

Wireless Internet Use

More than half of Americans - 56% - have accessed the internet wirelessly on some device, such as a laptop, cell phone, MP3 player, or game console.

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CONTENTS

Summary of Findings	3
Online access in a multiplatform world	6
Using laptops to get online wirelessly	10
Internet access on the handheld	11
Mobile access to data and information	15
Access for African Americans	23
Appendix	27
About Us, Methodology	34

Summary of Findings

Summary of Findings

56% of all Americans have accessed the internet by wireless means.

An April 2009 survey conducted by the Pew Research Center's Internet & American Life Project asked respondents whether they had used a variety of devices – laptops, cell phones, game consoles, and more – to go online using a wireless network. Altogether, 56% of Americans said they have at some point used wireless means for online access.

- 39% of all Americans have used a laptop computer to go online wirelessly, making this the most prevalent means of wireless access.
- 32% of all Americans have gotten online with a mobile device – meaning they have used a cell phone or other handheld device to check email, access the internet for information, or send instant messages.

Together, laptop and mobile wireless access account for the vast majority of wireless access, as 51% of Americans have gotten online using either of these two methods. Some people (19% of Americans) opt for both means of wireless access – portable laptops on fast WiFi networks or handheld access on slower networks from cell carriers.

Use of the internet on mobile devices has grown sharply from the end of 2007 to the beginning of 2009.

- In December 2007, 24% of Americans said they had at some point used the internet on their mobile device.
- By April 2009, 32% of Americans said they had at some point used the internet on their mobile device.

- In December 2007, 11% of Americans said they had yesterday accessed the internet on their mobile.
- By April 2009, 19% of Americans said they had yesterday accessed the internet on their mobile.

African Americans are the most active users of the mobile internet – and their use of it is also growing the fastest. This means the digital divide between African Americans and white Americans diminishes when mobile use is taken into account.

- 48% of African Americans have at one time used their mobile device to access the internet for information, emailing, or instant-messaging, half again the national average of 32%.
- 29% of African Americans use the internet on their handheld on an average day, also about half again the national average of 19%.
- Compared with 2007, when 12% of African Americans used the internet on their mobile on the average day, use of the mobile internet is up by 141%.

The high level of activity among African Americans on mobile devices helps offset lower levels of access tools that have been traditional onramps to the internet, namely desktop computers, laptops, and home broadband connections.

- By a 59% to 45% margin, white Americans are more likely to go online using a computer on a typical day than African Americans.
- When mobile devices are included in the mix, the gap is cut in half; 61% of whites go online on the average day when mobile access is included while 54% of African Americans do.
- Looking across a range of digital activities – some done online typically using a computer and others being non-voice data activities on a mobile device – African American and white Americans, on average, do the same number of activities.

Broader measures of use of mobile digital resources also show fast growth

from the end of 2007 to the beginning of 2009.

In 2007 and 2009, respondents were asked about ten different non-voice data activities they might do on their cell phones: sending or receiving text messages, taking a picture, playing a game, checking email, accessing the internet, recording video, instant messaging, playing music, getting maps or directions, or watching video. Although several activities involve using the internet on the mobile device, many (such as taking a picture) do not.

- In 2009, 69% of all adult Americans said they had ever done at least one of the ten activities versus 58% who did this in late 2007.
- In 2009, 44% of all adult Americans said they had done at least one of the non-voice data activities on the typical day, up from 32% in 2007.

Other access devices – iPods, game consoles, or e-books – for now play a small role in people’s wireless online habits.

- 45% of adults have iPods or MP3 players, but only 5% of adults have used such a device to go online.
- 41% of adults have game consoles and 9% of adults have used it to go online.
- 14% of adults say they have a personal digital assistant and 7% of adults have used a PDA to go online.
- 2% of adults say they own an e-book reader – a Kindle or a Sony reader – and just 1% of all adults have used it to access the internet.

This comes to 17% of Americans who have used one these four devices for wireless internet access, but the pool of users on these devices adds just 5 percentage points to the pool of wireless users. In other words, absent users of these devices for wireless access, 51% of Americans would be wireless internet users, not 56%.

When mobile users are away from home or the office, they like mobile access

to stay in touch with others, but also to access information on the go.

When mobile users were asked to think about how they get information or communicate with others while away from home or work:

- 50% say it is very important to them to have mobile access in order to stay in touch with other people.
- 46% say they mobile access is very important for getting online information on the go.
- 17% say mobile access is very important to them so they can share or post online content while away from home or work.

The April 2009 survey interviewed 2,253 adult Americans, including 561 who were interviewed on their cell. The margin of error in the survey is plus or minus two percentage points for results based on the entire sample. The survey contained 1,687 internet users and the margin of error for results based on internet users is plus or minus 3 percentage points. The survey contained 1,818 respondents who are cell phone users, and the margin of error for results based on questions directed at cell phone users is plus or minus 2.5 percentage points. The data points above for December 2007, used in comparisons with the April 2009 survey, come from a survey with cell phone numbers included in the sample.

Online access in a multiplatform world

Introduction

Accessing the internet is for many Americans now a multiplatform affair. Just a few years ago, the desktop or laptop computers were typical onramps to the internet for the tech-oriented crowd. The digerati, already accustomed to lugging their laptops around in search of ports for their Ethernet cables, rushed to equip them with wireless cards so they could take advantage of WiFi links to the net.

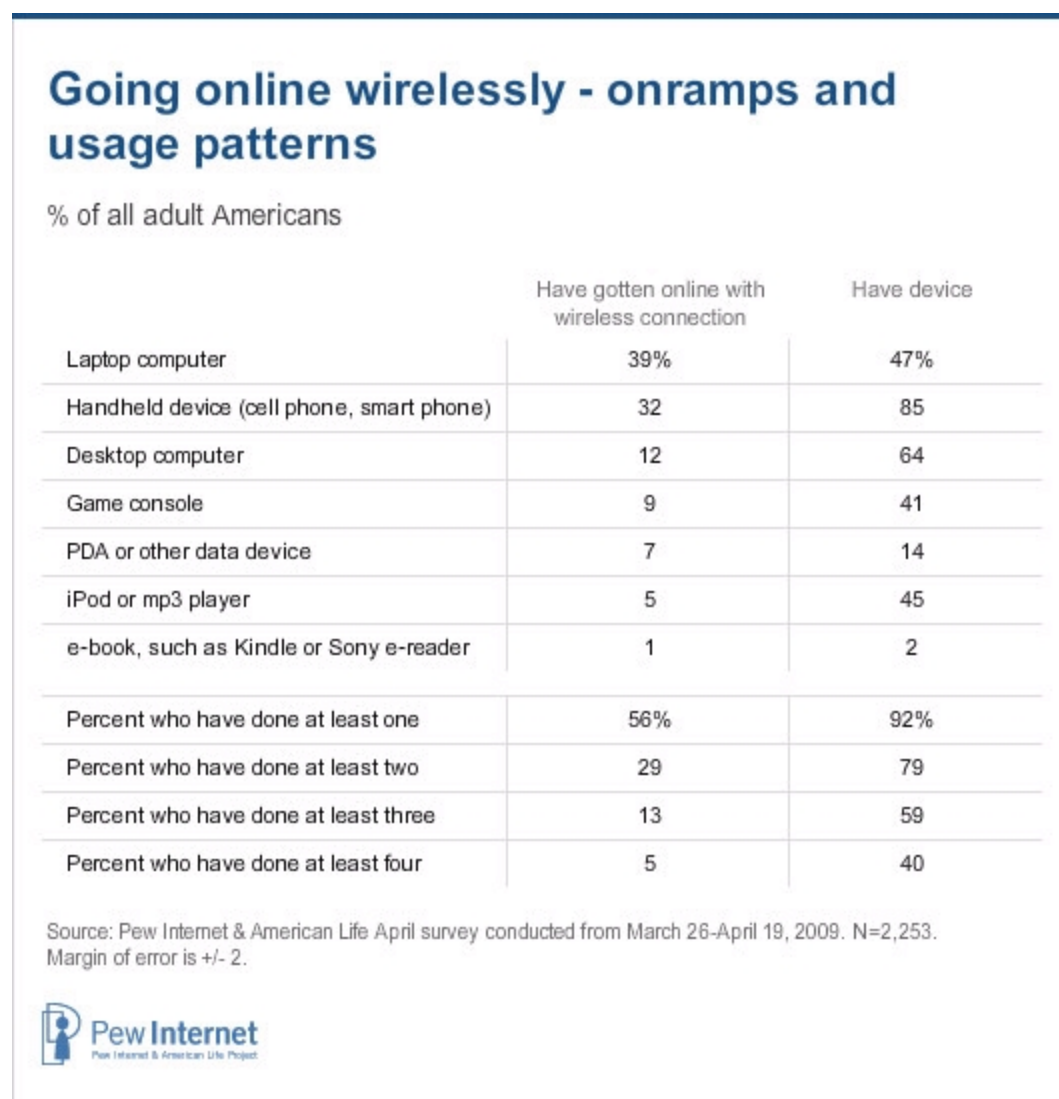
Today, the wireless router at home is the center of an untethered online access experience for many Americans that revolves around a range of devices that connect to the internet. The laptop, gaming console, or handheld device may all be connected and in use at once. That's only the tip of the iceberg for wireless access. Wherever Americans can find a wireless network, whether it is WiFi or one provided by a cell phone carrier, many are apt to take advantage of it for a tweet, text, or information nugget.

This report examines how Americans are accessing the internet by wireless means using a range of devices – such as the laptop computer, the handheld device, the gaming console, or e-book reader. It will also update Pew data from a December 2007 survey on mobile access to data and information on a cell or Smartphone.

A portrait of access and wireless use

When looking across a range of access devices, the Pew Internet Project's April 2009 survey finds that a majority of Americans – 56% – have used at least one of them to go online using a wireless network. Another 24% of Americans are internet users, but say they have never gotten online wirelessly; the remaining 20% of adults are not internet users. Needless to say, people take advantage of a variety of devices to put wireless

networks to use, and some have more than one way to access the internet wirelessly.



At a high level, the data show that there is a gap between the share of people who has a device capable of accessing the internet and those who do. Some 92% of adult Americans have at least one device listed above, but the April 2009 survey shows that 80% of adults are online users. Even among the 78% of adults who have a desktop computer *or* a laptop computer, a small share (6%) does not use the internet.

Each of these access modes has its own contexts and usage patterns. The emergence of wireless networks – either at home or in public places – helps explain the small gap between those who have laptops and those who have used them to go online wirelessly.

Not all Americans have cell phones that easily (or at all) permit online access, and 3G networks that make that feasible are not ubiquitous. That, in conjunction with the fact that handheld online access still seems to be the province of tech enthusiasts, helps explain the gap between those who have cell phones and the incidence of using them to get online.

Other devices – such as the iPod, game console, or e-book – have a dedicated purpose and, for now at least, users seem content to get online with them infrequently. Desktop wireless access is little different from tethered access for the user and happens, in all likelihood, because the user’s desk at home is not close enough to a physical connection to a modem.

The bulk of the report will explore the two primary ways people use to access the internet by wireless means – the laptop computer and the handheld device (i.e., the cell phone or smart phone). These are not, quite obviously, mutually exclusive sets of people. Some 45% of Americans have a laptop and a cell phone and 19% have gotten online at some point with a laptop and a handheld. Fully half of all Americans (51%) have gone online wirelessly either with a laptop or a cell phone, meaning these users make up the vast majority of Americans who have used the internet over a wireless network.

What users value about “on-the-go” wireless access

When cell phones first gained widespread currency among Americans, they were often thought of as a safety valve for communicating with others. Running late? The cell phone could at least let you get the word to the party waiting. Now, with the capabilities of the cell platform expanding, so are the reasons for which people value the device.

When those with a wireless-enabled laptop or a cell phone were asked to think about what is most important about having those devices while they are away from home or work, here is what they said.

Reasons why mobile wireless helps

% among those with cell phones or wireless-enabled laptops

	Very important	Somewhat important	Not too important	Not at all important
I can stay in touch easily with other people	50%	31%	9%	9%
I have easy access to information online	46	27	10	13
I can share or post content online	17	24	29	5

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253.
Margin of error is +/- 2. Survey conducted in English.



It is clear that people still value the capacity to stay in touch as very important part of what the cell phone offers. At the same time, though, nearly as many say that easy access to information is crucial to them as well.

Finally, Twitter and content-sharing looms large for some mobile users. One in six (17%) say they see posting or sharing content as a very important dimension to mobile access. The 11% of online users who have Twitter accounts or monitor Twitter updates are twice as likely as the average to say that sharing or posting content is very important to why they value mobile access.

Not surprisingly, younger Americans are more likely than others to see each of the three dimensions of mobile access as very important. In the 18-29 age group, access to information on the go rates a bit higher than staying in touch with others as an important feature of mobile connectivity.

Reasons why mobile wireless helps

% among those with cell phones or wireless-enabled laptops saying "very important"

	18-29	30-49	50-64	65+
I can stay in touch easily with other people	57%	52%	48%	37%
I have easy access to information online	60	51	39	20
I can share or post content online	25	18	12	9

Source: Pew Internet & American Life Project Survey April 2009. Survey conducted in English.



There are also clear differences in attitudes about mobile access across racial categories. With African Americans being very active in texting and IM-ing, it is no surprise to see them in the lead in viewing mobile access as a way to stay in touch with others. African Americans also are more likely than whites to see mobile access as a way to share content with others while on the move.

Reasons why mobile wireless helps

% among those with cell phones or wireless-enabled laptops saying "very important"

	Whites	African Americans	Hispanics
I can stay in touch easily with other people	47%	63%	59%
I have easy access to information online	43	53	54
I can share or post content online	16	22	24

Source: Pew Internet & American Life Project Survey April 2009. Survey conducted in English.



Using laptops to get online wirelessly

Using laptops to get online wirelessly

Among the 47% of Americans with laptops, wireless access is by-and-large the norm. Some 80% of laptop users have connected to the internet using a wireless network such as WiFi and 37% have used a longer range wireless broadband connection such as an AirCard. Overall, 81% of laptop users have connected wirelessly using one of those means. This translates into 39% of all Americans having accessed the internet on a wireless network on a laptop.

Laptop owners frequently use a wireless connection to get online and mostly do this at home. Among laptop owners, 64% log on wirelessly at least once a day and nearly half (48%) do so several times a day. They also report that most of the time (69%) they log on wirelessly from home.

At the same time, “away from home” access comes into play as the main means of wireless access for about one third of laptop owners. Specifically:

- 13% say that most of their wireless laptop surfing occurs from some combination of the workplace or someplace else.
- 11% report that they “mostly” use their laptop wireless from a place other than home or work.
- 7% say they log on wirelessly with a laptop mostly at work.

As to the demographic profile of laptop owners, not surprisingly they are more likely to be young and well educated. Against the average of 47% of all Americans having a laptop and 39% having used it to go online wirelessly:

- 68% of **college graduates** have laptops and 58% have used a laptop to connect

using a wireless network.

- 61% of those between the **ages of 18 and 29** have laptops and 55% have used it to connect to the internet on a wireless network.
- 47% of **whites** have a laptop and 38% have used it to connect wirelessly to the internet.
- 34% of **African Americans** have a laptop and 28% have used it to go online wirelessly.¹

NOTES

¹ See this report's appendix for more detailed demographic information on those who use the internet wirelessly from their laptop computer.

Internet access on the handheld

Overview

Using a cell phone or a Smartphone to get online unfolds differently for Americans than it does for laptops. More people have a handheld device than have laptops, but fewer have accessed the internet with it. This gap is not entirely behavioral. Not all cell phones may be equipped to get online and not every user may be in reasonable proximity to a network that allows access. Still, when defining online access on a handheld as those who have used email, sent or received instant messages, or accessed the internet for information, some 32% of cell or Smartphone users have accessed the internet on their device.

Our April 2009 survey also asked respondents if “yesterday” (i.e., the day before they answered our survey) they engaged in the activities that constitute online use. Analysis of those activities shows that 23% of cell users went online on the typical day. That contrasts with 64% of laptop users who did this. Representing these figures as a share of all adults shows that:

- 19% of adults access the internet on the typical day with a cell or smartphone;
- 31% of laptop users access the internet wirelessly at least once a day.

The demographic look of handheld internet users differs in certain respects than that of laptop users. With an average of 32% of all adults having ever gone online with a handheld as a baseline:

- 53% of those between the **ages of 18 and 29** have used the internet on a handheld device.
- 48% of **African Americans** have used the internet on a handheld device.
- 47% of **English-speaking Hispanics** have gone online using a handheld device.

- 39% of **college graduates** have gone online with a handheld device.
- 28% of **white Americans** have gone online with a handheld device.²

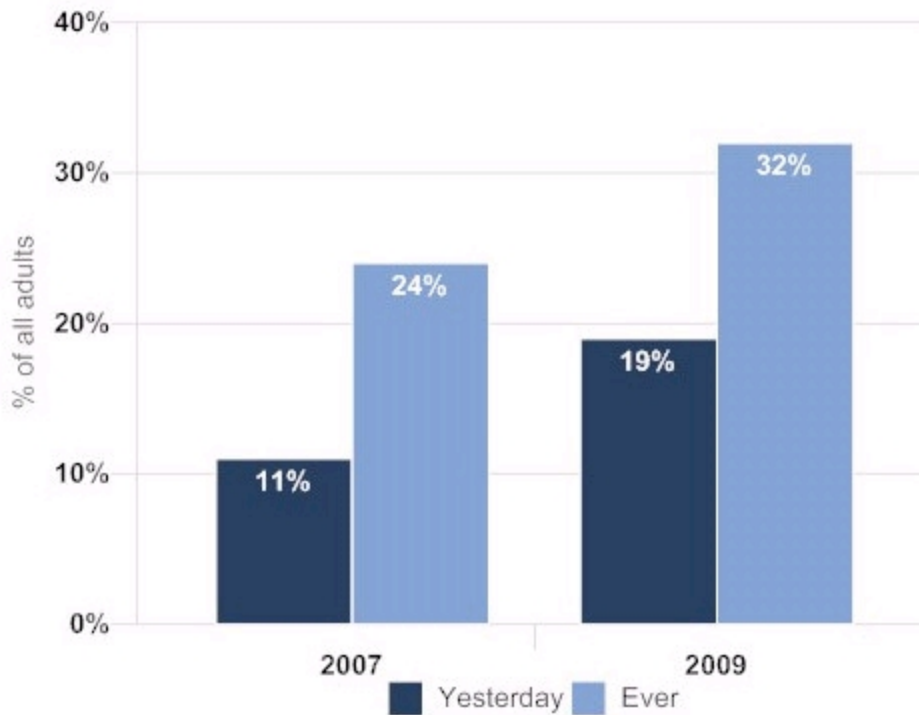
Trends

Comparing the April survey to a similar survey in 2007, there were strong increases in the incidence of people accessing the internet with their handheld devices. For our purposes, the means using a cell phone or other connected gadget to share email, exchange instant messages, or access the net for information. Among cell phone users:

- In 2007, 14% accessed the internet on a handheld on the typical day and 32% had ever used the internet on their handheld.
- In 2009, 23% accessed the internet on a handheld on the typical day and 38% had ever used the internet on their handheld.

Use of internet on a mobile device

% of all American adults



Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2.



The rate at which Americans went online with their handheld on the typical day increased by 73% in the sixteen months between the 2007 and 2009 surveys. The measure for “ever having used the internet on a handheld” increased by 33% in that time frame.

How often and from where people use the handheld to get online

As noted, 38% of people (or 32% of all adults) with cell phones or other handheld devices have used them to go online – meaning they have used handhelds for emailing, IM-ing, or simply accessing the web for information. The last group – the 25% who have used their handheld to access the internet for information – received follow-up questions on how often they do this and from where. Here is how the 25% of handheld information seekers responded:

- 24% use their handheld several times a day to access the internet;
- 12% do this once a day;
- 10% between three and five days a week;
- 15% one or two days a week;
- 12% very few weeks;
- 14% less often;
- 13% never.

Unlike laptop users, who do the bulk of their wireless internet surfing at home, handheld users are most often away from home when access the internet on that device.

- 41% of handheld internet users do most of this activity from some place other than home or work;
- 22% do this mostly from home;
- 16% do this, for the most part, from some combination of home, work, or elsewhere;
- 10% do this mostly from work.

Differences in use across racial and ethnic categories

With respect to internet use on a handheld device, there are clear differences across racial categories. It is important to note that, for Hispanics, the data represent English-speaking Hispanics only, as the survey did not provide a Spanish language option.

Going online with a handheld by race

% in each group with a handheld

	White		Black		Hispanic	
	2007	2009	2007	2009	2007	2009
Percent of those who have ever gone online with a handheld	29%	33%	41%	58%	45%	53%
Percent of those who on a typical day go online with a handheld	12	20	17	35	21	33

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2. Survey conducted in English.



The figures look as follows when represented as percent of all respondents in each group.

Going online with a handheld by race

% of all respondents in each group

	White		Black		Hispanic	
	2007	2009	2007	2009	2007	2009
Percent of those who have ever gone online with a handheld	21%	28%	29%	48%	38%	47%
Percent of those who on a typical day go online with a handheld	9	17	12	29	18	29
% with cell phones	75%	84%	73%	83%	84%	89%

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2. Survey conducted in English.



The growth in use of the internet on the handheld for African Americans is striking, particularly when focusing on the frequency of doing this on the typical day. Recall that handheld internet use on the average day grew by 73% for the general population from the end of 2007 to the beginning of 2009. For African Americans, growth was twice the rate of whites – from 12% to 29% – or a growth rate of 141%.

Handheld online users and the overall internet penetration rate

The fact that non-internet users report going online with a handheld doesn't seem to make sense. Why didn't these individuals respond affirmatively when asked in the survey whether they use the internet or use email "at least occasionally"? There are two possible reasons. First, the survey's questions on internet use follow one on computer use, and this may encourage respondents to think of online access as computer based, with the cell phone not as an option that comes to mind. Second, non-users may not use the handheld for online access with enough frequency to qualify as "at least occasionally."

Including handheld internet users as online users has only a small impact on the overall measure of internet use. The survey shows that 79% of adults are internet users when asked the baseline questions of whether they use the internet or email at least occasionally. When handheld internet users who say "no" to the questions about at least occasional internet use are added, the internet penetration figure rises to 80%.

For African Americans, however, the impact is greater. When handheld online users are included, internet penetration for African Americans is 71%, compared to 67% when they are not.

NOTES

² See the appendix for more detailed demographic information on those who use the internet wirelessly on their cell or Smartphone.

Mobile access to data and information

Overview

The handheld device has become a multi-faceted tool for digital activity, as users can do a host of things, such as sending text messages or taking pictures, that do not require being online. These non-voice data activities constitute a broader measure of handheld use. As the Pew Internet Project found in a December 2007 survey, most Americans (58%) by then had done one of ten activities on a cell unrelated to making a phone call.

The following table shows how the handheld device has worked its way further into the daily routines of many Americans. Our April 2009 survey shows that 85% of adult Americans have a cell phone and, of this group, fully 81% of them have at one time used it for a purpose other than making a phone call. On a typical day, now more than half of cell users (52%) have used it for a non-voice data activity, such as texting, emailing, snapping a picture, or any one of the other seven activities about which they were asked.

Sending text messages remains the mainstay activity for cell phone users; they are more than twice as likely to send a text on the average day as do anything else. Snapping a photo on the cell phone comes in as the next most popular activity, trailed significantly by playing a game, emailing, or access the Web for information.

Mobile data and communications activities

Among those who have a cell phone or personal data assistant

	% of cell/PDA users who have ever done this	% of cell/PDA who do this on typical day
Send or receive text messages	65%	43%
Take a picture	66	19
Play a game	27	9
Send or receive email	25	15
Access the internet	25	14
Record a video	19	3
Play music	21	12
Send or receive instant messages	20	10
Get a map or directions to another location	17	3
Watch video	14	3
Have done at least one of the activities	81%	52%
Have done at least two of the activities	65	31
Mean number of activities	3	1.31
Median number of activities	2	1

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2. Survey conducted in English.



Trends

The figures for use of digital resources on the handheld represent increases from December 2007. In 2007, 77% of handheld users had “ever” used their device for at least one non-voice data activity, and 42% said they did at least one “yesterday.” These increases take place in the context of a growth in cell phone penetration from December 2007 to April 2009 from 77% to 85%.

For all adults, this translates into:

- An increase from 58% in 2007 to 69% in 2009 in the share of all Americans who have used their handheld device for a non-voice data application. This is a growth of 16%.
- An increase from 32% in 2007 to 44% in 2009 in the share of all Americans who, on the average day, use a non-voice data application on their handheld. This is a growth of 36% over the sixteen month interval.

Other data underscore the growth in people's use of their cell phone for non-voice data activities. The average number of activities engaged in on a typical day in 2007 was 0.90, a figure that grew to 1.31 in 2009, or an increase of 46% among cell users.

Mobile data and communications activities

among those who have a cell phone or personal data assistant

	2007	2009
	% of cell/PDA users who have ever done this	% of cell/PDA users who have ever done this
Send or receive text messages	58%	65%
Take a picture	58	66
Play a game	27	27
Send or receive email	19	25
Access the internet	19	25
Record a video	18	19
Play music	17	21
Send or receive instant messages	17	20
Get a map or directions to another location	14	17
Watch video	10	14
Have done at least one of the activities	77%	81%
Have done at least two of the activities	58	65
Mean number of activities	2.58	3
Median number of activities	2	2

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2. Survey conducted in English.

* In 2007, the question was phrased as follows: Access the internet for news, weather, sports, or other information

Mobile data and communications activities on a typical day

Among those who have a cell phone or personal data assistant

	2007	2009
	% of cell/PDA who do this on typical day	% of cell/PDA who do this on typical day
Send or receive text messages	31%	43%
Take a picture	15	19
Play a game	8	9
Send or receive email	8	15
Access the internet	7	14
Record a video	3	3
Play music	7	12
Send or receive instant messages	6	10
Get a map or directions to another location	3	3
Watch video	3	3
Have done at least one of the activities	42%	52%
Have done at least two of the activities	22	31
Mean number of activities	0.9	1.31
Median number of activities	0	1

Source: Pew Internet & American Life Project Survey April 2009. Survey conducted in English.

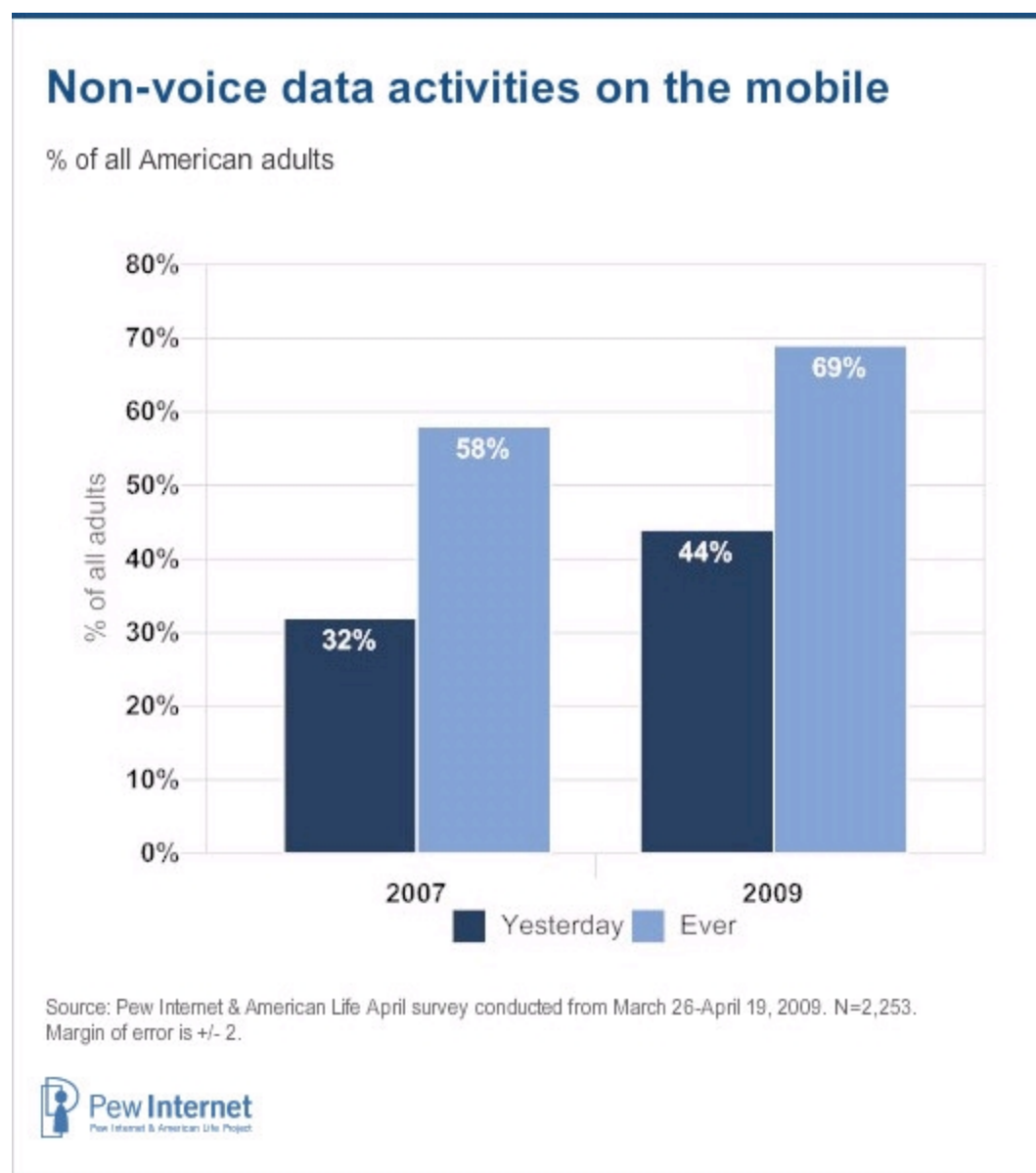
* In 2007, the question was phrased as follows: Access the internet for news, weather, sports, or other information



The increase for handheld activities done “yesterday” or on the “typical day” is broad based, but particularly strong for communication and information-seeking functions. Texting is up by 40% over the 2007 to 2009 time interval, and emailing on a handheld has doubled, along with accessing the internet.

The following chart represents growth from 2007 to 2009 in incidence of non-voice data

activities on the mobile device.



Variations by age and race

There are also differences across age groups in the use of handhelds for data applications.³

Mobile data and communications activities: by Age

Those who have a cell phone or personal data assistant who have ever done one of listed activities

	18-29	30-49	50-64	65+
Send or receive text messages	92%	76%	50%	17%
Take a picture	87	71	59	29
Play a game	46	32	12	6
Send or receive email	34	30	17	7
Access the internet	39	31	14	4
Record a video	32	21	11	2
Play music	43	21	7	5
Send or receive instant messages	34	21	12	7
Get a map or directions to another location	27	24	11	5
Watch video	24	15	7	3
Percent who have done at least one of these activities	93%	80%	59%	27%
Median number of activities ever done	4	2	1	0
Number of cases	296	578	506	399

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2. Survey conducted in English.



Mobile data and communications activities: by Age

Those who have a cell phone or personal data assistant who have done one of listed activities on a typical day

	18-29	30-49	50-64	65+
Send or receive text messages	74	51	23	5
Take a picture	37	20	9	3
Play a game	15	12	3	2
Send or receive email	21	18	9	3
Access the internet	25	16	6	2
Record a video	8	3	2	*
Play music	28	12	2	1
Send or receive instant messages	17	12	5	2
Get a map or directions to another location	6	4	2	*
Watch video	5	3	1	1
Percent who have done at least one of these activities	80%	55%	24%	7%
Median number of activities done on typical day	2	1	0	0
Number of cases	296	578	506	399

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2. Survey conducted in English.



Here's breakout of how different racial groups use the handheld device for non-voice data activity.

Mobile data and communications activities: by Race

Those who have a cell phone or personal data assistant who have ever done one of listed activities

	White	Black	Hispanic
Send or receive text messages	62%	71%	81%
Take a picture	63	73	78
Play a game	23	32	40
Send or receive email	22	30	36
Access the internet	21	37	40
Record a video	15	24	32
Play music	15	37	39
Send or receive instant messages	16	35	32
Get a map or directions to another location	16	23	22
Watch video	11	17	22
Percent who have done at least one of these activities	79%	87%	94%
Median number of activities ever done	2	3	3
Number of cases	1,780	198	138

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2. Survey conducted in English.



Mobile data and communications activities: by Race

Those who have a cell phone or personal data assistant who have done one of listed activities on a typical day

	White	Black	Hispanic
Send or receive text messages	40%	47%	59%
Take a picture	15	22	41
Play a game	7	12	16
Send or receive email	13	16	21
Access the internet	12	21	23
Record a video	2	7	8
Play music	8	23	14
Send or receive instant messages	8	22	14
Get a map or directions to another location	3	4	5
Watch video	2	3	5
Percent who have done at least one of these activities	50%	58%	70%
Median number of activities typical day	1	1	2
Number of cases	1,780	198	138

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2.. Survey conducted in English.



An additional note on 2007 to 2009 trends

The Pew Internet Project's "Mobile Access to Data and Information" report found, from a December 2007 survey, that 62% of all Americans had some experience with mobile access to digital data and tools. That is, they had either used a cell phone or PDA for a non-voice data application or logged on to the internet away from home or work using a wireless laptop connection, a handheld device, or a wireline connection.⁴ That finding

was based on a broad reading of digital use on a handheld by exploring activities that sometimes required going online by using a handheld device and other activities that did not require internet use, such as taking a picture. Our focus was on wireless and wireline use on the go – i.e. away from home or work.

The April 2009 survey that forms the basis for this report approached the question of access differently. Rather than focus on access away from home or work (by wireless or wireline access paths), it asked respondents how they get online wirelessly from any location. That yielded the figure of 56% of all Americans who have gone online wirelessly, but the number excludes use of other mobile data activities (i.e., taking a picture, texting, or recording a video). Those non-voice data activities were included in the 62% figure in the “Mobile Access to Data and Information” report.

If one were to add non-voice data activities to the 56% of adult Americans who have used the internet wirelessly in 2009, that would show that 74% of Americans have used the wireless internet or taken advantage of a non-voice data tool on their mobile device. That figure is greater than 2007’s 62%, and although the bases for the figures have commonalities, they have too many differences to be comparable. For example, the 2007 figure includes wireline “on the go” access and non-internet activities on the handheld, while the 2009 figure includes wireless access at home from a wider range of devices.

Online access from other devices

For other devices this survey asked about, online use is less common.

Among users of iPods or other MP3 users (45% of adults):

- % have accessed the internet using the device (or 5% of all adults). About half do so from home.

Among owners of game consoles (41% of adults):

- 21% have used them to access the internet (or 9% of all adults), nearly all doing so from home.

Among the 14% of PDA users among adults:

- 52% have gone online using the device (or 7% of adults), and just under half report that this occurs mostly someplace other than home or work.

Among the 2% of e-book owners:

- 32% access the internet using the device (or just under 1% of all adults), mostly from home.

Overall, 17% of Americans have accessed the internet using one of these four devices, but, access from these devices adds just 5 percentage points to pool of wireless users above and beyond those whose access is from laptops or cell/Smartphones.

NOTES

³ See the Appendix for additional demographic information on users of non-voice data applications.

⁴ John Horrigan, Mobile Access to Data & Information, March 2008 Pew Internet Project. Available online at: <http://www.pewinternet.org/Reports/2008/Mobile-Access-to-Data-and-Information.aspx>

Access for African Americans


Overview

As the Pew Internet Project documented in its “Home Broadband 2009” report, African Americans trail the national average in broadband access at home, and have experienced below-average growth in home broadband adoption the past two years. Some 46% of African Americans report having broadband at home in April 2009, up slightly from 43% in 2008 and 40% in 2007.

The lower level of home broadband access among African Americans, in conjunction with lower levels of ownership of “heavy” access devices – desktop and laptop computers – helps explain less frequent online access when the questions are framed in terms of traditional access.

Traditional internet access			
% as share of all adults			
	White	Black	Hispanic
Have desktop computer	66%	51%	64%
Have laptop computer	47	34	56
Online yesterday	59	45	60
Online several times at home	30	21	32
Online several times at work	28	18	36
Internet user	79%	67%	84%
Broadband user	65	46	68


Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2. Survey conducted in English.

 **Pew Internet**
Pew Internet & American Life Project

The picture changes when including access on a handheld and with the broader measure of wireless use that includes laptops and other devices. For each measure, use among African Americans matches or exceeds that of white Americans. Two measures of engagement with the wireless online – accessing the internet on a handheld on the typical day or ever – shows that Africans Americans are *70% more likely* to do this than white Americans.

Wireless/handheld access			
% as share of all adults			
	White	Black	Hispanic
Wireless internet users	54%	60%	68%
Handheld data [ever]	66	71	83
Handheld data [yesterday]	41	48	62
Mobile internet [ever]	28	48	47
Mobile internet [yesterday]	17	29	29

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2. Survey conducted in English.

 **Pew Internet**
Pew Internet & American Life Project

When tethered and wireless access are considered together, the gaps in online engagement between whites and blacks largely dissipates. Nearly as many African Americans have cell phone or online access as whites, with a gap of only 4 percentage points. African Americans tend to be more oriented to use of the handheld device, while whites are more likely to engage in a wider range of online activities.⁵ Though African Americans have a slightly higher average for the total number of digital activities, the difference between whites and blacks is not statistically significant.

Index of digital activities

Among those who are online or cell phone users

	White	Black	Hispanic
Number of online activities	4.1	3.3	4.1
Number of handheld data activities	2.2	3.1	3.7
Total number of digital activities	6.3	6.4	7.8
% who are internet or cell users	91%	87%	94%

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253.
Margin of error is +/- 2. Survey conducted in English.



Additionally, the likelihood of going online “yesterday” changes when mobile access enters the picture. The survey question on whether someone used the internet yesterday is framed largely in terms of computer access, as it follows shortly after a respondent is asked whether he uses a computer. That question yields a 14-point gap between whites and blacks, as 45% of blacks say they went online on the prior day and 59% of whites say this. When mobile internet access is included, the gap narrows. Some 54% of African Americans have gone online “yesterday” by mobile or other means, while 61% of whites have done this.

Wireless and wireline access for African Americans

These usage patterns suggest further that wireless access complements broadband access in different ways for whites and African Americans. Among whites who have ever gone online with a handheld device, some 88% have broadband at home. For African Americans who have accessed the net on a handheld, 64% have broadband at home.

From the vantage point of non-broadband users, reliance on wireless access among

African Americans is quite pronounced relative to whites. Among white Americans who do not have broadband at home (that is, they have either dial-up or are not internet users), 6% have accessed the internet on a handheld device. For African Americans without broadband, nearly one-quarter (25%) have used the internet on their cell or Smartphone.

Overall, it seems clear that white Americans and African Americans have somewhat different outlooks on the meaning of online access. For white Americans, online access is likely to occur on a broadband connection at home with a laptop or desktop computer. For African Americans, using the onramp to internet is, in contrast to whites, more likely to be a handheld device on mobile wireless network – and not nearly as likely to be on a wireline home broadband connection. To an extent notably greater than that for whites, wireless access for African Americans serves as a substitute for a missing onramp to the internet – the home broadband connection.

A note on Hispanic data

The tables above show clear differences in use of the internet – wireless and wireline – among Hispanic respondents to the survey. English-speaking Hispanics are ardent users of wireless access, whether that is on a handheld device or a laptop computer. Overall, English-speaking Hispanics are the heaviest users of wireless onramps to the internet. It is important to note, however, that this survey did not provide a Spanish language option for respondents. This means that respondents whose primary language is Spanish were not participants in the survey.

The lack of a Spanish language option means the Hispanics in the April sample are collectively better off socio-economically than if the sample included respondents who had the option to take the survey in Spanish. The Pew Internet Project conducted a survey in December 2008 that included a Spanish language option, and that survey showed that 28% of Hispanics in that sample had household incomes below \$20,000

annually. The April 2009, in contrast, showed that 18% of Hispanic respondents in the sample had household incomes below \$20,000 annually. Similarly, 14% of Hispanics in the December 2008 survey were college graduates compared to 26% in the April 2009 survey. Finally, English-speaking Hispanics are generally younger than other Americans; the median age for English-speaking Hispanics is 35 in the April 2009 survey compared with a median age of 44 for the entire sample.

As to broadband penetration, the December 2008 surveyed showed that 37% of Hispanics had broadband at home (compared with an average of 56% at that time) while the April 2009 survey – without the Spanish language option – showed that 68% of English-speaking Hispanics had broadband at home (against the 63% average).

All of this is to say that the results above for Hispanics should be interpreted in the proper context. The English only nature of the April 2009 survey resulted in a sample of Hispanics that collectively has a higher socio-economic status than the December 2008 sample with a Spanish language option. This suggests that the sample of Hispanics in the April 2009 survey is more tech-oriented than if the sample had included Hispanics who availed themselves of the option to take the survey in Spanish.

NOTES

⁵ The list of online activities asked of all users in the April 2009 survey were: sending or receiving email, getting news, getting financial information, making travel reservations, banking, looking for religious information, donating to a charity, looking at classified ads, using social networking sites, watching a TV show, using a microblogging service such as Twitter. “Handheld data” activities are those listed earlier in this report.

Appendix

Demographics of different groups of wireless users

Laptops vs. Handhelds (1)

	Laptop wireless access (those who have ever accessed the internet on laptop using a wireless connection)	Mobile internet users with handheld device (those who have ever accessed net, email, or done IM-ing)
Gender		
Male	53%	55
Female	47	45
Parental status		
Parent of child under 18	38	42
Age		
18-29	31	36
30-49	43	44
50-64	21	16
65+	5	4
Median age	39	35
Race		
White (not Hispanic)	69	60
Black (not Hispanic)	8	17
Hispanic (English speaking)	15	17
Other	8	6
Region		
Non-rural	10	10
Rural	90	90
Number of cases	770	587

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2. Survey conducted in English.

Laptops vs. Handhelds (2)

Laptop wireless access (those who have ever accessed the internet on laptop using a wireless connection)

Mobile internet users with handheld device (those who have ever accessed net, email, or done IM-ing)

Education		
Less than high school	4	8
High school grad	24	31
Some college	28	27
College +	44	35
Income		
Under \$20K	7	12
\$20K-\$30K	5	11
\$30K-\$40K	8	9
\$40K-\$50K	9	9
\$50K-\$75K	19	15
\$75K-\$100K	13	11
Over \$100K	25	22
Communications Technology		
Broadband at home	93	83
Landline Only	4	*
Landline & Cell phone	74	72
Cell Phone Only	23	28
Number of cases	770	587

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2. Survey conducted in English.



Wireless Users (1)

	Wireless Users	Non-wireless internet users	Non internet users
Gender			
Male	51%	47%	45%
Female	49	53	55
Parental status			
Parent of child under 18	40	32	14
Age			
18-29	30	15	7
30-49	42	36	22
50-64	22	33	25
65+	6	16	47
Median age	39	49	62
Race			
White (not Hispanic)	67	80	70
Black (not Hispanic)	12	5	16
Hispanic (English speaking)	14	9	8
Other	6	6	6
Region			
Non-rural	88	79	74
Rural	11	21	26
Number of cases	1,131	575	547

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253.
Margin of error is +/- 2. Survey conducted in English.



Wireless Users (2)

	Wireless Users	Non-wireless internet users	Non internet users
Education			
Less than high school	7	9	27
High school grad	29	36	50
Some college	27	26	14
College +	37	29	9
Income			
Under \$20K	10	16	36
\$20K-\$30K	9	13	13
\$30K-\$40K	9	8	12
\$40K-\$50K	9	9	4
\$50K-\$75K	18	15	4
\$75K-\$100K	12	10	2
Over \$100K	20	9	3
Communications Technology			
Broadband at home	86	63	0
Landline Only	4	18	44
Landline & Cell phone	74	68	43
Cell Phone Only	22	12	13
Number of cases	1,131	575	547

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253.
Margin of error is +/- 2. Survey conducted in English.



Mobile Data vs. Mobile Internet (1)

	Mobile <u>data</u> users with handheld device	Mobile <u>data</u> users with handheld device	Mobile <u>internet</u> users with handheld device	Mobile <u>internet</u> users with handheld device
	(those who have <u>ever</u> done at least one of ten activities)	(those who, on <u>typical day</u> , do at least one of ten activities)	(those who have <u>ever</u> accessed net, email, or done IM-ing)	(those who, on <u>typical day</u> , do at least accessed net, email, or done IM-ing)
Gender				
Male	50	51	55	55
Female	50	49	45	45
Parental status				
Parent of child under 18	40	44	42	42
Age				
18-29	30	39	36	38
30-49	43	45	44	47
50-64	21	13	16	13
65+	6	3	4	3
Median age	39	33	35	34
Race				
White (not Hispanic)	67	64	60	60
Black (not Hispanic)	12	12	17	17
Hispanic (English speaking)	14	16	17	17
Other	7	7	6	6
Region				
Non-rural	14	12	10	7
Rural	86	88	90	93
Number of cases	1,356	784	587	333

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2. Survey conducted in English.

Mobile Data vs. Mobile Internet (2)

	Mobile data users with handheld device	Mobile data users with handheld device	Mobile internet users with handheld device	Mobile internet users with handheld device
	(those who have <u>ever</u> done at least one of ten activities)	(those who, on <u>typical day</u> , do at least one of ten activities)	(those who have <u>ever</u> accessed net, email, or done IM-ing)	(those who, on <u>typical day</u> , do at least accessed net, email, or done IM-ing)
Education				
Less than high school	9	9	8	7
High school grad	32	29	31	29
Some college	27	29	27	25
College +	32	33	35	39
Income				
Under \$20K	12	14	12	10
\$20K-\$30K	10	9	11	10
\$30K-\$40K	8	8	9	9
\$40K-\$50K	9	9	9	7
\$50K-\$75K	17	15	15	14
\$75K-\$100K	12	12	11	12
Over \$100K	17	19	22	27
Communications Technology				
Broadband at home	76	82	83	87
Landline Only	*	*	*	*
Landline & Cell phone	76	70	72	70
Cell Phone Only	24	30	28	30
Number of cases	1,356	784	587	333

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253. Margin of error is +/- 2. Survey conducted in English.

Hardware for accessing the internet by age

	18-29	30-49	50-64	65+
Cell phone	94	90	82	67
Desktop computer	60	73	69	43
Laptop computer	61	54	44	19
Game console	73	57	23	4
iPod or mp3 player	64	57	30	9
PDA	18	19	9	3
Electronic book (Kindle, Sony)	2	3	2	1
% with at least one item	99%	97%	91%	74%
% with at least two item	93	89	75	44
% with at least three item	81	72	49	18
% with at least four item	60	53	28	7
% with at least five item	28	32	11	2
Number of cases	321	645	625	604

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253.
Margin of error is +/- 2. Survey conducted in English.



Hardware for accessing the internet by race

	White	Black	Hispanic
Cell phone	84	83	89
Desktop computer	66	51	64
Laptop computer	47	34	56
Game console	37	46	57
iPod or mp3 player	42	44	61
PDA	12	12	24
Electronic book (Kindle, Sony)	1	7	2
% with at least one item	92%	89%	94%
% with at least two item	79	69	83
% with at least three item	57	53	73
% with at least four item	38	34	57
% with at least five item	18	22	34
Number of cases	1,780	198	138

Source: Pew Internet & American Life April survey conducted from March 26-April 19, 2009. N=2,253.
Margin of error is +/- 2. Survey conducted in English.



About Us, Methodology

About the Pew Research Center's Internet & American Life Project

The Pew Internet Project is an initiative of the Pew Research Center, a nonprofit “fact tank” that provides information on the issues, attitudes and trends shaping America and the world. The Pew Internet Project explores the impact of the internet on children, families, communities, the work place, schools, health care and civic/political life. The Project is nonpartisan and takes no position on policy issues. Support for the Project is provided by The Pew Charitable Trusts. More information is available at www.pewinternet.org.

Methodology

This report is based on the findings of a daily tracking survey on Americans' use of the Internet. The results in this report are based on data from telephone interviews conducted by Princeton Survey Research International between March 26 to April 19, 2009, among a sample of 2,253 adults, 18 and older. For results based on the total sample, one can say with 95% confidence that the error attributable to sampling and other random effects is plus or minus 2.4 percentage points. For results based Internet users (n=1,687), the margin of sampling error is plus or minus 2.7 percentage points. In addition to sampling error, question wording and practical difficulties in conducting telephone surveys may introduce some error or bias into the findings of opinion polls.

A combination of landline and cellular random digit dial (RDD) samples was used to represent all adults in the continental United States who have access to either a landline or cellular telephone. Both samples were provided by Survey Sampling International, LLC (SSI) according to PSRAI specifications. Numbers for the landline sample were selected with probabilities in proportion to their share of listed telephone households from active blocks (area code + exchange + two-digit block number) that contained

three or more residential directory listings. The cellular sample was not list-assisted, but was drawn through a systematic sampling from dedicated wireless 100-blocks and shared service 100-blocks with no directory-listed landline numbers.

New sample was released daily and was kept in the field for at least five days. The sample was released in replicates, which are representative subsamples of the larger population. This ensures that complete call procedures were followed for the entire sample. At least 5 attempts were made to complete an interview at sampled telephone number. The calls were staggered over times of day and days of the week to maximize the chances of making contact with a potential respondent. Each number received at least one daytime call in an attempt to find someone available. For the landline sample, interviewers asked to speak with the youngest male currently at home. If no male was available, interviewers asked to speak with the youngest female at home. This systematic respondent selection technique has been shown to produce samples that closely mirror the population in terms of age and gender. For the cellular sample, interviews were conducted with the person who answered the phone. Interviewers verified that the person was an adult and in a safe place before administering the survey. Cellular sample respondents were offered a post-paid cash incentive for their participation. All interviews completed on any given day were considered to be the final sample for that day.

Non-response in telephone interviews produces some known biases in survey-derived estimates because participation tends to vary for different subgroups of the population, and these subgroups are likely to vary also on questions of substantive interest. In order to compensate for these known biases, the sample data are weighted in analysis. The demographic weighting parameters are derived from a special analysis of the most recently available Census Bureau's March 2008 Annual Social and Economic Supplement. This analysis produces population parameters for the demographic characteristics of adults age 18 or older. These parameters are then compared with the sample characteristics to construct sample weights. The weights are derived using an

iterative technique that simultaneously balances the distribution of all weighting parameters.

Following is the full disposition of all sampled telephone numbers:

Methodology: Sample Disposition

Landline	Cell	
21994	8500	Total Numbers Dialed
865	120	Non-residential
910	3	Computer/Fax
7	--	Cell phone
8195	2862	Other not working
2477	580	Additional projected not working
9540	4935	Working numbers
43.40%	58.10%	Working Rate
826	193	No Answer / Busy
1296	1120	Voice Mail
47	5	Other Non-Contact
7371	3617	Contacted numbers
77.30%	73.30%	Contact Rate
483	423	Callback
4575	2133	Refusal
2313	1061	Cooperating numbers
31.40%	29.30%	Cooperation Rate
325	152	Language Barrier
--	246	Child's cell phone
1988	663	Eligible numbers
85.90%	62.50%	Eligibility Rate
296	102	Break-off
1692	561	Completes
85.10%	84.60%	Completion Rate
20.60%	18.20%	Response Rate

The disposition reports all of the sampled telephone numbers ever dialed from the original telephone number samples. The response rate estimates the fraction of all eligible respondents in the sample that were ultimately interviewed. At PSRAI it is calculated by taking the product of three component rates:

- Contact rate – the proportion of working numbers where a request for interview was made
- Cooperation rate – the proportion of contacted numbers where a consent for interview was at least initially obtained, versus those refused
- Completion rate – the proportion of initially cooperating and eligible interviews that were completed
- Thus the response rate for the landline sample was 20.6 percent. The response rate for the cellular sample was 18.2 percent.