

The Rise of the Digital C-Suite

HOW EXECUTIVES LOCATE AND FILTER BUSINESS INFORMATION



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Key findings

A CEO needs to locate information on a competitor, a business partner, a customer trend, or a news development. What does he or she do? To find out more about how the C-suite and top-level executives look for business-related information, Forbes Insights, in association with Google, surveyed 354 top executives at large U.S. companies (those with annual sales of greater than \$1 billion). These findings were augmented through detailed one-on-one interviews with another 15 high-profile executives. The findings clearly showed that the Internet has become the chief source of business information, but how the Internet is used frequently depends on the age and work experience of the executive.

Among the key findings of the study:

A generational shift is occurring in the C-suite that is transforming how they use the Internet. Executives who came of business age with the rise of the personal computer—typically those between the ages of 40 and 50—are now assuming leadership positions in corporate America. These “Generation PC” executives access information more frequently than executives, see greater value in emerging Internet technologies, and are willing to retrieve information in different ways, such as via video or through a mobile device.

The Internet is the C-suite’s top information resource. Executives find it more valuable for locating business-related information than references from colleagues, personal networks, newspapers and magazines, TV and radio, and conferences and trade shows.

Members of the C-suite search for information themselves. While delegating research may be part of the stereotype of a C-level executive, it is not the reality. More than half of C-level respondents said they prefer to locate information themselves, making them more self-sufficient in their information gathering than non-C-suite executives.

When they go to locate information, the C-suite first turns to mainstream search engines. And they do so frequently, with six out of ten executives conducting more than six searches a day. Once they get started on a search, executives are willing to click around to locate the right information, and will follow a path of links driven by search results, content, and advertising.

Video and online networks are emerging as C-suite tools. While text is still the preferred format for receiving information, streaming video, webcasts, and similar formats are increasing in prevalence, especially among executives under 50. Similarly, although most executives prefer personal contacts, they are increasingly willing to network and seek advice through online communities.

Executives in IT are the most prevalent users of the Internet for information gathering. CIOs and other IT leaders are the most likely executives to conduct Web searches, use online communities to gather information and recommendations, seek out blogs and other Web 2.0 tools, or use online video over text.

Executives under 40 (Generation Netscape) are the most willing to engage with emerging Internet technologies such as blogs, wikis, Twitter, mobile computing, and online social networks. Having come of professional age in the Internet era, this generation defines fluency in Web technologies. As they rise into the C-suite, they are likely to take collaboration and networking in research to unprecedented levels.

INTRODUCTION

The rise of the digital C-suite

In developing a sociology of the digital age, much has been made of the emergence of the “digital native” generation—those born during the era of PCs, the Internet, cell phones, iPods, and other digital tools—and how it interacts with information differently than earlier generations.

A similar approach can be taken when looking at the impact of the digital lifestyle within corporate walls. The introduction of the IBM PC in 1981 and the subsequent ubiquity of the personal computer on office desktops presaged the development of the digital C-suite, as executives who launched their careers during this time understood the value of digital communications.

Forbes Insights, in association with Google, surveyed 354 top executives at large U.S. companies (those with annual sales of greater than \$1 billion) to examine how they locate business-related information. A clear generational split became apparent from the results. For the purposes of this report, we have defined each of these three generations on a technological baseline.

GENERATION WANG

This group is made of executives who entered the job market prior to 1980. These over-50s advanced in their careers with a terminal on their desks, but may still be equally or more comfortable with non-digital forms of communication. Not having been raised in the PC age, they are digital immigrants, conversant in computing while thinking in their native analog tongue.

GENERATION PC

Those whose career starts coincided with the rise of the PC in the early/mid-1980s, Generation PC members are the digital settlers of the corporate world. Generation PC came of business age with word processors, spreadsheets, and desktop presentation software, and it was the first group to send email, build Web pages, employ search engines, and see business move to the Internet. Now that its members are 40-50 years old, they are an increasingly dominant force in the C-suite.

GENERATION NETSCAPE

The generation whose careers began with the growth of the Internet in the 1990s, Generation Netscape is the most Internet-savvy group. The under 40s don't know an office without email or home pages, and they are the most willing to leverage the newest wave of Web-centric tools and experiment with emerging technologies. Members of this group are entering upper executive ranks and will be a growing influence on the C-suite.

To see these generations more clearly, consider the early career trajectory of a partner-track attorney at a top-tier law firm. In the formative stages of his/her career, a Generation Wang attorney may have written briefs by hand or dictated them to have them transcribed by the “word processing department.” A decade later, the Generation PC attorney may have pulled out volumes from the firm's law library before crafting his/her own work directly in WordPerfect on a PC. The Generation Netscape attorney may never have cracked open a leather-bound legal text, instead using only online research databases.

Throughout this report, we have sought to examine the different information-gathering habits of these three generations, and how they are changing perceptions of the C-suite.

Generation PC transforms the C-suite

There's a transition occurring in the C-suite of major U.S. corporations that is having a profound influence on the way executives locate and filter information. Driving this shift is the rise of Generation PC—executives whose professional careers have coincided with the emergence of personal computing—into the corporate leadership ranks.

Consider the demographics of today's C-suite. The mean age of all executives taking this survey was 46.7 years. The typical CEO in the U.S. begins in that post at around age 50—a mean age of 50.7, to be more precise, according to the 2008 CEO study from Booz & Co. And that age is precisely the tipping point between Generation PC and its predecessor, Generation Wang.

Figure 1: How often do you access the Internet for business intelligence?

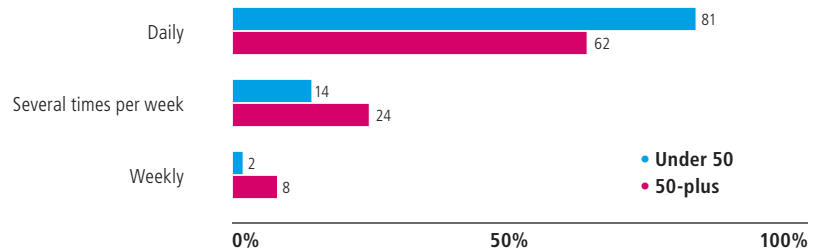


Figure 2: Seeing high value for Internet tools (percent that rate tools a 5 on a 5-point value scale)

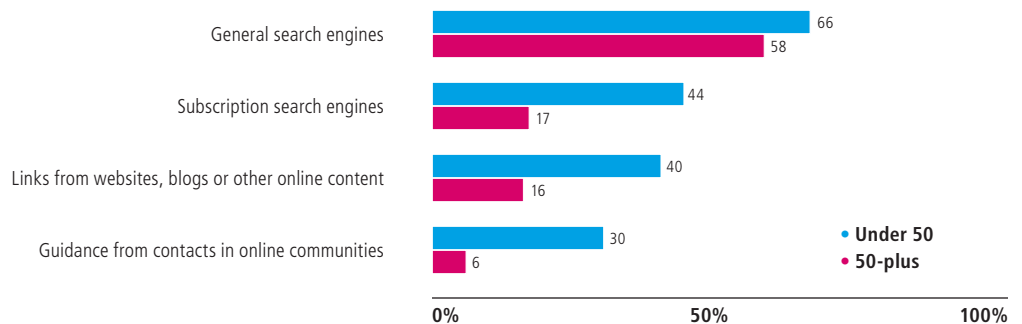
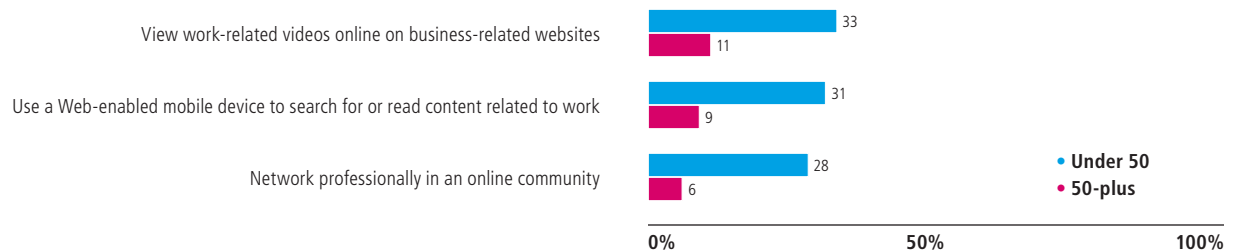


Figure 3: Accessing information in different ways (percent that cite daily use of an online tool)



"The next-generation workforce is an order of magnitude [more digitally oriented]."

Martin Schneider, chief information officer, VF Corporation

What do we know about corporate leaders under age 50? Having come of professional age in the information era, they interact with data differently than their older colleagues, and they also are more positively disposed to use Internet resources, according to the survey findings.

- **They access information sources frequently:** Executives under 50 are more likely to access the Internet daily, and they conduct more searches than older executives. (Fig. 1)
- **They are more likely to see the value of a range of Internet tools:** While all executives see the value of mainstream tools like search engines, those under age 50 are willing to try other Internet technologies. (Fig. 2)
- **They're willing to access information in different ways:** Under-50s are more likely to seek out online video, use a Web-enabled mobile device, or ask for insights from an online forum. (Fig. 3)

In other words, Generation PC is the first work generation of digital thinkers. It's no coincidence, for instance, that President Barack Obama—having taken office at age 48—is the nation's first chief executive to use email and demand a BlackBerry.

As John Talbot, vice president of corporate marketing for VeriSign, explains, "The first word processor I ever used was in business school in the mid-80s." For Talbot, this was a major transformation. Writing "became a much more free-flowing, spontaneous kind of effort."

While many in today's C-suite can recall their first steps into the digital world, many more on the way up have never known anything else. "The next-generation workforce is an order of magnitude [more digitally oriented]," says Martin Schneider, chief information officer at apparel manufacturer VF Corporation. "They'll likely be able to make more connections and access a greater range of information resources."

Executives find the Internet more valuable than any other information source

In the C-suite and throughout executive ranks, the Internet has clearly overtaken all other sources for gathering information. Gone are the days when executives would pore over the day's news clippings or tear out articles from their industry's trade press. And while traditional media and information sources are still utilized, their value has fallen behind that of online sources. In fact, the value of the Internet outstrips even personal recommendations from colleagues and networks. (Fig. 4)

This likely comes from the ease and speed by which information can be located online. "I'm always looking for what's happening out there, the latest story on identity theft or other emerging issues," says VeriSign's Talbot. "I'm on Google all the time, and you know what? I'm always astonished at how much is out there and how easy it is to find—right at your fingertips."

Similarly, executives cite a more than 2:1 preference for viewing work-related information online (70%) instead of in print (30%), and a similar preference even for viewing online video and audio (69%) over traditional broadcast outlets (31%). (Fig. 5) "I do far more reading and research online," explains Doug Baker, CEO of Ecolab. "It's probably only when I travel that I'll pick up a lot of print."

Rob Shaddock, senior vice president and chief technology officer of Tyco Electronics, avoids print wherever possible. "Newspapers and print are static," he explains. Often, an article "leaves you with just so many additional questions" but no further options. Alternatively, "online, it's so easy to find additional information. There are myriad pathways and tangents you can follow. You can go as deeply as you want to in whatever direction you need."

Figure 4: How valuable do you find the following information resources?

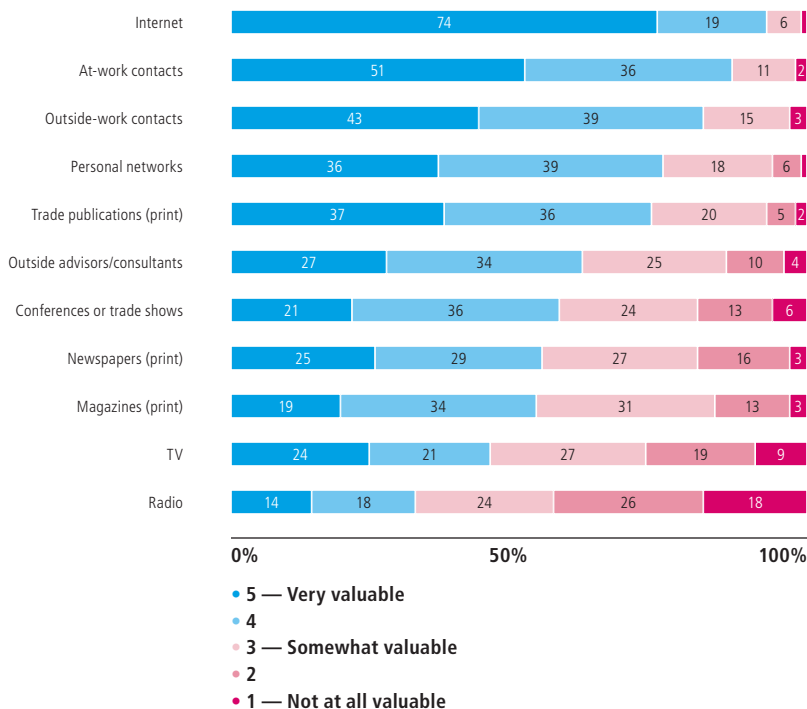


Figure 5: When it comes to "traditional print media" which of the following formats do you read most frequently during working hours?

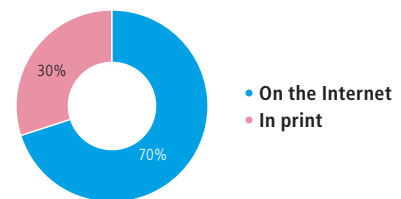
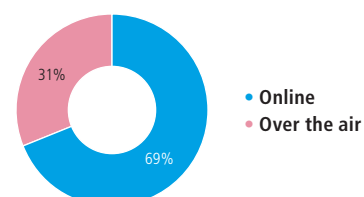


Figure 6: When it comes to "traditional broadcast media" are you more likely to access them over the air or online during working hours?



“Online, it’s so easy to find additional information. There are myriad pathways and tangents you can follow.”

Rob Shaddock, senior vice president and chief technology officer, Tyco Electronics

What information do executives seek?

Executives were asked which topics of research were most critical given their role in the organization. The top three overall are competitor analysis (53%); corporate developments such as news about mergers, acquisitions or joint ventures (41%); and compliance/legal information (39%). (Fig. 7)

Unsurprisingly, these priorities shift when the respondent’s functional role is taken into account. (Fig 8) For example, more than three out of four sales/marketing executives (76%) look for information about customer trends, their top priority, compared to 41% overall.

Figure 7: Which types of information gathering/research are most critical to your role in your company?

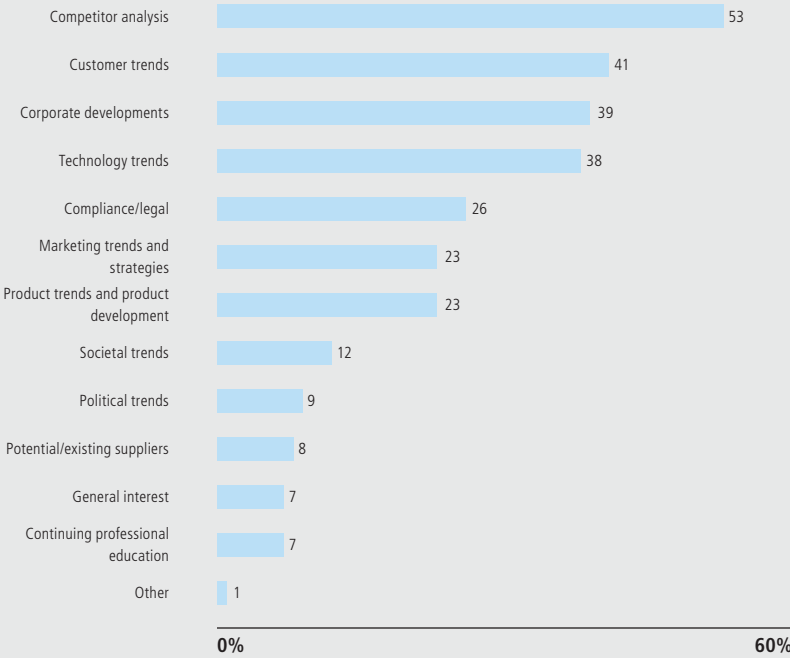


Figure 8: Information priorities by function

Finance

1. Competitor analysis (63%)
2. Corporate developments (44%)
3. Compliance/legal (33%)

IT

1. Technology trends (59%)
2. Competitor analysis (58%)
3. Corporate developments (46%)

Sales/Marketing

1. Customer trends (76%)
2. Competitor analysis (60%)
3. Marketing trends and strategies (40%)

The C-suite often goes it alone

A company's chief needs critical information. The stereotype has the CEO calling in the troops and asking for a report when he or she needs additional information on a critical topic. But according to survey respondents, this is clearly not the reality.

In fact, more than half of C-suite respondents (53%) said they prefer to locate information themselves. Surprisingly, they were more self-sufficient in their information gathering than non-C-suite executives—only 40% of those respondents said they prefer to locate information themselves. (Fig 9)

This is another example of the rise of Generation PC into the C-suite: Those under 50 are more likely to prefer conducting research on their own (51%) than their older counterparts (38%). (Fig 10)

A key reason for this transformation: Immediate access to information means executives can make faster—and more informed—decisions. Says Tony Hsieh, CEO of the online shoe retailer Zappos, “For the most part, I prefer information to be gathered by, and decisions made by, those closest to the data or feedback.”

Figure 9: What is your preferred style for gathering information for decision-making? (by title)

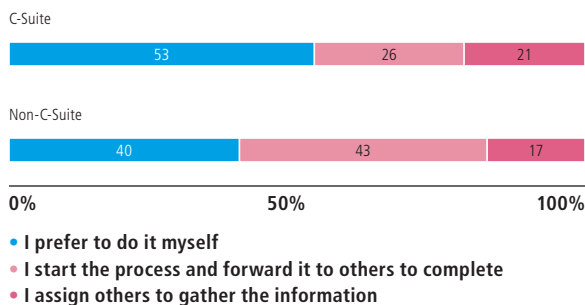
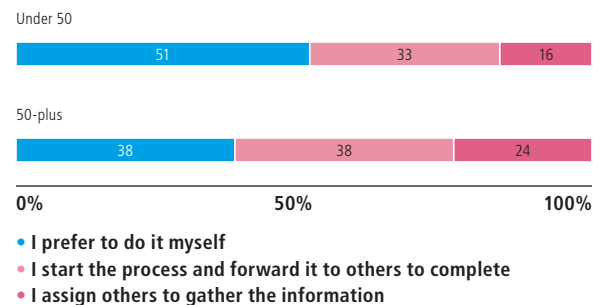


Figure 10: What is your preferred style for gathering information for decision-making? (all executives by age)



Search is the executive's home page

When it comes to locating information for their work, the C-suite first turns to mainstream search engines such as Google, Yahoo, or Live Search. That's hardly shocking—the major search sites are the most heavily trafficked on the Web. What does stand out, however, is the value executives place on search and how deeply it has become ingrained in day-to-day corporate activities.

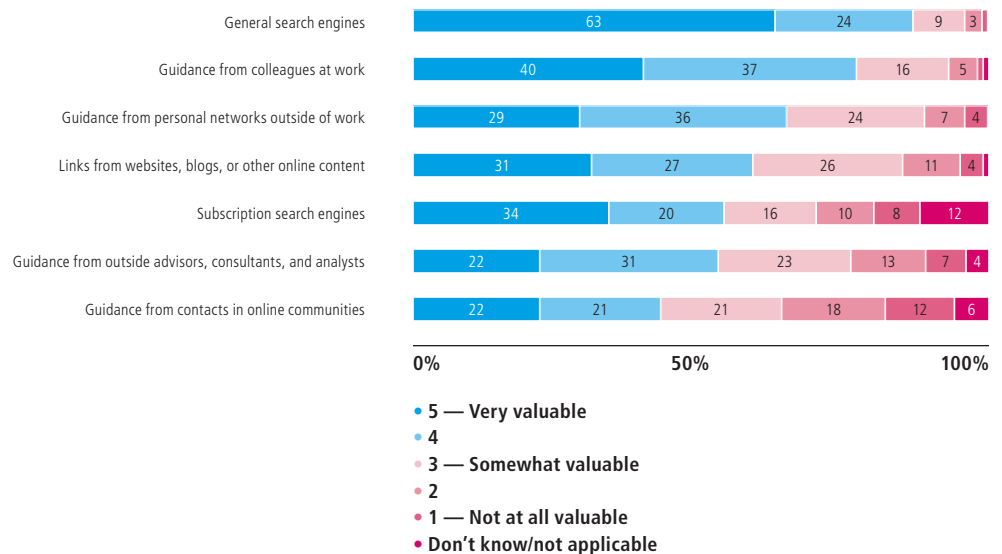
In the survey, executives were asked to rate the value of different online and offline information sources. Across the board, general search engines were considered more

important than all other options for locating information, including interacting with trusted colleagues.

Nearly nine out of ten executives (87%) rated general search engines as very valuable (scoring either a 4 or 5 on a 5-point scale). That topped the list, followed by guidance from colleagues at work (77%), guidance from personal networks outside of work (65%), links from online content (58%), subscription search engines (54%), and guidance from outside advisors (53%). (Fig. 11)

It's not just the value executives place on search, but the frequency with which they use the tool. Six out of

Figure 11: When it comes to locating business information you need for your job, how valuable are the following sources?



ten executives (60%) indicated they conduct more than six work-related searches each workday, while 19% said they conduct more than 20. (Fig. 12)

There is also a clear age-related split to these search habits, with Generation PC and Generation Netscape much more dependent on search in their daily tasks than Generation Wang. For example, more than a third of executives under 40 (39%) conduct 20-plus searches per day, compared to 17% of those 40-49, 6% of those 50-59, and just 2% of those 60-plus.

Figure 12: On average, how many work-related searches do you conduct with a search engine each workday? (by age)

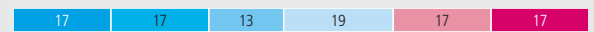
Overall



Under 40



40-49



50-59



60-plus

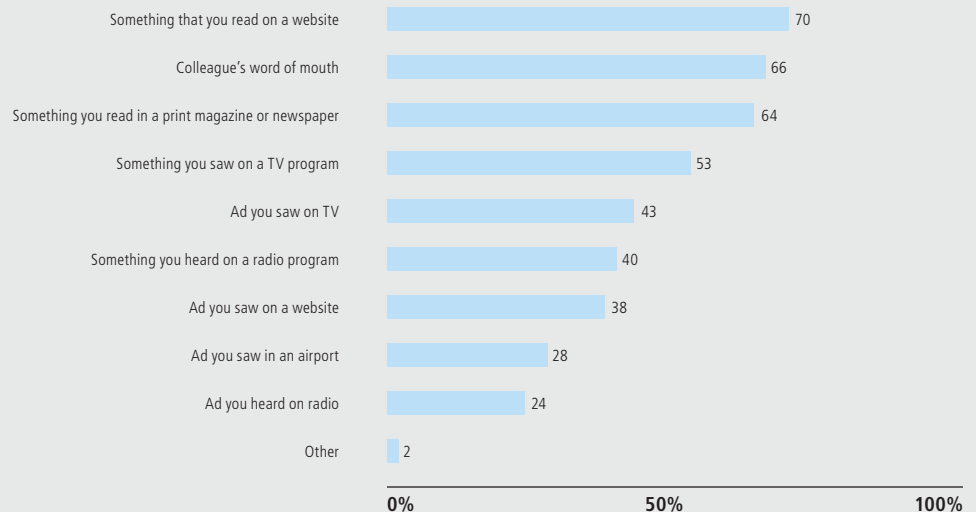


0% 50% 100%
 • More than 20 • 16-20 • 11-15 • 6-10 • 3-5 • Less than 3

What prompts a search?

What sends an executive to a search engine? More than likely, it's going to be something he or she read online (70%), heard about from a colleague (66%), or picked up in a magazine or newspaper article (64%). (Fig. 13)

Figure 13: Which of the following events would prompt you to use an online search engine to locate more information for your job?



Executives will click around

For executives, search ultimately serves as a conduit to other online material. Executives are generally willing to click from page to page in order to locate the right information, following a path of links driven by search results, content, and advertising.

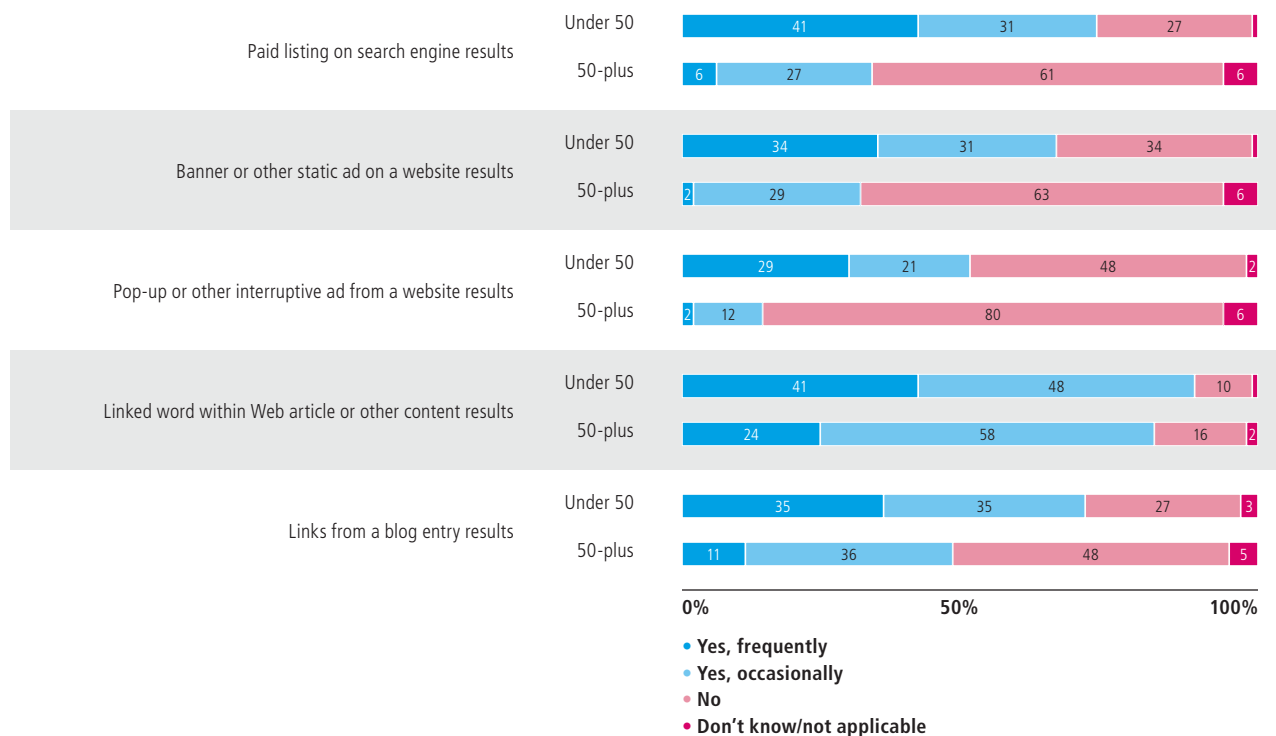
Ecolab's Baker turns to the Internet "many times a day." In search mode, "if something is interesting, I'll keep following the links." In addition, the executive subscribes to a CEO network "where they send you a series of potentially relevant links—if something there is of interest, I follow it up," he says.

As might be expected, executives are more likely to click links from content than from ads, but the less intrusive the ad, the more likely they are to follow the link. For

example, 86% said they occasionally or frequently click on linked words from Web articles and content, 58% click on paid listings in search engine results, 53% click on website banner ads, and 37% click on pop-up or other interruptive ads from websites.

However, there is a definitive generational split to an executive's response to Web advertising as a business information source. (Fig. 14) Generation PC and Generation Netscape (those under age 50) are much more likely to click on paid listings and ads than Generation Wang. For example, more than four in ten executives under age 50 (41%) say they'll frequently click on paid search listings, compared to just 6% of those 50 or over. A similar split occurs with website ad banners, with 34% of those under 50 clicking frequently, while just 2% of those 50 or over say they do.

Figure 14: Do you click on the following Internet features to gather business information? (all respondents)



Text is king, but online video is entering the C-suite's ranks

Text remains the preferred means of receiving and filtering information among executives. But streaming video, webcasts, and similar formats are increasing in prevalence, particularly in the C-suite and among Generations PC and Netscape.

For example, 27% of senior executives under the age of 50 cite Web video as their preferred format for information gathering, versus only 6% of executives 50-plus. (Fig. 15)

Interestingly, the C-suite is also more likely to watch video than other executives. Nearly a quarter (24%) of C-suite respondents surveyed indicated a preference for video, compared to 16% of non-C-suiters.

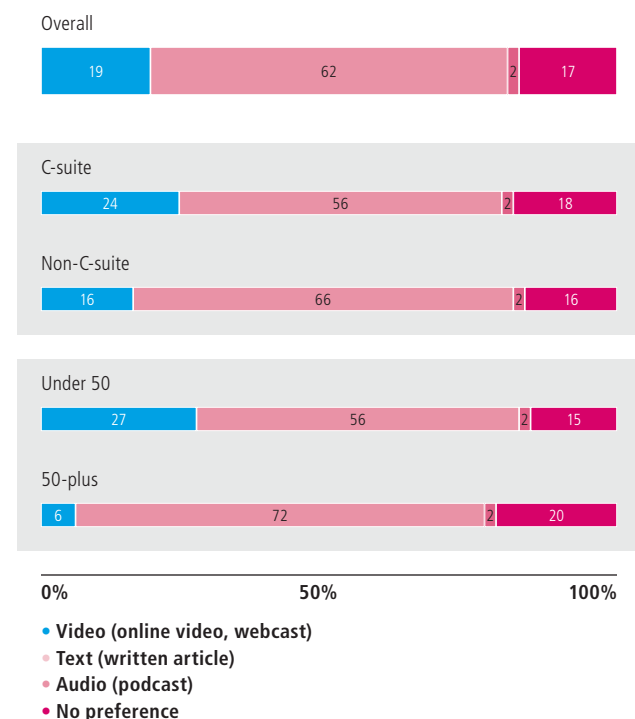
The generational split related to video also becomes clear when executives were asked how frequently they go

to business websites to view video, or access business videos via YouTube. One-third of those under 50 (33%) said they view work-related videos daily on business-related websites, compared to just 11% of those 50-plus. Nearly a quarter of those under 50 (23%) go daily to YouTube for work-related videos while only 5% of those 50-plus do so. (Fig. 16)

Online video will only become more widespread as an information source as new generations move into the C-suite, so companies are working hard to deliver high-value business-to-business content via this format.

According to Sarah Alter, vice president for e-commerce and new markets at Discover Financial Services, "Video is definitely going to become a critical means of sharing information." Not surprisingly, her company is

Figure 15: When it comes to reviewing the business information you need, what format do you most prefer?



“Video is definitely going to become a critical means of sharing information.”

Sarah Alter, vice president for e-commerce and new markets, Discover Financial Services

doing more to present information in video formats for airing on sites such as YouTube because “those are the places where our customers are going.”

Meanwhile, data management company NetApp is using a YouTube channel, NetAppTV, to deliver a wide array of product information to key IT decision makers. “We’re not talking traditional commercials,” says Tom Georgens, NetApp president and chief operating officer. “These are simple, short video clips explaining a different product area or trend.”

As Georgens explains, “Technology executives and buyers, they tend to be bit younger. [As digital natives,] they’re accustomed to concise presentation. They’re not necessarily going to sit for a 90-minute webcast, but they will browse shorter videos that relate to their interests.”

Video is also helpful when reaching a global audience, notes Tyco’s Shaddock. “The lingua franca may be English,” says Shaddock. “But when you’re dealing with complex concepts, it’s sometimes better to stop talking and just use a video. It’s very much a picture being worth a thousand words.”

Figure 16: How frequently do you view work-related video?

I view work-related videos online on business-related websites.

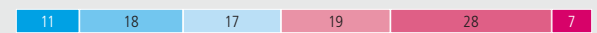
Overall



Under 50



50-plus



0% 50% 100%

I view work-related video content on YouTube.

Overall



Under 50



50-plus



0% 50% 100%

- Daily
- Several times per week
- Weekly
- Several times per month
- Monthly or less often
- Never

Personal contacts still trump virtual networks

Among C-suite and top executives, online networking has yet to supplant the value of traditional personal contacts in business relationships. Still, the increasing power of online communities, coupled with the familiarity younger executives have with this technology, could easily make online networks a critical C-suite tool in the near future.

Specifically, 77% of survey participants view guidance from colleagues at work as very valuable (a 4 or 5 on a 5-point scale) compared to 43% maintaining the same view of online communities. (Fig. 17)

Again, there is a very clear generational split when it comes to taking advantage of online communities. The older executives of Generation Wang appear hesitant to build relationships online, with nearly four in ten (39%) saying they never network professionally in an online community. (Fig. 18)

Executives interviewed appear to be focusing their online community efforts on prospecting and recruiting. VeriSign's Talbot says the company has used LinkedIn "fairly successfully" to find sales leads. Shaddock of Tyco has used that network to "identify a number of potential recruits." Similarly, VF Corporation has an internal group using Facebook as a means of attracting resumes by "showing prospective employees what the work life and culture is all about," notes Schneider.

Still, several executives insist that personal networks remain the most valuable for work-related information. For example, Sophie Zurquiyah, chief technology officer at Schlumberger, says, "For me, I get the most valuable insight from my interactions with people."

Mixing the viewpoints "of vendors, colleagues, internal managers, workers—it enriches the conversation," says Zurquiyah. And while technologies such as email or Web video most certainly enable such interaction, "you can never lose sight of the personal aspects—relationships with people are your most valuable information resources. You cannot discount personal interaction."

Figure 17: The value of networks
(percent giving a 4 or 5 on a 5-point scale)

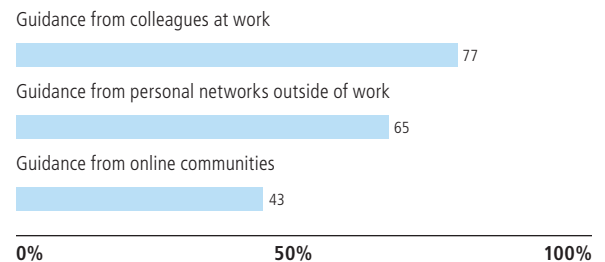
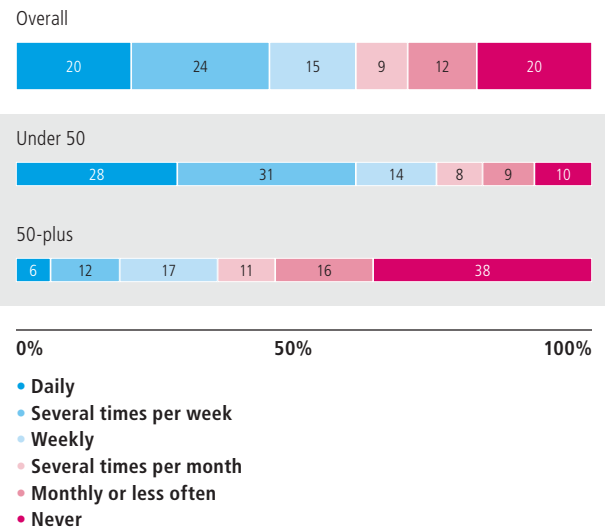


Figure 18: I network professionally in an online community
(e.g., LinkedIn, Facebook, online industry forums)



IT is the early adopter

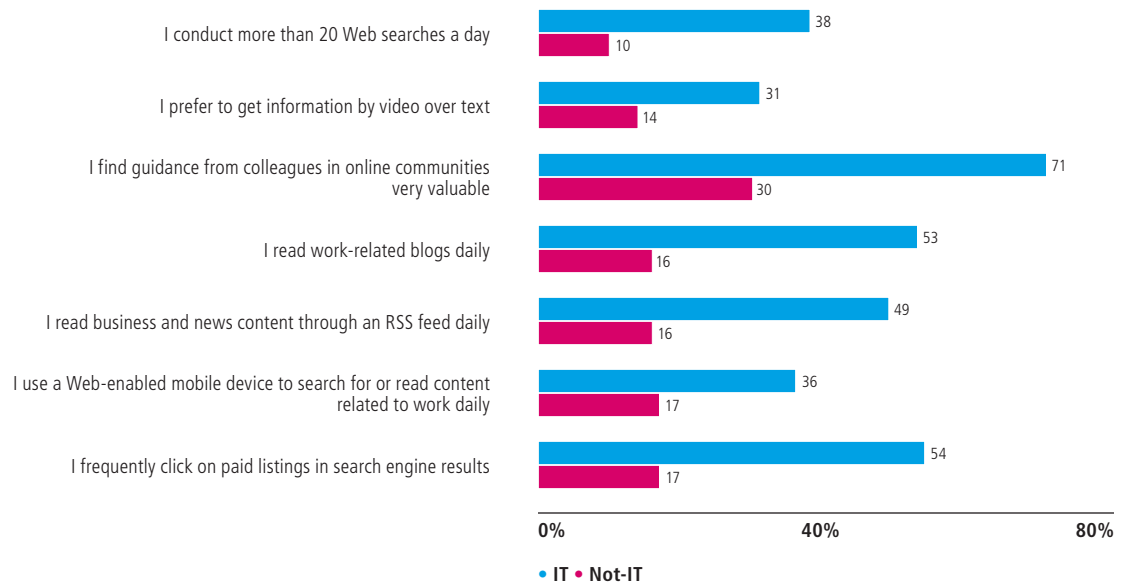
Predictably, executives in IT are the most prevalent users of the Internet for information gathering. CIOs and other IT leaders are the executives most likely to conduct Web searches, use online communities to gather information and recommendations, seek out blogs and other Web 2.0 tools, or use online video over text. (Fig. 19) After all, executives who use technology for a living are more likely to embrace technology for their work-related research.

Clearly, companies that target the IT function need to focus their information distribution online. This is the case for semiconductor maker Analog Devices. As David Kress, the company's technical marketing director, notes, "Our products are information intensive, and as such, the Web is an absolute gift to a business like ours."

Kress, a veteran of the business, has seen the transition to online. In the old days, says Kress, "we spent a lot of time mailing catalogs. [Today, however,] we introduce some 300 new products a year—and 20 percent of our sales are in products that are less than two years old. We have to push the product information out as soon as possible."

With a technical audience, Analog Devices is finding great success with an online simulation program. "The customer comes onto the website, chooses a general configuration, sets up the details to match his own needs and then can watch the results." The approach, says Kress, "helps the customer, helps us—it's just a wonderful thing."

Figure 19: IT vs. Non-IT



Web 2.0 is the bastion of Generation Netscape



When it comes to emerging Internet technologies such as blogs, wikis, Twitter, mobile computing, and online social networks, Generation Netscape is by far the most willing to engage. Having come of professional age in the Internet era, this generation defines fluency in Web technologies. They are orders of magnitude more willing to try new ways to access information than either Generation PC or Generation Wang.

For example, 56% of executives under 40 maintain a work-related blog daily (35%) or several times a week (21%). That figure drops to 35% among those 40-49, with 22% maintaining blogs daily and 13% doing so several times a week. For executives who are 50-plus? Only 1% maintain them daily and 4% contribute several times a week. (Fig. 20)

Now consider technologies such as Twitter. More than half (56%) of executives under 40 say they read or generate microfeeds daily (32%) or several times a week (24%). The total for those 40-49 is 34%, but Twitter is nearly nonexistent for executives 50-plus with a total of just 3%.

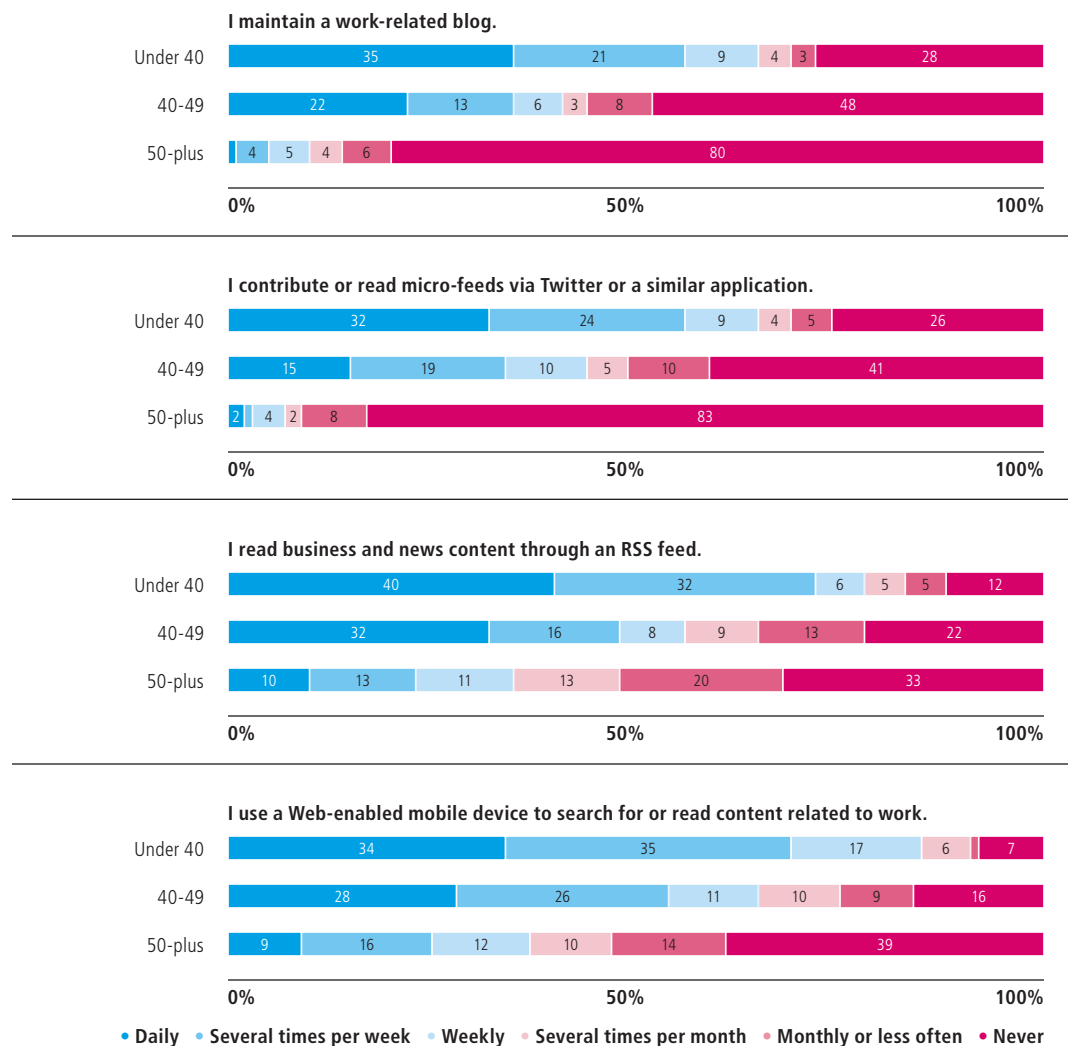
Ask older executives how they feel about Web 2.0 tools, and they're likely to dismiss them without a thought. Asked about Twitter, the chief legal officer for a major U.S. energy company and a member of Generation Wang gives a simple, "Frankly, I don't see the business value in it."

Meanwhile, Zappos, CEO Hsieh, who at 35 is at the heart of Generation Netscape, jumps at the chance to use these tools. "We have over 400 employees on Twitter, and we've created a website that aggregates all mentions of Zappos." The workplace value of the tool, says Hsieh, is that it can be harnessed "to help build and enhance our company culture."

Hsieh maintains that it is important for his company to embrace cultural phenomena such as Twitter, blogging, or social networking because "our belief is that our culture and our brand are really just two sides of the same coin." The brand may lag behind the culture, he explains, but eventually everything catches up. "The world is becoming more and more transparent whether companies choose to accept it or not." At Zappos, says Hsieh, "We've decided that we want to embrace transparency as much as possible."

More than half of executives under 40 say they use Twitter daily or several times a week.

Figure 20: Generational splits and Web 2.0



Core lessons



There are vast differences in the approaches and attitudes of senior executives in relation to the value of technology in strategic research. But at the same time, there are also a number of significant similarities.

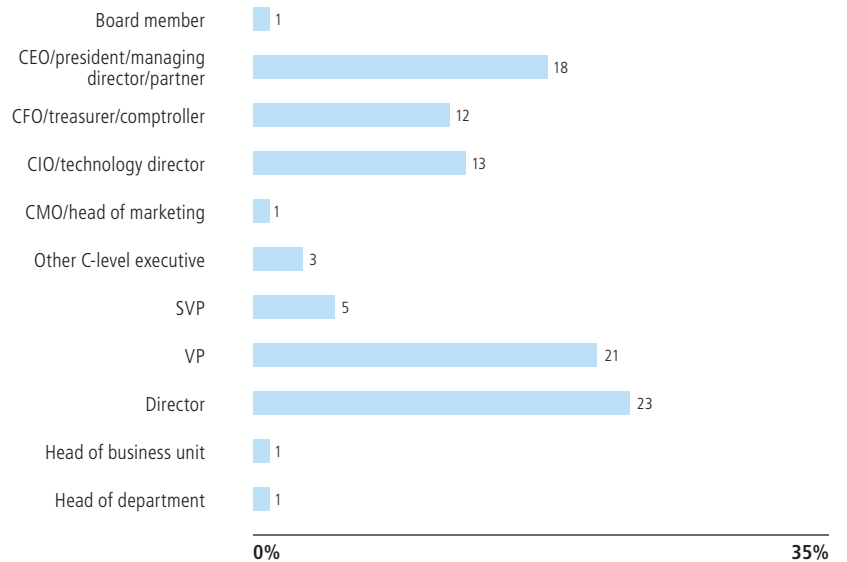
Senior executives of all ages have vast needs for information—of that there is no doubt. Senior executives of all ages also find the Internet at large to be a profoundly useful tool.

The differences, however, arise in terms of the degree to which executives immerse themselves in digital mindsets. Generation Wang is content to use the Internet as a means of augmenting traditional approaches to information gathering and networking. Generation PC, made up of digital settlers, goes a few steps further. But it is Generation Netscape that has the potential to bring a new persona to the C-suite, one in which transparency and openness are core personal and professional attributes. These executives are likely to take collaboration and networking in research to unprecedented levels.

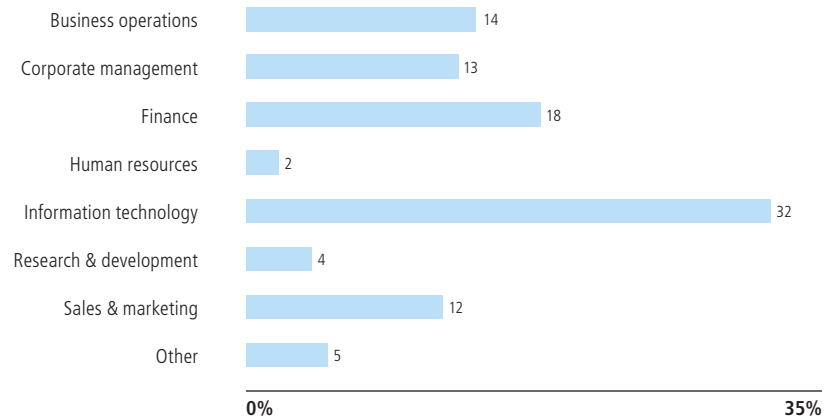
In short, prepare for profound organizational evolution as Generation Wang begins to retire, Generation PC takes control, and Generation Netscape starts to move in.

Survey Demographics

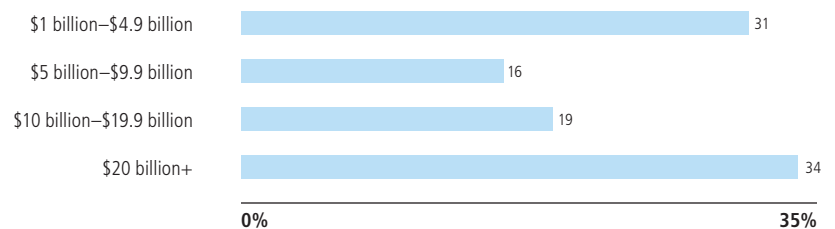
Job title



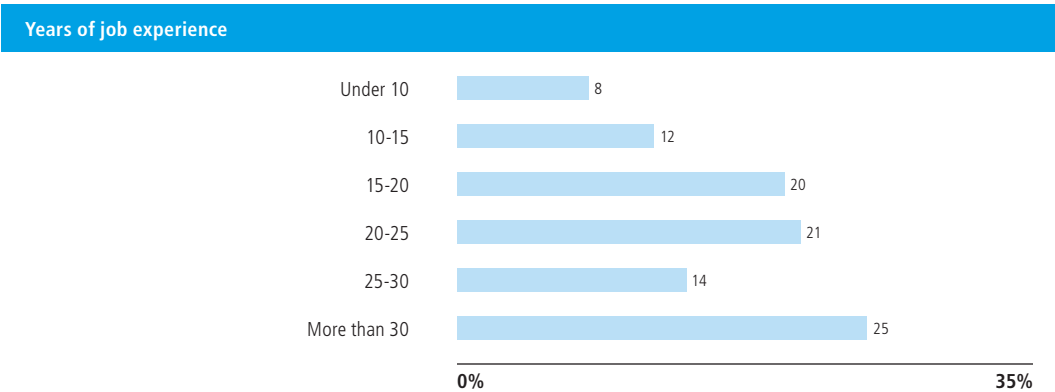
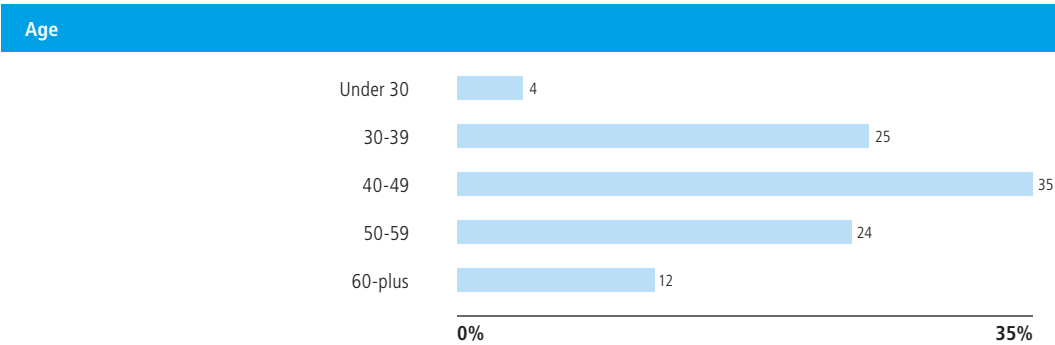
Principal functional role



Company size



Survey Demographics



Methodology

The information in this report is based on the results of a survey and one-on-one interviews conducted by Forbes Insights in March and April 2009.

Forbes Insights, in association with Google, surveyed 354 executives at U.S. companies with annual sales exceeding \$1 billion. Nearly half of respondents (47%) held C-level titles. The remaining 53% held senior-level titles including executive vice president, vice president, and director.

In addition, more detailed on- and off-the-record interviews were conducted with 15 individual executives at companies fitting the survey profile.

They included:

Sarah Alter, vice president of e-commerce and new markets, Discover Financial Services

Doug Baker, CEO, Ecolab

Tom Georgens, president and COO, NetApp

Tony Hsieh, CEO, Zappos

David Kress, technical marketing director, Analog Devices

Martin Schneider, chief information officer, VF Corporation

Rob Shaddock, senior vice president/chief technology officer, Tyco Electronics

John Talbot, vice president of corporate marketing, VeriSign

Sophie Zurquiyah, chief technology officer, Schlumberger



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