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THE EVER-SHIFTING INTERNET POPULATION

A new look at Internet access and the digital divide

PRINCIPAL AUTHOR: AMANDA LENHART

JOHN HORRIGAN
LEE RAINIE
KATHERINE ALLEN
ANGIE BOYCE
MARY MADDEN
ERIN O'GRADY

THE PEW INTERNET & AMERICAN LIFE PROJECT
1100 CONNECTICUT AVENUE, NW, SUITE 710
WASHINGTON, DC 20036
(202) 296-0019
HTTP://WWW.PEWINTERNET.ORG/

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SUMMARY OF FINDINGS

A new sense of the shifting Internet population

The online population is fluid and shifting. While 42% of Americans say they don't use the Internet, many of them either have been Internet users at one time or have a once-removed relationship with the Internet through family or household members. This report focuses on several new findings about those who say they do not use the Internet:

- **Net Evaders:** 20% of non-Internet users live with someone who uses the Internet from home. Some of these self-described non-users exploit workarounds that allow them to "use" the Internet by having email sent and received by online family members and by having others in their home do online searches for information they want. Others proudly reject the Internet and proclaim their independence from the online world.

- **Net Dropouts:** 17% of non-Internet users were once users. Most of them are dropouts because of technical problems such as broken computers or problems with their Internet Service Provider. This number of "Net Dropouts" has increased from the last time the Pew Internet & American Life Project asked about dropouts in April 2000. At that time, 13% of non-users were Net Dropouts.

- **Truly Disconnected:** Some 24% of Americans are truly offline; they have no direct or indirect experience with the Internet.

Internet access is also fluid for another reason. Between a quarter and half of current Internet users say they have dropped offline for an extended period at one point or another in their online life. To be sure, some users have progressed smoothly from non-use to steady use with few, if any interruptions. But the Project's latest data show that for many others, the road to Internet use is paved with bumps and turnarounds— brought on by economic difficulties, waning interest in going online, or more pressing demands on their time.

Pew Internet Project tracking data show a flattening of the overall growth of the Internet population since late 2001. Internet penetration rates have hovered between 57% and 61% since October 2001, rather than pursuing the steady climb that they had showed in prior years. One possible explanation for this leveling trend is that the number of people dropping offline roughly equals the number of newcomers who come online each month. The lack of growth might also be tied to a struggling economy that leaves some families worried about household finances. Or it may be that we have reached a point where the adoption curve has peaked and the market is no longer working to bring online new groups of Internet users. Whatever the reason, it merits continued surveillance.

Most non-users live physically and socially close to the Internet

Internet use is so normalized in America that even most non-users say they are in close proximity to the Internet. They either have friends or family who use the Internet or they know of public access locations in their communities.

- 60% of non-users know of a place in their community where Internet access is publicly available, while 76% of Internet users know of public access sites. Most of those who

know of local access points say those access points are easy to reach. The most frequently identified location of public access is a library.
- 74% of non-users say they have family members and close friends who go online.
- 27% of non-users say that very few or none of the people they know go online.

Internet access has grown across-the-board, but clear demographic gaps remain
Our surveys have shown that growth in the Internet population has occurred across every demographic group. Still, there remain a variety of factors that separate Internet users from non-users. On the demographic side:

- Younger Americans are much more wired than older Americans.
- Well-to-do Americans are more wired that less well-off Americans, and the employed are far more wired than the unemployed.
- White Americans are more wired than African-Americans and Hispanics.
- Well-educated Americans are more wired than those who only completed high school.
- Suburban and urban residents are more wired than rural residents.
- Parents of children living at home are more wired than non-parents.

There are also social differences between Internet users and non-users
Our survey explored other dimensions of the social world of Americans with respect to Internet use. The research indicates:

- Those who are socially content--who trust others, have lots of people to draw on for support, and who believe that others are generally fair--are more likely to be wired than those who are less content. There is also some modest evidence that those with positive and outward orientation towards the world are more wired than those who are worried about America and more focused inward.
- Those who feel they have control over their lives are more likely to be wired than those who feel they do not have much control of their lives.
- Those who read newspapers, watch TV, and use cell phones and other technologies are more likely to use the Internet than those who don't.

The majority of non-users say they do not plan to go online
Some 56% of non-Internet users do not think they will ever go online. These people are generally the poorer, older segment of the not-online population, and are more likely to be white, female, retired and living in rural areas.

Non-users say they feel no need or desire to use the Internet, or that going online is not a good use of their time. This nonchalance and resistance is often related to a general misconception of what the Web and email have to offer. In other cases, reluctance is connected to specific obstacles, fears, or previous online experiences.

About a third of non-Internet users say the cost of computers and Internet access is a major problem for them. An even larger number of non-users said they have not gone online because they are worried about online pornography, credit card theft, and fraud. Some 29% say they don't have time to use the Internet, and 27% say they believe the Internet is too complicated and hard to understand.

During interviews, non-users or brand new users offered us a host of reasons that keep them offline. Some were embarrassed over lack of computer skills. Others feared breaking or damaging computers. Some were afraid of appearing stupid or foolish in front of family, friends, coworkers or employees. Others were slowed down by limited English language skills. While not a part of our survey, problems with basic literacy in any language are another barrier to full Internet use. The National Adult Literacy Survey by the U.S. Department of Education estimates that up to 23% of the U.S. population struggles enough with literacy that they have difficulty completing everyday tasks.

Some 40% of non-users say they think they will go online some day. This group is younger than the group that says it has no plans to go online. These prospective Internet users are evenly divided between men and women, and more likely to be urban dwellers and parents. They are also more likely to be black or Hispanic than to be white.

A look at people with disabilities and the Internet

Americans with disabilities have among the lowest levels of Internet access in America. They face unique hurdles going online. Non-users with disabilities are less likely than other non-users to believe that they will ever use the Internet and less likely than others to live physically and socially close to the Internet. Disabled Americans are less likely to have friends or family who go online.

- 38% of Americans with disabilities go online, compared to 58% of all Americans. Of the disabled who do go online, a fifth say their disability makes using the Internet difficult.
- 28% of non-users with disabilities say their disability makes it difficult or impossible for them to go online.

The cost of technological and software solutions to various disabilities is expensive -- $3,000 for a Braille computer interface, for example. The high cost of Internet-adaptive technologies, combined with the relatively smaller incomes of people with disabilities, make Internet use prohibitively expensive for many.

Methodology

This research is based primarily on a national telephone survey conducted among 3,553 Americans between March 1-31 and May 2-19, 2002. Other data in the survey are drawn from other Pew Internet Project phone surveys in March, April and May-June 2000 and December 2002. Further insights were gathered during in-depth interviews with non-users and new Internet users, most of which took place at greater Washington, D.C. and Baltimore area community technology centers over the summer of 2002. For more detailed methodological information, please see the methodology section at the end of this report.

PART 1: WHO'S NOT ONLINE

The "digital divide" has been a concern of policy makers since the middle of the 1990s when the Internet emerged as a major communications medium and information utility. Anxiety about the divide centers on arguments that those who do not have access to the Internet are disadvantaged compared to Internet users for a number of reasons. The concern is that Internet non-users will have, among other things, less power as consumers and fewer economic opportunities, less access to high-quality health information, fewer options for dealing with government agencies, no chance to learn about their world from the millions of organizations and learning centers that have posted their material on the Web, and less opportunity to interact with others through email and instant messaging.

To respond to the continuing discussion in public policy circles, inside the technology community, and among social justice advocates, the Pew Internet Project has conducted several surveys to probe the reasons why people do not use the Internet. We explored these issues in a special survey between March 1 and May 19, 2002 that followed a similar exploration in the spring of 2000. The results are reported here and they include material from focus groups we conducted with non-users and Internet newcomers.

We have found that the U.S. Internet population has grown across the board since our first major survey about the digital divide in April 2000. At that time, 49% of American adults had Internet access. In the survey in the spring of 2002, 58% of Americans adults reported using the Internet. Between mid-2000 and mid-2002, every demographic group gained ground in access. As the size of the U.S. Internet population changed, the distance among some of the different population groups has narrowed. Still, for the majority of demographic groups, the size of the gaps between them has remained the same since our last survey. And it should also be noted that our tracking data have found that the growth of the Internet user population has slowed if not stalled since late 2001.

Users and non-users of the Internet

This table reports the share of the Internet population that comes from each group. For example, reading the first line of the table: 50% of all Internet users are men; 46% of non-users are men; 48% of the overall U.S. population are men.

	Internet Users	*Non-users*	*All Americans*
Men	50%	46%	48%
Women	50%	54%	52%
Race/Ethnicity			
Whites	77%	71%	75%
Blacks	8%	14%	11%
Hispanics	9%	10%	10%
Age			
18-29	29%	14%	23%
30-49	47%	32%	42%
50-64	18%	22%	20%
65+	4%	28%	15%
Household Income			
Less than $30,000	18%	41%	28%
$30,000-$49,999	23%	17%	21%
$50,000-$75,000	18%	9%	14%
More than $75,000	26%	6%	18%
Educational Attainment			
Not high school graduate	5%	25%	14%
High school grad	23%	41%	35%
Some college	34%	21%	25%
College and graduate school degree	37%	11%	26%
Community Type			
Rural	21%	31%	26%
Suburban	52%	42%	48%
Urban	26%	26%	26%

Source: Pew Internet & American Life Project Tracking Survey, March-May 2002. N=3,553. Margin of error is ±2% for All Americans and Internet Users and ±3% for Non-Users. Numbers in columns do not always add to 100% due to participant non-response.

Overall, 42% of Americans do not use the Internet. And there remain clear differences along five demographic dimensions: race, income, educational attainment, community type (rural, suburban, or urban) and age. Whites are more likely to have access than African-Americans. Well-to-do families are more likely to have access than less well-off families. People with college degrees are more likely to be online than those who have high school diplomas. Those who live in suburban and urban areas are more likely to have Internet access than those who live in rural areas. And those who are young are much more likely than those who are old to be online.

Demographically, the composition of the not online population has not changed dramatically since a Pew Internet & American Life Project survey devoted to the digital divide in April 2000. Here is a snapshot of those who do not use the Internet:

A greater percentage of African-Americans are not online than whites. Hispanics[1] are gaining steadily. When we surveyed in March-May 2002, 40% of whites said they do not use the Internet, as did 55% of African-Americans and 46% of English-speaking Hispanics.[2]

Even at equivalent income levels, African-Americans are less likely than either whites or English-speaking Hispanics to go online. Among those earning less than $20,000 a year, 32% of whites are online, compared to 28% of English-speaking Hispanics and 24% of African-Americans. Even in the upper income levels, the gap remains. Of whites who live in households earning $50,000 or more a year, 82% go online. By comparison, 65% of African-Americans who live in households earning $50,000 or more a year go online, as do 82% of English-speaking Hispanics. Education level tells a similar story. Whites' and Hispanics' online populations are 6 to 12 points larger than African-Americans with similar education levels.

Race, ethnicity & income

The correct way to read the first line is: 32% of whites living in households earning less than $20,000 use the Internet.

	Goes Online
Whites, household income	
Less than $20,000 annual	32%
$20,000-$50,000	57
More than $50,000	82
Blacks, household income	
Less than $20,000 annual	25%
$20,000 to $50,000	55
More than $50,000	65
Hispanics, household income	
Less Than $20,000 annual	28%
$20,000 to $50,000	60
More than $50,000	82

Source: Pew Internet & American Life Project March-May 2002 Survey. N=3553. Margin of error is ±2%.

Race, ethnicity & education

	Goes Online
Whites, education level	
Less than High School	24%
High School	46
Some College	73
College +	83
Blacks, education level	
Less than High School	15%
High School	40
Some College	61
College +	76
Hispanics, education level	
Less Than High School	26%
High School	42
Some College	71
College +	87

Source: Pew Internet & American Life Project March-May 2002 Survey. N=3553. Margin of error is ±2%.

[1] The survey was conducted in English, so non-English speaking Hispanics are not included in these statistics.
[2] Note: The Pew Internet Project has changed the way it defines race the 2000 report. Now, "white" is defined as "white, non-Hispanic" and "black" as "black, non-Hispanic." Previously, our definitions of white and black included those of Hispanic ethnicity within them.

The Pew Internet Project applied a number of statistical techniques to the data to determine the degree to which race stands out as an independent variable for using the Internet. This was done as a part of a test to investigate whether specific factors might independently account for the gaps in Internet use among different groups.

Several demographic factors are strong predictors of Internet use: having a college degree, being a student, being white, being employed, and having a comfortable household income. Each of those factors independently predicts Internet use. Notably, gender is not a significant factor. As for race, being white is a strong predictor of whether a person is online, controlling for all the other demographic variables in the model. In a model with blacks and Hispanics as the race variable, being black or Hispanic was a negative predictor of Internet use. In sum, race and ethnic origin matter. Holding all other factors constant, blacks and Hispanics are less likely to go online than whites.[3]

Lower income. While there has been growth in all income segments, those who have the furthest to go have not gained ground on those in higher income brackets. The current number of users who live in households earning less than $30,000 reflects a 7-point increase in Internet users from our survey in 2000, while the upper income brackets sustained that level of increase or greater in percentage points. Independent of all other factors, having an income above $50,000 annually predicts Internet use.

Lower education levels. Non-users still report lower levels of educational attainment than Internet users. A quarter of non-users do not have a high school diploma, versus 5% of Internet users. And 11% of non-users have a college education, as do more than a third (36%) of Internet users. In our statistical models, a high level of education, and student status, were shown to be the strongest independent predictors of Internet use.

How Internet access changed

The percentage of each group who have Internet access. For example, reading from the first line: in 2000, 51% of all American men had access; in 2002, 60% of men had access.

	2000	*2002*
Men	51%	60%
Women	46	56
Race/Ethnicity*		
Whites	50%	60%
Blacks	34	45
Hispanics	43	54
Age		
18-29	69%	74%
30-49	60	67
50-64	45	52
65+	14	18
Household Income		
Less than $30,000	31%	38%
$30,000-$50,000	52	65
$50,000-$75,000	67	74
$75,000 and above	78	86
Education		
Did not graduate from high school	17%	23%
High school grad	34	45
Some college	63	72
College +	75	82
Community Size		
Rural	43%	49%
Suburban	54	63
Urban	53	58

Source: Pew Internet & American Life Project Tracking Survey, April 2000 and March-May 2002. Margin of error is ±2.5 % for April 2000 and ±2% for March-May 2002. N=2503 for April 2000 data, N=3,553 for March-May 2002 data.

** The 2000 numbers for the race category are based on the March, April and May-June 2000 data sets. Total n=10,642. Margin of error is ±1%*

Older. The grey gap persists. Half of all non-users are over 50. Some 28% of non-users are 65 and older while just 14% of non-users are 18 to 29. Americans in the middle of their lives (30-

[3] Please see Appendix A beginning on page 39 for a full discussion of the factor and regression analyses.

64) are the age groups whose online populations grew the most. Younger Americans show relatively low levels of growth reflecting the saturation from previously high levels of Internet access in that group. That is a reflection of their already-high level of Internet use. It is hard to grow at a high rate when so many young Americans are already online. On the other hand there is little growth among seniors.

Rural and Southern. Disparities between rural inhabitants and others remain, while suburbanites have moved ahead of their urban counterparts in Internet penetration. In rural areas, less than half of Americans go online. Southerners are the least likely of any geographic group to be online with 45% still not using the Internet, closely followed by the Midwest with 44% offline. The Northeast has 41% of its population offline and the West continues to lead in Internet penetration – only 37% of Westerners do not use the Internet.

Not employed. Non-Internet users are much more likely than those who use the Internet to be retired, not employed, or disabled. All three factors closely track with greater age. Twenty-nine percent of non-users are retired, versus 7% of Internet users. Sixteen percent of non-users are not employed for pay, compared to 12% of Internet users.

People with disabilities. Non-users are much more likely to be disabled than Internet users – 26% of non-users report a disability, compared to 12% of Internet users. Twenty-eight percent of the not-online disabled say their disability makes it difficult or impossible to use the Internet.

PART 2: WHY NON-USERS DO NOT GO ONLINE

We asked non-users why they do not go online – an admittedly difficult question because people often find it hard to talk about something they do not do and find it hard to articulate the reasons they do not do it. Many non-users simply said they did not want or need to access the Internet, that they were not interested, and did not have the time to use it. A number of respondents have severe disabilities (blindness, stroke, head traumas), which render them unable to use the Internet, and others say they lived with someone who either monopolized the machine so they could not get access or who could look up and access information for them if they needed something online.

Other non-users were concerned about the cost or about becoming addicted to the Internet. Still others had had their fears realized; one respondent's identity was stolen online, and another's "wife used it to talk to other guys."

The reasons non-users aren't online

Major and minor reasons why non-users do not use the Internet

	Major Reason	*Minor Reason*	*Not a Reason*
I don't want it	52%	16%	26%
I don't need it	52	19	24
I'm worried about online pornography, credit card theft and fraud	43	14	37
It is too expensive	30	18	42
I don't have time to use the Internet	29	17	49
The Internet is too complicated and hard to understand	27	19	43
Don't have a computer	11	n/a	n/a

Source: Pew Internet & American Life Project March-May 2002 Survey. N=910 for Non-users who have never been online. Margin of error is ±3.5% at 95% confidence.

Several respondents felt they were too old to learn something new, or believed that their hardware was too old to connect to the Internet. Others felt that they lacked the skills to use the computer or the Internet, or reported that they did not like computers much, including the respondent who had "enough problems with [my] answering machine."

"I don't want or need the Internet"

More than half—52%—of non-users said that lack of need or desire was a major reason why they were not online. Older Americans, women, rural and suburban non-users and whites were among the most likely to cite their lack of interest or need to be online.

In some cases, people have a clear idea of what the Internet is like, and they just aren't interested in it. In other cases, people harbor misconceptions about the content of the Internet. One of our focus group participants told us that she had avoided the Internet in the past because she thought it was "just for businesses." In yet more cases, respondents' lack of desire often accompanies a sense that "the Internet isn't for people like me."

"I'm worried about online pornography, credit card theft and fraud"

Concern about safety and unsavory content online are major reasons a plurality of non-users are offline. Forty-three percent of non-users said that worries over online criminal activity and pornography kept them off the Internet. Women, parents, Americans over age 30, and those with high school diploma or less education were more likely to report concern over online content. Whites were more likely to express worry over online content and crime than black or Hispanic non-users.

A number of focus group participants mentioned that fear for their own or their children's safety made them reluctant to go online. In many cases, these users were unaware of ways they could safeguard themselves and their families (using filters, not giving out information, installing technological solutions, educating themselves about how to avoid what they do not wish to encounter online) and held misconceptions about the level of risk for things like credit card fraud.

Other new users reported they did not want to venture into chat rooms specifically to avoid unpleasant or worrisome interactions. "I was concerned about the chat rooms…something came on [the screen] that said 'chat room' and I just shut the whole thing off," reported one group member of one of her initial forays online. Another female group participant said, "The only thing I worry about is about bad people who get on the Internet and lie to you, especially for kids…I mean, my daughter might be using this computer and someone decides to take advantage of her because she doesn't know what she's doing. That's the only thing I'm afraid of."

"It's the cost"

Thirty percent of non-users say cost is the major reason they remain offline, and close to a fifth of non-users say cost plays a minor role. Forty-three percent of non-users agreed with the statement "Internet access is too expensive," up a tick from 40% in 2000. As in 2000, a very high number of respondents chose not to answer this question; 28% did not respond in the current survey. Women, Hispanic and African-Americans, poorer Americans and those who live in rural or urban areas are most likely to point to cost pressures as a major reason why they aren't online.

"I don't have time to use the Internet"

A little less than a third (29%) of non-users said that lack of time was a major impediment to Internet use, though close to half (49%) of users said that lack of time was not a factor at all. Time crunches are more likely to affect younger Americans, and those earning greater incomes, those with less education, as well as those who live in rural areas. Parents are slightly more likely than non-parents to cite lack of time as a reason why they do not use the Internet. For some non-users, including several members of our focus groups, their disinterest in going online is not just a matter of the time squeezes in their own lives. They also report that they do not believe that use of the Internet is a good use of their time.

"The Internet is too complicated and hard to understand"

Some non-users made it clear they thought the Internet was hard to use. A little more than a quarter said that the Internet's complexity was a major reason why they did not use it, and another 19% said it was a minor reason. Two in five (40%) non-Internet users agreed with the statement "the Internet is confusing and hard to use." Those non-users with lower education and income levels, and women are more likely to report believing that the Internet was too complicated and hard to understand. Whites and blacks were more likely than Hispanics to say that difficulties with use and comprehension were major reasons why they weren't online. Hispanic non-users tended to cite this as a minor reason.

Related to this concern is the worry of some non-users that they will not be able to learn how to use the Internet. One woman expressed her reservations this way: "I'm mostly concerned that I won't catch on to certain areas of it. Because when I did take [computer class] in high school, I felt it was very hard…so I didn't really like it. But now I'm interested in it again, so…I might

stick with it if it's a smaller class…I figure that we can get more attention here [at the community technology center] than we could in a big class."

Embarrassment and worry about breaking the technology: "The Monster in the Basement"
Though we did not pick up direct evidence of embarrassment as a factor in our survey, it was something people discussed in our focus groups. Respondents told us that they were discomfited by their lack of computer skills, and some were worried that they would need to acquire certain skills, like typing, before they could learn to use the Internet. A novice user told the story of going to get his haircut and being told by the woman behind the counter at the hair salon to sign in on a computer terminal in the waiting area. He was embarrassed when he could barely figure out how to use the keyboard to punch in his name, and resolved then to come to the Community Technology Center in his apartment complex to learn to type, use computers and the Internet.

Others said they had been afraid to use computers prior to coming to the community center because they were afraid that they might break the computer, or accidentally ruin a document or program. Some feared the machine itself. An interviewee told us of how she had purchased a computer at the urging of her neighbor (a government IT professional) and how she was so intimidated by it that she left in untouched for more than a year, referring to it as "The Monster in the Basement."

"I don't have a computer or Internet connection"
Eleven percent of our respondents said that the lack of a working computer or functional Internet connection kept them from going online. These non-users are more likely than other non-users to live in the suburbs, more likely to be female and are slightly more likely to come from households with lesser amounts of income. Overall, 31% of Americans say they do not use computers.

Cultural/gender roles
Two men we interviewed said that among their circle of friends, it was the wives who used the computers to email each other, and that the men did not use the Internet. Men in their social circle do not use the Internet, they said, often because their wives knew more about the Internet than they did. They noted that they did not want to be embarrassed or told what to do by their spouses or children. One male participant said, "They [men] feel embarrassed that their kids, their wives know more than they do."

Language skills
Poor language skills also impede some non-users. One novice user, whose first language was Spanish, told of his difficulties with reading and writing in English: "If I read it, I know what it is…But if I have to write something, I don't know how." He explained that his lack of proficiency in English writing made typing a big challenge. The National Adult Literacy Survey by the U.S. Department of Education estimates that up to 23% of the U.S. population struggles enough with literacy that they have difficulty completing everyday tasks.

PART 3: WHAT NON-USERS THINK ABOUT THE ONLINE WORLD

Non-users and users have different ideas of what the online world is like. Generally, non-users agree that the Internet has positive attributes such as connecting people to others and helping them to find information easily. But these favorable views are held by significantly fewer non-users than by Internet users. In addition, the positive attitudes of many non-users are tempered by fears that the Internet is a dangerous place, that its cost is beyond their reach, that its content holds little of meaning for them, and that they do not want to waste precious time online. Some non-users doubt their ability to master the complexity of computers and the Internet. In the end, the disadvantages of going online outweigh the advantages for the majority non-users, while a smaller group of other non-users feel positively about the Internet but are currently frustrated by other obstructions that keep them offline.

We asked all respondents in the survey their reaction to a variety of statements about the Internet. The table below reports the results of non-Internet users. Invariably, Internet users have a more positive view about the Internet than non-users. Levels of agreement and disagreement have remained stable since Pew last surveyed on this subject in 2000.

Opinions about the Internet

How non-users responded to the following statements:

	Strongly Agree	*Somewhat Agree*	*Somewhat Disagree*	*Strongly Disagree*
Email helps people keep in touch	48%	32%	4%	6%
The Internet would help me find out about things more easily	44%	28%	7%	10%
The Internet is a dangerous thing	29%	27%	15%	17%
Internet access is too expensive	23%	20%	17%	12%
The Internet is mostly a form of entertainment	22%	28%	20%	15%
The Internet is confusing and hard to use	20%	20%	21%	17%
I'm missing out on things by not using the Internet and email	16%	22%	18%	36%

Source: Pew Internet & American Life Project, March-May 2002 survey. N=1,067. Margin of error is ±3%. Note: numbers occasionally do not add up to 100% due to participant non-response.

"**Email helps people keep in touch.**" Almost 4 out of every 5 non-Internet users (78%) believe that email would help them keep in touch, with 47% saying they agree strongly. Not surprisingly, 96% of Internet users agree that email helps people stay in touch, with 72% agreeing strongly.

"**The Internet would help me find out about things more easily.**" Almost three quarters (72%) of non-users believe this is true. The greatest portion of respondents (44%) said they "strongly agreed" with that statement.

The Internet is dangerous. Fifty-six percent of non-users agreed that the Internet is a dangerous thing, with close to a third (29%) saying they strongly agreed. In contrast, 46% of current Internet users agreed that the Internet was dangerous, and only 11% strongly.

I'm not missing out. Most non-users say "I'm not missing out on things by not using the Internet and email." Fifty-four percent of non-users do not think they are missing out on anything by not being online.

Internet is for entertainment. Half of non-users believe that the Internet is almost exclusively for entertainment, while only 44% of Internet users believe the same thing. Indeed, a greater portion of Internet (55%) users disagreed with that statement than agreed.

What non-users would do if they went online

Many non-Internet users think of the Internet as large library, a place or tool for research. Thirty-one percent of non-users who thought that they would eventually go online, felt that they would use the Internet primarily for general research, searching for things as disparate as comparisons of prices on plane tickets or DVD players or looking for information about favorite historical figures or hobbies.

Others emphasized the communications functions of the Internet. Eleven percent said if they went online, they would email, instant message or talk to others in chat rooms. Smaller groups said they would shop online, or just surf the Web to see what it offered. Others would read up on news, sports or weather, play games and do specific research--like on genealogy.

"If you started to use the Internet, what would you like to do online?"

Asked of all non-users who said they would go online some day.

	Eager non-users
General research	31%
Email/IM/Chat	11
Shopping	7
Surf the Web	6
Read about news/sports/events	4
Research schools/jobs/classes	3
Play games	2
Research genealogy	1
Something else	12

Source: Pew Internet & American Life Project March May 2002 Survey. Margin of error is ±5%. N=387

Asked how they preferred to think about the Internet, 61% of online Americans pick library as their favored Internet metaphor. In contrast, 36% of non-users said the same thing. Non-users are more likely than online Americans to believe that the Internet is a "peep show," a "party," or a "bank." And not surprisingly, a much larger percentage of non-users (20%, compared to 5% of Internet users) said they did not know what the Internet was, or refused to answer the question.

What do you think the Internet is like?

Metaphors for the Internet, asked of all Americans

	All Americans	*Internet Users*	*Non-Users*
Library	51%	61%	36%
Meeting Place	11	10	12
Shopping Mall	10	10	11
School	6	6	6
Peep Show	3	1	5
Party	2	2	3
Bank	1	1	2
All of the Above	5	4	5
Other/Don't Know	11	5	20

Source: Pew Internet & American Life Project March-May 2002 Survey. N=3,533. Margin of error is ±2%.

PART 4: THE INTENTIONS OF NON-USERS

A fact that continues to stun the technology community, its adherents, and many online Americans is that more than half of non-Internet users – 56% of them – say they probably or definitely will not ever go online.

In April 2000, we asked non-Internet users whether they *wanted* to go online or not—and only 16% said yes. When we asked the question again in May 2002, the response was the same, with a mere 14% of non-users saying that they would like to go online. Then we asked, "How likely do you think it is, if at all, that you will start using the Internet or email someday?" Forty percent thought they definitely or probably would go online. Most of the rest do not have any interest in using the Internet.

What are the differences between those non-users who say they think they will go online some day and those who think they will not? Those who believe that they will some day go online are generally non-white, urban or suburban residents, and they are younger than non-users as a group. They are evenly divided between men and women. And they are somewhat more likely than their adamantly not online counterparts to be parents. Those who say they will never go online are as a group more white, poor, elderly, rural residents and Southern.

Will you ever use the Internet?
Asked of non-Internet users

	Will go online	*Won't go online*
All Non-users	40%	56%
Sex		
Men	46	49
Women	35	61
Age		
18-29	69	28
30-49	56	39
50-64	35	62
65+	16	79
Race and ethnicity		
White (not Hispanic)	35	62
Black (not Hispanic)	56	39
Hispanic	57	38
Household income		
Less than $30,000	38	57
$30,000-$50,000	51	46
$50,000-$75,000	51	45
$75,000 and above	44	49
Education		
Less than High School	25	70
High School	45	54
Some College	42	53
College +	52	40
Community type		
Urban	47	50
Suburban	41	55
Rural	33	62

Source: Pew Internet & American Life Project March-May 2002 Survey. N=1,067. Margin of error is ±3%. Numbers do not always add up to 100 due to non-response by some participants.

Age
Older Americans are less likely to be online and less interested in taking the plunge than younger Americans. Among those who say they will never go online, 71% are over 50, and 41% are over 65. The relatively small number of those age 18-29 who do not now use the Internet overwhelmingly believe that they will go online eventually. A mere 6% of those who say they won't go online are young non-users.

Retired and disabled
Workforce participation has major bearing upon whether or not non-users think they will ever use the Internet. Non-users who are employed are almost three times more likely than retirees to say they think someday they will go online. These adamant non-users are also more likely to be disabled and unable to work.

Workforce participation and future Internet use

Percent of each demographic group of non- users who say they will or will not go online

	Will Go Online	*Will Not Go Online*
Employed full-time	54%	43%
Employed part-time	55	40
Retired	19	76
Disabled	27	65

Source: Pew Internet & American Life Project March-May 2002 Survey. N=1,067. Margin of error is ±3%. Numbers for each demographic category may not ad up to 100% due to non-response.

Race and ethnicity
Non-users who believe that they will go online eventually are more likely to be black or Hispanic than other non-Internet users. Sixty-two percent of whites who do not now use the Internet say they will never go online, compared to only 39% of offline black Americans and 38% of offline Hispanics.

Location
Urban dwellers who do not use the Internet are more likely than rural residents to say they think they will eventually go online. Forty-seven percent of urbanites not now online think they will go online some day, while a third (33%) of those who live in rural areas say the same. Forty-one percent of offline suburban inhabitants think they will go online.

More Midwesterners and Southerners believe they will never use the Internet. Close to 60% of offline inhabitants of both regions say they do not think they will ever go online. This contrasts with Northeast and West regions where about half of their offline residents don't think they will ever use the Internet.

Sex
Offline men are more likely than offline women to believe that they will go online in the future. Forty-six percent of offline men say they will go online someday compared to 35% of offline women.

Parental status
As a group, parents of minor children living at home are generally more likely than non-parents to be Internet users. The parents who do not now use the Internet are relatively more likely than offline non-parents to say they plan to start going online eventually. Some 56% of parents who don't go online think they will go online some day. Non-parents are the reverse with barely a third (34%) saying they will go online some day.

Income
The poorest non-users are also the most pessimistic about an online future. Only 38% of them believe they will ever go online. Next are the wealthiest users—44% of them believe that they will go online someday. In the middle-income ranges are the most positive users, with more than half (51%) of those living in households earning between $30,000 and $75,000 annually saying they will use the Internet someday.

Education
The more formal education a non-user has, the more likely she is to believe that some day she will go online. Of those without a high school diploma, only a quarter (25%) believe that they

will eventually go online. The percentage steadily climbs as educational attainment grows: 45% of offline high school graduates think they will use the Internet, and 52% of offline college graduates say the same.

PART 5: A NEW UNDERSTANDING OF INTERNET USE

There is no monochromatic pattern to Internet use. People have a variety of relationships to the technology. Clearly, there are an identifiable number who use the Internet now. At the same time, there are those who have tried using the Internet and dropped off. Others who say they do not use the Internet actually have family members send and receive emails for them and do Web searches for them. They have created elaborate work-arounds that allow them to take advantage of the Internet without ever actually putting fingers to keyboard or mouse. Another portion of current Internet users have stopped using the Internet for an extended period of time. The situation is more varied than might be suggested by a simple binary calculation that some Americans are "online" and other Americans are "offline." Many people do not fit neatly into those categories. They go online; they stop. Some return; others do not. There are four types of users and non-users that emerge in this more complex universe.

- **Net Evaders – 20% of non-users.** These are non-users who live in households that have Internet connections and in which other family members go online from home. There is evidence that at least some of them have established work-arounds with Internet-using members of their household that allow them to "send" and "receive" email and do Web searches without actually logging on. Others proudly avoid the Internet on principled grounds, while others give different reasons, among them lack of time or interest.

- **Net Dropouts – 17% of non-users, with some overlap with Net Evaders.** These non-users were once online. They stopped and have not gone back. Many have had trouble with their computers or Internet connections, while others simply did not like the Internet. Two-thirds say they think they will return to the Internet someday.

- **Intermittent Users – somewhere between 27% and 44% of those who currently use the Internet.** These are online Americans who say they dropped offline for an extended period and are now back online.

- **The Truly Unconnected – 69% of non-users.** These are people who live completely apart from the Internet. They are those who have never used the Internet before and who do not live with or often even know many Internet users.

Net Evaders: Offline in an online home

In our March-May 2002 survey, we asked non-Internet users "Does anyone in your household go online from home to access the Internet or World Wide Web or to send and receive email?" Surprisingly, one in five of all non-users (20%) answered that they lived such households. The figure was so startling that we asked the same question in several subsequent monthly surveys – and got the same result.

Since Net Evaders have clear opportunities to go online, it follows that they would have clear reasons to resist. Their resistance to using the Internet reflects a concern that going online could distract from other more pressing demands on their time, and their view that they are not missing very much by not going online. Some also worry about their ability to master computers and online navigation.

Notably, 28% of Net Evaders have used the Internet in the past.[4] These are people whose online experiences were not very satisfying. Many said they dropped off because they did not like the Internet world, or they did not find it interesting and useful, or they simply did not want to use the Internet any more. Computer and technology access issues were another major problem for them. Fourteen percent of Net Evaders reported computer access issues, perhaps because other members of their households were monopolizing their access to the family's wired computer.

Almost half of Net Evaders believe they will go online some day, not particularly surprising since key hurdles to using the Internet – access and cost – have already been surmounted by the household.

We talked with several Net Evaders to explore their choice. One suburban homemaker said she avoided Internet use for fear of incurring even more obligations. She feared that use of email would eat into her already-full life and that she would feel duty-bound to keep in touch more frequently with people who lived outside of her immediate area. She worried about becoming "addicted" to the Internet, and also doubted her ability to learn to use the technology well. She referred, jokingly, to herself and a friend who was also not connected as "Dumb and Dumber." The friend, though, has since become an Internet user.

Another interviewee owned his own business and worked from home. He preferred to communicate with others via the phone or face-to-face, which he found more meaningful and productive. In addition, he disclosed that he had figured out a work-around: If email turned out to be the best way to conduct a communication, he said he would have people send it to his wife, who would print it out for him. If he needed to look something up online, he could ask one of his children to check it for him and print it out.

Demographics of Net Evaders

Here is the% of each group who do not go online but live in a wired home. Overall, 20% of those who do not use the Internet live in homes with Internet connections. As an example, 18% of offline women live in an online home.

	Net Evaders
Women	18%
Men	22
Age	
18-29	22
30-49	24
50-64	21
65+	14
Race/ethnicity	
White, Non-Hispanic	20
Black, Non-Hispanic	12
Hispanic	23
Community type	
Urban	15
Suburban	21
Rural	24
Household income	
Less than $30,000/yr	16
$30,000-$50,000	19
$50,000-$75,000	31
More than $75,000	43
Educational attainment	
Less than High School	10
High School	21
Some College	24
College +	28

Source: Pew Internet & American Life Project March-May 2003 Survey. N=1067. Margin of error is ±3%, at 95% confidence level.

Still others were proud that they did not use the Internet. They view themselves as less dependent on technology, and more self-sufficient. They said they do not want to use the Internet and view use of it as a form of weakness. They are pleased that they do not "need" the Internet. They are delighted to reject such a popular technology. In short, the decision not to use the Internet was a distinct lifestyle choice.

[4] Please see the Net Dropouts section on page 21 for a full discussion of this sub-group of non-users.

Net Evaders are fairly evenly divided by sex: 48% are men, 52% are women. They are slightly more likely to be between age 30 and 49 than in other age groups and they are not very likely to be senior citizens. Net Evaders are predominantly suburban and urban, not rural. They are overrepresented among Northeasterners and underrepresented among Midwesterners. Compared to others who don't use the Internet, Net Evaders are likely to have relatively high levels of education and household income. Indeed, close to half of all non-users in households earning over $75,000 are Net Evaders.

A disproportionately high number of Net Evaders are parents. In fact, 66% of Net Evaders who live in a wired home are parents of *online* children. It is probable that the Net Evader in the home depends on his children who use the Internet to do the few online chores that might be convenient and useful to the Net Evader. It also might be the case that the Evader has decided not to battle others in the family for access to the Internet-connected computer.

There is other evidence that Net Evaders live lives very close to those who use the Internet. A little more than half of non-users in wired homes say that *most* of the people they know use the Internet. In comparison, only 35% of all non-users say this.

Net Dropouts

Seventeen percent of those who do not use the Internet are Net Dropouts. This is a modest increase in the number of dropouts we measured in the April 2000 survey when we found that 13% of non-users reported they had left the online population.

Net Dropouts tend to be young Americans, many of whom have had recent trouble with Internet access or their computer. A disproportionate number are parents, and they are likely to cite burdens on their time as a reason they do not want to go online. Additionally, a surprisingly large group of them are employed.

Like other non-users of the Internet, Net Dropouts are overrepresented among minorities. They are also overrepresented among those with lower household income, which suggests that the burden of paying for Internet access and maintaining a computer is likely a factor in their decision to drop their Internet connection. Net Dropouts are also markedly more likely to be urban residents than suburban or rural.

Net Dropouts cite a variety of voluntary and involuntary reasons for their departure from the Internet population. The biggest reason Net Dropouts cited for abandoning their use of the Internet is that they no longer had a computer. This was a problem that tended to be cited by younger adults, those in rural areas, those in households with modest incomes, and men. Indeed, one respondent told us that his "girlfriend stole my computer."

Another related access issue is loss of Internet connectivity. People who stopped going online because of Internet access issues explained that they lost access because they moved, changed or lost jobs, or could not get to the place where they usually accessed the Internet. Some also said the cost of an online connection became too expensive. More frequently than other groups, 18–29 year olds, high school graduates, and women tend to break off from the Internet because of Internet access problems.

A general dislike of the Internet was another oft-cited reason for dropping out. These Dropouts found the Web unhelpful and uninteresting. This reason was given most often by minorities who dropped out, older Americans, those in high-income households and with high levels of education, and men.

Problems with online content and design issues were less important to Net Dropouts than problems of access and preference. Those who expressed concerns with Internet content or design tended to be suburban residents, male, white, and between the ages of 30 and 49.

While many Net Dropouts reported that loss of a computer and/or Internet access was a main factor in going offline, some 79% of Net Dropouts knew of a convenient public place, like a library, where they could to access the Internet. Eighty-three percent said that it was "very" or "somewhat" easy to get to places in their communities with public Internet access.

Most Net Dropouts do use computers and know other people who are online. They are twice as likely to use computers as other non-users; some 57% say that they use a computer on at least an occasional basis. Nine-tenths of Net Dropouts have close friends or family who use the Internet, and 86% say that at least some people that they know go online. In comparison, 69% of non-users say that some or most of the people they know go online. Net Dropouts may no longer be physically connected to the Internet but they remain socially connected to it.

Generally, Net Dropouts view the online world in a more positive light than other non-users and that, most likely, is a product of their familiarity with it. Sixty-three percent of Net Dropouts think that they are probably or definitely likely to start using the Internet or email again someday. Other non-users are more likely to suggest they will never go online.

The reasons for dropping out

Why Net Dropouts stopped using the Internet

	Percent of Net Dropouts
No longer have or have use of a computer	19%
Didn't like it/want it/not interesting or useful	13
Didn't have time to use it/wasn't a good use of my time	12
Moved, can no longer get local access	9
Can no longer get to the place where I used to have access	8
Computer broke	6
Problems with my Internet connection	5
Don't need it	5
Changed or lost job(s)/Lost access at work	5
Paying for Internet access was too expensive	5
Can no longer use the machine due to a disability or illness	2
Too much information online/too confusing	1
Worried about privacy on the Internet	1
Disturbed by content (porn)	1
Too hard to use	1

Source: Pew Internet & American Life Project Tracking Survey, March-May 2002. Margin of error is ±7% at a 90% confidence level. N=157.

Nonetheless, Net Dropouts seem to have a more negative outlook on society compared to Internet users. Nearly half of Net Dropouts are dissatisfied with the way things are going in this country today, and over 60% say that you can't be too careful in dealing with people. Over half of Net Dropouts believe that most people would take advantage of others given the opportunity. Twice as many Net Dropouts as Internet users say that they have hardly any people they could turn to for support when they need help. Generally, all non-users, including Net Dropouts, feel like they have less control over their lives.

While Net Dropouts describe the Internet in a variety of ways, they see it more as a tool for specific needs, rather than a resource with broad applicability to their lives.

Intermittent Users

In our March-May 2002 survey, fully 44% of the nation's current Internet users have gone offline for extended periods.[5] Again, because this number was as startling to us as the figure we got for Net Evaders, we asked this question again in December 2002. However, in the later survey, a much smaller 27% of Internet users said they had gone offline for an extended period of time. We plan to continue to probe on this issue because of the wide variance. Yet, it is clear that over a quarter of current Internet users at one time or another stopped using the Internet for an extended period.

The reasons Intermittent Users dropped offline

	% giving this reason
Didn't have time to use it/Wasn't a good use of my time	12%
Problem with my Internet connection (ISP defunct, too slow, no longer free, frequently busy)	11
Moved, could no longer get local access	7
Didn't need it	7
Didn't like it/want it/not interesting or useful	7
Concerned about online crime	6
Computer broke	6
Concerned about my child's/children's safety	4
Too hard to use	4
Lost access to a computer	4
Access too expensive	3
Could no longer get to the place where I used to have access	3
Changed or lost job/lost access at work	3
Worried about privacy	2
Could no longer use machine due disability or illness	2
Disturbed by content	1
Other	7

Source: Pew Internet & American Life Project March-May 2002 Survey. N=1,079, for Internet users who stopped using the Internet for a time. Margin of error is ±3%.

The existence of this group suggests that access to the Internet is not constant for a large percentage of the online population. People get fed up, cut off, or other aspects of life get in the way of their use of the Internet. College students leave the university network behind as they seek their first jobs. Mothers turn off the computer to care for young children. Others move, lose jobs or cannot afford upgrades to the computers or cannot afford to fix broken machines. For some of these users, use of the Internet no longer seems essential in the face of changing life priorities. Eventually, they decide they miss it and return to the Internet when it becomes possible.

Intermittent Users are disproportionately young, single, students, minorities, or not full-time workers. Intermittent Internet users are evenly divided between men and women. They are somewhat overrepresented among users who live in rural or urban areas and underrepresented among suburban users. They also fall disproportionately into the ranks of those who live in households with lesser income and educational attainment. Most are dial-up users.

We have found in other research that as a general rule, the longer a person has used the Internet, the more likely it is that he goes online frequently, spends several hours on any given day online, participates in many online activities, and says his Internet use makes a difference in his life. This "experience effect" also seems to play out among Intermittent Users. The newest Internet users are the most likely to be Intermittent Users and the most experienced Internet users are the

[5] This analysis excludes the 11% of Intermittent Internet users who said they had gone offline during a vacation.

least likely to be Intermittent Users. In all likelihood, relative newcomers to the online world have not built Internet use into their lives to the same degree that more experienced users have.[6]

Most Intermittent Users dropped offline because of technology problems or because they were not finding much of use online. Here are the major reasons they cited:

- **Didn't have the time for the Internet**. Most frequently, intermittent users said they did not have the time to use the Internet or that it was not a good use of their time. Some users cited illness in the family or small children or other care-giving responsibilities that prevented them from using the Internet. Others cited workplace demands and some simply felt that there were other ways to spend their time that were more rewarding. Said one user, "Life's too short to waste online."

- **That darn ISP!** The next most cited explanation given for tuning out were Internet Service Provider problems. Some of the problems include complete shut down of the ISP, slow service or connection, free services switching to a pay model, and frequent busy signals.

- **It wasn't useful then.** Seven percent of Intermittent Users said they dropped offline for an extended period because they simply did not like it, or want it. They reported that it wasn't interesting or useful. Another 7% told us that they just didn't need the Internet at that time in their lives.

- **Moved or lost local access.** Seven percent of Intermittent Users said they stopped using the Internet because they moved and could no longer get local access. Another 3% said they could no longer get to the location where they used to go online (friend moved away, no longer have a car, finished school). One respondent said his job as a sailor kept him at sea and offline for weeks at a time. And a number of respondents said they lost access in their transition between college and the "real world."

- **Broken computer, access to computer**. Other online Americans who stopped their Internet use for a while reported that computer problems or access problems keep them offline. For 6% the computer broke, 4% simply lost access to a computer, a handful changed jobs or lost access at work. Some found it too hard to use, or that the Internet was too confusing and presented too much information. One woman told us that her "soon to be ex-husband" sent her a computer virus and rendered her machine unusable. Another told us that he lost access when he "went to jail."

- **Worries.** Some 6% of Intermittent Users said they went offline for a period out of fear of online crime. Fewer mentioned concern for their child's or children's safety and even fewer were worried about their privacy or found themselves disturbed by pornographic content. Others mentioned frustration with excessive amounts of spam, particularly pornographic spam, and pop-up advertisements as factors that drove them from the Internet for a time.

[6] For more on the "experience effect," please see the Project's *Getting Serious Online* report at http://www.pewinternet.org/reports/toc.asp?Report=55 .

A small number of Intermittent Users (3%) said the cost of access kept them offline. And another tiny group reported that a disability, illness or hospitalization kept them offline for a time. Other respondents mentioned that they stopped using the Internet once they purchased a cell phone, while some mentioned that they went offline in the summertime, probably related to this group's greater proportion of young people and higher incidence of students in the population. Hispanic and black Intermittent Internet users tend to point to time crunches and relevance as limiting factors in their ability or inability to use the Internet, while whites tend to blame ISP problems and lack of time.

The Truly Unconnected

It is important to highlight that that 24% of Americans live lives far removed from the online world. They have never tried it and often do not know many people who have ever tried it. They do not live in connected households. And while many of the Truly Unconnected say they know family and friends who go online, a disproportionately large percentage (31%) of this group say that very few or none of the people they know go online. For this isolated-from-the-Internet group there are scant resources and no support structure of people to help them navigate the technical difficulties of getting hooked up and online.

Fully 69% of non-Internet users have never been online and do not live with any one who uses the Internet at home. More than half (59%) of the Truly Unconnected are women. As a group, the Truly Unconnected have low incomes–43% live in households that earn under $30,000 yearly, and 29% earn under $20,000. They also tend to be even older than other non-users, with 62% over the age of 50. Seventy-four percent have a high school education or less. Three-quarters are white, 15% black, and 9% are Hispanic.

Many of the Truly Unconnected know of public locations of Internet access in their community, though they are less likely than other groups to know of public access points. Some 56% of the Truly Unconnected know of public Internet access spots, compared to 69% of all Americans who know about such access points. Of the Truly Unconnected who know of access points, the vast majority say these places are easy to get to.

So with easy public access nearby, why are the Truly Unconnected offline? Many of the unconnected lack social networks that would encourage them to build use of the Internet into their lives. Twenty-five percent say that close friends and family don't go online. And, as mentioned above, another 31% of the unconnected say that very few or none of the people they know go online, compared to a mere 4% of Internet users who say the same.

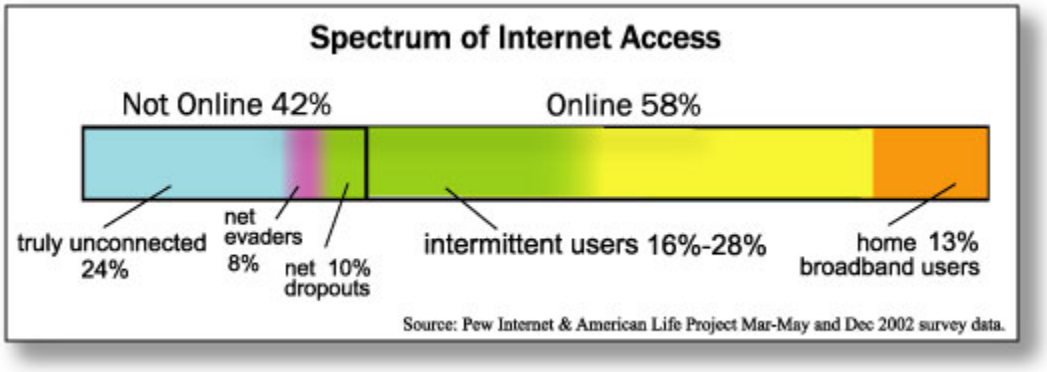
The Truly Unconnected also believe that they would not benefit from using the Internet. Some 54% of the unconnected said they don't need the Internet, and another 53% said they do not want it. Other Truly Unconnected Americans say they are worried about online content: 44% say they are worried about pornography and other objectionable content, online theft and fraud. A somewhat smaller group, 33%, say that Internet access is too expensive, and another 28% say that they don't have time to use the Internet, or that it is not a good use of their time. Twenty-seven percent of unconnected respondents said that they thought the Internet was too complicated or hard to use, and another group (12%) said that they simply did not have a computer and /or an Internet connection, and it was lack of access to the technology that kept them from logging on to the Internet.

The Truly Unconnected also tend to have a more negative appraisal of the Internet than their wired counterparts. While they do believe that email helps people keep in touch and that the Internet would help them to find out about things that interest them more easily, they are less likely to agree with those statements than other users or non-users. More than half of the unconnected believe that the Internet is dangerous, and almost half regard it as mostly a form of entertainment. More than half (55%) do not think they are missing anything by not being online. About 2 in 5 of the Truly Unconnected think the Internet is too expensive and they are slightly more likely than other non-users to believe that the Internet is confusing and hard to use.

About 17% of all non-users are totally disconnected—they have no family or friends who go online, and have never used the Net themselves. For these Americans, the Internet is not even a part of the picture of their lives, except perhaps through exposure to it in the media (newspapers or TV), which itself exists at the periphery of their lives.

An access spectrum

These new findings suggest that the idea of a digital divide, defined by the simple idea of people being either online or offline, is a less accurate way of understanding adoption of the Internet than the idea of a spectrum of access. There is unevenness in people's use and non-use of the Internet and there seems to be great fluidity in the Internet population itself. As it turns out, as many as 31% of those who say they are not Internet users once used the Internet or currently live in close proximity to it. These Americans know how to use the Internet or know others in their immediate household who can use it on their behalf. They are not in the same position as the 69% of non-users who are much more distant from the online world because they live outside an Internet-connected home and have never sampled online life.



The "sometimes on/sometimes off" character of Internet use by many Americans is consistent with historical patterns of technology adoption. Information services that require monthly payments by consumers and the development of infrastructure by industry typically diffuse unevenly. Telephone penetration actually declined during the Great Depression when people's incomes fell. In contrast, information goods that require a one-time purchase usually have steadily increasing diffusion curves. Americans continued to buy radios throughout the Depression; 46% of American households had radios in 1930 compared with 82% ten years later. Video cassette recorders tell the same story; 2% of U.S. households had VCRs in 1980 and 70% had them by 1990. The Internet is an information service that requires that infrastructure be

built and that users make a periodic payment. One would expect it to be more like the telephone than the radio in its adoption patterns.[7]

[7] Jorge Reina Schement (2001) "Of Gaps by Which Democracy We Measure" in Benjamin Compaine, ed, The Digital Divide: Facing a Crisis or Creating a Myth. Cambridge, MA: MIT Press.

PART 6: OTHER SOCIAL FACTORS THAT RELATE TO BEING OFFLINE

In our survey we tried to explore several other aspects of people's lives that might be related to whether they go online or not. The results indicate there are several other factors that influence or relate to going online or staying offline.[8]

First, a person's sense of efficacy can make a difference in her decision to go online or not. Those who say they are in control of their lives are more likely to be online than those who feel they have less control over things. While it is not possible to assert causality definitively, it seems reasonable that those who have convenient access to a great deal of information and those who have multiple ways to communicate with others would feel more in control over their lives.

Second, a person's media use is related to Internet use. People who on a typical day read a newspaper, watch television shows or television news are more likely to be Internet users. It is unsurprising that those who seek information, content and entertainment in other media, would also be attracted to the Internet.

Third, technology adoption also affects Internet use. Americans who own a cellphone, and/or a Personal Digital Assistant or other handheld computer, are, independent of all other factors, more likely to be Internet users.

Fourth, there is some evidence that a person's level of social contentment correlates with the likelihood he uses the Internet. Social contentment is measured several ways: whether a person thinks others can be trusted and will generally be fair, and whether a person has others to turn to for support. Those who have high levels of social contentment, and those who believe that things are going well in the country today are more likely to go online.

Fifth, a person's social "nearness" to the Internet matters. Non-users are less likely than users to know many Internet users.

How many people do you know who use the Internet?

	All Americans	*Internet Users*	*Non-users*
Most of the people you know	60%	76%	37%
Some	24	21	29
Very few or none	13	4	27

Source: Pew Internet & American Life Project March-May 2002 Survey. N=3,553 for all Americans. Margin of error is ±2%, greater for subgroups.

Sixth, physical access is still a problem for some. Much of previous research on the digital divide has focused on questions of access: Could a person get somewhere where he can use the Internet, and at a reasonable cost? With the e-Rate wiring schools and libraries, and the expansion of community technology centers, that initial concern about physical access has mostly been mitigated. Still, non-users are less likely than Internet users to know of a public place to access in their communities. Fully 22% of non-users say they do not know if there are public access sites to the Internet in their community.

In addition to the factors discussed above, the Pew Internet and American Life Project investigated other possible factors that might relate to people's use of the Internet. However, we

[8] For more details on the analysis in this part of the report, please see Appendix A for an explanation of the factor and regression analysis used.

found no compelling evidence that several other hypotheses were valid. For instance, we found no support for the idea that extroverts were more likely than introverts to use the Internet. Similarly, there was nothing in our data to suggest that a person's basic level of trust in other people and institutions was tied to Internet use. We also tried to probe whether people's community involvement was connected in some way with Internet use. The results are inconclusive. Some types of community involvement show a negative effect with Internet use, meaning that people who are involved in some kinds of community activities are less likely to be online. Other kinds of community activities show the opposite effect, predicting that those who do these activities are more likely to be online. The effect of community involvement on Internet use is not clear, and is a likely location for future research by the Project and others.

PART 7: AMERICANS WITH DISABILITIES: A SPECIAL ANALYSIS

Americans with disabilities face unique challenges as they consider using the Internet, but they also can reap rewards for going online. The Internet offers the promise of greater connection to others, greater access to information, and potentially greater "mobility" through virtual space. But currently, the people with disabilities are less connected than many other groups of Americans.

Some 18% of our survey respondents said they were disabled – a percentage that is very close to the 20% of Americans that the U.S. Census Bureau reports with disabilities. In our survey, just 38% of Americans with disabilities use the Internet – and about a fifth of them (19%) say their disability makes use of the Internet difficult. This compares to the 58% of all Americans who use the Internet. Of the 62% of people with disabilities that do not use the Internet, 28% said their disability impaired or made impossible the use of the Internet. [9]

Other factors are also at play when it comes to Internet use. For instance, researchers Colin Keane and Joel Macht of the Neil Squire Foundation have noted that many people with disabilities lack access to adaptive technologies that would help them use computers and retrieve information from Web sites. At times, it is physically hard for the people with disabilities to gain access to wired rooms and buildings. Other times, computer work stations at public sites cannot be adjusted or lack appropriate desks, chairs, software or adaptive hardware to make the computer and Internet more usable. In addition, the people with disabilities as a group are poorer than other Americans and have a hard time affording the extra expense of adaptive technology.

Demographics of disability

The overall population of Americans with disabilities – Internet users and non-users alike – is quite different from the non-disabled. People with disabilities are much less likely to be employed full or part time (33% to 73%). They have considerably less education. For instance, 22% of adults with a disability stopped their education before receiving a high school diploma, compared to 14% of the overall U.S. population. Similarly, 26% of the overall population has college or graduate degrees, compared to 18% of disabled Americans. People with disabilites are much more likely than other Americans to be retired (35% versus 12%) and widowed (18% versus 7%). This reflects the fact that the disabled population is much older than the non-disabled population (29% of people with disabilities are 65 years or older, only 11% of people we surveyed without disabilities are this age.)

Internet users with disabilities

Users with disabilities tend to be newer to the Internet than their non-disabled counterparts. They are more likely than other Internet users to have access *only* at home (no doubt because they are less likely to be employed): 58% of users with disabilities use the Internet from home only, versus 44% of non-disabled.

[9] It is important to note that respondents in our survey self-defined themselves as disabled or not; they were asked if they had any disability, handicap, or chronic disease kept them from participating fully in work, school, housework, or other activities, and they then answered yes or no. In addition, respondents who said they were disabled were also allowed to self-define their disability as one that impairs the use of the Internet or one that does not. Thus, it is likely that some individuals (especially those who have little knowledge of the Internet and computers) believe their disability impairs Internet use when in fact it does not.

When the wired disabled do go online, they are just as likely as those without a disability to use email, go to news Web sites, and visit government Web sites. However, they are somewhat less likely to buy a product (52% for the disabled versus 56% for those who are not) and look for leisure activity information (69% versus 74%). Conversely, users with disabilities are more likely to look for medical information (75% versus 59%), play a game (45% versus 35%) and research online for information about a particular person (37% versus 26%).

Non-users with disabilities

Americans with disabilities who do not use the Internet show less interest in gaining access than those non-users without disabilities. When asked their intentions, 40% of disabled respondents said they *definitely* would not ever go online, compared to only 24% of non-disabled respondents.

The reasons people with disabilities give for not using the Internet differ from those of non-disabled people. Non-users with disabilities are more likely than other non-users to say they don't need the Internet and they are worried about online pornography, credit card theft, and fraud. They are also *less* likely to state that lack of time is a reason.

Of course, it is likely that those who are disabled have a harder time getting to places with access to the Internet, since travel is often more taxing for them than for the non-disabled. Indeed, 24% of people with disabilities said that getting to places in the community with Internet access was difficult for them, compared to 15% of the non-disabled. In addition, individuals with a disability were less likely to know of a place in their neighborhood to get access than people without a disability.

Perceptions of the Internet

People with disabilities have somewhat different perceptions of the Internet than the rest of the population. Twenty-one percent of disabled people strongly agreed that the Internet is confusing and hard to use. Only 9% of non-disabled people strongly agreed with this assertion. Also, 25% of people with disabilities said they strongly agreed that Internet access is too expensive, whereas 18% of people without disabilities strongly agreed with that statement.

Family and friends and the Internet

Individuals with disabilities are less likely than other Americans to have close family or friends who use the Internet. Asked how many people the respondent knew who used the Internet, 48% of people with a disability said most of the people they knew went online, compared to 62% of the non-disabled. A large number of people with a disability have friends or family who go online (80%) – but this is still a lower number than those without disabilities (89%) who say they have friends of family who go online.

Disability and technology

Americans with disabilities seem to be more attached than others to the technology and media in their homes. They are more likely than other Americans to say it would be very hard to give up their telephones, televisions, cable TV hookups, and their favorite newspapers. However, computers are the exceptions to this trend. Fifty-six percent of people with a disability have or use a computer, compared to 72% of all Americans. Disabled people were less likely than non-disabled people to say it would be very hard to give up their computer (17% of people with disabilities and 28% of non-disabled people said this.)

Disability, income and the cost of adaptive technology
Americans with disabilities have significantly lower incomes than those without disabilities. Our survey found that 29% of the disabled population live in a household with less than $20,000 of income annually. That compares to only 12% of those without disabilities with incomes this low.

Income can be a very limiting factor when it comes to purchasing information technology, particularly specialized technology. It can cost thousands of dollars to buy adaptive technologies such as magnified or large monitors, hands-free mice and keyboards, and speech synthesizers. A head-mounted mouse can cost 10 times what a normal mouse costs, and a large button keyboard can run 5 times the cost of a normal keyboard. Braille interface machines cost over $3,000, and magnified screens are selling for nearly $2,000. Considering that people with disabilities have, on average, significantly smaller disposable incomes, the cost of adaptive technology in addition to the normal costs of computers and Internet access can be a significant barrier to getting online.

In one of our focus group interviews, a woman expressed interest in learning how to use the Internet. She lives with diabetes and wants to go online to research her medical condition. Yet her illness has impaired her eyesight, and she cannot see a normal monitor. She said she hopes that the program she is in will provide her with a large-screen monitor and adaptive software so she can finally go online. However, the expense of such technology is likely to be too great for most community technology programs.

The benefits of the Internet for people with disabilities
While a disability may act as an obstacle for those wanting to go online, it can also be a motivation. The Internet can be an important resource for people who have difficulty leaving their homes. With information, shopping, and social resources available in their households, this lifeline can make the world more accessible for people with disabilities.

We interviewed one older woman just starting to learn about the Internet. She said she thinks the Internet is “a blessing for old people.” In learning how to use the Internet, she hopes to once again pursue her life’s passion: historical research. While her age limits her mobility, she hopes to visit libraries and archives online. Without Internet access, her condition would prevent her from continuing her favorite pastime. “I feel this computer will free me,” she said.

PART 8: CONCLUSIONS

Of the findings in this report, the most notable is that Internet use is fluid. Net Dropouts, Intermittent Internet users, and Net Evaders (non-users who live in wired homes) are three groups that defy conventional notions of a binary, on-off way of thinking about Internet access. And because the way people envision an issue can affect how they seek to address it, it is important to grasp the nuances of the variations in access, and their changes over time.

Internet use runs a spectrum from totally unconnected non-users without even friends and family to encourage them to go online to the most wired broadband user. And while most Americans follow a pattern of adoption from non-user, to novice, to experienced user, another sizable group of Americans has followed a different path, one with more twists, switchbacks and dead-ends. But with an increasingly detailed understanding of the variations in the Internet user and non-user populations comes the ability to create programs, policy and products that address more specifically and more effectively, particular niches and sub-groups. It is also important to note that within these different patterns of use or non-use, there are voluntary patterns and involuntary patterns. Users choose to go offline or avoid the Internet in the first place, and others face circumstances where access is taken away from them or seems unreachable.

Project data show that the growth of the Internet user population has stalled since late 2001. This might be caused by a static equilibrium: The same number of users are dropping offline as new users are going on. It also might be a consequence of ongoing trouble in the U.S. economy. Or it may be that the country has reached the peak of the adoption curve. Whatever the factors and their implications, these findings bear continued monitoring.

Between April 2000 and the spring of 2002, the Internet population grew across all demographic groups. But the gaps between rich and poor, well-educated and less-well educated, rural and suburban, black and white, the disabled and non-handicapped, and old and young persist.

The reasons why people are not online are numerous and diverse. Cost is still a major factor—30% of non-users say that cost is a major reason they are not online. Physical access, long the defining measure of Internet access, remains a problem for some, particularly the disabled and those living in rural areas. Many users also report physically losing access to the computers that connected them to the Internet—through moves, graduations, life changes or personal upheaval. Sometimes the computer remains, but isn't usable, due to hardware, software or ISP problems. Busy lives and lack of time also prevent many from going online (and pull them off once they are on). Embarrassment over lack of knowledge, skills and literacy, and fears over personal ability to learn new skills, worries about 'breaking' the computer, and concern that the Internet is confusing and hard to use also keep people offline.

But an equally significant reason why people are not online is lack of desire—they do not want the Internet, do not feel that they need it, and do not feel that it holds anything of interest or value for them. They believe they are not missing out on anything by not being online. For some, this disinterest is based on incorrect assumptions about online content, but for others it is a reasoned choice, based on personal preferences for communication style and information retrieval or past Internet experience. Many users understand that email would connect them to others, and that having Internet access would make it easier to find out interesting and useful information. But in

most cases that is not enough to overcome lack of interest. Concerns about safety online also keep some offline—worries about fraud, theft, disturbing content and harm to their children or themselves.

Still, most Americans know they live in a wired world. Internet users, and to a lesser extent, non-Internet users, live amongst Internet users, and report that many if not most of their friends and family go online.

Non-users as a group have a more negative outlook on the real and the virtual world. They feel less in control, less satisfied with the way things are going in the country, are less socially supported, and less trusting. While the Internet is held up as a tool of empowerment, adoption of the technology is often stymied by the very circumstances that the Internet would hopefully help individuals and communities to overcome.

Given the new details that we know about the factors that affect Internet use, and patterns of use, and the reasons why people do not go online, where does this leave us?

The federal E-rate program[10] and the wiring of libraries has been remarkably successful. Almost all Internet users and the majority of non-users know of public Internet access locations in their community and by far the most frequently mentioned spot is the local public library.

What worked in encouraging non-users to become new-users? In our interviews, new users told us that programs and classes at community technology centers that were specifically tailored to their needs were a major lure. Whether aimed exclusively at seniors who were reticent to join classes with young folks who they thought would be more experienced, or classes that were no cost, low cost and offered at various times of day to appeal to the employed and the un-employed, targeted offerings helped a wide variety of people walk through the center doors for the first time. Classes that felt fun, unintimidating and provided personal attention were also major selling points to the new users we interviewed.

There is also a sizable portion of the non-user population that is not interested in using the Internet. While some of these non-users may be intrigued enough to go online by hearing more about what the Internet has to offer them (both in terms of utility and entertainment), many of them are determined and, in fact, take pride in their non-user status and may be difficult, if not impossible to reach. Thus, universal Internet access may not be a feasible goal for the near future.

Instead, efforts might best be focused on the 40% of users who believe they will go online. They are more likely to be younger, urban, poor and non-white. This group is more often held back by barriers of circumstance rather than desire. Projects that make computers and long-term Internet access more affordable will continue to have an impact with families that at the moment cannot save up for a computer or stretch their income for a monthly connection fee. Projects that make more public computers available and make them more accessible, particularly computers with adaptive technology that can be used by those with a variety of disabilities (from mobility, to visual or auditory impairments), will also continue to have an impact. But more than just helping all those online who wish to go, the other part of the challenge is ensuring that those who go

[10] A federal program that taxes long distance phone service and then takes the money and distributes it to schools to pay for wiring their building or campus for a computer network and/or Internet connectivity.

online and want to be there are able to stay, and can increase their skills and comfort with the technology, and all that it has to offer.

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About the Pew Internet & American Life Project
The Pew Internet & American Life Project creates and funds original, academic-quality research that explores the impact of the Internet on children, families, communities, the workplace, schools, health care, and civic and political life. The project is an independent, nonpartisan organization that aims to be an authoritative source for timely information on the Internet's growth and its impact on society. The project is fully funded by The Pew Charitable Trusts.

About Princeton Survey Research Associates
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METHODOLOGY

Telephone Survey

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 from March 1 to March 31, and May 2 to May 19, 2002, among a sample of 3,553 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% points. For results based Internet users (n=2,259), the margin of sampling error is plus or minus 2% points. For results based on non-users (n=1,294), the margin of error is plus or minus 3% 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. Other data in the survey are drawn from other Pew Internet Project phone surveys in March, April and May-June 2000 and December 2002.

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

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

Non-response in telephone interviews produces some known biases in survey-derived estimates because participation tends to vary for different subgroups of the population, and these subgroups are likely to vary also on questions of substantive interest. In order to compensate for these known biases, the sample data are weighted in analysis. The demographic weighting parameters are derived from a special analysis of the most recently available Census Bureau's Current Population Survey (March 2001). 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.

We calculate 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, 71.2% were contacted by an interviewer and 46.1% agreed to participate in the survey. Eighty-seven percent were found eligible for the interview. Furthermore, 93.5% of eligible respondents completed the interview. Therefore, the final response rate is 30.7%.

Group Interviews

We conducted a series of 6 group interviews with a total of 40 people, and three individual interviews. The group interviews were with a mix of new Internet users and non-users. The individual interviews were with non-users. The criteria for new users was they had to have been online for a year or less and be older than 18. Non-users had to be older than 18. We recruited for our group interviews via Community Technology Centers in the Greater Washington DC-Baltimore area. We held groups at the CTC's with new and non-users who had taken classes or were a part of a class and with those who had not taken a class or even made a prior visit to the center. We endeavored to get a broad mix of new and non-users, recruiting from urban CTC's, suburban and rural CTC's and centers with predominately African-American clients, a mix of Hispanic and African-American clients, or a mix of African-American and white clients. Groups lasted between 35 minutes and an hour and 15 minutes and were conducted in June and July of 2002. One or two interviewers conducted the group interviews. Interviews were tape recorded with the participants' knowledge and oral consent. A short demographic questionnaire was administered to each participant before the start of the interview. Participants received a meal, or snacks as an incentive to participate.

APPENDIX A

Factor Analysis
Factor analysis is also known as latent variable analysis. It is a statistical technique aimed at answering the question: What are the underlying and unobserved factors that may explain – and, importantly, summarize – complex phenomenon? A classic use of factor analysis is to determine where people fall on the political spectrum. One cannot observe directly whether someone is liberal or conservative, but through a series of questions about how people behave and what their attitudes are, factor analysis permits a statistician to use observed variables (does a person support affirmative action, vote for Democrats, favor funding for social programs?) to explain an unobserved variables (she's a liberal or conservative).

Factor analysis is useful for the Pew Internet Project's March-May 2002 survey. There are a wide range of questions about who people are and what they do (online and offline), but we have few preconceived notions, and little theory, about how individuals' characteristics may influence the decision to obtain Internet access.

A number of factors grouped together in statistically meaningful and intuitive ways. The following list consists of the Project's labels for the grouping and the variables from the survey that define the labels:

- **Personal Time** is made up of those who said they were satisfied with the time they spend with friends, family, on their hobbies, or for relaxation.

- **Social Network** consists of respondents who say they often (i.e., "every day" or "a few times a week") visit with family or friends, dine with family or friends, or call family or friends just to talk.

- **Social Capital** captures traditional measures of social capital such as whether a person belongs to a community group or whether a person belongs to a social club.

- **Other Groups**: although only a small share of our respondents (about 6%) said they belong to "other" groups, it was a distinct category. Those who said they belong to "other" groups classified themselves as group members, but not in any of the groups on which they were prompted, namely a community group, social club, youth group, a church group, or local sports league.

- **Church Goers**: those who belong to and attend church often.

- **Social Contentment** is made up of people who think most people are fair, can be trusted, and who have people to turn to for support. Whites also group in this factor.

- **Internet/Computer users**: those people with online access and who identify themselves as computer users.

- **Extrovert** captures respondents who describe themselves as outgoing, talkative, and assertive.

- **Media Use:** captures respondents who, on a typical day, watch any TV, watch TV news, or read a newspaper.

	Odds Ratios	Odds Ratios	Odds Ratios
Social/Personal Traits	**Model I**	**Model II**	**Model III**
Personal Time	1.09	1.16**	1.07
Social Network	.831***	.823***	.885**
Social Capital	.795***	.831**	.756***
Belong to 'Other' Groups	1.39***	1.21**	1.54***
Social Contentment		1.60***	1.23***
Church	.927	.932	1.04
Trust	1.21		
Support	.994		
Control	1.32***	1.22**	1.52***
Satisfied with U.S.	1.64***		
Extrovert	1.01	1.02	1.03
Media/Technology Traits			
Media Use	1.32***	1.30***	1.24***
Cell Phone	3.00***	3.75***	
Personal Digital Assistant	1.88***	2.53***	
Cost of Internet access	.997	1.00	.998
Demographic Variables			
White	1.85***		
Black		.490***	.497***
Hispanic		.720*	.642**
Sex (male=1)	.945	1.19	1.04
Age (age >55 =1)	.177***	.168***	.189***
Rural Dwellers	.777	.776	.765*
College Graduate	4.13***	3.59***	4.96***
Parent	1.19	1.29*	1.24**
Student	5.12***	4.56***	6.25***
Income (HH inc > $50K)	2.77***	2.71***	2.83***
Married	.838	.864	1.03
Employment Status	2.77***	2.92***	2.46***
Disabled	.681***	.642***	.689***
Intercept	.038***	.071***	.147***
Percent Concordant	78%	79%	77%

* Statistically significant at 10% confidence level.
** statistically significant at 5% confidence level
*** statistically significant at 1% confidence level
Note: All variables are dichotomous (dummy) variables.

Regression Analysis

The next step is a regression model that seeks to explain what causes people to adopt the Internet. The groupings that the factor analysis yielded on social and personal traits were included, as well as those relating to media use and technology traits. Demographic variables round out the types of variables included in each specification.

Three models are reported in order to see how robust estimates are to the inclusion or exclusion of different variables. Model I includes all variables except "social contentment"; instead the dichotomous variables for trust, support, and satisfaction with the country's direction are included. Model II substitutes the "social contentment" variable for those variables. The variable for "whites" is excluded here, as it groups with "social contentment". Finally, Model III excludes the variables on personal technology use (i.e., cell phones and personal digital assistants). As discussed more fully below, the causal relationship between these variables and Internet use may run both ways, making it sensible from an econometric perspective to exclude them.

Interpreting Results

In interpreting the table on the left, an odds ratio greater than one means that a user having the behavioral characteristic associated with that variable has a greater likelihood of having Internet access. Variables with asterisks have statistical significance; those without asterisks lack explanatory power. The odds ratio also allows us to compare the magnitude of the independent effects. For example, being a student is the strongest predictor

of whether one goes online, followed by being a college graduate.

Finally, the "percent concordant" is a measure of how successfully the models predicts whether respondent go online. We know from the data which people go online; running the data through the models predicts correctly who goes online from between 77% and 79% of the time. In other words, that is nearly 30% better than flipping a coin. By the standards of this kind of regression model (a logistic regression), this is quite good.

Result: Discussion

In many ways, demography is destiny when it comes to predicting who will go online. Having a college degree, being a student, being white, being employed, and having a comfortable income each independently predict Internet use. Notably, gender is not a significant factor. As for race, being white is a strong predictor of whether one is online (Model I), controlling for all the other demographic variables in the model. When the model was run with blacks and Hispanics as the race variable (Model III), being black or Hispanic was a negative predictor of online access. Since being white groups with social contentment, the fact that social contentment is positive and significant in Model III, along with the presence of other racial categories in that model, is strong evidence that being white is a strong influence to going online. In sum, race matters; holding all other things constant, blacks and Hispanics are less likely to go online than whites.

The other variables yield a couple of insights. Those whose worlds seem to be close around them are less likely to go online. People who belong to a community group or social club (i.e., those with traditional measures of social capital) are less likely to be online.[11] Those with an active and immediate social network (i.e., those who frequently visit, talk, or dine with friends and family) are also less likely to go online. In slight contrast, those who are satisfied with the amount of time they can devote to family, friends, hobbies, and relaxation are more likely to be online. However, the size of this variable's predictive power is small and it is significant in only one model. In sum, it seems that the physical proximity of people and groups that matter to these people leaves little room (or need) for the Internet.

People who exhibit a positive and outward orientation toward the world are more likely to be Internet users. Those who feel they have a lot of control over their lives, and who are also satisfied with the direction in which the United States is heading are more likely to go online than those who do not feel that way. The variable "social contentment" reflects a grouping of people who think other people are fair, can be trusted, have others to turn to for support, and are white. That variable is significant in two models, and remains significant when the "white" variable is included. Since econometrically one would expect including both "social contentment" (which partially captures race) and the race variable for white Americans to lessen the significance of each, this suggests that race *and* notions of social contentment are strongly related to Internet adoption. Finally, media use – those who watch TV news, read the newspaper, and regularly watch TV and arguably an indicator of an outward orientation – is also a positive predictor of Internet use.

Of course, it is possible to have both an outward orientation toward the world, and a "close in" social universe (as measured by social capital and nearby social networks). According to the

[11] It is notable that for those respondents who belong to "other" groups (only about 6% of the sample) group membership is a positive predictor of online access. Since the "other" groups are unspecified, it would be well worth exploring specifically what kinds of group activities may be associated with Internet use.

model, if you are such a person, the odds are in favor of you being online. In other words, a person's outward orientation would outweigh a "close in" social universe and mean that a person possessing both characteristics is more likely than not to be online.

As for cost, the monthly cost of Internet access does not appear to have much to do with the decision to be online; in no specification was the cost a significant predictor of whether a person goes online. Finally and unsurprisingly, having technology is associated with Internet use. Those who have cell phones or personal digital assistants are likely to use the Internet.

Including personal technologies (cell phone and PDAs) in the models raise the issue of causality. Having a cell phone may not *cause* one to obtain Internet access, but rather having several personal technologies is part of the same related process of being wired (e.g., with the Internet, a personal computer, a cell phone, etc.). Econometrically, this would bias the estimates in the models. Therefore, Model III excludes those variables. The predictive power of the model declines only slightly, and the signs, significance, and magnitude of the remaining parameter estimates remain the about same, with the "college graduate" and "student" variables picking up additional predictive power.

The three models, then, portray a consistent picture; demographic characteristics (education, income, race, and others) are the strongest predictors of whether people use the Internet. People exhibiting a strong degree of social contentment—whether measured by the "social contentment" variable as defined above or by saying they have control of their lives, trust in others, and people to turn to for help—are more likely to be online. Those who seem to have their social life very much nearby—those who belong to a community group or social club and those who often visit with, talk to, or dine with family and friends—are less likely to be online.

Appendix A was written by Dr. John Horrigan, the senior research specialist at the Pew Internet & American Life Project.

APPENDIX B

Background on current legislative issues impacting technology programs

There are two federally funded programs designed to lessen the gap between those who have Internet access and those who do not. The Technology Opportunities Program was initiated to enable widespread access to digital network technologies in the public and non-profit sectors.[12] At the local level, the Community Technology Centers Program was established to develop community technology centers that provide disadvantaged residents of economically distressed communities access to information technology and training.[13]

Since the inception of the TOP program in 1994, the Department of Commerce has provided approximately $193 million for 530 TOP grants, while the Department of Education has issued 227 CTC grants worth a total of $74 million since 1999 (Wright, 2002).

[12] See http://www.ntia.doc.gov/top/whoweare/briefhistory.htm
[13] See http://www.ed.gov/offices/OVAE/AdultEd/CTC/

In February 2002, a report released by The Department of Commerce titled, "A Nation Online: How Americans Are Expanding Their Use of the Internet" suggested that the success of the TOP and CTC programs, along with other market factors, had sufficiently narrowed the digital divide in America. Shortly after the report's release, the Bush Administration announced that funding for the TOP and CTC programs was no longer a priority and would be phased out by 2003.[14]

After much protest from civil rights and minority advocates, a Senate appropriations subcommittee decided to restore funding for both programs in July. In February of 2003, the federal budget passed with full funding for both the CTC and TOP programs. Both programs received the same amount as for fiscal year 2002, with the CTC program receiving $32 million and the TOP program $15 million. However, the Bush administration has stated their intention to push for drastic cuts for 2004.[15]

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[14] See http://www.ntia.doc.gov/top/
[15] See http://www.digitalempowerment.org/ctc.pdf and http://www.digitalempowerment.org/top.pdf

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