

SENIORS AND COMPUTER TECHNOLOGY

Senior demographics

Pick up any newspaper, and you invariably find another article about aging baby boomers. The senior population is fairly well-distributed throughout the states, but a few states do have significantly more seniors than others.

The Administration on Aging reports that seniors comprise at least 15% to 17% of the population of Florida, Pennsylvania, and West Virginia. For most states, however, the senior population is 11% to 14% of the total population. The exceptions include Alaska (5% to 6%) and Utah (7% to 8%). California, Colorado, Georgia, and Texas report a senior population of 9% to 10%.¹

The 2000 census indicated that the states with the largest increase (from 1990 to 2000—over 20%) of seniors includes the states of Nevada, Alaska, Arizona, New Mexico, Hawaii, Utah, Texas, North Carolina, Idaho, and Georgia.²

Although the trend traditionally has been for people to retire to a warmer climate, futurists are not sure if the aging baby boomers will follow suit. Their opinions are nearly evenly divided about whether baby boomers will stay put or resettle.

Consulting the census as to the number of people aged 55 and up helps a library develop long-range program planning for seniors. Unless the library is located in a young state, or a youth pocket, the time to plan is now.

As staff members peruse the literature on aging, they will find statistics concerning computer use by seniors and learn of the real need for libraries to develop programming to connect seniors with computers.

Encouraging computer and technology use

Most communities lack a broad-based plan to educate seniors on the benefits of computers and technology so the seniors may understand, accept, and use them to better their lives.

Many seniors are still mystified by the concept of communications being able to instantly flow through cables and the ability to retrieve information on almost any topic by using a search engine.

Today's white-collar worker has used personal computers for about 20 years and is fairly comfortable with their use. In fact, workers in their thirties say they cannot remember a time in their life that they have not had access to a computer. The same cannot be said about older adults, especially those who have been out of the work force for a while or have never used a computer on the job.

A study conducted by the Pew Internet & American Life Project found that although use of computers by seniors was increasing and 56% of all Americans go online, only 15% of Americans over the age of 65 have access to the

U.S. Census Data focus on senior populations, www.census.gov/population/www/socdemo/age.html#national.

Internet.³ Furthermore, the Pew researchers found that 81% of people who said they would never go online were over 50 years of age.⁴

The reluctance of seniors to go online is unfortunate because the seniors who have Internet access benefit from it greatly. Although Internet use by seniors is growing, it is not growing in direct proportion to society's need to use the Internet.

The advantages of having seniors go online

Daily, librarians see fewer materials being released in print as more and more government agencies, service organizations, and corporations launch websites. Information seekers are constantly being directed to websites for information on topics such as prescription drugs, medical care, and insurance benefits.

Additionally, experience dictates that computer usage helps seniors communicate with family, discover new interests, track their investments, find their ancestors, and most importantly use their library. Once older adults learn about computers and how computers can help them, chances are good seniors will use them.

Senior Internet snapshot

The Pew researchers discovered that the seniors currently using the Internet are generally educated (some college), were coaxed online by their children and grandchildren, and thoroughly enjoy the Internet:⁵

- 84% of wired seniors report that they obtained Internet access for reasons unrelated to work.
- 48% of wired seniors report that they were encouraged to do so by family members.
- 56% of wired seniors report that the Internet has improved their connections with family.
- 93% of wired seniors have used e-mail.
- 55% of wired seniors have read news online.
- 53% have searched for health and medical information, checked weather updates, and browsed just for fun.
- 68% of wired seniors said they would miss the Internet if they could no longer use it.
- 60% of wired seniors are men.

The Pew study noted that the youngest of the senior group, those under 75, are more willing to make the move online. This trend could mean that the library might have to develop a more aggressive marketing plan if the census reports that the local population of seniors over 75 is great.

Interesting and useful information can be gleaned from the Pew Study concerning Seniors and Internet usage, www.pewinternet.org/reports/pdfs/PIP_Wired_Seniors_Report.pdf.

Why seniors are slow to move to computers

Older adults lag beyond the rest of the population in Internet usage for many reasons:

- They simply do not have the time to learn.
- They feel intimidated by new technology.
- They are on a budget and cannot afford the technology or the telecommunication costs.
- They do not know what a computer can do for them.
- They may not be able to find a class that acknowledges the foibles of aging.

Libraries can work to dispel all the unfounded assumptions and help seniors overcome valid ones.

Potential for disabilities increases with age

With age comes physical changes that modern medicine cannot totally eradicate. Some senses, such as sight, hearing, and touch become diminished to the point that people have the need to interact with information differently. Some seniors also experience cognitive changes, which require instructors to use different methods to teach new tasks to seniors.

Since these physical changes do not happen overnight, some people may not even be aware of the changes. Others simply do not want to admit that they have a disability. These occurrences challenge service providers such as libraries to be sensitive and inventive as they reach out to encourage seniors to use technology.

Remember, seniors aren't avoiding going online because they are incapable of learning how to use computers. Most just need to a reason and an opportunity to learn how to use computers.

How can libraries help?

Libraries along with partners within the community can work to educate seniors on the value of computers and the Web by providing age-targeted training, and accessible libraries (both physical and cyber).

The physical space should be welcoming, and the staff aware of what seniors can offer the library and what the library can offer the senior.⁶ Many of the adaptive devices discussed in Chapter 2 could be used with seniors, once seniors accept that computer usage can be valuable for them.

Libraries were the first place many older adults went as children to discover the joy of reading. They also can be the place where older adults go to discover the joy of using the 21st century technology and the Internet to gather information.

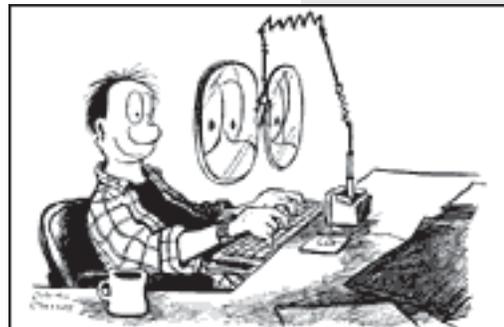
Find the touchstone

People are able to learn better when they want to learn something rather than when they are forced to learn something. Although the reasons people give for not wanting to use computers are many, some common teaching methods are likely to reach most of them.

For some seniors, learning that they can exchange e-mail with loved ones means the most. For others, the significance of computers is the ability to read a newspaper from their birthplace. A basic information session for reluctant learners may be a way to convert them. Include some basic information about computers and how they can be used.

Some talking and demonstration points include:⁷

- The history of computers, using the fact that computers were invented and developed by contemporaries of today's seniors.
- Discuss the ways seniors are using computers. Log onto a few websites that older adults could use to track medical insurance, keep current with finances, and research hobbies, genealogy, health, and bargains. Those on a budget may be lured to sites offering coupons or travel bargains.
- Travel to some of the many senior-focused websites on the Internet. Offer to find a recipe, poem, or purchasing source of a hard-to-find item.
- Demonstrate e-mail. Arrange for a colleague in another part of the building to receive your e-mail and respond to a question posed by a senior. Suggest seniors ask relatives or friends for their e-mail addresses.
- Discuss how computer enhancements and adaptations can enable people with diminished vision or agility to use computers.
- Staff should assure seniors that the library can help them learn at their own pace. Explain to them that they will be in a class with contemporaries—no one will laugh or judge them if they make a mistake. Explain that the library is the bridge across the digital divide.



Courtesy of Brian Basset and Microsoft Corp.

Senior accommodations

In a recent study commissioned by Microsoft Corp., *Convergence of the Aging Work Force and Accessible Technology*, researchers found that 57% of all computer users may benefit from accessibility options. This number is high due to aging baby boomers and longevity.

Although the world's population is living longer, science has not learned how to postpone or deter the aging process. Many seniors cope with diminished vision and hearing, stiff joints, and a need to learn new tasks at a slower pace.

Incorporating several of the adaptive devices that are as useful for the disabled would be useful for some seniors, but start with some basic tools the library already has or can acquire for little or no money.

Some websites to demonstrate include www.seniornet.org/ebay, www.seniorcyborgs.com, www.wiredseniors.com/ageofreason/, and www.seniors.gov. A good senior links directory can be found on the senior journal website, www.seniorjournal.com/seniorlinks.htm, and Senionet, www.seniornet.org

Convergence of the Aging Work Force and Accessible Technology, www.microsoft.com/enable/aging/convergence.aspx

See information about Pres-Ply key tops at:
Hooleon,
www.hooleon.com
Maxi-Aids,
www.maxiaids.com
LS&S, www.lssgroup.com

Many CCTVs are discussed by the Adaptive Technology Resource Centre at the University of Toronto, www.utoronto.ca/atrc/reference/tech/cctv.html.

Use these simple adaptive technologies to help seniors access computers:

- Foremost, assure that adequate lighting exists. Most seniors do not feel comfortable with mood lighting.
- Purchase a large monitor—it is perhaps the most important piece of hardware. A monitor that is 17 inches or larger is preferred and if budget allows, a flat-screen is preferred.
- A workstation must allow ample leg and foot room and should allow the user to adjust table height to avoid neck strain. The unit should include drop holes for cables to avoid stray cabling catching patrons' feet.
- Provide adjustable chairs to minimize disk pressure and static muscular effort.
- Configure the computer to allow the user to adjust the brightness and contrast of the display with a touch of a button is important. Different eye conditions require different screen display solutions.
- Use large print key tops. If vandalism of computer equipment is not a problem, the peel-and-stick key tops, priced at under \$20, are a viable solution.
- Replace the mouse with a trackball. Reducing the amount of force required to perform mouse tasks can help alleviate strain and prevent injuries. Microsoft's Tilt Wheel technology is useful since users do not have to actually click the scroll icon to activate scroll command.
- Allow staff to activate Microsoft's Windows accessibility products when needed and educate patrons who own personal computers with Microsoft installed that they can activate said features with a few keystrokes.

As staff makes these modifications for patrons, they also should consider doing a quick review of the equipment used by co-workers. Activating accessibility features and assuring greater ease in performing daily tasks can help staff handle the tired eyes and stiff fingers that come from helping others throughout the day.

Purchase a closed circuit television (magnifier)

Closed circuit television magnifiers (CCTVs) are not a new technology but, regardless, are extremely useful for people with low vision. CCTVs can be used independently of a PC to review class handouts.

CCTVs also can allow users to examine three-dimensional items, which may help some people who wish to see what the mouse looks like. Additionally the CCTV is an easy piece of equipment to learn to use, and it can act as a confidence builder in the technology realm.

Some high-end CCTVs can connect with PCs to allow users to simultaneously magnify a printed document while working with a word processing program or surfing the Web.

Microsoft's accessibility features and seniors

Microsoft has long included features in its Windows operating system option that makes accessing information easier for the disabled. In February 2004, Microsoft kicked off an information initiative, designed to reach aging baby boomers (or soon-to-be seniors) who are experiencing the onset of vision, dexterity, and hearing loss. The accessibility features are easy to activate and allow users to modify the text size and color and activate system sounds.

Some of the Microsoft access features helpful to seniors include:

- The ability to increase the size of the icons and font size of Web pages displayed on screen
- A magnifier window that provides users with slight visual impairments minimum level of functionality
- The SoundSentry, which allows users with diminished hearing to see system sounds
- The ability to adjust cursor blink speed and width (This feature helps users who may tend to lose the cursor on the screen.)
- StickyKeys, which helps people with limited dexterity to press the keys one at a time so key combinations (such as SHIFT plus a letter to type a capital letter) are possible
- FilterKeys, which helps people who have stiff fingers or a tremor from entering keystrokes accidentally (this enhancement ignores repeated keystrokes or those keystrokes users might make as their hand travels over the keyboard.)
- Contrast control, which can make the information display readable for those with diminished vision

Microsoft's Aging and Accessibility website includes tutorials on each of the features as well as reports on aging, reproducible cartoons, and links to a vast array of resources on aging and accessibility.

Microsoft tutorials,
www.microsoft.com/enable/aging

Training is key to developing successful senior surfers

Although some older adults using computers are self-taught, many of those who have not had some contact with a computer need training. They often appreciate classes designed for seniors.

Those staff who train seniors cannot stress strongly enough the need to have skill-targeted classes for seniors and to assure seniors register for the correct class. Palm Beach Public Library, which has an excellent senior program, requires staff members assigned to register patrons to attend the classes so they know what the class content is. Moreover, they are better able to match seniors with a class that is challenging but not overwhelming.

Staff at Palm Beach strongly advise conducting a standard interview process asking the following questions:⁸

- Do you have a computer?
- Do you use any of the computers at the library?
- What are some things you do (or have tried to do) with the computer?
- What do you want to do with the computer?

In situations where conducting a proper reference interview may not be possible (the patron may feel uncomfortable talking or the library is simply too busy), a preprinted form may be the answer. Format the form in large print and ask seniors the questions that will help staff place each senior in the correct learning environment plus help the library develop classroom plans.

Questionnaire is available at Laconner Technologies, www.laconner.com/content/news/press/JUN2002.htm.

Connie Van Fleet and Karen E. Antler developed a basic skill assessment questionnaire for use with seniors. The questionnaire is designed to survey attitudes toward learning and computers in general.

This questionnaire helps staff group together the willing-and-ready learners so they are not discouraged by learners who have some type of computer anxiety. Likewise, those who have to overcome their own preconceived notions do not have to cope with the added anxiety of overachieving classmates.

Basic tips

Although many ways exist for teaching computer technology to seniors, observe some basic components. The teaching tips listed below are a composite from several successful programs.⁹

- Speak loudly and clearly. Assure environmental noises are at the minimum.
- Preview any websites and online tutorials to ensure they are still active and that the content is still appropriate for class exploration.
- Take time to repeat tasks throughout the lessons to reinforce new skills and concepts.
- Consider adding optional practice times before or after each class.
- Modify computer vocabulary to reflect terms that make sense to seniors. For example, instruct seniors to locate the pictures rather than the icon.
- Provide a notebook for handouts, which have step-by-step directions and use clear, concise wording. The typeface should be at least 14 points and sans serif (Tahoma and Arial are recommended) making print easier to read for all. Include white space for note taking and concept review.
- Provide hand-held magnifiers for class usage.
- Provide seniors with mouse training. Seniors need to be motivated to practice this task to become proficient at it. Several sites offer games to build skills.
- The instructor's role should be that of coach, facilitator, or mentor rather than taskmaster.
- Always have coaches to help those who need assistance. Use peer coaches if possible since peer coaches help learners realize they can learn.
- Bring a selection of books and videotapes into the classroom that patrons can borrow.
- Encourage patrons to ask questions. Ask patrons open-ended questions to start them talking and always thank them for their response and questions.
- Present a certificate at the end of each lesson.
- If the library is located in a neighborhood in which English is not the seniors' native language, consider seeking coaches who can speak to seniors in their native tongue.

As those who work in public service will attest, listening, practicing good humor, and displaying patience go a long way in making people feel comfortable. Making seniors feel comfortable in a learning environment is a good start to computer literacy.

Online mouse skill tutorials:

Palm Beach Public library mouse skills, www.pbclibrary.org/mousing
TLN Technology Committee, <http://tech.tln.lib.mi.us/tutor/welcome.htm> (also available in Spanish).

What to teach

Older adults prefer and learn better when presented with single-theory courses that allow for immediate hands-on applications. Most patrons want to be sure they can accomplish one skill before moving on to a new challenge.

Libraries throughout the world are using many excellent teaching curriculums designed to make older adults computer literate, many of which are available free on the Web. Most stress the need to develop plans that address one topic at a session.¹⁰

Some useful class topics include:

- Computer basics
- Windows
- Sending e-mail
- Using the search engines with the Internet
- Internet Explorer
- Using databases to find articles
- Word processing with Microsoft Word and Works
- Using Microsoft's Accessibility features
- Creating greeting cards
- Locating government information on the Internet
- Finding ancestors using the Internet

As seniors progress and become avid computer users, they start requesting specific topics that were covered in special sessions. If time allows, develop the requested classes and share with others through the library's website.

Include classes for the newest user

The library can offer a basics class for those seniors who may never have touched a computer keyboard or feel that they may break the computer by misusing it. To dispel fears and help patrons onto a firm foundation, the Palm Beach Public Library created a computer basics group for this class of seniors. The Getting Started class guides new users through basic mouse skills and teaches them how to open and close browsers, enter URLs, set up e-mail accounts, and more.

These entry-level classes are held twice a week and have homework assignments (that can be completed in the library) between classes. The content for each class is limited, allows for repetition and practice, and reduces the stress that comes with learning new tasks.

Several useful tutorials and curriculums are available online. Two used by libraries include: "How To Be an Information Millionaire: A Curriculum for Teaching Senior Citizens How To Use the Internet and Other Electronic Resources" at www.wnpl.alibrary.com/ReferenceDesk/Computers/infomillionaire/curriculum.pdf, and "Seniors and the Internet What's in It for You?" at www.slq.qld.gov.au/publib/seniors.

Palm Beach Public Library,
www.pbclibrary.org

Although not designed by libraries, the following tutorials work well in library setting:

KcSenior website for seniors,
www.planetkc.com/devo

AARP Computers and Technology How-to,
www.aarp.org/computers-howto

CyberSeniors,
www.cyberseniors.org/artman/publish/cat_index_24.shtml

Independent learners

Some seniors prefer to learn independently or work one-on-one with a coach.

When the library can provide a coach, the same teaching methods apply. For libraries that cannot provide a coach, ensure patrons have all handouts, links to online tutorials, and know who to ask for help if needed.

Seniors find tutorials set up on computer desktops helpful when they can easily find, click, and study.

Summary

Introducing seniors to computers and working with them to encourage growth enriches the library's community. In addition to the altruistic reasons for extended services to seniors, having seniors participate in these programs also is fiscally responsible. With dwindling budgets and the need to have voter support for passage of tax and bond initiatives, having something for everyone is prudent. If the library is not seeing a lot of seniors in the library, ask why not and plan programming to reach them.

Notes

¹Aging into the 21st Century. www.aoa.gov/prof/statistics/future_growth/aging21/preface.asp.

²Ibid.

³Pew Institute. "Wired Seniors—A Fervent Few, Inspired by Family Ties," www.pewinternet.org/reports/toc.asp?Report=40. In a follow-up report released in December 2003, this number had risen to 20% (accessed Dec. 29, 2003).

⁴Ibid.

⁵Ibid.

⁶For further information on retrofitting the physical plant and staff attitudes, see Mates, Barbara. *5-Star Programming and Services for Your 55+ Library Customers*. Chicago: American Library Association. 2003, pp. 15-33.

⁷Bean, Carol and Michael Laven. "Adapting to Seniors: Computer Training for Older Adults." *Florida Libraries*, Fall 2003. p. 6. www.flab.org/publications/florida_libraries/46_2.pdf (accessed Jan. 4, 2003).

⁸Ibid.

⁹List comprised of suggestions from: Bean, Caro; VanFleet, Connie; and Antell, Karen E. "Cyber Seniors: Older Adult Learning and Its Implications for Computer Training," *Public Libraries*, vol. 41, no. 3, May/June, 2002, pp. 149-155. www.laconner.com/content/news/press/JUN2002.htm (accessed Feb. 11, 2004).

¹⁰Puacz, Jeanne Holba, and Chris Bradfield. "Surf's Up for Seniors!", *Computers in Libraries*, vol. 20, no. 8, September 2000. www.infotoday.com/cilmag/sep00/puacz&bradford.htm (accessed Feb. 11, 2004, and Mates, pp. 63-72).