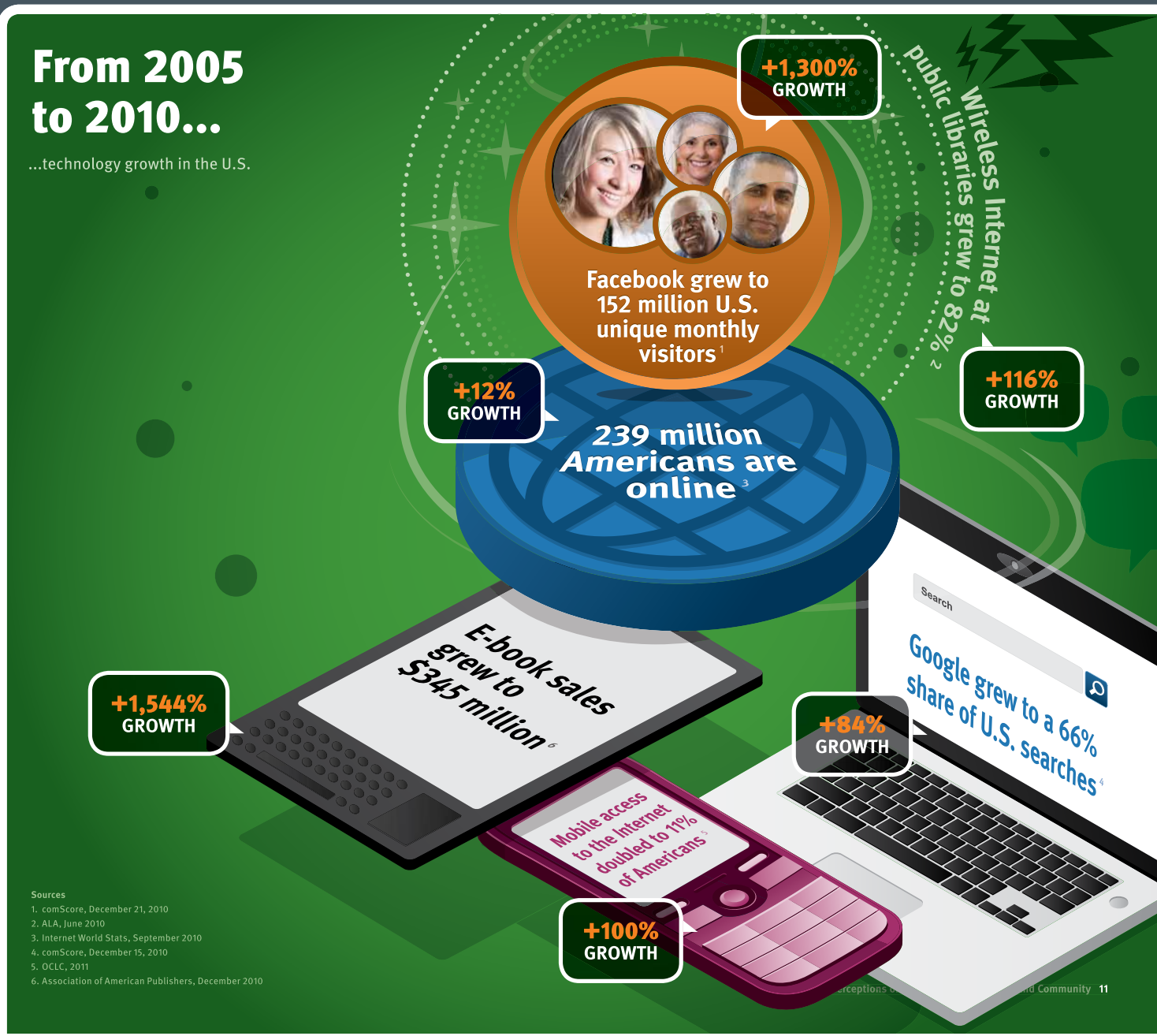
INFORMATION CONSUMER TECHNOLOGIES 2010

What a difference five years make. In 2005 when OCLC published *Perceptions of Libraries and Information Resources*, information consumers had one primary means to access the Internet—the PC—and "social networking" was not yet an acknowledged term. Facebook was limited to college and high school students; YouTube had just been launched; no one was tweeting; the Kindle was not available; and there were no iPhones nor iPhone applications. Today's technology landscape is a much more social and crowded consumer space. The information consumer has multiple devices, new platforms and a seemingly infinite number of ways to interact with other information consumers.

Searching

According to Internet World Stats, more than two-thirds of Americans were online in 2005—69% had Internet access. Today, more than three-fourths (77%), or 239 million Americans, are online, a 12% growth in five years.

While hardware and services have seen many new entrants since 2005, information consumers' top choice in search engines remains Google. In 2005, more than a third of U.S. searches were conducted using Google, followed closely by the use of Yahoo! sites (comScore, August 2006). Now, two-thirds of searches are conducted through Google, according to comScore (December 2010), an 84% growth. Sixteen percent (16%) are conducted through Yahoo! sites. To remain on top, Google has released many new services in the past five years including Gmail, Google Docs, Google Books, Google News and Google Apps. *The Wall Street Journal* (September 2010) reports that with Google's search engine upgrade, Google Instant, time spent searching could be reduced by as much as five seconds (or 20%) from the average 25 seconds. Google Instant predicts the searcher's term as he types, designed to provide "search at the speed of thought."



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Socializing

Social networking was just emerging in 2005. Social media sites such as Flickr and YouTube were gaining traction, and the potential to share more than photos and videos was only beginning to unfold. Few usage statistics were available. By 2007, social networking was being discussed by the press as the next "new space" in online communities. The 2007 OCLC report, *Sharing, Privacy and Trust in Our Networked World,* identified that a third of Americans were exploring social networking (37%) and media sites (32%). These sites were primarily seen as sources for teens and young adults. Today, two-thirds of Americans, of all ages, are now using social sites. MySpace, YouTube and Facebook dominated in popularity among American survey respondents in 2007. Facebook, YouTube, MySpace, LinkedIn and Twitter (launched in July 2006) now lead the pack (*Wireless and Mobile News*, October 2010). Twitter, with 24 million U.S. unique monthly visitors in late 2010, has seen 1,100% growth since 2007, according to comScore data.

One of the most empowering services for the information consumer in the past five years has been Facebook. Launched in 2004, early users were required to be college students with a college/university (.edu) e-mail address. The service was expanded to high school students in 2005 and the door was opened to any participant age 13 and older in 2006. According to comScore data, Facebook has seen a growth of 1,300% from 2005 to 2010. Facebook surpassed Google as the most-visited Web site in the U.S. in March 2010 (Hitwise, March 2010).

Source: OCLC, 2011

Facebook surpassed Google as the most-visited site in March 2010 in the U.S.

Source: Hitwise, March 2010

93% of Americans own a cell phone.

Source: CTIA, June 2010

1,050%
FIVE-YEAR GROWTH

Smartphone ownership

2% in 2005
23% in 2010

Source: comScore, September 2010

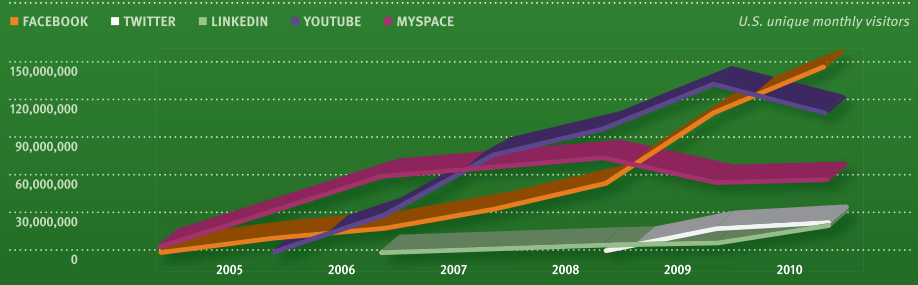
80% of smartphone owners use apps

18 and older in the U.S.

Top apps: **Google Maps, Facebook**

Source: *Business Wire*, December 2010

Social networking sites see exponential growth



Source: comScore

Mobile migration

Social networking is not unique in its exponential growth over the past half-decade. Cell phone penetration also surged. Two-thirds of Americans owned a cell phone in 2005. Today that number stands at 93% (CTIA, June 2010). The percentage of teens ages 12 to 17 who own a cell phone exploded from 45% in 2005 to 75% in 2010 (Pew, April 2010).

The big story in cell phone advancement may well be the growth in smartphone use—mobile phones that have functionality beyond contemporary cell phones and similar to that of personal computers, such as e-mail and Internet access. Just 2% of American cell phone subscribers owned a smartphone in 2005 (comScore, March 2005). comScore reports that 23%, or nearly 59 million Americans, now own a smartphone (September 2010). The rapid growth is projected to continue; so by 2012, shipments of smartphones are expected to exceed shipments of PCs (Morgan Stanley Research, June 2010).

How people are using cell phones also has evolved significantly. Texting is now a primary mode of communication among teens. In 2005, 74% of online teens preferred instant messaging (IM) as their primary means of connecting with friends; texting was second. These usage preferences have reversed. Texting is now favored by nearly 90% of teen cell phone owners (Pew, April 2010).

Beyond cell phones, mobility and wireless access also are changing the way the information consumer accesses the Internet. The rate of mobile adoption is outpacing prior Internet-based technologies.

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According to the Burson-Marsteller blog (September 2010), the initial three-year growth rate of Apple's iPhone/iPod Touch, launched in June 2007, is ten times faster than the initial three-year growth rate of the online service AOL. Today, 40% of iPhone/iPod Touch users access the Internet with these devices more often than they do with their desktops or laptops.

Any discussion of the technology landscape in 2010 must include the rise of apps, downloadable software applications or programs used for specific tasks. According to a recent study conducted by Moosylvania, 80% of smartphone users age 18 and older use apps (*Business Wire*, December 2010).

According to CNET, the Apple Apps store has 300,000 apps, and the number of apps available for downloading increases daily. From just April–October 2010, the number of apps available in the Android market, owned by Google, doubled from 50,000 apps to 100,000 (*CNET News*, October 2010).

E-readers—redefining reading

Available since the early 1970s with the launch of Project Gutenberg, e-books and e-book readers (first introduced in the late 1990s with the Rocket eBook reader) are just now achieving consumer adoption. While hundreds of thousands of titles were available in 2005, adoption was low. The consumer appetite increased when Amazon released its now market-leading Kindle e-book reader in 2007. The first shipment of the Kindle sold out within hours. Just three years after the Kindle's debut, Amazon reported that customers purchased more Kindle e-books than hardcover print books during the three-month period of May–July 2010 (Amazon, July 2010).

Amazon may be leading the e-reader market with its Kindle, but other players in the e-book and e-book reader field have led to an e-book adoption tipping point. E-readers, including Barnes & Noble's Nook, Kobo, Sony Readers and Apple's iPad, have fueled the market for digital books. E-reader features include highlighting and note-taking, expanding the interactions between the reader and his book. Integrated links and embedded video are just the beginning of the social tools that will unlock the boundaries of the traditional book and redefine the act of reading. Today, 55% of public libraries offer e-books (ALA, April 2010).

44% of academic libraries and **34% of public libraries** offer mobile services...such as mobile connections to their Web sites and catalogs.

Source: *Library Journal*, October 2010

At current rate, the iPad will exceed **$9B** in U.S. sales [in 2011] and become the 4th biggest consumer electronics category.

Source: Bernstein Research, October 2010

In October 2010, Amazon.com's **Kindle e-books outsold best-selling print books** 2 to 1—for the first time.

Source: Amazon, October 25, 2010

7 out of 10 public libraries report they are the only free source of computer and Internet access for their communities.

Source: ALA, June 2010

Most libraries now offer wireless Internet access

2005
37%
Source: ALA, 2006

2009
82%
Source: ALA, June 2010

1,010,000 videos on YouTube include "library," "libraries" or "librarians" in the title description.

Source: Search conducted on YouTube, January 2011

Libraries in the technology landscape

The technology landscape that continues to empower information consumers has set new expectations for library users. Libraries are responding by offering new services and by joining the online social networks used by their information consumers. Eleven percent (11%) of larger U.S. public libraries have a Facebook site (ALA, April 2010). A search conducted in January 2011 identified more than 15,700 Facebook URLs that include the word "library." Libraries also have a growing presence on social media sites. In 2007, a YouTube search found 25,700 videos that included "library," "libraries" or "librarians." In January 2011, that number has rocketed to 1,010,000 videos, a 3,830% increase.

Libraries provide vital technology services to their users both outside and inside the library. Libraries are delivering services to their increasingly mobile communities by offering mobile connections to their Web sites and catalogs. Some are offering mobile ask-a-question services via text messaging. According to an October 2010 survey conducted by *Library Journal*, 44% of academic libraries and 34% of public libraries offer some type of mobile services.

According to the American Library Association's (ALA's) *Public Library Funding & Technology Access Study*, the number of public access computer stations in public libraries totaled over 230,000 or an average of 14 stations per library in 2009, up from 11 stations in 2005. The growth in the percentage of public libraries offering wireless Internet access has more than doubled from 38% in 2005 to 82% in 2009. A majority of public libraries, 67%, report that they are the only free source of computer and Internet access for the communities they serve.

Libraries are playing a central and increasingly critical role as technology providers for American information consumers.

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