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Digital Life in 2025

Technology's Impact on Workers

Email has survived the onslaught of threats and competitors to remain the most important digital tool for workers. Just 7% of online job holders say the internet makes them less productive at work, but 35% say they spend more time working because of the internet and cell phones.

**FOR FURTHER INFORMATION
ON THIS REPORT:**

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About this Report

This report is part of a sustained effort throughout 2014 by the Pew Research Center to mark the 25th anniversary of the creation of the World Wide Web by Sir Tim Berners-Lee ([The Web at 25](#)).

There are two parts to this series of reports. One group of findings relates to the current state of the internet in American society. One [previous report](#) noted the growth in adoption of digital technologies since the mid-1990s. It also noted the overall positive views online Americans have about the role of the internet in their lives and in the broader society. Another [report](#) examined the degree to which Americans feel better informed and learn new things thanks to the internet. And [this report](#) looks at what internet users know about technology and the Web.

The other part of the research is a series of reports exploring the future of the internet and its potential social, political, and economic consequences. Those other reports can be found at <http://www.pewinternet.org/the-web-at-25/>.

This report is a collaborative effort based on the input and analysis of the following individuals:

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About Pew Research Center

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Summary of Findings

The internet and cell phones have infiltrated every cranny of American workplaces, and digital technology has transformed vast numbers of American jobs. Work done in the most sophisticated scientific enterprises, entirely new technology businesses, the extensive array of knowledge and media endeavors, the places where crops are grown, the factory floor, and even mom-and-pop stores has been reshaped by new pathways to information and new avenues of selling goods and services. For most office workers now, life on the job means life online.

Pew Research surveyed online a representative sample of adult internet users and asked those who have jobs a series of questions about the role of digital technology in their work lives.

This is not a sample representative of *all*

workers. It covers online adults who also have full- or part-time jobs in any capacity.¹ The most recent survey data from Pew Research in late 2013 shows that 94% of jobholders are internet users and they work in all kinds of enterprises from technology companies to non-technology firms; from big corporations to small proprietor operations; and from those in urban areas, farms, and places in between.

Some of the key findings are highlighted below.

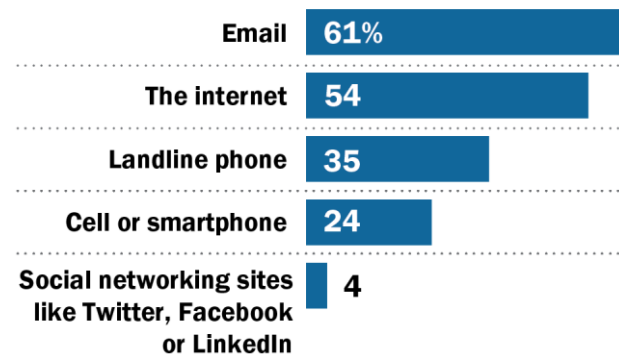
Email and the internet are deemed the most important communications and information tools among online workers.

The high value of email comes despite the challenges of the past generation, including threats like spam and phishing and competitors like social media and texting. Surprisingly, landline phones outrank cell phones for these internet-using workers. Social media is very low in importance.

In this sample, email and the internet are particularly important to adults who work in traditionally “white collar,” office-based occupations such as professionals, executives, managers,

Email and the internet top the list of important tools for online workers

Percent of working internet users who say each is “very important” to doing their job ...



Source: September 2014 Panel Survey

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¹ References to these findings should make clear they cover employed internet users, not necessarily all workers.

business owners, and clerical workers. They are also critical for the 59% of employed online adults who take their jobs outside of the physical boundaries of the workplace at least occasionally.

What is potentially surprising is that even in the face of constantly evolving forms of digital communication, potential threats like phishing, hacking and spam, and dire warnings about lost productivity and email overuse, email continues to be the main digital artery that workers believe is important to their jobs. Since taking hold a generation ago, email has not loosened its grip on the American workplace.

While commentators worry that digital tools can be a distraction in the workplace, many online workers say that is not the case when it comes to their productivity.

Just 7% of working online adults feel their productivity has dropped because of the internet, email and cell phones, while 46% feel more productive.

Asked about a variety of impacts, notable proportions of these workers say that the internet, email and cell phones:

- Expand the number of people outside of their company they communicate with—51% of these internet-using workers say this.
- Allow them more flexibility in the hours they work—39% of online workers say this.
- Increase the amount of hours they work—35% of online workers say this.

Each of these effects is felt more among Office-Based workers than among traditionally blue collar, Non-Office-Based employees.

Bosses are adapting, too.

Employers are likewise changing practices regarding employees' use of the internet. Just under half of those surveyed say their employer blocks access to certain websites (46%) and has rules about what employees can say or post online (46%). The latter figure has more than doubled since Pew Research began asking about company rules about employees' online presentation in 2006.

Blocked access to websites and rules about employees' online postings are more common for those working in Office-Based professions. In contrast, among workers in traditionally Non-Office-Based professions such as service, skilled and semi-skilled positions, fairly high percentages say they are not sure if their employer controls employees' website access (29%) or has rules about what employees do online (35%).

About this survey

The analysis in this report is based on an online probability survey conducted September 12-18, 2014 among a sample of 1,066 adult internet users, 18 years of age or older. The survey included 535 adults employed full-time or part-time, who are the basis of this report. The survey was conducted in English by the GfK Group using KnowledgePanel, its nationally representative online research panel. Sampling error for the subsample of 535 working adults is plus or minus 4.9 percentage points at the 95% level of confidence. For more information on the GfK Privacy Panel, please see the Methods section at the end of this report.

Email and the Internet Are the Dominant Technological Tools in American Workplaces

Digital technology is ubiquitous in American workplaces. Computers have colonized substantial portions of work activities from organizing the shipment of washing machines to assisting surgeons in operating rooms. There is a drumbeat of commentary about the impact digital tools has had. Some see these tools as increasing productivity and offering more flexibility for America's workforce; others say they decrease productivity and pressure workers to be constantly connected to their workplace.

Over the past 15 years, the Pew Research Center has asked internet users a variety of questions about the role of the internet in their work lives and the impact the internet, email, mobile phones and other tools have had in their workplaces. This report updates that work and focuses on these questions: How important are the internet, email and cell phones to the work people do and how do these tools impact things like productivity and time spent working?

First, some background information.

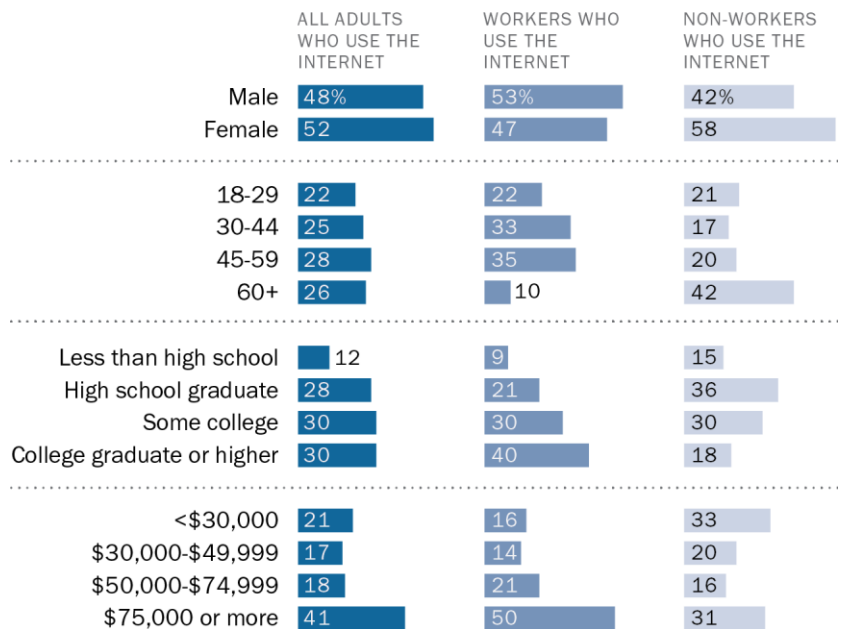
53% of internet users are employed full-time or part-time, in positions ranging from executive to business owner to skilled and semi-skilled workers.

The 535 working adults forming the basis of this report are drawn from a panel survey of 1,066 internet users.² In that survey, 53% of respondents reported being employed either full-time (42%) or part-time (11%).

Demographically, these working adults skew slightly male and are more likely to be in the 30-59 age range when compared with adults who are not working. Overall, they

Demographic profile of online workers compared with non-workers

Percent of each demographic category who are internet-using workers and non-workers



Source: September 2014 Panel Survey

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² A Pew Research survey in September 2013 found that 94% of employed Americans are internet users.

have higher levels of educational attainment and household incomes than their non-working counterparts.

Asked to describe their occupation, 29% of respondents report working in professional roles such as lawyer, doctor, teacher, nurse or accountant, by far the largest group. Comparable percentages report working in managerial or executive roles (14%), service jobs (13%) and clerical (14%) positions. Fewer say they work in skilled (7%) or semi-skilled (5%) occupations, and 15% are categorized as “other.”

For analytical purposes, Pew Research divided respondents into two main groups based on the type of job they hold:

- “Office-Based” (n=326) includes what have traditionally been referred to as “white collar” jobs, including professionals, executives, managers, business owners, and clerical workers. Because these occupations are historically office-based positions, they provide insight into how office-based work has been impacted by the internet and other digital tools.
- “Non-Office-Based” (n=130) includes occupations that have traditionally been labeled “blue collar” and include service workers, skilled trades, and semi-skilled workers. These positions are generally based in non-office settings and provide some idea of how the internet and digital tools are impacting this sector of the workforce.

While these are broad occupational categories, they provide analytical insights that might not be apparent when looking at “workers” as a whole. Given the relatively small sample size of 535 workers, it is not possible to look at each occupational category on its own.

Demographically, these two groups differ in key ways. Non-Office-Based workers include a higher percentage of men than women. Office-Based workers, in contrast, skew more female, include a much higher percentage of college graduates and report higher annual household incomes overall.

For American workers who use the internet, email and the internet top the list of tech tools needed to do their jobs, while landline phones rate higher in importance than mobile phones.

Six in ten (61%) American workers who use the internet say email is “very important” for doing their job, and 54% say the same about the internet. Far fewer workers describe landline phones (35%) or cell phones and smartphones (24%) as “very important.” Just 4% say social networking sites like Twitter, Facebook or LinkedIn are “very important” to their work.

The high importance of email in the workplace reported in the current survey is not surprising. As early as 2002, Pew Research Internet surveys showed that 61% of American workers were using

email at work. In 2008, we reported that 62% of working American adults were “networked workers,” meaning they used the internet or email in the workplace.

This high standing for email has not changed since Pew Research began studying technology in the workplace. Email’s vital role has withstood major changes in other communications channels such as social media, texting, and video chatting. Email has also survived potential threats like phishing, hacking and spam and dire warnings by commentators and workplace analysts about lost productivity and email overuse.

Perhaps even more surprising is that, despite the proliferation of mobile phones in the U.S., cell and smartphones rate lower than landline phones in terms of their importance to U.S. workers doing their job. One in three workers (35%) say landline phones are “very important” to their work, compared with 24% who say the same about mobile phones.

Email and the internet are more important to some sectors of the workforce than others. Those in Office-Based occupations are three times as likely as those in Non-Office-Based occupations to say email is “very important” for doing their job (78% v. 25%). Moreover, 30% of adults working in Non-Office-Based positions say email is “not at all important” to their jobs.

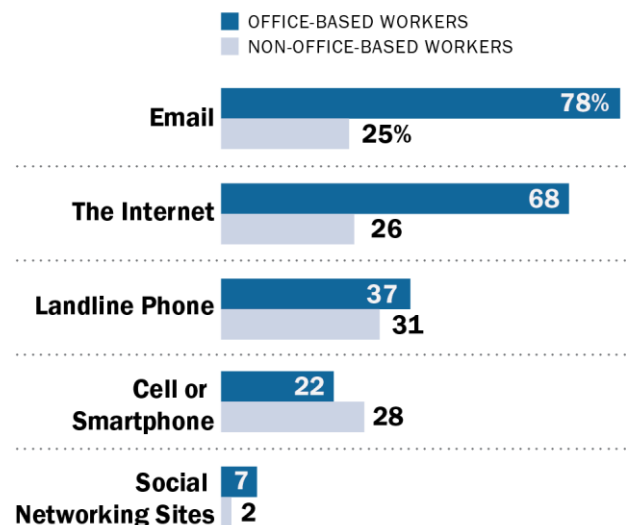
Results for the internet are similar: Office-Based workers are more than twice as likely as Non-Office-Based workers to say the internet is “very important” for doing their job (68% v. 26%), while 32% of the latter group say the internet is “not at all important” to their jobs.

In addition to the internet and email, Office-Based workers are more likely than Non-Office -Based workers to say social networking sites are “very important,” though even among Office-Based workers that figure is just 7%.

While the two broad occupational groups do not differ significantly in their assessment of the importance of cell phones and smartphones to their work, there are significant differences across several demographic subgroups of workers. For example, men are almost twice as likely as women to say cell and smartphones are “very important” for doing their job (30% v. 17%). Working adults from households with incomes of \$50,000 or greater are

Some digital tools are more important to online Office-Based workers

Percent of online workers who say each tool is “very important” to their job ...



Source: September 2014 Panel Survey

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also more likely than those in lower income households to rate mobile phones as “very important” (28% v. 15%).

For those who work away from their home-base workplace, the internet and cell phones are key tools.

Among full-time and part-time workers, 21% work outside of their workplace every day or almost every day, and another 13% work outside the office a few times a week. Overall, 41% of workers say they never work outside their workplace.

Among the 59% of employed internet users who work outside of the workplace at least occasionally, half say the internet and cell phones are “very important” to allowing them to do their job remotely, and another 24% say these tools are “somewhat important.” Just 11% say the internet and cell phones are not important at all in allowing them to work remotely.

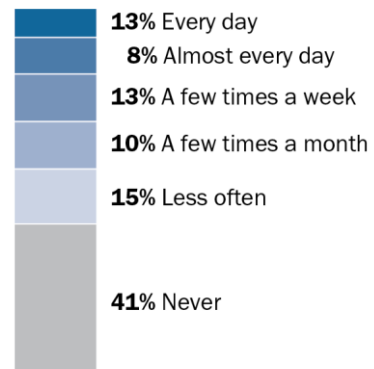
Adults in traditionally Office-Based occupations rely much more heavily on the internet and cell phones when working remotely than those in traditionally Non-Office-Based occupations. Two-thirds of remote workers in Office-Based occupations say the internet and cell phones are “very important” in allowing them to work remotely, compared with 26% of remote workers in other types of occupations.

35% of employed online adults say the internet, email and cell phones have increased the amount of time they spend working.

To gauge the perceived impact of the internet, email and cell phones on *how* people work, survey respondents were asked if these tools increased the amount of time they spend working, allowed them more flexibility in the hours they work, and/or expanded the number of people outside of their own company they communicate with. The latter area is where these digital tools appear to have the greatest impact, with 51% of working adults feeling the internet, email, and cell phones have increased

One in five employed online adults work outside the workplace frequently

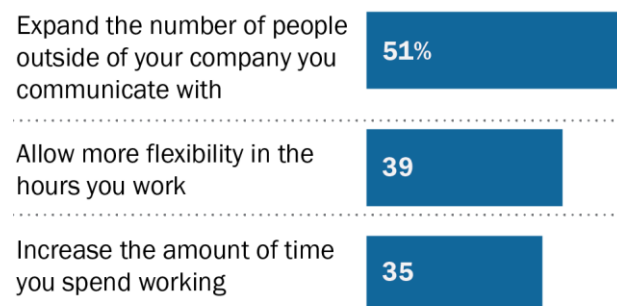
Percent of employed internet users who work outside of the workplace ...



Source: September 2014 Panel Survey
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Many online workers say the internet, email, and cell phones change their work experiences in these ways ...

Percent of employed internet users who report these changes



Source: September 2014 Panel Survey
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their communication with people outside of their company.

Adults employed in traditionally Office-Based occupations feel *all* of these impacts more than those who work in occupations that are traditionally Non-Office-Based. The Office-Based workers are more than twice as likely as Non-Office-Based workers to say the internet, email and cell phones have given them more flexibility in the hours they work (51% v. 19%) but also that these tools have increased the amount of time spent working (47% v. 18%).

Pew Research has asked similar questions of U.S. adults in the past. A 2008 national telephone survey asked employed adults who used the internet, email or cell phones 1) if these technologies increased demands that they work more hours and 2) allowed more flexibility in the hours they worked.

At the time, 33% of these adults said that the internet, email and cell phones increased “a lot” or “some” demands that they work more hours. Slightly more working adults at the time, 45%, said these tools had the same level of impact on allowing more flexibility in hours worked.

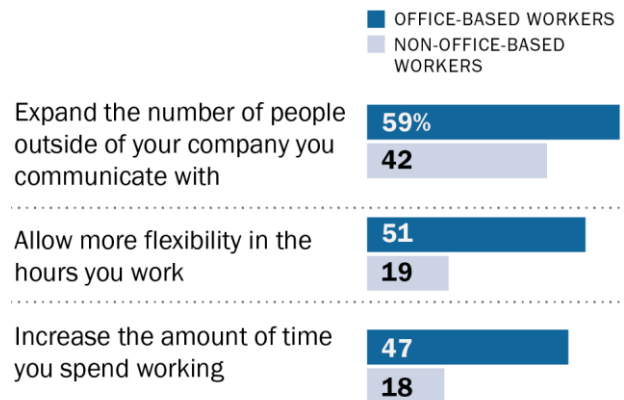
46% of employed online adults say the internet has made them *more* productive at work, while just 7% believe it has made them *less* productive.

Overall, 92% of working adults say the internet has not hurt their productivity at work. This includes 46% who say the internet has made them more productive and another 46% who say the internet has had no impact on their productivity. Fewer than one in ten working adults say the internet has made them less productive in the workplace.

Adults working in traditionally Office-Based occupations are twice as likely as those in Non-Office- Based occupations to say

Online workers in traditionally Office-Based occupations feel the impacts of digital tools more than others

Percent who say the internet, email and cell phones ...

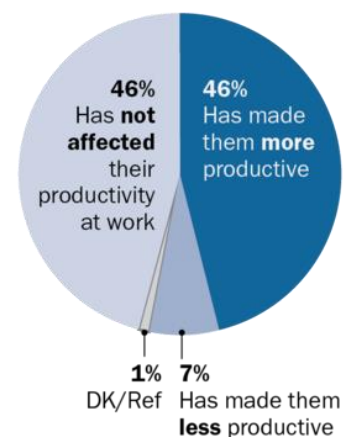


Source: September 2014 Panel Survey

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Vast majority say the internet has not hurt their productivity at work

Percent of employed internet users who say the internet ...



Source: September 2014 Panel Survey

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the internet has *increased* their productivity (58% v. 23%). However, Office-Based workers are also more likely to say the internet has *decreased* their productivity (9% v. 3%). In contrast, the vast majority of workers in traditionally Non-Office-Based jobs (74%) say the internet has had no impact on their productivity.

46% of online working adults say their employer blocks certain websites and has rules about what employees can post online—a big uptick since 2006.

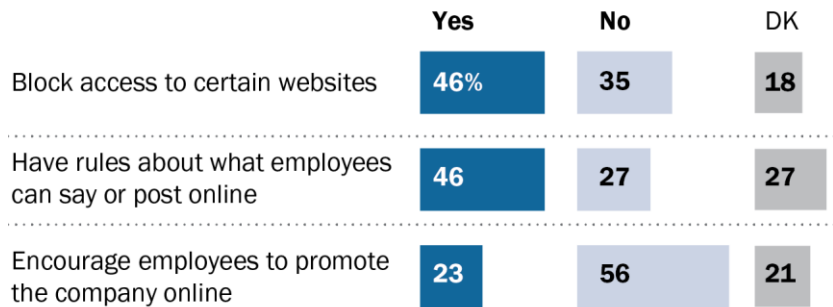
Among adults employed full-time or part-time, 46% say their employer blocks access to certain websites and the same percentage says their company has rules about what they can say or post online. For both of these items, substantial percentages of respondents were not sure if this is something their employer does; 18% of working adults are not sure if their employer blocks access to any websites, and 27% are not sure if their employer has rules about what employees can say or post online.

Asked about promoting their company online, 23% of working internet users say their company encourages employees to do this. More than half (56%) say this is not something their company encourages employees to do.

Asked whether their employer blocks access to certain websites and has rules about how employees present themselves online, those employed in traditionally Office-Based

Many online workers say their employers block access to websites and have rules about what employees can post online

Asked of online workers: Does the company you work for ...

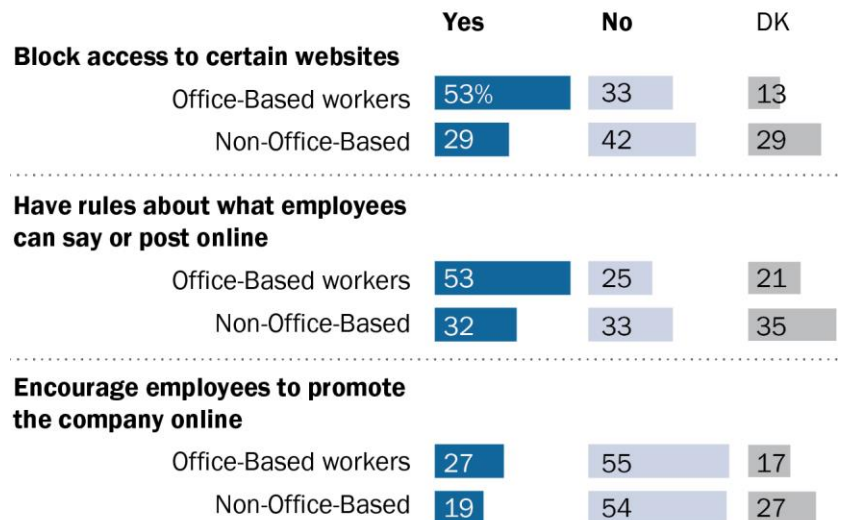


Source: September 2014 Panel Survey

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Office-Based workers are more likely to say their employers block access to websites and have rules about what employees can post online

Does the company you work for ...



Source: September 2014 Panel Survey

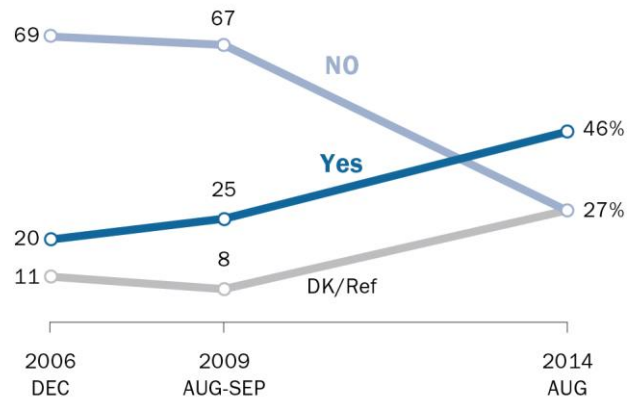
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occupations are more likely to say this is something their employer does. For all three items—blocked access to websites, rules about employees’ online presentation and encouraging employees to promote the company online—those working in traditionally Non-Office-Based occupations are more likely to say they are not sure if this is the case.

In both 2006 and 2009, Pew Research asked a nationally representative sample of working adults if their company “has policies about how you present yourself on the internet—for example, what you can post on blogs and websites, or what information you can share about yourself online?” Results indicate that over time, more and more employers are implementing these types of policies. In 2006 one in five working adults said their employer had such policies, and in 2008 the figure was one in four. In the current survey, almost half of employed adults work for employers who have policies about what employees say or post online.

The percent of online workers whose employers have rules about online presentation is increasing

Does your company have rules about what employees can say or post online?



Source: September 2014 Panel Survey. Previous surveys were national telephone surveys.

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Survey questions

Q6 What kind of work do you do? (Based on those who are online and employed, N=535)

Professional: Examples would be lawyer, doctor, teacher, nurse, accountant:	29%
Manager, executive, or official: Examples would be store manager, business exec.	14%
Business owner	3%
Clerical/Office/Sales: Examples would be secretary, receptionist, sales clerk	14%
Service work: Examples would be waiter/waitress, hairstylist, police or fireman	
Janitor, nurses' aid	13%
Skilled trades: Examples would be: electrician, plumber, carpenter	7%
Semi-skilled: Examples would be assembly line worker, truck driver, bus driver	5%
Other	15%
Refused	1%

Q6a How often, do you work outside your workplace – either from home, at other businesses like clients or customers, or from other places like coffee shops or libraries? (Based on those who are online and employed, N=535)

Every day	13%
Almost every day	8%
A few times a week	13%
A few times a month	10%
Less often, but at least every so often	41%
Refused	*

Q7 Now we would like to know about various technologies and tools and how important they are for you doing your job. How important is the internet to your job? (Based on those who are online and employed, N=535)

Very important	54%
Somewhat important	22%
Not too important	10%
Not at all important	13%
Refused	*

Q8 How important is a cell phone or smartphone to your job? (Based on those who are online and employed, N=535)

Very important	24%
Somewhat important	23%
Not too important	22%
Not at all important	30%
Refused	1%

Q9 How important is a landline phone to your job? (Based on those who are online and employed, N=535)

Very important	35%
Somewhat important	27%
Not too important	20%
Not at all important	17%
Refused	*

Q10 How important is email to your job? (Based on those who are online and employed, N=535)

Very important	61%
Somewhat important	18%
Not too important	7%
Not at all important	13%
Refused	*

Q11 How important are social networking sites like Twitter, Facebook or LinkedIn to your job?
(Based on those who are online and employed, N=535)

Very important	4%
Somewhat important	14%
Not too important	22%
Not at all important	59%
Refused	*

No Q12 or Q13

Q14 When you do work away from your workplace, how important are the internet and your cell phone in allowing you to do your job remotely? (Based on internet users who ever work outside their workplace; N=328)

Very important	54%
Somewhat important	24%
Not too important	11%
Not at all important	11%
Refused	*

Q15 Does your company block your access to certain websites while you are at work? (Based on those who are online and employed, N=535)

Yes	46%
No	35%
Don't know	18%

Q16 Does your company encourage employees to promote the company online? (Based on those who are online and employed, N=535)

	Current
Yes	23%
No	56%
Don't know	21%

Q17 Does your company have rules about what employees can say or post online? (Based on those who are online and employed, N=535)

	Current
Yes	46%
No	27%
Don't know	27%

Q18 Have technologies such as the internet, email, and cell phones increased the amount of time you spend working? (Based on those who are online and employed, N=535)

Yes	35%
No	64%
Refused	1%

Q19 Have technologies such as the internet, email, and cell phones allowed you more flexibility in the hours you work? (Based on those who are online and employed, N=535)

Yes	39%
No	60%
Refused	1%

Q25 Have technologies such as the internet, email, and cell phones expanded the number of people OUTSIDE of your company that you communicate with while doing your job? (Based on those who are online and employed, N=535)

Yes	51%
No	48%
Refused	1%

Q26 In general, how do you think the internet has affected you at work? (Based on those who are online and employed, N=535)

Made me more productive	46%
Made me less productive	7%
My use of technology has not affected my productivity	46%
Refused	1%

About the Survey

The analysis in this report is based on an online probability survey conducted September 12-18, 2014 among a sample of 1,066 adult internet users, 18 years of age or older. The survey was conducted by the GfK Group using KnowledgePanel, its nationally representative online research panel. To qualify for the main survey, a panel member must be at least 18 years of age and meet one of the following two criteria:

- Use the internet or email at least occasionally; or
- Access the internet on a cell phone, tablet or other mobile handheld device at least occasionally

The survey was conducted in English.

This report is based on a subgroup of the internet users in the sample: Those who are either full-time or part-time employed. The sampling error for these 535 working adults who use the internet is plus or minus 4.9 percentage points.

KnowledgePanel members are recruited through probability sampling methods and include both those with internet access and those without. KnowledgePanel provides internet access for those who do not have it and, if needed, a device to access the internet when they join the panel. A combination of random digit dialing (RDD) and address-based sampling (ABS) methodologies have been used to recruit panel members (in 2009 KnowledgePanel switched its sampling methodology for recruiting panel members from RDD to ABS). The panel comprises households with landlines and cellular phones, including those only with cell phones, and those without a phone. Both the RDD and ABS samples were provided by Marketing Systems Group (MSG). KnowledgePanel continually recruits new panel members throughout the year to offset panel attrition as people leave the panel. The survey was conducted in English. Respondents were selected randomly from eligible adult household members of the panel. All sampled members received an initial email September 12-13, 2014 to notify them of the survey and included a link to the survey questionnaire. One follow-up reminder was sent three days later to those who had not yet responded.

The final sample for this survey was weighted using an iterative technique that matches gender, age, education, race, Hispanic origin, household income, metropolitan area or not, and region to parameters from the July 2013 Census Bureau's Current Population Survey (CPS). In addition, the sample is weighted to match current patterns of internet access from the July 2011 CPS survey. This weight is multiplied by an initial base or sampling weight that corrects for differences in the probability of selection of various segments of the sample and by a panel weight that adjusts for any biases due to nonresponse and noncoverage at the panel recruitment stage (using all of the parameters mentioned above as well home ownership status).

Sampling errors and statistical tests of significance take into account the effect of weighting at each of these stages. Sampling error for the total sample of 1,066 respondents is plus or minus 3.2 percentage points at the 95% level of confidence. Sample sizes and sampling errors for other subgroups are available upon request.

In addition to sampling error, one should bear in mind that question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of opinion polls.