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PEW INTERNET & AMERICAN LIFE PROJECT

Online Shopping

Internet users like the convenience but worry about the security of their financial information

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John B. Horrigan, Associate Director

Summary of Findings

American internet users have embraced online shopping because they say it is convenient and a time-saver.

Two-thirds (66%) of online Americans say they have purchased a product online, such as a book, toy, music, or clothing. Attitudes and perceptions play a key role in whether online users choose to purchase products online.

- 78% of internet users either agree (53%) or agree strongly (25%) with the proposition that shopping online is convenient for them.

- 68% of internet users either agree (47%) or agree strongly (21%) with the notion that online shopping saves them time.

At the same time, most online Americans have high levels of concern about sending personal or credit card information over the internet.

While the number of e-shoppers continues to grow, there is still widespread concern in the internet population about the safety of financial and personal data online.

- 75% of internet users either agree (39%) or strongly agree (36%) with the proposition that they do not like giving out their credit card number or personal information online.

More than half of internet users encounter frustrations and other frictions in the course of online shopping.

- 43% of internet users have been **frustrated** by the lack of information they encounter while using the internet to find out about or buy goods or services.

- 32% have been **confused** by information they have found online during their shopping or research.

- 30% have felt **overwhelmed** by the amount of information they have found online while doing online shopping or research.

This comes to 58% of internet users who have experienced at least one of these three feelings during online shopping.

More people would shop online if they trusted the e-commerce environment more.

Internet users' attitudes about online shopping are not entirely consistent. They are willing to shop online because it is convenient and a time-saver, but they also do not like sending personal or credit card information over the internet. Our analysis suggests that if concerns about the safety of the online shopping environment were eased and if shoppers felt that online shopping saved them time and was convenient, the number of online shoppers would be higher.

It is possible to sort through these different attitudes to see what matter more in influencing people's propensities to shop online.[1] Using as the baseline internet users' response to the question about whether they have ever bought a product such as a book, music, toy or clothing online, the analysis asks what would happen to levels of online shopping if certain attitudes were different. We find that concerns about sending personal or credit card information online loom largest in influencing whether to shop online. Specifically:

- ■ If the three-quarters of internet users who agree that they **don't like sending personal or credit card information** online felt more confident about doing this, the share of the internet population shopping online would be 7 percentage points higher than the current average of 66%, or 73%.

- ■ If those who disagree that online shopping is **convenient** felt otherwise, the share of the internet population shopping online would be 3 percentage points higher than the current average (or 69% instead of 66%)

- ■ If those who disagree that online shopping **saves time** believed that they could save time by e-shopping, the share of the online population shopping online would be 2 percentage points higher than the current average (or 68% instead of 66%).

The estimates above are independent effects, showing the impact when the other factors noted above, as well as other demographic and socio-economic impacts are held constant. In fact, demographic factors such as race or gender have no significant impact on predicting levels of online shopping, and the impact of income is small; if low-income Americans suddenly had at least average incomes the incidence of online shopping would be one percentage point higher.

Finally, higher broadband deployment would also drive up the size of the e-shopper cohort by 6 percentage points.

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[1] See the Appendix for detail on the statistical technique employed for these estimates.

Low–income online Americans are more likely to see the risks of online shopping than herald the time-saving or convenience benefits of using the internet to shop.

Internet users who live in lower-income households (defined as households with annual incomes below $25,000) are less likely to trust the e-commerce environment. Their concerns about their financial safety online make them reluctant to make full use of e-shopping. Their attitudes about online shopping stand in sharp contrast to those of upper income online Americans.

Attitudes about online shopping: by household income (% of internet users in each age group who "strongly agree" with statement)					
	Less than $25K	Between $25K and $40K	Between $40K and $60K	Between $60K and $100K	Greater than $100K
Upside of online shopping					
The internet is the best place to buy items that are hard to find	26%	23%	25%	28%	32%
Shopping online is convenient	22	24	22	28	36
Shopping online saves me time	19	19	18	24	31
The internet is the best place to find bargains	12	10	8	8	13
Downside of online shopping					
I don't like giving my credit card number or personal information online	44%	32%	36%	35%	25%
I prefer to see the things I buy before I buy them	39	24	32	26	22
Shopping online is complicated	6	4	5	4	2
Number of cases (internet users)	209	202	290	352	281
Source: Pew Internet & American Life Project Survey, September 2007. The number of cases does not sum to the sample's total of internet users because the table does not include respondents who did not respond to the question on household income.					

The number of people using the internet to do research about products or to do transactions online has grown since 2000, but revenues for online sales have increased at a much faster rate.

- Some 22% of Americans said they had ever bought a product online in 2000, a number that grew to 49% in September 2007.

- 35% of Americans said they had used the internet to do some product-related research online in 2000, a number that grew to 60% in September 2007.

At the same time, according to the Census Bureau, revenues for online purchasing have grown by nearly fivefold in this time period – from $7.4 billion in the third quarter of 2000 to $34.7 billion in the third quarter of 2007.

The big picture: Shopping on the internet has become commonplace among internet users for a number of different activities connected to researching and doing transactions online.

Almost all internet users (93%) have at one time or another done something related to e-commerce. That is, they have used the internet to research products and services, make purchases, book travel, trade stocks, or participate in auctions. On any given day, more than a quarter of internet users (26%) are doing something online related to e-commerce.

- 81% of internet users have used the internet to do research about a product they are thinking about buying, with 20% doing this on the typical day.

- 66% of online users have purchased a product online, such as books, music, or clothing, with 6% saying they do this on the typical day.

- 64% have bought or made a travel reservation online, such as an airline ticket, hotel room, or rental car, with 4% doing so on the average day.

- 26% have participated in an online auction, with 3% doing this on the average day.

- 17% have paid to access or download digital content, such as a newscast, sporting event, or radio show; some 4% do this on the typical day.

- 11% have bought or sold stocks online, and just 1% do this on the average day.

Four in ten Americans now use of the internet for banking, up from one quarter in early 2005.

When asked whether they have ever used the internet to do any banking online, some 39% of Americans said they had. This is an increase from 27% since February 2005.

- Upper income Americans (those whose household incomes are over $100,000) are most likely to do online banking – 69% have.

- Lower income Americans (those whose household incomes are under $25,000) are least likely to do online banking – 19% have.

One in four American adults now turns to online classified ads or sites such as Craig's List, up from one in seven in early 2005.

- Some 24% of American adults said they had used classified ad or sites such as Craig's list in our September 2007 survey.

- This compares to 14% who said this in February 2005.

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Online Shopping: Internet users like the convenience but worry about the security of their financial information

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Source: John B. Horrigan. *Online Shopping.* Washington, DC: Pew Internet & American Life Project, February 2008.

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Part 1.

Trends in Online Shopping

Americans are shoppers. On the typical day, Americans spend an average of 24 minutes purchasing goods and services – a figure that doesn't include any time spent traveling to a place to shop.[2] This is more than people spend relaxing and thinking (19 minutes per day on average) and about half the time people spend socializing and communicating with others (46 minutes).

> Most Americans (72%) are undaunted by the choice of so many products in the marketplace, with just 19% feeling overwhelmed by it.

Our survey finds that most Americans (59%) find themselves shopping for things such as groceries at least a couple of times per week, while the remaining 41% shop about once a week or less often. And Americans are fairly evenly split as to whether or not shopping is a chore. Some 42% say they enjoy shopping while nearly half (48%) characterizing it as "just something they have to do." Some people (22%) would shop more if they had more time for it and half (49%) of Americans would shop more if they had more money to spend. Close to one-third (29%) would do more shopping if there were more stores nearby.

This report presents a portrait of how many online users turn to the internet for research, browsing, and transacting, as well as people's attitudes about shopping online. Although there is wide use and acceptance of the internet for shopping, worries about sending personal or credit card information online keeps some people – mainly low-income Americans – from doing transactions online.

Most internet users have done something online connected to buying products or researching things they may buy offline.

Online shopping has been a feature of online life since the late 1990s and has now become commonplace. Our September 2007 survey finds the following among internet users.

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[2] American Time Use Survey, available online at: http://www.bls.gov/tus/charts/household.htm.

| Online shopping activities		
	% of internet users who <u>ever</u> done this	**% of internet users who did this <u>yesterday</u>** (the day before they responded to our survey)
Research online a product they are thinking of buying	81%	20%
Purchase a product online such as books, music, or clothing	66	6
Bought or made travel reservations online	64	4
Participated in an online auction	26	3
Paid to access or download digital content	17	4
Bought or sold stocks online	11	1
Source: *Pew Internet & American Life Project Survey, September 2007, n for internet users=1,684. Margin of error is +/- 3 points.*		

Overall, 93% of internet users have at one time done at least one of the above-listed activities relating to online commerce and purchasing, with 26% doing at least one on a typical online day (our "yesterday" readings).

The number of online users either buying or researching products online since 2000 has roughly doubled.

In our September 2007 survey, 66% of online users said they had bought something online, up from 46% of internet users had made a purchase using the internet in our June 2000 survey.

For doing research on a product, three quarters (73%) had done online research about products in June 2000, with 13% reporting they had done this on a typical day. That number grew to 81% in September 2007, with the number of people doing this on the average day growing to 20%.

These increases in the share of the online population using the internet to shop have happened while the online population has grown. In mid-2000, 48% of the adult Americans were internet users, a number that stood at 74% in our September 2007 survey. Taking into account both growing incidence of online shopping within the online population and the overall growth of the online population, this means that about twice as many Americans in 2007 had either bought something online or done research online about a potential purchase compared to 2000. The following chart shows trends in online shopping in the general adult population since 2000.

Percent of all American adults who have ever bought a product online
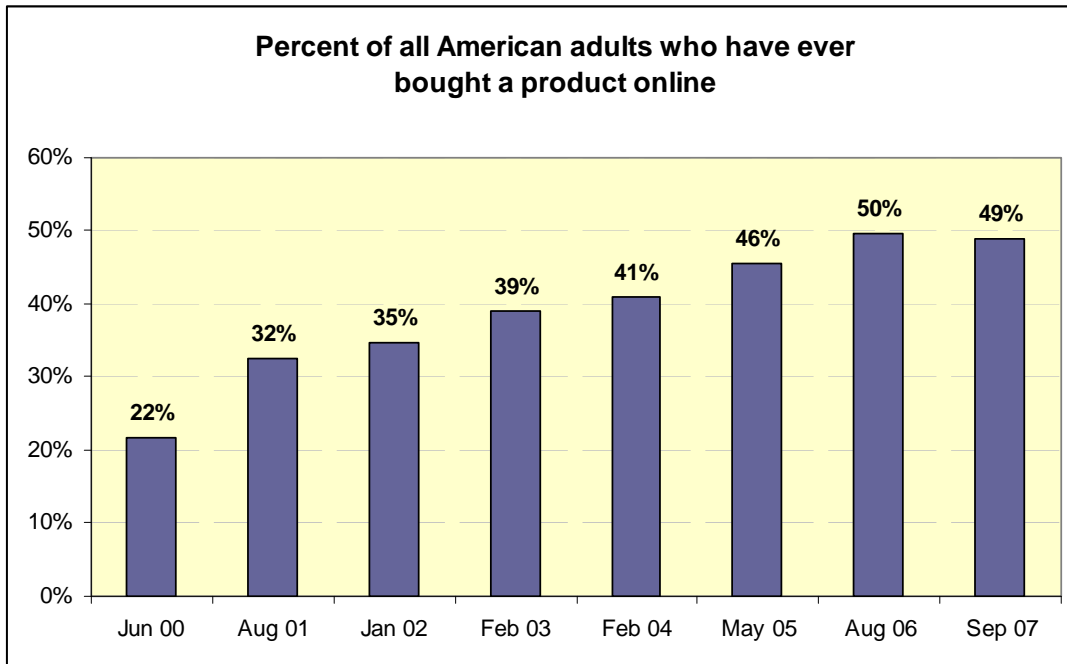
Although 81% of internet users (or 60% of all Americans) have at one time researched a product online, about one-fifth of internet users (or 15% of all Americans) do this sort of online browsing on the typical day. That is higher than levels recorded in 2000, though at various times in the intervening years, that level has been reached.

Percent of all Americans who, on a typical day, look online for information on a product
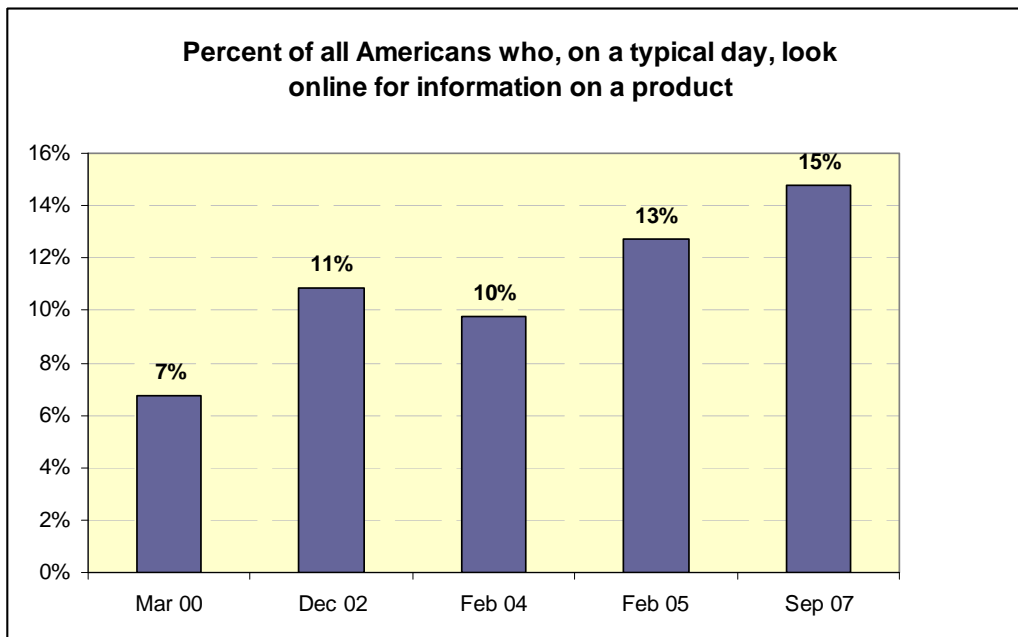
For travel information, nearly half of adult Americans have made a purchase of a travel service over the internet, significantly higher than was the case in the year 2000.

Percent of all Americans who have bought or made travel servations online

Jun 00	Jul 02	Apr 03	Jun 04	Sep 05	Aug 06	Sep 07
18%	30%	35%	35%	45%	44%	47%
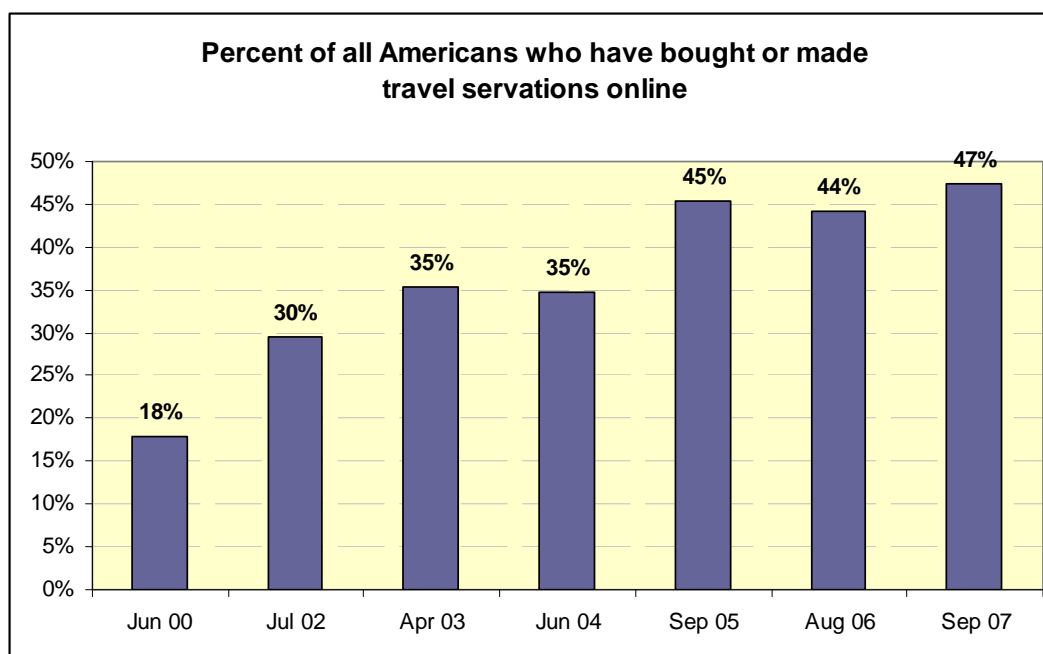
The growth in the number of people using the internet for commercial purposes shows up in revenue figures. E-commerce revenue has grown from $7.4 billion at the middle of 2000 to $34.7 billion in the third quarter of 2007, up from $29.1 billion in the third quarter of 2006, and $24.1 billion in the same period in 2005, according to Census Bureau figures. Today, e-commerce accounts for 3.4% of total retail sales in the United States, up from 0.8% in early 2000. Year-to-year growth in e-commerce was 19.3% in the third quarter of 2007, comparable to the growth in the prior year but slower than the (roughly) 40% growth rates in 2001 and 2002.[3]

It is also worth noting that pace of change in the share of internet users having bought something online is very different from the rate of change in e-commerce revenues. As noted, the number of Americans who have bought something online has doubled since mid-2000. This has been fueled by the growth in the share of Americans who are online and, within the population of internet users, a higher percentage of users who have chosen to buy products online. E-commerce revenues, however, have grown by nearly fivefold (in comparisons of quarterly e-commerce sales) from $7.4 billion in mid-2000 to $34.7 billion in mid-2007.

As both trends in revenue and the share of online users engaging in e-commerce suggest, online commerce has reached a level of maturity in the United States. Some of this may be a reflection of trends in internet adoption and use. Internet adoption in the general population has remained steady at just above 70% according to recent Pew Internet

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[3] U.S. Census Bureau, Estimated Quarterly U.S. Retail Sales (Adjusted): Total and E-commerce
http://www.census.gov/mrts/www/data/html/07Q3table3.html

Project surveys. Adoption of broadband internet connections at home has shown steady growth – today 50% of adults have high-speed at home – but the nature of the remaining non-broadband subscribers suggests that it will be hard to sustain the brisk broadband growth rates of recent years.[4]

It may also be the case that some consumers may be "experiencing internet fatigue and changing their buying habits" with less emphasis on online buying.[5] It is also possible that the efforts of some firms to integrate online window shopping with offline purchasing play a role in this slowdown as well.

Rating and commenting on products

The internet, as a shopping venue, is not only about research and transacting. It allows people to weigh in on what they think about a product or service they have purchased. This is not uncommon among internet users. Some 30% of online users say they have at one time posted a comment or review online about a product they bought or service they received.

There is not a great deal of variation across age groups in this activity. Some 31% of online adults under 30 have posted a comment on a product, and 34% of internet users between the ages of 30 and 49 have done this. The 50-64 age group has 27% of internet users has done this, while 18% of online senior citizens have don this.

With respect to ratings, 32% of internet users have rated a product, service, or person using an online ratings system. This is an increase from 26% when we first asked this question in May 2004. Ratings show a stronger lean to the young. For online adults under 30, 37% have rated a product, service, or person, while 34% of internet users between ages 30 and 49 have done this. In the 50-64 age bracket, 29% of online users have done this and 20% of online seniors have rated a product, service, or person.

Paying for content online

Although many Americans use the internet as a substitute for going to the store, some also purchase digital content over the internet. When asked whether they have ever paid to download digital content such as a newscast, sporting event, or a radio show, some 17% of internet users said they had done this.

> Online adults under age 30 are more likely than other age groups to pay for content online.

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[4] John B. Horrigan, "Why It Will Be Hard to Close the Broadband Divide." Pew Internet & American Life Project, August, 2007, Available online at: http://www.pewinternet.org/PPF/r/220/report_display.asp

[5] Matt Richtel and Bob Tedeschi, "Online Sales Lose Steam", *New York Times*, June 17, 2007.

Men were more likely to say they had paid for content than women by a 20% to 13% margin among internet users. Young adults (under 30) who use the internet were also more likely to say they paid for digital content – 22% say they had.

When we asked the question about paying for online content in August 2006, 17% of internet users said they had done that, and some 21% of online users said they had done this in our April 2006 survey. When the question was first asked in June 2004, 11% of internet users said they had paid for digital content.

Banking online

Using the internet for banking is also part of people's engagement with commerce online. When the Pew Internet Project first asked about banking online in 2000, 18% of internet users (or 9% of all Americans) had at some point done banking online. By 2002, that number had risen to 30% of online users (or 18% of Americans), and when last asked about in a Pew Internet survey in February 2005, 41% of internet users had done some banking online (or 27% of all Americans).

Our September 2007 survey shows a jump in the number of online users who have done banking online to 53%, or 39% of all adult Americans. No doubt, the growth in the ease and number of online banking applications over the past several years has contributed to this growth, in addition to more acceptance of banking online from consumers. Here is how online banking breaks out by income group.

Share of Americans, by income, who have <u>ever</u> done any banking online	
Under $25K	19%
$25K-$40K	33
$40K-$60K	42
$60K-$100K	56
Over $100K	69
Source: *Pew Internet & American Life Project Survey, September 2007, n =2,400 for internet users. Margin of error is +/- 2 points.*	

Online classified ads or sites such as Craig's list

Internet users also turn to cyberspace for ads for things they may want to buy or sell. When asked whether they used online classified ad or sites such as Craig's list, 32% of internet users responded affirmatively (or 24% of all adult Americans). That is a small change from the figure registered in our August 2006 survey, when 30% of online users said they had been to online classified sites. Overall, the share of internet users saying they had gone to online classified sites has grown by 10 percentage points since September 2005, when 22% of online users (or 14% of all adult Americans) said they had used such sites.

Not surprisingly, young adults are more likely to use online classifieds.

Share of Americans, by age, who have <u>ever</u> used online classified ads or sites such as Craig's list.	
18-29	34%
30-49	29
50-64	20
65+	3
Source: *Pew Internet & American Life Project Survey, September 2007, n =2,400 for internet users. Margin of error is +/- 2 points.*	

Part 2.

Online Shoppers: Who They Are and What They Think

The table below compares the demographic characteristics of the two-thirds of online users who have bought a product online such as books, music, toys, or clothing to online Americans who have not made a product purchase on the internet.

Demographic profile of internet users who <u>have ever</u> bought a product online compared to internet users who have <u>not</u>.		
% each demographic group who make up the purchasing and non-purchasing population	Online purchasers	Internet users, haven't bought online
Gender		
Male	49%	49%
Female	51	51
Age		
18-29	26	24
30-49	46	37
50-64	23	28
65+	6	12
Race/ethnicity		
White (not Hispanic)	74	66
Black (not Hispanic)	10	11
Hispanic (English speaking)	10	18
Education		
Less than high school	6	11
High school grad	29	25
Some college	25	42
College +	39	21
Income		
Under $25K	13	19
$25K-$40K	12	15
$40K-$60K	17	18
$60K-$100K	22	16
Over $100K	19	7
Don't know/Refused	17	25
Region		
Urban	25	27
Suburban	50	47
Rural	14	15
Internet use		
Has broadband at home	77	53
Number of cases	1,111	570
Source: *Pew Internet & American Life Project Survey, September 2007, n =1,684 for internet users. Margin of error is +/- 3 points.*		

Some expected demographic factors account for some of the differences between online shoppers and other internet users. Online purchasers tend to be younger, better educated, and higher-income than those who have not bought a product over the internet. Technology may also play a role, as online buyers are more likely than non-buyers to have "always on" high-speed connections at home.

Nonetheless, several hypotheses about online shopping do not hold up. For instance, some have wondered whether rural internet users would be heavier participants in e-shopping because of the convenience of doing things online rather than driving relatively long distances. Our data do not bear that out, as 65% of rural internet users have at one time bought something online, about the average. Rural internet users are less likely, on the typical day, to do any of the online shopping activities listed earlier; 19% do one of those activities on the typical day compared to the 26% average for all online users.

It is also worth noting that internet users who have not bought a product online are hardly, as a group, suffering from an impoverishment of connectivity. More than half of non-purchasers have broadband at home. Readers interested in demographic detail on a range of online shopping activities should consult the table in the Appendix to this report.

The table suggests that demography and technology are not the entire story behind people's predilections to purchase products online. Even though online Americans who do not shop online have lower incomes and are less likely to have broadband at home, the majority of low-income Americans have bought something online. Some 58% of people whose annual household incomes are below $25,000 have at one time bought something using the internet. Something else might explain differences between purchases and non-purchasers. Our findings suggest that attitudes play a critical role in shaping people's tendencies to shop online.

Internet users like the convenience and time-saving potential of online shopping, but they also worry about sending personal or credit card information over the internet.

Americans find online shopping a convenience, a time-saver, and a good way to get items that would otherwise be hard to find. Solid majorities of Americans saying they either "strongly agree" or "agree" with propositions relating online shopping to these notions.

Attitudes about online shopping: internet users				
	Strongly agree	**Agree**	**Disagree**	**Strongly disagree**
I don't like giving my credit card number or personal information online	36%	39%	19%	2%
I prefer to see the things I buy before I buy them	30	54	12	1
The internet is the best place to buy items that are hard to find	26	51	14	3
Shopping online is convenient	25	53	13	3
Shopping online saves me time	21	47	22	3
The internet is the best place to find bargains	10	39	37	4
Shopping online is complicated	4	22	54	13
Source: *Pew Internet & American Life Project Survey, September 2007, n for internet users=1,684. Margin of error is +/- 3 points.*				

At the same time, tensions and concerns are evident in people's perspectives on cyberspace as a place to shop. Fully three quarters (75%) either "strongly agree" or "agree" with the statement that they don't like giving their credit car number or personal information online.

Young adult internet users see the internet as a place for finding bargains, things that are hard to find, and as a means to save time on shopping.

Although a majority (or near majority) of all internet users see the internet as a place to get bargains, the hard-to-find-item, or as a time-saver, these attitudes and other differ across age categories.

Attitudes about online shopping: by age (% of internet users in each age group who "strongly agree" or "agree" with statement)				
	Ages 18-29	**Ages 30-49**	**Ages 50-64**	**Age 65+**
I prefer to see the things I buy before I buy them	85%	83%	82%	84%
The internet is the best place to buy items that are hard to find	84	82	70	61
Shopping online is convenient	83	82	77	54
I don't like giving my credit card number or personal information online	71	74	79	82
Shopping online saves me time	70	73	67	45
The internet is the best place to find bargains	62	52	38	32
Shopping online is complicated	24	24	30	34
Number of cases (internet users)	299	587	510	235
Source: *Pew Internet & American Life Project Survey, September 2007, n for internet users=1,684. Margin of error is +/- 3 points.*				

Online adults under age 30 are twice as likely as senior citizens to see the internet as a place for bargain shopping and far more likely than seniors to see the convenience and time-saving benefits of online shopping.

Most internet users are confident that online information will get them where they want to go in their online shopping.

Fully 79% of internet users are confident that they will make the right purchasing decision as they gather information online in advance of buying something. Most (63%) report a sense of relief in the course of online information-gathering, as that key online nugget may clarify a specific need. Just more than half (53%) are eager to share what they have found online pertaining to shopping.

Percent of internet users who say that they have felt this way at any point while going online to look for information or assistance in buying a product	
	All internet users
CONFIDENT that you will make the right purchase decision	79%
RELIEVED by information found online	63
EAGER to share new knowledge with others	53
FRUSTRATED by the lack of information or inability to find information online	43
CONFUSED by information found online	32
OVERWHELMED by the amount of information found online	30

Source: *Pew Internet & American Life Project Survey, September 2007, n for internet users=1,684. Margin of error is +/- 3 points.*

Nonetheless, sizable numbers express worries about their online shopping experiences.

Some 43% of internet users have been frustrated by the lack of information they find online or an inability to locate the commercial information they need. One-third (32%) are confused by the information they find online, and 30% say they feel overwhelmed by the amount of information they find online. This comes to 58% of internet users who have experienced at least one of these three worries connected to online shopping.

Perceptions about the convenience of online shopping and worries about sending personal information online are the biggest determinants of whether people shop online or not.

The preceding discussion shows that attitudes, technology, and socio-economic factors all come into play in influencing people's choices to shop online. Which factors matter more? Statistical analysis that enables the relative effects of different factors to be pulled

apart suggests that several attitudinal measures strongly shape whether or not people shop online.[6] The baseline for analysis in this section is users' response to the question about whether they had ever bought something online such as a book, toy, clothing, or music, to which 66% of online users responded "yes."

The effects and their size listed below are independent of all other factors, that is, the figures show how the probability of someone shopping online would change if, say, he thought online shopping was convenient, while holding all other factors, such as other attitudinal measures, constant.

User concerns about **sending personal or credit card information** over the internet has the largest effect among several key attitudinal measures. If the 75% of internet users who "strongly agree" or "agree" that conveying this information online is problem for shifted their views on this proposition, the share of the online population engaging in online shopping would be 7 percentage points higher than the present level (or 73% instead of 66%).

Users' perceptions of online shopping as a **convenience** has a significant impact on the chances internet users are participants in the online marketplace. As noted, most internet users already think online shopping is to some extent convenient; 25% strongly agree that it is, 53% agree, with 16% either disagreeing or strongly disagreeing that is. If the 16% of online users who disagree that it is convenient were tipped into the "agree" column, the share of the online population engaging in online shopping would be 3 percentage points higher than the present level (or 69% instead of 66%).

Turning to perceptions about online shopping as a **time-saver,** there is a smaller, but still significant boost to online shopping. If those who disagree that online shopping is a time-saver (25% of the online population) came to simply "agree" with this notion, the share of the online population engaging in online shopping would be 2 percentage points higher than the current average (or 68% instead of 66%).

> Improving online users' comfort levels with sending personal or credit card information over the internet would have the biggest payoffs for expanding online shopping.

Finally, technology makes a difference in whether people buy things online or not. People with **broadband at home** are more likely than dial-up users to have bought something online, by a 74% to 59% margin, a difference that is significant even when socio-economic and demographic characteristics are taken into account. If existing dialup users had high-speed connections at home, the incidence of online shopping would be 6 percentage points higher than it presently is.

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[6] For more detail on the model used to estimate these impacts, please see the Appendix.

It is important to underscore that the above figures are estimates, but they do convey the magnitude of the different things that influence the probability that someone will execute a transaction online. If efforts were devoted to changing attitudes about online shopping, the greatest payoffs would come from improving online users' comfort level with sending personal or credit card information over the internet.

Part 3.

Low-income Internet Users and Online Shopping

The fact that low-income Americans are somewhat less likely to purchase things online is not too much of a surprise, as those with lower incomes might be expected to be less active shoppers generally. In fact, low-income Americans – defined in this survey as those who reported household incomes of less than $25,000 annually – are less frequent shoppers than the more well-off. Some 56% of low-income Americans go shopping once a week or more often, while 63% of those whose annual household incomes are over $60,000 annually shop once a week or more often.

Low-income online Americans generally are less likely to use the internet for the range of online shopping activities about which we queried. Compared to upper-income internet users, they are half as likely on a typical day to do something relating to shopping on the internet.

Online shopping activities: by household income (%of internet users in each group who have "ever" done activity)						
	All	**Less than $25K**	**Between $25K and $40K**	**Between $40K and $60K**	**Between $60K and $100K**	**Greater than $100K**
Research a product for potential purchase	81%	75%	76%	85%	87%	91%
Buy a product	66	58	60	65	73	83
Buy or make travel reservation	64	44	53	64	76	84
Participate in online auction	26	19	22	23	34	38
Paid to access or download digital content	17	15	21	14	15	21
Bought or sold stocks online	11	6	11	8	12	21
% who have ever done at least one	92%	91%	90%	94%	95%	99%
% who yesterday do at least one	26	19	23	25	29	42
Number of cases (internet users)	1,684	209	202	290	352	281
Source: Pew Internet & American Life Project Survey, September 2007. The number of cases does not sum to the sample's total of internet users because the table does not include respondents who did not respond to the question on household income.						

It is important to keep in mind that online access varies by household income. Although low-income internet users are nearly as likely as high income ones to have ever done any of the online shopping activities listed, all low-income Americans are *less* likely to have done them. This is because their internet access rate is about half that of upper-income Americans.

Internet access: by household income						
	All	**Less than $25K**	**Between $25K and $40K**	**Between $40K and $60K**	**Between $60K and $100K**	**Greater than $100K**
% of adults who are internet users	74	51	71	81	91	95
% of adults with broadband at home	50	29	46	56	66	82
Number of cases	2,400	465	297	366	398	299
Source: Pew Internet & American Life Project Survey, September 2007. The number of cases does not sum to the sample's total of internet users because the table does not include respondents who did not respond to the question on household income.						

Notwithstanding these patterns of access and use of the internet to shop, certain features of online shopping might make using the internet for shopping very attractive to low-income people. As sociologists who study the poor have noted, being poor often means spending more time to carry out tasks many of those with higher incomes take for granted.[7] Dependence on public transportation means it takes longer to get from point to point. Low-wage jobs generally have less flexibility for dealing with medical or child care problems, which creates time pressures in dealing with work- versus personal time trade-offs. Low-income people might also be expected to benefit most from finding bargains online – something half the online population sees as a benefit of using the internet to shop.

Low-income people are more likely than the well-off to see the risks of sending personal and credit card information online, and less likely to see the benefits.

Although the convenience and time-saving benefits of online shopping help most people overcome worries about security, the way people weigh the convenience versus safety trade-off varies by socio-economic status. The share of internet users who express worries about sending credit card or personal information over the internet is about the same as the proportion of users who say online shopping is convenient – the numbers are 75% and 78%. When focusing only on those who "strongly agree" with propositions about security and convenience, the picture is a bit different: 36% of respondents strongly agree that they don't like sending personal or credit card information online, while 25% strongly agree that online shopping is convenient and 21% strongly agree that it saves them time. Rendering the data differently, 31% of internet users either strong agree that the internet is a convenient place to shop or save them time.

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[7] Jonathan Kaufman, "Technology and Time for the Poor." *Wall Street Journal*, August 16, 2001, p a1.

However the data are parsed, the message is clear: In general, people have worries about sending personal or credit card information online, but those concerns are balanced by the convenience and time-saving that go along with online shopping. For most online users, the scales tip toward going ahead and doing an online purchase.

Notably, though, this rough parity in attitudes does not apply to those who sit at either end of the income distribution. For lower-income people – the 15% of online users whose annual household incomes are below $25,000 – the internet is more likely to be seen as a place where sending credit card or personal information is more troublesome than it is a convenience for shopping. The pattern reverses when looking at upper income Americans, the 15% of online users whose household incomes exceed $100,000 annually. Upper income Americans are more likely to herald the time-saving or convenience benefits of online buying and are less likely to see the risks of online transactions.

> People have worries about sending personal or credit card information online, but for most online users they are outweighed by the convenience and time-saving benefits of online shopping.

Focusing on the percentage of people who strongly agree with these propositions, 44% of low-income Americans say they strongly agree that they don't like sending personal information or credit card numbers over the internet. Half that number – 22% – of Americans with household incomes below $25,000 annually, strongly agree that online shopping is convenient. For upper income Americans – household where the annual income exceeds $100,000 – one quarter (25%) feel strongly in their concerns about sending personal information over the internet, while a greater number (36%) say they find online shopping convenient.

The same pattern emerges for attitudes about the time-saving potential of online shopping. Nearly one-third of high-income people strongly agree that online shopping saves time, while roughly one-fifth of middle and lower income online users say this.

The differences in attitudes about online shopping at either end of the income spectrum show up in other ways. Low-income Americans are far more likely than high-income Americans to say they have become frustrated by the lack of information or their inability to find it while shopping online.

Attitudes about online shopping: by household income (% of internet users in each age group who "strongly agree" with statement)					
	Less than $25K	**Between $25K and $40K**	**Between $40K and $60K**	**Between $60K and $100K**	**Greater than $100K**
Upside of online shopping					
The internet is the best place to buy items that are hard to find	26%	23%	25%	28%	32%
Shopping online is convenient	22	24	22	28	36
Shopping online saves me time	19	19	18	24	31
The internet is the best place to find bargains	12	10	8	8	13
Downside of online shopping					
I don't like giving my credit card number or personal information online	44%	32%	36%	35%	25%
I prefer to see the things I buy before I buy them	39	24	32	26	22
Shopping online is complicated	6	4	5	4	2
Number of cases (internet users)	209	202	290	352	281
Source: Pew Internet & American Life Project Survey, September 2007. The number of cases does not sum to the sample's total of internet users because the table does not include respondents who did not respond to the question on household income.					

Some 56% of Americans whose household incomes are under $25,000 per year say they have felt this frustration compared to 36% of those in households whose incomes exceed $100,000 annually who say this. Similar differences for those in these income categories are evident when respondents are asked about confusion or feelings of being overwhelmed by the amount of information they find online.

Percent of internet users who say that they have felt this way at any point while going online to look for information or assistance in buying a product (% in each group who answered "yes")					
	Less than $25K	Between $25K and $40K	Between $40K and $60K	Between $60K and $100K	Greater than $100K
CONFIDENT that you will make the right purchase decision	81%	68%	79%	85%	86%
RELIEVED by information found online	69	61	69	67	62
EAGER to share new knowledge with others	68	53	55	53	45
FRUSTRATED by the lack of information or inability to find information online	56	42	45	44	36
CONFUSED by information found online	38	30	33	33	27
OVERWHELMED by the amount of information found online	36	30	31	31	25
Number of cases (internet users)	209	202	290	352	281
Source: Pew Internet & American Life Project Survey, September 2007. The number of cases does not sum to the sample's total of internet users because the table does not include respondents who did not respond to the question on household income.					

If it is true that the internet saves time on shopping and can help turn up bargains, then one might expect low-income people, whose time and money may be most scarce, to embrace it. But the data do not show that this is the case for low-income Americans. As the preceding analysis shows, low-income people assess the risks and rewards of online commerce differently than upper-income people. They are more likely to see potential hazards and less likely to see the benefits.

Appendix

This following table provides demographic profiles on online users who have done different activities online pertaining to buying or researching products using the internet.

Demographic Profile of Those Doing Online Shopping Activities					
	Research a product	**Buy or make travel reservation**	**Participate in an online auction**	**Pay to download digital content**	**Buy or sell stocks online**
Gender					
Male	50%	50%	59%	60%	62%
Female	50	50	41	40	38
Age					
18-29	26	24	25	32	21
30-49	44	44	50	42	45
50-64	24	26	22	19	27
65+	6	7	3	7	8
Race					
White (not Hispanic)	72	72	79	66	75
Black (not Hispanic)	10	9	6	11	7
Hispanic (English speaking)	10	11	7	12	9
Other	6	6	7	10	9
Education					
Less than high school	7	4	5	7	4
High school grad	27	23	23	25	19
Some college	28	31	34	31	22
College +	37	41	39	37	55
Income					
Under $25K	14	10	10	13	7
$25K-$40K	12	11	11	17	13
$40K-$60K	18	17	15	15	12
$60K-$100K	21	24	26	18	22
Over $100K	17	20	22	19	28
Don't know/Refused	18	18	16	18	18
Region					
Urban	25	24	23	27	28
Suburban	51	51	53	45	51
Rural	13	13	13	12	13
Internet connection					
Has broadband at home	72	78	84	77	79
Number of cases	1,365	1,088	422	259	200
Source: *Pew Internet & American Life Project Survey, September 2007.*					

The model used to estimate changes in online shopping levels

To estimate the changes in levels of online shopping, logistical regression analysis was used to model the likelihood of purchasing something online as a function of a number of different variables. The dependent variable was whether or not people have ever bought online a product such as a book, toy, music, or clothing. Some 66% of online users in this survey answered "yes" to that question. The independent variables in the model fall into several categories:

- **Demographic & socio-economic**: Gender, race, age, parental status, educational attainment, region of residence (urban, rural, or suburban place), and income.

- **General attitudes and behaviors toward shopping**: Whether people feel overwhelmed by the choice of consumer products, how often they shop, and whether they do research before buying products.

- **Attitudes toward online shopping**: How strongly internet users agree (on four point scales) with propositions on online shopping: the internet us the best place to finding hard-to-find items, online shopping is complicated, online shopping is convenient, dislike giving credit or personal information out online, the internet is the best place to find bargains, online shopping saves time, prefer to see things before buying them.

- **Technology use**: Whether they have broadband at home, use a cell phone only (and thus don't have a landline phone at home), and whether they ever use the internet someplace other than home or work.

The model permits analysis of the change in the probability that a user has bought something online, given a change in the variable in question (e.g., the respondent's assessment of online buying as a time-saver) while holding all other variables constant.

Methodology

The results in this report are based on data from telephone interviews conducted by Princeton Survey Research Associates International between August 3 to September 5, 2007, among a sample of 2,400 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 2.3 percentage points. For results based on internet users (n=1,684), the margin of sampling error is plus or minus 2.7 percentage points. In addition to sampling error, question wording and practical difficulties in conducting telephone surveys may introduce some error or bias into the findings of opinion polls.

Interviews were conducted using a dual-frame sample design. Both landline and cellular random-digit dial (RDD) samples were used. A total of 2,271 interviews were conducted from RDD landline sample and the remaining 129 interviews were conducted by calling RDD cellular sample.

The landline sample for this survey is a list-assisted random digit sample of telephone numbers selected from landline 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.

The cell phone sample is also RDD and is drawn from dedicated cellular exchanges based on the most recently available Telcordia TPM (Terminating Point Master) Data file. Since there is no source or list of assigned cellular telephone numbers, the cell phone sample is not list assisted.

In each contacted landline household, interviewers asked to speak with the youngest male currently at home. If no male was available, interviewers asked to speak with the youngest female at home. This systematic respondent selection technique has been shown to produce samples that closely mirror the population in terms of age and gender.

For the cell phone sample, interviews were conducted with whoever answered the cell phone as long as they were an adult. Voicemail messages were left only one time giving some information about the study and providing a toll-free number that people could call to conduct an interview at their convenience.

Sample was released for interviewing in replicates, which are representative subsamples of the larger sample. Using replicates to control the release of sample ensures that complete call procedures are followed for the entire sample. At least 10 attempts were made to complete an interview for each sampled phone number. Calls were staggered

over times of day and days of the week to maximize the chance of making contact with potential respondents. Each sampled phone number received at least one daytime call in an attempt to make contact with a respondent.

The data was weighted to help correct for potential bias that might be introduced due to non-response and to account for the dual-frame sample design. The demographic weighting parameters are derived from a special analysis of the Census Bureau's March 2006 Annual Social and Economic Supplement Survey. This analysis produces population parameters for the demographic characteristics of adults age 18 or older living in the continental United States. One weighting parameter – phone use – was taken from the 2005 U.S. Consumer Expenditure Survey. The weights are derived using an iterative technique that simultaneously balances the distribution of all weighting parameters. Table 1 compares unweighted and weighted sample distributions to population parameters.

Table 1: Sample Demographics

Parameter		Unweighted	Weighted
Gender			
Male	48.2	45.6	48.1
Female	51.8	54.4	51.9
Age			
18-24	12.4	8.6	12.4
25-34	17.6	12.1	17.3
35-44	19.7	14.4	19.5
45-54	19.7	19.5	19.7
55-64	14.3	18.0	14.4
65+	16.3	27.4	16.7
Education			
Less than HS Grad.	14.5	9.4	13.8
HS Grad.	35.7	34.7	35.8
Some College	23.6	23.9	23.8
College Grad.	26.2	32.0	26.6
Region			
Northeast	18.6	17.9	18.6
Midwest	23.3	27.4	23.3
South	36.2	36.4	36.3
West	21.9	18.3	21.8
Race/Ethnicity			
White/not Hispanic	70.8	79.9	71.4
Black/not Hispanic	10.9	8.7	11.0
Hispanic	12.4	6.5	11.7
Other/not Hispanic	5.9	4.9	5.9
Population Density			
1 - Lowest	20.1	24.3	20.4
2	20.0	22.6	20.2
3	20.1	22.2	20.2
4	20.2	17.8	20.1
5 - Highest	19.6	13.1	19.1

Following is the full disposition of all sampled telephone numbers:

Table 2: Sample Disposition

Landline Sample	Cell Phone Sample	Total	
29191	2500	31691	Total Numbers Dialed
2018	47	2065	Business/Government
1771	9	1780	Fax/Modem
33	13	46	Not landline/ not cell phone
10333	852	11185	Other Not-Working
1721	84	1805	Additional projected Not-Working
13315	1495	14810	Working numbers
45.6%	59.8%	46.7%	Working Rate
502	21	522	No Answer
72	8	80	Busy
2024	344	2368	Answering Machine
10	0	10	Non-Contacts after determined eligible
179	28	207	Other Non-Contacts
10528	1095	11623	Contacted numbers
79.1%	73.2%	78.5%	Contact Rate
656	159	815	Callbacks
6863	678	7541	Refusal before eligibility status is known
3009	258	3267	Cooperating numbers
28.6%	23.6%	28.1%	Cooperation Rate
534	57	591	Language Barrier
2475	201	2676	Eligible numbers
82.3%	77.9%	81.9%	Eligibility Rate
204	72	276	Interrupted
2271	129	2400	Completes
91.8%	64.2%	89.7%	Completion Rate
20.7%	11.1%	19.8%	Response Rate

PSRAI calculates a response rate as the product of three individual rates: the contact rate, the cooperation rate, and the completion rate. Of the working phone numbers in the combined sample (landline plus cell phone), 78 percent were contacted by an interviewer and 28 percent agreed to participate in the survey. Eighty-two percent were found eligible for the interview. Furthermore, 90 percent of eligible respondents completed the interview. Therefore, the final response rate is 20 percent.