

A Typology of Information and Communication Technology Users

- ❖ 8% of Americans are deep users of the participatory Web and mobile applications
 - ❖ Another 23% are heavy, pragmatic tech adopters – they use gadgets to keep up with social networks or be productive at work
 - ❖ 10% rely on mobile devices for voice, texting, or entertainment
 - ❖ 10% use information gadgets, but find it a hassle
 - ❖ 49% of Americans only occasionally use modern gadgetry and many others bristle at electronic connectivity
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Summary of Findings

The advent of Web 2.0 – the ability of people to use a range of information and communication technology as a platform to express themselves online and participate in the commons of cyberspace – is often heralded as the next phase of the information society. Yet little is known about which segments of the population are inclined to make robust use of information technology and which aren't.

With that in mind, the Pew Internet & American Life Project conducted a survey designed to classify Americans into different groups of technology users. We developed our typology along three dimensions of people's relationship to information and communications technology (ICT):

- **Assets:** We asked people about their use of the internet, cell phones and other devices that connect to the internet (e.g., video or digital cameras). We also asked about their use of services that facilitate digital consumption, participation, and electronic communication (e.g., broadband and non-voice applications on cell phones).
- **Actions:** We asked about activities in which people engage, such as downloading audio and video, generating their own online content, and a variety of things they do with their cell phones and computers. We also asked about frequency of online use.
- **Attitudes:** We asked how people see ICTs helping them to be more productive at work, to pursue hobbies, and to keep up with family and friends; we also solicited their views about information overload and technology's capacity to offer more control over their lives.

Our typology identifies a rich variety of Web 2.0 users and non-users. At one end of the spectrum, the survey identifies the heaviest consumers, most active users, and happiest denizens of the information society. It also locates those who find great satisfaction in the use of ICT even though they have fewer network resources. In the middle range, the typology highlights some users who have invested a lot in services and hardware, but feel uncomfortable with the extra connectivity. And at the other end of the spectrum, it identifies those who get along – many of them just fine – with a relative scarcity of information goods and services.

This Pew Internet & American Life Project report is based on the findings of a daily tracking survey on Americans' use of the Internet. All numerical data was gathered through telephone interviews conducted by Princeton Survey Research Associates between February 15 and April 6, 2006, among a sample of 4,001 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=2,822), the margin of sampling error is +/- 2

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Americans sort into 10 distinct groups of users of information and communication technology.

The ten groups that emerge in the typology fit broadly into a “high end,” “medium users,” and “low-level adopters” framework. However, the groups within each broad category have their own particular characteristics, attitudes and usage patterns.

- The **elite users** of ICTs consist of four groups that have the most information technology, are heavy and frequent users of the internet and cell phones and, to varying degrees, are engaged with user-generated content. Members of these groups have generally high levels of satisfaction about the role of ICTs in their lives, but the groups differ on whether the extra availability is a good thing or not.
- The **middle-of-the-road users** consist of two groups whose outlook toward information technology is task-oriented. They use ICTs for communication more than they use it for self-expression. One group finds this pattern of information technology use satisfying and beneficial, while the other finds it burdensome.
- For those with **few technology assets** (four groups), modern gadgetry is at or near the periphery of their daily lives. Some find it useful, others don’t, and others simply stick to the plain old telephone and television.

	Group name	% of adult population	What you need to know about them
Elite Tech Users (31% of American adults)	Omnivores	8%	They have the most information gadgets and services, which they use voraciously to participate in cyberspace and express themselves online and do a range of Web 2.0 activities such as blogging or managing their own Web pages.
	Connectors	7%	Between featured-packed cell phones and frequent online use, they connect to people and manage digital content using ICTs – all with high levels of satisfaction about how ICTs let them work with community groups and pursue hobbies.
	Lackluster Veterans	8%	They are frequent users of the internet and less avid about cell phones. They are not thrilled with ICT-enabled connectivity.
	Productivity Enhancers	8%	They have strongly positive views about how technology lets them keep up with others, do their jobs, and learn new things.
Middle-of-the-road Tech Users (20%)	Mobile Centrics	10%	They fully embrace the functionality of their cell phones. They use the internet, but not often, and like how ICTs connect them to others.
	Connected But Hassled	10%	They have invested in a lot of technology, but they find the connectivity intrusive and information something of a burden.
Few Tech Assets (49%)	Inexperienced Experimenters	8%	They occasionally take advantage of interactivity, but if they had more experience, they might do more with ICTs.
	Light But Satisfied	15%	They have some technology, but it does not play a central role in their daily lives. They are satisfied with what ICTs do for them.
	Indifferents	11%	Despite having either cell phones or online access, these users use ICTs only intermittently and find connectivity annoying.
	Off the Network	15%	Those with neither cell phones nor internet connectivity tend to be older adults who are content with old media.

Summary of Findings

Tables with full details of the assets, actions and attitudes of each group and the demographic breakdown of each group appear in tables in the Appendix starting on page 40 of the main report.

Omnivores: 8% of American adults constitute the most active participants in the information society, consuming information goods and services at a high rate and using them as a platform for participation and self-expression.

Members of this group use their extensive suite of technology tools to do an enormous range of things online, on the go, and with their cell phones. With their deep and varied tech appetites, they are called the **Omnivores**. You might see them watching video on an iPod. They might talk about their video games or their participation in virtual worlds the way their parents talked about their favorite TV episode a generation ago. Much of this chatter will take place via instant messages, texting on a cell phone, or on personal blogs.

Omnivores are Web 2.0 devotees. They are highly engaged with video online and digital content. Between blogging, maintaining their Web pages, remixing digital content, or posting their creations to their websites, they are creative participants in cyberspace. When the next popular user-generated fashion comes along, Omnivores are likely to test-drive it. One might even invent it.

Members of this group are confident in their ability to manage the flow of electronic information that is all around them. Indeed, ICTs are at the center of how they connect to their friends and express themselves to the world around them. Most Omnivores are in their twenties and nearly all have high-speed connections available at home or work.

The Connectors: 7% of the adult population surround themselves with technology and use it to connect with people and digital content. They get a lot out of their mobile devices and participate actively in online life.

The typical member of the **Connectors** group first went online about nine years ago. They were part of the big wave of internet adoption in the late 1990s adoption. This mostly female group of thirtysomethings is heavily reliant on the cell phone; they especially like the way the cell phone and other information technologies make them more available to others. They often use the wireless networks to go online.

The Connectors' collection of information technology is used for a mix of one-to-one *and* one-to-many communication. They very much like how ICTs keep them in touch with family and friends, but they are also twice as likely as the average to blog or have a Web page. They like how ICTs let them work in community groups to which they belong, and overall they find their information gadgets a boon to personal productivity.

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It is possible that Connectors would do more with user-generated content if they had more technological self-confidence. They suspect their gadgets could do more for them, and some say they need help in getting new technology to function properly.

Lackluster Veterans: 8% of American adults make up a group who are not at all passionate about their abundance of modern ICTs. Few like the intrusiveness their gadgets add to their lives and not many see ICTs adding to their personal productivity.

For **Lackluster Veterans**, the thrill of information technology is gone – if it was ever there to begin with. And they have had ample time to come to this conclusion. The members of this fortyish group of mostly men came online in the mid-1990s, and they have acquired the laptop computer and broadband connection along the way to becoming frequent users of the internet.

But their habits of connectivity seem to have the weight of necessity more than a full-hearted embrace of information technology's affordances. Only a few Lackluster Veterans like how information technology makes them more available to others, and not many think it adds to their personal productivity. Doing without email or a cell phone would be hard for only some of these men. All in all, Lackluster Veterans seem content with surfing the Web or emailing family and friends, but they do not show great inclination to stretch their technology habits to self-expression or mobile media.

Productivity Enhancers: 8% of American adults happily get a lot of things done with information technology, both at home and at work.

Productivity Enhancers see information technology as a way to give them an edge in their professional and personal lives. They are frequent users of the internet – especially at work – and they link use of their extensive suite of information devices to personal productivity and workplace effectiveness. It is not all about carrying out tasks for this group, as they greatly value how ICTs help them stay in touch with family and friends and learn new things.

Perhaps because Productivity Enhancers are in very busy stages of their lives – in their early 40s, many with kids, nearly all with jobs – they may not have time to participate in many online content creation activities or to try leading edge applications. The blogosphere is generally on the periphery of this group's habits and it is very unlikely you will find Productivity Enhancers watching a “24” short clip on their cell phone or laptop.

Mobile Centrics: 10% of the general population are strongly attached to their cell phones and take advantage of a range of mobile applications.

This group, whose typical member is in his mid-thirties, has been online for a relatively short amount of time, just more than half as long as prior groups. Although most use the

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internet and many focus on its entertainment dimensions, **Mobile Centrics** are much more wedded to their cell phones.

Mobile Centrics have cell phones that are jam-packed with functionality -- such as video capability and games -- and they are very likely to use their cell phones for texting. Information technology, for this group, is an avenue for staying in touch with others and adding to their “old media” entertainment experiences. They are among the heaviest users of cell phones for most of their phone calling.

Although they like how technology connects them to others, Mobile Centrics generally do not associate information technology with greater efficacy in their lives. They do not see ICTs as giving them any more control over their lives, nor do they link ICTs with greater levels of personal productivity. The group includes a high share of African-Americans.

Connected but Hassled: 9% of American adults fit into this group. They have invested in a lot of technology, but the connectivity is a hassle for them.

The **Connected but Hassled** bought a ticket to the information revolution a bit later (around 1999) than members of more tech-oriented groups such as the Connectors or Productivity Enhancers. The ride must have seemed interesting enough so that members of this group kept buying more tickets, such as cell phones, home high-speed connections, and digital cameras.

For whatever reason, however, the Connected but Hassled do not much appreciate the information and communications assets they have acquired. Many of them say they suffer from information overload, and very few find the extra availability ICTs offer to be a good thing. The typical member of this female-dominated group is in her late forties and not many would miss it if they had to without the internet, email, or their cell phone.

Inexperienced Experimenters: 8% of adults have less ICT on hand than others. They feel competent in dealing with technology, and might do more with it if they had more.

This group, 8% of the population, comes in below average in internet and cell phone adoption. They have reliable, if not ardent, online surfing habits. Although **Inexperienced Experimenters** do not exhibit strong tendencies to try out the participatory Web, about one in five has posted a comment to a web site, shared a comment somewhere online, or one of the other activities pertaining to user-generated content. Some will even share a digital photo over email or download music.

The willingness among some Inexperienced Experimenters to try new things online goes along with their openness to technology. Most like it that technology makes them more available to others, and most believe ICTs make them more productive in carrying out

everyday tasks. An Inexperienced Experimenter is likely to be a woman and entering her fifties; she is likely to have been online for a relatively short amount of time – about five years – and to have an income just above the average.

Light but Satisfied: 15% of adults have the basics of information technology, use it infrequently and it does not register as an important part of their lives.

This group came to the internet late. The typical online user in this group has been online for five years, even though she is in her mid-fifties. **Light but Satisfied** users do not go online everyday, simply because technology is at the outer edge of how they manage their lives. The vast majority has cell phones, but their phones are not feature-rich. They rarely use their cell phones for text messaging.

Some Light but Satisfied users consider ICTs a good thing for social and informational purposes, but they aren't especially pleased that their gadgets make them more available to others. They say they would not find it too hard to do without their internet connections. Whereas most tech-oriented groups could sooner do without their landline phone than their cell phones, the reverse is true for Satisfied but Light users.

Indifferents: 11% of adults have a fair amount of technology on hand, but it does not play a central role in their daily lives.

Although everyone in this group has a cell phone or internet access, they are least likely to be users of both technologies. Even among those who have access, this group of **Indifferents** does not often use the internet and it sticks to the basics on cell phones that have comparatively little functionality. Their low rate of home broadband access is no doubt a barrier to active use of the internet.

Technology is closer to the periphery of their lives than is the case for Satisfied but Light users. Few Indifferents link information technology to enhancing personal productivity, pursuing hobbies, or sharing their ideas with others. This group of mostly men in their late forties just does not see ICTs making much of a difference for them.

Off the Net: 15% of the population, mainly older Americans, is off the modern information network.

Some 15% of Americans have neither a cell phone nor internet access. They tend to be in their mid-60s, nearly three-fifths are women, and they have low levels of income and education. Although a few have computers or digital cameras, these items seem to be about moving digital information within the household – for example, using the computer to display digital photos that they take or others physically bring into the house.

Summary of Findings

Contours of Communication: Summary of Findings at a Glance
Omnivores: 8% of American adults constitute the most active participants in the information society, consuming information goods and services at a high rate and using them as a platform for participation and self-expression.
The Connectors: 7% of the adult population surround themselves with technology and use it to connect with people and digital content. They get a lot out of their mobile devices and participate actively in online life.
Lackluster Veterans: 8% of American adults make up a group who are not at all passionate about their abundance of modern ICTs. Few like the intrusiveness their gadgets add to their lives and not many see ICTs adding to their personal productivity.
Productivity Enhancers: 9% of American adults happily get a lot of things done with information technology, both at home and at work.
Mobile Centrics: 10% of the general population are strongly attached to their cell phones and take advantage of a range of mobile applications.
Connected but Hassled: 9% of American adults fit into this group. They have invested in a lot of technology, but the connectivity is a hassle for them.
Inexperienced Experimenters: 8% of adults have less ICT on hand than others. They feel competent in dealing with technology, and might do more with it if they had more.
Light but Satisfied: 15% of adults have the basics of information technology, use it infrequently and it does not register as an important part of their lives.
Indifferents: 11% of adults have a fair amount of technology on hand, but it does not play a central role in their daily lives.
Off the Net: 15% of the population, mainly older Americans, is off the modern information network.
Source: Horrigan, John B. <i>A Typology of Information and Communication Technology Users</i> . Washington, DC: Pew Internet & American Life Project, April 2007.

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Methodology

Acknowledgements

About the Pew Internet & American Life Project: The Pew Internet Project is a nonprofit, non-partisan initiative of the Pew Research Center (www.pewresearch.org). The Project is a think tank that explores the impact of the internet on children, families, communities, the work place, schools, health care, and civic/political life. The Project aims to be an authoritative source for timely information on the internet's growth and societal impact. Support for the project is provided by The Pew Charitable Trusts. The project's website is: www.pewinternet.org.

About Princeton Survey Research Associates International: PSRAI conducted the survey that is covered in this report. It is an independent research company specializing in social and policy work. The firm designs, conducts, and analyzes surveys worldwide. Its expertise also includes qualitative research and content analysis. With offices in Princeton, New Jersey, and Washington, D.C., PSRAI serves the needs of clients around the nation and the world. The firm can be reached at 911 Commons Way, Princeton, NJ 08540, by telephone at 609-924-9204, by fax at 609-924-7499, or by email at ResearchNJ@PSRA.com

Part 1.

A Portrait of Information Technology Adoption

As pervasive as information and communications technologies are in modern society, there is a great deal of variation in what technologies people have, how they use them, and what they think of them. Many of us may know someone who is the first person on the block to get the latest gadget. He – and it’s more likely than not to be a male – is deep into technology, always upgrading to the latest thing, uploading digital content to the internet, and perhaps wondering about those who choose to live life in the technological slow lane. Others may follow along fairly closely in purchasing new devices or applications. Some of these folks may find this extra connectivity good. Others may not be so sure.

There are other varieties of ICT users. Some have little but like ICTs a lot; many of them convey a sense that they might do more with ICTs if they had more. Other users have a relative abundance of technology, but are unenthusiastic about the gadgetry they have accumulated. They might use email because they have to – perhaps they have friends or family members who have hectored them into having online access – but they could contentedly live their lives without the internet or a cell phone.

This report explores the patterns of adoption *and* use of information and communication technologies (ICTs) by developing a typology of users of these things. The typology places users into different categories depending on their technology **assets** (the information and communication appliances they use), their **actions**, (how they use their information devices and services), and their **attitudes** about ICTs (how they feel about information and communication technology).

A broader look at what it means to be connected to cyberspace

This report represents the Pew Internet Project’s first comprehensive look at people’s evolving relationships to cyberspace at a time when accessing online content no longer necessarily means walking over to a weighty beige box and taking a seat. Lighter laptop computers and high-speed networks (wireless and otherwise) give people the opportunity to get digital content on the go and do new things with computing – such as making a phone call. More versatile “smart devices” make emailing, phone calling, and downloading digital content possible with a very portable device. Pictures – photographs and videos – can be created and shared almost instantly, and Web cameras can put people in touch face-to-face over distance in real-time using broadband connections.

What went into the typology

The typology focuses on adult Americans with access to the basics of modern communications technology – the internet or the cell phone. When this survey was

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completed in April 2006, 73% of adult Americans said they were internet users and 73% said they used a cell phone. This comes to 85% of all Americans who are either internet or cell phone users, with the remainder lacking access to both of those communication services. For technology assets, the survey queried users not only about information appliances that enable communication, but also those that facilitate the consumption and transmission of digital content.

Assets: information appliances	
Percent of all Americans who have specific technology	
Cell phone	73%
Desktop computer	68
Digital camera	55
Video camera	43
Laptop computer	30
iPod or other MP3 player	20
Webcam	13
Blackberry, Palm, or other personal digital assistant	11

Source: Pew Internet & American Life Project April 2006 Survey. N=4,001. Margin of error is $\pm 2\%$.

On average, Americans reported that they had just over 3 of these 8 information goods. When excluding two widely disseminated devices – the desktop computer and cell phone – Americans have on average 1.7 of the six remaining items.

These eight information tools were inputs to the typology; that is, they were among the criteria that helped determine whether a respondent fit into one category or another. The type of network access at home, i.e., whether the respondent was one of the 42% with broadband at home, was also used to develop the typology.¹

The survey also focused on a number of activities regarding user-generated content, as well as activities people might undertake online or with a mobile online device. The tables below summarize the gadget-enabled activities respondents said they had done.

¹ Half (52%) of Americans have broadband access either at home or work. This variable was not part of the typology, although the figure will be reported for most groups which make up the typology.

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Actions: user-generated content	
Percent of internet users who have done the following	
Share something online that you created yourself, such as your own artwork, photos, stories, or videos	19%
Post comments to an online news group or website	18
Create or work on your own webpage	12
Create or on webpages or blogs for others, including friends, groups you belong to, or for work	11
Take material you find online – like songs, text, or images – and remix it into your own artistic creation	9
Create or work on your own online journal or weblog	8
Source: Pew Internet & American Life Project April 2006 Survey. N=2,882 for internet users. Margin of error is $\pm 2\%$.	

Across the six activities listed above, 37% of internet users have done at least one of them.

The table below shows whether online users have ever done a specified activity and if they did it “yesterday,” the latter yielding a picture of what internet users are doing with respect to a set of online activities on a typical day.

Digital activities		
Topics (asked only of internet users)	Have ever done this (%)	Did this yesterday (%)
Go online for no particular reason, just for fun or to pass the time	62%	28%
Send instant messages to someone who is online at the same time	37	12
Log onto the internet using a wireless device	30	15
Download <u>music</u> files to your computer so you can play them at any time you want	27	4
Pay to access or download digital content online, such as music, video, or newspaper articles	21	4
Download <u>video</u> files to your computer so you can play them at any time you want	19	4
Download a podcast so you can listen to it or view it at a later time	7	1
Source: Pew Internet & American Life Project April 2006 Survey. N=2,882 for internet users. Margin of error is $\pm 2\%$.		

Out of the seven activities asked about, internet users, on average, have tried nearly two of these activities; on a typical day, most online users do not do any of the digital activities listed and the average number of such “daily” activities is 0.64.

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Other digital activities figure prominently in the typology. These include using the cell phone to send text messages, watching television on a device other than a TV, listening to the radio on a device other than a radio, and play electronic video games (on a computer, the internet, or using a game console such as an Xbox). Also figuring into the typology were other uses of the cell phone, such as surfing the internet, playing games, listening to music, and watching or recording video.

Digital activities	
Percent who have done the following	
Send or receive text messages on cell phone (among cell phone users)	41%
Play a video game (% who play a few times a month or more often)	28
Listen to music or radio shows on something other than a home or car radio (among those who listen to the radio)	24
Watch TV shows or news programs on something other than your TV at home, such as a computer, cell phone, iPod, or PDA (among those who watch TV)	13

Source: Pew Internet & American Life Project April 2006 Survey. N=4,001. Margin of error is ±2%.

Respondents also received a number of questions about their attitudes toward technology and the proliferation of information. Other attitudinal questions probed the stresses that technology can bring and the benefits it can offer.

Two questions explored people's general attitudes about technology. The first unfolded as follows: "Some people say they feel overloaded with information these days, considering all the TV news shows, magazines, newspapers, and computer information services. Others say they like having so much information to choose from. How about you... do you feel overloaded or do you like having so much information available?" In response:

- 27% of all respondents said they feel overloaded, and;
- 67% of all respondents said they like having so much information available.

The second question addressed whether people think computers and technology give people more or less control over their lives – or make no difference. In response:

- 48% of all respondents said computers and technology give them more control over their lives.
- 16% say computers and technology give them less control over their lives
- 29% said these things make no difference.

With respect to stresses or benefits technology can offer, technology users – the 85% of respondents who use the internet or have a cell phone – were asked how well several statements about these topics describe them.

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Attitudes about information technology				
This description fits me ...	Very well	Somewhat well	Not too well	Not at all
I like that cell phones and other mobile devices allow me to be more available to others	48%	27%	8%	16%
I often feel like my electronic devices can do more than what I actually use them for	56	23	6	14
When I get a new electronic device, I usually need someone else to set it up or show me how to use it.	32	17	10	39
It is stressful to own and manage all of the different electronic devices I have	14	19	14	53
I often feel annoyed by having to respond to intrusions from my electronic devices	22	20	14	43
I believe I am more productive because of all of my electronic devices	33	29	11	26

Source: Pew Internet & American Life Project April 2006 Survey. N=3,355 for internet and cell phone users. Margin of error is $\pm 2\%$.

Respondents were also asked a series of questions about whether communication and information devices improved various facets of their lives.

Attitudes about information technology				
How much, if at all, have communication and information devices improved ...	A lot	Somewhat	Only a little	Not at all
The way you pursue your hobbies or interests	28%	27%	17%	26%
Your ability to do your job	42	17	8	23
Your ability to learn new things	51	28	10	10
Your ability to keep in touch with friends and family	59	22	9	9
Your ability to share your ideas and creations with others	28	27	16	27
Your ability to work with others in your community or in groups you belong to	28	27	14	28

Source: Pew Internet & American Life Project April 2006 Survey. N=3,355 for internet and cell phone users. Margin of error is $\pm 2\%$.

Americans sort into ten distinct groups when examining their technology assets, activities, and attitudes.

Below is a thumbnail sketch of each of ten kinds of technology users. As already noted, respondents were asked whether they have any of eight devices: a desktop computer, a laptop computer, a cell phone, personal digital assistant (PDA), a digital camera, a video camera, or a Web cam. The groups are presented in order of most to least in terms of possession of these gadgets. The table also displays the degree to which they have access to a key factor that is a prerequisite to using information technology as a launching pad to cyberspace – a home broadband connection.

The typology's first nine groups were developed using the 85% of respondents who have cell phones or use the internet. The Appendix to the report presents detailed demographic

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data on each group. The Appendix also presents responses to the typology's key questions for each group.

An overview of the groups of information and communication technology users					
	% of general population	Median age	Number of IT devices (of 8)	% with broadband at home	What you need to know about them
Omnivores	8%	28	6.0	89%	They have the most information gadgets and services, which they use voraciously to participate in cyberspace and express themselves online and do a range of Web 2.0 activities such as blogging or managing their own Web pages.
Connectors	7%	38	5.0	86	Between featured-packed cell phones and frequent online use, they connect to people and manage digital content using ICTs – all with high levels of satisfaction about how ICTs let them work with community groups and pursue hobbies.
Lackluster Veterans	8%	40	4.1	77	They are frequent users of the internet and less avid about cell phones. They are not thrilled with ICT-enabled connectivity.
Productivity Enhancers	8%	40	4.3	71	They have strongly positive views about how technology lets them keep up with others, do their jobs, and learn new things.
Mobile Centrics	10%	32	3.9	37	They fully embrace the functionality of their cell phones. They use the internet, but not often, and like how ICTs connect them to others.
Connected But Hassled	10%	46	3.4	80	They have invested in a lot of technology, but they find the connectivity intrusive and information something of a burden.
Inexperienced Experimenters	8%	50	2.9	15	They occasionally take advantage of interactivity, but if they had more experience, they might do more with ICTs.
Light But Satisfied	15%	53	2.5	15	They have some technology, but it does not play a central role in their daily lives. They are satisfied with what ICTs do for them.
Indifferents	11%	47	2.0	12	Despite having either cell phones or online access, these users use ICTs only intermittently and find connectivity annoying.
Off the Network	15%	64	0.5	0	Those with neither cell phones nor internet connectivity tend to be older adults who are content with old media.

Source: Pew Internet & American Life Project April 2006 Survey. N=3,355 for internet and cell phone users. Margin of error is ±2%.

We find that there are differences in use and attitudes among people even when they own the same devices. Those who want to generalize about where Americans stand with technology may obscure the true picture of the role of technology in American life more than illuminate it. Some people may have lots of technology at their disposal, use it frequently and for a range of purposes, and like what technology does for them. Others may have relatively few of the latest gadgets, use what they have only modestly, and find that technology is more burden than blessing. The typology captures users at either end of

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these extremes, but also variations in between, especially among those who have lots of technology and are not terribly positive about its impact.

Much of the remainder of this report presents in detail the profiles of these ten groups. For ease of exposition, the groups are presented in sections that classify collections of groups as elites (four groups), “mid-tech” users (two groups), and the “less connected” (three groups). The remaining group is made up of the 15% of respondents who have neither internet connections nor cell phones.

Methodology for creating the typology

The inputs for this typology were respondents’ answers to questions pertaining to technology assets (i.e., the information goods and services which they have), actions (i.e., how they use various information devices and applications), and attitudes (i.e., their perceptions about the benefits and stresses of various information goods and services).

In constructing the typology, a statistical cluster analysis was performed only on those respondents who identified themselves as having cell phones or being internet users (they received most of the survey’s questions on technology use and attitudes). This came to 85% of the sample. Several different cluster solutions were evaluated for their effectiveness in producing cohesive groups that were distinct from one another, large enough in size to be analytically useful, and substantively meaningful. The final solution selected was judged to be strongest on a statistical basis and to be most persuasive from a substantive perspective.

Cluster analysis does not produce a definitive solution; instead, the analyst usually has a choice among several possible solutions that are similar in their statistical properties. The large sample of cell phone or internet users – 3,355 respondents – made it possible to have a relatively large number of groups, thus allowing for groups that were more distinct from one another. Among other things, this allowed us to identify the relatively small group of technology users who were particularly heavy users of information and communications technology (the Omnivore group, at 8%). With group sizes ranging from 7% to 15% of the general population, the solution with 9 clusters resulted in groups of adequate sizes – no fewer than 229 cases and a maximum of 675 (see the Appendix for details).

Part 2.

Elite Groups of Technology Users

This chapter covers the most tech-oriented of the nine groups, specifically the 31% of the general population who are active consumers and, to varying degrees, active users of information technology. Although these four groups form the upper echelon of technology users in the United States, significant differences emerge in the extent of their participation in shaping cyberspace and how central they believe information technology is to various facets of their lives.

Omnivores are active participants in shaping cyberspace, particularly by taking, sharing, and downloading video content.

This small group of ICT users – it makes up 8% of the general population – is the most elite and gets the most attention from technology producers and the media. Its members are distinguished by what they do with digital information. They have plenty of technology at hand, and they use it to post, manage, and share content on the internet. To a degree that sets them apart from other technology users, video is central to how Omnivores use the internet. They are more likely than others to have a web camera, download video from the internet, watch television programming on a device that is not a TV, and use their cell phones to take or watch video.

Omnivores have a richly participatory relationship with digital content and a strong sense that information and communication technology makes life easier and offers important creative tools. For Omnivores, ICTs are a principle means for pursuing their hobbies and staying in touch with their social networks.

Assets

Omnivores move a lot of bits, whether it is content they create for the web, offline material that they digitize for the internet, or material they pass on from those in their social networks. For these reasons, they are drawn to devices that help them manage digital audio and video content. Fully 92% have a digital camera, 69% have a video camera, and 51% have a web cam—all figures well above average and exceeding those for other groups. Also, 70% have iPods or MP3 players—three and one-half times the average and further evidence of this group’s preference for managing digital content.

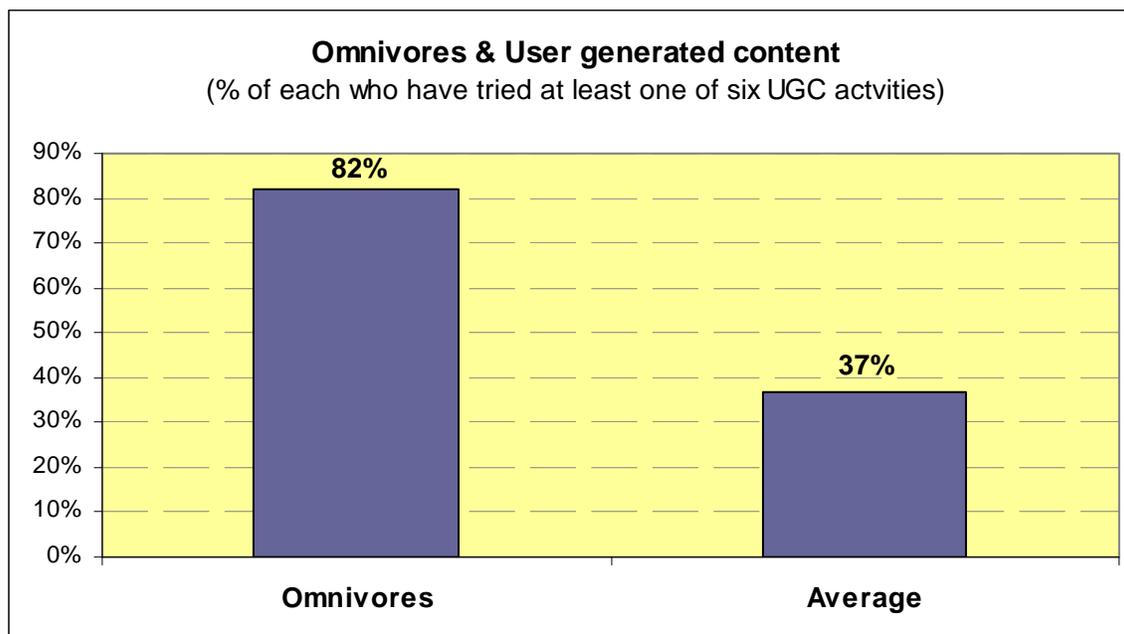
With their orientation toward video, people in this group are more likely to have a digital video recorder (DVR) (47% to 18%), even though they watch less TV than the average American. Omnivores are also more likely to have a cell phone that can play video (39% versus the 13% average for cell phone users) and shoot video (58% versus 22%).

With all this technological capability, it is no surprise Omnivores have the network assets to go with it. Fully 89% have high-speed internet connections at home, and nearly all (97%) have broadband either at home or at their workplace.

Activities

Omnivores are not only more likely than other groups to download audio or video from the internet (59% have downloaded video and two-thirds have downloaded audio content), but also to remix this content and then post it to the internet. Some 30% of this group has done this, far above the 9% average for all ICT users. Overall, 82% of Omnivores has undertaken at least one of the six activities related to user-generated content:

- Share something online that you created yourself, such as your own artwork, photos, stories, or videos (55% of Omnivores)
- Post comments to an online news group or website (55%)
- Create or work on your own webpage (45%)
- Create or work on webpages or blogs for others, including friends, groups you belong to, or for work (40%)
- Take material you find online—like songs, text, or images—and remix it into your own artistic creation (30%)
- Create or work on your own online journal or weblog (34%).

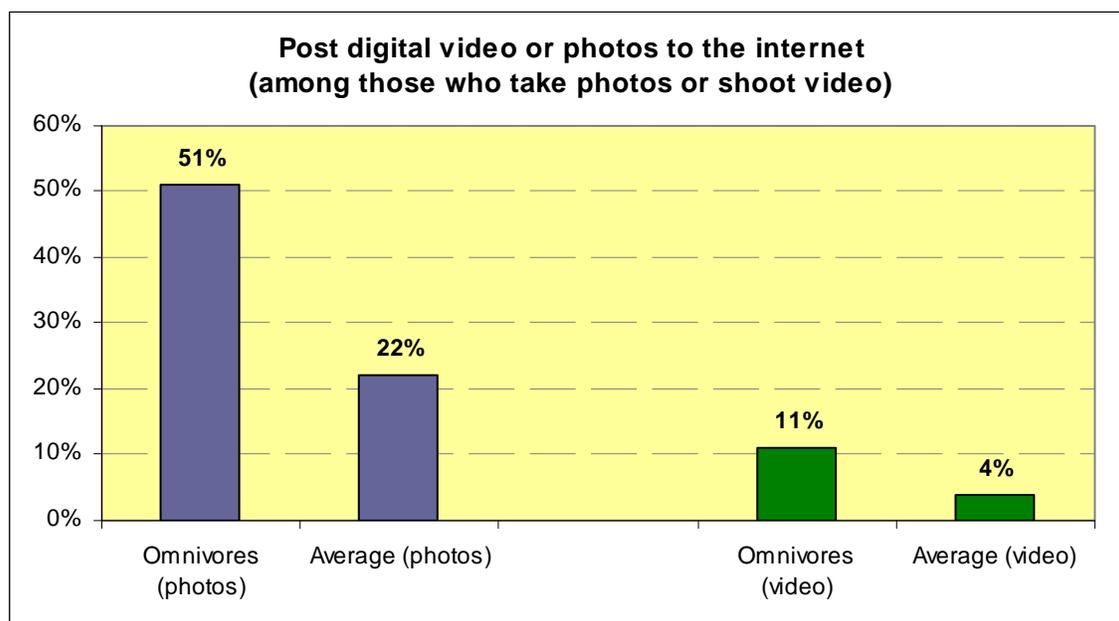


Part 2.

They also use their extensive technological capacity to try leading-edge applications. Nearly two-thirds of them (57%) have watched a TV program on a non-TV device, nearly five times the average of 13%. They also take radio to different devices; 84% have listened to radio on a device other than a home or car radio (the national average is 24%). In addition to all the other functionality in their cell phones, close to two out of three of Omnivores (67%) rely on their cell phones for most of their calls, the highest of any group and above the average of 39% for all cell phone users.

57% of Omnivores have watched television on a non-TV device, almost five times the average.

Their biggest behavioral differences relate to their focus on video. Fully 86% take digital pictures and 51% of those who take digital pictures post photos to the internet—the most of any group and well above the 22% average. More than half (57%) record their own video (twice the average) and, 11% of these post their videos on the internet—again the highest rate of any group. And they are the heaviest players of video games. Some 62% play a video game at least a few times a month, and of Omnivores who have ever played a video game, 50% have played with someone online.



Attitudes

Omnivores see information and communication technology as a means to share their creativity and pursue their hobbies. Two-thirds (68%) say IT has improved “a lot” their ability to pursue their hobbies or interests, far exceeding the 28% average. A similar number (69%) says that IT improves how they share their ideas and creations with other,

Part 2.

a sharp contrast to the 28% average. And Omnivores seem unburdened by technology and its consequent connectivity to the world: just 10% say they suffer from information overload (against the 27% average), and 78% say they like that cell phones and other mobile devices make them more available to others (versus 48% of all respondents).

Cyberspace is a platform for creativity for Omnivores; 69% say IT helps them a lot to share their ideas and creations.

Demographics

Omnivores make up 8% of the population. They are young, ethnically diverse, and mostly male (70%). The median age is 28; just more than half of them are under age 30, versus one in five in the general population. Over half are white (64%) and 11% are black (compared with 12% in the general population). English-speaking Hispanics make up 18% of this group. Perhaps unsurprisingly, many (42% versus the 13% average) of Omnivores are students, and many undoubtedly have access to high-speed and wireless networks at school.

Connectors surround themselves with technology and use it to connect with people and digital content. They get a lot out of their mobile devices and participate actively in online life.

This group got online just a bit later relative to Omnivores, but they have quickly marched up the adoption curve in terms of acquiring information and communications goods and services. Connectors have moved fast in integrating the cell phone into their lives and use it especially as a tool to stay in touch with friends and family. They also use ICT to contribute to the online digital commons through sharing their creations online or blogging. All in all, Connectors like information technology and they are willing to stretch the boundaries of its basic functions, whether that is online or with their cell phones.

Yet Connectors are generally a step behind Omnivores in terms of the gadgets they have and the depth and scope of their online participation. Connectors generally have one fewer information tool than Omnivores – for some it is probably an MP3 player, for others a web camera. They are also less than half as likely as Omnivores to have their own blogs or participate in group blogs, and less likely to have their own web pages or remix content for the internet. Nonetheless, Connectors rate above all other groups (except Omnivores) on measures of access to information age hardware and participation in cyberspace.

Assets

This group is very well-equipped with the basics – in our sample, 100% are internet users, 92% have cell phones, and 86% have broadband at home. They are above average with respect to digital cameras (86% have them) and video cameras (68% have them).

The cell phones of Connectors are packed with functionality. Nearly two-thirds (62%) have cell phones that let them check email and 46% of Connectors can take a picture with their cell phones. One quarter (28%) can take a video using their cell phone (nearly twice the average) and 60% can surf the internet with their cell phone.

Connectors try the cutting edge; many download video or post content of their own to the internet.

Connectors also have devices that can serve as platforms to engaging with online content. Two-thirds (65%) have laptop computers, nearly half have MP3 players, and 26% have Web cameras, figures that are twice the average or more.

Activities

Connectors have broad and deeply embedded technology habits that shape how they keep up with others, entertain themselves, and pursue their interests. Fully 93% go online on the typical day – a figure comparable to the 92% recorded for Omnivores – and they are apt to log on several times a day both at home and work (63% and 54%, respectively, do this). The internet is clearly a destination for them, as more than half (54%) go online just for fun on the average day, twice the average and behind only Omnivores.

This group also uses tools that enable both one-to-one and one-to-many communications. Some 57% have used instant messaging, and a fifth (22%) uses it on a typical day. Half have used the text messaging capability on their cell phones. Some 15% of Connectors have their own blogs and 24% have their own web pages, figures that are both twice the average.

Entertainment plays a big role for ICT uses for Connectors. Half (55%) of Connectors also play video games; 33% play video games at least several times a month. Most of the time their gaming is either by themselves (81%) or with others in the same location (75%), but 31% play games with others over the internet. And 52% have downloaded music from the internet and 40% have downloaded video.

Half of Connectors go online just to pass the time on the average day, suggesting the internet is a destination for them.

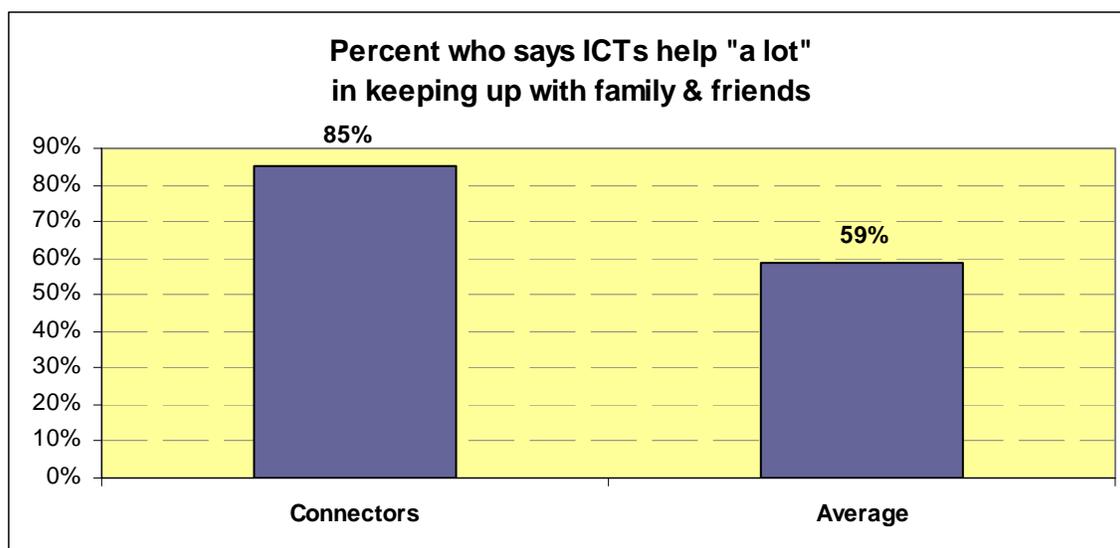
Their TV watching habits are not deep in terms of number of hours watched per day, but they are more than willing to try out television on other devices. Fully 52% of Connectors have watched TV programming on a device other than a television set – four times the average. Similarly, 70% have listened to radio on a device other than a home or car radio, three times the average.

With their broad engagement with user-generated content, it seems likely that entertainment, communication, and digital content flow across boundaries of people and devices for Connectors. Two-thirds (67%) have done one of the six activities relating to user-generated content, and four in ten (38%) have shared a personal creation of theirs on the internet (twice the average). One in five (19%) have taken digital content and remixed into something else; the average is 9%

Attitudes

The communicative aspects of information technology are very important for this group. Some 85% say that information technology helps them keep in touch with family and friends (the average is 59%) and 64% like the fact that information gadgets make them more available to others (compared with the 48% average). Connectors are also more likely than average to say that information technology helps them work with others in their community or groups to which they belong (55% versus 28%). This group does

suspect there is more functionality in their information tools than they actually use; 82% believe their information gadgets can do more, the highest of any group.



Members of this group also herald the productivity-enhancing aspects of information technology. A clear majority (66%) say that information technology helps them “a lot” to be more productive, twice the average. Finally, 68% of Connectors say information technology helps them “a lot” with their jobs, twenty six percentage points above average.

Connectors also like ICTs for what it brings to the creative and recreational dimensions of their lives. ICTs are a learning tool for them; 81% say it helps them “a lot” in learning new things, and half (53%) say the same things about how ICTs help them pursue their hobbies. A similar number (51%) says this with respect to ICTs and sharing their creations with others.

Demographics

Connectors, who make up 7% of the population, have a median age of 38, with a majority (54%) in the 30-49 age range. Ethnically, it is mostly white (72%); 16% are Black and 12% are English-speaking Hispanics. The typical Connector has been online for 9 years, which suggests this group was a second-wave of late 1990s adopters. Most are women (55%) and they rate above average in educational attainment and income.

For Lackluster Veterans, modern ICTs are just OK. Although they are content with gadgets' communicative aspects, few like their intrusiveness and not many see ICTs adding to their personal productivity.

This group's typical member has been online for a long time – roughly ten years – and has folded the use of the internet into his everyday life. Along the way, he has acquired the necessary armaments for the information age, such as a broadband connection, cell phone, and a digital camera.

But the wealth of ICTs possessed by Lackluster Veterans does not translate into particularly high levels of satisfaction about gadgets' impacts on their lives. Although they seem to value internet connectivity, that is less true for cell phones. Overall, Lackluster Veterans do not link ICTs to better personal productivity, their ability to work with others in their community, or keeping up with family and friends.

Assets

Nearly all of Lackluster Veterans (92%) have desktop computers and 77% have broadband at home, trailing only Omnivores and Connectors. Perhaps because members of this group are in their forties and likely to have children, most have digital cameras – 79% do – and many have video cameras (55%).

90% of this group goes online on the average day, but it doesn't do a lot for them.

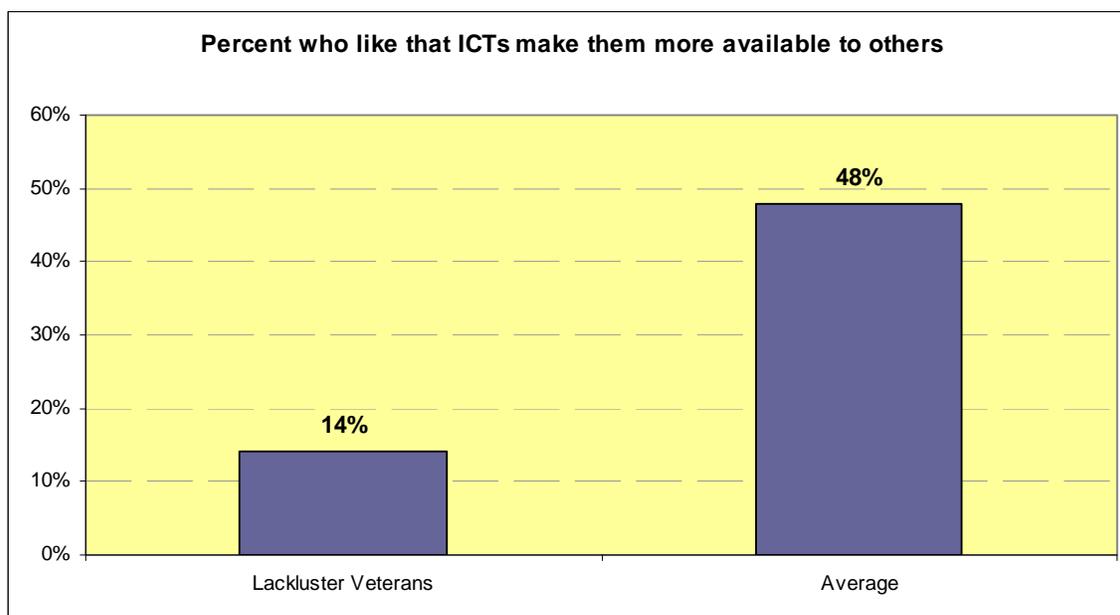
Lackluster Veterans are oriented to things that enhance traditional media, but less to technology that takes them down new paths. Some 25% have a digital video recorder (compared with the 18% average). Three quarters (76%) of them have cell phones and of these cell phone users, just 34% say their cell phones can take photos and 13% say their cell phones can play music, both figures that trail the average.

As to devices that facilitate online mobility, the picture is mixed for this group. Half (45%) have laptop computers, which exceeds the average but significantly trails the figure for Omnivores (79%). Just 14% have personal digital assistants, and Lackluster Veterans are half as likely as Omnivores to have a PDA that can check email or surf the internet.

Activities

Members of this group have deeply embedded online habits, as witnessed by the high frequency with which they use the internet, and their predilection to log on just to pass the time. Nine of 10 of Lackluster Veterans (89%) go online on the typical day and many are checking out the internet several times a day from both home and work (47% do so

from both places). Nearly half (45%) go online on the typical day just for fun or to pass the time.



Approaching half (47%) of Lackluster Veterans have tried at least one of the six activities relating to user-generated content, above the 37% average. Although they are no different from the average when it comes to blogging, they rate above average in posting comments online and just above the average for participating in group blogs or web pages and having their own web pages.

Lackluster Veterans do not show a strong inclination to take old media to new devices. One in seven (14%) have watched a TV program on a non-television device, which is about the average. For radio, 36% have listened to radio on a device other than a home or car radio. That is above the 24% average, but well below the rate reported by Omnivores and Connectors.

With their high rate of digital camera adoption, many share digital photos over email or post them online. Fully 77% of Lackluster Veterans who take digital photos email them and 22% post them to the internet.

Finally, Lackluster Veterans members are not very extensive users of cell phones. One-third (35%) of cell users make most of their calls with their cell phones – below the average of 39% -- and very few use them for things such as taking pictures or email.

Attitudes

Despite Lackluster Veterans' steady rhythm of internet use, ICTs do not play a central role in different dimensions of their lives. Fully 57% say that information technology helps them "a lot" to stay in touch with family and friends and the same number (57%) say this about how information technology improves their ability to learn new things. And 47% say that information technology helps "a lot" their ability to do their job.

These numbers are just a bit above the average, with the exception of the figure for staying in touch with family and friends, which slightly lags the average. These minor differences from the norm are somewhat striking in light of this group's many years of online experience and extensive collection of ICTs.

When Lackluster Veterans were asked what would be "very hard" to give up, from a list of technologies that include the TV, telephone, cell phone, and cable TV, the internet comes in first for them with 46% saying this (against the average of 34%), for email 34% said this (matching the average) and 34% said this about whether it would be very hard to give up the cell phone, nine points below the average.

Just a third of Lackluster Veterans would find it hard to give up their cell phones.

These tepid attitudes about ICTs' specific impacts filter into broader concerns expressed by Lackluster Veterans about ICTs. When asked whether they like that information technology makes them more available to others, just 14% said they did, well below 48% average and one-fifth the figures registered by Omnivores and Connectors. As to personal productivity, just one fifth (20%) of Lackluster Veterans thought ICTs make them more productive; this is below the 33% average and less than a third of the figures recorded for Omnivores and Connectors.

Demographics

This group has a median age of 40 and has a lot of online experience, as the typical Lackluster Veteran has been online for about 10 years. Most of them are men – 65% – and they are well educated and comfortably financially. Some 41% are parents of a child under the age of 18. They make up 8% of the general population.

Productivity Enhancers happily get things done with information technology, at home and at work. But they don't often stray into the world of interactive and mobile media.

Like Lackluster Veterans, Productivity Enhancers have been online a long time and have folded internet use into their lives. Unlike Lackluster Veterans, this adoption of modern information gadgetry has been met with their strong approval. With high-speed connections available at home and work, with feature-filled cell phones, Productivity Enhancers believe that ICTs give them an edge – in doing their jobs, keeping up with family and friends, learning new things, and overall personal productivity.

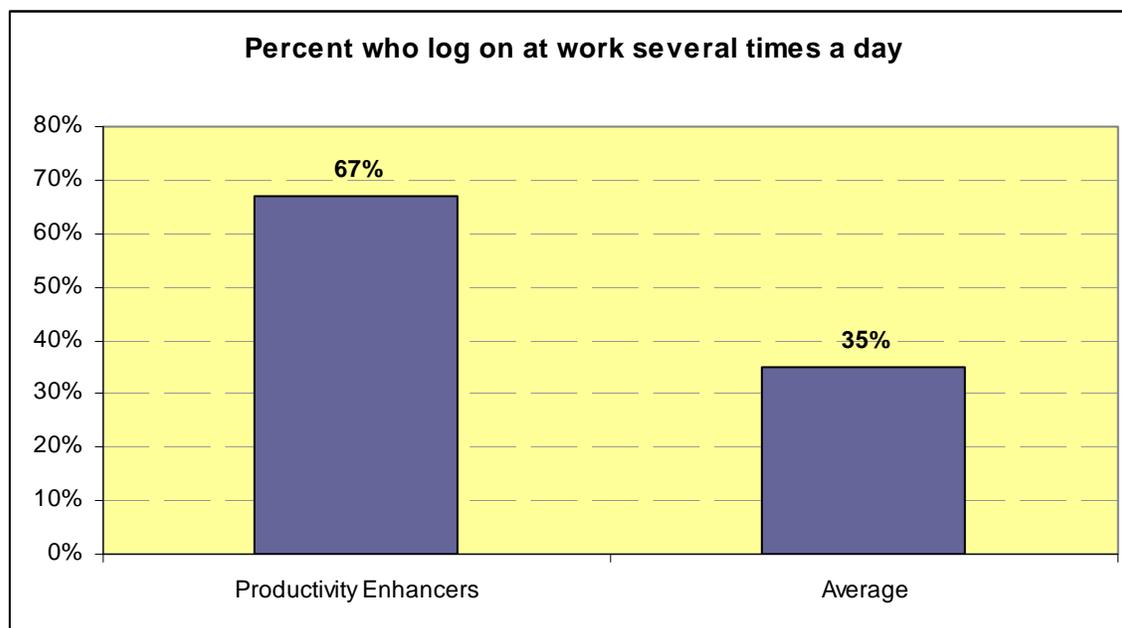
This posture toward communication technology leaves less room for user-generated content, so it is not too likely that a member of this group will blog, although some do share their creations on the Web. This distinguishes Productivity Enhancers from Omnivores and Connectors, who are far more likely to do activities relating to user-generated content, as well as other leading edge online activities such as downloading podcasts or downloading music and video.

Assets

Productivity Enhancers have a similar portfolio of tech assets as Lackluster Veterans, but they differ in that they have a greater capacity for mobile access. A vast majority have desktop computers (89%) and half (49%) have laptop computers; the latter figure is slightly more than Lackluster Veterans and nearly twenty percentage points higher than the norm. Nearly one in five have PDAs (18% do versus the 11% average). Fully 94% have cell phones, and most of these cell phones are equipped for email (54%) and surfing the net (59%). Home broadband penetration is high for this group (71%) and nine in ten (88%) have broadband access at home or work.

Activities

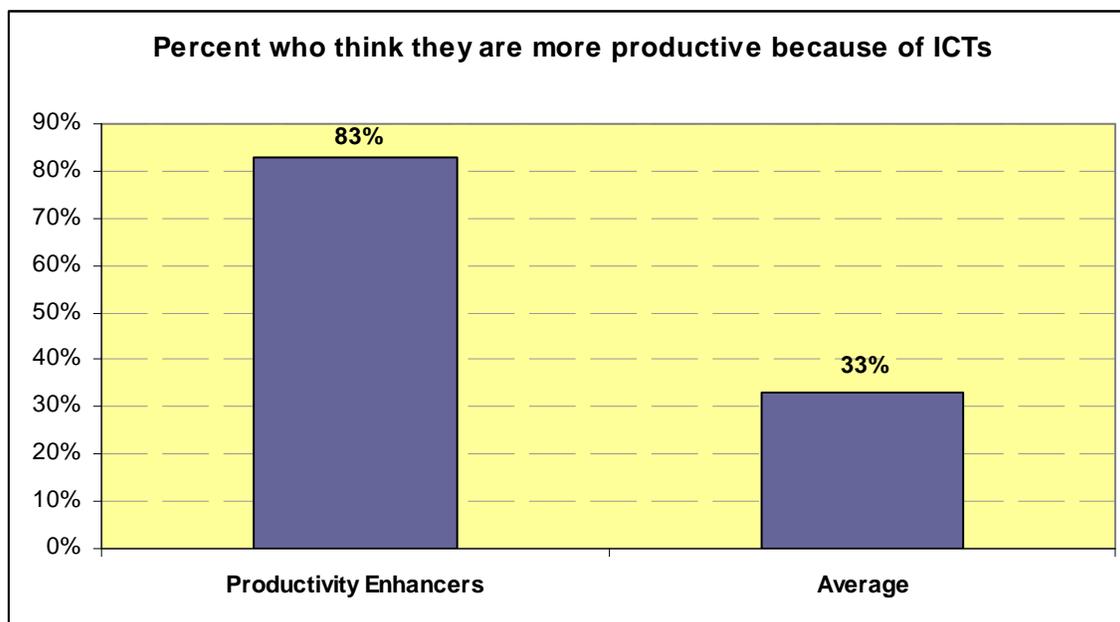
Productivity Enhancers are frequent internet users – especially at work. Fully 84% go online on the typical day, and two-thirds (67%) say they log on several times a day at work. That is the highest figure of any group in the typology. Consistent with their business-like posture toward use of ICTs, 29% say they go online on a typical day just for fun or to pass the time. That is basically the average for the sample, but much lower than the figures for the prior three tech-oriented groups. Although they are more likely than average to have ever logged onto the internet with a wireless device (38%), they below average for “new media” activities such as downloading video or audio.



As noted, their task-oriented approach to information technology seems to crowd out deep participation in the online commons in the sense of contributing much in the way of their own creative material. They are at the average in terms of ever having tried any of the activities pertaining to user-generated content (39% have tried one of them). A Productivity Enhancer is half as likely to have a blog as average. At best, a Productivity Enhancer might post a personal creation, such as a photo, online; 18% have done that.

Attitudes

Productivity Enhancers have highly positive views on how the internet helps them with their lives. Nine in 10 (89%) say they like the fact that ICTs make them more available to others – that’s nearly twice the average and the highest of any group in the typology by an eleven percentage point margin. The same pattern emerges when focusing on perceptions of how ICTs matter for productivity. Fully 83% agree with the proposition that information technology helps them be more productive. This compares with the average of 33% and, again, it is the highest figure for any group by an eleven percentage point margin.



Not surprisingly, this group of frequent workplace internet users finds information technology helpful for their jobs. Three quarters (73%) say information technology helps them “a lot” to do their jobs; this compares with the 42% average and it is the highest among all the groups. Productivity Enhancers also like the communicative benefits to information technology; 81% say ICTs help a lot in keeping in touch with family and friends (versus a 59% average).

These positive attitudes add up to a strong sense among Productivity Enhancers that information technology would be hard to give up. Some 60% said it would be very hard to do without their cell phones, 59% said this about the internet, and 51% said this about email. All these numbers are well above average and the figure for cell phones trails only Omnivores across all the groups in the typology.

Demographics

Productivity Enhancers are equally like to be men as women, and the typical member of this group is 40. He or she has been online for about ten years, and 76% are employed full time. Nearly half are college graduates (47%), 14% are English-speaking Hispanics, and have incomes above the average. They are 8% of the general adult population.

Part 3.

Middle Range Tech Users

The two groups that are “mid tech” in their ICT profile collectively make up 20% of the adult American population. They have fewer technology assets than elite technology users, but the groups have substantial variations in their portfolio of information tools and services, and each have very different attitudes about information technology.

“Mobile Centric” users are the second wave of young technology adopters. Mobile communication is important, and the cell phone is a multifaceted tool.

With a median age of 32, this is the second youngest group overall. The cell phone is the device to which members of this group are most attached. Mobile Centric group members have cell phones that are chock full of features, from text messaging to gaming, and they use these functions at high rates. The internet penetration rate of this group is high, and group members’ access to broadband at home is somewhat below average. Likewise, their online activities are below average in both scope and frequency.

Although they are generally content about the role of technology in their lives, the Mobile Centrics are also less enthusiastic than the preceding groups. They like the communicative functions of ICTs, but are not as likely to consider them helpful to doing their jobs or pursuing hobbies.

Assets

These second wave young adopters have fewer of the assets the more tech-oriented groups have. Some 33% have laptops (just above average and less than half the rate of Omnivores), and 34% have iPods or MP3 players (also half the rate of Omnivores). Although the vast majority of the Mobile Centrics (91%) are internet users, 77% have a desktop computer, which is a larger gap than the norm (which is 73% to 68%, a 5 percentage-point gap).

Mobile Centrics rely on their cell phones. They text often, and use the cell phone as a gateway to entertainment.

What this group does have is cell phones (100% in our sample), and they have a lot of functionality on their phones. The Mobile Centrics trail only Omnivores on measures of cell phone capacity; fully 88% have a cell phone that can play a game, and 72% have a cell phone that can surf the internet. More than half (60%) have a cell phone that can take

pictures, which is above the average of 28% among cell phone users. Four in ten (40%) have a cell phone that can play music.

Activities

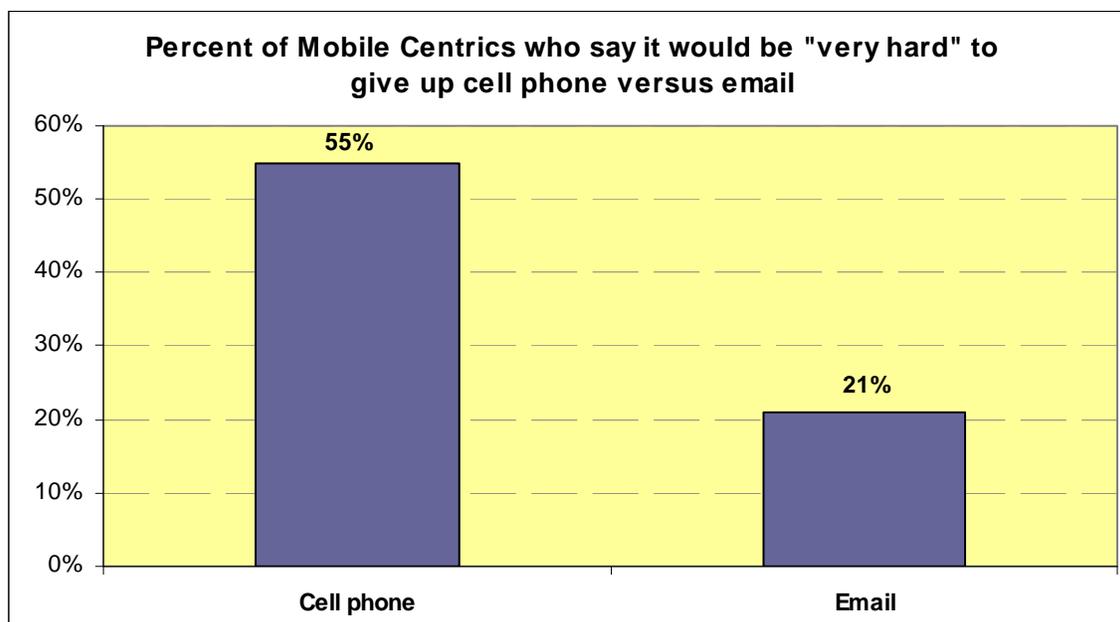
Mobile Centrics are a bit below average in their pursuit of most of the leading-edge online activities included in the survey. A third (35%) has tried at least one of the six activities relating to user-generated content, ten percentage points behind the average. And 53% go online on the average day compared with the 66% average.

Where they do stand out is in texting and gaming. Fully 94% of the Mobile Centrics have sent or received text-messages on their cell phone. Nearly half (54%) rely on their cell phones for most of their calls (compared with the 39% average) and 13% have taken digital photos with their cell phones. They are also active game players: 61% play electronic games and 41% play video games several times per month. Most of that is done on Xbox or PlayStation, but some (18%) play games over the internet.

Attitudes

More than half (57%) of Mobile Centrics believes that technology gives them more control over their lives—a notable difference from several other technologically-engaged groups, among whom about 75% think this is the case. They also feel they are less technologically competent; 21% say they need help getting new technology to work. That is below the average for the entire sample, but far higher than the figures for Connectors and Omnivores. They like how technology connects them to others (74% say ICTs help them “a lot” keep up with family and friends) and like that IT makes them more available to others (73% say this). But they are less likely than Omnivores to say that gadgets help them share their ideas with others (31% versus 67%) or pursue their hobbies (30% versus 67%).

Finally, Mobile Centrics say the cell phone is a critical tool for them. Fully 54% say they make most of their phone calls with their cell phone, the second highest number recorded among all groups. More than half (55%) say it would be very hard for them to do without their phones. Mobile Centrics are more than twice as likely to say this about their cell phones as about the internet or email. Just a quarter (25%) say it would be very hard for them to do without the internet and 21% say this about email.



Demographics

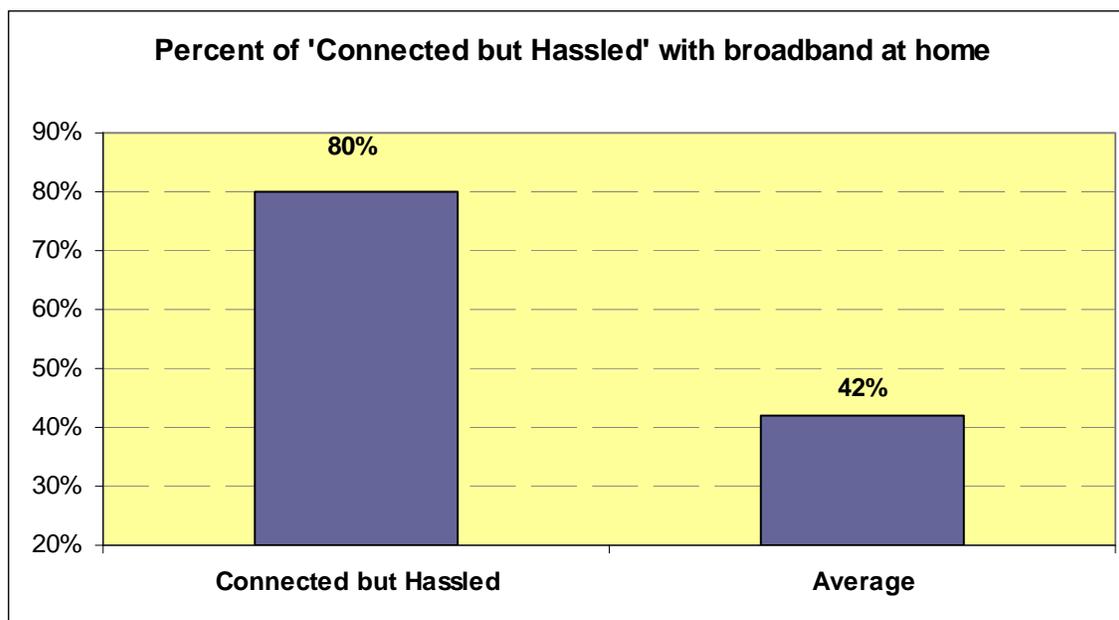
This relatively young (the median age is 32) group as a slight majority of men (52%) and sizable percentages of African Americans (21%) and English-speaking Hispanics (14%). Mobile Centrics are in the middle income range and the strong majority (81%) is employed either full time or part time. Members of this group are also relatively inexperienced with the internet, having been online for an average of six years. This group makes up 10% of the general population.

Connected but Hassled: Many in this group have invested in a lot of technology, but the connectivity is a hassle for them.

This group of older technology users in many ways represents the average when it comes to consumption of information goods and services. However, when focusing on use of information technology and attitudes about it, the Connected but Hassled are decidedly unenthusiastic about the hardware and services they have acquired.

Assets

In our sample, all members of this group are internet users, 88% have desktop computers, and most (80%) have high-speed connections at home. For information appliances that might serve as an on-ramp to deeper online and mobile activities, the Connected but Hassled are reliably near the average. Three-quarters (80%) have cell phones, but they tend not to have many features on them such as taking pictures or surfing the internet. One-third (32%) have laptop computers, just above the average, but few have PDAs (7%) and just 8% have web cams.



Activities

Whereas Connected but Hassled are more likely than average to have broadband at home, they are no more likely than average to go online on the typical day, and much less likely to have done any of the high-end online activities about which the survey asked.

Part 2.

Some 66% of the Connected but Hassled say they go online on the average day and 24% and 33% say they use the internet several times a day from home or work, respectively. Each of those figures is just below the average.

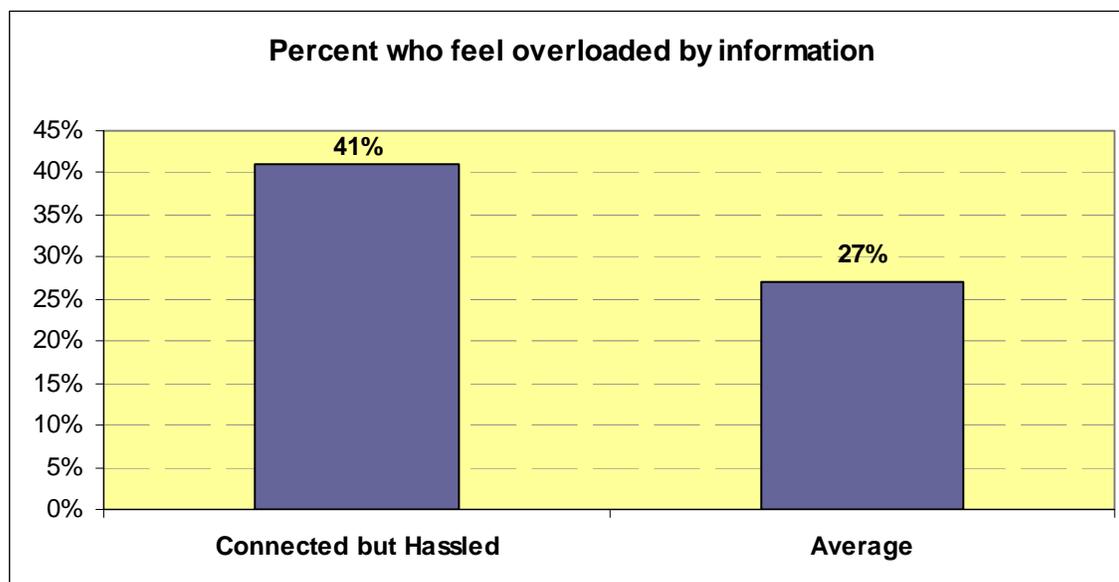
Just 18% of the Connected but Hassled like that information gadgets make them more available to others.

Although some 18% of the Connected but Hassled will go online just for fun on the typical day (against the 28% average), very few download music, pay for online content, or use the wireless internet. And just 24% have done anything pertaining to user-generated content. Only 19% have ever sent or received a text message and 9% has watched TV on a device other than their home television. The group's disinterest in the advanced technologies and activities queried in this survey, combined with average-level online activity, suggests this group probably sticks to the basics when online – checking email, perhaps some news headlines.

Attitudes

Information technology is anywhere from a burden to an irrelevance for the Connected but Hassled. Four in ten (41%) say they feel overloaded by information – half again more than the average for all Americans (27%). A greater number (52%) thinks information technology gives them less control of makes no difference in their lives, above the average of 45%. And 26% find dealing with their various information appliances to be annoying, which is above the average and twice the rate recorded by Connectors.

Whereas half of all Americans with either a cell phone or internet access like the fact that these items make them more available to others, just 18% of the Connected but Hassled do. And only 9% of members of this group see themselves as more productive due to information technology, less than one third the average of 33%.



The picture is not completely bleak for the Connected but Hassled. Some 48% say information technology helps “a lot” to keep up with family and friends, while 41% say this about information technology’s role in helping them learn new things. These figures are about ten percentage points below the averages for all internet users. But they suggest that, to the extent the Connected but Hassled value information technology, it is for communicating with others and getting information that is personally enriching.

Demographics

The typical member of this group is 46 years old and has been online for about 7 years. She – and 59% of this group are women – is well-educated and above average in terms of household income. The group is predominantly white (80%) and its workforce participation rate matches the national average. Reluctants make up 10% of the general population.

Part 4.

Low-tech users

The four groups that collectively make up the low tech users come to 49% of the general population. Each group, in different ways, falls well of the average for at least one key dimension of the typology's technology assets, such as online penetration, cell phone use, or home broadband adoption.

With lower-than-average technology assets, ICTs have less of an impact on Inexperienced Experimenters. Yet they like how ICTs connect them to other and some have tried Web 2.0 applications.

This group is below average when it comes to having some information technologies (namely broadband access) and understandably it does less with fewer services and technologies at hand. They are fairly infrequent online users and modern information technology does not loom very large in their daily lives. Thus, not many say they would have a hard time giving up ICTs.

But there are some cross currents in their attitudes toward and use of ICTs. Members of this group like the fact that ICTs make them more available to others. Most herald gadgets' capacity for helping them to be more productive. At the same time, most need help to get their various gadgets to work and they more likely than average to find ICTs intrusions annoying. Nonetheless, some in this group have tried the interactive Web, either through posting a comment online or emailing a photo. This suggests that, with more resources and experience, members of this group might use ICTs more intensely.

This openness to trying cutting-edge applications and satisfaction with information technology – combined with the relatively few years of online tenure – inspires this group's name. They are the Inexperienced Experimenters – fairly new to the internet, but ready to give it a go.

Assets

Although Inexperienced Experimenters members are above the average in terms of internet penetration (82%) and cell phone adoption (85%), and they are not very likely to have broadband at home (15%). Most have desktop computers and laptops (73%), but just one quarter (24%) have laptop computers. They fall just short of the average with respect to digital cameras (52%) and video cameras (41%). Finally, their cell phones tend not to have many features; Inexperienced Experimenters' cell phones are half as likely as average to be able to surf the internet, play music, or take or record video.

Activities

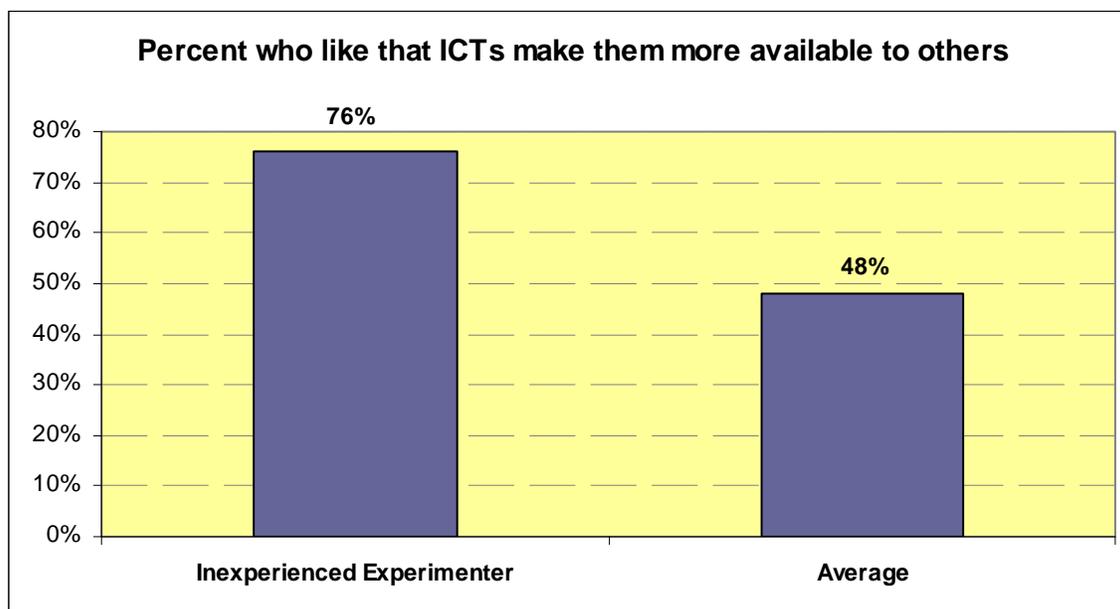
About half (51%) of internet users in this go online on the typical day and few use the internet frequently either at home or work. Just 9% say they log on several times a day at home, and 25% say this about logging on at the work; both figures are below the norm. Only 12% log on just to pass the time or for fun on the average day – less than half the average. Inexperienced Experimenters are more involved with traditional media than tech-oriented Americans; they are more likely to watch TV on the average day and watch an average of about a half hour more TV on the typical day than the tech-oriented groups.

Still in the early adoption phase for ICTs, some in this group may mature into active participants in cyberspace.

Still, one in five (19%) Inexperienced Experimenters has tried at least one of the six activities pertaining to user-generated content. The occasional comment to a blog or online community is not out of the question for this group. Among those who take digital photos, 49% will share them through email. Among Inexperienced Experimenter game players (29% of the group), some 12% will play with others over the internet.

Attitudes

Inexperienced Experimenters have generally very positive attitudes toward information technology, especially with respect to personal productivity and keeping in touch with others. More than half (54%) of Inexperienced Experimenters say ICTs help them be more productive, well above the 33% average. Two-thirds (65%) say ICTs help a lot in staying in touch with family and friends. Three-quarters (76%) like how information technology makes them more available to others (the average is 48%).



At the same time, most (83%) suspect that their information appliances can do more and most (64%) also need help getting new gadgets to function properly. Thus, notwithstanding the fact that they like ICTs' connective benefits, some 38% find dealing with gadgets stressful – more than twice the average.

Inexperienced Experimenters also see information goods and services as a knowledge-building tool and, for some, as a way to cultivate their creative sides. Fully 61% say information technology helps them a lot to learn new things, 32% says it helps a lot in how they pursue hobbies, and 35% says it helps them share their ideas and creations with others. All these figures exceed the average.

Demographics

The median age is 50 for Inexperienced Experimenters. But they do not have a wealth of online experience, as the typical member of this group has 5 years of online tenure. It is mostly female – 61% – and it is not a group slightly above average with respect to income and levels of educational attainment. This group comprises 8% of the general population.

In a typology such as this, one might expect to find one or more segments of the population with lower incomes to have less information technology, perhaps less experience with it, and few positive perspectives about information technology. The final two groups in the typology are those segments, but they differ in rates of cell phone access, as well as attitudes toward technology.

Despite having cell phones or online access, “Light but Satisfied” users say technology does not do much for them.

The first of these groups, the Light but Satisfied, has a below-average rate of internet and cell phone access. They are not frequent users of the internet and are least likely group to rely on their cell phones for most of their calls. Although ICTs do not loom large in the lives of Light but Satisfied group members, they seem reasonably satisfied with how it lets them keep in touch with family and friends.

Assets

The “Light but Satisfied” group is marked by a wide internet-cell phone adoption gap. Nearly 9 in 10 (86%) have a cell phone, but 60% are internet users, with few (15%) with high-speed connections at home. Some (61%) have desktop computers, making this the only group thus far for which desktop computer penetration equals internet usage rates. Only 13% in this group have laptop computers. A minority of these users have digital cameras (43%) and video cameras (38%), but few have PDAs or MP3 players.

Activities

Only one third of online users in the Light but Satisfied group go online on the average day, so the internet is only occasionally a destination for them. Very few internet users in this group go online just to pass the time on the average day (5%), and only 11% of Light but Satisfied online users have entered the world of user-generated content.

Just 15% of “Light but Satisfied” users have broadband internet connections at home.
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Instead, this group has old media habits. The Light but Satisfied users are among most likely of any to watch TV on the average day, and they report watching a fairly high number of hours of TV per day. They are least likely to have ever watched TV on a non-TV device or to listen to radio on a device that isn’t a home or car radio (2% and 3%, respectively). Despite a high cell phone penetration rate, they report the lowest share of people saying they use the cell phone for most of their calls (22%). Their cell phones have few features, and what features they have are not put to much use. The cell phone, it seems reasonable to speculate, is a tool for phone calling in special or emergency situations.

Attitudes

This group registers some concerns about information overload (38% say they suffer from it) and 63% believes technology results in less control over their lives or makes no difference. Only 7% say it would be very hard to give up the internet and only a quarter (27%) think it would be hard to give up their cell phone. At best, information technology is a way to stay in touch with family and friends; 39% say it helps a lot in this regard, which is still well below the 59% average.

Demographics

This is the oldest of any group with some information technology (the median age is 53) and it does not have a lot of online experience (about five years). It is a mainly white group (79%) and few (18%) have graduated from college. More than half (57%) are women and its household income is below average. The Light but Satisfied group members make up 15% of the population.

Indifferents: They have a fair amount of technology on hand, but it does not play a central role in their daily lives.

This group collectively has a portfolio of information technology that is the lower than any of the preceding groups. Although Indifferents with online access will log on to the internet once every day or so, they are not active users of online resources. They believe – though not too strongly – that information technology is a good way to keep up with family and friends, but they do not much care for how these gadgets make them more available to others.

Assets

Some 63% of Indifferents have online access and 68% have cell phones. Adding to their low rates of access to the basics, just 12% have broadband at home – a figure that is less than a third the rate of the average. This group is not well-equipped with tools for accessing the web wirelessly or enjoying digital content “on the go.” One in nine (11%) have laptop computers, 4% have MP3 players, and just 3% have PDAs. Their cell phones generally do not have the capacity to surf the internet, or play music or videos.

Activities

About half (35%) of internet users in this group will go online on the typical day, but few use the internet frequently either at home or work. Just 4% say they log on several times a day at home, and 12% of Indifferents say this about logging on at the work; both figures are well below the norm. This group exhibits little interest in online activities such as downloading music or video and only 9% log on just to pass the time or for fun on the average day – one-third the average. Indifferents tend to watch TV everyday or listen to the radio, but only on the old-fashioned devices for accessing such programming.

ICTs on the periphery: few like how it makes them more available to others and hardly any think it makes them more productive.

Attitudes

ICTs are not central enough in the lives of Indifferents to make them very enthusiastic about them. Most like having so much information available to them (63% versus the 67% average), and but just 22% say technology gives them more control over their lives – a figure that is less half the average and the lowest of any group.

Only 14% like the extra availability to others that ICTs bring, below the 48% average. Only 5% thinks ICTs make them more productive, far below the 33% average. Finally,

6% and 7%, respectively, of internet users in this group say it would be very hard to give up the internet and email. Some Indifferents (30%) seem to value information technology to keep up with family and friends, but that is half the average and the lowest of any group.

Demographics

The median age for Indifferents is 47 and the typical Indifferent group member has been online for 5 years – below the 7 years which is the median for all online users. The group is mostly white (76%) and comes in below the average for income, educational attainment, and employment. Its gender composition is close to that of the general population (52% of this group is men) and this group makes up 11% of the general population.

Off the network: Those with neither cell phones nor internet connectivity are older, and seem content with old media.

Some 15% of Americans neither go online nor have a cell phone. They are the heaviest users of any group of old media, such as a radio and TV, but do not have an inclination (or perhaps the means) to try new information and communication technology.

Assets

Surprisingly, some have computers – 15% have either a desktop or laptop computer. A few in this group have digital cameras (12%) as well as video cameras (11%).

Activities

Fully 82% watch TV everyday and 76% have cable or satellite service. Members of this group report the highest levels of watching TV or listening to radio, when judged by self-reported number of hours per day doing these things.

Attitudes

Without either online access or cell phones, those who are “Off the Network” did not receive questions pertaining to how information technology impacts their lives. They did, however, receive the broad questions on attitudes toward information technology. Interestingly, this group did not convey especially high worries about information overload – 34% said they felt overloaded by information in society, above average, but below the figure reported by several groups with internet or cell phone access. Those who are Off the Network were, however, less likely than average to say they think technology gives them more control over their lives – by a 34% to 48% margin.

Demographics

This group is the oldest – the median age is 64 – and has the lowest reported levels of household income of any group. They are more likely to be women (57%) and are more ethnically diverse than some other groups. Three quarters are white and 18% are African American.

Part 5.

Demographic Differences across Groups

The development of the typology itself did not include demographic factors. A person's gender, race, income, or educational level did not determine the group in which someone was slotted. In prior sections, the discussion of the demographic make up of each group sought to fill out the portrait of the typical member of each group.

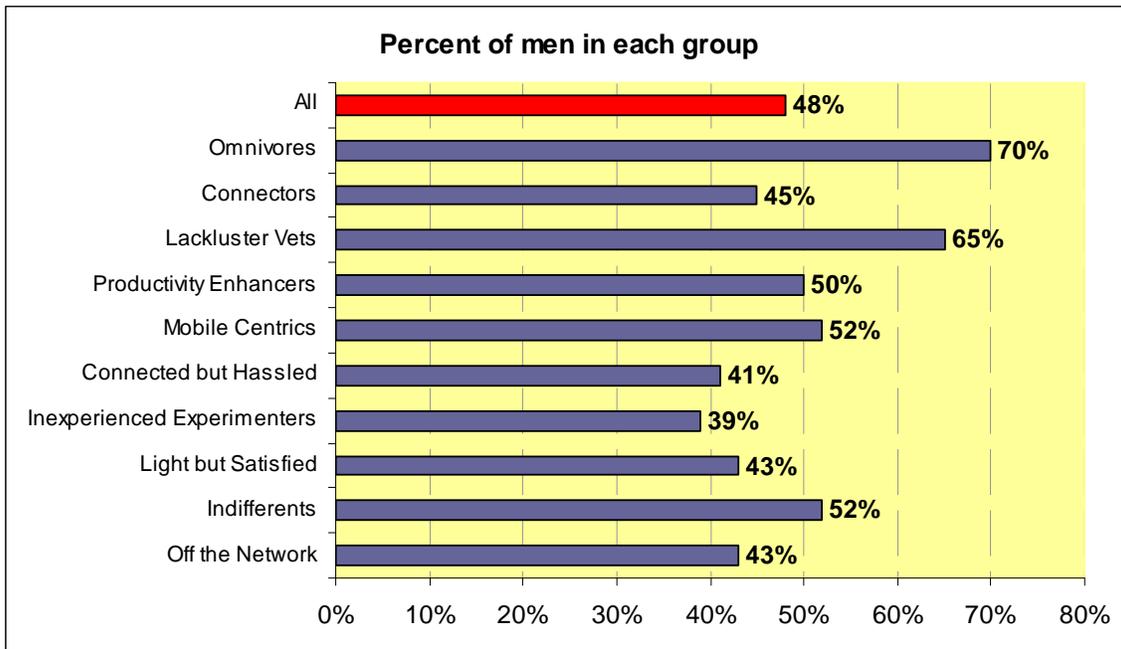
However, patterns emerge when looking at the groups and demographic or economic variables. Some of this is entirely understandable; the typology depends in part on the technology people have, which in turn depends a great deal on income levels. Other patterns shed interesting light on patterns of technology adoption.

It is important to note that the demographic patterns reported in this section show tendencies, but are not meant to convey a deterministic flavor in the typology. For example, although the most extensive ICT users tend to be young males, this does not mean that all such users have these characteristics. The report's Appendix contains tables with detailed demographic data on each of the ten groups.

Gender

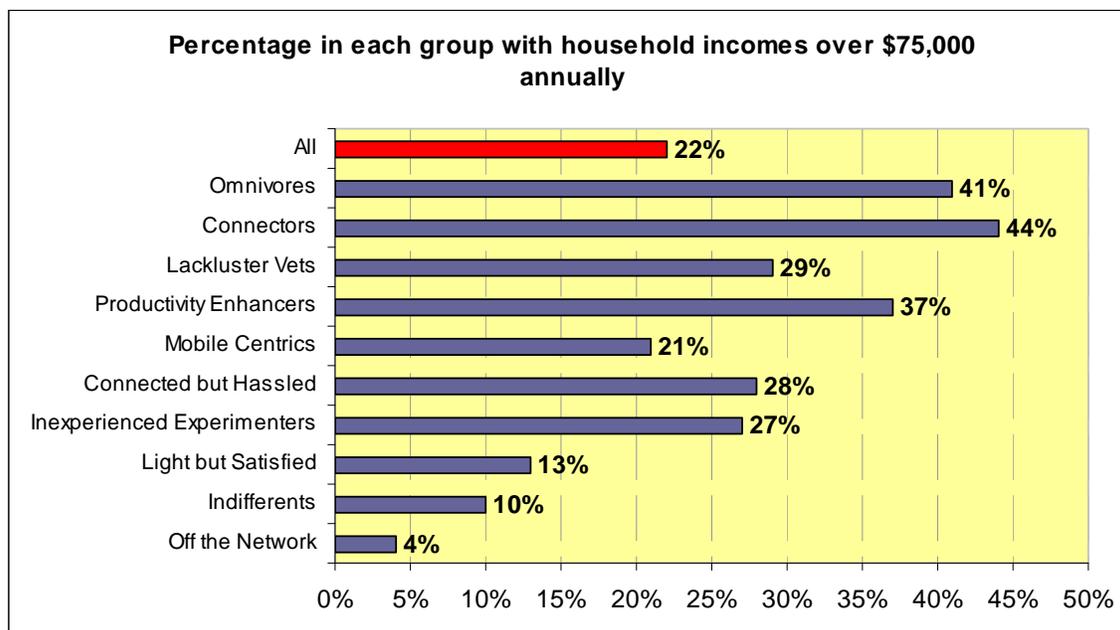
The high-tech groups tend to be dominated by men, but there are only small gender differences when it comes to cell phone use. Of the four technology-oriented groups, two of them have men outnumbering women by a two to one ratio, with one having a majority of women and the fourth evenly split. However, Connectors, with 55% women, has 100% cell phone adoption (unlike the other two male-dominated groups) and are extensive users of cell phones and their non-voice features.

The two middle tech groups consist of one with a slight majority of males, with the other having nearly 60% women. The four "low tech" groups have mostly women, although one is majority male. The chart below displays the share of men and women across each of the groups.



Income

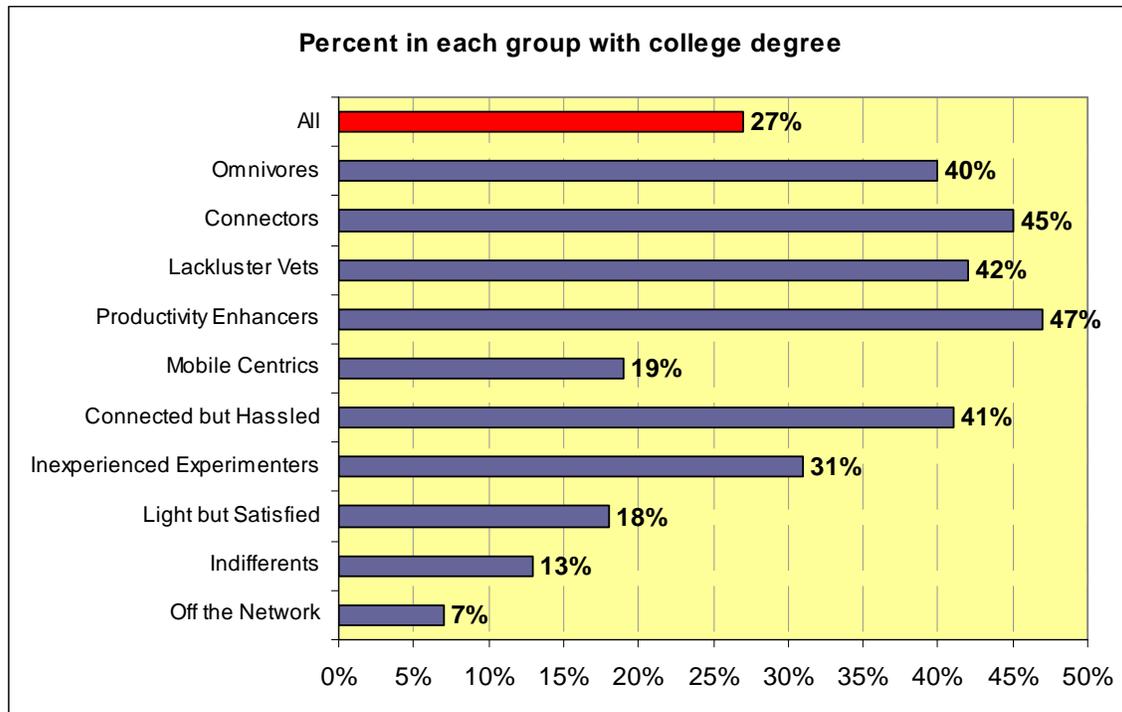
Although those with higher incomes generally have more ICTs, some mid- or low-tech groups have a sizable share of people living in households whose income exceeds \$75,000 annually. This suggests income is not a wholly dominant factor in adoption.



The comfortable income levels for several mid-range tech groups suggest that preferences play a role in technology adoption that is separate and apart from income. These mid-range groups, with incomes nearly matching tech-oriented groups, could purchase more gadgets, but do not. Conversely, not all members of tech-oriented groups are wealthy, yet they acquire information goods and services anyway.

Education

A person's educational level is tied to economic status, but in the context of technology adoption, it plays another role. Exposure to and use of broadband, wireless, and other information technologies often happens at school. The table shows how tech-oriented groups generally have higher levels of education.



High levels of education may not always mean a person enjoys using information technology. The Lackluster Veterans group has a high share of people with college degrees, but also a large share of people reporting information overload and stress from managing their technology gadgets. It is also worth noting that two of the four tech-oriented groups have a higher-than-average percentage of members who are full or part-time students (see Appendix for details).

Age

The typology clearly shows how modern information technology is the province of youth. Yet, overlaying age with the number of years online tenure shows that technology adoption unfolds in waves within age cohorts. The table below displays the groups by the median number of years they have been online, next to the median age of the group.

Age and internet adoption		
Group	Median age	Years online
Omnivores	28	10
Mobile Centrics	32	6
Connectors	38	9
Lackluster Veterans	40	10
Productivity Enhancers	40	10
Infrequent but Hassled	46	7
Indifferents	47	5
Inexperienced Experimenters	50	5
Light but Satisfied	53	5

Source: Pew Internet & American Life Project April 2006 Survey.

This way of assembling the groups conveys an intra-generational pattern to information technology adoption. Not all people in or near their 30's got online at the same time, and the same is true when looking at people in their 40's and 50's. Each age cohort appears to have its technology champions who adopt early, with others then following. As the typology shows, patterns of use among followers, as well as across each wave of early adopters, vary considerably.

Part 6.

Appendix

This appendix contains tables detailing the responses of members of each of the six groups to questions that went into the typology pertaining to Americans assets, actions, and attitudes with respect to information technology. The final table in the appendix presents demographic information for each group.

Assets: information goods & services Elite Tech Users					
Percent of each group who have specific technology	All	Omnivores	Connectors	Lackluster Veterans	Productivity Enhancers
Internet user	73%	100%	100%	100%	100%
Cell phone	73	100	92	76	94
Desktop computer	68	95	89	92	89
Digital camera	55	92	86	79	79
Broadband at home or work	52	97	95	88	88
Video camera	43	69	68	55	57
Broadband at home	42	89	86	77	71
Laptop computer	30	79	65	45	49
iPod/MP3 player	20	70	46	29	27
Webcam	13	51	26	17	15
Blackberry, Palm, or other PDA	11	45	24	14	18
Source: Pew Internet & American Life Project April 2006 Survey.					

Assets: information goods & services Middle and Low-tech groups					
Percent of each group who have specific technology	Mobile Centrics	Connected but Hassled	Inexperienced Experimenters	Light but Satisfied	Indifferents
Internet user	91%	100%	82%	60%	63%
Cell phone	100	80	85	86	68
Desktop computer	77	88	75	61	51
Digital camera	66	63	52	43	31
Broadband at home or work	56	90	37	21	24
Video camera	53	46	41	38	28
Broadband at home	37	80	15	15	12
Laptop computer	33	32	24	13	11
iPod/MP3 player	34	16	5	5	4
Webcam	16	8	5	6	5
Blackberry, Palm, or other PDA	13	7	4	2	3
Source: Pew Internet & American Life Project April 2006 Survey.					

Actions: user-generated content Elite Tech Users					
Percent of internet users who have done the following	All	Omnivores	Connectors	Lackluster Veterans	Productivity Enhancers
Share something online that you created yourself, such as your own artwork, photos, stories, or videos	19%	55%	38%	20%	18%
Post comments to an online news group or website	18	55	39	22	12
Create or work on your own webpage	12	45	24	14	12
Create or on webpages or blogs for others, including friends, groups you belong to, or for work	11	40	17	13	9
Take material you find online – like songs, text, or images – and remix it into your own artistic creation	9	30	19	10	8
Create or work on your own online journal or weblog	8	34	15	7	4
Source: Pew Internet & American Life Project April 2006 Survey					

Actions: user-generated content Middle and Low-tech groups					
Percent of internet users who have done the following	Mobile Centrics	Connected but Hassled	Inexperienced Experimenters	Light but Satisfied	Indifferents
Share something online that you created yourself, such as your own artwork, photos, stories, or videos	14%	12%	9%	4%	4%
Post comments to an online news group or website	0	8	8	4	3
Create or work on your own webpage	6	6	2	1	2
Create or on webpages or blogs for others, including friends, groups you belong to, or for work	8	4	4	1	2
Take material you find online – like songs, text, or images – and remix it into your own artistic creation	4	4	2	3	2
Create or work on your own online journal or weblog	6	4	1	1	2
Source: Pew Internet & American Life Project April 2006 Survey.					

Actions: Digital activities Elite Tech Users					
Percent who have done the following	All	Omnivores	Connectors	Lackluster Veterans	Productivity Enhancers
Send or receive text messages on cell phone (among cell phone users)	41%	93%	49%	36%	42%
Play a video game (% who play a few times a month or more often)	28	62	33	42	28
Listen to music or radio shows on something other than a home or car radio (among those who listen to the radio)	24	84	70	36	5
Watch TV shows or news programs on something other than your TV at home, such as a computer, cell phone, iPod, or PDA (among those who watch TV)	13	57	52	14	2
Source: Pew Internet & American Life Project April 2006 Survey					

Actions: Digital activities Middle and Low-tech groups					
Percent who have done the following	Mobile Centrics	Connected but Hassled	Inexperienced Experimenters	Light but Satisfied	Indifferents
Send or receive text messages on cell phone (among cell phone users)	94%	19%	14%	12%	12%
Play a video game (% who play a few times a month or more often)	41	28	19	16	20
Listen to music or radio shows on something other than a home or car radio (among those who listen to the radio)	43	19	10	3	7
Watch TV shows or news programs on something other than your TV at home, such as a computer, cell phone, iPod, or PDA (among those who watch TV)	13	9	5	2	2
Source: Pew Internet & American Life Project April 2006 Survey					

Actions: online behavior Elite Tech Users					
Percent of internet users who have EVER done following activities	All	Omnivores	Connectors	Lackluster Veterans	Productivity Enhancers
Go online for no particular reason, just for fun or to pass the time	62%	91%	82%	71%	61%
Send instant messages to someone who is online at the same time	37	73	57	45	38
Log onto the internet using a wireless device	30	75	55	34	38
Download <u>music</u> files to your computer so you can play them at any time you want	27	67	52	32	21
Pay to access or download digital content online, such as music, video, or newspaper articles	21	50	43	26	20
Download <u>video</u> files to your computer so you can play them at any time you want	19	59	40	23	11
Download a podcast so you can listen to it or view it at a later time	7	24	12	9	4
Source: Pew Internet & American Life Project April 2006 Survey.					

Actions: online behavior Elite Tech Users					
Percent of internet users who YESTERDAY did following activities	All	Omnivores	Connectors	Lackluster Veterans	Productivity Enhancers
Go online for no particular reason, just for fun or to pass the time	28%	67%	54%	44%	29%
Send instant messages to someone who is online at the same time	12	49	22	20	11
Log onto the internet using a wireless device	15	49	34	20	17
Download <u>music</u> files to your computer so you can play them at any time you want	4	20	12	3	2
Pay to access or download digital content online, such as music, video, or newspaper articles	4	18	11	3	2
Download <u>video</u> files to your computer so you can play them at any time you want	4	19	10	4	2
Download a podcast so you can listen to it or view it at a later time	1	5	1	1	0
Source: Pew Internet & American Life Project April 2006 Survey.					

Actions: online behavior Middle and Low-tech groups					
Percent of internet users who have EVER done following activities	Mobile Centrics	Connected but Hassled	Inexperienced Experimenters	Light but Satisfied	Indifferents
Go online for no particular reason, just for fun or to pass the time	65%	57%	52%	44%	42%
Send instant messages to someone who is online at the same time	47	25	18	16	16
Log onto the internet using a wireless device	25	21	9	7	7
Download <u>music</u> files to your computer so you can play them at any time you want	34	17	8	4	7
Pay to access or download digital content online, such as music, video, or newspaper articles	23	13	9	5	5
Download <u>video</u> files to your computer so you can play them at any time you want	18	12	5	6	5
Download a podcast so you can listen to it or view it at a later time	9	5	2	1	2
Source: Pew Internet & American Life Project April 2006 Survey.					

Actions: online behavior Middle and Low-tech groups					
Percent of internet users who YESTERDAY did following activities	Mobile Centrics	Connected but Hassled	Inexperienced Experimenters	Light but Satisfied	Indifferents
Go online for no particular reason, just for fun or to pass the time	16%	18%	12%	5%	9%
Send instant messages to someone who is online at the same time	5	4	3	1	1
Log onto the internet using a wireless device	6	7	2	1	3
Download <u>music</u> files to your computer so you can play them at any time you want	1	1	0	0	1
Pay to access or download digital content online, such as music, video, or newspaper articles	0	1	1	1	1
Download <u>video</u> files to your computer so you can play them at any time you want	1	1	1	0	0
Download a podcast so you can listen to it or view it at a later time	0	1	0	0	0
Source: Pew Internet & American Life Project April 2006 Survey.					

Actions: other facts about the groups' online behavior					
Elite Tech Users					
Among internet users in each group	All	Omnivores	Connectors	Lackluster Veterans	Productivity Enhancers
Internet experience: median number of years online	7	10	9	10	10
% who say went online "yesterday"	66%	92%	93%	89%	84%
% who say they went online from home "yesterday" several times	27	67	63	47	36
% who say they went online from work "yesterday" several times	35	61	54	47	67
Source: Pew Internet & American Life Project April 2006 Survey.					

Actions: other facts about the groups' online behavior					
Middle and Low-tech groups					
Among internet users in each group	Mobile Centrics	Connected but Hassled	Inexperienced Experimenters	Light but Satisfied	Indifferents
Internet experience: median number of years online	6	7	5	5	5
% who say went online "yesterday"	53%	66%	51%	33%	35%
% who say they went online from home "yesterday" several times	4	24	9	1	2
% who say they went online from work "yesterday" several times	17	33	25	2	12
Source: Pew Internet & American Life Project April 2006 Survey.					

Attitudes about information technology					
Elite Tech Users					
Percent of internet or cell users who say this describes them "very well"	All	Omnivores	Connectors	Lackluster Veterans	Productivity Enhancers
I like that cell phones and other mobile devices allow me to be more available to others	48%	78%	64%	14%	89%
I often feel like my electronic devices can do more than what I actually use them for	56	51	82	44	77
When I get a new electronic device, I usually need someone else to set it up or show me how to use it.	32	4	27	2	19
It is stressful to own and manage all of the different electronic devices I have	14	4	15	4	6
I often feel annoyed by having to respond to intrusions from my electronic devices	22	17	17	13	20
I believe I am more productive because of all of my electronic devices	33	72	66	20	83
Source: Pew Internet & American Life Project April 2006 Survey					

Attitudes about information technology					
Middle and Low-tech groups					
Percent of internet or cell users who say this describes them "very well"	Mobile Centrics	Connected but Hassled	Inexperienced Experimenters	Light but Satisfied	Indifferents
I like that cell phones and other mobile devices allow me to be more available to others	73%	18%	76%	33%	14%
I often feel like my electronic devices can do more than what I actually use them for	59	51	83	55	19
When I get a new electronic device, I usually need someone else to set it up or show me how to use it.	21	42	64	67	18
It is stressful to own and manage all of the different electronic devices I have	3	14	38	27	4
I often feel annoyed by having to respond to intrusions from my electronic devices	19	26	34	28	18
I believe I am more productive because of all of my electronic devices	30	9	54	1	5
Source: Pew Internet & American Life Project April 2006 Survey					

Attitudes about information technology					
Elite Tech Users					
Percent of <u>internet or cell users</u> who say communication and information devices have helped "a lot" in specified dimensions	All	Omnivores	Connectors	Lackluster Veterans	Productivity Enhancers
The way you pursue your hobbies or interests	28%	68%	53%	31%	41%
Your ability to do your job	42	69	68	47	73
Your ability to learn new things	51	86	81	57	73
Your ability to keep in touch with friends and family	59	85	85	57	81
Your ability to share your ideas and creations with others	28	69	51	24	42
Your ability to work with others in your community or in groups you belong to	28	60	55	22	49
Source: Pew Internet & American Life Project April 2006 Survey					

Attitudes about information technology					
Middle and Low-tech groups					
Percent of <u>internet or cell users</u> who say communication and information devices have helped "a lot" in specified dimensions	Mobile Centrics	Connected but Hassled	Inexperienced Experimenters	Light but Satisfied	Indifferents
The way you pursue your hobbies or interests	30%	16%	32%	8%	9%
Your ability to do your job	38	35	49	16	18
Your ability to learn new things	49	41	61	25	24
Your ability to keep in touch with friends and family	74	48	65	39	30
Your ability to share your ideas and creations with others	31	15	35	10	7
Your ability to work with others in your community or in groups you belong to	30	13	38	8	8
Source: Pew Internet & American Life Project April 2006 Survey					

Attitudes about information technology					
Elite Tech Users					
Percent who say...	All	Omnivores	Connectors	Lackluster Veterans	Productivity Enhancers
They feel overloaded by the amount of information these days available from TV, magazines, newspapers, and computer information services	27%	10%	27%	11%	10%
They like having so much information available	67	88	68	86	87
Computers and technology give them <u>more</u> control over their lives	48	71	77	50	73
Computers and technology give them <u>less</u> control over their lives	16	1	9	10	6
Computers and technology give them <u>make no difference</u> in their lives	29	23	13	38	19
Source: Pew Internet & American Life Project April 2006 Survey					

Attitudes about information technology					
Middle and Low-tech groups					
Percent who say...	Mobile Centrics	Connected but Hassled	Inexperienced Experimenters	Light but Satisfied	Indifferents
They feel overloaded by the amount of information these days available from TV, magazines, newspapers, and computer information services	18%	41%	35%	38%	26%
They like having so much information available	77	53	62	57	63
Computers and technology give them <u>more</u> control over their lives	57	44	60	28	22
Computers and technology give them <u>less</u> control over their lives	10	19	13	26	26
Computers and technology give them <u>make no difference</u> in their lives	31	33	24	37	41
Source: Pew Internet & American Life Project April 2006 Survey					

Attitudes about information technology					
Elite Tech Users					
Percent who say it would be “ very hard ” to give up a technology or service (among those who use it)	All	Omnivores	Connectors	Lackluster Veterans	Productivity Enhancers
Landline telephone	48%	36%	49%	42%	42%
Television	44	38	49	38	47
Cable television	39	32	37	33	39
Cell phone	43	69	53	34	60
Internet	38	78	72	46	59
Email	334	63	66	34	51
Source: Pew Internet & American Life Project April 2006 Survey					

Attitudes about information technology					
Middle and Low-tech groups					
Percent who say it would be “ very hard ” to give up a technology or service (among those who use it)	Mobile Centrics	Connected but Hassled	Inexperienced Experimenters	Light but Satisfied	Indifferents
Landline telephone	39%	53%	60%	56%	42%
Television	43	42	58	47	36
Cable television	37	38	50	41	34
Cell phone	55	29	48	27	19
Internet	25	29	29	7	6
Email	21	28	32	7	7
Source: Pew Internet & American Life Project April 2006 Survey					

Demographics Elite Tech Users					
	All	Omnivores	Connectors	Lackluster Veterans	Productivity Enhancers
Number of cases	4,001	229	276	301	336
Gender/parental status					
Male	48%	70%	45%	65%	50%
Female	52	30	55	35	50
Parent with child under 18	35	35	50	41	46
Age					
Median age	45	28	38	40	40
18-29	20%	53%	24%	23%	23%
30-49	39	36	54	51	51
50-64	24	10	18	22	23
65+	17	1	3	1	4
Race/Ethnicity					
White	77%	64%	72%	81%	74%
Hispanic (English speaking)	10	18	10	10	14
Black (not Hispanic)	12	11	8	5	8
Education/Student status					
Less than high school	13%	5%	4%	6%	4%
High school grad	37	24	20	23	21
Some college	23	30	32	29	28
College +	27	40	45	42	47
Student (full or part-time)	13	42	15	23	15
Income					
Under \$30K	24%	11%	12%	13%	9%
\$30K-50K	20	24	15	21	21
\$50K-\$75K	14	12	18	18	16
Over \$75K	22	41	44	29	37
Don't know/refused	20	13	11	19	18
Source: Pew Internet & American Life Project April 2006 Survey					

Demographics Middle and Low-tech groups						
	Mobile Centrics	Connected but Hassled	Inexperienced Experimenters	Light but Satisfied	Indifferents	Off the Network
Number of cases	309	417	384	675	428	646
Gender/parental status						
Male	52%	41%	39%	43%	52%	43%
Female	48	59	61	57	48	57
Parent with child under 18	49	40	30	29	33	15
Age						
Median age	32	46	50	53	47	64
18-29	40%	12%	11%	7%	17%	8%
30-49	45	45	36	36	36	18
50-64	15	32	34	33	25	24
65+	1	11	18	25	22	50
Race/Ethnicity						
White	61%	80%	74%	79%	76%	74%
Hispanic (English speaking)	14	8	12	6	8	9
Black (not Hispanic)	21	5	11	10	10	18
Education/Student status						
Less than high school	14%	4%	10%	13%	18%	33%
High school grad	43	33	36	48	49	47
Some college	24	22	23	21	20	13
College +	19	41	31	18	13	7
Student (full or part-time)	10	11	9	4	6	3
Income						
Under \$30K	29%	14%	18%	27%	33%	46%
\$30K-50K	23	23	23	24	19	11
\$50K-\$75K	19	17	14	13	13	5
Over \$75K	21	28	27	13	10	4
Don't know/refused	9	18	18	24	25	34
Source: Pew Internet & American Life Project April 2006 Survey						

Methodology

This report is based on the findings of a daily tracking survey on Americans' use of the Internet. The results in this report are based on data from telephone interviews conducted by Princeton Survey Research Associates International between February 15 to April 6, 2006, among a sample of 4,001 adults, 18 and older. For results based on the total sample, one can say with 95% confidence that the error attributable to sampling is plus or minus 2 percentage points. For results based Internet users (n=2,822), the margin of sampling error is plus or minus 2 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.

Sample was released for interviewing in replicates, which are representative subsamples of the larger sample. Using replicates to control the release of sample ensures that complete call procedures are followed for the entire sample. At least 10 attempts were made to complete an interview at sampled households. Calls were staggered over times of day and days of the week to maximize the chance of making contact with potential respondents. Each household received at least one daytime call in an attempt to find someone at home. In each contacted household, interviewers asked to speak with the youngest male currently at home. If no male was available, interviewers asked to speak with the oldest female at home. This systematic respondent selection technique has been shown to produce samples that closely mirror the population in terms of age and gender.

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 Census Bureau's March 2005 Annual Social and Economic Supplement Survey. 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 derived using an iterative technique that simultaneously balances the distribution of all weighting parameters.

Following is the full disposition of all sampled telephone numbers:

Table 1: Sample Disposition	
	<u>Final</u>
Total Numbers dialed	26,016
Business	2,307
Computer/Fax	1,935
Cell phone	49
Other Not-Working	4,798
Additional projected NW	1,275
Working numbers	15,652
Working Rate	60.2%
No Answer	291
Busy	94
Answering Machine	1,892
Callbacks	186
Other Non-Contacts	269
Contacted numbers	12,921
Contact Rate	82.6%
Initial Refusals	5,921
Second Refusals	1,871
Cooperating numbers	5,129
Cooperation Rate	39.7%
No Adult in HH	34
Language Barrier	700
Eligible numbers	4,395
Eligibility Rate	85.7%
Interrupted	394
Completes	4,001
Completion Rate	91.0%
Response Rate	29.8%

PSRAI calculates a response rate as the product of three individual rates: the contact rate, the cooperation rate, and the completion rate. Of the residential numbers in the sample, 83 percent were contacted by an interviewer and 40 percent agreed to participate in the survey. Eighty-six percent were found eligible for the interview. Furthermore, 91 percent of eligible respondents completed the interview. Therefore, the final response rate is 30 percent.