

REPORT

The Internet's New Billion

Digital Consumers in Brazil, Russia, India, China,
and Indonesia



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September 2010

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Executive Summary

Just as Brazil, Russia, India, China, and Indonesia are the new engines of global growth, they are also the sources of the most dynamic changes in digital consumption in the world—a phenomenon that will grow only more pronounced over the next five years. Already, more than 610 million residents of these countries—which we call the BRICI markets—use the Internet regularly. That number will jump to 1.2 billion by 2015.

Online usage in the BRICI markets is quite different from that in developed countries—and often varies more by population segment than by economic status. Consider an 18-year-old named Swapnil who lives in Lucknow, India. Each day, he updates his Facebook page, uses instant messages to chat with friends, and downloads music from a peer-to-peer file-sharing site. In these ways, he's much more like Hafiz, a teen in Jakarta, or Felipe, a young São Paulo resident, than like fellow Indian Sanjay, a thirty-something stock trader who uses the Internet primarily for tracking markets.

Despite similarities across user segments, however, digital markets in Brazil and Russia are more advanced than those in India and Indonesia, and China is far beyond its fellow BRICI markets—Internet and mobile-phone use are deeply embedded in the lives of hundreds of millions of Chinese people. China offers a useful benchmark in that the unexpectedly rapid pace of China's online migration is a sharp reminder of how quickly the other BRICI markets are likely to evolve in terms of Internet penetration rates, the number of hours spent online per day, and e-commerce adoption.

The importance of this shift into the digital mainstream lies not just in the size and speed of the transformation of online habits but also in who the BRICI digital consumers are. Right now, 60 percent of BRICI Internet users are under the age of 35. As they earn ever-higher incomes and develop more com-

plex online needs, there will be a colossal opportunity for digital companies to monetize services and products. Those companies that manage to do so will reap the tremendous benefits of this massive digital revolution.

In 2009, the BRICI countries—Brazil, Russia, India, China, and Indonesia—represented about 45 percent of the world's population and about 15 percent of global GDP, and had some 610 million Internet users.

- ◇ By 2015, these countries will have more than 1.2 billion Internet users—well over three times the number of Internet users in Japan and the United States combined.
- ◇ Internet penetration rates in the BRICI countries will experience compound annual growth of 9 to 20 percent from year-end 2009 through 2015.

Personal computers are much less prevalent than mobile devices in the BRICI countries—and play nowhere near the role in catalyzing digital consumption that mobile devices and Internet cafés do.

- ◇ There are only about 440 million PCs in the BRICI countries at present, although that number should more than double by 2015.
- ◇ PC penetration in Brazil and Russia is around 32 percent, while in China it is only about 20 percent. Indonesia and India have PC penetration rates of only about 5 percent. By comparison, PC penetration in the United States and Japan is about 90 percent or more.
- ◇ Growth will push these penetration rates up in the coming years, but only Russia and Brazil will have PC penetration rates that exceed 50 percent in 2015.

Because of the limited availability and relatively low affordability of PCs in the BRICI markets, digital consumers in those countries have developed other ways of fulfilling their online needs.

- ◇ Internet cafés are an increasingly important venue for digital consumption. In Indonesia, they are known as “warnets” and were mentioned frequently in our focus-group research.
- ◇ In less affluent areas of Brazil, users go to ad hoc Internet cafés called LAN (local area network) houses to access the Internet. And in China’s vast countryside, more than half of digital consumers go online in Internet cafés.

Mobile phones are already very popular tools for communicating and seeking out entertainment.

- ◇ The BRICI countries currently have about 1.8 billion mobile-phone SIM card subscriptions, compared with a combined total of 394 million in the United States and Japan.
- ◇ Russia leads the BRICI countries in SIM penetration at 141 percent (many Russians own more than one SIM card), followed by Brazil’s 86 percent. China, India, and Indonesia have SIM penetration rates ranging between 41 percent and 66 percent. By comparison, the United States and Japan are both at around 90 percent.
- ◇ By 2015, SIM penetration in China and India is expected to reach 84 percent and 75 percent, respectively, while that in Brazil and Indonesia will surpass 100 percent—owing, among other factors, to users taking advantage of prepaid plans from different operators, which is already common in Russia.

As sophisticated handsets become available in the BRICI markets, more and more digital consumers are turning to mobile Internet to meet their online needs, particularly in markets with high access costs or limited fixed-line broadband availability.

- ◇ In Indonesia, for example, we’ve seen users skip the PC ownership stage common in developed markets such as the United States and Japan and leapfrog directly to mobile Internet.

- ◇ In Russia, about 12 percent of mobile-phone users access the Internet through their handsets.

The affordability and availability of fixed-line and mobile broadband and phone connections are key factors shaping BRICI digital-consumption patterns. Similarly, rapid changes in modes of connection can trigger extremely fast adoption of new digital behaviors.

- ◇ Much of the mobile growth in India has occurred in the last 24 to 36 months, driven by steady declines in tariffs. Rates for voice calls are currently as low as \$0.006 per minute, and price promotions are abundant. Already, the growing phenomenon of multiple-SIM mobile devices has emerged in India.
- ◇ PC affordability in China and mobile-handset affordability in India have been driven by the emergence of local brands that offer a price-to-functionality equation far superior to that of established brands.
- ◇ In Indonesia, low in-network calling rates have motivated users to own multiple mobile devices, each associated with a different plan.
- ◇ Throughout the BRICI countries, user habits are evolving at rapid rates as new services and behaviors quickly become mainstream activities.

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The BRICI Digital Landscape

The BRICI countries—Brazil, Russia, India, China, and Indonesia—are already an engine of global growth. At present, they are responsible for almost 15 percent of global GDP, and between now and 2015, they will enjoy 4 to 8 percent real annual GDP growth, on average. (See Exhibit 1.)

More than 3 billion people—about 45 percent of the world’s population—currently live in the BRICI countries, and they account for about one-third of global Inter-

net usage, with about 610 million Internet users. However, the aggregate Internet-penetration rate across the BRICI countries is only about 20 percent, compared with rates in the United States and Japan of 70 percent and 74 percent, respectively. (See Exhibit 2.)

The BRICI markets will be a source of tremendous growth as rapid increases in disposable incomes in these countries build the means to consume. Younger BRICI residents are seeing their wages grow and are altering their lifestyles accordingly—and these consumers constitute

Exhibit 1. The BRICI Markets Represent Almost 15 Percent of the World’s GDP and 45 Percent of Its Population

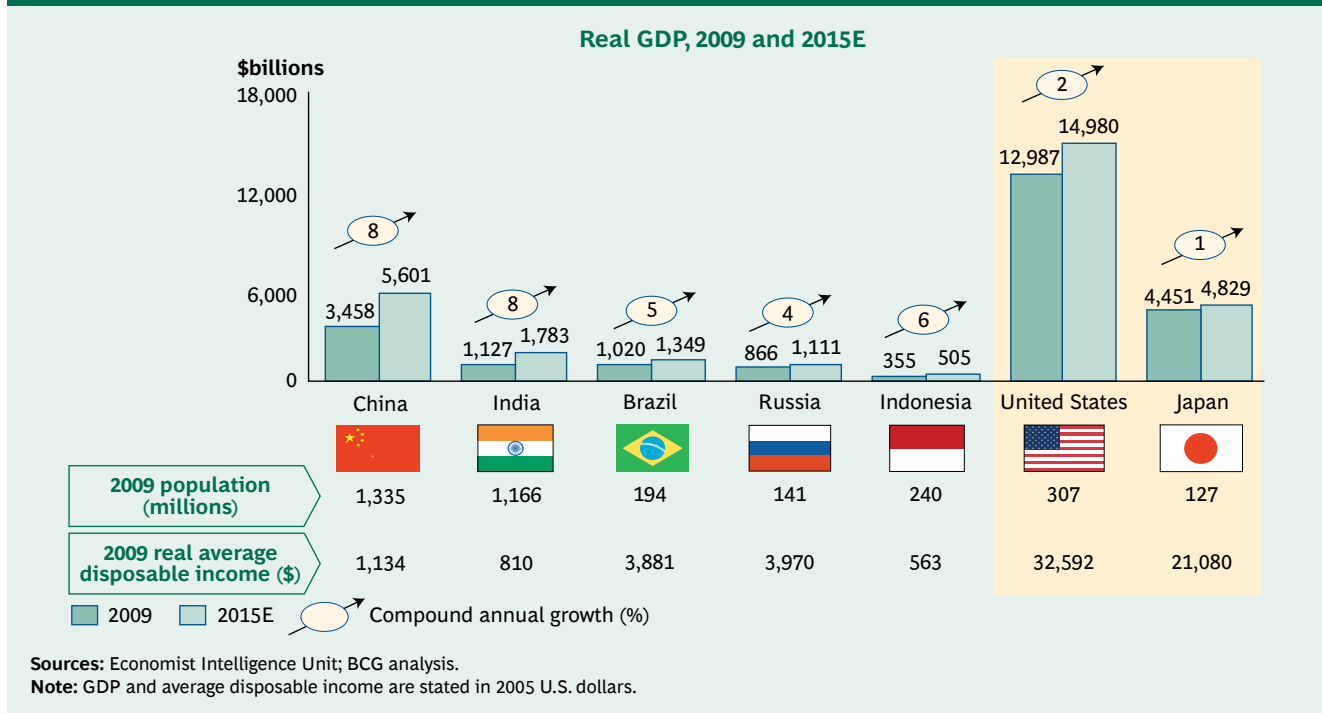
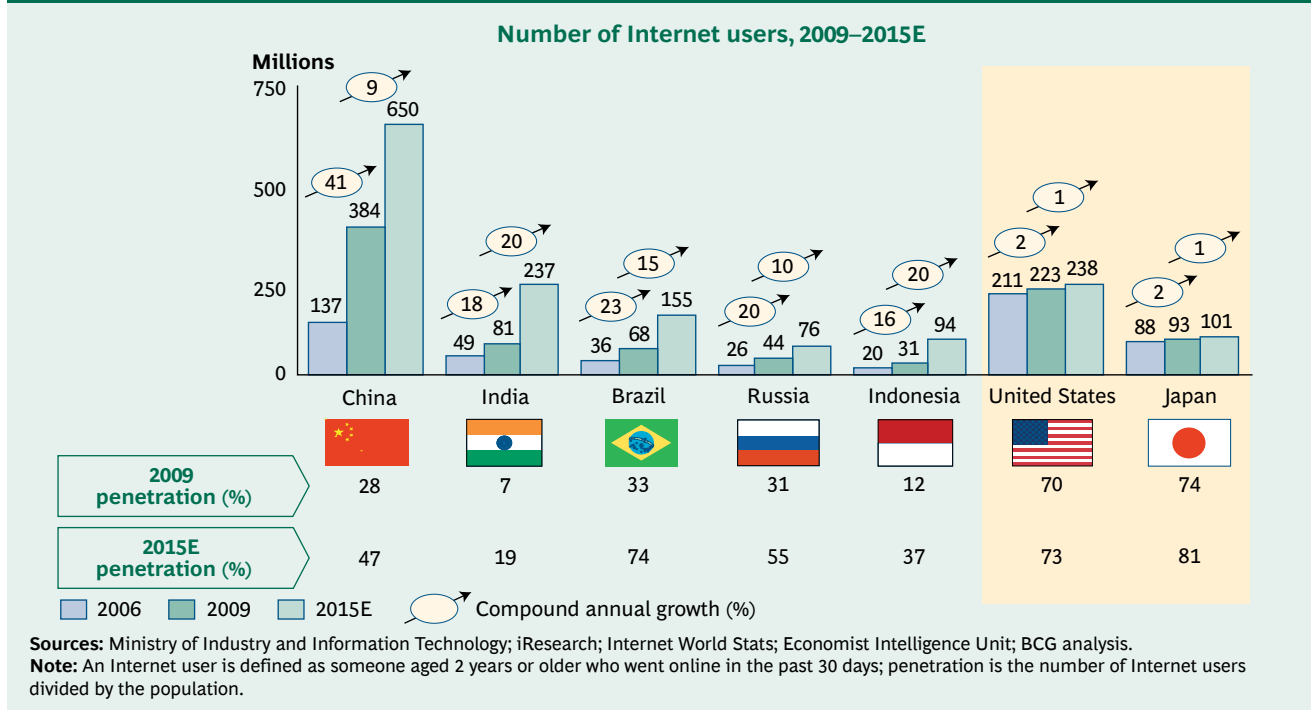


Exhibit 2. Internet Users in the BRICI Countries Will More Than Double to 1.2 Billion by 2015



the vast majority of their countries' online populations. They tend to be more open to trying new things and more comfortable with technology. Many of them have come to rely on the Internet as a source of entertainment and a platform for self-expression and communication.

Owing largely to low average disposable incomes in many parts of the BRICI countries, personal computers are much less commonly owned than mobile devices. There are only about 440 million PCs in the BRICI countries at present, although that number should more than double by 2015, surpassing 920 million. (See Exhibit 3.) Notebooks also have strong potential in the BRICI markets because of their relative affordability. Meanwhile, mobile-phone SIM subscription levels are already quite high among the BRICI countries. China, India, and Indonesia have mobile-penetration rates ranging between 41 percent and 66 percent, and Brazil and Russia are currently at 86 percent and 141 percent, respectively.¹ (See Exhibit 4.)

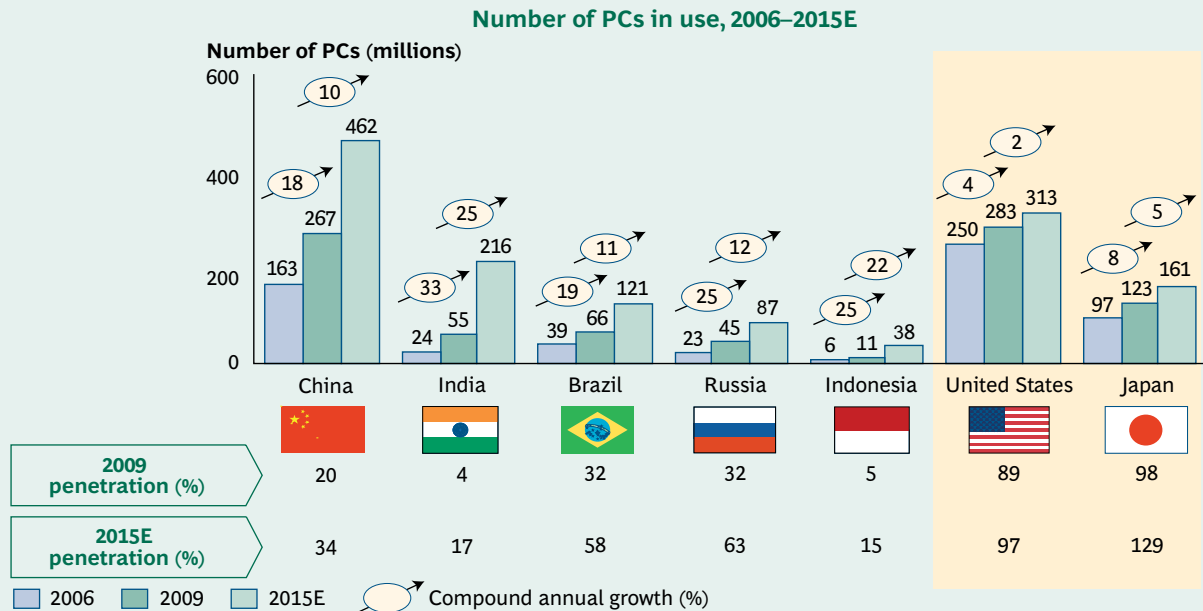
In general, there is more similarity among particular user segments across the BRICI countries than among segments within the individual countries themselves. Young BRICI digital consumers, in particular, have a lot in com-

mon with each other. Still, there are major differences in usage habits. While disposable income and cultural or linguistic environments are key factors in influencing digital habits, the cost and availability of service are also important elements of both the broadband and mobile stories.

- ◇ In India, rates for voice calls are currently as low as \$0.006 per minute, and price promotions are prevalent. These low rates, combined with the inflow of cheap but advanced-technology handsets from China, are helping to drive not only the growth in mobile use but also a more sophisticated range of mobile activities.
- ◇ In Brazil, broadband costs are high, limiting the number of in-home Internet users. Brazil's 3G is affordable but not widely available, with the result that mobile Web and chatting are rare.
- ◇ Among Indonesian digital consumers, mobile use—and, to a certain extent, mobile-Internet use—is high

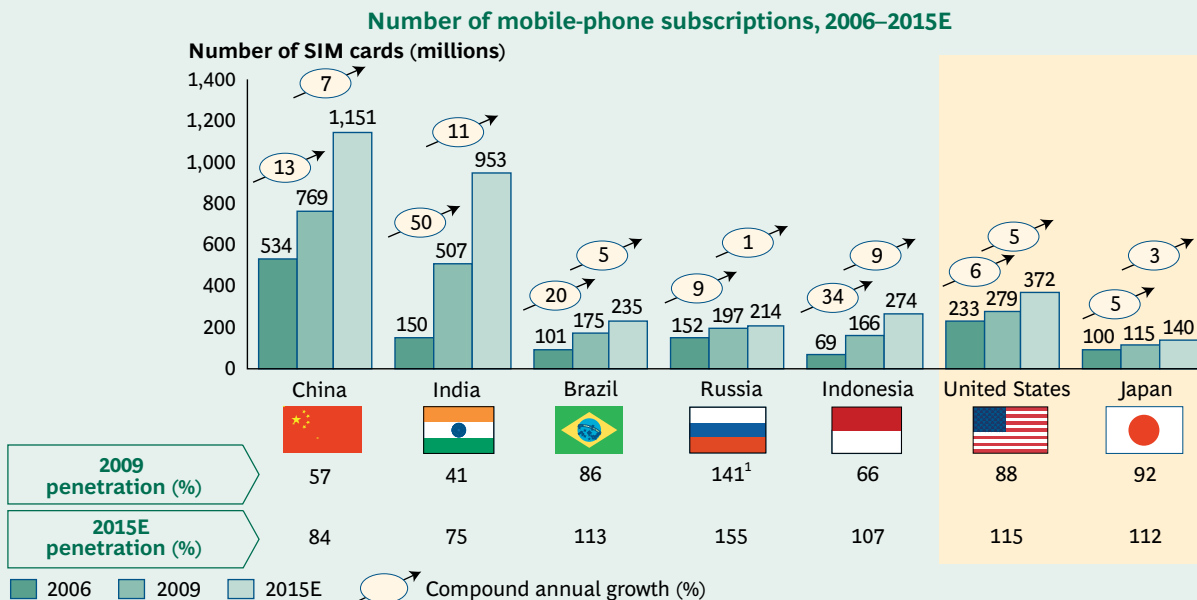
1. It is quite common in Russia for mobile-phone owners to have more than one SIM card, which is how penetration can exceed 100 percent.

Exhibit 3. Brazil and Russia Have the Highest PC Penetration Rates



Sources: Economist Intelligence Unit; CIA World Factbook; BCG analysis.
 Note: Penetration is the number of PCs divided by the population.

Exhibit 4. BRICI Mobile Penetration Is Already Very High



Sources: Economist Intelligence Unit; CIA World Factbook; BCG analysis.

Note: Mobile-phone penetration is the number of SIM card subscriptions divided by the population.

¹Mobile-phone penetration in Russia is believed to be less than 100 percent; there is a tendency for users to own multiple SIM cards, a large number of which are inactive.

and growing, owing to the affordability of devices and 2.5G service.

- ◇ Russian fixed-line broadband costs vary dramatically by region. For instance, in major cities such as Moscow, St. Petersburg, and Yekaterinburg, unlimited-traffic broadband costs about \$10 to \$15 per month—compared with Murmansk, where it can cost as much as \$120 a month.
- ◇ Broadband in China is actually cheaper than dial-up, enabling the rise of hundreds of thousands of Internet cafés throughout the country—and 2G mobile connections are also affordable to a large swath of the population.
- ◇ In rural China—where average disposable incomes are much lower than in China’s urban areas—digital consumers already use mobile SMS (short message service), social networking, online entertainment, and basic e-commerce. Meanwhile, urban Chinese consumers exhibit the most sophisticated online behavior—many of those we spoke to are online almost around the

clock thanks to mobile-chat functions on their cell phones, and they use the Internet to meet a wide and intricate range of needs.

Internet Usage Patterns

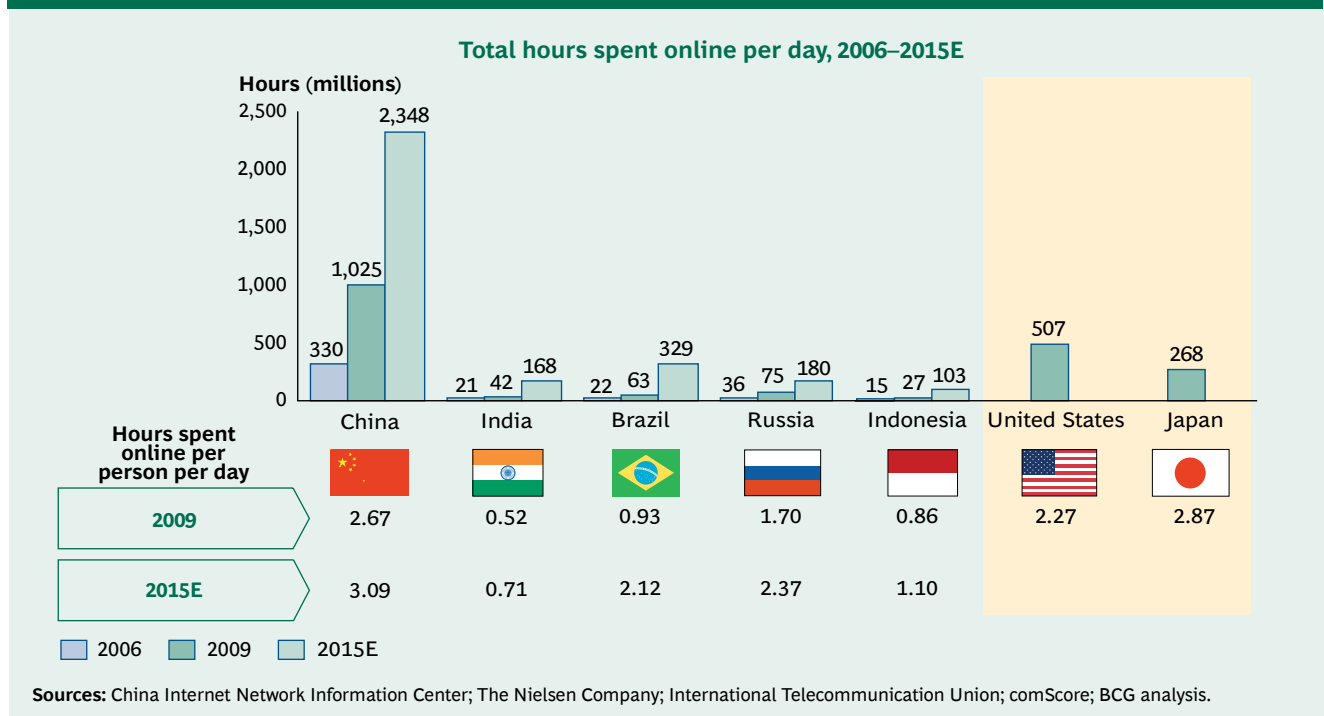
By 2015, the BRICI countries’ Internet user base will exceed 1.2 billion.

By 2015, the BRICI countries’ Internet user base will exceed 1.2 billion—more than three times the number of Internet users in Japan and the United States combined. This growth will be driven by BRICI Internet-penetration growth rates of 9 to 20 percent annually from year-end 2009 through 2015. Nonetheless, China’s Internet usage will remain the highest of all the BRICI

countries. (See Exhibit 5.)

- ◇ Chinese Internet users are online for an average of 2.7 hours per day—longer than users in any other BRICI country—and are projected to spend an average of 3.1 hours online each day by 2015. This trend more closely resembles usage patterns in the United States and Japan (where Internet users spend an average of 2.3

Exhibit 5. Time Spent Online per Day in India, Indonesia, and Brazil Is Less Than Half of That in China



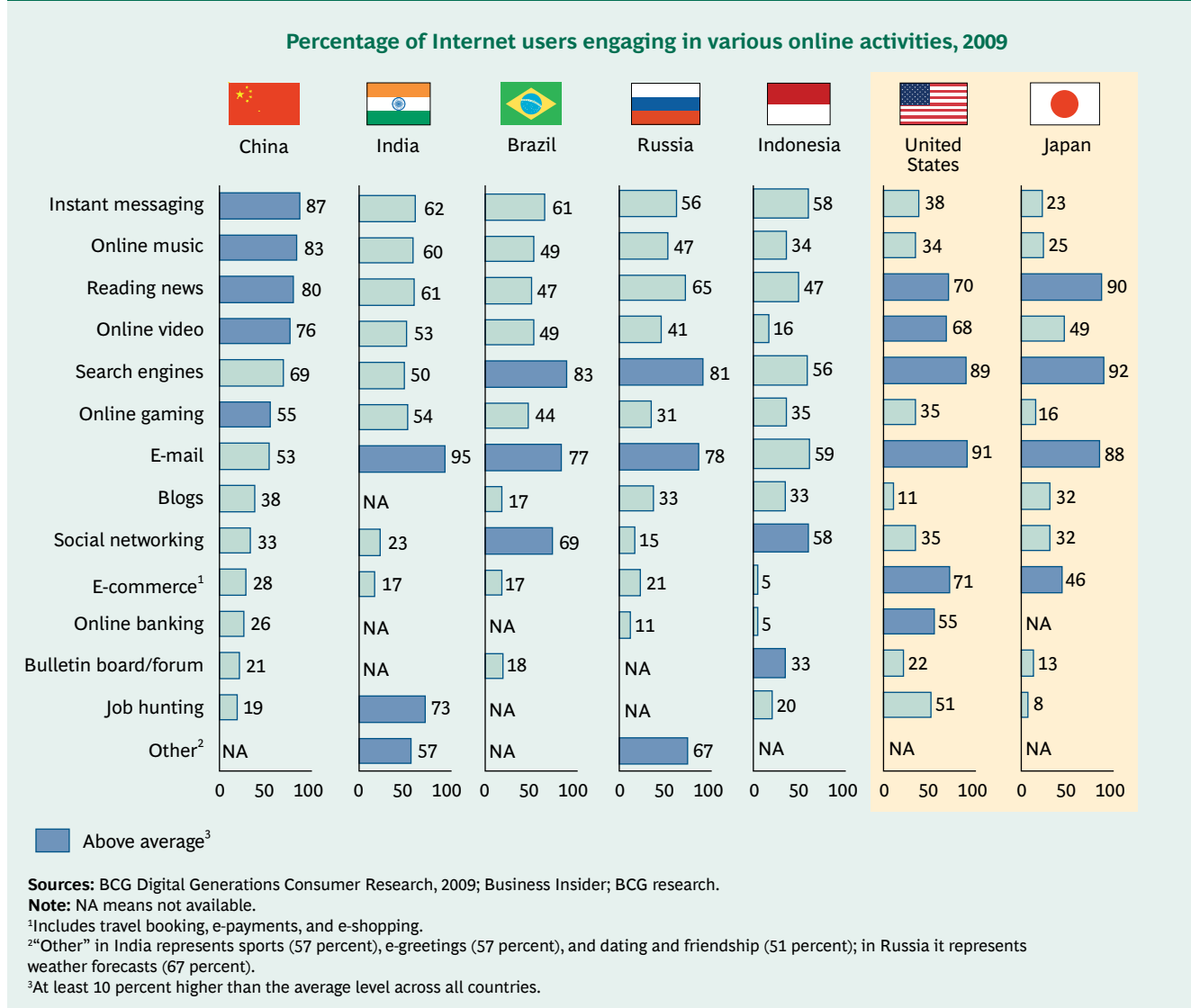
and 2.9 hours online per day, respectively) than in the other BRICI countries.

- ◆ Brazil and Russia will approach China’s current usage rates by 2015; India and Indonesia are growing quickly but starting from a low base.

There are a few commonalities in how BRICI digital consumers use the Internet. (See Exhibit 6.) For example, instant messaging is vastly more popular in all the BRICI countries than in the developed markets we studied, as are online music and games, albeit to a lesser extent.

But there are some remarkable variations among the BRICI countries as well. For instance, social networking is more popular in Indonesia and Brazil than in either the other BRICI countries or the developed markets. Meanwhile, an extremely high percentage of Indian digital consumers use e-mail and job-hunting sites, compared with the other BRICI markets. The more mature Chinese market has well-established usage of almost all the online activities that we tracked. Apart from social networking, Brazil and Russia have notably similar usage patterns across the board, with search engines and e-mail predominating.

Exhibit 6. Internet Use in the BRICI Markets Shows Commonalities—and Differences



Mobile Internet

One of the key differences between the BRICI countries and developed markets lies in how digital consumers access the Internet. In developed markets, consumers have tended to form their online-usage habits through PCs, using dial-up or broadband connections. By contrast, many BRICI digital consumers have learned to use the Internet in large part through their mobile-phone connections. At present, mobile-Internet availability is still fairly limited in most of the BRICI countries, although mobile-online behaviors are already emerging across those markets, suggesting the tremendous potential for user growth as costs come down and networks expand. (See Exhibit 7.)

China's digital consumers use their mobile devices for the most diverse range of activities, while India's use their mobile devices almost exclusively for phone calls and short messages. (See Exhibit 8.) Nearly half of Chinese digital consumers use their mobile phones for multimedia messaging service (MMS), mobile photos, and mobile

music streaming or downloading, compared with only one-quarter of Brazilian and Indonesian consumers (and about one-third in Russia). Nearly 40 percent of Chinese users play games on their mobile phones, and around one-quarter use mobile video, Internet, and news services. In Russia, 3G is seven times more expensive than in China, driving more users there to use broadband connections to meet their digital needs.

BRICI digital consumers have developed their online habits on mobile phones instead of PCs.

Historical, Economic, and Cultural Factors Shaping Today's Digital Reality

The BRICI countries tend to have high literacy rates compared with other emerging markets—all of them have literacy rates above 90 percent, apart from India with 61 percent. This means that their consumers are able to use the Internet (including international sites) to meet a variety of needs and can generally learn about new platforms and services without much difficulty. BRICI digital consumers tend to be young—60 percent of them are less than 35 years old—and willing to try new things.

Exhibit 7. The Mobile-Internet User Base Tripled from 2007 to 2009

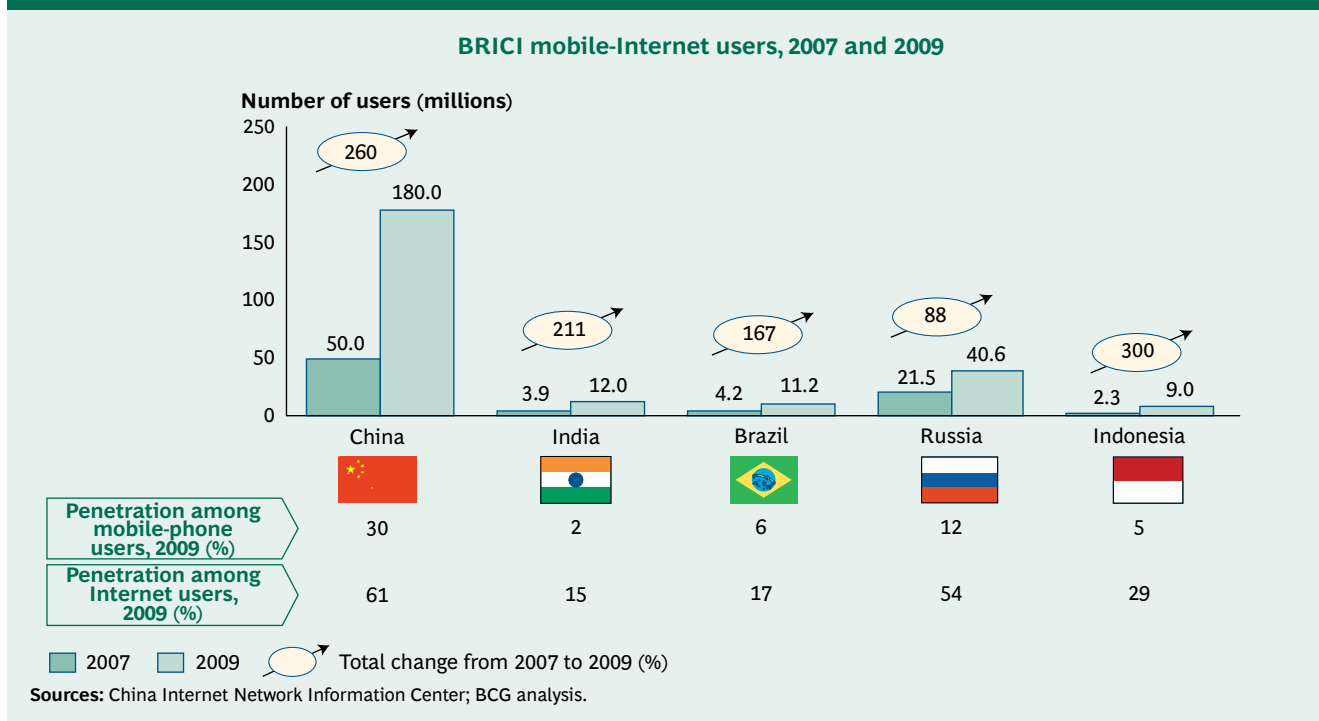
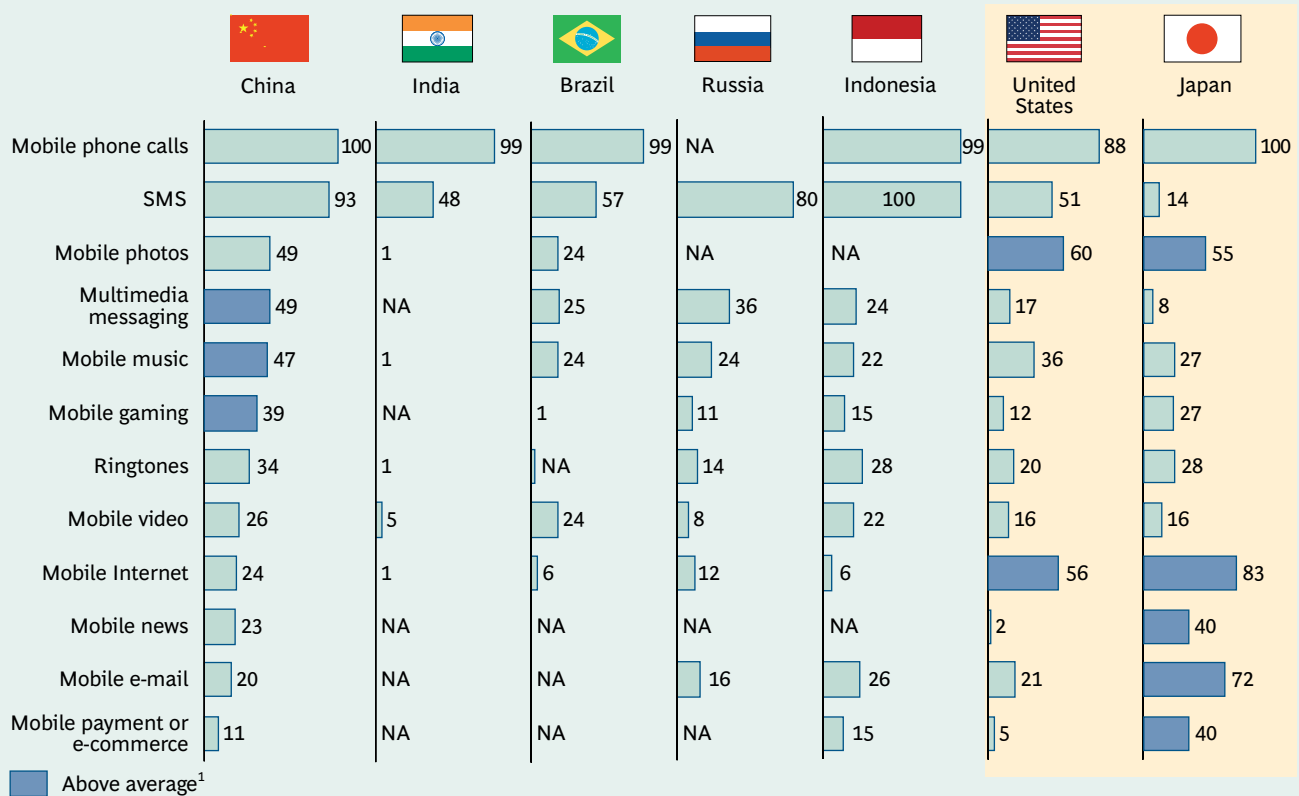


Exhibit 8. Chinese Digital Consumers Are the Most Active BRICI Mobile-Phone Users

Percentage of mobile-phone users engaging in various activities, 2009



Sources: BCG Digital Generations Consumer Research, 2009; China Internet Network Information Center; Enfodesk; Gartner; The Nielsen Company; Centre of Excellence in Information and Communication Technologies; IDC Asia/Pacific consumer survey; BCG research.

Note: NA means not available.

¹At least 10 percent higher than the average level across all countries.

The limited enforcement of intellectual property protection in the BRICI markets means that music and video downloads are widely available—and free. In general, BRICI Internet users are much more likely to pay for online services than for content, although Indian and Indonesian users are quite reluctant to pay at all. For instance, BRICI users will pay for value-added services on social-networking sites to customize a personal page, or they will pay small fees for online game accounts.

A strong cultural emphasis on education in the BRICI countries has spurred rapid adoption of the Internet, as parents strive to give their children access to learning materials and as young professionals seek to upgrade their own knowledge base through online studies. Many of the young BRICI digital consumers with whom we spoke use

instant messaging regularly to discuss homework with friends—and search engines are vital for conducting research on school or work projects.

Policymakers need to be aware of how these factors will influence not just consumer behavior but also the development of local innovation and businesses. They should also consider how policies can push beyond infrastructure and pricing. For instance, e-government programs can serve as anchor tenants on broadband networks, encouraging the development of local content and services. One of the best examples of this comes from Russia: the Tatarstan government has gone 100 percent online—even to the extent that the president of Tatarstan publishes his policy agenda in real time.



BRICI Country Profiles

Engaging digital consumers in the BRICI countries will require an understanding of their underlying preferences and motivations. Each BRICI country has a distinctive tapestry of digital-consumption patterns, offering strong indicators of which online user trends are likely to translate into full-blown consumer phenomena. (See Exhibits 9 and 10.)

Brazil: Robust Potential Currently Hindered by High Costs

Brazil is a fairly urbanized country, and most of the population is urban. However, many digital consumers can be found in the countryside and in small towns—and users of the social-networking site Orkut.com can be found even in remote areas. High-income young people are “always on,” meaning that they use multiple media and Internet sites to stay informed, entertained, and in touch. Low-income youth in both rural and urban areas go to so-called LAN (local area network) houses—informal Internet cafés with 10 to 20 PCs and hourly rates as low as \$1—to use the Internet, and they therefore have a more restricted range of activities, although LAN houses typically provide other digital services such as CD/DVD burning and document printing. And while young people are a major driver of Brazil’s digital evolution, consumers in their forties and fifties go online to check e-mail and news, seek entertainment, and participate in online social networking.

A critical feature of the Brazilian market is the somewhat high cost of fixed-line broadband, which averages around \$27 a month and is available mainly in high- and middle-income neighborhoods.² Currently, only 12 mil-

lion Brazilians have fixed-line broadband connections, while another 9 million have dial-up. This means that only about one-third of PC owners currently have an Internet connection.






Broadband costs do not appear ready to come down—rather, the trend seems to be for providers to increase connection speed while maintaining prices. That said, such increases are currently constrained by the infrastructure capabilities of the leading telecommunications companies.

Mobile-phone usage is fairly popular, with 2G or 2.5G service SIM penetration of 168 million (84 percent). The average price is hard to pinpoint because operators tend to offer aggressive price promotions, although monthly contract fees are around \$0.35 per minute, while prepaid plans cost around \$0.65 per minute.

Mobile-Internet usage is still relatively new in Brazil. Overall, only 11 million Brazilian mobile-phone owners use mobile Internet, although mobile-Internet use has grown at a 167 percent compound annual rate since 2007. The least expensive offer for 3G is only around \$0.006 per megabyte—and 3G coverage, as stated by the two largest operators, is available to more than half the population. Growth will continue to be driven by Internet users (such as Priscila, profiled in the sidebar “Priscila: A Typical Young Blue-Collar Brazilian”) who transfer their PC habits to their mobile devices. At present, only 17 percent of Internet users in Brazil use mobile Internet.






2. All fixed-line broadband costs mentioned in this report refer to the lowest monthly tariff for 1 Mbps (megabits per second) fixed-line broadband with unlimited usage.

Exhibit 9. The Digital Habits of Young BRICI Users Show Similar Patterns

	 China	 India	 Brazil	 Russia	 Indonesia
Background	<ul style="list-style-type: none"> ◇ 14 years old ◇ Junior high school student in Guilin ◇ Only child; lives with his parents 	<ul style="list-style-type: none"> ◇ 18-year-old student in Lucknow ◇ Lives with his parents and elder sister 	<ul style="list-style-type: none"> ◇ 17-year-old student in São Paulo ◇ Lives with his parents ◇ Likes to play <i>futsal</i> (indoor soccer) 	<ul style="list-style-type: none"> ◇ 18-year-old economics student in Moscow ◇ Single ◇ Lives with her parents in an apartment 	<ul style="list-style-type: none"> ◇ 18 years old ◇ High school student living in Jakarta with his parents ◇ Spends one hour per day online
Digital spending	<ul style="list-style-type: none"> ◇ ~\$30 monthly in pocket money ◇ ~30% spent on digital services 	<ul style="list-style-type: none"> ◇ ~\$500 household income ◇ ~10% spent on digital services 	<ul style="list-style-type: none"> ◇ ~\$250 monthly in pocket money ◇ ~50% spent on digital services 	<ul style="list-style-type: none"> ◇ ~\$60 spent on digital services monthly 	<ul style="list-style-type: none"> ◇ ~\$50 monthly in pocket money ◇ ~10% spent on digital services
Attitudes toward digital devices and services	<ul style="list-style-type: none"> ◇ Looking for fun and new friends, with usage focused on instant messaging, games, and social networking sites 	<ul style="list-style-type: none"> ◇ “My PC is like an elder brother to me: it guides me and helps me out all the time.” 	<ul style="list-style-type: none"> ◇ “When I am alone, I usually go online. The Internet is part of my life.” 	<ul style="list-style-type: none"> ◇ “Friends are very important—and the Internet gives me an opportunity to be connected with them.” 	<ul style="list-style-type: none"> ◇ “Without a mobile phone, I would feel like I was back in primitive times—I would feel so out of touch.”

Source: BCG research.

Exhibit 10. Online Activities Differ According to Access Costs

	 China	 India	 Brazil	 Russia	 Indonesia
Time online	◇ Online around the clock with mobile chat	◇ Online a bit at school and a bit at home	◇ Mostly online on home computer	◇ Online around the clock with her computer	◇ Online mostly at cybercafés
Mobile SMS	✓	✗	✓	✓	✓
Mobile Web and chat	✓	✗	✗	✗	✓
Social networking	✓	✓	✓	✓	✓
Online entertainment (games/video)	✓	✗	✓	✓	✓
E-commerce	✓	✗	✓	✗	✗

Overall activities are limited to basic entertainment news and e-mail

Little activity owing to limited availability

Most activities revolve around social networking

...mainly because of high broadband costs

Mobile online activities are driven by Facebook use

Pays for “premium” services for QQ

Spends \$75 on e-commerce and another \$30 on downloads

Source: BCG research.

Priscila

A Typical Young Blue-Collar Brazilian



Priscila, a 32-year-old event promoter in São Paulo, falls in the urban working-class segment of Brazil's digital-consumer market. She lives with her mother and two brothers in a home that has a digital camera, an MP3 player, and three mobile phones—her mobile phone is a relatively low-cost (\$180) local-brand model. Of the \$690 that Priscila brings home each month, she spends \$125 on communication and entertainment.

Even though she does not have a PC at home, she still spends a lot of time online at friends' houses or through a LAN house near her apartment. The focus of her online

activity is e-mail, social networking, online games and video, e-commerce, and instant messaging. She researches the prices of romance novels online, and she stays current on the cast of her favorite soap opera. She also uses the LAN house webcam to speak with friends overseas. Priscila exemplifies a candidate for mobile Internet—at present, she avoids using it owing to high cost, although she is an avid user of both her cell phone and her Internet connections. Like many of the young women we spoke with, Priscila sees mobile devices as fashionable accessories. "Notebooks and some cell phones are really sophisticated and elegant," she says. "They are not simply devices—they're chic."

Brazil's Online-Usage Patterns

Brazil's digital consumers spend an average of 0.9 hour online each day, but our projections show a jump to 2.1 hours per day by 2015. Brazilians use the Internet for a broad range of activities. Search engines, e-mail, and social-networking sites are the most widely used—remarkably, 69 percent of Brazil's digital consumers are active on social-networking sites, significantly more than in any BRICI country other than Indonesia. Instant messaging is also common among the majority of users, and MSN Messenger is particularly popular. In addition, nearly half of Brazilian digital consumers use the Internet for online music, news, video, and games.

Mobile-phone usage beyond phone calls and SMS is less developed, although a quarter of Brazilian mobile-phone owners use MMS and mobile photo, music, and video. And e-commerce (online shopping), which has been adopted by 17 percent of Internet users, is an emerging trend and is particularly common for lower-cost items. As we've seen in other BRICI markets, even those Brazilian digital consumers who don't make purchases online use the Internet for product information and price comparisons.

Brazil's Top Internet Sites

Of the most visited sites in Brazil, the vast majority are operated by multinationals; only a handful of companies—UOL, Globo, Terra, iG, and MercadoLivre—are local. The usage ranking of the various sites relates closely

to Brazilian user habits, with search engines, social-networking sites, and online video sites high in the rankings. For social-networking platforms, Google's Orkut.com is the clear leader, although Facebook and Twitter seem to be making major inroads in the higher-income brackets.

Meanwhile, although Brazilian digital consumers use the e-mail platforms of all the major global players, the home-grown site UOL is extremely popular. A classic portal that was created in the 1990s as the Brazilian version of AOL, UOL features some exclusive content as a result of its relationship with Abril Group, which publishes, among other things, *Veja*, the highest-circulation magazine in Brazil.

As for the other local players, Globo is a news and entertainment portal from Organizações Globo, the largest TV network in Brazil and producer of some of the country's best-known soap operas. Terra and iG are classic portals in the mold of UOL; Terra is affiliated with Telefónica, while iG is owned by Brazil's largest telecom operator, Oi. An e-commerce site also makes the list—MercadoLivre is a Latin American online-auction site.

Russia: Strong Mobile-Internet Growth Potential

In Russia, the biggest differences in digital-usage habits exist along the urban-rural divide and among regions.

Wealth gaps are less significant in Russia than in many of the other BRICI countries. Meanwhile, widespread mobile-device ownership and inconsistent fixed-line availability contribute to the emerging trend of mobile-Internet adoption.

Although Internet connections in Russia are among the cheapest of all the BRICI countries, rates differ dramatically by region—a digital divide that is one of the most important nuances to grasp. In large and central cities such as Moscow, St. Petersburg, and Yekaterinburg, unlimited-traffic broadband connections cost around \$10 to \$15 per month for speeds of 2 to 8 Mbps (megabits per second). In smaller, more remote cities, however, prices are much higher—sometimes up to ten times higher—and connections are slower. In Novosibirsk, a 4 Mbps connection is \$30 per month, while in the easternmost part of the country, 2.5 Mbps connections are in the \$70 range—and in Murmansk, a 1 Mbps connection is \$120 per month.

In addition, the availability of fixed-line broadband is fairly limited, with only about 25 percent penetration. It is thus not surprising that only 8 million Russians have fixed-line broadband subscriptions, although another 12 million have dial-up connections. As fixed-line broadband becomes more widely available, of course, penetration will increase. Our conservative estimate is that penetration will be 56 percent by 2015 and could be as high as 70 percent.

Russians are active mobile users—the SIM penetration rate of 141 percent indicates a common practice of owning multiple SIM cards, in large part because consumers use different mobile plans for different needs. However, we estimate that between 75 and 80 percent of the population own mobile devices, which is quite high. While prices vary among telecom operators, voice calls cost around \$0.05 per minute, and SMS rates are about \$0.05 per message.

About 12 percent of Russian mobile-phone users access the Internet through their devices, the second-highest proportion among the BRICI countries after China. Besides engaging in traditional mobile-phone activities such as calling and SMS, Russian users also send multimedia messages and seek out mobile music. Russia's 3G net-

work has not yet been completed, which has dampened growth so far. Even the coverage cited by service providers distorts actual availability in that many frequencies have not yet been opened or have only recently been released from exclusive use by the military. However, the main 3G providers already have a few thousand base-transceiver stations apiece, and the rollout should be completed by 2011. Mobile-network operators are already aggressively going after users, which should cause prices to go down.

Search engine use and e-mail are the leading online activities in Russia.

Russia's Online-Usage Patterns

Russia's digital consumers average about 1.7 hours online each day, which according to our projections will increase to 2.4 hours by 2015. The growth in fixed-line broadband and mobile-Internet availability will help push the total time that Russians spend online each day from its current level of 75 million hours to 180 million hours in 2015.

Search engine use and e-mail are the two leading online activities in Russia, at 81 percent and 78 percent, respectively. More than half of Russian digital consumers (such as Darya, profiled in the sidebar "Darya: A Sales Manager in Moscow") also use instant messaging and read news online. Also notable is that about 21 percent shop online—the second-highest proportion among the BRICI countries, after China—and this sector is growing extremely quickly. Online social networking is also increasingly popular, especially on Russian sites such as Vkontakte.ru and Odnoklassniki.ru.

Russia's Top Internet Sites

Language is one of the reasons for an early presence established by local companies—only a small percentage of Russians speak English. Localized content has further entrenched the entry barriers for foreign companies, and even though all the major foreign sites have Russian-language platforms, almost three-quarters of Russia's top 20 most-visited Internet sites are local, with Yandex.ru, Vkontakte.ru, and Mail.ru leading the way.

Yandex.ru, the local leader in Russia, is a search engine and Internet portal with a 64 percent market share—nearly three times that of Google. A few sites in Yandex.ru's empire also appear in the rankings—Ya.ru is the same engine but performs only search operations, and Narod.ru is a site-hosting platform.

Darya

A Sales Manager in Moscow



Darya, a 28-year-old sales manager from Moscow, uses the Internet for work and entertainment, and also to make her life more convenient. A single mom, she lives with her son in an apartment; they have two mobile phones, a desktop PC, a laptop, and a digital camera. She spends

about \$100 a month on connectivity—\$15 on broadband, \$18 on 2G mobile Internet, and \$70 on her mobile phone.

Darya is an active user of e-commerce platforms, spending around \$650 each month on online purchases. During a typical day, she will buy food online to be delivered to her home in the evening and browse Internet stores for

personal purchases such as a handbag or a CD. An employee of a flower delivery company, Darya uses the Internet frequently in her daily tasks, including e-mailing clients and using the Web to conduct industry research. To keep in touch with her friends, Darya uses a social-networking site, Skype, e-mail, mobile short messaging, and Yandex.ru's blog site.

For Darya, the convenience of using the Internet for communication and e-commerce is paramount. "The Internet is a convenience and gives me unlimited opportunities—I couldn't imagine my work process without it," she says, noting that shopping online allows her to buy things that would otherwise require her to travel to remote parts of Moscow.

The rise of social networking in Russia is clear in the traffic rankings. Vkontakte.ru is a social-networking site modeled closely on Facebook; as of April 2010, it had more than 75 million registered users. (Vk.com is the same network but with no Russian-language interface.) Odnoklassniki.ru, meanwhile, is geared more toward connecting current and former classmates. Facebook.com has been rapidly gaining market share as well and already ranks in the top 20.

While the government has reiterated its commitment to stepping up its efforts regarding intellectual property protection, the preponderance of free content in Russia means that many users are unwilling to pay for content. "I don't understand people who are buying films on discs or paying for online films," says Egor, an 18-year-old who lives in Yekaterinburg. "Usually two weeks after the official film release, you can download a [high-quality version] from Torrents.ru." This reluctance to pay for content helps explain the popularity of peer-to-peer file-sharing sites.

However, Russians have more disposable income on average than consumers in any other BRICI market, and many are willing to pay for services such as online games. "I usually pay \$5 to \$10 per month for a gaming site account," says Roman, another teenager from Yekaterinburg. "It's not much money for me and it gives me the chance to play games with many other people simultaneously."

India: A Low-Maturity, High-Growth Market for Years to Come

India's digital-consumption marketplace has clear divisions along urban-rural, rich-poor, and old-young lines. Online content is accessible predominantly to India's young, wealthy urban populations. But rock-bottom prices in mobile services have eroded the rich-poor distinction in India's telecom market, and the vast majority of the population in urban areas—irrespective of income—has access to mobile services.

The Internet penetration rate in India is only 7 percent, although it is expected to reach 19 percent by 2015. India has among the highest PC costs and lowest PC availability of all the BRICI countries. Low rates of PC ownership mean that Internet cafés are major venues for online access. As India's mobile market matures, however, attention will turn to the Internet, and a rapid fall in prices and an increase in availability will occur quite quickly. This is likely to be especially true for wireless broadband.

In fact, rapidly improving access to wireless broadband is already driving down fixed-line prices. For instance, MTNL (Mahanagar Nigam Telephone) now offers an entry DSL package at \$1 per month, and it costs \$2 to \$5 per gigabyte for limited-usage plans, which are available at a base rate of \$15 per month depending on the speed desired. Start-up kits for both wired and wireless connec-

tions begin at around \$30 per month. Packaging of rates is also becoming increasingly flexible. For instance, telecoms have recently started offering prepaid fixed-line broadband.

As for 2G and 2.5G rates, mobile tariffs have fallen dramatically in the last 24 to 36 months. Voice calls currently cost about \$0.006 to \$0.009 per minute, and coverage is available to about 92 percent of Indians. What's more, operators tend to offer plenty of promotional deals, such as free minutes, free evening calling, or extremely low in-network rates. Some providers have introduced a per-second billing policy that works out to about \$0.013 per minute. Standard SMS rates are around \$0.01, although most providers offer vouchers that allow users to send 100 short messages per day for \$0.04. These developments are the result of a heated tariff war among Indian telecom companies that began in late 2009 and that continues to push down voice call, roaming, and long-distance rates. Meanwhile, auctions for 3G and broadband wireless access (BWA) spectrum concluded in 2010. At present, 3G rates are about \$0.11 per megabyte.

In general, most mobile devices in India are low-end models compared with the other BRICI countries—and the purchase of secondhand mobile devices is common, which has the effect of restricting users' mobile activities because of the technical limitations of older mobile devices. Since 2009, however, there has been major growth in imported Chinese handsets that offer good functionality at a fraction of the cost of established brands. As this trend continues, India should develop a broad base of potential mobile-Internet users. In fact, mobile Internet has grown even faster than fixed-line broadband has, and the success of data-card offerings from mobile operators over the last 12 to 18 months far outstrips that of fixed-line broadband.

The next big growth opportunity should emerge from the rural Indian market. The penetration of mobile phones in rural markets is far less than in urban markets, which have already begun to show signs of saturation. The biggest gap in rural areas has been network coverage and distribution channels—a divide that most companies are currently trying to bridge. That said, there is an untapped opportunity for improving data usage in all of India's con-

sumer segments, particularly the 18-to-24-year-old and 25-to-34-year-old segments.

India's Online-Usage Habits

Indian Internet users spend only half an hour online each day, on average—the lowest rate among all the BRICI countries. This average will increase to only 0.7 hour per day by 2015, leaving India still bringing up the rear among BRICI users in terms of daily time spent online. It is worth noting, however, that this is a conservative projection and that there could be some major surprises depending on how quickly pricing comes down and availability increases.

There are currently about 81 million Internet users in India—a number that will nearly triple by 2015 to 237 million. India's Internet use is concentrated mainly in the larger cities, where many users are migrants from smaller towns. This group tends to have had limited exposure to the Internet and therefore typically has a narrower range of online needs than more experienced users. Offsetting this situation is the prevalence of younger Indian users (such as Swapnil, profiled in the sidebar "Swapnil: An 18-year-old student in India"), among whom common uses for the Internet include entertainment and education. As we've seen in other BRICI countries, these digital consumers develop familiarity with digital products at a young age and tend to be more open to online consumption as their needs mature.

Almost all Indian digital consumers (95 percent) use e-mail—a higher percentage than in any other BRICI market. E-mail is popular for several reasons, the simplest one being that it was the first online application to which most Indian users were exposed. In fact, e-mail was the trigger for many current users to purchase PCs and subscribe to Internet services.

A consistent majority of India's online population uses entertainment- or communication-oriented functions, such as instant messaging (62 percent), online music (60 percent), news (61 percent), and video (53 percent). India also has one of the highest online-gaming rates of all the BRICI countries at 54 percent, just behind China's 55 percent.

Meanwhile, a relatively impressive 23 percent use social networking. Google's Orkut was the breakout social-

In India, mobile Internet has grown even faster than fixed-line broadband has.

Swapnil

An 18-Year-Old Student in India

An 18-year-old student who lives in the tier 2 city of Lucknow, Swapnil is a typical middle-class Indian teen. In his home, which he shares with his elder sister and their parents, one can find a PC (\$600), a mobile phone (\$150) with two SIM cards, and a digital camera (\$250). Swapnil receives about \$40 in pocket money each month and spends a quarter of it on his phone and SMS use. “My mobile is always by my side—like a best friend,” says Swapnil, who uses two SIM cards to take advantage of different operator rates.

Throughout the day, Swapnil uses SMS to coordinate classes and homework with friends. While he gives a presentation at school that he saved on his pen-mounted jump drive, his PC at home is downloading movies and

songs from peer-to-peer file-sharing sites. Upon returning home, Swapnil loads cricinfo.com to view the most recent cricket news, then checks personal e-mail and chats with friends on an instant-messaging platform. He sends text messages to friends to coordinate an evening get-together and to make plans for the next day’s classes. These exchanges can be fairly complicated—by his own reckoning, Swapnil sends between 100 and 200 text messages a day. At home before bed, he returns to the computer to chat with friends on Facebook, surf the Web, and finish re-searching his homework.

networking platform in India, although as in Brazil, its popularity is gradually giving way to Facebook and Twitter. Among professionals, LinkedIn is a particularly common way of maintaining one’s network and is gaining in popularity. For Indian digital consumers using online video, YouTube is among the most popular sites by traffic volume.

Indians’ mobile-phone activity is limited almost exclusively to phone calls and SMS, although only about half of India’s 507 million mobile-phone owners use the latter. Just 5 percent use mobile video, and few other mobile activities rate at all. Again, this could change when 3G and other forms of wireless broadband are launched in earnest.

India’s Top Internet Sites

Three-quarters of India’s most popular sites are international—more than in any other BRICI country—most likely due to the prevalence of English, which is one of India’s official languages. Of the Indian sites, Rediff.com is very popular for India-specific content, such as news and movie reviews, and it used to be common for e-mail as well. Since its inception in 1997, Naukri.com has been the most commonly used job-hunting website in India, leading a pack that includes Monster.com and the *Times of India* job portal. Although many foreign sites are popular, some of the most popular platforms in India are those that appeal to Indian needs and tastes. For instance, Cricinfo.com is India’s most popular cricket website, and its live score updates are especially important in driving

site traffic. Another notable site is Shaadi.com, a matrimonial website that is rapidly gaining popularity in India.

China: Growth Scenario—Mature Beyond Expectations

China’s 90 percent level of broadband availability—and broadband’s affordability relative to local wages—have laid the foundation for a blistering pace of digital consumption. Over the three-year period covering 2007 through 2009, Internet penetration increased at a 41 percent annual growth rate. But however astonishing this pace of growth, what’s even more impressive is that China’s current 384 million Internet users represent only 28 percent of China’s population.

The main pathway to the Internet at present is through PC connections. Only an estimated 20 percent of the population own PCs, but many tens of millions more are able to access the Internet at Internet cafés or through PCs that are shared by a household or at work. Meanwhile, 769 million people, or 57 percent of the population, own mobile phones. Nonetheless, mobile-Internet use remains fairly undeveloped in China.

China’s outstanding growth in digital consumption overshadows a crucial fact: although Internet penetration in China is expected to increase by 2015 to more than 650 million users, this will still be less than 50 percent of the

total population.³ Much of the increase will come from rural China. In these areas, annual income per capita is closer to levels in India and Indonesia. As their incomes rise and the Internet becomes more widely accessible, rural users will account for the next wave of growth. Annual incomes in rural areas increased from \$407 per capita in 2005 to \$845 in 2009, a 20 percent compound annual growth rate. And while only 34 percent of the rural population earned more than \$882 per year in 2009, that proportion will reach 54 percent by 2015.

In fact, China's vast countryside is already a major pocket of growth, which will continue as broadband and mobile connectivity penetrate deeper into rural areas. In tandem with infrastructure development, Chinese rural users are absorbing sophisticated Internet-usage habits from their wealthier compatriots. For many Chinese digital consumers (such as Jianhong, profiled in the sidebar "Jianhong: Chinese Teen's Digital Experience Focuses on Fun, Friends, and Studies"), Internet use is now a fixture in their daily lives. Chinese Internet users spend an average of 2.7 hours a day online, up from 2.4 hours a day in 2006—and 0.4 hour a day more than U.S. users. As a country, China spent 1 billion hours online per day in 2009—double the number of hours in the United States. That number will surpass 2 billion by 2015.

Chinese Internet users exhibit distinctive online-behavior patterns compared with those in other BRICI markets. Specifically, they use their Internet connections to entertain themselves and communicate with others to a much greater extent and in many more ways. One of the most distinctive online habits among Chinese consumers is the tendency to prefer instant messaging over e-mail: 87 percent of Chinese digital consumers use the Internet for instant messaging, compared with only 53 percent for e-mail. China also has the highest usage rates for online music, online video, online gaming, and news reading. As in the other BRICI countries, availability is a major factor in online entertainment activity—the wealth of media available online owing to China's loose intellectual-property laws makes video-streaming, e-book, and music sites key entertainment destinations.

China's Top Internet Sites

Of China's most popular sites, only four are owned by multinationals. The dominance of local companies is due

China's 384 million
Internet users
represent only 28
percent of
the population.

largely to their ability to tailor their offerings to Chinese preferences. These companies have a deep consumer understanding, localized product offerings, and an ability to work more flexibly within the Chinese government's regulatory environment. The top ten sites include search engines, news portals, Web video, business-to-business e-commerce, and instant messaging or value-added service sites, showing the broad spectrum of Chinese digital consumption.

China's digital market was valued at \$402 billion in 2008, having grown 20 percent annually since 2004. A handful of Chinese digital companies have led this stupendous rate of growth. Companies like Tencent and Alibaba have come to dominate

the Chinese market and are now some of the biggest digital companies in the world. Many of these "digital giants" have also built a significant presence overseas. Alibaba.com has 50 million users from 240 countries around the world, and Tencent—a provider of the instant-messaging platform QQ and Internet value-added services such as online games and social networking—recently invested in DST (Digital Sky Technologies), a Russian company that owns various prominent Russian online destinations and that also has significant stakes in Facebook and other global online platforms.

Indonesia: On the Brink of a Mobile-Internet Revolution?

If we look strictly at the total market capitalization of all listed digital companies, Indonesia, at \$25 billion, is the least developed of all the BRICI countries. However, the distinctive and dynamic online-user behavior that we've seen in the last year or so suggests that Indonesian digital consumers adapt quickly to technology upgrades and are active in using the Internet to meet social and practical needs—some 12 percent of Indonesians are Internet users, and penetration is expected to triple by 2015.

One of the most prominent characteristics of the Indonesian market, compared with the other BRICI countries, is the unusually high activity rates of mobile phone and mobile Internet usage. Mobile connectivity is driven

3. See *China's Digital Generations 2.0: Digital Media and Commerce Go Mainstream*, BCG report, May 2010.

Jianhong

Chinese Teen's Digital Experience Focuses on Fun, Friends, and Studies



Jianhong is a middle-schooler in Guilin, one of China's tier 3 cities. Like most children of his generation, Jianhong is an only child. He lives with his parents in an apartment with an unbranded desktop PC that cost around \$550, and he owns a mobile phone and an MP3 player. His parents give him \$30 a month in pocket money. He spends \$10 a month on communication and entertainment—\$3 on his instant-messaging platform account, \$3 to \$4 on online games, and \$3 to \$4 on his mobile phone.

On a typical school day, Jianhong uses his mobile connections to be online around the clock. During class, he sends

instant messages to friends on his mobile; he uses social-networking sites at lunch (stealing friends' cabbages on the popular Chinese site QQ Farm) and his desktop instant-messaging platform to discuss homework after dinner, ending his day by playing an online game before bed. Jianhong says he sends instant messages, plays games, and goes on social-networking sites for fun and to build and maintain friendships.

by affordability—and voice costs can be as low as \$0.01 per minute, with BlackBerry subscriptions costing about \$16 per month. Mobile broadband via data cards is priced at a flat rate of \$17 to \$33 per month. And at \$0.013 per megabyte, Indonesia's 3G costs are higher than in China or Brazil but much lower than in India and Russia.

The affordability of mobile connectivity in Indonesia has driven mobile penetration to 66 percent—higher than in China or India. Take 22-year-old Bisri, who lives in Jakarta. "My life revolves around my cell phone," he says. "A lot of my activities, both work and personal, need its support. I can't imagine living without it for more than a few hours." Penetration of 3G is the highest among all the BRICI countries, with 26 million users—almost twice China's 15 million, and many times more than in the other BRICI countries.

By contrast, only 5 percent of Indonesians own a PC, although this should hit 15 percent by 2015. PC costs relative to Indonesia's low disposable incomes are, of course, a major factor. And fixed-line broadband costs are also high, at around \$35 per month. Half of those with Internet access at home subscribe to dial-up instead. Many of those without a home broadband connection head to Internet cafés, called "warnets"—or use their mobile phones. Given the prevalence of mobile-phone use in general among Indonesians, and their adoption of 3G, mobile Internet could well emerge as an alternative to

home PC use and become a key growth pocket as 3G becomes more affordable and available.

Indonesia's Internet-Usage Patterns

On average, Indonesian Internet users spend only about 0.9 hour online each day, an amount that will increase to only about 1.1 hours by 2015. Due to Indonesia's low user base compared with that of the other BRICI countries, this amounts to only 27 million hours online per day, although that number will jump to 103 million by 2015.

Indonesia has among the most active online social networkers of the BRICI countries, with more than half of Internet users (such as Hafiz, profiled in the sidebar "Hafiz: A High-School Student in Jakarta") participating in social-networking sites. One remarkable aspect of the social-networking phenomenon is its mobile dimension—some of the more avid users with whom we spoke had purchased mobile devices with mobile-Internet functionality specifically in order to be able to update their Facebook page on the go. It is also important to note that the mass adoption of social networking in Indonesia is by no means restricted to youth as it is in other markets—we spoke with 50-year-olds who were using Facebook as a way to stay updated with their network of friends.

Although Facebook's popularity is primarily due to the social-networking function, the instant-messaging fea-

ture on its interface is also useful because instant messaging is quite popular in Indonesia. Again, price sensitivity is a factor here, because instant messaging is a free alternative to SMS or voice calls. In addition, search engine and e-mail usage have high rates of popularity. Among the BRICI countries' digital consumers, Indonesians are also the most active users of bulletin board systems and forums, with 33 percent participating.

About 47 percent of Indonesian digital consumers read online news, and the Detik portal is one of the most popular sites in Indonesia. Online entertainment has yet to catch on as a mainstream activity, with only around one-third of the Indonesian Internet population using functions such as online video, music, and games—although the high traffic rankings of peer-to-peer file-sharing sites indicate that Indonesian digital consumers who seek entertainment online are fairly active. In general, Indonesian digital consumers are unwilling to pay for online entertainment content, and because enforcement of copyright protection laws is difficult, peer-to-peer sites continue to be popular sources of content for Internet users. In addition, games such as World of Warcraft and Counter-Strike are popular pastimes in warnets, usually among younger Internet users.

E-Commerce

As far as e-commerce goes, many of the common concerns about product quality, seller fraud, and payment safety still prevail. That said, young urban digital consum-

ers are increasingly active in e-commerce and are gradually becoming more willing to pay via online platforms. Echoing a sentiment shared throughout the BRICI markets, Indonesian e-commerce consumers say that the broader range of product choice online is appealing. "I like buying things online because they are unique—you cannot find those things in stores," says Bisri, a 22-year-old Jakarta resident.

Even though many people we spoke to are reluctant to trust the security of online purchasing platforms, buyers and sellers frequently use online forums to arrange a transaction offline. At present, a popular transaction method is to buy low-value products online but arrange face-to-face meetings to pay for high-value products.

Even for those who do not take it to this level, many consumers see business-to-consumer sites such as Kaskus.us as important sources of product details, customer reviews, and other information that they consult to make decisions about offline purchases. And although business-to-consumer online transactions are not yet pervasive, Indonesian digital consumers are certainly beginning to use mobile Internet to conduct banking, including paying bills or checking their account statements. The adoption of e-commerce tends to go in tandem with the adoption of mobile and Internet banking, because consumers experimenting with e-commerce will find it easier to make payments if they are already familiar with an online-banking platform.

Hafiz

A High-School Student in Jakarta



Hafiz is an 18-year-old high school student living with his parents in Jakarta. He spends about an hour online each day—about half an hour downloading music, 15 or 20 minutes on Facebook, and 10 to 15 minutes reading news on Detik.com. In his home, Hafiz has access to an unbranded desktop PC (which cost the family \$300), two mobile phones, a digital camera, an iPod Nano, and a PlayStation Portable. He is given \$50 in pocket money each month and spends \$15 on communication and entertainment, including a \$5 monthly fee for access to a nearby warnet, where he plays games such as Counter-Strike.

As far as Hafiz's PC use goes, he reads sports news on Detik, meets friends online to play Counter-Strike, uses search engines to conduct research for school projects and to locate free downloads of music he's interested in, and updates his iPod Nano. Hafiz is also an active mobile-phone user. "I'm not at home very often so I communicate using my mobile phones," he says. "Without a mobile phone, I would feel like I'm back in primitive times—I'd feel so out of touch!" Hafiz uses his CDMA (Code Division Multiple Access) phone to call his girlfriend and send her short messages throughout the week, and uses his GSM (Global System for Mobile Communications) phone—with 2.5G technology—to read friends' Facebook profiles and to update his own profile with text and photos.

Mobile Usage Patterns

Although Indonesia is more like India in terms of disposable income, its mobile habits more closely resemble Russia's or China's. Indonesia currently has 9 million mobile-Internet users, up from just 2.3 million in 2007. All of the digital consumers we surveyed use SMS—there's a widespread perception that text messaging is cheaper than calling. Still, the growth of SMS may be slowed somewhat in the medium term by the growth of instant messaging, which is already popular among young people and is seeing quick adoption among other segments. About 20 percent of mobile-phone users have more than one SIM card, and 9 percent have two phones for personal use, largely to take advantage of in-network rates to talk with friends and family on the same network.

Indonesian digital consumers use their mobile-handset connections to meet a variety of needs that are typically met in other countries through PC-based Internet connections. In addition, 22 to 28 percent of mobile-phone own-

Indonesian digital consumers use their mobile handsets for a variety of needs.

ers use multimedia messages, ringtone downloads, and mobile music and video. An impressive 26 percent use mobile e-mail, and 15 percent use mobile payments and e-commerce—higher rates than in the other BRICI countries. In general, this more sophisticated type of usage is more common among young users such as Betara, an 18-year-old Jakarta resident who says, “My mobile phone allows me to listen to music, watch videos, use SMS, and talk to my girlfriend—it makes my world more beautiful. It's like my soulmate.”

Indonesia's Top Internet Sites

Of the most popular sites (on the basis of Web traffic), only 30 percent are local, and companies such as Facebook, Google, Yahoo!, Blogger, WordPress, YouTube, and Wikipedia are all in the top ten. The leading local sites include Detik (and its various portals), Kaskus, Kompas, and Klik BCA. While Detik and Kompas are news portals, Kaskus is an e-commerce platform and Klik BCA is an online-banking website.



Outlook

2015 and Beyond—and a Call to Action

One of the biggest differences among the BRICI digital markets comes down to their stage of development. Despite 20 percent compound annual growth in Internet penetration, Indonesia will have only around 37 percent Internet penetration by 2015, and India only 19 percent—even though costs are rapidly coming down and availability is steadily increasing. This hints at the long-term scope of growth for these markets, of which availability and affordability of digital services will be crucial indicators.

The average daily time that users spend online is important, too. Even though heavily determined by cost and access, the amount of time that people spend each day using the Internet tells a lot about how embedded digital consumption has become in their daily lives. Take China and Russia, both of which have Internet penetration rates of around 30 percent. However, Chinese Internet users have already adopted digital consumption as a mainstream activity—they currently average 2.7 hours online each day, compared with Russians' 1.7 hours. By 2015, digital consumption will have shifted into the Russian mainstream, with Internet users averaging 2.4 hours online each day. Yet even in 2015, the two countries will still have tremendous potential for growth, with room for continued gains in Internet penetration.

Brazil will have the most mature market by 2015 on the basis of Internet penetration. As fixed-line broadband availability expands rapidly in the next few years, the Internet penetration rate in Brazil will surpass 70 percent. With the average Brazilian digital consumer spending 2.1 hours online each day in 2015, the national total will rise from its current 63 million hours per day to 329 million hours per day—the highest of all the BRICI countries oth-

er than China, whose population is nearly seven times greater than Brazil's.

The crucial backdrop to the development of the BRICI digital markets is the diversity and size of the companies that serve these digital needs, such as China's Tencent or Alibaba.com. By 2015, which companies will be serving India's digital markets? Will the rapid expansion of mobile Internet cause Russian consumers to leapfrog PC ownership? Which companies will be monetizing Brazil's and Indonesia's enthusiasm for online social networking? Understanding the current range of BRICI online-user habits will help considerably in answering these questions.

And while our projections stop at 2015, the potential after 2015 is greater than anything we've seen in these markets. Even though about 600 million more people will join the ranks of BRICI digital consumers by 2015, the Internet will still be used by less than half the total BRICI population, leaving a large opportunity to be captured.

But the danger in marveling at the extent of the long-term BRICI growth potential is that it's easy to overlook the pace of change—and the urgency of establishing a presence in the BRICI countries *now*. As digital consumption moves into the mainstream of BRICI society in the next few years, the online habits of the current generation of digital consumers will form the digital-market ecosystems that will be in place for generations to come. Companies looking to engage these consumers in the future will need to establish themselves now in order to grow with them.

Just how should this be done? The key takeaway from our BRICI research is, paradoxically, that there is no single strategy to apply to the BRICI markets. Those looking to

enter the BRICI markets—or to enhance their presence there—will need to develop individual plans for each BRICI market.

Understand the different stages of BRICI market development. The cost and availability of digital devices and Internet access set the base conditions for development. Grasping the basics of these factors is the first step in forging a BRICI digital-markets strategy. As costs come down and availability goes up in these countries, growth patterns will more closely resemble China's, where cheap, widely available broadband has introduced hundreds of millions of digital consumers to the Internet within a period of a few years.

Create a set of priorities and agendas specific to each market. Before companies can build the unique characteristics of BRICI digital consumers into their go-to-market strategies, they first must identify their core objectives in each market. Successful approaches will take into account the underlying factors of a given market's development path and how changes in these factors will affect consumer behavior.

Develop different strategies for different population segments within a market. One thing that all the BRICI countries have in common is a wide disparity in wealth segments—and associated consumer behaviors—within their digital markets. Understanding not just who these populations are but also their habits, needs, and motivations is a vital step in crafting an effective strategy in any of the BRICI markets. This knowledge will form the basis for communicating with these new digital consumers.

Adapt to local conditions. Rising disposable incomes alongside ever-cheaper devices and mobile or broadband access ensure a steep rate of digital-consumption growth in BRICI markets. However, the rate of growth is as much about adaptability as about availability or affordability. Consumers in the BRICI countries have shown remarkable flexibility in how they meet their digital needs in the face of price and other concerns. And as we've seen over and over again in the BRICI countries, local digital players respond to adverse market conditions—ones that foreign companies often see as inhibitors—by adapting their models on the basis of a deep understanding of local needs and tastes. UOL, Globo, Terra, and iG continue to

be dominant players in Brazil's digital universe because they leveraged local content early in the 1990s to establish leading brands and positions. Beyond focusing on content, companies must understand how to motivate customers in price-sensitive developing markets, as iG showed when it aggressively grabbed market share as a “free Internet provider” in the late 1990s and early 2000s.

The pace of BRICI digital growth is unforgiving of strategic mistakes.

The unexpectedly fast rise in the popularity of e-commerce platforms has meant that, more often than not, users' comments are affecting brands more powerfully and influentially than retailers' efforts are. The implications are crucial not just in identifying local partners but also in crafting a brand strategy. Companies looking to understand their brand's reputation and positioning, and to use that knowledge to interact with consumers, will need to develop a comprehensive grasp of how online platforms have changed how their products are sold.

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In client meetings, we hear the same question time and again: “Is this for real?” Our research has shown that yes, the BRICI digital revolution is already well under way. Not only is the penetration of digital usage in these markets substantial but it's moving extremely fast. Given how rapidly the BRICI markets are developing, those companies planning entry strategies will have to act quickly—or risk missing the opportunity.

China provides an instructive example because, for many companies, opportunities have already been missed—most of the relationships between the digital players and Chinese consumers have already been cemented. The next few years will make apparent which global brands have grasped how to leverage these relationships in time to influence a new generation of digital consumers. Fortunately, the other BRICI markets offer a chance to develop relationships with consumers before the playing field has been fully established.

The pace of digital-consumption evolution that we're seeing in the BRICI markets is unforgiving of strategic mistakes. Companies considering the BRICI markets cannot afford to wait for these markets to mature—they need to connect with consumers now in order to grow with them in the coming decades.



Appendix

Researching BRICI Digital Consumers

In late 2009, BCG conducted an extensive consumer-research campaign focused on Brazil, Russia, India, China, and Indonesia. We interviewed 2,000 people from ten different cities within the BRICI countries, including 30 focus groups and a total of 50 in-depth individual interviews. Our research covered consumers from the ages of 14 to 50 and spanned various city tiers and a diverse range of income levels and socioeconomic backgrounds. Interviewees were selected on the basis of age, gender, and income level to form a representative sample of the sociodemographic composition of each city. Interviews were conducted by experts using a variety of formats, including focus groups, workshops, diary-keeping, and game-playing exercises. The interviews covered a broad range of questions about usage patterns, attitudes, motivations, and aspirations.

We used BCG's city-income database and more than 20 third-party sources to determine the overall number of Internet users and mobile-phone owners in the BRICI countries. In addition, we interviewed experts from various sectors, including media, Internet, and software companies; device makers; telecommunications operators; and venture capitalists.



For Further Reading

The Boston Consulting Group publishes other reports and articles that may be of interest to readers of this report. Recent examples include the publications listed here.

A New World Order of Consumption: Consumers in a Turbulent Recovery

A report by The Boston Consulting Group, June 2010

China's Digital Generations 2.0: Digital Media and Commerce Go Mainstream

A report by The Boston Consulting Group, May 2010

The Keys to the Kingdom: Unlocking China's Consumer Power

A report by The Boston Consulting Group, March 2010

China's Luxury Market in a Post-Land-Rush Era

A White Paper by The Boston Consulting Group, September 2009

Winning Consumers Through the Downturn: 2009 BCG Global Report on Consumer Sentiment

A report by The Boston Consulting Group, April 2009

Wealth Markets in China: The Beginning of the Race for China's Rich

A Focus by The Boston Consulting Group, October 2008

Foreign or Local Brands in China? Rationalism Trumps Nationalism

A Focus by The Boston Consulting Group, June 2008



Note to the Reader

Acknowledgments

We would like to acknowledge the following members of the BCG team for their support in preparing and writing this report: Shlok Chandra, Chris Cheng, Alejandro Contreras, Miana Frederico, Brian Gotauco, Aussie Haryono, Ma Hongbin, Deepak Kulkarni, Grace Kuo, Gostik Maryna, Deepak Mittal, Alex Mittelman, Olga Narvskaja, Xu Ning, Alan Park, Benson Qian, Sumit Sarawgi, and Andrew Tratz.

We would also like to thank members of the editorial and production team, including Katherine Andrews, Kim Friedman, Monica Petre, and Janice Willett.

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