

Search Engine Users

Internet searchers are confident, satisfied and trusting – but they are also unaware and naïve.

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Summary of Findings

Internet users are very positive about their online search experiences.

Search engines are highly popular among internet users. Searching the internet is one of the earliest activities people try when they first start using the internet, and most users quickly feel comfortable with the act of searching. Users paint a very rosy picture of their online search experiences. They feel in control as searchers; nearly all express confidence in their searching skills. They are happy with the results they find; again, nearly all report that they are usually successful in finding what they're looking for. And searchers are very trusting of search engines, the vast majority declaring that search engines are a fair and unbiased source of information.

- 84% of internet users have used search engines. On any given day, 56% of those online use search engines.
- 92% of those who use search engines say they are confident about their searching abilities, with over half of them, 52%, saying they're "very confident".
- 87% of searchers say they have successful search experiences most of the time, including some 17% of users who say they always find the information for which they are looking.
- 68% of users say that search engines are a fair and unbiased source of information; 19% say they don't place that trust in search engines.

Most searchers use search engines conservatively.

Despite their positive feelings, few internet users are highly committed to searching. Most say they could walk away from search engines tomorrow and return to the traditional ways of finding information. About one third of users search on a daily basis, but most search infrequently, with almost half searching no more than a few times a week. Nearly all settle into a habit of using one or just a couple search engines, with only a very few searchers branching out to try more than three.

- 50% of searchers say they could go back to other ways of finding information; 32% say they can't live without search engines; and 17% say could let them go tomorrow.
- 47% of searchers will use a search engine no more than once or twice a week; 35%

This Pew Internet & American Life Project report is based on the findings of a daily tracking survey on Americans' use of the Internet and an online survey about Internet health resources. All numerical data was gathered through telephone interviews conducted by Princeton Survey Research Associates between May 14 and June 17, 2004, among a sample of 2,200 adults, aged 18 and older. For results based on the total sample, one can say with 95% confidence that the error attributable to sampling and other random effects is +/- 2%. For results based Internet users (n=1,399), the margin of sampling error is +/- 3%.

of searchers will use a search engine at least once a day.

- 44% of searchers say they regularly use a single search engine, 48% will use just two or three, 7% will use more than three.

Most internet users are naïve about search engines.

While most consumers could easily identify the difference between TV's regular programming and its infomercials, or newspapers' or magazines' reported stories and their advertorials, only a little more than a third of search engine users are aware of the analogous sets of content commonly presented by search engines, the paid or sponsored results and the unpaid or "organic" results. Overall, only about 1 in 6 searchers say they can consistently distinguish between paid and unpaid results.

This finding is particularly ironic, since nearly half of all users say they would stop using search engines if they thought engines were not being clear about how they present their paid results. Users do not object in principle to the idea that search engines will include paid results, but they would like them to be upfront and clear about the practice of presenting paid results.

- 38% of searchers are aware of a distinction between paid and unpaid results; 62% are not.
- 18% of searchers overall (47% of searchers who are aware of the distinction) say they can always tell which results are paid or sponsored and which are not.
- 70% of searchers are okay with the concept of paid or sponsored results.
- 45% of searchers would stop using search engines if they thought the engines weren't being clear about offering some results for pay.

Experienced and sophisticated searchers cast a slightly more skeptical eye toward search engines than do average searchers.

- 65% of those with 6 or more years of online experience say search engines are a fair and unbiased source of information; 73% of others who have been online 5 years or less say so.
- 64% of those who use engines at least daily say search engines are a fair and unbiased source of information; 71% of those who use search engines less often say so.
- 63% of those who use more than 3 search engines say search engines are a fair and unbiased source of information; 69% of others say so.

Internet users turn to search engines for both their important and their trivial questions.

Over half of searchers say they split their searches among those for fun and those that are more important to them. We know from search logs that the most popular search terms are dominated by pop culture, news events, trends, and seasonal topics. These kinds of search terms constitute about half of what people search for; the other half are “unique” terms that reflect users’ diversity of idiosyncratic and special interests.

- 55% of searchers say about half the information they search for is important to them and half is trivial.
- 28% of searchers say most of the information they search for is important to them.
- 17% of searchers say most of the information they search for is trivial.

There are some demographic differences among searchers: men and younger users are more plugged into the world of searching than women and older users.

More men than women use search engines and are familiar with some of the controversial issues about search engines. Men search more frequently than women. They have a higher opinion of themselves as searchers than women do, despite being no more successful in finding what they’re looking for. They also tend to stick more often to a single engine, while women have a few favorites.

- 88% of men who are internet users have used search engines.
79% of women who are internet users have used search engines.
- 40% of online men search at least daily, with 28% searching several times a day.
27% of women search at least daily, with 16% searching several times a day.
- 54% of online men say they are very confident in their search abilities.
40% of women say they are very confident in their search abilities.
- 43% of men have heard of the distinction between paid and unpaid results.
32% of women have heard of the distinction between paid and unpaid results.

The youngest users, those 18 – 29 years old, who have practically grown up with the internet, are more likely to be searchers. They search more often and are more confident about their search abilities. They also rely more on search engines and are more trusting and tolerant of them.

- 89% of internet users under 30 years have used search engines, compared to 85% of those 30 – 49 years, 79% of those 50 – 64 years, 67% of those over 65 years.

Summary of Findings

- 27% of internet users under 30 years use search engines several times a day, compared to 25% of those 30 – 49 years; 15% of those 50 – 64 years and 8 % of those over 65 years.
- 97% of internet users under 30 years express confidence in their search skills, compared to 93% of those 30 – 49 years; 83% of those 50 – 64 years and 79% of those over 65 years.
- 36% of internet users under 30 years say they couldn't live without search engines, compared to 35% for 30 – 49 years, 26% of those 50 – 65 years, and 18% of those over 65 years.
- 72% of internet users under 30 years say engine are fair and unbiased, compared to 68% of those 30 – 49 years; 65% of those 50 – 64 years, and 66% of those over 65 years.
- 74% of internet users under 30 years say it is fine for search engines to offer paid and unpaid results, compared to 71% of those 30 – 49 years, 67% of those 50 – 64 years and 60% of those over 65 years.

Internet Searchers: Summary of Findings at a Glance
Internet users are very positive about their online search experiences.
Most searchers use search engines conservatively.
Most searchers are naïve about search engines and search results.
Internet users turn to search engines for both important and trivial questions.
Men are more intense and savvy searchers than women.
Young users are more avid, committed, and trusting searchers than older users.
Source: Deborah Fallows. Search Engine Users. Washington, DC: Pew Internet & American Life Project, Jan., 2005

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Part 1.

Introduction

Some 84% of adult internet users, about 108 million Americans, have used search engines to help them find information on the Web. Only the act of sending and receiving email, with about 120 million users, eclipses searching in popularity as an internet activity.

On an average day, about 68 million Americans, or about 53% of internet users, will go online. More than half of them, over 38 million people, will use a search engine. Again, second in popularity only to sending or receiving email, searching is becoming a daily habit for about a third of all internet users.

American internet users pose about 4 billion queries per month. Many of these include popular queries like “Britney Spears” or “The Bible,” and many others include unique search terms reflecting a user’s personal interest or need.

Popular search engines retrieve and index only a fraction of the countless tens of billions of pages on the Web. Google, the leader in sheer numbers, recently announced the company had doubled the number of their indexed pages to 8 billion; Microsoft indexes 5 billion; Yahoo is estimated to index about 4 billion, and AskJeeves about 2.3 billion pages.¹ Promises of more and more searchable data seem to emerge regularly, from searching local listings to searching inside books. There are hundreds, if not thousands, of search engines in the world, although just a few capture a high proportion of the audience. Users can search in a multitude of languages.

While searchers vary dramatically in their habits, the average user spends a total of about 43 minutes a month conducting some 34 searches, viewing on average 1.9 pages per search.² The term “average user” belies the wide variety of styles among searchers: slightly more than one third of adults polled here, 35%, will conduct a search at least once a day, with the most enthusiastic of them, about two thirds of that group, searching at least several times a day. Roughly another third, 36%, searches less than daily but at least weekly. And just under a third, 29%, searches every few weeks or less.

¹<http://www.nytimes.com/ref/business/media/041122MOSTWANTED.html?ex=1101877200&en=e71524f6cc1b9e9e&ei=5040&partner=MOREOVER>

² comScore qSearch data from 127 million users, regardless of age, in September, 2004..

Part 2.

What people seek with search engines

Searchers turn to search engines for both important information and trivia.

What kinds of searches are people doing? Are they turning to search engines for need-to-know information, or for trivia, or both? Most searchers, 55%, say they are as likely to look for information they consider important as for trivial information. Some 28% of searchers are more serious; they say they look mostly for information that is important to them. And 17% are more whimsical in their searching, using search engines mostly for information they don't consider important.

About one in four internet users have searched for his own name on a search engine, just to see what comes up.

More specifically, some 44% of users say that most or all the information they search for online is critical. It is information they absolutely need to find, for instance to accomplish an important task or answer an urgent question. About one quarter of those searchers say everything they search for is that critical. On the other hand, about one quarter of all searchers, 24%, say that very little of the information they search for is that important to them.

A number of users describe their recent searches for important information³:

"I was asked about state labor laws -- timecards and the legal ramifications of paying only some of the time listed."

"Medical information for my son...it gave us some background information and a common ground to start asking questions about his condition."

Conversely, 33% of searchers say they would not bother looking up most or even all of the information they search for if they lacked access to internet search engines. On the other extreme, about one quarter of searchers, 24%, say that very little of their searching is in pursuit of such trivia.

Another user describes a recent search he considers expendable:

³ Comments from users come from an online survey conducted by the Pew Internet & American Life Project in May – June, 2003.

Part 2. What people seek with search engines

“I just completed a course on the Operas of Giacomo Puccini. With the internet I was able to easily obtain his biography and a complete listing of all his works, various reviews of the pieces and as much detail as I wanted. All of this without leaving my desk and to obtain this when it was convenient to me.... (without a search engine) I probably would have not bothered to obtain that information.”

Popular search terms show what is on Americans' collective mind.

The big search engines slice and dice their search logs and compile various lists of the most popular search terms. These lists give some sense of what is on America's collective mind, reflecting our shared culture, news, trends, events, and phenomena. Popular search terms always include a lot of seasonal references, current news, and pop culture. The search engines regularly omit terms relating to adult content from their lists.

According to AskJeeves ⁴, the top searches for the week of Oct. 8, 2004 were *online dictionary, music lyrics, games, halloween costumes, jokes, baby names, quotes, Britney spears, Paris Hilton, poems.*

Or from Yahoo ⁵: *Eminem, Britney Spears, Usher, Mt. St. Helens, Nelly, Register to Vote, Halloween costumes, Jo Jo, Paris Hilton, Green Day, NASCAR, Christina Aguilera, Hilary Duff, NFL, Linkin Park, Slipknot, Drudge Report, Alicia Keys, John Kerry, My Boo*

Or from the Lycos 50 ⁶, from Oct. 2, 2004: *Airline Flight Tracking, Clay Aiken, Paris, Hilton, Pamela Anderson, Halloween costumes, Britney Spears, Michelle Vieth, Halloween, NFL, poker, KaZaA, Brooke Burke, beheadings in Iraq, Christmas, <http://50.lycos.com/greatesthits.asp>, Lindsay Lohan, Star Wars 3, The Olsen Twins, WWE. Dragonball, Baseball.*

All Time Hits: Searches for Britney Spears and Pamela Anderson have been on the Lycos top 50 list for 277 weeks in a row.

And other search terms are the flashes in the pan, following events or news. In the week following the first of the presidential debates, John Kerry landed at Lycos's #36 spot, and George Bush made #40. They had not been on the list the previous week.

Top searches of the year include some timeless classics and pop culture with real staying power. These have been in the top 100 from week to week during all of 2002: *the Bible, Diablo II, Neopets, Tupac Shakur, The Beatles, Sailor Moon, The Simpsons, Carmen Electra, Oprah Winfrey, World War I, New York City, Final Fantasy, World War II.*

⁴ <http://www.ask.com/>

⁵ <http://buzz.yahoo.com/weekly/>

⁶ <http://50.lycos.com/>

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Sometimes, search terms reflect extraordinary times when the whole world seems focused on a single thing. Lycos 50 published an unedited and an edited version of top hits to their web site between noon and midnight on Sept. 11, 2001: The unedited version: *CNN, News, World Trade Center, CNN News, CNN.com, MSNBC, ABC News, BBC, Breaking News, World News.*

"Iraq" was Google's #7 search of the year for 2003, after Britney Spears, Harry Potter, Matrix, Shakira, David Beckham, 50 cent.

And the edited version, which does not include news organizations: *World Trade Center, Whitney Houston, Pentagon, World Trade Centre, Bin Laden World Trade Center New York, Osama Bin Laden, American Airlines, Camp David, Nostradamus.*

And Google's Zeitgeist archive gives a sense of the organic nature of search, showing what terms are gaining or losing popularity from week to week, or the popularity of search terms as they correlate with current news events. For example, when the space shuttle Columbia was lost over Texas in February of 2003, searches for "NASA" spiked for about a week.

Beyond the popular search terms are the unique queries.

Unique queries lie outside our collective culture, in our personal interests and problems, our individual work, our eccentric curiosities, and perhaps our miscellaneous misspellings and oddities.

We get a glimpse of these unique terms, as they appear in the raw feed of search terms that users key in. These snapshots of the linguistic soup that a search engine processes are a reality check of the true hodgepodge that arrives at engines, without the benefit of neat packaging into organized lists. A sample from the MetaCrawler series ⁷ looks like this:

klantgericht werken een voorbeeld
"turano bakery"
zip codes
chicago miracle mile
www.boxden.com
web based msn messenger
free t3 and rhode island
fibroid tumor
fewmets

⁷ <http://www.metaspy.com/info.metac.spy/metaspy/unfiltered.htm>

Part 2. What people seek with search engines

chief university of illinois
food
vw black majic pearl
pneu egger
footwear of the longago
hospital beds + hydraulic
pianobar
fibroid tumor
ferrari
antietam
que es gerente de proyectos
"straight-backed chair" +stuhl
hot4mo
food
ora-29909
free porn pics
corn boiler heat
united nations cafeteria
government jobs
ganesh image
sexy lingerie dancewear
cambrils
lipitor
a united
golf balls
robert youngson
fsa obrien fax
food
check 21
chrissy hynde

A broader user base and increased web content have altered the landscape of what we search for.

In the earliest days of the internet and search engines, when the population of users was dominated by young men, two of the most popular search topics were sex and technology. Now, with the huge demographic expansion of the internet user population, their more diverse interests, and the vast growth of online content, the search landscape has changed. A recent study examining search trends finds the proportion of searches for especially sex and pornography has declined dramatically since 1997, while searches for the tamer topics of commerce and information have grown.⁸

The study took search terms from logs of three popular search engines, AltaVista, AlltheWeb.com, and Excite, spanning 1997 – 2002, and organized them into categories. The following represents the categories from AltaVista in 2002:

⁸ Spink, Amanda and Bernard J. Jansen. *Web Search: Public Searching of the Web*. Springer Publishers, 2004.

Part 2. What people seek with search engines

1. People, places or things
2. Commerce, travel, employment, or economy
3. Computers or internet or technology items
4. Health or sciences
5. Education or humanities
6. Entertainment or recreation
7. Sex or pornography
8. Society, culture, ethnicity or religion
9. Government (or military)
10. Performing or fine arts

Categories generated from the search terms from all three engines look very similar. The search logs, from the search engines Alta Vista in 2002, Excite in 2001, and AlltheWeb in 2002, pointed to considerable common ground among searchers.⁹ The first three categories included the greatest number of queries. The most popular category, “People, places and things,” captured 49% of search queries for Alta Vista, 41.5% for AllTheWeb, and 20% for Excite. Topic two, “Commerce, travel, employment and economics”, captured 12.5% of search queries for Alta Vista, 12.7% for AllTheWeb, and 24.7% for Excite. Sex and porn captured 3% of search queries for Alta Vista, 8.5% of Excite and 4.5% of AllTheWeb. Computers and technology got 12% for AltaVista, 16% for AlltheWeb, and 9.6% for Excite. All remaining topics captured single digits of the search market.

One category of particular interest is commerce. There is no exact way to measure the number of commercial searches, but at least one statistic gives us an idea of the scope of commercial searching: comScore Networks reports that 40% – 45% of search queries now include sponsored results.¹⁰ While it may not be the case that all these search queries were launched with commerce in mind, the search terms used were close enough to warrant a commercial opportunity in the returns. Further, Google’s vice president of engineering, Urs Holzle, in commenting on the large number of user complaints about increasing appearance of commercial search results, says that is the direction the Web is moving. “Even three years ago,” he said, “the Web had much more of a grass roots feeling to it.”¹¹

9 Categorizing search terms, like categorizing anything from languages to plantlife, is an exercise that is partly art and partly science. The resulting taxonomy of search terms, although subjective, can give us some kind of map of the world of searching. Other directories or taxonomies of search terms could dissect search terms differently, and give us different perspectives on what we search for.

10 comScore qSearch: Q2 2004.

11 <http://insight.zdnet.co.uk/hardware/servers/0,39020445,39175560,00.htm>

Part 2. What people seek with search engines

When Americans don't use search engines and what they don't search for.

People do not always turn to search engines to find answers or information they are seeking online. Sometimes they take different paths: going straight to favorite, familiar specialized portals; using URLs someone has recommended, or following links they come across.

For example, when asking those who look for health information online about the last search did for health information, most searchers, 81%, reported that they started at a search engine. But the remaining 19% said they went right to favorite health sites, or took recommendations from friends or family, or followed links on other familiar websites.¹²

Another example comes from the 29% of internet users who have looked for religious or spiritual information online. When users were asked about their most recent search for religious purposes, 51% said they began at a search engines, the rest at a familiar religious Web site or religious portal.¹³

In a similar measure, some 66% of internet users have gone online to use a government website. When asked in a 2003 survey how they got to their most recent government website visit, some 37% got there thru search engines, 19% heard about the website from friends, relatives , or advertisements, 17% went there on a repeat visit, 14% found them through government publications, and 8% through general government websites, like firstgov.gov.¹⁴

And in the study looking at changing trends in what people search for on search engines, Spink and Jansen suggest that one reason the number of searches for sex-related topics have declined over the years may be that users are bypassing the search engines and going directly to familiar Web sites.¹⁵

Sometimes, users will not search online because they think the information they are looking for won't be on the web or that search engines won't be able to locate it. One user writes,

“Most of the time I am looking for journal articles for schoolwork, and (search engines) don't provide any information I need.”

In the rapidly changing world of search engines, Google's new scholar search may change his mind. Although another points to a further problem:

¹² http://www.pewinternet.org/PPF/r/45/press_release.asp

¹³ http://www.pewinternet.org/pdfs/PIP_CyberFaith_Report.pdf

¹⁴ http://www.pewinternet.org/pdfs/PIP_E-Gov_Report_0504.pdf

¹⁵ Spink, Amanda and Bernard J. Jansen. *Web Search: Public Searching of the Web*. Springer Publishers, 2004.

Part 2. What people seek with search engines

“(I don’t search for) scientific articles, because I would have to pay for a subscription to the journals in order to download the information. So I use the library resources or go to library.”

Another writes,

“I don’t use the web when my questions are very local in nature. It is quicker to call a shop in the area of my home or office. I have used the internet to get phone numbers of local shops in order to call them. For example, when my lawn mower recently broke, I needed to find a local shop to repair it. I searched the online smart pages to find all shops in my area, then I called them to discuss the problem. Local, small businesses do not have a sophisticated web presence.”

Again, this objection may soon be in the past, as engines are beginning to add local searching capabilities.

“I can’t think of anything I don’t search for,” one search enthusiast reported to us.
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Finally, there are billions of web pages that users of the popular search engines have no access to. In fact, despite what feels like a veritable and ever-growing glut of information, only a small fraction of existing web pages are actually indexed by the popular engines. The rest are hidden on the “invisible web” for a number of reasons, among them: they are too much trouble technically to locate, too expensive to keep up to date in indexing, or are large numbers of web page “spam,” the bogus or deceptive pages out there that engines try to avoid indexing.¹⁶

¹⁶ Chris Sherman and Gary Price. The Invisible Web: Uncovering Information Sources Search Engines Can’t See. Independent Publishers Group, 2001. http://www.invisible-web.net/iw_introduction.pdf

Part 3.

Who we are as searchers: confident and satisfied

Nearly all searchers are self-assured in their search abilities.

Internet users are very comfortable in their role as searchers. Some 92% of those who use search engines say they are confident about their searching abilities, with over half, 52%, of that group saying they're "very confident" in their abilities, and 48% saying they're somewhat confident. Only 8% of searchers say they lack confidence in their searching.

Confidence among Searchers			
<i>The more confident the searcher, the more engaged he is with searching.</i>			
	Very Confident	Somewhat Confident	Not Confident
Frequency of searching	%	%	%
Many times/day	34	14	3
Once a day	15	9	4
Few times/week	35	39	25
Few/mo. or less	16	37	69
Successful Searching			
Always	27	7	6
Usually	68	78	41
Sometimes	4	13	43
Rarely	-	1	7
Importance of most searches			
Important	34	24	9
Unimportant	15	19	22
Mixed	51	57	69
Reliance on search engines			
Can't live w/out	44	24	14
Could give up	46	55	40
Wouldn't miss	9	20	41

Source: Pew Internet & American Life Project. May-June Survey. Margin of error is ±3%.

Part 3. Who we are as searchers: confident and satisfied

Who are they? Some 60% of very confident searchers are men and 40% are women. They are more likely to be young, better educated, and of higher income. The very confident searchers have more experience online than others: 89% have had internet access for more than 4 years, significantly more than the 75% of those somewhat confident searchers and 71% of those with no confidence.

Although searching is a positive experience for almost all searchers, it's not surprising that the more confident the searcher, the more engaged he is as a searcher and the more rewarding is his search experience.

Of the 48% of searchers who describe themselves as very confident in their abilities, almost half, or 49% of them search at least once a day compared to 23% of those who describe themselves as "somewhat confident" and 7% of those who lack confidence in their search abilities. Some 34% of very confident searchers search several times a day.

Among the very confident searchers, 34% say most of what they search for is information that is important to them, compared to 24% of somewhat confident searchers and only 9% of searchers without confidence in their abilities. Further, Some 44% say they couldn't live without search engines, compared to 24% of those who are somewhat confident and 14% of those who have no confidence. Of those who are somewhat confident, 55% say they like search engines, but could go back to other ways of searching. Of those without confidence 41% say they wouldn't miss search engines at all if they could no longer use them.

Of the very confident searchers, 95% says they find their results most of the time, with 27% saying they always find the results they seek. Some 85% of those who are somewhat confident usually find their results, and even an impressive 47% of those who lack confidence in their searching say they usually find results they're looking for. A recent study of computer science students at Wellesley College showed similar findings, that "the confidence a student has in her abilities to search the internet effectively does not significantly affect her performance."¹⁷

Nearly all searchers feel they are very successful in their searching.

Nearly all searchers consider themselves successful in their searching. Some 87% of searchers say they have successful search experiences: some 17% of users say they always find the information they're looking for, and an additional 70% say they find the information they're looking for most of the time.

A look at those searching for health-related information online demonstrates this expression of success. Some 66% of internet users, over 53 million people, have looked for health information online. In a 2002 Pew Internet Project report, about 80% of health seekers reported that in their most recent search they found what they were looking for.

¹⁷ <http://www.wellesley.edu/CS/pmetaxas/CriticalThinking.pdf>

Part 3. Who we are as searchers: confident and satisfied

Of the 20% who said they were not successful in their search, some 14% said they ran out of time and 6% gave up their search. Of those who were successful, 61% said the information was very easy to find; 33% somewhat easy to find.¹⁸

In another study, an independent observer evaluated searchers' success in finding information online.¹⁹ Fifty-four searchers were tasked with looking for five different types of information, ranging from finding tax forms to finding a site that compares various presidential candidates' views on abortion. Respondents were observed and graded on the success of their searches. The findings were similarly positive. In 4 of the 5 assigned searches, the success rate ranged from 85% to 94%. In the remaining search, 61% of respondents were successful.

Successful Searchers			
<i>The more a searcher considers himself successful, the more engaged he is with searching.</i>			
	Always successful	Usually successful	Rarely successful
Frequency of searching	%	%	%
Many times/day	37	22	9
Once a day	13	12	6
Few times/week	29	40	29
Few/mo, or less	21	26	56
Confidence in searching			
Very	78	46	17
Somewhat	19	49	49
Very little or none	3	4	34
Importance of most searches			
Important	29	30	14
Unimportant	17	16	23
Mixed	53	54	63
Reliance on search engines			
Can't live w/out	47	32	18
Could give up	37	53	46
Wouldn't miss	13	14	32

Source: Pew Internet & American Life Project. May-June Survey. Margin of error is ±3%.

¹⁸ http://207.21.232.103/pdfs/PIP_Vital_Decisions_May2002.pdf

¹⁹ Hargittai, Eszter. "Second-Level Digital Divide: Differences in People's Online Skills". http://firstmonday.org/issues/issue7_4/hargittai/.

Part 3. Who we are as searchers: confident and satisfied

While a sense of success is widespread among all searchers, the 17% of searchers who say they always find their answers are more serious and positive about their searching.

For the most successful searchers, the act of searching online is more ingrained into their everyday lives: 37% search several times a day, compared to 22% of the usually successful and 9% of the least successful searchers. These searchers are more serious about and invested in the searching they do than others. Some 47% say they couldn't live without search engines, compared to 32% of those who are mostly successful, and 18% of those who are rarely successful.

While over half of all kinds of searchers will strike a balance of searching in earnest and searching for fun, those searchers who say they're mostly successful are a bit more serious in their searches. About 30% of those who describe themselves as successful searchers look for mostly important information, compared to 14% of the less successful searchers, who tend to look more often for more trivial information.

Successful searchers are confident searchers. Some 78% of those who always get positive search results are very confident searchers, compared to 46% of those who get results most of the time and only 17% of those who are rarely successful in their searches.

Searchers seem to take to searching very quickly, considering themselves successful even if they aren't as confident as veteran searchers. Searchers who are new to the internet generally consider themselves as successful at their searching as those who have been online for a long time.

There is a notion in some circles that searching on the internet is so easy and the sense of "successful" searching is so attainable that legitimate standards of research have been lost or compromised. The recent Wellesley study looked at how students conducted internet searches, and showed that students would largely stop researching at the first answer they found, than persist by looking at multiple sources.²⁰

²⁰ <http://www.wellesley.edu/CS/pmetaxas/CriticalThinking.pdf>

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The searcher and his search engine

Only some searchers rely on search engines.

A recent study from the Pew Internet & American Life Project found that while growing numbers of internet users conduct an increasing variety of activities online, from looking up phone numbers to buying tickets to getting the news, they are not integrating their internet use into their everyday lives in a robust way.²¹ Users continue to do all these activities *predominantly* in the traditional offline ways, suggesting that most users are not yet largely reliant on the internet.

Data from this survey support this finding: A full half of searchers say they “like using search engines” but could revert to other ways of finding information. One-third of searchers say they couldn’t live without search engines. Some 17% say they wouldn’t really miss search engines if they could no longer use them.

Some 55% of searchers said they like using search engines, but they could go back to the old ways of finding information.

In many recent surveys from the Pew Internet & American Life Project, we are beginning to find that about one third of users are distinguishing themselves as a kind of “power user,” someone who does more online, more frequently, with more engagement, and more sophistication. Data here from the third of searchers who say they “can’t live without search engines” add to this body of knowledge.

Who are these searchers who rely most on their engines? Those who say they can’t live without search engines are more likely to be men (54%) than women (46%). They are more likely to be young, better-educated and of higher income. Users’ veteran status on line also matters; 70% of those who say they can’t live without search engines have been online 6 or more years, compared to 54% of all internet users.

The most reliant searchers are more engaged with searching. Some 44% of those who can’t live without search use search engines more frequently, several times a day, compared to 12% of others. The fact that those who say they can’t live without search engines place more value on their internet searches than others do, may explain some of their reliance. Some 41% of reliant searchers say what they look up on search engines is

²¹ http://207.21.232.103/pdfs/PIP_Internet_and_Daily_Life.pdf

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“mostly important” to them, significantly more than the 21% of others. Further, significantly fewer of these searchers say what they search for is mostly unimportant to them or that they search for both important and trivial information, than do the rest of searchers.

Reliant searchers also say they are more successful: Some 24% say they always find what they’re looking for, significantly more than the 13% of others, who are more likely to say they find their information most of the time. Not surprisingly, they show more confidence in themselves as searchers as well. Some 64% of reliant searchers say they are very confident in their searching abilities, compared to 40% of others, who are mostly likely to say they are somewhat confident.

Most searchers remain steadfast in using a favorite engine or two.

In this survey, 44% of searchers say they regularly use a single search engine, while most of the rest, 48%, will use just two or three, and a scant 7% will use more than three.

Why do some users stick to one engine while others move from engine to engine? Is it loyalty, trust, or satisfaction, convenience or usability, habit or comfort, that different engines are good for different kinds of searches, or some combination thereof? Here are some things we have learned.

Data suggest that the 7% of those who use more than 3 engines on a regular basis are more sophisticated, directed searchers and are comfortable in the world of searching. In significant numbers, this elite group represents more frequent searchers; 36% of them launch at least several searches a day, compared to 24% of those who use 2 – 3 engines and 20% of those who stick to one engine. They also claim more confidence in their search skills than others; 59% call themselves very confident searchers, compared to 50% of those using 2 – 3 engines and 46% of those using just one. They take their searching more seriously than others: 44% say that most of what they search for is likely to be important information to them, compared to 30% of searchers using 2 – 3 engines and 23% of those using just one engine.

This profile suggests that searchers who regularly use the largest variety of search engines do so deliberately, based on which engines better match which of their queries, rather than moving haphazardly from engine to engine. They are probably the knowledgeable searchers, who partake of the array of specialized or focused search engines.

Some 44% of searchers stick to just one engine. Is that out of loyalty or habit?

Danny Sullivan, editor of the newsletter SearchEngineWatch, describes one appeal to discerning users. “Search engines,” Sullivan says, “are like movie critics. We have our favorites. If a film is a tossup, we like to go to others for multiple opinions. Jeeves’

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technology isn't necessarily any better than Google's, but the fact that it's different gets people turning to them."²²

One more nimble searcher describes his search methods and the engines' different personalities:

"Depending on the type of information I seek, I use either Excite or Ask Jeeves. For example, if I'm looking for a word definition, I'll 'ask Jeeves' and then may visit other websites that "he" suggests for further information on the word I'm researching. If I'm looking for biographical data or a telephone number or information about a company, I'll use Excite. With either search, I usually find what I want within the first few offered answers. If the information I want cannot be found fairly quickly, I either attempt a few URL possibilities or give up! "

On the other extreme, searchers who stick with one engine show less serious engagement with their searching. They search less often, with less confidence, and for information that is less likely to be important to them. Further, they show less passion about searching; some 21% of them say they wouldn't really miss engines if they were gone tomorrow, compared to 13% of those who use multiple engines.

What drives the search habits of these single-engine users? The profile here suggest that searchers who use a single engine stay there because they're comfortable *enough* with how they're searching and what they're getting in returns.

People who use just one engine describe their engagement with engines in more simple ways. Here is a sampling of what they say:

"Google is clean, fast and thorough."

"I use Google, it is fast and comprehensive."

"Google, is the search engine I use 98% of the time. I use it almost exclusively because it is fast and accurate. I go directly to vendor sites when I have that option."

"I use Google because it gives me better searches"

"It's fast and what I'm looking for is almost always in the top page of results."

A study by the search engine marketing firm iProspect interpreted high incidence of sticking to one, 57% of users, or a few search engines, 31% of users, as an expression of loyalty. They also found that 92% of users demonstrated that if they were unsatisfied with results from a search, they would rather launch another search at the same engine than switch to another search engine, a finding they interpreted as searchers' confidence in their searching ability.²³

²² http://www.usatoday.com/tech/techinvestor/corporatenews/2004-11-22-jeeves_x.htm

²³ http://www.iprospect.com/media/press2004_04_14.htm

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Chris Sherman, in reporting on iProspect's finding in his SearchEngineWatch column suggests that these results might be interpreted not as loyalty and confidence but rather as habit and laziness on the part of searchers.²⁴

In findings that support this alternate interpretation of why searchers stay put, searchers show they are willing to tolerate considerable compromise in their overall searching life. comScore reports that users' satisfaction with search engines, although high, falls short of their even higher expectations. comScore finds that while 91% of users say it is important to them that results match their needs, only 66% are satisfied that search engines do that for them. Similarly, while 90% say it's important to them that search engines return accurate results, only 67% are satisfied that their search engines do that for them. Regardless, comScore finds that overall, 78% of searchers report being satisfied with their search engines, with 32% of those being "very satisfied".²⁵

Searchers trust their search engines.

In impressive numbers, users trust their search engines. Some 68% of users in our survey say that search engines are a fair and unbiased source of information. Some 19% disagree, saying they don't have that trust in search engines.

There are indicators that the 68% of those who consider search engines fair and unbiased are less knowledgeable, engaged, and experienced in the world of search than the 19% of those who are more skeptical.

Those who trust their engines are less frequent searchers. Only 20% search several times a day, and 30% search every few weeks or less. By contrast, of those who don't trust their search engines, 31% search several times a day and 20% search every few weeks or less. Those who trust their engines are more likely to use just one search engine, 46%, compared to 38% of those who don't trust. Those who trust are more likely to say they wouldn't miss search engines if they were gone tomorrow, 18%, compared to 12% of those who don't trust search engines. Despite that, by one measure, those who trust report greater success in finding their results: 19% say always find what they're looking for compared to 10% of others.

The most dramatic difference between the two groups is in awareness of two of the most controversial issues in the search world. When asked about the issue of search engines offering two kinds of results, some that are paid or sponsored and others that are unpaid, 55% of those who don't think engines offer fair and unbiased results had heard of the issue, compared to 33% of those who do think so. Similarly, of those who think search engines are not fair and unbiased, some 61% have heard that some search engines track how customers use their engines and what they search for, compared to 38% of those who do think search engines are fair and unbiased.

²⁴ <http://searchenginewatch.com/searchday/article.php/3342041>

²⁵ comScore qSearch Satisfaction Tracking Survey: Q2 2004.

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Is users' trust in search engines blind?

How searchers feel about issues related to paid and unpaid search results.

In the last few years, a few new ingredients have been introduced into the ways search engines select and present their search results to users. These have become a source of controversy within the search industry, despite going largely unnoticed by users.

The controversy swirls around a revenue-producing aspect of search engines -- the role of pay for placement of web pages on the search results pages, called paid placement, or for assured inclusion of web pages in the search engine's indexing of the World Wide Web pages, called paid inclusion,²⁶

In 2001, Consumer Alert, a consumer watchdog, filed a complaint with the FTC suggesting search engines were changing the nature of their results pages. According to the complaint, instead of presenting results based solely on objective algorithms, the search engines were including results found by paid inclusion and paid placement. Consumer Alert requested that "the Federal Trade Commission (FTC) investigate whether these companies are violating federal prohibitions against deceptive acts or practices (1) by inserting advertisements in search engine results without clear and conspicuous disclosure that the ads are ads. This concealment may mislead search engine users to believe that search results are based on relevancy alone, not marketing ploys."²⁷

The FTC responded, not by ruling that the practices were in violation of the FTC Act, but rather in declaring that disclosures about practices should be clearer. FTC officials wrote that "we are sending letters to search engine companies outlining the need for clear and conspicuous disclosures of paid placement, and in some instances paid inclusion." And they made their intentions clear, writing "As a general matter, clear and conspicuous disclosures would put consumers in a better position to determine the importance of these practices in their choice of search engines to use."²⁸ The FTC also issued a consumer alert to educate consumers on the practices of paid inclusion and paid placement and

²⁶ The two are very different. Paid placement is akin to advertising in newspapers, where web sites buy connection to keyword that a searcher enters, and earns a spot in results page. Paid inclusion, the more controversial of the two, includes a fee paid to the search engine for assured frequent and prompt indexing, with no promise of resulting placement in the regular search results section.

²⁷ http://www.commercialalert.org/index.php/article_id/index.php/category_id/1/subcategory_id/24/article_id/33

²⁸ <http://www.ftc.gov/os/closings/staff/commercialalertletter.htm>

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what to look for to recognize them²⁹ They followed through with letters to search engines, including some guidelines on how to achieve “clear and conspicuous disclosure”.³⁰

In January, 2002, a report by Consumer WebWatch³¹ found that 39% of internet users were aware of the practice of paying search engines for more prominent listing on search results pages, while 60% were not aware. They also found that 80% of internet users felt search engines should disclose such practices; and 56 % said if these practices were disclosed, they would continue to use the search engines as they were.³²

Despite all this, and despite the explosion of paid placement sales as a source of revenue for search engines, users remain largely unaware of these issues—even though they still hold strong views of what they consider to be ethical practices by search engines. As the following data illustrate, many users would object to the practices of search engines they rely on, if they understood more clearly how those engines actually operate.

Do users notice?

Still, some 38% of those who have used a search engine are aware that there are two different kinds of search results, some that are paid or sponsored and some that are not. The remaining 62% are not aware of this practice. Data from this survey show identical numbers from those collected two and a half years earlier; that is, there has been no overall change in users' understanding of how search systems work.

Can users distinguish between paid and unpaid results?

Among the 38% of internet users who are aware of the practice, some 47% of searchers say they can always tell which results are paid or sponsored and which are not. This represents about one in six of all internet searchers. An almost equal number, 45%, say they are not always able to tell.

Consumer Reports WebWatch recently completed six months of testing of the top 15 search engines by professional librarians. The research organization found that “most major search engines are making some effort to comply with the FTC's recommendations (to clearly reveal the presence of advertising within search results), but compliance varied widely.”³³ WebWatch found, “All sites tested could improve the visibility and/or clarity of their disclosures. Most troubling, some search engines seem to do as little as possible to explain their relationship with advertisers --- and as a much as possible to obfuscate both their use and disclosure of paid placement and paid inclusion.”

²⁹ <http://www.ftc.gov/bcp/online/pubs/alerts/searchalrt.pdf>

³⁰ <http://www.ftc.gov/os/closings/staff/commercialalertattach.htm>

³¹ Disclosure: Lee Rainie, Director of the Pew Internet & American Life Project, is a member of the advisory board of Consumer WebWatch.

³² <http://www.consumerwebwatch.com/news/report1.pdf>

³³ <http://www.consumerwebwatch.org/news/paidsearch/finalreport.pdf>

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And of the testers' experience, WebWatch wrote, "Despite the expertise of the testers, nearly all of them experiences some difficulties with certain search engines, whether identifying headings or hyperlinks; differentiating between content promotion, paid placement and paid inclusion; or making sense of disclosure statements."

One in six internet searchers can consistently distinguish between paid and unpaid search results.

The FTC did not issue specific instruction about what search engines should do to ensure that users could recognize and identify search results involved with payments. Users in our survey offered the most effective ways they thought search engines could distinguish paid v. unpaid results:

- 42% say paid results should be labeled with words paid or sponsored
- 20% say paid results should be listed with different size or color than other results.
- 19% say paid results should be listed in a different section of results page from unpaid results
- 12% say search engines should provide an explanation about their pay procedures in the results page.
- 7% either said they don't know or they refused to answer.

The WebWatch findings include some observations pertinent to findings from this survey. WebWatch found labels existed, but seeing them was a problem. The WebWatch findings were: "Eight of the 15 search engines tested labeled their paid search listing with headings that were both smaller and duller in color than the search results themselves. The use of inconspicuous fonts and colors increases the likelihood consumers many not notice disclosures and fail to grasp the true nature of their results."

They did find that when sites did mark their paid v. unpaid results by color, background color, sections, marking off sections, testers commented positively about clarity.

Further, WebWatch found that text of disclosure statements was largely difficult to recognize, access, and understand: "With only 3 exceptions, (Yahoo, AOL, Lycos) all search engines tested used tiny and faint fonts, such as light gray, for hyperlinks to disclosure pages. Some of these hyperlinks blended in so well with the page that some testers miss them completely. Engines' pervasive user of eye-straining hyperlinks, which almost seemed designed to be overlooked, greatly reduces the chances consumers will ever see their disclosures." And they went on to describe that disclosures were sometimes buried so many clicks deep that they were "unnecessarily difficult and frustrating for testers to find."

Furthermore, testers found many disclosure statements were anything but simple and straightforward, and "almost seemed written to discourage reading."

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Older users are less sure about disclosures.

Searchers of different ages have different opinions of what factors they consider effective for helping users distinguish between paid and unpaid results. For starters, everyone agrees that labeling paid results with the words "PAID" or "SPONSORED" is the most effective strategy. Beyond that, the oldest users, those over 65 years, stand out. They seem less comfortable with common web design strategies of listing paid results in a different size font or color or listing the paid results in a different section of the results page, which they considered the least two effective strategies for distinguishing paid results. These strategies were the second and third most popular way that all other age groups deemed most effective. The second largest number of seniors, 20%, just didn't know or refused to answer, followed closely by the large group of those, 18%, who wanted text explanations about paid results. These are factors that all other age groups of searchers deemed least effective. It is important to note, though, that there is a higher than usual number of users who answered don't know/refused to answer. It seems likely that given the lack of awareness about paid vs. unpaid results, many users are unsure in general.

Identifying Paid & Unpaid search results				
<i>Labeling and visual cues are most effective. More of the oldest searchers want explanations or just don't know.</i>				
	< 30 years	30-49 years	50-65 years	>65 years
	%	%	%	%
Label with "paid"	34	46	45	32
Paid results by size or color	23	19	21	14
Paid results in own section	27	16	16	16
Provide written explanation	12	10	12	18
Don't know/won't answer	4	7	5	20

Source: Pew Internet & American Life Project. May-June Survey. Margin of error is ±3%.

How users see the ethics of the practice.

In large numbers, internet users approve in principle of the idea that search engines might preferentially list some results for pay. About 70% of people who have used search engines say they approve of engines providing some results for pay, because the revenue means search is free to users. Another 21% said they disapprove of the practice even if it means searchers were charged for the service.

Further, many happily click on paid results. Among those in the know who say they've used search engines that include paid results, 54% have clicked on paid results; 44% have not.

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In the earlier Consumer WebWatch survey, some 80% say search engines should tell them about fee deals, including 44% who say this practice is “very important”.³⁴

But users were very divided in how they would respond to search engine disclosure practices. Some 45% of searchers said they would stop using a search engine if they didn't make it clear that some results were paid or sponsored. Some 49% said in the same case, they would continue using the search engine.

Similarly, in the earlier Consumer WebWatch findings, if an engine revealed it was taking fees for placement, 56% said it wouldn't affect their user of the engine, although almost 1/3 said they would be “less likely to use” such a search engine .

Internet users are wary about their privacy and the prospect that search engines might track searchers' moves.

A second controversial issue in search, tracking users' online search behavior, has remained fairly minor so far, largely because, as Danny Sullivan reports in SearchEngineWatch, the search industry has been holding back in venturing into what it recognizes as very sensitive privacy realms.³⁵

A few years ago, an idea by Yahoo to serve up ads to members' email accounts relating to things they had searched for at Yahoo, was aborted before it took off. At Google's Gmail, a similar idea that would search thru emails and serve up ads based on content of emails, did take off. An earlier pioneering venture by Google, its toolbar, illustrates the sensitivity toward privacy as reflected in language describing the optional download of the toolbar and what it means to privacy and to tracking search by the user. Google writes:

“We understand and respect that you are concerned about your privacy. That's why we want you to know that if you choose to enable the Google Toolbar's advanced features (e.g., viewing the PageRank of web pages), the URLs of the sites you visit will automatically be forwarded to Google. The purpose of our Toolbar Privacy Policy is to inform you of this process, explain the type of information Google is collecting, and explain how you can enable or disable the advanced functionality.”

“Google only collects the normal type of information that is already available to the websites you visit. This means, Google cannot collect, for example, your name, email address, telephone number, etc.”³⁶

And from their general privacy policy:

“Google collects limited non-personally identifying information your browser makes available whenever you visit a website. This log information includes your Internet Protocol address, browser type, browser language, the date and time of your query

³⁴ <http://www.consumerwebwatch.com/news/report1.pdf>

³⁵ <http://searchenginewatch.com/sereport/article.php/2189531>

³⁶ <http://toolbar.google.com/privacy.html>

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and one or more cookies that may uniquely identify your browser. We use this information to operate, develop and improve our services."³⁷

If the search industry moves toward personalization -- which is very likely at some point -- necessitating finding out more about the searcher, the issues will become more complicated.

It is clear from findings here that the search engines are right to value users' general concerns over issues of privacy, transparency, trust. It is very clear once again that users primarily want their engines to be upfront and honest and transparent about what it going on.

Some 43% of searchers in our survey say they are aware of the issues of tracking users on search engines, while 57% are not. Some 37% of searchers would approve of such practices in general, while 55% would disapprove. Of those who disapprove, 51% say they would change their minds and approve of search engine tracking if the engines made their tracking practices clear to users. Some 44% would still disapprove. Of that 44% who remain disapproving (which now translates into almost a third of all internet users) two thirds of them, 67% would stop using the search engine if they learned the engine was keeping track of their own searches. That translates into about 21% of all internet users who would stop using a particular search engine if they learned their searches were being tracked.

³⁷ <http://www.google.com/privacy.html>

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Some demographic differences: gender and age

Gender differences: Men have a higher search profile than women.

More men than women use search engines and use them more often.

In significant numbers, men are more likely to use search engines than women. Some 88% of men who are Internet users have used search engines, compared to 79% of women. Men also search more frequently: 40% of men search at least once a day, compared to 27% of women. That includes 28% of men who search several times a day, significantly more than the 16% of women who do so. On the other extreme 36% of women search no more than every few weeks, significantly more than the 24% of men who are infrequent searchers.

Men & Women as Searchers		
<i>Men are more active and confident searchers, but women are just as successful and committed to search.</i>		
	Men	Women
Qualities	%	%
Use search engines	88	79
Search at least once a day	40	27
Very confident searchers	54	40
Always find good results	16	17
Couldn't live without search	34	31
Searches mostly important	28	28
Trust engines	67	70
Aware of paid & unpaid results	43	32

Source: Pew Internet & American Life Project. May-June 2004 Survey.
Margin of error is $\pm 3\%$.

Men have a higher opinion of themselves as searchers than women do. Men show more confidence in themselves as searchers. While about equal numbers of men and women are confident about their search abilities, over half of men, 54%, say they are “very” confident, compared to 40% of women. And 50% of women describe themselves as somewhat confident, compared to 38% of men.

However, this confidence does not translate into successful searching. Equal numbers of men and women say they always find the results they are looking for (17% for women and 16% for men), and overwhelming numbers say they find positive results most of the time (69% for women, 72% for men).

Men and women have similar feelings about the importance of their searches, and they both trust their engines.

Despite these differences in search engine use, men and women are equally enthusiastic about the role of search engines in their lives. About a third of each say they couldn't live without search engines (34% of men and 31% of women), and roughly half say they like search engines, but could go back to traditional ways of finding information if they had to (48% of men and 51% of women).

Likewise, there are no differences in the importance of the information they search for. Just over half of both men and women say they search for as much important information as trivial information (56% of women and 54% of men). Some 28% of both men and women say the information they search for is “mostly important” while just under a fifth (16% for women and 18% for men) say they search for “mostly unimportant” information.

Men and women trust their search engines about equally. Some 67% of men and 70% of women say they are a fair and unbiased source of information.

Men stick with a single search engine more than women. Some 47% of men regularly use just one search engine, compared to 40% of women. On the other hand, 51% of women use 2 or 3 engines, compared to 44% of men.

Men are more familiar with the issues surrounding search than women are: 43% have heard of the paid v. unpaid search results, significantly more than the 32% of women. But this difference doesn't carry over into how men and women notice, discern, or avail themselves of paid results. And more men have heard about the issue of search engines tracking user behavior: 51% of men and 34% of women.

Younger users are more at ease in the world of online searching.

Younger users are more likely to search than older users, and to do it more often.

The younger the user, the more likely he is to use search engines and use them frequently. Some 89% of those under 30 years have used search engine, compared to 85% of those 30 – 49 years; 79% of those 50 – 64 years and 67% of those over 65 years. Frequency of use follows a similar pattern: 27% of those under 30 years use search engines several

times a day, compared to 25% of those 30 – 49 years; 15% of those 50 – 64 years and 8% of those over 65 years.

Younger users are more confident searchers.

Regardless of age, internet searchers are confident in their ability to search. Nearly all users under 30 years, 97%, express confidence, compared to 93% of those 30 – 49 years; 83% of those 50 – 64 years and 79% of those over 65 years. Degree of confidence follows a similar patterns, with 53% of those under 30 years being “very” confident in their abilities, and dropping down to 29% of those over 65 years.

Searchers by Age				
<i>The younger the searcher, the more engaged and positive he is about search.</i>				
	<30 years	30-49 years	50-65 years	>65 years
Qualities				
Use search engines	89	85	79	67
Search several X/day	27	25	15	8
Can't live w/out engines	36	35	26	18
Very Confident searchers	53	51	37	29
Always find results	22	16	13	9
Mostly important searches	36	27	23	17
Trust engines	72	68	65	66
Paid results OK	74	71	67	60

Source: Pew Internet & American Life Project . May-June 2004 Survey. Margin of error is $\pm 3\%$.

In greatest numbers, the youngest users, 22% of them, say they always find the information they were looking for. This is compared to 16% of those 30 – 49 years; 13% of those 50 – 64 years and 9% of those over 65 years. But even the oldest users, 74%, say they are successful at least most of the time.

Younger users are the most enthusiastic searchers.

Also, younger users are more likely to say they can't live without search engines. Over one third of users under age 50 say they couldn't live without them (36% for those under 30 years and 35% for 30 – 49 year olds). For those 50 – 65 years of age, 26% say they couldn't live without them, and it drops to 18% of those over 65 years old. For all age groups, about half of user say they like search engines but could go back to the old fashioned ways of searching, while older users, from 50 – 65 years old, are most likely (23%) to say they wouldn't really miss search engines if they disappeared tomorrow compared to 22% of those 50 – 64 years, 15% of those 30 – 49 years, and 14% of those under 30 years.

Regardless of age, most users (from 48% for those under 30 years to 61% for those over 65 years) say that they search for a mixed bag of both important and trivial information. But more young users are more serious about their searches than older users. Some 36% of those under 30 years say the information they search for is mostly important to them, while 17% of it is mostly unimportant. On the other extreme, only 17% of those over 65 years say they search for mostly important information, and 22% say it is mostly unimportant.

Older users are less trusting and more conservative in what they're comfortable having their search engines do.

Age is a small factor in search engine trust. There are no significant differences in how users see search engines as a fair and unbiased source of information, although younger users are more trusting than older users. Some 72% of those under 30 years say engine are fair and unbiased, compared to 68% of those 30 – 49 years; 65% of those 50 – 64 years, and 66% of those over 65 years.

Interestingly, there are some differences in how users feel that search engines can make paid results most obvious to them. All agree that using the words “PAID” or “SPONSORED” is the most effective. The most notable number is that 20% of those over 65 years can't or won't answer the question. This is a very high response rate in this category, indicating a distinct level of discomfort or unfamiliarity among these older users.

Two matters of principle with search engine behavior are associated with age. Younger users are more likely to be tolerant of search engines providing some paid or sponsored results. Some 74% of those under 30 years say this, compared to 71% of those 30 – 49 years, 67% of those 50 – 64 years and 60% of those over 65 years.

Likewise, age draws a dividing line for ethics: Significantly, 77% of those under 30 years approving of the idea of tracking searches, provided finally if engines are clear about what they're doing, 70% of those 30 – 49 years; but only 59% of those over 50 years, where they wouldn't approve under any circumstances.

Veteran users who have been online the longest are more plugged into searching.

Most veteran users, those who have been online at least 6 years, are very plugged into the search world. They're active searchers, they have positive attitudes toward searching, they rely on search engines much more in their lives, and they are more abreast of the issues in the search world.

Many users try searching early on in their internet careers, and by the time they've been online for 6 years, nearly all of them are searchers: 90% of 6 year veterans have searched online, compared to 79% of 4 -5 year vets, 73% of 2 – 3 year vets and 65% with one year

Part 6.

or more online. They also search more frequently: some 31% of 6 year vets search at least several times a day, compared to 11% of shorter-term users.

These veterans also have strong attitudes about searching. Significantly more of 6 year veterans, 39%, say they “couldn’t live without Internet searches”, compared to 24% of those who have been online 4 – 5 years, and 20% of those who’ve been online 3 years or fewer. More of 6 year veterans, 49%, say they “need to find” most or all of the information they search for online than others, at 38%.

Not surprisingly, these users are also very confident about their search abilities. Some 51% of 6 year veterans are “very confident”, compared to 41% of 4 – 5 year veterans, and 28% of those who have been online 3 years or less. Some 46% of 6 year vets have heard about the difference between paid and unpaid results, compared to 26% of others. And 51% of 6 year veterans have heard about tracking issues, compared to 32% of others.

Part 7.

Conclusions

Search engines offer users vast and impressive amounts of information, available with a speed and convenience few people could have imagined one decade ago. Their capabilities are expanding practically by the day. Soon it will seem routine to be able to search the contents of vast libraries of books; to find selected portions of video streams or audio recordings; to benefit from personalized searches that remember a user's preferences and keep track of changing geographical locations. Audio searching and search results will be available for the blind; "implicit searching" will anticipate users' queries and have answers ready.

Today's internet users are very positive about what search engines already do, and they feel good about their experiences when searching the internet. They say they are comfortable and confident as searchers and are satisfied with the results they find. They trust search engines to be fair and unbiased in returning results. And yet, people know little about how engines operate, or about the financial tensions that play into how engines perform their searches and how they present their search results. Furthermore, searchers largely don't notice or understand or discern the different kinds of search results that are being served up to them.

This odd situation, in which a growing population of users relies on technology most of them don't understand, highlights the responsibility placed on search engine companies. They are businesses, in many cases extremely successful ones – but their effects on society are far more than merely commercial. One unexpected implication of our study is that search engines are attaining the status of other institutions – legal, medical, educational, governmental, journalistic – whose performance the public judges by unusually high standards, because the public is unusually reliant on them for principled performance.

Methodology

This Pew Internet & American Life Project report is based on the findings of a daily tracking survey on Americans' use of the Internet. Findings also include comments solicited by email to complete an online survey in May – June, 2003, to about 35 other internet users about their Internet searching.

Telephone interviews were conducted by Princeton Survey Research Associates between May 14 and June 17, 2004, among a sample of 2,200 adults, 18 and older. For results based on the total sample, one can say with 95% confidence that the error attributable to sampling and other random effects is plus or minus 2 percentage points. For results based on Internet users (n=1,399) the margin of sampling error is plus or minus 3 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.

The sample for this survey is a random digit sample of telephone numbers selected from telephone exchanges in the continental United States. The random digit aspect of the sample is used to avoid “listing” bias and provides representation of both listed and unlisted numbers (including not-yet-listed numbers). The design of the sample achieves this representation by random generation of the last two digits of telephone numbers selected on the basis of their area code, telephone exchange, and bank number.

New sample was released daily and was kept in the field for at least five days. This ensures that complete call procedures were followed for the entire sample. Additionally, the sample was released in replicates to make sure that the telephone numbers called are distributed appropriately across regions of the country. At least 10 attempts were made to complete an interview at every household in the sample. The calls were staggered over times of day and days of the week to maximize the chances of making contact with a potential respondent. Interview refusals were re-contacted at least once in order to try again to complete an interview. All interviews completed on any given day were considered to be the final sample for that day. The overall response rate was 30.9%.

Non-response in telephone interviews produces some known biases in survey-derived estimates because participation tends to vary for different subgroups of the population, and these subgroups are likely to vary also on questions of substantive interest. In order to compensate for these known biases, the sample data are weighted in analysis. The demographic weighting parameters are derived from a special analysis of the most recently available Census Bureau's Current Population Survey (March 2003). This analysis produces population parameters for the demographic characteristics of adults age 18 or older, living in households that contain a telephone. These parameters are then compared with the sample characteristics to construct sample weights. The weights are

Methodology

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