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# Location-Based Services

*Location tagging on social media is up: 30% of social media users now tag their posts with their location. For mobile location services, 74% of smartphone owners get directions or other information based on their current location, and 12% use a geosocial service such as Foursquare to “check in” to locations or share their whereabouts with friends.*

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# Overview

## Main findings

The role of location in digital life is changing as growing numbers of internet users are adding a new layer of location information to their posts, and a majority of smartphone owners use their phones' location-based services.<sup>1</sup>

A new survey by the Pew Research Center's Internet Project sheds light on three major aspects of how location figures in digital life:

- Many people use their smartphones to navigate the world: 74% of adult smartphone owners ages 18 and older say they use their phone to get **directions or other information based on their current location**.
- There is notable growth in the number of social media users who are now **setting their accounts to include location in their posts**. Among adult social media users ages 18 and older, 30% say that at least one of their accounts is currently set up to include their location in their posts, [up from 14% who said they had ever done this in 2011](#).<sup>2</sup> This trend is also showing up among younger users. An earlier Pew Internet survey of teens ages 12-17 found that 16% of teen social media users have their accounts set up to automatically include their location in posts.<sup>3</sup>
- There is a modest drop in the number of smartphone owners who use "check in" location services. Some 12% of adult smartphone owners say they use a **geosocial service** to "check in" to certain locations or share their location with friends. That is down from 18% of smartphone owners who reported doing that type of activity in early 2012. A plurality of these geosocial service users (39%) say they check into places on Facebook; 18% say they use Foursquare and 14% say they use Google Plus, among other services.

Taken together, these trends show the ascent of location awareness and the role it might play in the life of users—and the technology companies that are scrambling to provide more alert-style applications that tell people who and what is near them.

Local is a bigger part of the broader social media landscape, and the rise of local services is strongly tied to the increase in [smartphone ownership](#). The majority of smartphone owners say they are making use of their phones' location-based services, and the share of all adults who do this continues to grow along with increasing smartphone adoption.

Yet even as most smartphone owners use their phones' abilities to get location-specific information, data from earlier surveys also shows that mobile users of all ages say they have **turned off location-tracking features** at some point due to privacy concerns:

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<sup>1</sup> Our definition of a smartphone owner includes anyone who says directly that their phone is a smartphone or who says that their phone operates on a smartphone platform common to the U.S. market (56% of all adults). For more information, see: <http://pewinternet.org/Reports/2013/Smartphone-Ownership-2013.aspx>

<sup>2</sup> Change in question wording over time. See "Survey questions" at the end of this report for details.

<sup>3</sup> "Social media users" are defined as online adults who use social networking sites or Twitter. As of May 2013, 72% of internet users use a social networking site like Facebook, and 18% use Twitter. <http://pewinternet.org/Reports/2013/social-networking-sites.aspx>

- As of September 2012, almost half (46%) of teen app users say they have turned off the location tracking feature on their cell phone or in an app on a phone or tablet because they were worried about other people or companies being able to access that information.
- As of April 2012, in response to a question measuring a somewhat different behavior, over a third (35%) of adult cell app users said they have turned off the location-tracking feature on their cell phones.<sup>4</sup>

## About this survey

The findings in this report are based on data from telephone interviews conducted by Princeton Survey Research Associates International from April 17 to May 19, 2013, among a sample of 2,252 adults ages 18 and older. Telephone interviews were conducted in English and Spanish by landline and cell phone. For results based on the total sample, one can say with 95% confidence that the error attributable to sampling is plus or minus 2.3 percentage points. More information is available in the Methods section at the end of this report.

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<sup>4</sup> <http://pewinternet.org/Reports/2012/Mobile-Privacy/Main-Findings/Section-2.aspx> For more information about Americans' online privacy and anonymity practices in general, see "[Anonymity, Privacy, and Security Online](#)" (2013), available at <http://pewinternet.org/Reports/2013/Anonymity-online.aspx>.

# Location-Based Services

## Overview: Location-based services

The rise of smartphones has brought real-time location data into many aspects of Americans' lives. Some mobile services use the smartphone's location to offer directions, targeted recommendations, or other location-specific information to the user. Other services incorporate a location "layer" into other types of functions, while still others exist specifically to share the user's location with friends or the general public.

To date, our surveys have tracked two types of location-based services: those that use people's whereabouts to provide location-targeted information such as directions or recommendations, and geosocial services that let users "check in" to certain locations or share their location with friends. However, it is becoming increasingly difficult to delineate these two categories, as social media services incorporate location as an element of user activity and as location-centric services embrace varying degrees of social functionality.

Foursquare, a geosocial service that originally focused on location-sharing and points earned through "checking in" to locations, is now beginning to [de-emphasize its system of points, badges, and social location-sharing](#).<sup>5</sup> Instead, it is mining its previous check-in data to offer real-time location-triggered suggestions that incorporate friends' and other users' activities and recommendations. [On its blog](#), Foursquare offered examples of the new approach, such as sending a user a note about a "can't miss dish on the menu" when she arrives at a new restaurant, or suggesting "a few places that your friends love" in a new neighborhood or city.<sup>6</sup>

Meanwhile, social media services like Facebook, Instagram, and Twitter have added an optional location layer (in many cases built on Foursquare's API) so that users can show where they are when they post material on the sites. And many information-focused services, from activity-tracking apps to rating sites such as Yelp, incorporate location-sharing and other social aspects as well.

As of May 2013:

- Some 74% of adult smartphone owners get **directions or other information based on their current location**. This works out to 45% of all adults.
- Some 12% of smartphone owners use a **geosocial service** such as Foursquare to "check in" to certain locations or share their location with friends. This works out to 7% of all adults.

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<sup>5</sup> Vindu Goel, "With New App, Foursquare Strives to Be 'Magic' in Your Pocket." New York Times, August 29, 2013. <http://bits.blogs.nytimes.com/2013/08/29/with-new-app-foursquare-strives-to-be-magic-in-your-pocket/>

<sup>6</sup> "A smarter Foursquare, so you don't miss a thing." Foursquare blog, August 29, 2013. <http://blog.foursquare.com/2013/08/29/a-smarter-foursquare-so-you-dont-miss-a-thing/>

## Three-quarters of smartphone owners get real-time location-based information, and one in eight use geosocial services

*% of adults within each group who use their cell phone to get directions, recommendations, or other information related to a location where they happen to be, and the % who use a geosocial service such as Foursquare to “check in” to certain locations or share their location with friends.*

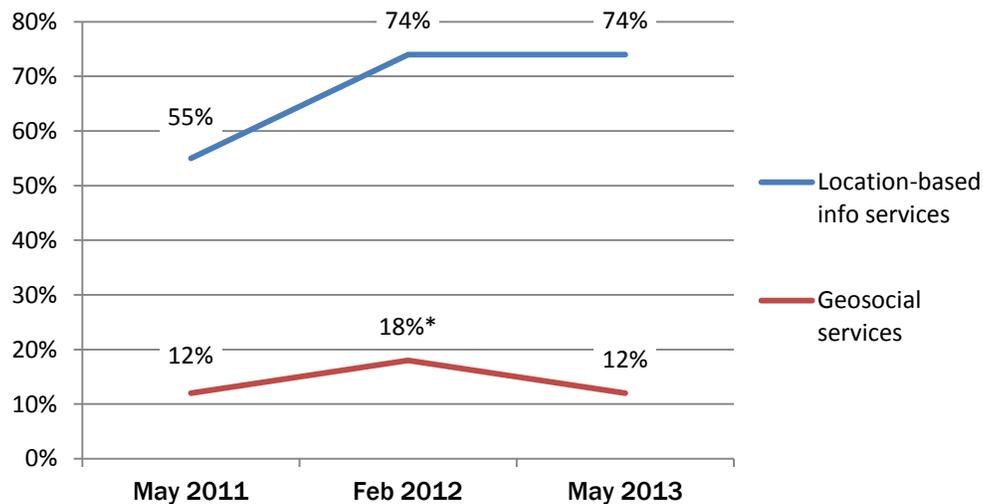
|   | All adults | Smartphone owners |
|---|------------|-------------------|
| Get location-based directions/information | 45%        | <b>74%</b>        |
| Use a geosocial or “check-in” service     | 7%         | <b>12%</b>        |

**Source:** Pew Research Center’s Internet & American Life Project, April 17-May 19, 2013 Tracking Survey of 2,252 adults ages 18 and older. Interviews were conducted in English and Spanish and on landline and cell phones. The margin of error on the sample is +/- 2.3 percentage points.

## Use of location-based information and geosocial services among smartphone owners, 2011-2013

*For location services: % of smartphone owners who use their phone to get directions, recommendations, or other information related to a location where they happen to be.*

*For geosocial services: % of smartphone owners who use a service such as Foursquare or Gowalla to “check in” to certain locations or share their location with friends.*



\* Slight wording change since previous survey

**Source:** Pew Research Center’s Internet & American Life Project tracking surveys. For 2011 data, n=2,277 adults ages 18 and older. For 2012, n=2,253 adults. For 2013, n=2,252 adults. All surveys were conducted via landline and cell phone, in English and Spanish.

## Location-based information services

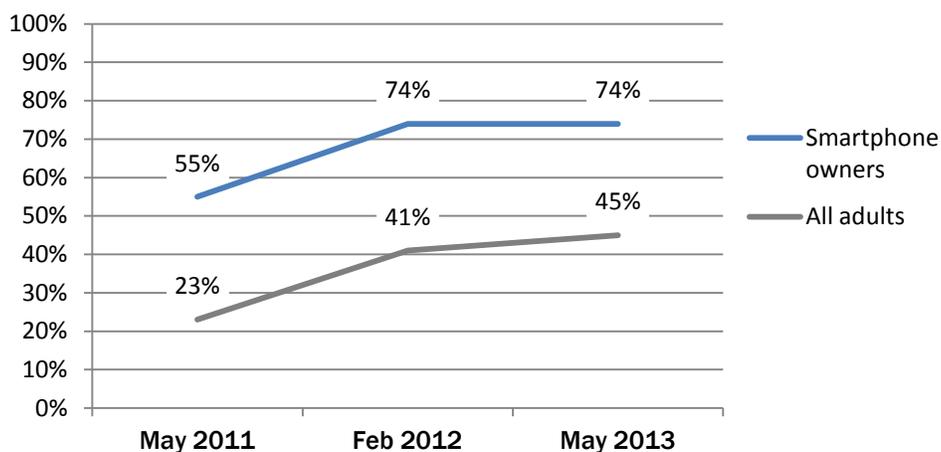
Many web services and apps incorporate a user's location in order to offer relevant information. For instance, driving directions may rely on the user's location to offer detailed turn-by-turn directions to another location, or a to-do list app might offer "geo-fenced" alerts, such as reminding the user to buy milk when she is near a grocery store.

Almost three-quarters (74%) of smartphone owners say they use their phone to get directions or other information related to a location where they happen to be. This percentage has held steady in the past year, but the increasing popularity of smartphones means that among all adults, the proportion who say they access location-based information has risen from 41% in 2012 to 45% in May 2013.<sup>7</sup>

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### Most smartphone owners access location-based information

*Do you ever use your cell phone to get directions or other information related to a location where you happen to be?*



**Note:** Slight wording change.

**Source:** Pew Research Center's Internet & American Life Project tracking surveys conducted April 26-May 22, 2011, January 20-February 19, 2012, and April 17-May 19, 2013. For 2011 data, n=2,277 adults ages 18 and older. For 2012 data, n=2,253 adults. For 2013 data, n=2,252 adults. All surveys were conducted via landline and cell phone, in English and Spanish.

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Smartphone users under age 50 are significantly more likely to say they get location-based directions and information than older smartphone users, and college graduates are more likely to do this than adults who only completed high school. There were no statistically significant differences among smartphone owners by gender, race or ethnicity, household income, or community type.

These adoption patterns are generally similar to those we found in early 2012, though [at that time](#) whites were also more likely to use these services than African Americans, and adults in higher-income households were more likely to use these services than those in lower-income households.

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<sup>7</sup> Slight change in question wording over time. February 2012 and May 2013 question wording was "Get directions or other information related to a location where you happen to be." May 2011 question wording was "Get directions, recommendations, or other information related to your present location."

## Who uses location-based information services?

*% of adult smartphone owners within each group who use their smartphone to get directions, recommendations, or other information related to a location where they happen to be, as of May 2013.*

|   |  | % who get location-based directions & information |
|---|--|---|
| <b>All smartphone owners ages 18+ (n=1,178)</b> |  | <b>74%</b>  |
| <b>Gender</b>                                   |  |   |
| a   | Men (n=589)                                      | 76  |
| b   | Women (n=589)                                    | 72  |
| <b>Age</b>                                      |  |   |
| a   | 18-29 (n=326)                                    | 80 <sup>cd</sup>                                  |
| b   | 30-49 (n=397)                                    | 75 <sup>cd</sup>                                  |
| c   | 50-64 (n=310)                                    | 65  |
| d   | 65+ (n=118)                                      | 58  |
| <b>Race/ethnicity</b>                           |  |   |
| a   | White, Non-Hispanic (n=770)                      | 76  |
| b   | Black, Non-Hispanic (n=152)                      | 67  |
| c   | Hispanic (English- and Spanish-speaking) (n=156) | 73  |
| <b>Education attainment</b>                     |  |   |
| a   | High school grad or less (n=324)                 | 69  |
| b   | Some college (n=304)                             | 75  |
| c   | College + (n=544)                                | 78 <sup>a</sup>                                   |
| <b>Household income</b>                         |  |   |
| a   | Less than \$30,000/yr (n=220)                    | 70  |
| b   | \$30,000-\$49,999 (n=179)                        | 75  |
| c   | \$50,000-\$74,999 (n=172)                        | 78  |
| d   | \$75,000+ (n=435)                                | 76  |
| <b>Urbanity</b>                                 |  |   |
| a   | Urban (n=426)                                    | 75  |
| b   | Suburban (n=574)                                 | 72  |
| c   | Rural (n=176)                                    | 76  |

**Source:** Pew Research Center's Internet & American Life Project, April 17-May 19, 2013 Tracking Survey of 2,252 adults ages 18 and older. Interviews were conducted in English and Spanish and on landline and cell phones. The margin of error on the sample is +/- 2.3 percentage points.

**Note:** Percentages marked with a superscript letter (e.g., <sup>a</sup>) indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g. age).

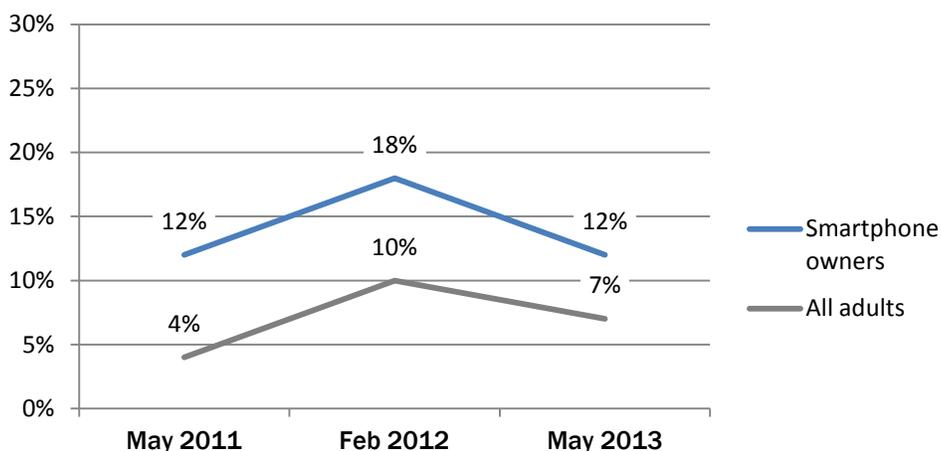
## Geosocial services

As of May 2013, 12% of smartphone owners use geosocial services such as Foursquare to “check in” to a certain location or share their location with friends. This is down from 18% of smartphone owners in February 2012. For all adults, this represents a change from 10% in 2012 to 7% in 2013.<sup>8</sup>

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### Geosocial services over time

*Do you ever use your cell phone to use a service such as Foursquare to “check in” to certain locations or to share your location with your friends?*



**Source:** Pew Research Center’s Internet & American Life Project tracking surveys conducted April 26-May 22, 2011, January 20-February 19, 2012, and April 17-May 19, 2013. For 2011 data, n=2,277 adults ages 18 and older. For 2012 data, n=2,253 adults. For 2013 data, n=2,252 adults. All surveys were conducted via landline and cell phone, in English and Spanish.

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There are few clear differences in geosocial use between demographic groups, though Hispanic smartphone users are significantly more likely to use geosocial services than whites or blacks, and suburban adults are more likely to use these services than rural adults.

Finally, there were no statistically significant differences in geosocial service use among smartphone owners by gender or educational attainment.

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<sup>8</sup> Slight change in question wording over time. February 2012 and May 2013 question wording was: “Use a service such as Foursquare or Gowalla to ‘check in’ to certain locations or to share your location with your friends.” May 2011 question wording was: “Use a service such as Foursquare or Gowalla to “check in” to certain locations or share your location with friends.”

## Who uses geosocial services?

*% of adult smartphone owners within each group who use a geosocial service such as Foursquare to “check in” to certain locations or share their location with friends, as of May 2013.*

|   |  | % who use geosocial services |
|---|--|------------------------------|
| <b>All smartphone owners ages 18+ (n=1,178)</b> |  | <b>12%</b>                   |
| <b>Gender</b>                                   |  |                              |
| a   | Men (n=589)                                      | 11                           |
| b   | Women (n=589)                                    | 13                           |
| <b>Age</b>                                      |  |                              |
| a   | 18-29 (n=326)                                    | 16 <sup>c</sup>              |
| b   | 30-49 (n=397)                                    | 11                           |
| c   | 50-64 (n=310)                                    | 9                            |
| d   | 65+ (n=118)                                      | 11                           |
| <b>Race/ethnicity</b>                           |  |                              |
| a   | White, Non-Hispanic (n=770)                      | 10                           |
| b   | Black, Non-Hispanic (n=152)                      | 11                           |
| c   | Hispanic (English- and Spanish-speaking) (n=156) | 24 <sup>ab</sup>             |
| <b>Education attainment</b>                     |  |                              |
| a   | High school grad or less (n=324)                 | 14                           |
| b   | Some college (n=304)                             | 13                           |
| c   | College + (n=544)                                | 10                           |
| <b>Household income</b>                         |  |                              |
| a   | Less than \$30,000/yr (n=220)                    | 16 <sup>d</sup>              |
| b   | \$30,000-\$49,999 (n=179)                        | 13                           |
| c   | \$50,000-\$74,999 (n=172)                        | 18 <sup>d</sup>              |
| d   | \$75,000+ (n=435)                                | 9                            |
| <b>Urbanity</b>                                 |  |                              |
| a   | Urban (n=426)                                    | 10                           |
| b   | Suburban (n=574)                                 | 14 <sup>c</sup>              |
| c   | Rural (n=176)                                    | 9                            |

**Source:** Pew Research Center’s Internet & American Life Project, April 17- May 19, 2013 Tracking Survey of 2,252 adults ages 18 and older. Interviews were conducted in English and Spanish and on landline and cell phones. The margin of error on the sample is +/- 2.3 percentage points.

**Note:** Percentages marked with a superscript letter (e.g., <sup>a</sup>) indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g. age).

## Which geosocial services people use

For the first time, we also asked users of geosocial or “check-in” services which location services they use. We found that a plurality of geosocial users (39%) say they use Facebook, while almost one in five (18%) say they use Foursquare, and 14% say they use Google Plus; several other services were mentioned as well, such as Instagram and Yelp.

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### What location-sharing or “check-in” services do you use?

*Among cell phone owners who use location services, the % who say they use each of the following services*

|                              | % of geosocial users<br>(n=141) |
|------------------------------|---------------------------------|
| Facebook                     | 39%                             |
| Foursquare                   | 18                              |
| Google Plus                  | 14                              |
| Google Latitude              | 8                               |
| Google Maps                  | 5                               |
| Instagram                    | 5                               |
| Yelp                         | 5                               |
| Facebook Poke                | 1                               |
| Path                         | 1                               |
| Twitter                      | 1                               |
| Other                        | 21                              |
| None/Don't use any regularly | 4                               |
| Don't know                   | 7                               |
| Refused                      | 1                               |

**Source:** Pew Research Center's Internet & American Life Project, April 17-May 19, 2013 Tracking Survey of 2,252 adults ages 18 and older. Interviews were conducted in English and Spanish and on landline and cell phones.

**Note:** Total may exceed 100% due to multiple responses.

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# Location Tagging Among Social Media Users

## Adult social media users and location tagging

Many social media sites enable users to set up the service to automatically “tag” their updates on the site with the user’s current location. Our May 2013 survey found that 30% of adult social media users say that at least one of their accounts is currently set up to include their location in their posts, [up from 14% who had ever done this in 2011](#).<sup>9</sup>

Social media users under age 50 are the age group most likely to tag their location on social networking sites, and those living in suburban areas are more likely to say they do this than those living in rural areas. Among social media users, there were no significant differences by gender, education level, or household income.

The demographics of social media users with automatic location-tagging have changed since we last asked about this activity in May 2011. [At that time](#), we found that men, African Americans and Hispanics, adults in households earning less than \$30,000 per year, and those who have not gone to college were significantly more likely than other social media users to use automatic location-tagging, and there were no significant differences between different age groups.<sup>10</sup>

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<sup>9</sup> Change in question wording over time. May 2013 question wording was: “Thinking about how you use social networking sites... are any of your social networking accounts currently set up so that they include your location on your posts?” February 2012 question wording was: “Thinking about the ways people might use social networking sites... Do you ever set up your account so that it automatically includes your location on your posts?” In May 2011, question was asked as an item in a list question with the following question wording: “Thinking about the ways people might use social networking sites... Do you ever... Set up your account so that it automatically includes your location on your posts?”

<sup>10</sup> More: “28% of American adults use mobile and social location-based services” (2011): <http://pewinternet.org/Reports/2011/Location.aspx>

## Location tagging among adult social media users

% of social media users ages 18+ within each group whose social media accounts that are currently set up to include their location on their posts, as of May 2013

|  |                                  | % who tag location in social posts |
|--|----------------------------------|------------------------------------|
| <b>All social media users ages 18+ (n=683)</b> |                                  | <b>30%</b>                         |
| <b>Gender</b>                                  |                                  |                                    |
| a  | Men (n=319)                      | 30                                 |
| b  | Women (n=364)                    | 30                                 |
| <b>Age</b>                                     |                                  |                                    |
| a  | 18-29 (n=185)                    | 32 <sup>d</sup>                    |
| b  | 30-49 (n=233)                    | 34 <sup>d</sup>                    |
| c  | 50-64 (n=171)                    | 26                                 |
| d  | 65+ (n=81)                       | 18                                 |
| <b>Education attainment</b>                    |                                  |                                    |
| a  | High school grad or less (n=213) | 31                                 |
| b  | Some college (n=183)             | 31                                 |
| c  | College + (n=280)                | 29                                 |
| <b>Household income</b>                        |                                  |                                    |
| a  | Less than \$30,000/yr (n=155)    | 32                                 |
| b  | \$30,000-\$49,999 (n=125)        | 26                                 |
| c  | \$50,000-\$74,999 (n=96)         | 33                                 |
| d  | \$75,000+ (n=203)                | 36                                 |
| <b>Urbanity</b>                                |                                  |                                    |
| a  | Urban (n=246)                    | 28                                 |
| b  | Suburban (n=308)                 | 35 <sup>c</sup>                    |
| c  | Rural (n=129)                    | 24                                 |

**Source:** Pew Research Center's Internet & American Life Project, April 17-May 19, 2013 Tracking Survey of 2,252 adults ages 18 and older. Interviews were conducted in English and Spanish and on landline and cell phones.

**Note:** Percentages marked with a superscript letter (e.g., <sup>a</sup>) indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g. age). The sample size in this case was too small to break down differences by race/ethnicity.

## Teen social media users and location tagging

Previous surveys have also asked teens ages 12-17 about their social media practices, including location tagging. Our recent report on how teens share personal information and manage privacy settings on social media, "[Teens, Social Media, and Privacy](#)," found that 16% of teen social media users said they set up their profile or account so that it automatically includes their location in posts.<sup>11</sup>

Boys and girls and teens of all ages and socioeconomic backgrounds are equally likely to say that they have set up their profile to include their location when they post. However, teen social media users living in suburban areas are significantly more likely to say they tag their location on social networking sites than teens living in rural or urban areas, as shown in the chart below.

Focus group data [suggests](#) that many teens find sharing their location unnecessary and unsafe, while others appreciate the opportunity to signal their location to friends and parents.

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<sup>11</sup> "Teens, Social Media, and Privacy" (2013): <http://pewinternet.org/Reports/2013/Teens-Social-Media-And-Privacy.aspx>

## Location tagging among teen social media users

% of teen social media users ages 12-17 within each group who say they set up their profile or account so that it automatically includes their location in posts, as of September 2012

|   |                                  | % who tag location in social posts |
|---|----------------------------------|------------------------------------|
| <b>All teen social media users ages 12-17 (n=632)</b> |                                  | <b>16%</b>                         |
| <b>Teen gender</b>                                    |                                  |                                    |
| a   | Boys (n=308)                     | 17                                 |
| b   | Girls (n=324)                    | 16                                 |
| <b>Age of teen</b>                                    |                                  |                                    |
| a   | 12-13 (n=151)                    | 15                                 |
| b   | 14-17 (n=481)                    | 17                                 |
| <b>Parent race/ethnicity</b>                          |                                  |                                    |
| a   | White, Non-Hispanic (n=437)      | 15                                 |
| b   | Black, Non-Hispanic (n=95)       | 22                                 |
| <b>Parent's education attainment</b>                  |                                  |                                    |
| a   | High school grad or less (n=187) | 18                                 |
| b   | Some college (n=157)             | 18                                 |
| c   | College + (n=285)                | 14                                 |
| <b>Parent's household income</b>                      |                                  |                                    |
| a   | Less than \$50,000/yr (n=121)    | 21                                 |
| b   | \$50,000+ (n=266)                | 13                                 |
| <b>Urbanity</b>                                       |                                  |                                    |
| a   | Urban (n=457)                    | 11                                 |
| b   | Suburban (n=628)                 | 21 <sup>a</sup>                    |
| c   | Rural (n=239)                    | 11                                 |

**Source:** Pew Internet July 26-September 30, 2012 Parent/Teen Privacy Survey of 802 teens ages 12-17. Interviews were conducted in English and Spanish and on landline and cell phones.

**Note:** Percentages marked with a superscript letter (e.g., <sup>a</sup>) indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g. age). There are no statistically significant differences between any of these subgroups except between suburban and urban teens.

# Turning Off Location-Tracking Features

## Over a third of adult cell app users have turned off the location-tracking feature on their cell phones

Even as most smartphone owners use their phones' geolocation abilities to get location-specific information, data from earlier surveys also shows that many mobile users of all ages say they have turned off location-tracking features at some point due to privacy concerns.<sup>12</sup>

Among adult cell phone users ages 18 and older who have downloaded apps to their cell phone, 35% have turned off the location tracking feature on their phone at some point because they were worried about other people or companies being able to access that information. This works out to 19% of adult cell phone owners overall as of April 2012.<sup>13</sup> For more information on cell phone owners' activities, see our 2012 report "[Privacy and Data Management on Mobile Devices](#)."

## Almost half of teen cell or tablet app users have turned off the location-tracking feature on their cell phone or in an app

In [a different report](#) exploring teens' mobile privacy practices, we asked teen app users ages 12-17 a similar but differently worded question. We found that as of September 2012, almost half (46%) of teen app users say they have turned off the location tracking feature on their cell phone or in an app because they were worried about other people or companies being able to access that information.

Yet [as our earlier report on teens and mobile app privacy noted](#), some of the people those teens are concerned about may be their own parents. As early as 2009, the Pew Internet Project found that about half of parents of teen cell phone owners said they used the phone to monitor their child's location in some way.<sup>14</sup>

Girls are significantly more likely than boys to say they have turned off location-tracking features, though there are no differences between younger and older teens. There are also no differences in the likelihood that a teen apps user will disable a location tracking feature according to household income, parent's education level, or race and ethnicity (not shown in the chart below).<sup>15</sup>

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<sup>12</sup> A separate study in July 2013 found that 54% of internet users said it was "very important" that only they and those they had authorized should have access to their location when they use the internet. For more information, see:

<http://pewinternet.org/Reports/2013/Anonymity-online/Main-Report/Part-4.aspx>

<sup>13</sup> <http://pewinternet.org/Reports/2012/Mobile-Privacy/Main-Findings/Section-2.aspx>

<sup>14</sup> This parental location monitoring could take many forms—including the use of calling, texting or GPS to keep track of a child's location. The question wording did not specify what tools parents had used.

<http://pewinternet.org/Reports/2010/Teens-and-Mobile-Phones/Chapter-4/Parents-and-limits-on-cell-phone-use.aspx>

<sup>15</sup> Focus group participants understood that apps can access various data on their smartphones and tablets, such as their pictures, contacts, or location. In many cases, they reported that they did not allow an app to access their location, unless they thought it was necessary. <http://pewinternet.org/Reports/2013/Teens-and-Mobile-Apps-Privacy/Main-Findings/Teens-and-Mobile-Apps-Privacy.aspx>

## Almost half of teen app downloaders have turned off location-tracking features

*% of teen app downloaders ages 12-17 within each group who say they have turned off the location tracking feature on their cell phone or in an app because they were worried about other people or companies being able to access that information*

|  |               | % turned off location features |
|--|---------------|--------------------------------|
| <b>All teen app downloaders ages 12-17 (n=489)</b> |               | <b>46%</b>                     |
| <b>Teen gender</b>                                 |               |                                |
| a  | Boys (n=253)  | 37                             |
| b  | Girls (n=236) | 59 <sup>a</sup>                |
| <b>Age of teen</b>                                 |               |                                |
| a  | 12-13 (n=151) | 46                             |
| b  | 14-17 (n=481) | 47                             |

**Source:** Pew Internet July 26-September 30, 2012 Parent/Teen Privacy Survey of 802 teens ages 12-17. Interviews were conducted in English and Spanish and on landline and cell phones.

**Note:** Percentages marked with a superscript letter (e.g., <sup>a</sup>) indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g. gender).

# Survey Questions

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## Spring 2013 Tracking Survey

Final Topline

5/21/2013

Data for April 17-May 19, 2013

Princeton Survey Research Associates International for  
the Pew Research Center's Internet & American Life Project

Sample: n=2,252 national adults, age 18 and older, including 1,127 cell phone interviews  
Interviewing dates: 04.17.2013 – 05.19.2013

Margin of error is plus or minus 2.3 percentage points for results based on Total [n=2,252]

Margin of error is plus or minus 2.5 percentage points for results based on all internet users [n=1,895]

Margin of error is plus or minus 2.4 percentage points for results based on all cell phone owners [n=2,076]

Margin of error is plus or minus 3.0 percentage points for results based on all SNS or Twitter users [n=1,325]

Margin of error is plus or minus 3.5 percentage points for results based on Form A internet users [n=970]

Margin of error is plus or minus 3.6 percentage points for results based on Form B internet users [n=925]

Margin of error is plus or minus 4.2 percentage points for results based on Form A SNS or Twitter users [n=683]

Margin of error is plus or minus 4.3 percentage points for results based on Form B SNS or Twitter users [n=642]

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**INTUSE** Do you use the internet, at least occasionally?

**EMLOCC** Do you send or receive email, at least occasionally?

**EMINUSE** Do you use the internet or email, at least occasionally?

**INTMOB** Do you access the internet on a cell phone, tablet or other mobile handheld device, at least occasionally?<sup>16</sup>

|                             | USES INTERNET | DOES NOT USE INTERNET |
|-----------------------------|---------------|-----------------------|
| Current                     | 85            | 15                    |
| December 2012 <sup>17</sup> | 81            | 19                    |
| September 2012              | 81            | 19                    |
| August 2012 <sup>18</sup>   | 85            | 15                    |
| April 2012                  | 82            | 18                    |
| February 2012               | 80            | 20                    |

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<sup>16</sup> The definition of an internet user varies from survey to survey. In the current survey, half the sample was asked INTUSE/EMLOCC/INTMOB and half was asked EMINUSE/INTMOB. Current results are for both forms combined. Throughout the current topline, total internet users are defined as those who answered yes to any question INTUSE, EMLOCC, EMINUSE or INTMOB. From April 2012 thru December 2012, an internet user is someone who uses the internet at least occasionally, sends/receives email at least occasionally or accesses the internet a mobile device (three-part definition with question wording "Do you use the internet, at least occasionally?" OR "Do you send or receive email, at least occasionally?" OR "Do you access the internet on a cell phone, tablet or other mobile handheld device, at least occasionally?"). From January 2005 thru February 2012, an internet user is someone who uses the internet at least occasionally or sends/receives email at least occasionally (two-part definition with question wording "Do you use the internet, at least occasionally?" OR "Do you send or receive email, at least occasionally?").

<sup>17</sup> December 2012 trends based on the 2012 Post-Election Tracking Survey, conducted November 14–December 9, 2012 [N=2,261, including 908 cell phone interviews].

<sup>18</sup> August 2012 trends based on the "Civic Engagement Tracking Survey" conducted July 16–August 7, 2012 [N=2,253, including 900 cell phone interviews].

|               | USES INTERNET | DOES NOT USE INTERNET |
|---------------|---------------|-----------------------|
| December 2011 | 82            | 18                    |
| August 2011   | 78            | 22                    |
| May 2011      | 78            | 22                    |

**WEB1-A** Next... Please tell me if you ever use the internet to do any of the following things. Do you ever use the internet to...[INSERT ITEM; RANDOMIZE]?<sup>19</sup>

Based on all internet users [N=1,895]

|   | TOTAL HAVE EVER DONE THIS | ----- DID YESTERDAY | HAVE NOT DONE THIS | DON'T KNOW | REFUSED |
|---|---------------------------|---------------------|--------------------|------------|---------|
| Use a social networking site like Facebook, LinkedIn or Google Plus <sup>20</sup> |                           |                     |                    |            |         |
| Current   | 72                        | n/a                 | 28                 | 0          | *       |
| December 2012   | 67                        | n/a                 | 33                 | *          | *       |
| August 2012   | 69                        | n/a                 | 31                 | 0          | *       |
| February 2012   | 66                        | 48                  | 34                 | *          | 0       |
| August 2011   | 64                        | 43                  | 35                 | *          | 0       |
| May 2011  | 65                        | 43                  | 35                 | *          | 0       |
| Use Twitter   |                           |                     |                    |            |         |
| Current   | 18                        | n/a                 | 82                 | *          | *       |
| December 2012   | 16                        | n/a                 | 84                 | *          | *       |
| August 2012   | 16                        | n/a                 | 84                 | *          | 0       |
| February 2012   | 15                        | 8                   | 85                 | *          | 0       |
| August 2011   | 12                        | 5                   | 88                 | *          | 0       |
| May 2011  | 13                        | 4                   | 87                 | *          | 0       |

<sup>19</sup> Prior to January 2005, question wording was "Please tell me if you ever do any of the following when you go online. Do you ever...?" Unless otherwise noted, trends are based on all internet users for that survey.

<sup>20</sup> From April 2009 thru August 2011, item wording was "Use a social networking site like MySpace, Facebook or LinkedIn." In December 2008, item wording was "Use a social networking site like MySpace or Facebook." In August 2006, item wording was "Use an online social networking site like MySpace, Facebook or Friendster". Prior to August 2006, item wording was "Use online social or professional networking sites like Friendster or LinkedIn"

**LOC1A** Thinking about how you use social networking sites... are any of your social networking accounts currently set up so that they include your LOCATION on your posts?<sup>21</sup>

Based on Form A SNS or Twitter users [N=683]

|   | <u>CURRENT</u> |            |
|---|----------------|------------|
| % | 30             | Yes        |
|   | 65             | No         |
|   | 4              | Don't know |
|   | 1              | Refused    |

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<sup>21</sup> Change in question wording over time. May 2013 question wording was: "Thinking about how you use social networking sites... are any of your social networking accounts currently set up so that they include your location on your posts?" February 2012 question wording was: "Thinking about the ways people might use social networking sites... Do you ever set up your account so that it automatically includes your location on your posts?" In May 2011, question was asked as an item in a list question with the following question wording: "Thinking about the ways people might use social networking sites... Do you ever... Set up your account so that it automatically includes your location on your posts?"

**Q10** Next... [IF REACHED ON A LANDLINE, READ: Please tell me if you happen to have the following items, or not.] Do you have... [INSERT ITEMS IN ORDER]?

|                               | YES | NO | DON'T KNOW | REFUSED |
|-------------------------------|-----|----|------------|---------|
| b. A cell phone <sup>22</sup> |     |    |            |         |
| Current                       | 91  | 9  | 0          | *       |
| December 2012                 | 87  | 13 | *          | 0       |
| November 2012                 | 85  | 15 | 0          | *       |
| Sept 2012                     | 85  | 15 | *          | 0       |
| August 2012                   | 89  | 10 | 0          | *       |
| April 2012                    | 88  | 12 | *          | *       |
| February 2012                 | 88  | 12 | 0          | *       |
| December 2011                 | 87  | 13 | 0          | *       |
| August 2011                   | 84  | 15 | *          | *       |
| May 2011                      | 83  | 17 | *          | 0       |

**SMART1** Some cell phones are called "smartphones" because of certain features they have. Is your cell phone a smartphone or not, or are you not sure?<sup>23</sup>

Based on cell phone owners

|                          | YES,<br>SMARTPHONE | NO, NOT A<br>SMARTPHONE | NOT SURE/DON'T<br>KNOW | REFUSED |
|--------------------------|--------------------|-------------------------|------------------------|---------|
| Current [N=2,076]        | 55                 | 39                      | 5                      | *       |
| December 2012 [N=1,954]  | 52                 | 41                      | 6                      | *       |
| November 2012 [N=1,992]  | 55                 | 38                      | 6                      | *       |
| September 2012 [N=2,581] | 53                 | 40                      | 6                      | *       |
| April 2012 [N=1,954]     | 46                 | 44                      | 10                     | *       |
| February 2012 [N=1,961]  | 45                 | 46                      | 8                      | *       |
| May 2011 [N=1,914]       | 33                 | 53                      | 14                     | *       |

<sup>22</sup> Question was asked of landline sample only. Results shown here have been recalculated to include cell phone sample in the "Yes" percentage. Beginning September 2007, question/item was not asked of the cell phone sample, but trend results shown here reflect Total combined Landline and cell phone sample. In past polls, question was sometimes asked as an independent question and sometimes as an item in a series. Wording may vary from survey to survey. Wording variations include: "Do you have a cell phone or a Blackberry or iPhone or other device that is also a cell phone?"; "Do you have...a cell phone or a Blackberry or iPhone or other handheld device that is also a cell phone?"; "Do you have a cell phone, or a Blackberry or other device that is also a cell phone?"; "Do you happen to have a cell phone?"; "Do you have a cell phone?"

<sup>23</sup> September 2012 through December 2012, question wording was: "Some cell phones are called "smartphones" because of certain features they have. Is your cell phone a smartphone, such as an iPhone, Android, Blackberry or Windows phone, or are you not sure?"

**LOC2** Do you ever use your cell phone to... [INSERT ITEMS IN ORDER]?

Based on cell phone owners

|  | YES | NO | DON'T KNOW | REFUSED |
|--|-----|----|------------|---------|
| a. Use a service such as Foursquare to 'check in' to certain locations or to share your location with your friends <sup>24</sup> |     |    |            |         |
| Current [N=2,076]  | 8   | 92 | *          | *       |
| Feb 2012 [N=1,961]   | 11  | 88 | 1          | *       |
| May 2011 [N=1,914]   | 5   | 94 | *          | 0       |
| b. Get directions, recommendations, or other information related to a location where you happen to be <sup>25</sup>              |     |    |            |         |
| Current  | 49  | 51 | *          | 0       |
| Feb 2012   | 46  | 53 | *          | *       |
| May 2011   | 28  | 72 | 0          | 0       |

<sup>24</sup> Feb 2012 item wording was: "Use a service such as Foursquare or Gowalla to 'check in' to certain locations or to share your location with your friends." May 2011 item wording was "Use a service such as Foursquare or Gowalla to "check in" to certain locations or share your location with friends."

<sup>25</sup> Feb 2012 item wording was "Get directions or other information related to a location where you happen to be." May 2011 item wording was "Get directions, recommendations, or other information related to your present location."

**LOC3** What location-sharing or “check-in” services do you use? [DO NOT READ; PRECODED OPEN-END]

Based on cell phone owners who use location services [N=141]

|   | <u>CURRENT</u> |                              |
|---|----------------|------------------------------|
| % | 39             | Facebook                     |
|   | 18             | Foursquare                   |
|   | 14             | Google Plus                  |
|   | 8              | Google Latitude              |
|   | 5              | Google maps                  |
|   | 5              | Instagram                    |
|   | 5              | Yelp                         |
|   | 1              | Facebook Poke                |
|   | 1              | Path                         |
|   | 1              | Twitter                      |
|   | 21             | Other (SPECIFY)              |
|   | 4              | None/Don't use any regularly |
|   | 7              | Don't know                   |
|   | 1              | Refused                      |

*Note: Total may exceed 100% due to multiple responses.*

# Methods

This report is based on the findings of a survey on Americans' use of the Internet. The results in this report are based on data from telephone interviews conducted by Princeton Survey Research Associates International from April 17 to May 19, 2013, among a sample of 2,252 adults, age 18 and older. Telephone interviews were conducted in English and Spanish by landline (1,125) and cell phone (1,127, including 571 without a landline phone). For results based on the total sample, one can say with 95% confidence that the error attributable to sampling is plus or minus 2.3 percentage points. For results based on Internet users<sup>26</sup> (n=1,895), the margin of sampling error is plus or minus 2.5 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 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 drawn with equal probabilities 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 7 attempts were made to complete an interview at a 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 adult male or female currently at home based on a random rotation. If no male/female was available, interviewers asked to speak with the youngest adult of the other 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.

Weighting is generally used in survey analysis to compensate for sample designs and patterns of non-response that might bias results. A two-stage weighting procedure was used to weight this dual-frame sample. The first-stage corrected for different probabilities of selection associated with the number of adults in each household and each respondent's telephone usage patterns.<sup>27</sup> This weighting also adjusts for the overlapping landline and cell sample frames and the relative sizes of each frame and each sample.

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<sup>26</sup> Internet user definition includes those who use the internet or email at least occasionally or access the internet on a mobile handheld device at least occasionally.

<sup>27</sup> i.e., whether respondents have only a landline telephone, only a cell phone, or both kinds of telephone.

The second stage of weighting balances sample demographics to population parameters. The sample is balanced to match national population parameters for sex, age, education, race, Hispanic origin, region (U.S. Census definitions), population density, and telephone usage. The Hispanic origin was split out based on nativity; U.S born and non-U.S. born. The basic weighting parameters came from the US Census Bureau’s 2011 American Community Survey data. The population density parameter was derived from Census 2010 data. The telephone usage parameter came from an analysis of the January-June 2012 National Health Interview Survey.

Following is the full disposition of all sampled telephone numbers:

| <b>Sample Disposition</b> |             |                                  |
|---------------------------|-------------|----------------------------------|
| <u>Landline</u>           | <u>Cell</u> | <u>_</u>                         |
| 41,291                    | 24,698      | Total Numbers Dialed             |
| 1,755                     | 411         | Non-residential                  |
| 1,516                     | 88          | Computer/Fax                     |
| 12                        | ----        | Cell phone                       |
| 24,344                    | 9,674       | Other not working                |
| 2,038                     | 226         | Additional projected not working |
| 11,626                    | 14,299      | Working numbers                  |
| 28.2%                     | 57.9%       | Working Rate                     |
| 679                       | 75          | No Answer / Busy                 |
| 3,442                     | 3,668       | Voice Mail                       |
| 41                        | 16          | Other Non-Contact                |
| 7,464                     | 10,540      | Contacted numbers                |
| 64.2%                     | 73.7%       | Contact Rate                     |
| 450                       | 1,537       | Callback                         |
| 5,786                     | 7,097       | Refusal                          |
| 1,228                     | 1,906       | Cooperating numbers              |
| 16.5%                     | 18.1%       | Cooperation Rate                 |
| 45                        | 68          | Language Barrier                 |
| ----                      | 684         | Child's cell phone               |
| 1,183                     | 1,154       | Eligible numbers                 |
| 96.3%                     | 60.5%       | Eligibility Rate                 |
| 58                        | 27          | Break-off                        |
| 1,125                     | 1,127       | Completes                        |
| 95.1%                     | 97.7%       | Completion Rate                  |
| 10.0%                     | 13.0%       | 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 10 percent. The response rate for the cellular sample was 13 percent.