

Arbitron/Edison Media Research

# Internet and Multimedia 10:

*The Emerging Digital Consumer*



Presented by:

**Bill Rose**

Vice President and General Manager  
Arbitron Internet Broadcast Services  
142 West 57th Street  
New York, NY 10019  
(212) 887-1327  
[bill.rose@arbitron.com](mailto:bill.rose@arbitron.com)

**Joe Lenski**

Executive Vice President  
Edison Media Research  
6 West Cliff Street  
Somerville, NJ 08876  
(908) 707-4707  
[jlenski@edisonresearch.com](mailto:jlenski@edisonresearch.com)



© 2003 Arbitron Inc./Edison Media Research

## Overview

Welcome to the tenth Arbitron/Edison Media Research Study of consumer use of digital media, the Internet and streaming media, with brand-new data from interviews conducted in January 2003. Arbitron and Edison Media Research have conducted these studies every six months since August of 1998, and they have become widely used sources of information on streaming media, Internet usage and consumer perceptions of media.

In this study, we have broadened our exploration to include consumer interest in new digital devices, consumer attitudes about different types of programming and a variety of media, including digital cable and satellite television. In prior studies, the name of our reports began with the word “Internet.” With this tenth study, we have renamed the series “Internet and Multimedia,” due to our expanded scope of inquiry.

We have witnessed explosive growth in consumer use of both the Internet and streaming media (which we are now calling “Internet broadcasting”). Seventy-five percent of Americans now have access to the Internet from any location, compared with just 50% in January 1999. Plus, there have been notable increases in the number of people with access to the Internet among African-Americans and Hispanics. In addition, the group of consumers we have defined as “Streamies”—Internet users who have ever listened to audio or watched video online—continues to grow.

During the past two years, the Internet broadcasting industry has faced tough economic times, with the burst of the Internet “bubble” and difficult issues regarding digital rights. Despite these challenges, this study reveals that there has been a dramatic increase in the number of American consumers who use Internet audio and video. As of January 2003, the number of people age 12+ who have ever tried Internet audio or video crossed the 100 million threshold, with an estimated 103 million Americans now having done so.

This report outlines key findings detailed in a point-by-point manner and also includes recommendations. In addition, several appendices with detailed data comparisons are included to enhance readers’ understanding of how American consumers use the Internet and streaming media.

## How the Study Was Conducted

A total of 2,005 people were interviewed to investigate America’s media exposure, Internet usage and interest in new media devices and perceptions of media content. From January 6 to January 16, 2003, telephone interviews were conducted with respondents age 12 and over chosen at random from a national sample of Arbitron’s Fall 2002 survey diarykeepers.



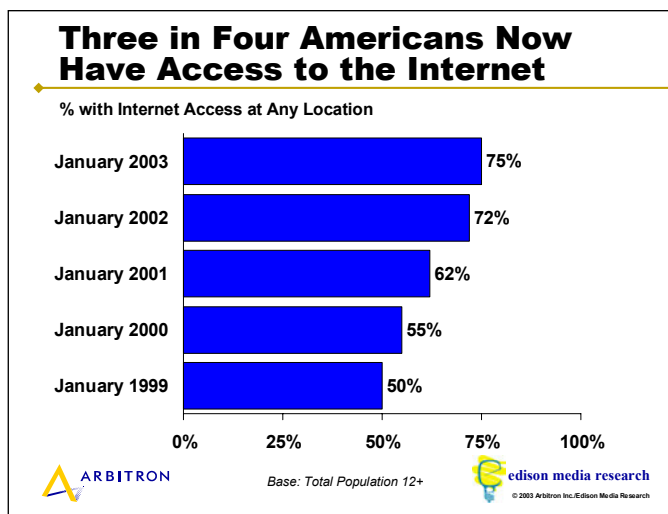
## Significant Highlights

- **The total number of Americans who have experienced Internet audio and video has crossed the 100 million person milestone.** An estimated 103 million Americans (44%) over the age of twelve indicate that they have ever used Internet audio or video (“Internet broadcasts”). Many of those who have tried Internet broadcasting now consume streaming media on a regular basis, with 47 million Americans (one out of five) indicating that they have listened to or watched Internet broadcasting in the past month. Monthly consumers of Internet broadcasting have an upscale profile and represent a tremendous opportunity for advertisers and companies wishing to market new digital devices and content.
- **Over the last three years, the number of Americans listening to Internet audio broadcasting nearly tripled, while those watching Internet video has shown little growth.** Internet audio has become more of a regular habit for millions of Americans, but their use of Internet video has not yet shown signs of habitual use.
- **If the entire current Internet audio audience were sold as a single radio network today, it could generate up to \$54 million per year in advertising revenue.** Based on the estimate from this study, the current weekly cumulative audience of approximately 20 million people, listening for an average of 5½ hours a week to Internet audio generates an Average Quarter Hour (AQH) audience of approximately 655,000 people. Therefore, the advertising value of the weekly Internet audio audience would be \$54 million-per-year, based on a typical network radio cost-per-thousand of \$2.50 and an average of five commercial units per hour.
- **Access to the Internet reaches 75% of people over the age of 12, and Internet usage among African-Americans and Hispanic-Americans has surged.** The “digital divide” is narrowing, due in part to Internet access in libraries and schools. The proportion of Hispanic-Americans and African-Americans with access to the Internet is only slightly lower than that of the total population.
- **Americans show significant interest in new digital devices with flat panel television sets/computer monitors, digital cameras and high definition televisions topping the list of most preferred consumer electronics.**

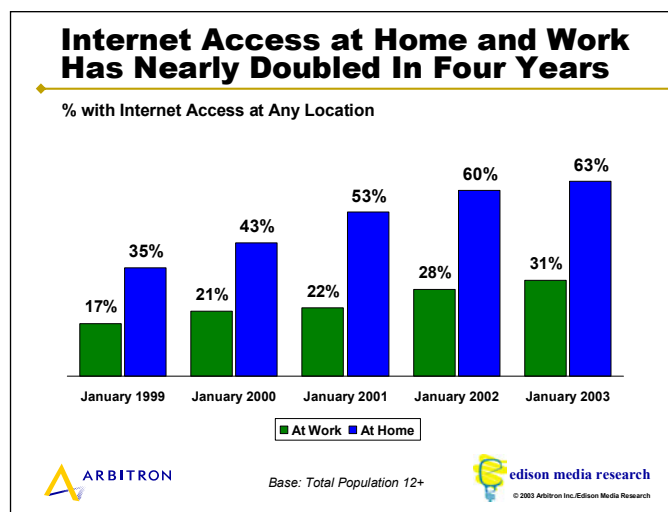
# Key Findings

## A. Internet Usage

1. **Seventy-five percent of all Americans now access the Internet in any location.** In January of 1999, only half the population had access to the Internet. Now, three out of four Americans are online. This includes those who access the Internet at home, work, school or at a library.



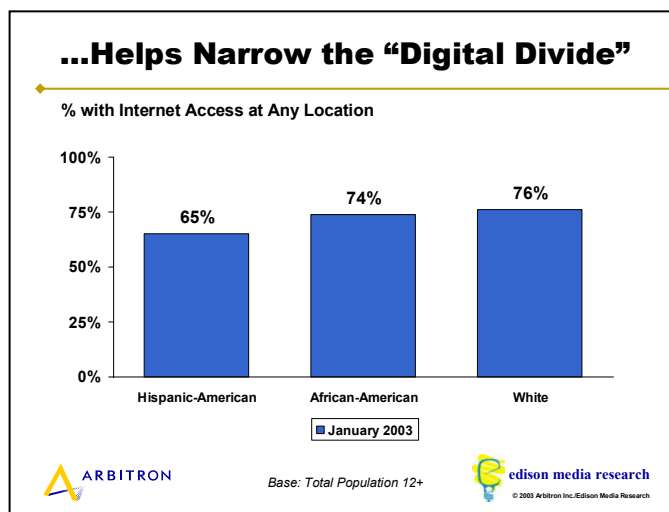
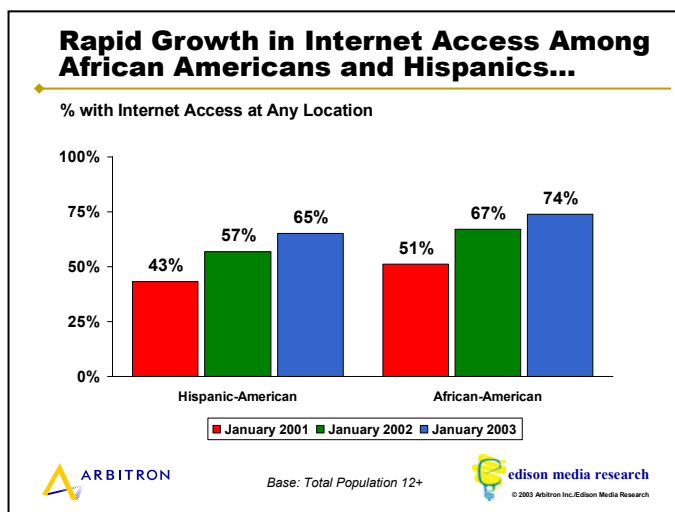
2. **Access to the Internet at home and at work has soared since 1999, but growth has tapered off in the last year.** While the portion of Americans with access to the Internet at home (63%) and at work (31%) approaches twice the levels of January 1999, growth in the last year has been modest.



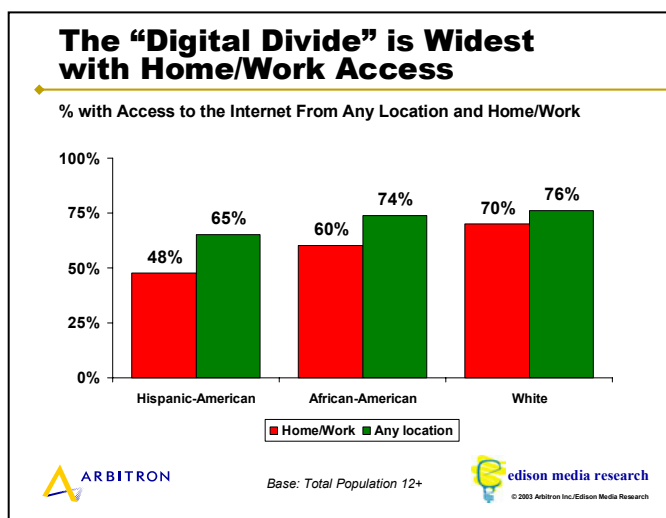
3. **American Internet usage at public libraries is at an all time high.** In January 2001, 9% of Americans indicated they accessed the Internet at public libraries. As of January 2003, 21% of Americans say they access the Internet at public libraries. Nearly half of teens age 12 to 17 (45%)

access the Internet at public libraries. This is likely evidence of the successful efforts of public libraries to place a greater emphasis on Internet resources and access for the American public.

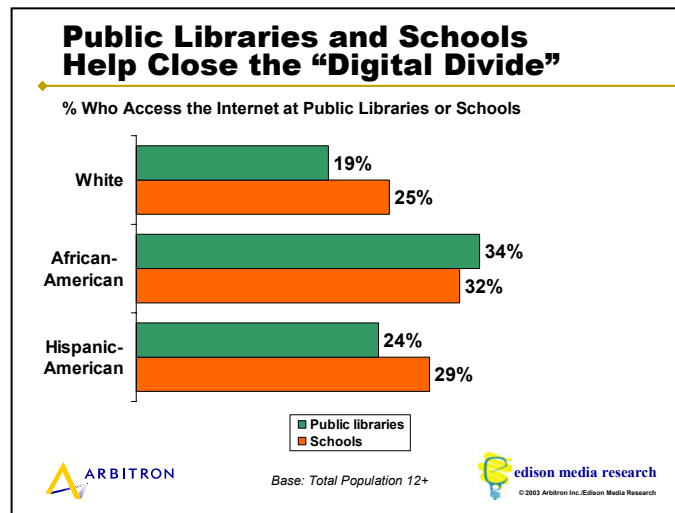
4. **Hispanic Americans and African-Americans show strong gains in Internet access.** When we look at Internet access in any location (including school and public library access), the “digital divide” appears to be narrowing. Overall, 76% of whites have access to the Internet in any location, followed by 74% of African-Americans and 65% of Hispanic-Americans. While Internet access among whites increased slightly over the last year, African-Americans and Hispanic-Americans saw far sharper gains in Internet access.



5. **Public libraries and schools have done an exceptional job of making the Internet accessible to America’s ethnic constituencies.** There is still a significant gap among African-Americans and Hispanic-Americans when comparing those with access to the Internet at home or work vs. those with access from any location. In January 2003, home/work Internet access for whites is 70% compared to 60% for African-Americans and 48% for Hispanic-Americans.

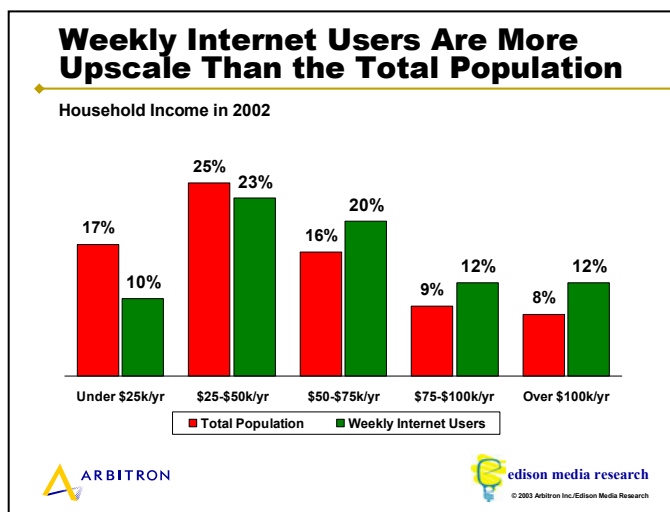


Schools and public libraries have helped to make the Internet available to African-Americans and Hispanic-Americans who are not accessing the Internet at work or at home.



6. **Internet penetration is highest among teens (93%) and 18- to 24-year-olds (88%).** Young adults access the Web from many locations (home, work, school and public libraries). Seventy-two percent of teens in America access the Internet at home, 74% access the Web at school and nearly half (45%) access the Internet at a public library; in addition, 71% access the Internet in multiple locations. Two-thirds of 18- to 24-year-olds access the Internet at home, followed by 56% at school and 34% in a public library, with 62% accessing the Internet in more than one location. Eight out of ten 25- to 54-year-olds are Internet users, while 55- to 64-year-olds lag slightly behind at 71%. Internet access has yet to reach the 50% mark only among Americans age 65 and over.
7. **Since our first study, nearly five years ago, the Internet has evolved into a mass medium mirroring the overall population.** In August 1998, only 31% of the people in the U.S. accessed the Internet at home or at work and the profile of Internet users skewed upscale, young and male. In January 2003, the profile of those who access the Internet from any location more generally reflects the population of the country, overall.

The composition of those who accessed the Internet in the last week is slightly younger than the total population. However, the proportion of weekly Internet users who are male and those who are female closely resembles the overall U.S. gender composition. Weekly Internet users are still more likely to have higher incomes than the population in general.



8. **Communication and information are two driving forces of Internet usage.** The chart below depicts a sample of activities Americans have utilized over the Internet.

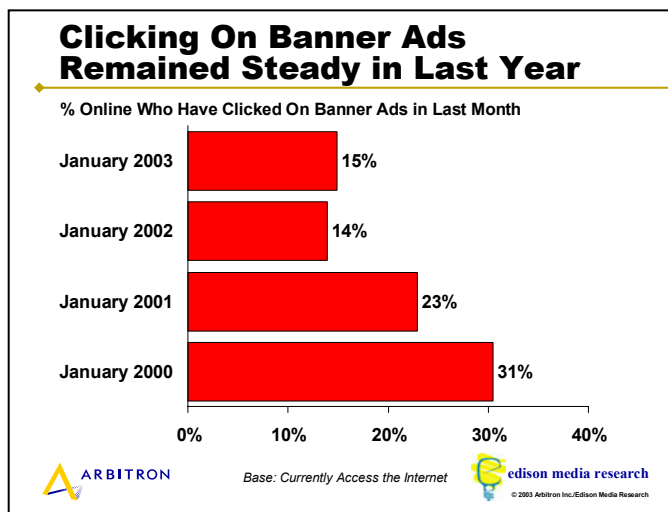
#### Percent Who Have Used Given Services on the Internet

Base: Currently Access the Internet

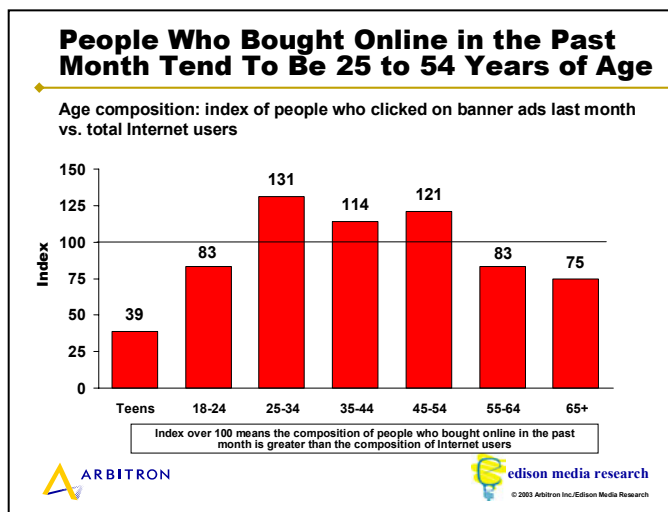
Point-to-point driving directions	64%
Search for jobs	34%
Shop for automobiles with particular specifications	33%
Pay bills	27%
Sell and bid on items at auction	27%
Shop for personal computer with particular specifications	24%
Buy movie tickets	15%
Make a phone call	13%
Watch full-length movies	9%
Develop film	8%
Rent DVDs	7%
Sports betting and casino-style gambling	5%

## B. Online Advertising and Purchases

9. For the first time since 2000, the number of Americans who clicked on banner ads in the last month did not decline. During the height of the Internet boom, the number of online users who clicked on Web site banner ads in the past month peaked at 31% (January 2000). With the burst of the dot-com bubble, the percent of Internet users who clicked on banner ads in the past 30 days started to plummet, hitting a low of 14% in January 2002.

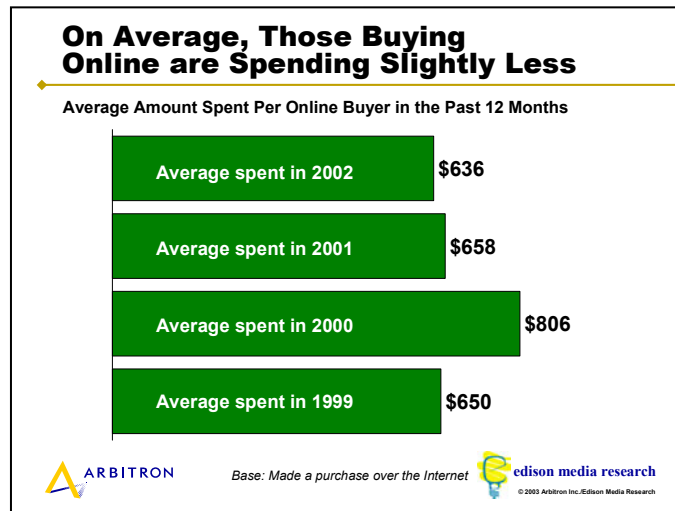


10. Those who have clicked on Web site banner ads in the last month tend to be men age 25 to 54. Sixty-three percent of those who have clicked on banner ads in the last month are men and nearly two-thirds are age 25 to 54.
11. A higher proportion of those who have made a purchase online in the past month are persons 25 to 54, compared to the total online population. The graph below depicts an index that compares the profile of people that have bought online in the last month with the overall composition of online Americans.



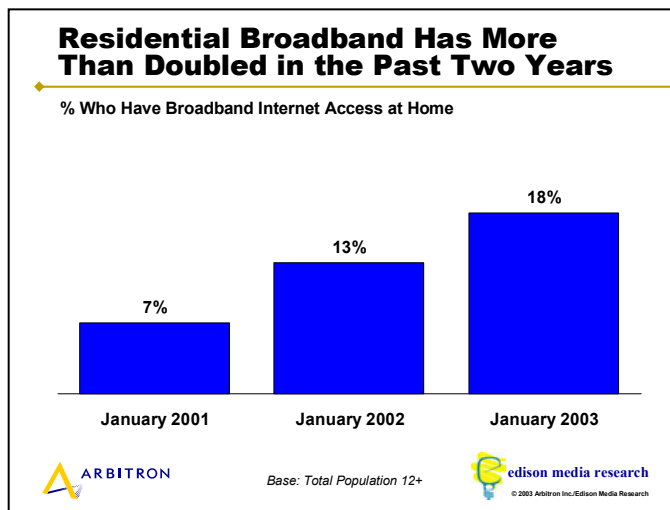


- 12. Among those who have made a purchase online, the average amount of money spent online in the past 12 months peaked in the year 2000.** The decrease in average amount spent online, among those having ever made a purchase online, is possibly associated with a slower economy during the past two years.

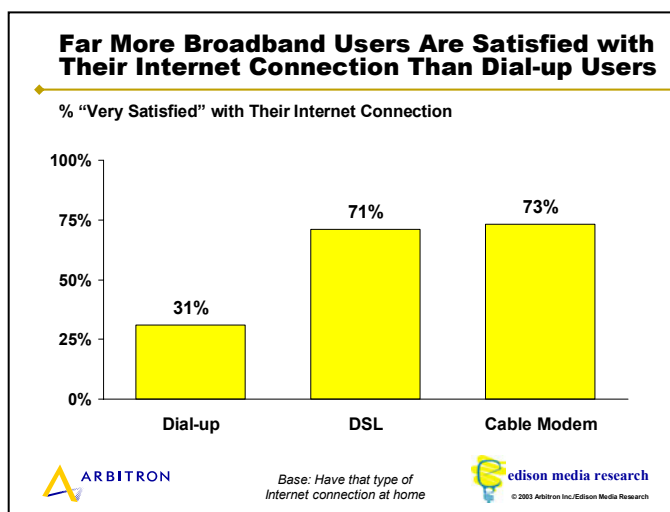


## C. Broadband

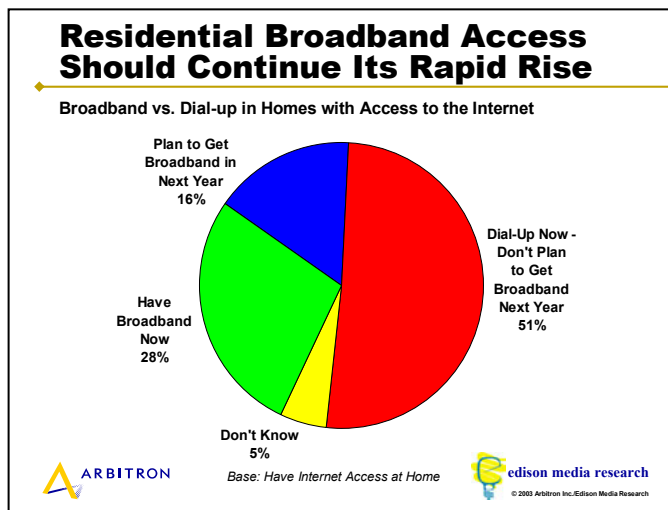
- 13. The number of Americans with super-fast broadband Internet connections in their homes has more than doubled in the last two years.** In January 2001, 7% of all Americans had a broadband Internet connection in their home. Two years later, in January 2003, 18% of all Americans now have residential broadband Internet access.



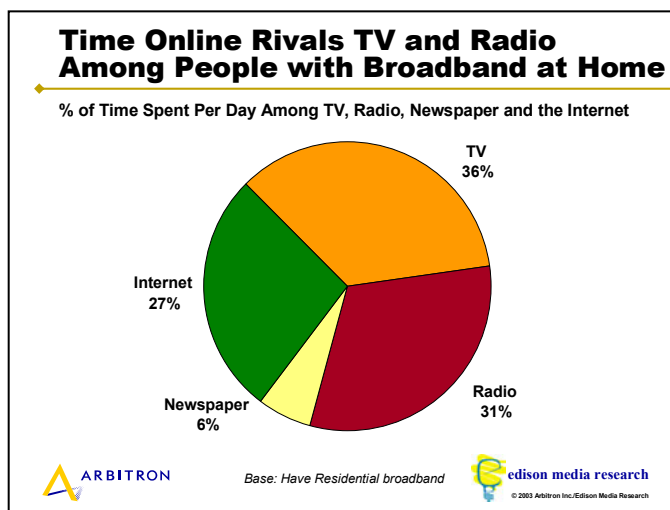
- 14. Those with residential broadband Internet connections are far more satisfied with their services compared to those with dial-up connections.** Seventy-three percent of home cable modem users and 71% of home DSL users are “very satisfied” with their service, while only 31% of dial-up users are “very satisfied.”



- 15. Nearly one in six of those with access to the Internet at home say they plan to get high-speed Internet access in the next year.** Despite tight economic times, 16% of Americans with home Internet access say they plan to get broadband in the next twelve months. Plus, a portion of those who do not have access to the Internet at home today plan to get broadband in the next year. Overall, approximately 33 million Americans plan to get broadband Internet access in the next year.

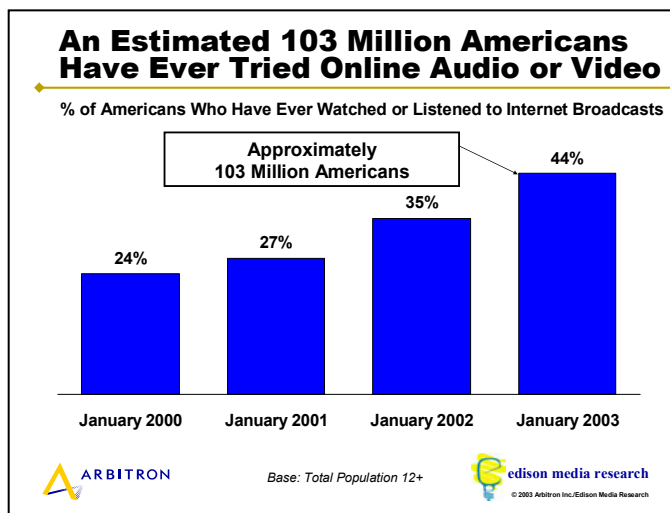


- 16. Consumers with residential broadband spend significantly more time online and less time with traditional media.** Average time spent online per week among those with broadband is 13 hours compared to 8 hours per week for those with dial-up. Between TV, radio, newspapers and the Internet, those with broadband allocate a much larger share of their daily media time spent with the Internet (27%) compared to those with dial-up connections (17%).



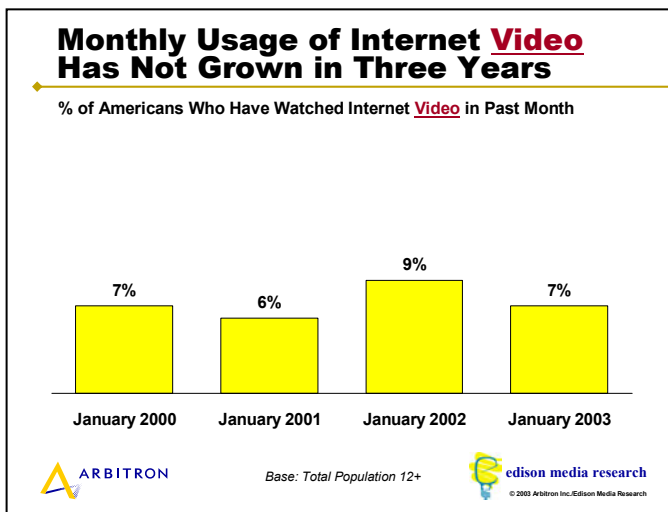
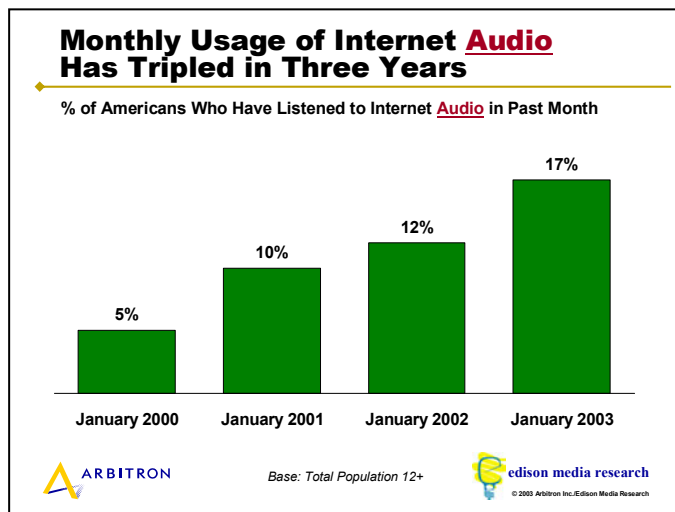
## D. Internet Broadcasting (Streaming) Usage

- 17. The number of Americans who have ever used Internet audio and video (Internet broadcasts) has crossed the 100 million person milestone.** As of January 2003, 44% of all Americans had ever used Internet audio or video which projects to approximately 103 million Americans. This represents nearly six out of ten of online Americans. The percentage of Americans who use Internet audio or video (January 2003, 44%) is now nearly twice the size of what it was three years ago (January 2000, 24%). Among the possible explanations for the overall growth of Internet broadcasting usage: the growth of the total online audience; the increase in experienced Internet users who are more likely to try Internet broadcasting; and the tremendous growth in broadband.



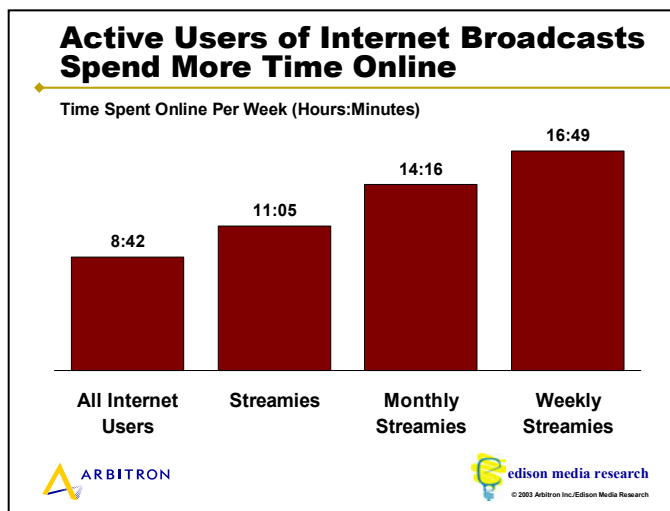
- 18. More Americans are using Internet broadcasting on a regular basis despite turmoil in the Internet broadcasting sector regarding digital rights controversies and a reduction in streaming outlets.** The big increase in the number of Americans who have ever tried online audio and video has resulted in gains in those who now use Internet broadcasting on a habitual basis. Forty-six million Americans say they have watched or listened to Internet broadcasting in the past month. This represents 20% of the U.S. population and 26% of those online. Among those that have listened to Internet audio and video in the past month, four out of ten indicate they have broadband connections at home.

- 19. The percentage of those who listen to Internet audio on a regular basis has tripled in three years, while growth in regular tuning to Internet video has been stagnant.** The proportion of all Americans who listened to Internet audio in the last month tripled from 5% in January 2000 to 17% in January 2003. Over the same period, there has been virtually no increase in monthly Internet video audiences (7% January 2000, 7% January 2003) among the total U.S. population. As of today, it appears that consumers derive growing value from Internet audio broadcasts, but tuning to Internet video has not yet become a regular habit.

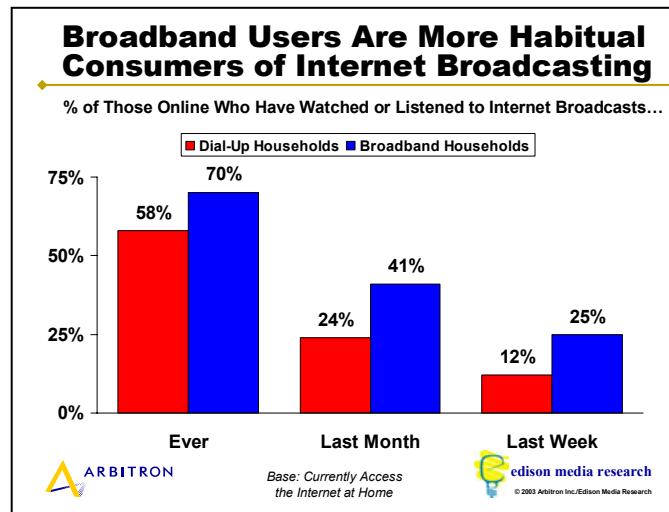


- 20. Approximately 24 million Americans say they have watched or listened to Internet broadcasts in the last week.** Those who have listened to or watched content online in the last week represent 10% of the U.S. population and 14% of all Internet users. Nearly half of those that have consumed Internet broadcasting in the last week have broadband Internet access at home.

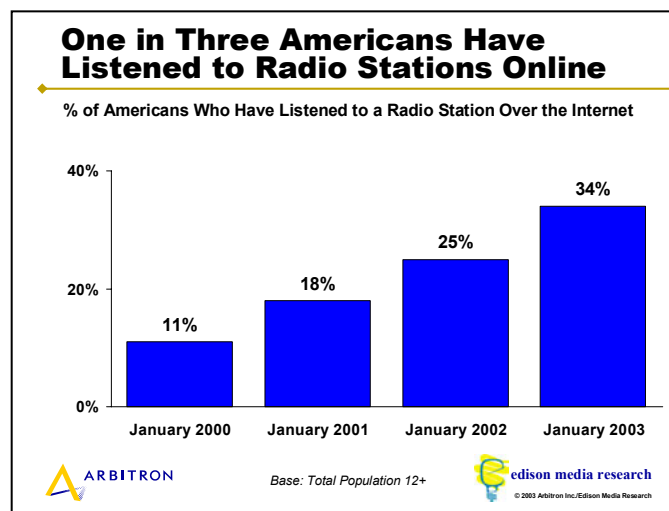
- 21. The more habitual the Internet broadcast consumer, the more time they spend on the Internet.** The average Internet user spends about 9 hours per week online, while Streamies (those who ever used Internet audio or video) spend 11 hours per week online. Monthly Streamies spend more than 14 hours and weekly Streamies spend nearly 17 hours per week online.



- 22. Broadband is a catalyst for greater use of Internet broadcasting.** Those with residential broadband are far more likely to have tried and used Internet broadcasting on a regular basis than those with dial-up connections.

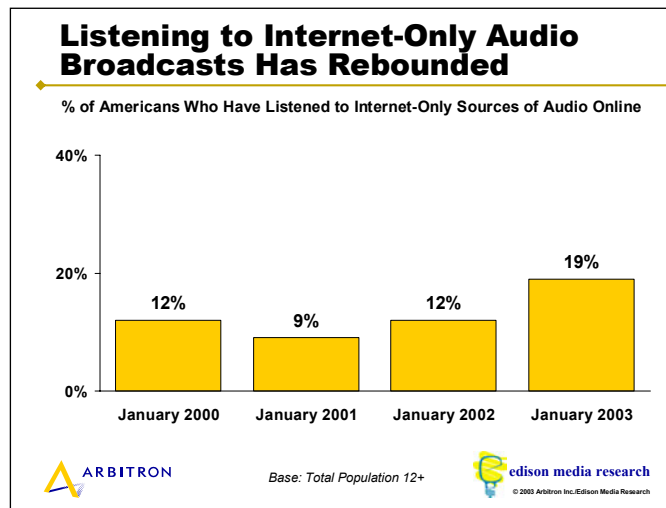


- 23. The number of Americans who have ever listened to radio stations over the Internet has surged from 11% in January 2000 to 34% in January 2003.** It has been a good year for growth in listening to radio stations on the Internet. The proportion of Americans that have listened to radio online grew from 25% in January 2002 to 34% in January 2003.



- 24. Habitual listening to radio stations on the Internet continues to grow.** Not only are more people trying radio over the Internet for the first time; habitual tuning (those listening last month or last week) also continues to rise. As of January 2003, nearly 12% of all Americans say they have listened to radio stations over the Internet in the last month, and 6% say they have listened to radio stations online in the last week.

- 25. Internet radio listeners say they listen most often to local stations (46%) followed by radio stations from other parts of the U.S. (40%) and stations from other countries (7%).** The proportion of those who say they listen most often to out-of-town stations has increased from 34% in January 2001 to 40% in January 2003. Those listening to local stations most often decreased from 56% in January 2001 to 46% in January 2003. This pattern of more listening to stations beyond the consumer's home market may be the result of some stations going offline due to digital rights issues. With fewer local stations to choose from, people seeking online radio may have found stations from other markets to listen to.
- 26. Listening to Internet-only audio sources has rebounded.** During the dot-com boom, the number of Internet-only audio sources flourished with venture capital funding. With the burst of the dot-com bubble many of these Internet-only sources shut down. However, Internet broadcasting from major players such as Launch/Yahoo! and AOL continue to thrive. Overall, listenership to online audio from Internet-only sources has shown significant gains in January 2003. From January 2000 to January 2002, the proportion of Americans who had ever listened to audio from Internet-only sources hovered between 9% and 12%. The proportion of those who have ever listened to Internet-only audio sources rose from 12% in January 2002 to 19% in January 2003.



- 27. If a single radio network had an audience comparable to the number of people tuning to all current Internet audio broadcasts, it could generate up to \$54 million per year in advertising revenue.** The current weekly cumulative Internet radio audience stands at 20 million people who listen for an average of 5½ hours per week, which results in an Average Quarter-Hour audience of approximately 655,000 people. A radio network with an audience of comparable size would have revenue potential of \$54 million per year, based on a typical network radio cost-per-thousand of \$2.50, and an average of five commercial units per hour. While this estimate is a just a “drop in the bucket” compared to the \$2 billion national commercial radio market, significant revenue potential can be mined from the millions of Americans who regularly consume Internet audio. The market potential will increase as the audience to Internet audio broadcasting continues to grow and as more companies pursue an active ad sales effort.

The chart below provides estimates of the potential value of the current online audio audience as if it were sold as a radio network today; based on different combinations of available units sold per hour and cost-per-thousand (CPM).

### Potential Value of the Internet Audio Audience

If sold as a single radio network today

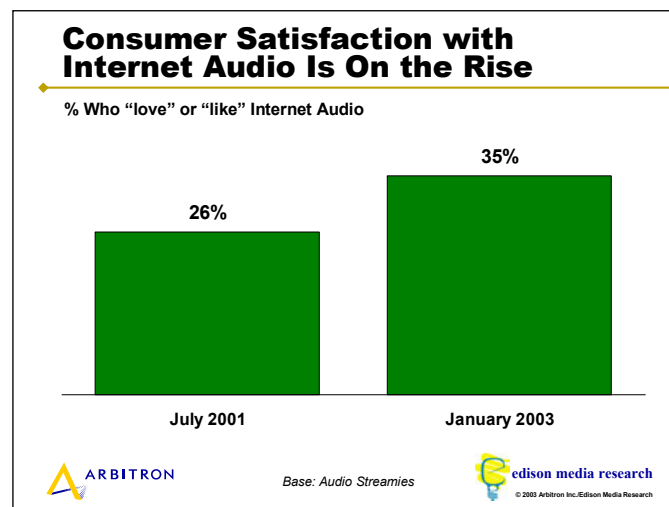
(\$ Million/Year)

<u>CPM</u>	<u>Units per hour</u>									
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
\$1.00	\$4	\$9	\$13	\$17	\$22	\$26	\$30	\$34	\$39	\$43
\$1.50	\$6	\$13	\$19	\$26	\$32	\$39	\$45	\$52	\$58	\$65
\$2.00	\$9	\$17	\$26	\$34	\$43	\$52	\$60	\$69	\$77	\$86
\$2.50	\$11	\$22	\$32	\$43	\$54	\$65	\$75	\$86	\$97	\$108
\$3.00	\$13	\$26	\$39	\$52	\$65	\$77	\$90	\$103	\$116	\$129
\$3.50	\$15	\$30	\$45	\$60	\$75	\$90	\$105	\$120	\$136	\$151
\$4.00	\$17	\$34	\$52	\$69	\$86	\$103	\$120	\$138	\$155	\$172
\$4.50	\$19	\$39	\$58	\$77	\$97	\$116	\$136	\$155	\$174	\$194
\$5.00	\$22	\$43	\$65	\$86	\$108	\$129	\$151	\$172	\$194	\$215

**How to read:** “CPM” indicates the cost of buying 1000 impressions. “Units per hour” means the number of commercials aired per hour. Select a CPM and the number of commercials per hour to determine the annual value of the Internet audio broadcast market. Example: With current Internet audio broadcast audience levels, a \$5.00 CPM with five commercials per hour would yield a \$108 million annual Internet audio broadcast ad market.

- 28. Consumer satisfaction with Internet audio is on the rise.** Eighteen months ago (July 2001) 26% of people who listened to Internet audio said they “love it” or “like it” and 8% said they “dislike it” or “hate it.” As of January 2003, 35% of people who listen to Internet audio say they love it/like it and only 6% say they dislike it/hate it.

Satisfaction with Internet video is not as high as audio. Fewer people who have watched Internet video say they love it/like it (27%) and more say they dislike it/hate it (11%).





- 29. Those who consumed Internet broadcasts in the past month are more upscale and technology savvy than the general population, and are a valuable target for advertisers seeking specific and hard-to-reach consumer groups.**

	Monthly Streamies	Total Population
\$75,000+ annual household income	29%	17%
College graduate or higher level of education	41%	29%
Have residential Broadband	39%	17%
Two or more computers in the home	51%	30%

- 30. Active Internet audio listeners are just as likely as the general population to say that terrestrial radio does a “very good” or “good job” of playing the music they like or providing a variety of programming.** Many assume that active listeners of Internet audio are dissatisfied with terrestrial radio. This study reveals no such evidence. Seventy-three percent of Americans say that radio does a “very good” or “good job” of providing the music they like vs. 74% percent among weekly Internet audio consumers. Seventy percent of Americans say that radio does a very good/good job of providing a variety of programming compared with 69% percent of weekly Internet audio users.

- 31. Approximately 12 million Americans say they would be willing to pay a small fee to listen to content provided by the one Internet audio source they listen to most.** Consumers are most willing to pay a subscription fee for unique content and programming not available elsewhere. No commercials, fewer commercials, and higher audio quality are less important factors in the decision to pay a fee.

### Would pay a small fee to listen to online audio if...

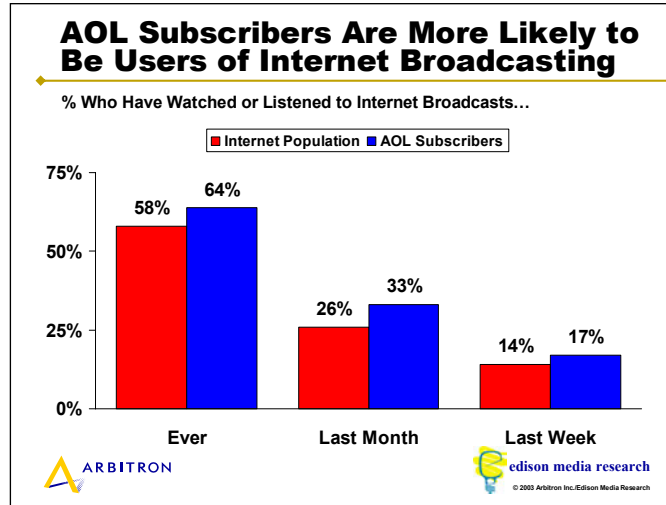
Base: Audio Streamies

It offered content or programming you could not get elsewhere	46%
The audio was of the highest quality, without pausing or buffering	34%
There were no commercials	30%
There were noticeably fewer commercials	15%

- 32. A significant number of Americans are aware of BMW’s series of streamed mini-movies from well-known Hollywood directors.** BMW created several six- to- nine-minute short films featuring BMW cars. These minimovies were directed by famous Hollywood directors and BMW made them available, exclusively, online at [www.bmwfilms.com](http://www.bmwfilms.com). BMW aggressively promoted these videos using broadcast TV. Sixteen percent of all Americans say they are aware of the minimovies on BMW’s Web site. When projected against the U.S. population, an estimated five million people say that they have watched BMW’s minimovies. This is an impressive example of using traditional media to drive exposure and consumption of Internet broadcasting.

**33. AOL subscribers are more oriented to Internet broadcasting than the typical Internet user.**

Compared to the typical Internet user, AOL subscribers are more likely to have tried Internet broadcasting and they are more likely to be weekly and monthly users of Internet broadcasting. Since AOL's subscribers are more oriented to Internet broadcasting, AOL's streaming and Internet broadcasting initiatives should be a powerful magnet for its consumers.

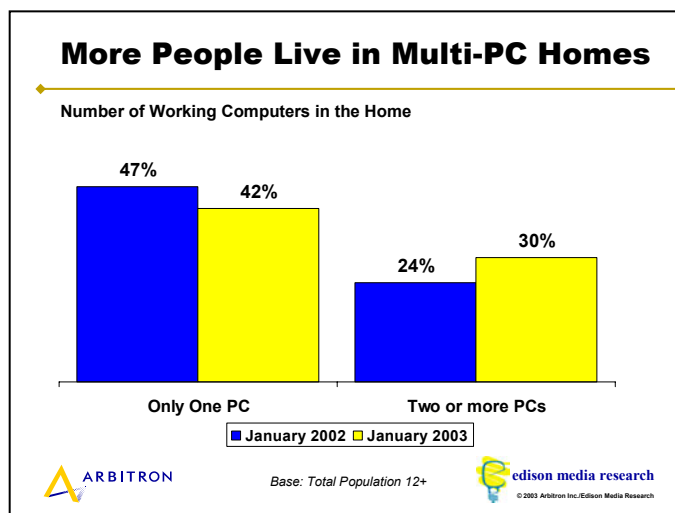


## E. Cable and Satellite Media

- 34. Awareness of both XM and Sirius Satellite Radio has increased.** From January 2002 to January 2003, aided awareness for XM Satellite Radio increased from 17% to 32%. Aided awareness for Sirius Satellite Radio grew from 8% from January 2002 to 18% in January 2003. For both XM and Sirius, the awareness of the two satellite radio providers and interest in each service is much more pronounced among men than with women. Awareness of satellite radio is strongest among 12- to 34-year-olds.
- 35. Approximately 17 million Americans say they are “very interested” in the concept of satellite radio.** Eighteen to twenty-four-year-olds and men age 12 to 44 show the most interest in satellite radio. African-Americans and Hispanic-Americans also show greater interest in satellite radio than white consumers.
- 36. There is a strong correlation between active users of Internet audio and those who express an interest in satellite radio.** While 9% of all Americans indicate they are “very interested” in satellite radio, 15% of those who used Internet broadcasting in the last month say they are “very interested” in satellite radio. Sixty-six percent of those who are “very interested” in satellite radio have tried Internet broadcasts. It is clear that there is a significant number of American consumers who actively seek unique and compelling audio content regardless of its distribution method.
- 37. Digital cable is helping to improve customer satisfaction scores among cable clients, but satellite television consumers are far more satisfied.** Two-thirds of U.S. consumers say they subscribe to cable television (66%) and one in five (21%) say they have satellite television. When asked to rate their satisfaction with their respective service, 41% of cable television subscribers say they are “very satisfied.” A slightly higher proportion of those who have digital cable say they are “very satisfied” (48%). Those with satellite television are extremely happy. Sixty percent of satellite television subscribers say they are “very satisfied” with their subscription. Digital cable helped to improve the satisfaction levels of cable subscribers, but it has yet to reach the level of enthusiasm exhibited by satellite television subscribers.

## F. Digital Devices

**38. While the growth in the number of people who have a computer in their home has slowed, the proportion of those who live in homes with more than one PC is still rising.** In 1998, one out of two people lived in homes with at least one computer. As of January 2003, 73% live in households with one or more computers. However, the number of multi-PC households is increasing. In January 2002, 24% of U.S. consumers lived in homes with two or more working computers. A year later, this figure has increased to 30%. A similar pattern occurred with television set ownership. Most American households in the 1950's and 1960's had only one television. By the 70's and 80's, the number of TVs per household increased significantly. We can expect a similar pattern for computers in the home.



**39. HDTV sets (over-the-air digital televisions) have begun to make an impression on American consumers, especially among men who have experienced digital TVs in retail stores.** Fifty-five percent of American consumers say they have been exposed in some fashion to HDTV in the last year. The awareness level for HDTV is much higher among men (64%) compared to women (48%).

Thirty percent of Americans say they have ever viewed an HDTV signal. By almost a two-to-one margin, more men say they have experienced HDTV (39%) compared to women (22%). Of those who have viewed a digital television, over half experienced HDTV in a retail store (52%), followed by nearly four in ten (38%) who have watched at a friend or family member's home. Approximately four percent of Americans say they personally own an HDTV.

**40. Of twenty-six electronics devices tested, the DVD player stands out in terms of consumer awareness and existing ownership.** Just a few years ago, DVD players began to build awareness and usage among American consumers. Now, an astounding 84% are familiar with the DVD player, and nearly six out of ten Americans indicate they already own a DVD player. Close behind the DVD in awareness and usage are universal remote control units and digital cameras. One-third of Americans already say they own a digital camera and another 15% say they are very interested in buying one. Close behind digital cameras in ownership are photo-quality home printers at 27%. One out of five Americans say they either have satellite or digital cable services and almost a quarter of households have the Sony Play Station 2 video game system.

### Familiarity and Ownership of Digital Devices

Base: Total Population

	% Familiar with Device	% Who Own Device
DVD player	84%	59%
Universal remote control	75%	48%
Digital camera	74%	34%
Satellite TV or DSS	67%	21%
Sony PlayStation 2	66%	24%
Digital cable television	63%	21%
Digital video camcorder	61%	19%
Nintendo Game Boy Advance	55%	16%
Photo-quality home printer	54%	27%
Flat panel computer monitor	54%	11%
Plasma television or flat panel TV	53%	3%
Nintendo Game Cube	52%	8%
High definition television/HDTV	51%	6%
Portable DVD player	51%	10%
Computer DVD recorder	51%	16%
Cell phone with PDA features	47%	17%
Personal Digital Assistant (PDA)	45%	11%
Microsoft Xbox	43%	6%
Portable MP3 audio player (iPod)	37%	8%
Stand-alone DVD recorder	36%	9%
Personal Video Recorder (TiVo)	36%	7%
Wireless home network	28%	4%
Tablet PC	19%	2%
Digital home entertainment hub	16%	3%
Digital radio (HD Radio)	15%	2%
Segway Human Transporter	11%	0%

- 41. When probed for interest in a series of media and digital devices, Americans show the greatest interest in flat panel TV/computer monitors, digital cameras, HDTVs digital camcorders and DVD devices.** The chart below indicates the digital media devices with the highest level of interest in owning the device (among Americans who do not already own that device).

### Interest in Digital Devices

Base: Total Population

	% "Very Interested" in Owning Device (Among those who do not already own)	% Already Owning Device
Plasma television or flat panel TV	17%	3%
Digital camera	15%	34%
Flat panel computer monitor	14%	11%
High definition television/HDTV	12%	6%
Digital video camcorder	11%	19%
Portable DVD	8%	10%
Computer DVD recorder	8%	16%
Photo-quality home printer	7%	27%
DVD player	7%	59%
Portable MP3 audio player (iPod)	6%	8%
Stand-alone DVD recorder	6%	9%
Sony PlayStation 2	6%	24%
Cell phone with PDA features	5%	17%
Personal Video Recorder (TiVo)	5%	7%
Microsoft Xbox	5%	6%
Personal Digital Assistant (PDA)	5%	11%
Satellite TV or DSS	5%	21%
Universal remote	5%	48%
Wireless home network	4%	4%
Digital cable television	4%	21%
Nintendo Game Cube	4%	8%
Digital home entertainment hub	3%	3%
Nintendo Game Boy Advance	3%	16%
Tablet PC	2%	2%
Digital radio (HD radio)	2%	2%
Segway Human Transporter	1%	0%

**42. Active Internet broadcast consumers are far more likely to show high interest in a variety of consumer electronics.** Regardless of the consumer electronics item, it is clear that an ideal advertising target for many consumer devices consists of the approximately 48 million Americans who are regular consumers of Internet broadcasting. Advertisers marketing consumer electronics would be smart to consider Internet broadcasting as a powerful advertising medium to influence those who are very interested in digital devices.

% “Very Interested” in Owning Digital Device		
	Total Population	Monthly Streamies
Plasma television or flat panel TV	17%	29%
Flat panel computer monitor	14%	24%
High definition television or HDTV	12%	22%
Digital camera	15%	19%
Digital video camcorder	11%	18%
Portable MP3 audio player (iPod)	6%	15%
Portable DVD	8%	15%
Computer DVD recorder	8%	15%
Photo-quality home printer	7%	12%
Stand-alone DVD recorder	6%	11%
Cell phone with PDA features	5%	11%
Personal Video Recorder (TiVo)	5%	10%
Wireless home network	4%	9%
DVD player	7%	9%
Microsoft Xbox	5%	9%
Digital cable television	4%	8%
Personal Digital Assistant (PDA)	5%	8%
Satellite TV or DSS	5%	8%
Sony PlayStation 2	6%	7%
Nintendo Game Cube	4%	7%
Digital home entertainment hub	3%	6%
Tablet PC	2%	6%
Universal remote	5%	5%
Nintendo Game Boy Advance	3%	5%
Digital radio (HD radio)	2%	3%
Segway Human Transporter	1%	3%

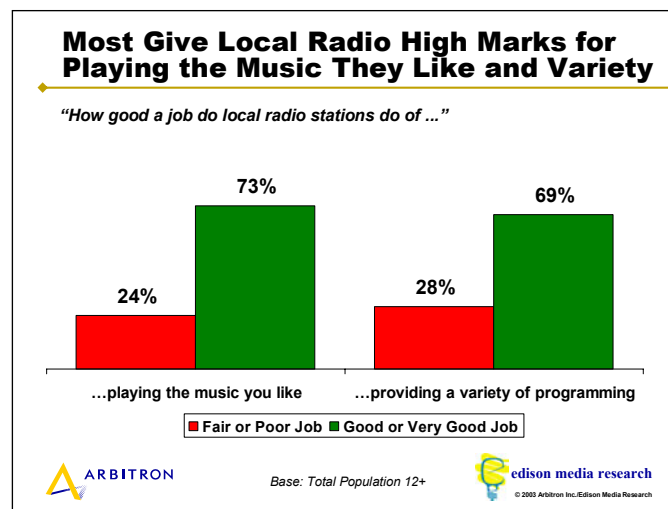
## G. Perceptions of Media Content

- 43. When it comes to “dirty and explicit” content, Americans see television and cable as crossing the line much more frequently than radio.** When asked how often each medium is “too dirty and explicit for your taste,” cable has the highest “frequently” response with 25%, followed by network television programs (19%), Internet Web sites (14%), and Internet video (13%). Only 8% say they frequently find radio to be too dirty and explicit for their tastes.

These findings indicate that the national conversation surrounding “pushing the line” on sex and violence is more of an issue for television or cable programming, as opposed to radio programming. Sixty-five percent of Americans feel that radio is “rarely” or “almost never” too dirty or explicit for their taste. The segmented and targeted nature of radio appears to allow Americans to find radio stations that are best suited to their tastes.

- 44. Contrary to media pundits, U.S. consumers give terrestrial radio high marks for programming variety, music content and news and information.** Recently, it has become fashionable for critics to complain about radio’s lack of variety in its programming. The reason many critics cite for this lack of variety is that fewer companies own radio stations today. These findings provide a reminder that these critics may be out of sync with consumer sentiment. Pundits have theorized that radio ownership consolidation has reduced programming variety on U.S. radio. To test this theory, listeners were asked if radio programming today had more, less or the same variety compared to five years ago. The great majority of listeners (79%) feel they get more or the same amount of programming choices from their local radio stations than they did five years ago. In fact, more than one-third of listeners said their choices are now greater. Thus, listeners feel U.S. radio has more variety today compared to five years ago.

Seventy-three percent of all Americans say that radio does a “very good” or “good job” of playing the kinds of music people like best. Sixty-nine percent give radio positive marks for doing a “very good/good job” of providing a variety of programming.



Eight out of ten Americans say they listen at least once a week to local radio stations for information on news, weather, traffic, sports and community activities. Fifty-two percent of all Americans say they listen every day for information and 86% say that local radio plays a “very” or “somewhat important” role in providing news and information for their local community.



## H. Music Purchasing and Downloading

- 45. When it comes to accessing new music, buying CDs from a store is the most frequent manner in which Americans access new music.** Consumers were asked to indicate the ways in which they access new music. Thirty-one percent indicate they “frequently” “buy CDs from a store,” which is more than three times as many consumers who say they “copy CDs from friends and family” or “download MP3 files from the Internet” (8%). A smaller proportion indicate that they “frequently” “share MP3 files with friends and family” (5%) or access new music through “streaming audio over the Internet” (6%). Three percent say that they “buy CDs over the Internet.”
- 46. Overall, far more consumers buy music CDs from stores or online rather than download or swap music files on the Internet. However, younger consumers are far more involved than older consumers in downloading and swapping music files from the Internet.** Consumers were asked what they do most often when accessing new music; buy music CDs from stores or online, or download and swap music files from the Internet. Overall, far more Americans (70%) indicate they buy CDs online or from a store, most often, as opposed to downloading and swapping files from the Internet (14%). Among teenagers however, nearly as many say they download and swap Internet files most often (44%) vs. those who buy most often (51%). Twenty-six percent of 18- to 24-year-olds say they mostly download or swap Internet music files compared to 66% that buy online or at stores.

## Recommendations

1. **Internet broadcasters should get serious about ad sales.** The growth in tuning to Internet broadcasts has been remarkable. Most of this growth has been driven by consumers listening to audio online and that is where Internet broadcasters should concentrate their efforts for now. Audience growth to Internet video broadcasts has been slow to develop, most likely due to the limited consumer experience compared with traditional video choices. Rapid technology advancements should reduce the cost of video streaming and improve the consumer experience, but for now, the immediate opportunity for ad sales is with audio.

The potential for significant advertising revenue exists today. If a traditional radio network had an audience size comparable to that of Internet radio, it could generate up to \$54 million in advertising revenue. Internet broadcasting is still new and its audience is small compared with most traditional media choices. For that reason, Internet broadcasters should sell in networks to aggregate an audience with sufficient critical mass and to make it easier for advertisers to buy. Internet broadcasters can also get a substantial head start by building professional ad sales organizations and promoting the industry to consumers and the ad community. These activities, combined with continued audience growth, should enable Internet broadcasting to position itself as a valuable complement to network and national radio.

2. **Companies pursuing subscription models should emphasize their unique and compelling content as their primary value.** Approximately 12 million Internet audio consumers would be willing to pay a fee to listen to the online station they tune to most. However, the evidence is clear that Internet audio consumers have greater interest in subscribing for unique and compelling content vs. fewer commercials or better audio quality.
3. **Internet broadcasters should try a mix of subscription and advertising.** Years of research and experience show that subscription and advertising models do not need to be mutually exclusive. The cable industry has prospered based on a combination of both models. Also, finding and developing programming that is “subscription worthy” is a big challenge because there is a huge demand for truly compelling content. For this reason, all but a select few Internet broadcasters may find it difficult to succeed based solely on subscription revenue.
4. **Don’t build an Internet broadcasting business plan based on the assumption that large numbers of radio listeners are dissatisfied.** Contrary to the opinion of a vocal minority, most Americans give radio high marks for playing the kinds of music they like and for providing a variety of programming.
5. **Satellite radio and Internet broadcasters should find ways to partner with each other.** There is a strong correlation between active users of Internet audio and those interested in satellite radio. Sixty-eight percent of those who are “very interested” in Satellite radio are also Internet audio listeners. Many Americans are willing to pay monthly fees for unique and compelling audio programming, regardless of whether it is delivered over the Internet or via satellite. Also, satellite radio and Internet audio complement each other. Satellite radio has good distribution in new cars, but limited ability to deliver in the workplace. Most tuning to Internet audio occurs in offices with broadband connections, but distribution is limited in cars.



6. **Internet broadcasting needs to develop hit programs to spur even greater audience growth.** Every new medium kicked into a higher gear when a new hit program drew additional audience to the medium. Some major Internet broadcasting brands are owned by companies who have experience developing hit programming. Internet broadcasting needs to develop a hit of its own that creates a buzz and gets people talking.
7. **Manufacturers and distributors of new digital devices should use Internet broadcasting to advertise their products.** Consumers continue to show high levels of interest in many different digital devices. People who tune to Internet broadcasting are more likely to be aware of, show interest in and own new digital devices. Since Internet broadcasting is still new, advertisers have the ability to “own the medium” and build frequency for their target consumer for a fraction of what they currently invest in more traditional media options.
8. **Computer makers, Internet service providers, and broadband companies should develop marketing plans for the African-American and Hispanic-American consumer segments.** The digital divide is narrowing, thanks to Internet access at school and in public libraries. However, there is still a gap in home Internet access among African-Americans and Hispanic-Americans. There is an opportunity to build brand loyalty by being “first in” among these consumers while they make their computer, Internet and broadband purchasing decisions.

## Appendix A

---

### The Current State of Internet Broadcasting (Streaming)

*January 2003*

---

#### **Streamies—Those who have ever listened or watched online**

- 103 million Americans
- 44% of U.S. population 12+
- 58% of those online
- 33% have broadband Internet access at home
- 11 hours 5 minutes per week of total time spent online

---

#### **Monthly Streamies—Those who have listened or watched online in the last month**

- 47 million Americans
- 20% of U.S. population 12+
- 26% of those online
- 41% have broadband Internet access at home
- 14 hours 16 minutes per week of total time spent online

---

#### **Weekly Streamies—Those who have listened or watched online in the last week**

- 24 million Americans
  - 10% of U.S. population 12+
  - 14% of those online
  - 47% have broadband Internet access at home
  - 16 hours 49 minutes per week of total time spent online
-

## Appendix B

Profile of the U.S. Population, Internet Users and Streamies					
	U.S. Population	Internet Users (75% of U.S. Population)	Total Streamies (44% of U.S. Population)	Last- Month Streamies (20% of U.S. Population)	Last-Week Streamies (10% of U.S. Population)
<b>Demographics</b>					
Men	46%*	48%	55%	57%	63%*
Women	54%	52%	45%	43%	37%
12–17	11%	13%	16%	19%	18%
18–24	11%	12%	16%	16%	17%
25–34	15%	16%	18%	19%	18%
35–44	19%	21%	22%	20%	23%
45–54	18%	19%	17%	16%	15%
55–64	12%	12%	8%	7%	7%
65+	15%	7%	4%	3%	3%
Employed part/full time	55%	63%	66%	63%	63%
Retired	17%	10%	6%	5%	6%
Student	13%	16%	20%	23%	25%
Homemaker	8%	6%	5%	5%	3%
Unemployed	4%	3%	3%	3%	3%
\$50K+ HH income	33%	41%	43%	45%	46%
White	77%	78%	74%	71%	66%
African-American	9%	9%	10%	12%	11%
Hispanic/Latino	9%	7%	8%	8%	10%
<b>Media time spent per day</b>					
TV	3:17	3:05	3:09	3:07	3:08
Radio	2:43	2:39	2:42	2:50	2:50
Newspaper	:35	:32	:32	:34	:37
Internet	1:03	1:20	1:39	2:09	2:35
Total media time spent	7:37	7:37	8:02	8:40	9:10
continued...					

**\*How to read:** Forty-six percent (46%) of the U.S. population age 12 and older are male vs. 63% of those who have streamed in the past week.



## Profile of the U.S. Population, Internet Users and Streamies (continued)

	<b>U.S. Population</b>	<b>Internet Users</b> <i>(75% of U.S. Population)</i>	<b>Total Streamies</b> <i>(44% of U.S. Population)</i>	<b>Last- Month Streamies</b> <i>(20% of U.S. Population)</i>	<b>Last- Week Streamies</b> <i>(10% of U.S. Population)</i>
<i>...continued</i>					
<b>Share of daily media time spent</b>					
TV	43%	41%	39%	36%	34%
Radio	36%	35%	34%	33%	31%
Newspaper	8%	7%	7%	7%	7%
Internet	14%	18%	21%	25%	28%
<b>At-home Internet connection</b>					
Broadband	-	28%	32%	39%	45%
Dial-up	-	67%	64%	57%	52%
Plan to get broadband at home in next 12 months		24%	28%	32%	28%
<b>Internet usage</b>					
Used Internet in the last week	-	81%	89%	95%	98%
Weekly time spent online	-	8:42	11:05	14:16	16:41
<b>Clicked on Web site advertising...</b>					
ever	-	28%	37%	39%	42%
last month	-	15%	22%	27%	28%
last week	-	9%	13%	17%	19%
<b>Online buying habits</b>					
Ever purchased online	-	56%	66%	70%	73%
Purchased online last month	-	32%	39%	45%	50%
Purchased online last week	-	13%	15%	18%	24%
Average amount spent online in last 12 months	-	\$636	\$726	\$858	\$1039
Total CDs purchased in last 12 months	10.7	11.5	13.6	15.8	16.1
<i>continued...</i>					

## Profile of the U.S. Population, Internet Users and Streamies (continued)

	<b>U.S. Population</b>	<b>Internet Users</b> <i>(69% of U.S. Population)</i>	<b>Total Streamies</b> <i>(35% of U.S. Population)</i>	<b>Last- Month Streamies</b> <i>(16% of U.S. Population)</i>	<b>Last- Week Streamies</b> <i>(8% of U.S. Population)</i>
<i>...continued</i>					
% willing to pay a small fee to listen to one audio channel listened to most over the Internet	-	-	13%	15%	18%
Heard audio commercial online	-	-	36%	45%	53%
Saw video commercial online	-	-	19%	23%	25%
<b>Currently pay a Web site subscription fee for access to music</b>	-	2.9%	3.4%	4.5%	5.4%
<b>Satellite Radio</b>					
Ever heard of XM Satellite Radio	32%	37%	48%	52%	55%
Ever heard of Sirius Satellite Radio	18%	21%	27%	28%	30%
% "very interested" in satellite radio	7%	9%	11%	15%	15%

## Appendix C

<b>Broadband vs. Dial-Up Connection Comparison</b>		
	<b>People with Residential Broadband Access</b> <i>(18% of U.S. Population)</i>	<b>People with Dial-Up Home Internet Access</b> <i>(42% of U.S. Population)</i>
<b>Demographics</b>		
Men	52%*	50%*
Women	48%	50%
12–17	11%	12%
18–24	14%	10%
25–34	15%	17%
35–44	22%	21%
45–54	23%	19%
55–64	9%	12%
65+	6%	9%
<b>\$50K+ HH income</b>	50%	39%
<b>Media time spent per day</b>		
TV	2:44	3:07
Radio	2:26	2:37
Newspaper	:35	:31
Internet	2:05	1:15
Total media time spent	7:50	7:31
<b>Share of daily media time spent</b>		
TV	35%	42%
Radio	31%	35%
Newspaper	7%	7%
Internet	27%	17%
Weekly time spent online	12:58	8:14
<i>continued...</i>		

**\*How to read:** Fifty-two percent (52%) of those with broadband access at home are male vs. 50% of those with dial-up access.



## Broadband vs. Dial-Up Connection Comparison (continued)

	People with Residential Broadband Access (18% of U.S. Population)	People with Dial-Up Home Internet Access (42% of U.S. Population)
...continued		
Subscribe to cable TV	79%	65%
Subscribe to satellite TV	14%	24%
Two or more computers in the home	61%	40%
<b>Clicked on Web site advertising...</b>		
ever	36%	29%
last month	23%	15%
last week	14%	9%
<b>Online buying habits</b>		
Ever purchased online	73%	58%
Purchased online last month	48%	32%
Purchased online last week	18%	11%
Average amount spent online in last 12 months	\$868	\$528
<b>Online listening habits</b>		
Listened to radio stations online last month	25%	15%
Listened to radio stations online last week	14%	7%
<b>Have ever listened online to...</b>		
radio stations	54%	43%
radio stations in the U.S. but outside your local area	33%	26%
the radio station you currently listen to most	22%	18%
radio stations from other countries	16%	8%
other radio stations in your local area	25%	18%
Of radio stations normally listened to online, <i>which listened to most...</i>		
Radio stations from your local area	45%	42%
Radio stations from other parts of the U.S.	39%	44%
Radio stations from other countries	10%	7%
continued...		

## Broadband vs. Dial-Up Connection Comparison (continued)

	People with Residential Broadband Access (18% of U.S. Population)	People with Dial-Up Home Internet Access (42% of U.S. Population)
...continued		
<b>Listened to audio from Internet-only sources...</b>		
ever	34%	23%
last month	20%	11%
last week	11%	5%
<b>Online commercials</b>		
Ever heard audio commercial online	45%	32%
Ever saw video commercial online	25%	14%
<b>Satellite radio</b>		
Ever heard of XM Satellite Radio	43%	38%
Ever heard of Sirius Satellite Radio	27%	21%
% "very interested" in satellite radio	8%	10%

## About Arbitron Internet Broadcast Services

Arbitron's Internet Broadcast Service provides the sales training, ratings and publicity that Internet Broadcasters need to fuel their ad sales efforts. Credible third-party measurement helps advertisers justify their investment in the medium. The company's 50 years of audience measurement experience helps sellers focus on selling the value of their advertising rather than justifying the credibility of their measurement. Arbitron MeasureCast ratings provides customers with ratings on a weekly and monthly basis. The company also publishes the top 10 measured networks and top 25 stations each week. Arbitron also has presented an overview of streaming media called "Webcasting 101" to more than 300 advertising agencies about the value of webcast advertising. All of Arbitron's studies can be found on the company's Web site at [www.arbitron.com](http://www.arbitron.com) and can be downloaded free of charge.

## About Edison Media Research

Edison Media Research conducts survey research and provides strategic information to radio stations, television stations, newspapers, cable networks, record labels, Internet companies and other media organizations. Edison Media Research has been cited by *Advertising Age* as the fastest growing company among their list of Top 100 market research companies in their past five annual listings. Edison Media Research works with many of the largest American radio ownership groups, including Entercom, ABC Radio, Infinity, Bonneville, Emmis Communications and Westwood One, and also conducts strategic and perceptual research for a broad array of companies including AOL/Time Warner, Yahoo!, Sony Music, Princeton University, Northwestern University, The Blackstone Group, Time-Life Music and the Voice of America. Edison Media Research also conducts research for successful radio stations in South America, Africa, Asia, Canada and Europe. Edison Media Research designed and operated the CNN RealVote election projection system in 2002, and conducts all exit polls and election projections for the six major news organizations – ABC, CBS, CNN, Fox, NBC and the Associated Press. All of Edison Media Research's industry studies can be found on the company's Web site at [www.edisonresearch.com](http://www.edisonresearch.com) and can be downloaded free of charge.