Broadband Adoption & Use in America
Results from an FCC Survey

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March 2010
FCC’s Survey of Broadband Adopters & Non-Adopters: Goals

• Understand broadband users & use
  - What they do
  - What is important to them
  - What triggers adoption

• Understand non-adoptors
  - Barriers to access
  - Attitudes toward internet
  - Help frame policy approaches
Sample

- 5,005 respondents

- Oversample of non-adopters = 2,334

- Spanish-speaking option

- Cell phones included
  - 30% of sample interviewed on cell phone

- Survey mandated by the Broadband Data Improvement Act (BDIA)
Adoption
Overview of findings

- 78% of Americans are internet users
- 67% of households contain a broadband user
- 65% of Americans are broadband users at home
- 86% of Americans have a cell phone
- 30% of Americans have used the internet on handheld
  - Among all non-adopters, 14% have accessed internet on cell
  - Among African American non-adopters, 20% have done this
  - Among Hispanic non-adopters, 25% have done this
Main dividing lines on adoption

- **Education**
  - High School Grad or less: 46%
  - Some college or more: 82%

- **Income**
  - Under 50k: 52%
  - 50k or more: 87%

- **Age**
  - Under 65: 71%
  - 65 or older: 35%

- **People with disabilities (24% of sample):** 42% with broadband at home
Adoption by demographic & socio-economic segment

Percent of American adults

- Less than High School: 24
- High School: 55
- Some college: 77
- College +: 86
- Less than $20K: 40
- $20K to $40k: 59
- $40K to $75K: 84
- $75K +: 93
- Non-rural: 68
- Rural: 50
- 18-29: 75
- 30-49: 74
- 50-64: 64
- 65+: 35
- White: 69
- Black Hispanic*: 59
- Hispanic*: 49

*Hispanics includes both English and Spanish speaking Hispanics;
What people pay for broadband

- Average monthly bill (user reported) from FCC survey: $40.68
  - $46.25 for those whose service is not part of bundle
  - $37.70 for those whose service is part of bundle

- Other sources:
  - Pew (April 2009): $39
    ‣ Self-reported from survey
  - TNS Telecoms: $34.50
    ‣ Analysis of consumer bills – 90% bundled offerings, may include promotions
  - Telogical: $46
    ‣ Providers’ stand-alone (i.e., non-bundled) non-promotional offerings

- 70% of broadband users have broadband bill bundled with another service

- Trends:
  - Pew data show price increases from 2008 to 2009.
  - TNS data shows steady prices (for bundles) from 2008 to 2009.
## What online activities are most important? (among broadband users)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making it easy to communicate with friends and family, even if they are far away</td>
<td>68%</td>
</tr>
<tr>
<td>Keeping up with the news in my community</td>
<td>39%</td>
</tr>
<tr>
<td>Sharing content with others, such as photos, videos, or text</td>
<td>34%</td>
</tr>
<tr>
<td>Shopping online</td>
<td>23%</td>
</tr>
<tr>
<td>Watching TV shows, movies and other video online</td>
<td>10%</td>
</tr>
<tr>
<td>Playing games online</td>
<td>9%</td>
</tr>
</tbody>
</table>
What triggers adoption?
(among those online two years or less)

• Most important reasons for getting access:

  - 31%: To email & stay in touch with family & friends
  - 19%: My children needed it for school
  - 10%: I needed it for school
  - 9%: To gain access to music, movies, entertainment
  - 7%: My children wanted internet access
  - 6%: My job required online access
  - 3%: To share photos or videos with families and friends
  - 2%: A provider made a special offer too good to pass up
Key points on adoption findings

• Remains a multi-faceted tool for adopters:
  - Communications
  - Socializing
  - Information gathering
  - Sharing → content & creativity
  - Problem solving → health care, job search, transactions
  - Personal enrichment → education
  - Leisure → entertainment, games

• Path dependence:
  - Late adopters value much the same thing as early adopters
Non-Adoption
Non-Adopters: 35% of adult population

• 3 baskets of non-adopters:
  - 22% -- non-internet users
  - 6% -- dial-up users at home
  - 6% -- online users who do not access the internet from home

• Most non-adopters can get service where they live:
  - 4% of adults cite lack of available infrastructure as reason for non-adoption.
Understanding the reasons for non-adoption

• Asked respondents to list the reasons for non-adoption from a menu:
  - Half of non-adopters list 3 or more reasons why they don’t use the internet or broadband

• Follow-up question posed to pin respondent down on most important reason

• Probed general attitudes about broadband use
Types of barriers non-adopters asked about ...

• Non-users (22%) & not-at-home users (6%)
  - Monthly cost too expensive
  - Not comfortable with computer
  - Worried about online hazards
  - Activation/installation fee too much
  - Cannot afford computer
  - Nothing online I want to see
  - Internet is a waste of time
  - Can access internet all I want at work
  - Not available where I live

• Dial-up at home (6%) [in addition to several listed above]
  - Happy with current service
  - Don’t need additional speed
  - Don’t want long-term contract
  - Don’t use the internet that much
Main reasons people do not adopt

- **Cost** – 36% cite a reason pertaining to this:
  - 15% specifically point to monthly fee for service
  - 10% say they cannot afford a computer
  - 9% activation fee/reluctance to enter into long-term contract

- **Digital literacy** – 22% of non-adopters:
  - 12% say lack of comfort with computers
  - 10% cite hazards of online life (e.g., worries of “bad things that can happen” online)

- **Relevance** – 19% of non-adopters:
  - Content with current dial-up service/don’t need more speed (5%)
  - Believe internet is a waste of time (5%)
  - Nothing they want to see online (4%)
  - Don’t use internet much (4%)

- Remaining reasons:
  - 15% -- other or combination of several reasons
  - 5% -- not available where they live
  - 3% -- can use the internet all they want at work
Comparing attitudes about internet: broadband vs. non-broadband users

- **Internet dangerous for kids**: 24% (Non-adopters) vs. 46% (Adopters)
- **Too easy for theft of personal information**: 39% (Non-adopters) vs. 57% (Adopters)
- **Internet valuable learning tool**: 81% (Non-adopters) vs. 59% (Adopters)
The information and communications goods & services among non-adopters

• 80% have cable or satellite TV at home
• 70% have cell phones:
  - Pay $73 for service (figure includes multi-line service)
• 49% say they are computer users:
  - 34% very comfortable using a computer
  - 39% somewhat comfortable using a computer
• 42% have at least one working computer at home

Among half who are non-computer users:
  - 35% have used a computer in the past

24% of all non-adopters have at some point used broadband (work, friends house, past at home service):
  - 8% of non-users “un-adopted” – they used to have broadband
Segments of non-adopters

• Where do non-adopters fall along 2 dimensions:
  - Proximity to information & communications technology (ICTs)
  - Attitudes toward ICTs

• Good chance to adopt:
  - High proximity, positive attitudes

• Low chance to adopt:
  - Low proximity, negative attitudes

• In between:
  - Low proximity, positive attitudes
  - High proximity, negative attitudes
Creating segments of non-adopters indicates potential conversion points

<table>
<thead>
<tr>
<th>Attitude: comfort with technology</th>
<th>Proximity: digital support system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td><strong>“Digital Hopefuls”</strong></td>
<td><strong>“Near Converts”</strong></td>
</tr>
<tr>
<td>8% of population</td>
<td>10% of population</td>
</tr>
<tr>
<td>Like idea of being online, but lack resources</td>
<td>High rate of computer ownership &amp; comfort with ICTs; positive attitudes</td>
</tr>
<tr>
<td>Cost and Digital Literacy are adoption barriers</td>
<td>Cost is main barrier to adoption</td>
</tr>
<tr>
<td><strong>“Digitally Distant”</strong></td>
<td><strong>“Digitally Uncomfortable”</strong></td>
</tr>
<tr>
<td>10% of population</td>
<td>7% of population</td>
</tr>
<tr>
<td>Lack of skills, resources, and negative attitudes toward cyberspace</td>
<td>Have access means, but low comfort with ICT &amp; tepid attitudes toward ICTs</td>
</tr>
<tr>
<td>Cost, Digital Literacy, Relevance all barriers</td>
<td>Cost and Relevance are adoption barriers</td>
</tr>
</tbody>
</table>
Implications

• Easiest-to-convert segment (Near Converts) need relief on level of monthly bill.

• Solving cost for non-adopters necessary but not sufficient:
  - Digital literacy and relevance typically a role for non-adopters

• Comprehensive approaches to address non-adoption needed:
  - Segment analysis shows at least three-quarters of non-adopters have more than one key issue

• Adoption is an individual decision that takes place in a social context:
  - Indicates solutions should be driven at local & community level to cultivate social infrastructure around adoption