



How **Mobility** is **Disrupting** Technology and Information **Consumption**

New survey data from IDG Global Solutions reveals an unprecedented inflection point for both marketing opportunities and challenges.

CONTENTS

- 3** Executive Summary and Methodology
- 4** Introduction—Mobility’s Massive Momentum
- 4** Mobility Use Not Matched by Marketing Dollars
- 5** No Market Share Winners Yet
- 6** Data-Related Activities Are Hot
- 8** Key Features of Handheld Devices
- 9** Who Decides What to Buy?
- 9** Limited Willingness to Share Personal Information
- 10** The Best Is Yet to Come for the Tech Industry
- 11** The Question of Tablets
- 13** The Issues Facing IT Marketers
- 14** A Time for Dynamic Technology Marketing
- 14** For More Information
- 15** Appendix

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MOBILITY SURVEY

Executive Summary

DATA COMPILED FROM A GLOBAL SURVEY of more than 21,000 respondents by IDG Global Solutions (IGS) reveals a crucial but highly underutilized marketing channel for technology vendors: mobile devices. The purchase and use of mobile devices—especially among IT professionals and tech-savvy users—are exploding, but few vendors have plans for mobile marketing.

Unprecedented due to the size and focus of its respondents, the IGS 2012 Mobile Survey reveals an increasing propensity of IT professionals to use their mobile devices to research technology product purchases, to use them outside of working hours, and to use them to download product-related videos. These IT pros play a pivotal role in the selection of devices, operating systems (OSs), applications (both mobile and enterprise), and network carriers. With the device and carrier markets, along with application development, in upheaval, vendors that recognize this opportunity can claim a first-mover advantage in capturing key decision-makers.

Here are the highlights of a survey of both professional and personal users:

- 77 percent have a smartphone for business and/or personal use.
- IT is ranked as the number one decision-maker for devices and network carriers, ahead of senior executives and the finance department.
- 35 percent use Apple's iOS software.
- 61 percent have viewed video on a smartphone, while 31 percent do so regularly.
- 57 percent access technology-related content via a mobile device after business hours.
- More than 50 percent have replaced their clocks, personal organizers, and portable music players with a mobile device.
- 50 percent own or use a tablet and half use it for work.

Methodology

This is the third consecutive year IGS has conducted a survey that takes an extensive snapshot of the IT mindset about mobile devices. Conducted from March through May 2012, the survey polled visitors to 124 IDG Web sites that focus on consumer or business uses of technology. Most respondents live in Western European countries, but a substantial number of responses were received from all of the populated geographical regions—including Asia/Pacific, Eastern Europe, Latin America, and North America. The 21,590 respondents represent a wide range of ages; 84 percent were male.

This multinational aspect, along with the huge number of respondents, significantly differentiates the IGS results from other research. Combined with previous years' results, the 2012 survey not only gives vendors insights into the mindset of IT, business, and consumer respondents but also describes how those insights affect an industry known for its quickly shifting product innovation and developments.

More demographic details are available in the Appendix, on page 15.

Introduction—Mobility's Massive Momentum

IN TECHNOLOGY, the concept of smaller and simpler at lower cost has reigned for decades. In hardware, we have witnessed a disruptive progression from mainframes to minicomputers to PCs to laptops to handheld devices. The result of the accelerating pace of mobile technological progress has spurred advances on multiple fronts. In general, we have seen greater efficiency and productivity. Specifically, we have boosted the volume and type of commercial transactions, enhanced operational insight, and facilitated the flow of information through anywhere, anytime access.

Not only does research firm IDC project that shipments of both smartphones and tablets will surpass PCs in the next two years, but those handheld devices have become so powerful as to subsume other devices that employees and consumers used previously. With such exponential growth, it is—at times—hard to fully understand the impact. But the 2012 IGS survey of mobile device adoption and use shows that handhelds have replaced cameras, clocks, and mobile music players, among other devices.

Both smartphones and tablets are becoming more like PCs than ever before. Although it may take years to replace the content creation capabilities of PCs (full-size keyboards and mice remain useful), mobile devices are increasingly becoming the content consumption option of choice.

Mobility Use Not Matched by Marketing Dollars

But there are two discontinuities to the proliferation of handhelds. The first is that the spread of desktops and laptops did not depend on communications. Employees could use these computers without connectivity, taking advantage of installed applications to maintain

Mobile Use and Ad Spending Mismatch

Share of average time spent per day with select media by U.S. adults vs. U.S. ad spending share, 2011.

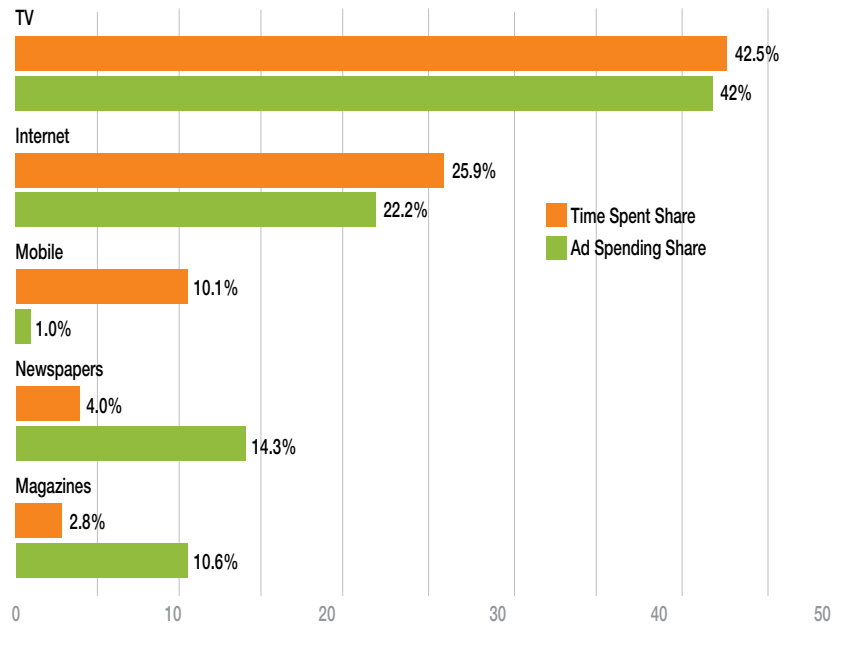


Figure 1

Source: eMarketer

productivity. Because of their size, speed, and storage capacity, handhelds derive their greatest utility from their mobility and their ability to connect back to large computers in private or public cloud configurations. The absence of one or the other—the mobility or the datacenter—diminishes productivity.

The second discontinuity relates to how marketers perceive the opportunity to communicate with customers and prospects using mobile devices. Currently, there is a huge disconnect: Users spend 10 percent of their time using these devices, but marketers only spend 1 percent of their budgets on mobile venues, according to eMarketer (see Figure 1, above).

MOBILITY SURVEY

For technology vendors, this proliferation represents a new and fertile competitive landscape. Technological advances, network speeds, and product refresh rates advance so quickly that companies holding rock-solid market shares in previous years (such as Research in Motion) may be in danger of disappearing and companies previously facing marginalization (such as Apple) have roared back.

No Market Share Winners Yet

In the smartphone market, it has become a two-company competition: Samsung/Android and Apple/iOS. IDC reported that in the second quarter of 2012, Samsung and Apple shipped almost half of the world's smartphones. The entire market grew 42.1 percent year-over-year. Samsung's market share is 32.6 percent compared to Apple's 16.9 percent.

Even in current OS installed bases there is no clear winner. The IGS survey indicates that, worldwide, Apple has 35 percent market share, while Google's Android has 33 percent (see Figure 2, at right). Although Apple's iPhones may be popular in more affluent countries, survey data indicates that citizens of less developed countries prefer the less-expensive Android alternatives offered by multiple vendors. Note that the recent release of the Google Nexus 7 tablet will also impact those Android numbers.

"Brand loyalty is surprisingly low," says IDG Global Solutions Managing Director Kumaran Ramanathan. "That's a big challenge for Apple. Open systems are more popular in emerging markets, where the potential uptake is bigger." Nor can other vendors' efforts be ignored. Microsoft's mobile implementation of Windows 8 may change the market. And PC manufacturers may yet evolve ultrabooks into a competitor for tablets. "It's a wide-open field for vendors to create competitive advantage, both in technology and market share," Ramanathan says.

Worldwide OS Market Share

% of respondents who indicated the current and preferred mobile device operating system; OSs with less than 2% shares omitted.

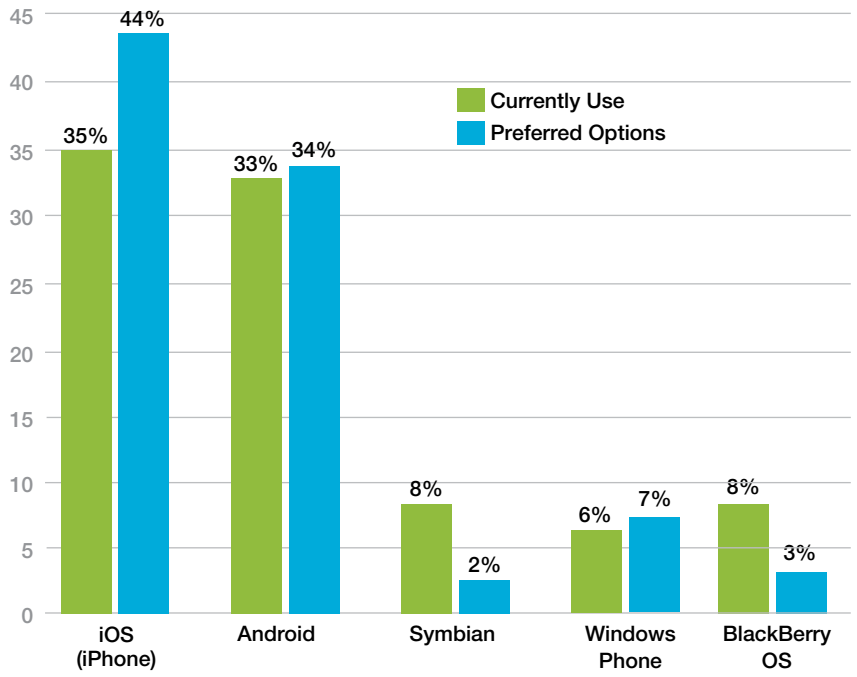


Figure 2

Source: IDG Global Solutions 2012 Mobile Survey

For IT marketers the IGS survey results reveal that this unsettled marketplace represents both a challenge and an opportunity. The opportunity: Vendors can show customers and prospects the advantages of their products on the most personal of devices—a smartphone. The challenge: Vendors must rethink traditional marketing approaches within the context of mobile devices. For what could be the first time in history, marketers can *use* the technology to *sell* the technology. Although that means easier methods for tracking both location and response, it also means vendors must rethink what constitutes compelling ad content while taking into account geographical variations within an increasingly global audience.

Mobile Device Usage Goes Way Beyond Calls and Email

% of respondents who indicated they regularly use specific functionality.

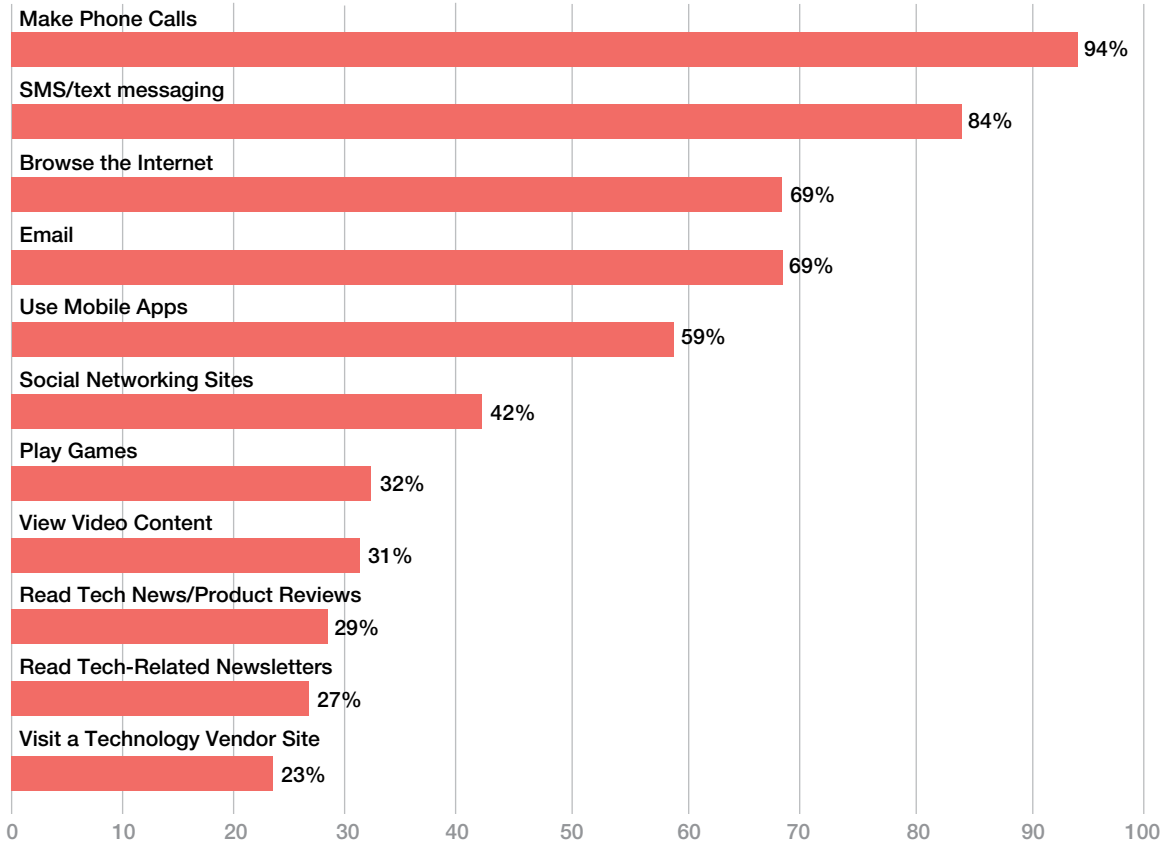


Figure 3

Source: IDG Global Solutions 2012 Mobile Survey

The IGS survey substantiates the size of the global handheld marketplace, especially as it relates to use by professionals. Apple, Samsung, and Nokia were the leading manufacturers for both business and personal use (RIM was also cited for business usage). Seventy-six percent of business users have upgraded beyond traditional mobile phones to smartphones. More important, though, is what they use smartphones for—and when.

Data-Related Activities Are Hot

Let's start with the *what*. Not surprisingly, 94 percent of respondents use their smartphones to make telephone calls. But the next four of the top five activities are data-related: text messaging (84 percent); browsing the Internet (69 percent); email (69 percent); and using mobile apps (59 percent)—see Figure 3, above. Nor do these high percentages just represent personal activity—55 percent of respondents said they view work-related information with their mobile device.

MOBILITY SURVEY

When specifically asked if they view video content on their mobile phones, 61 percent of respondents said yes. And we are not just talking movies, which were cited by 44 percent of respondents. Figure 4 (below) shows the deep tech interests of mobile users. It is worth noting that this devotion to viewing video about technology via a handheld device is consistent across regions and device type.

What is more, this devotion to viewing video content over handheld devices is not dependent on the device or bandwidth. In addition, it was consistent whether

Tech Reviews Beat Movies

% of respondents who indicated the type of video viewed.

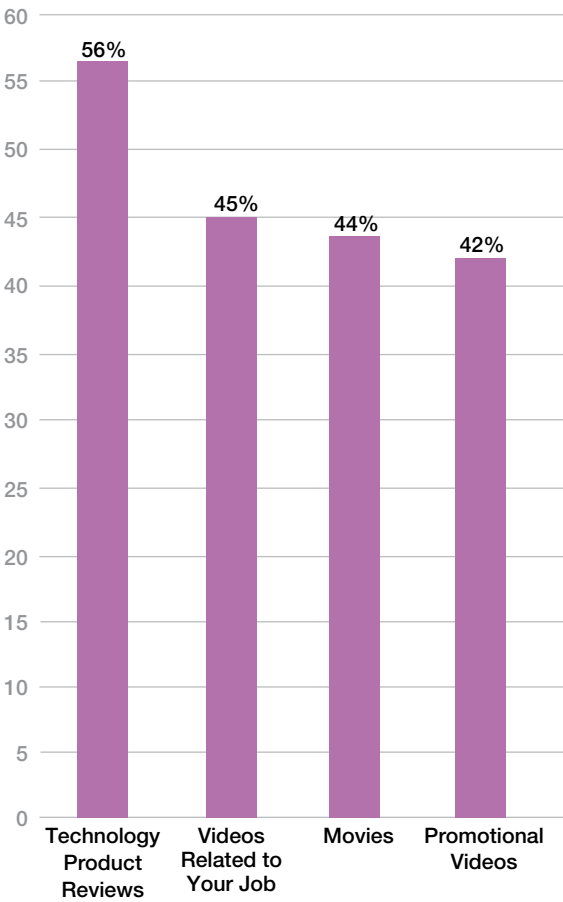


Figure 4

Source: IDG Global Solutions 2012 Mobile Survey

Technology Content More Popular After Work

% of respondents who indicated what time of day they would be likely to access technology content on their mobile device.

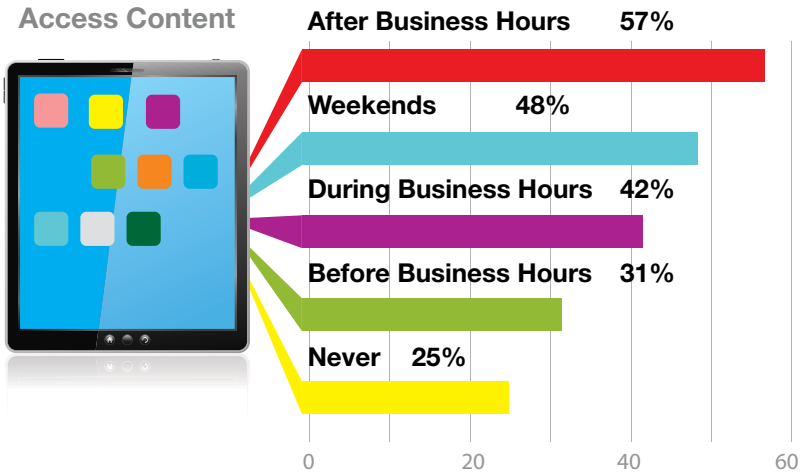


Figure 5

Source: IDG Global Solutions 2012 Mobile Survey

respondents were using smartphones or tablets:

The percentages ranged from a low of 58 percent (smartphones used for video in Western Europe) to a high of 78 percent (smartphones used for video in Eastern Europe), while video access on tablets never dropped below 62 percent.

The *when* of mobile device use is also interesting, especially for those marketers seeking to identify how to best capture decision-makers' attention. "Before mobility, we were tied to an office. Now, with handhelds, work is a verb and not a place," IGS' Ramanathan says.

Overall, 57 percent of respondents said they use mobile apps every day. The numbers indicating technology content access outside of work were equally impressive.

While 42 percent of respondents said they watch technology content on their mobile device during business hours, 57 percent said they watch after business hours (see Figure 5, above).

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The clear takeaway: Mobile devices help professionals and consumers become productive 24x7—essentially, they have an “always on” mentality. Their interest in accessing work-related video content outside of working hours is a great opportunity for IT marketers, because their target prospects may be more amenable to promotional messaging.

Key Features of Handheld Devices

Video is not the only form of content that captures mobile users’ attention. More than four out of 10 respondents cited technology news-related apps as their favorite. That indicates a strong predilection toward early adopters and tech-savvy users. Again, it is clear from the 2012 IGS survey that handhelds present a valuable technology-based channel for marketing technology.

Enthusiastic Embrace of Mobile Tech Apps

% of respondents who indicated they used specific technology apps available for mobile devices.

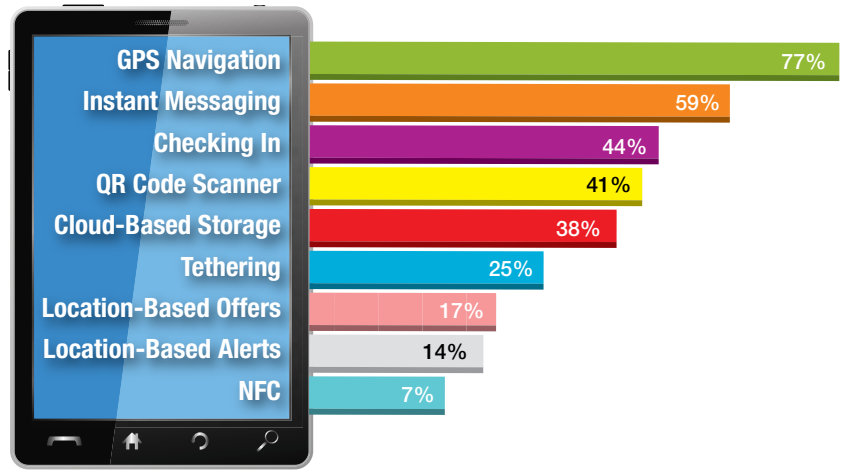


Figure 7

Source: IDG Global Solutions 2012 Mobile Survey

Mobiles as Electronic Swiss Army Knives

% of respondents who indicated that a mobile device replaced another product.

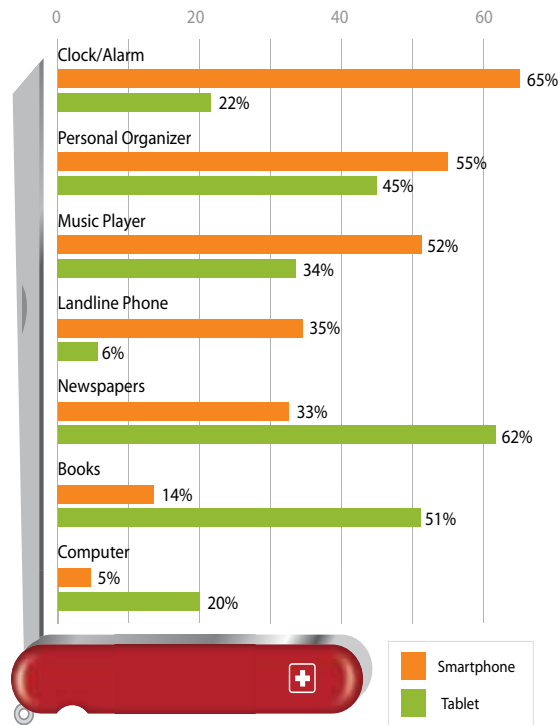


Figure 6

Source: IDG Global Solutions 2012 Mobile Survey

However, a dichotomy still exists between what capabilities tablets take over and those that smartphones take over, but none is surprising (see Figure 6, at left). Logically, tablets are more likely to be used for reading newspapers and books than smartphones, just as tablets are more likely to replace a computer than a smartphone.

Although the percentages are lower, the uptake for more sophisticated mobile-based applications is equally impressive, especially given that many of the technologies are newer. For instance, respondents use handheld devices for navigation based on global positioning systems (GPS) and instant messaging at high rates (77 percent and 59 percent, respectively), but they also use their devices for a wide variety of other tasks (see Figure 7, above).

MOBILITY SURVEY

Again, these percentages were generally consistent across the five major regions IGS surveyed. The data proves these trends are taking hold on a global basis. That gives global vendors—especially those whose international revenues are substantial compared to their domestic revenues—the ability to market capabilities globally rather than regionally, which reduces the cost of country-specific efforts.

The 2012 IGS survey also reveals insights into the key attributes respondents look for in handheld devices. When asked to name the most important features, the responses ranged considerably. The highest percentage of respondents cited the OS itself, but that was only at 18 percent. As Figure 8 (at right) shows, cost is only the fifth most important consideration, no doubt due to the fact that the true cost of a phone is hidden by carriers' service deals. Also notice the relative unimportance of brand reputation.

Who Decides What to Buy?

Globally, the high level of technological savvy spills over into purchase decision authority regarding mobility. For instance, the IT department selects the brand 23 percent of the time and the network carrier 26 percent of the time. That is significantly higher than the business side, which makes those same choices only 17 percent of the time (those in administration, finance, and HR make the decision even less frequently). Furthermore, these percentages hold steady no matter where the company is located or how big it is.

“For high-tech marketers, this means that the shortest path to a purchase decision at a company is through the experts—the IT department,” IGS' Ramanathan says. “They're the ones with both the knowledge and the authority.”

It Is All About the Features and Functions

% of respondents who indicated a feature was the first, second or third most important attribute.

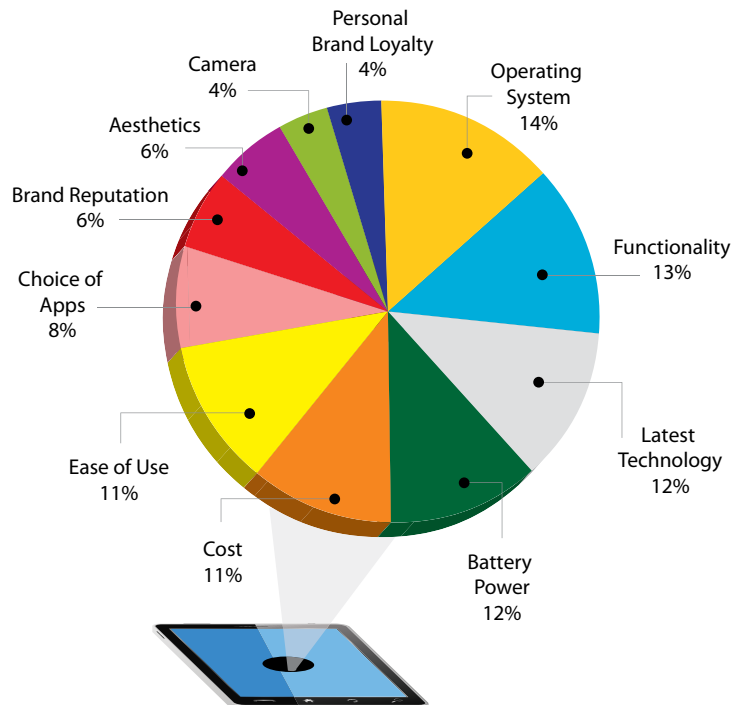


Figure 8

Source: IDG Global Solutions 2012 Mobile Survey

Limited Willingness to Share Personal Information

One piece of data technology marketers need most is contact information about customers and prospects for follow-up. Curiously, respondents in Western Europe were almost twice as likely as North Americans (40 percent to 22 percent) to provide personal data on their smartphone to access content, despite much tougher privacy laws in Western Europe. The results for tablets were less stark: 45 percent in Western Europe to 36 percent in North America. See Figure 9 (on page 10) for a breakdown of the willingness to trade personal data for content.

Less Than Half Willing to Trade Personal Info for Content

% of respondents who indicated they were comfortable providing personal details in exchange for mobile device access to content.

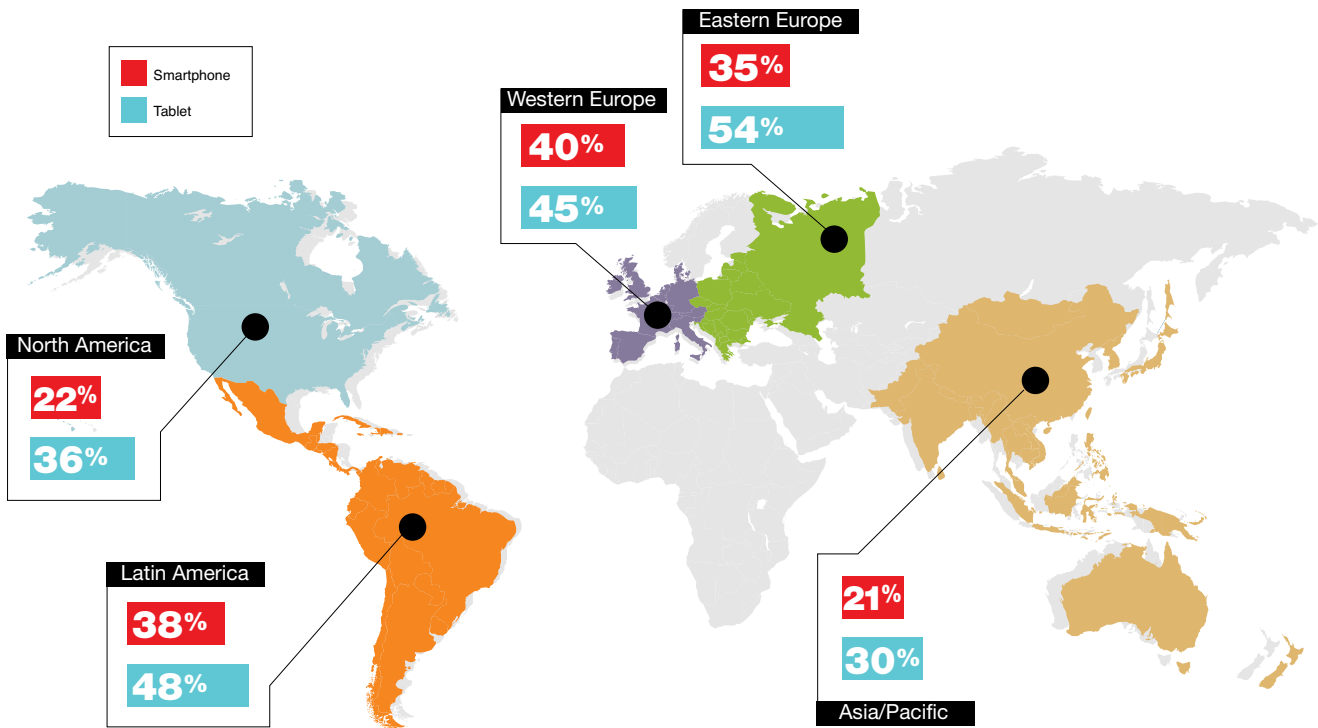


Figure 9

Source: IDG Global Solutions 2012 Mobile Survey

However, the extent of the personal data respondents said they would offer is limited: 77 percent of those willing to divulge such information said they would offer their email address, while only 23 percent said they would provide business-card details.

The Best Is Yet to Come for the Tech Industry

What do these results indicate for high-tech marketers? Simply put, the potential marketplace resembles the wild, wild West—or, more appropriately, the PC market back in the mid-1980s: lots of players, and even more opportunity. The mobile marketplace has unstoppable momentum, but much remains to be resolved in terms of making handheld devices and their applications secure, reliable, and highly productive for users. Let's look at each of these individually.

Operating systems. If you look at history, it is easy to see that whatever advancements Apple pioneered with its desktop computers Microsoft was able to follow with PCs. "Apple aficionados would say that while the battles rage on, the war is essentially over," IGS' Ramanathan says. "But there are those in IT who say that before iPads and iPhones make the inroads in the enterprise that Macintosh computers never did, Apple still has more to learn about the needs of large companies." Open source poses its own security challenges, because secure software development is essentially removed from the OS development and improvement processes.

MOBILITY SURVEY

Today, there are even more competitive OSs, what with Google Android and a new entrant, Microsoft Windows 8, looming as a competitor to Apple iOS. “Microsoft is making a major push on several fronts—with Windows 8, the Microsoft/Nokia alliance, and its Surface tablet—so its future impact in the market cannot be overlooked,” Ramanathan explains.

Security. Although it continues to be a major bugaboo for all hardware platforms, security is especially challenging for handheld devices. This is because of their inherent wireless capability, coupled with the overhead that advanced security features (such as accessing corporate data through virtual private networks) impose on smaller computers.

The greater security issues with smart devices relate to the cloud services and data and applications control. With iCloud, users can back up their devices to the cloud, but there may be regulated corporate data and intellectual property (IP) being backed up along with personal photos and contacts. The inability to control the capabilities of these devices poses a significant security concern in and of itself.

Some companies promote the potential of handhelds to subsume the wallet and become payment devices, along with their myriad other capabilities. “Simply put, vendors are going to have to help customers make the same leap of trust the latter made with the Web, when they realized that online transactions could indeed be conducted safely,” Ramanathan says.

Bring your own device. At the same time, security and technical support are the underlying obstacles limiting widespread adoption of the “bring your own device” (BYOD) phenomena. To both accommodate employees and reduce acquisition costs, enterprises want to enable

any handheld device to access the network. The issues of maintaining separation between personal and corporate data, deleting appropriate data if the device is lost or when the employee leaves the company, and supporting multiple devices may be solved through virtualization, partitioning, or other technologies. But the BYOD issue, even as it evolves into a “bring your own supported device” solution in which employees choose from a standardized list, is far from solved. Nor is the question of subsidies versus reimbursements for smartphones. Significant legal and regulatory issues remain, too.

Geographical issues. As the survey results indicate, price sensitivities govern purchase decisions in several emerging markets. However, pricing pressure alone indicates that market dominance has yet to be determined, whether in smartphones or tablets. At the same time, broadband capabilities vary from country to country. With transmission speeds increasing to 4G and beyond, countries that can deploy the latest technology provide a foundation for companies and consumers to take advantage of the most advanced devices. The contributions of telecommunications carriers are at least as important as the contributions of manufacturers in this marketplace.

The Question of Tablets

Another question yet to be answered regarding handheld devices relates to use-case scenarios, especially regarding tablets. Clearly, smartphones offer capabilities for communication and data access, and these devices have supplanted both traditional mobile phones and PDAs. Although sales of laptops have surpassed desktops, it is not yet clear whether tablets, specifically, are replacements for laptops or supplements to them.

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—IDG Global Solutions
Managing Director
Kumaran Ramanathan

How Tablets Are Being Used

% of respondents who indicated they use their tablet for each activity.

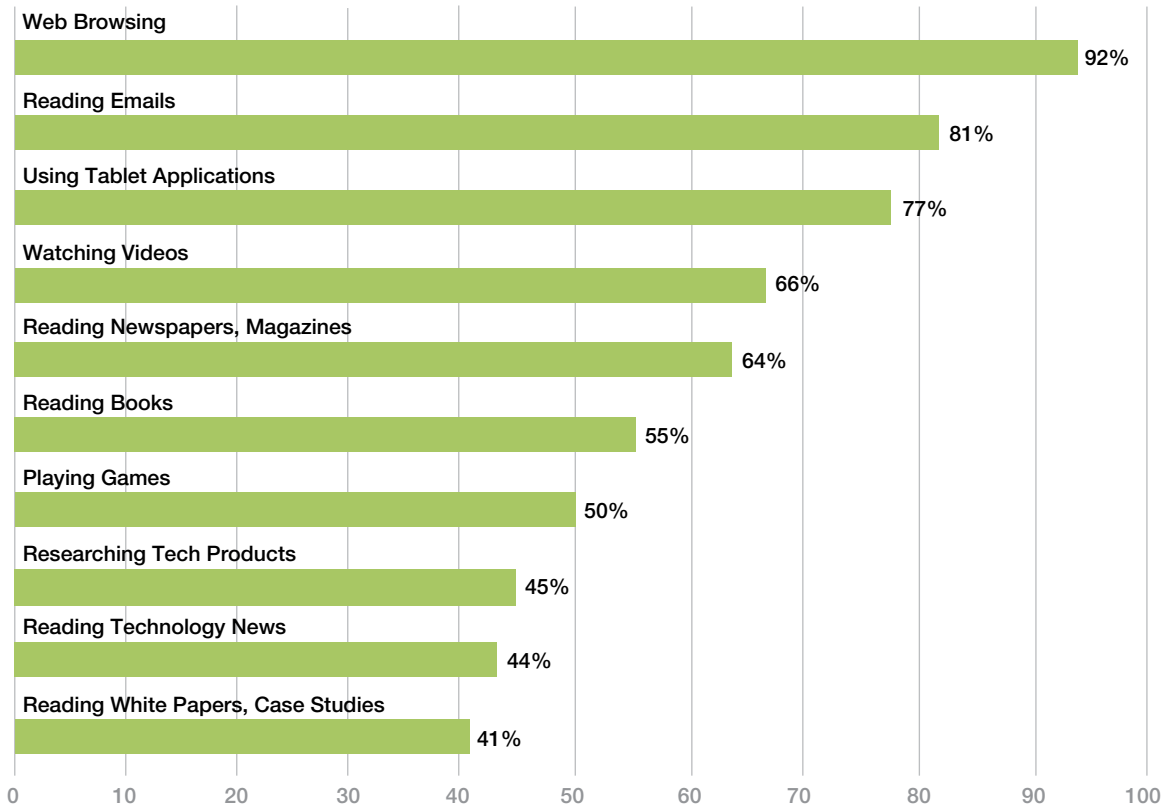


Figure 10

Source: IDG Global Solutions 2012 Mobile Survey

One interesting facet of the survey results relating to tablets is how personal a device it has become so quickly. Tablets have rapidly replaced five key things that people used to carry separately, all of which are personal rather than business-related: newspapers, books, organizers, music players, and gaming devices. “Tablets may have started out as personal, but they won’t be for much longer,” IGS’ Ramanathan says. “We’re already seeing history repeating itself. In the same way that people brought PCs and Macintoshes into the workplace to increase their productivity—whether the IT department approved them or not. People are going to start demanding access to corporate applications via their tablet.”

Tablets may be more likely to replace paper than another computer. Some companies, in an effort to reduce massive file transfers or photocopying, are delivering meeting materials to board members via tablets. Some restaurants are replacing menus with iPads and using them for ordering, as well. In schools, tablets may very well replace textbooks. For anyone in field support—inspectors, pollsters, claims adjusters—iPads are replacing clipboards.

Clearly, the survey indicates that tablets are most likely to be used for activities requiring a larger screen (see Figure 10, above).

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When the question about types of video accessed was applied solely to a tablet a majority of respondents said they watch product reviews, while an equally substantial number watch promotional videos (43 percent) and work-related videos (39 percent).

The ability to access these types of information on a tablet contributes to the frequency with which the devices are used to access technology content. The tablet video usage pattern mimics the aforementioned trend of after-work viewing shown by smartphone users—more people said they watch technology content after hours (68 percent) and on weekends (57 percent) than during business hours (40 percent). That means a savvy marketing campaign can target these users after work, when they are not being harangued or even interrupted by work-related issues. Some 61 percent said they use their tablet one to four hours per day.

But one question still remains unanswered for the time being: Will tablets replace computers? The survey results do not show that—in fact, 82 percent of respondents reported the tablet is not their primary computer. But again, the marketplace is in flux. Only 4 percent of respondents plan to buy a tablet solely for business use, and only 15 percent plan to buy one for combined business and personal use.

The Issues Facing IT Marketers

Clearly, the mobility marketplace can shift quickly. As Mary Meeker, a partner at venture capital firm Kleiner Perkins Caufield & Byers, noted in a spring 2012 speech, mobility is reimagining more and more of daily life—from diaries and sports events to coupon-clipping and taxi service. The entrance of a vendor that can solve specific problems facing customers can still make inroads.

We are still in the early stages. Apple has made great headway in the usability issue but not in providing secure access to enterprise applications. Google has staked a claim to a lower cost OS but still faces questions in the security arena and the varied flavors of Android. Microsoft, with Windows 8 and rumors of the possible acquisition of struggling vendors such as RIM and Nokia, may still make its presence felt.

Within that vortex, opportunities are plentiful. For instance, even though small to midsize businesses (SMBs) have purchased handheld devices at rates similar to enterprises, they still need help with integration. “Imagine the impact on the marketplace of a cloud vendor, a carrier, and a handheld device vendor partnering to offer a turnkey SaaS (software as a service) solution encompassing storage, applications, and networking,” IGS’ Ramanathan says. “For those smaller companies whose users may be less technical, they get instant on, instant access. The SMB market holds great potential.”

Beyond the realm of handheld devices as employee devices is the increasing use of handheld devices by consumers to interact and transact with commercial entities. That, in turn, opens up opportunities for the development of applications designed to enhance customer intimacy, service, technical support, and even product development. The resulting data—especially combined with location-based data that handheld devices can provide—can be used to analyze where, when, and how consumers make purchase decisions. “The survey results for usage of location-based marketing and near-field communications (NFC) are very low,” Ramanathan says. “We haven’t even begun to touch these capabilities, especially in the realm of marketing. They may represent the next big wave.”

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Given these issues, and the spectrum of survey responses, it is clear we are facing a marketplace not unlike that in the 1980s. At the time, IBM had established a beachhead with a standardized PC against a highly popular (but comparatively expensive) Macintosh with a closed system manufactured by Apple. Whether this new hardware competition follows the same trajectory is unknown. More important, though, is that innovation and competition around the PC and Macintosh unleashed an astonishing wave of opportunity in terms of new software, networking, peripherals, and utilities. The same wave is poised to crash again.

A Time for Dynamic Technology Marketing

This IGS survey shows a dynamic marketplace in hyper-growth. The right technology—and the right program to market it—has the capability to change companies' fortunes. Many issues remain to be ironed out, in terms of security, form factor, application development, personalization, keyboard access, and more.

"It's precisely because we are in a time of uncertainty and fast-paced change that the mobile market represents a key opportunity for marketers," Ramanathan says. "The IT professional and tech-savvy communities are leading the way, as they have for past technological breakthroughs. The communities are out front in both the adoption and use of the most intimate device—a smartphone. What more fertile ground do marketers need to justify more than a 1 percent spend on mobile marketing?"

That is, in part, why IDC has forecast annual worldwide mobile ad revenues will jump from almost \$8 billion this year to \$14.2 billion in 2014. At the same time, regional differences and differences in company size represent other potential opportunities for vendors. The vendors that take advantage of openings in the mobile market—whether they are in the hardware, software, or carrier space—and communicate their value propositions clearly to prospects have the chance to write the next chapters in the history of the handheld era. ■

For More Information

Contact Kumaran Ramanathan at kr@idg.com.
To read more about the research, go to:
www.idgglobalsolutions.com

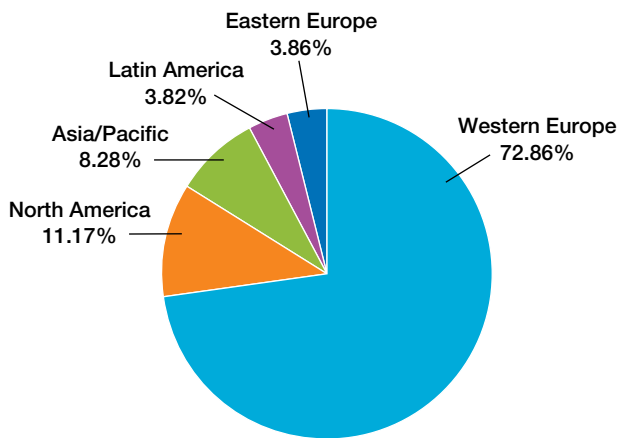
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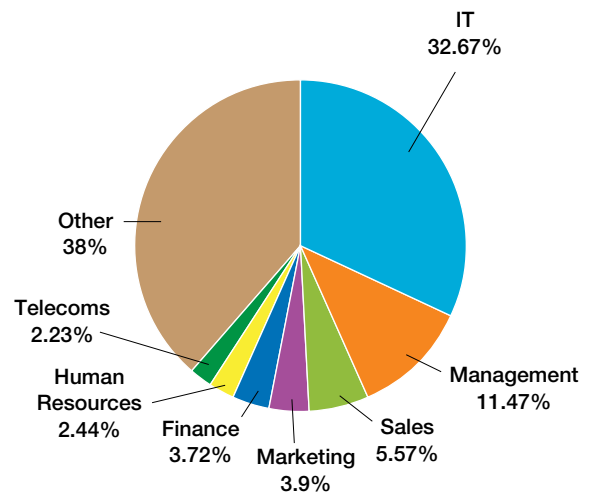
Appendix

THE 21,590 RESPONDENTS to the 38-question IGS 2012 Mobile Survey use a cell or smartphone either for business or personal activities or for both. In addition, roughly half also use a tablet device.

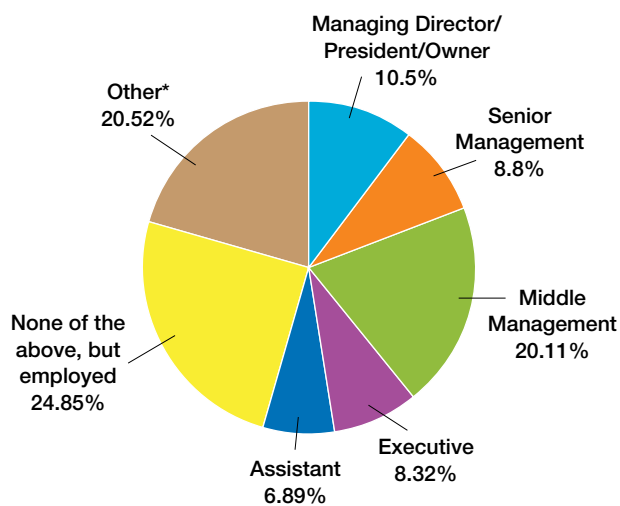
The respondents live in one of 25 countries. This chart shows the percentage of total survey respondents by region.



While almost a third of the respondents work in the Information Technology department of their employers, the others represented a wide range of units.

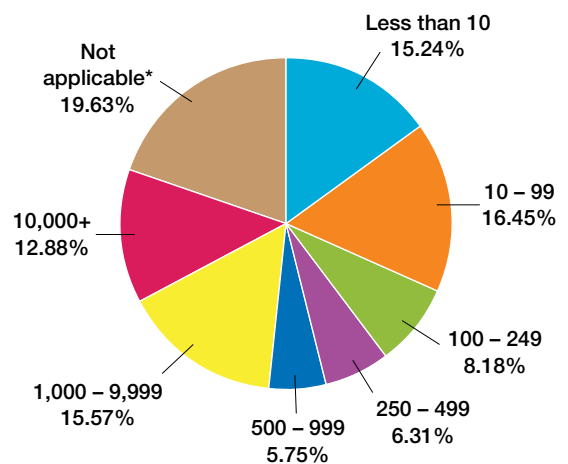


Respondents represent a wide range of job functions and titles. Note that almost half are managers.



*Other: Includes respondents who are retired, students, or otherwise not in the workforce.

More than a quarter of the respondents work for companies with at least 1,000 employees, but small and midsize companies are also represented.



*Includes respondents who are retired, students, or otherwise not in the workforce.