The Spread of Smart Phones is Negatively Affecting the Lifestyles of People From America and Japan

Section3

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Negatively Affecting the Lifestyles of People From America and Japan

1. Introduction

Do you remember how the world was 10 years ago? 10 years ago from now, it was 2001, the beginning of the 21st century. At that time, "Space Odyssey" had yet to be released, and you may have thought that 2001 was an ordinary year. In terms of history, however, we made a big step and passed the point of no return during this year. The biggest incident that we encountered in 2001 was the devastating terrorist attack on September 11th. At the same time, 2001 was also a year during which a big incident that impacts our lives daily was predicted.

According to the web article, A You Tube History of Steve Jobs Keynotes, posted by Harry McCracken, in the MACWORLD EXPO that took place in the beginning of January, Steve Jobs reflected back in the history of the PC and commented the period during 1976 to 1979 as the prehistoric age, the period during 1980 to 1994 as the Golden Age during which PCs have prospered as a device in which to use the Internet, then he predicted the Golden Age where we use PCs as a "digital hub" was coming in 2001. Then he defined what was created out of it as the "digital lifestyle." 10 years have elapsed since then. A digital lifestyle has come into the world but how has it affected us over 10 years?

The biggest revolution in digital lifestyle was the introduction of the iPhone in January 2007. It was the beginning of the so called smart phones. Steve Jobs

introduced the iPhone and during his speech. He said, "Every once in a while a revolutionary product comes along that changes everything." The introduction of the iPhone has indeed greatly changed the perspectives of the mobile phone industry and IT industry from America to the whole world. Indeed, smart phones brought enormous influence to our lifestyles. Since I have a great opportunity to investigate the influence of smart phones in our lifestyles in the Silicon Valley where the headquarters of Apple and Google are present, and I'm an Android smart phone user interested in how people use their smart phones, the use of smart phones will be also discussed in this research paper. At the same time, I found an interesting article on the Internet about this topic.

Health Herndon, author of Too Much Technology Breeds Health Problems in Teens suggests that "Technology has certainly provided amazing advances in a short amount of time. But, as most things in life, it's important that people don't overuse the technology." In other words, it is true that thanks to technology, we have progressed in a short period remarkably, but moderate use of the technology is essential like most life things. We only tend to focus on the positive aspects of the technology, but it is natural that there also should be negative aspects of that. That' is why I believe the spread of smart phones is negatively affecting the lifestyles of people from America and Japan.

2. Body

For a start, according to Wikipedia, smart phones are defined as phones with more advanced computing ability and connectivity than a contemporary feature phone. And then, Pew Research Center Publications show that "35% of American adults own a smartphone". That means more than one-thirds of American adults are smart phone users and the trend seems to be spreading more and more in America. Such a rapid spread of the smart phones is considered to be due to its convenience. We can do so many things with just a single small unit of smart phones. By way of illustration, we can browse the Internet, make phone calls and e-mail, but we can also shoot photos, manage our schedules and use GSP maps. As a matter of fact, we find many news articles that introduce the positive aspects of the smart phones to our lifestyle. But, the survey I would like to do this time is on the possibility that because of this very convenience, our movement may be restricted or some effect that leads us toward some kind of negative direction may appear in our lifestyles. And, if there is indeed such a negative effect, what it could be. Moreover, I would like to know how much people are aware of this negative effect. I found a few articles mentioning the negative aspects of smart phones that have something to do with my research.

One article is that Tara Parker-Pope, author of An Ugly Toll of Technology: Impatience and Forgetfulness says that "we do spend a lot of time with our devices, and some studies have suggested that excessive dependence on cellphones and the Internet is akin to an addiction". That is, some researchers showed that because of our devices, we waste much time, and dependency on the cell phones and the Internet can be said as a kind of addiction. As a personal experience, I actually feel addicted to my smart phone from time to time and I know some of my friends also feel that way.

Another article is that Healthy Herndon, author of Too Much Technology Breeds Health Problems in Teens suggests that "Technology has certainly provided amazing advances in a short amount of time. But, as most things in life, it's important that people don't overuse the technology." After all, according to Health Herndon, it is true that, thanks to technology, we have got progressed in a short period remarkably, but moderate use of the technology is essential like most life things.

The other is that Michael Lloyd, author or Popularity of smartphones emphasizes that "The study found that smartphone-owning teens are ditching traditional activities in favor of their device. Nearly a quarter are watching less television, while 15% admitted to reading fewer books to spend more time glued to their handset." Michael Lloyd insists that according to the survey, smart phones cause teenagers who have the devices to change their previous lifestyles. About a quarter decrease the time to watch TV and read books and they have more time to use their smart phones. All the three articles on the Internet are summed up that people tend to use the smart phones excessively as they are addicted to them and rely on their convenience making people spend more time to handle the smart phones than ever before, which may probably end up with posing a problem for the time management. I believe this could also be a problem for people's personal lives. These are the specific instances that conventional lifestyle might be changed around the smart phones because of their convenience.

3. Data Analysis

It was based on this hypothesis that I prepared the questions to conduct a survey. The venue was on the campus as well as inside the Stanford Shopping Center with 25 respondents. To make a comparison with Japan, I also acquired 25 Japanese respondents by sending email to my acquaintances, so the total number of respondents has been 50 people including 25 Americans and Japanese. Because I confirmed all of them whether they have their smart phone in question1, 100% of the respondents have their smart phone. You can refer to the set of all questions in the appendix.

In question3 "How much does your smart phone cost a month? (per month, including apps contents fee)".By this question3, I intended to analyze the use cost, because In my conjecture, the more the use cost is, the more the user uses the smart phone. As a result, I found out that American respondents cost about \$73 on average

but 36% of them don't know how much it costs. On the other hand, 100% of Japanese responders know how much it costs, and it was about \$93 on average (\$1=80yen). This result shows that Japanese pay about 27% more than American.

In relation to this question, in queston7 "How much do you use your smart phone in a day?" I was surprised to see a big difference in America and Japan. 64% of the Americans answered "1-2 hours", 28% answered 2-3 hours, and only 8% answered more than 3 hours. To the contrary, 8% of the Japanese answered "1-2hours", 20% answered 2-3hours, and as many as 60% answered "more than three hours". I consider this data could reflect the use cost. Besides, It shows Japanese use smart phones more than Americans.

What can we say from these results? Taking following results got by my survey into the consideration, it could be appear that how smart phones affect the lifestyles of people from America and Japan more clearly. In fact, my survey shows similar results in several questions. In question4, "Do you think smart phones affect you positively?" 92% of Americans answered "Yes" and so did 100% of Japanese. Then, in relation to question5, I prepared question5 "For what do you use the smart phone?" to specify what way of the use leads people to feel convenient and affect positively. Actually, there are many points of similarity between America and Japan. Many Americans and Japanese use their smart phones for web surfing, calling, sending email, playing games, a clock, taking photos, and killing time. They are all over 80%. However, 60% of American respondents use their smartphones for SNS such as twitter, facebook and so on, but 100% of Japanese respondents do that. This may be the course of difference in how long they use smartphones between America and Japan.

So far, above survey for specific purposes to use smartphones revealed that both Japanese and Americans are affected positively by smartphones. However, the rest of the questions showed that too much technology is causing negative effect. Let's look at how the negative effect is viewed by people. Some questions showed interesting results where the different awareness between Japanese and Americans can be seen.

In question12, "Do you agree with the statement below? Smart phones have some negative effects on your lifestyle" Both 12 Americans and 12 Japanese answered "agree" and 1 American and also 1 Japanese answered "agree" In short, More than half,52% people from America and Japan realize the negative effects of smartphones. This number was higher than I thought. Nevertheless, I was surprised to the result of question6 "Do you think you can use your smart phone efficiently?" 96% of the American respondents said "Yes" but only 64% of Japanese respondents answered "Yes" This result could reflect the longer time use of smart phones in Japan.

Are there enough sighs of overuse of smart phones? I consider this could be the

origin of all the negative effects of smart phones that cause our lifestyle to change. There are interesting results. In question10 "Can you imagine your life without smart phone?" 68% of the American respondents answered "Yes" as well as 56% of the Japanese. Furthermore, in question11 "Would you say you are addicted to your smart phone?" 52% of the American respondents answered "Yes" as well as 56% of the Japanese. Additionally, in question8 "Do you use your smart phone lying down in bed?" 92% of the American respondents answered "Yes" or "sometimes" as well as 96% of the Japanese. I consider these could be enough evidences that smart phones brought about negative effects, which could also bring about negative effect to the lifestyles of people.

Finally, in question13 "Do you agree with the statement below? The spread of smart phone is negatively affecting people's lifestyles in America (or in Japan if respondents are Japanese)" To this question about this my thesis as expected only 16% of the American respondents agree and 12% of the Japanese agree. Yet, 36% of Americans and 40% of Japanese are neutral. I might understand they haven't realized the whole negative effects to their country because the issue is too big to have a real feeling easily.

4. Conclusion

Considering that most people are using smart phones within thirty 30 minutes as well as the results of the question11, there is a possibility that the airtime based on personal statements is unintentionally under-claimed. I conclude that there exist people who are aware they are wasting time by too much personal use of smart phones. But I understand that it is difficult to admit negative effects over the whole nation in a more general way. I guess it all depends on the awareness of individuals after all.

All in all, The challenge of this survey is not only approaching to the negative side, but also to process the analysis mentioning both common points and differences, with comparison between America and Japan. According to the survey, the element of negative effect seems to share similarity between America and Japan. However America has a lower degree of dependence on smartphones than Japan. Also Americans are more effectively aware of time management in using their smart phones. But there are enough signs of overuse in both countries.

Smart Phone Survey

I am a Stanford student from VIA ALC1 program, and I am working on developing a research paper about smart phones in America. If you can spare a minute to answer these questions, I would really appreciate your help. **Gender** \square male \square female Age \square Below \square 18-26 \square 27-35 \square 36-44 \square 45-53 \square Above \square I don't want to answer. Education High school Degree College Graduate Master's Degree PhD other Annual Income: No income Below 10k 10-30k 30-60k 60-100k Above 100k □I don't want to answer 1.Do you have a smart phone? □ Yes □No (please only answer question12) 2.Which smart phone do you have? □Android □iPhone □Black Berry □Windows phone □other: 3. How much does your smart phone cost a month? (per month, including apps contents fee) □ \$ _____ □I don't know □I don' want to answer 4. Do you think smart phones affect you positively? Yes No 5. For what do you use the smart phone?(please check all of the items which apply) □Web surfing □Calling □Send email □Schedule management □GPS Map □SNS service □Play game □Clock □Take photos □To kill time □Others: 6. Do you think you can use your smart phone efficiently?
Yes
No 7. How long do you use your smart phone in a day? □less than 1hour □1-2hours□2-3hours □more than 3hours 8. Do you use your smart phone lying down in bed? Yes Sometimes No 9. When did you use your smart phone last today? □Within 30 minutes □Within 1hour □Within 2-3hours □Within 3-4hours □ Not all of them **10.Can you imagine your life without your smart phone?** TYes □ No 11.Would you say you are addicted to your smart phone?
Yes No 12.Do you agree with the statement below? Smart phones have some negative effects on your lifestyle □ Strongly agree □ Agree □ Neutral □ Disagree □ Strongly disagree 13.Do you agree with the statement below? The spread of smart phones is negatively affecting people's lifestyles in America. □ Strongly agree □ Agree □ Neutral □ Disagree □ Strongly disagree 14.If you answered "Agree" or "Strong agree", could you please write down what the negative effects are?

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An Ugly Toll of Technology: Impatience and Forgetfulness

By TARA PARKER-POPE

Published: June 6, 2010

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Are your <u>Facebook</u> friends more interesting than those you have in real life? **Well**



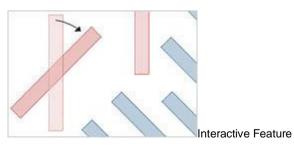
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Warning Signs of Tech Overload

How do you know if you're too absorbed in technology? Times' columnist Tara Parker-Pope spoke with experts, who identified these seven signs.



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- Your Brain on Computers: More Americans Sense a Downside to an Always Plugged-In Existence(June 7, 2010)



Is It Too Late to Unplug From Your Digital Life?

What it takes to tune out and turn off your laptop and other devices.

I Join the Discussion

Has high-speed Internet made you impatient with slow-speed children?

Do you sometimes think about reaching for the fast-forward button, only to realize that life does not come with a remote control?

If you answered yes to any of those questions, exposure to technology may be slowly reshaping your personality. Some experts believe excessive use of the Internet, cellphones and other technologies can cause us to become more impatient, impulsive, forgetful and even more narcissistic.

"More and more, life is resembling the chat room," says Dr. Elias Aboujaoude, director of the Impulse Control Disorders Clinic at Stanford. "We're paying a price in terms of our cognitive life because of this virtual lifestyle."

We do spend a lot of time with our devices, and some studies have suggested that excessive dependence on cellphones and the Internet is akin to an addiction. Web sites like <u>NetAddiction.com</u> offer self-assessment tests to determine if technology has become a drug. Among the questions used to identify those at risk: Do you neglect housework to spend more time online? Are you frequently checking your e-mail? Do you often lose sleep because you log in late at night? If you answered "often" or "always," technology may be taking a toll on you.

In a study to be published in the journal Cyberpsychology, Behavior and Social Networking, researchers from the University of Melbourne in Australia subjected 173 college students to tests measuring risk for problematic Internet and gambling behaviors. About 5 percent of the students showed signs of gambling problems, but 10 percent of the students posted scores high enough to put them in the at-risk category for Internet "addiction." Technology use was clearly interfering with the students' daily lives, but it may be going too far to call it an addiction, says Nicki Dowling, a clinical psychologist who led the study. Ms. Dowling prefers to call it "Internet dependence."

Typically, the concern about our dependence on technology is that it detracts from our time with family and friends in the real world. But psychologists have become intrigued by a more subtle and insidious effect of our online interactions. It may be that the immediacy of the Internet, the efficiency of the <u>iPhone</u> and the anonymity of the chat room change the core of who we are, issues that Dr. Aboujaoude explores in a book, "Virtually You: The Internet and the Fracturing of the Self," to be released next year.

Dr. Aboujaoude also asks whether the vast storage available in e-mail and on the Internet is preventing many of us from letting go, causing us to retain many old and unnecessary memories at the expense of making new ones. Everything is saved these days, he notes, from the meaningless e-mail sent after a work lunch to the angry online exchange with a spouse.

"If you can't forget because all this stuff is staring at you, what does that do to your ability to lay down new memories and remember things that you should be remembering?" Dr. Aboujaoude said. "When you have 500 pictures from your vacation in your Flickr account, as opposed to five pictures that are really meaningful, does that change your ability to recall the moments that you really want to recall?"

There is also no easy way to conquer a dependence on technology. Nicholas Carr, author of the new book "The Shallows: What the Internet Is Doing to Our Brains," says that social and family responsibilities, work and other pressures influence our use of technology. "The deeper a technology is woven into the patterns of everyday life, the less choice we have about whether and how we use that technology," Mr. Carr wrote in a recent blog post on the topic.

Some experts suggest simply trying to curtail the amount of time you spend online. Set limits for how often you check e-mail or force yourself to leave your cellphone at home occasionally.

The problem is similar to an eating disorder, says Dr. Kimberly Young, a professor at St. Bonaventure University in New York who has led research on the addictive nature of online technology. Technology, like food, is an essential part of daily life, and those suffering from disordered online behavior cannot give it up entirely and instead have to learn moderation and controlled use. She suggests therapy to determine the underlying issues that set off a person's need to use the Internet "as a way of escape." The International Center for Media and the Public Agenda at the <u>University of</u> <u>Maryland</u>asked 200 students to refrain from using electronic media for a day. The reports from students after the study suggest that giving up technology cold turkey not only makes life logistically difficult, but also changes our ability to connect with others.

"Texting and I.M.'ing my friends gives me a constant feeling of comfort," wrote one student. "When I did not have those two luxuries, I felt quite alone and secluded from my life. Although I go to a school with thousands of students, the fact that I was not able to communicate with anyone via technology was almost unbearable."

> A version of this article appeared in print on June 7, 2010, on page A13 of the New York edition. YOUR BRAIN ON COMPUTERS

More Americans Sense a Downside to an Always

Plugged-In Existence

By MARJORIE CONNELLY

Published: June 6, 2010

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While most Americans say devices like smartphones, cellphones and personal computers have made their lives better and their jobs easier, some say they have been intrusive, increased their levels of stress and made it difficult to concentrate, according to a New York Times/CBS News poll.

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A Multitasker's Perspective

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- Hooked on Gadgets, and Paying a Mental Price (June 7, 2010)
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Is It Too Late to Unplug From Your Digital Life?

What it takes to tune out and turn off your laptop and other devices.

F Join the Discussion

Younger people are particularly affected: almost 30 percent of those under 45 said the use of these devices made it harder to focus, while less than 10 percent of older users agreed.

Neil Erickson of Akron, Ohio, blames his lack of focus on his cellphone. "It's distracting, but you never know if something is going to be important," he said in a follow-up interview. Mr. Erickson, who is 28 and studying computer engineering, added, "I suppose I could cut down on checking e-mail and phone use, but I probably won't."

Technology has simplified life in many ways for Liz Clark, 49, a Realtor from Rye, N.Y., by allowing her to shop online, stay in touch with friends and keep tabs on her three children. "I can text them, and they get back to me immediately," Ms. Clark said.

But while mobile devices and PCs have eased stress for some, just about as many said the devices had heightened the amount of stress they felt.

"Every single electronic device absolutely causes some stress," said Warren Gerhard, 55, of Cape May, N.J. Because Mr. Gerhard, a retired member of the Coast Guard, is a volunteer E.M.T. worker, he cannot turn his cellphone off.

People seem to find it hard to shut down after work. Almost 40 percent check work e-mail after hours or on vacation.

Some people can't imagine living without their computers. About a third of those polled said they couldn't, while 65 percent said they either probably or definitely could get along without their PCs. The people who are most computer-dependent tend to be better educated and more affluent.

While most said the use of devices had no effect on the amount of time they spent with their family, a few were concerned. One in seven married respondents said the use of these devices was causing them to see less of their spouses. And 1 in 10 said they spent less time with their children under 18.

The nationwide poll was conducted May 6-9, using both land-line phones and cellphones. Interviews were conducted with 855 adults, of whom 726 said they used a personal computer or had a smartphone. The poll has a margin of sampling error of plus or minus 3 percentage points for all adults and 4 percentage points for computer and smartphone users. Complete results and methodology are available at <u>nytimes.com/polls</u>. *Marina Stefan contributed reporting*.

A version of this article appeared in print on June 7, 2010, on page A12

Too Much Technology Breeds Health Problems in Teens

The physical and mental health risks for children who can't pull themselves away from social media.

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Who doesn't know what Facebook and Twitter are these days? The two social networking sites have changed the way we communicate. While the purpose was to reconnect with old friends and connect with new people, too much time on these sites may actually do more harm than good.

The American Psychological Association just had its annual convention and among the speakers was psychologist Larry Rosen, who has been studying the effect of technology on people for more than 25 years. His most recent studies took a look at how social networking sites affect children, and Rosen presented his findings at the conference.

Rosen found that teens whom use more technology (such as video games or the Internet) miss more school and tend to have more stomach aches, sleeping problems, anxiety and depression. When it comes to mental health, teens and young adults who log onto Facebook all the time develop a narcissist personality. After all, Facebook provides a forum for people to share information about themselves around the clock, and having that captive audience can be quite addicting. Additionally, the more time that people spent time on Facebook, the more likely they were to have antisocial personality disorder, paranoia and alcohol use.

Not surprisingly, social media also appears to be shortening attention spans. Rosen observed students of all ages for 15-minute intervals and found that most were only able to focus for two to three minutes before turning their attention to something unrelated to their studies (most often a text message or mobile phone application). Students who checked their Facebook while studying performed worse than students who did not.

So what is a parent, teacher or guardian to do? If at all possible, keep the lines of communication open. Just like you have a discussion with your child about drugs or alcohol, you can also talk about technology. It's important to ask questions and learn how your child interacts online and how much time is spent online.

Also, just like you might censor a child's inappropriate outfits before he or she goes out, try to censor what they say online. Discuss what information is appropriate to share, the issues surrounding cyber bullying and how anything written on the Internet becomes a permanent, public record.

Try to encourage more face time with your child and his or her friends. It can be a study group with no distractions, going out to eat or enjoying a physical activity outdoors. And while this may sound obvious, it's important to lead by example. If you're always checking your BlackBerry or downloading applications for your iPhone, your child is going to pick up on that and copy that behavior.

Technology has certainly provided amazing advances in a short amount of time. But, as most things in life, it's important that people don't overuse the technology. There is a fine line between incorporating technology into your life or your child's life to enhance it, and having it completely overtake your existence.

Popularity of smartphones "beginning to affect social behaviour"

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Over a third of adults and 60% of teens who own a

smartphone have admitted to being "highly addicted" to the technology, according to Ofcom.

A new report from the communications regulator found that almost half of all teenagers and more than a quarter of adults now own a smartphone, and that use of the gadgets is changing social behaviour.

The study found that smartphone-owning teens are ditching traditional activities in favour of their device. Nearly a quarter are watching less television, while 15% admitted to reading fewer books to spend more time glued to their handset.

Smartphone owners are more likely to have their phones switched on 24 hours a day and would wake up in the night to answer or use it. They also make more calls and send more texts than owners of traditional handsets.

Nearly half of the teenagers questioned for the survey admitted to using their device in the toilet. Only 22% of adults confessed to using their phone while in the bathroom.

James Thickett, Ofcom's director of research, said: "Ofcom's report shows the influence that communications technology now has on our daily lives, and on the way we behave and communicate with each other,"

"Our research into the use of smartphones, in particular, reveals how quickly people become reliant on new technology – to the point of feeling addicted. As more and more people acquire smartphones, they are becoming an essential tool in peoples' social lives whether they are out with friends socialising or using Facebook on the move."

Psychologist Carmel Rodgers, speaking to the Belfast Telegraph, said: "It's a sign of the times we live in. Smartphones and their stablemates Twitter and Facebook are completely revolutionising our society – and not necessarily for the better.

"In fact, recent research into cyber-technology has shown that social networking and its availability can become an addiction for some people."

35% of American Adults Own a Smartphone

One Quarter Use Their Phone for Most of Their Online Browsing

July 11, 2011

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Summary of Findings

In its first standalone measure of smartphone ownership, the Pew Internet & American Life Project finds that one third of American adults -- 35% -- own smartphones. The Pew Internet Project's May survey found that 83% of U.S. adults have a cell phone of some kind, and that 42% of them own a smartphone. That translates into 35% of all adults. Our definition of a smartphone owner includes anyone who falls into either of the following two categories:

- One-third of cell owners (33%) say that their phone is a smartphone.
- Two-in-five cell owners (39%) say that their phone operates on a smartphone platform (these include iPhones and Blackberry devices, as well as phones running the Android, Windows or Palm operating systems).

And here's how they feel about their devices:



Smartphone adoption is highest among the affluent and well-educated, the (relatively) young, and non-whites

Several groups have higher than average levels of smartphone adoption, including:

- The financially well-off and well-educated -- 59% of adults living in a household earning income of \$75,000 or more are smartphone owners; 48% of those with a college degree own smartphones.
- Those younger than age 45 -- 58% of Americans between the ages of 25 and 34 now own a smartphone as do 49% of those ages 18-24 and 44% of those ages 35-44. Even among those with a household income of \$30,000 or less, smartphone ownership rates for those ages 18-29 are equal to the national average.
- African-Americans and Latinos -- 44% of blacks and Latinos are smartphone users.
- Urban and suburban residents are roughly twice as likely to own a smartphone as those living in rural areas, and employment status is also strongly correlated with smartphone ownership.

Mobile phones are a main source of internet access for one-quarter of the smartphone population

Some 87% of smartphone owners access the internet or email on their handheld, including two-thirds (68%) who do so on a typical day. When asked what device they normally use to access the internet, 25% of smartphone owners say that they mostly go online using their phone, rather than with a computer. While many of these individuals have other sources of online access at home, roughly one third of these "cell mostly" internet users lack a high-speed home broadband connection.

Smartphone ownership and internet use summary

	% of <u>smartphone</u> <u>owners</u> who	% of <u>all cell</u> <u>owners</u> who	% of <u>all adults</u> who	
Own a smartphone	100%	42%	35%	
Use the internet or email on smartphone	87	36	30	
Use smartphone to go online on a typical day	68	28	23	
Go online <u>mostly</u> using smartphone	25	10	8	
Source: The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Spring				

% of smartphone owners, cell owners and all adults who...

Source: The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Spring Tracking Survey. n=2,277 adult internet users ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish.

Smartphone owners under the age of 30, non-white smartphone users and smartphone owners with relatively low income and education levels are particularly likely to say that they mostly go online using their phones.

Android is the most common smartphone platform, followed by iPhone and Blackberry devices

Phones operating on the Android platform are currently the most prevalent type of smartphone, followed by iPhones and Blackberry devices.

Platform differences in smartphone adoption

% within each column who say their phone is the following...

	Among cell owners	Among smartphone owners
Android	15%	35%
iPhone	10	24
Blackberry	10	24
Palm	2	6
Windows	2	4

Source: The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Spring Tracking Survey. n=2,277 adult internet users ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish. "Smartphone owners" include those who say their phone is a smartphone, or who describe their phone as running on the Android, Blackberry, iPhone, Palm or Windows platforms. Demographically, Android phones are especially common among young adults and African-Americans, while iPhones and Blackberry devices are most prevalent among college graduates and the financially well-off.

Read the <u>full report</u> for an in-depth look at the demographics of smartphone owners and how they use their devices at <u>pewinternet.org</u>.

Smartphone

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The HTC Desire Z, featuring common smartphone abilities such as a high-resolutiontouchscreen and a slider keyboard

A **smartphone** is a high-end <u>mobile phone</u>.^{[1][2][3]} A smartphone combines the functions of a <u>personal digital</u> <u>assistant</u> (PDA) and a mobile phone. Today's models typically also serve as <u>portable media</u> <u>players</u> and <u>camera phones</u> with high-resolution <u>touchscreens</u>, <u>web browsers</u> that can access and properly display standard web pages rather than only mobile-optimized sites, <u>GPS</u> navigation, <u>Wi-Fi</u> and <u>mobile</u> <u>broadband</u> access. The term smartphone is usually used to describe phones with more advanced computing ability and connectivity than a contemporary <u>feature phone</u>, although the distinction can be vague and there is no official definition for what constitutes the difference between a smartphone and a feature phone.

While some feature phones also may be thought of as handheld computers integrated with mobile telephones, a feature phone is based on proprietary <u>firmware</u>, while a smartphone runs an <u>open</u> and complete <u>mobile operating system^[2]</u>. Widespread examples are Apple <u>iOS</u>, Google <u>Android</u>, Microsoft <u>Windows Phone 7</u>, Nokia <u>Symbian</u>, Research In Motion <u>BlackBerry OS</u>, and <u>embedded</u> <u>Linux</u> distributions such as <u>Maemo</u> and <u>MeeGo</u>. Such systems can be installed on many different phone models. They can run third-party applications, using an <u>application programming interface</u> (API).^[4]

Allthough most of today's feature phones are able to run third-party applications, for example <u>mobile games</u>, these applications are based on rather limited platforms such as <u>Java ME</u> (a <u>virtual machine</u>) or <u>BREW</u> (a pseudo-OS for <u>native code</u>).^[1] A smartphone <u>mobile app</u> integrates more tightly with the user interface and other phone features than a feature phone application, and relies on a more powerful <u>application</u> programming interface (API).^[4]

According to an Olswang report in early 2011, the rate of smartphone adoption is accelerating: as of March 2011 22% of UK consumers had a smartphone, with this percentage rising to 31% amongst 24–35 year olds.^[5] Growth in demand for advanced mobile devices boasting powerful processors and graphics processing units, abundant memory (FLASH memory), high-resolution screens with <u>multi-touch</u> capability, and open operating systems has outpaced the rest of the mobile phone market for several years.^[6] According to an early 2010 study by ComScore, over 45.5 million people in the United States owned smartphones out of 234 million total subscribers.^[7] Despite the large increase in smartphone sales in the last few years, smartphone shipments only make up 20% of total handset shipments, as of the first half of 2010.^[9] In March 2011 Berg Insight reported data that showed global smartphone shipments increased 74% from 2009 to 2010.^[9]