pets, electronics ownership, life events and other audience profile categories.

Tools such as Mobile @Plan help marketers efficiently reach their target on the mobile Internet, bolstering the ROI of mobile campaigns and helping to grow the mobile Internet marketing opportunity. From a consumer perspective, audience profiling tools allow mobile advertising to become increasingly targeted and relevant, a consumer prerequisite for the acceptability of advertising.

Continued Growth

The term "critical mass," now widely used to refer to a milestone point attained in a population, comes to from the world of nuclear science, where it describes the point at which fissile material is of sufficient mass to sustain a chain reaction.

We offer that mobile Internet is today at a point of sufficient mass to sustain a chain reaction of rapid growth in consumer adoption and, in turn, mobile Internet marketing. As with a nuclear reaction, mobile Internet has reached critical mass through the modification of several different attributes. While nuclear critical mass is affected by attributes such as fuel, shape, temperature and density, mobile Internet adoption reached critical mass through a confluence of device availability, network speeds, content availability and, most importantly, consumer interest.

Today there are already 40 million active users of mobile Internet and there are individual mobile websites that attract a reach as large as major cable networks or leading newspapers and magazines. We expect the chain reaction to continue: as more consumers have positive mobile Internet user experiences, anchored by increasing device capability, speed and content optimization, other consumers will catch on. Operators will do their part to ensure that mobile data services become a more standard part of the wireless subscription. This growth will fundamentally expand the mobile Internet marketing opportunity and, if done correctly, enhance the overall consumer mobile experience greatly in 2008 and 2009.

About Nielsen Mobile

Nielsen Mobile, a service of The Nielsen Company, is the world's largest independent provider of syndicated consumer research to the telecom and mobile media markets. Nielsen Mobile focuses exclusively on tracking the behavior, attitudes and experiences of mobile consumers; their reports also provide up to seven years of data on internet, video, gaming, audio and advertising trends for mobile phone users. Nielsen's technology-driven research provides unique and holistic insight into how mobile customers use their devices and what they think about brands, devices and services. For more information, please visit www.nielsenmobile.com

About The Nielsen Company

The Nielsen Company is a global information and media company with leading market positions in marketing information (ACNielsen), media information (Nielsen Media Research), online intelligence (Nielsen Online), mobile measurement, trade shows and business publications (Billboard, The Hollywood Reporter, Adweek). The privately held company is active in more than 100 countries, with headquarters in Haarlem, the Netherlands, and New York, USA. For more information, please visit, www.nielsen.com.

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