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Teaching Technology to Seniors

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Violet comes to the library often to check out books. During one of her visits, she looks longingly over at the computer classroom. Violet tells the librarian that she wishes she could learn how to use the computer so she could look at her photos of her grandchildren on Facebook or email old friends who have moved away. "But I'm 78 years old. I'll never figure out all this new technology,"

Harold, 81, is also a frequent library patron. One day, while chatting with his favorite librarian, he mentions how his doctor keeps telling him go online for medical information even though he doesn't have a computer. A few of his friends have bought tablet computers and he's thinking about it, but he's not sure. "It sounds like there's all kind of stuff on the Internet, but how am I supposed to get there?"

Violet and Harold are not alone. Many seniors are interested in learning Information and Communication Technology (ICT) but don't think they can manage it and don't know where to turn for help.

Libraries, can play a key role in helping older adults – those over 65 – to bridge the generational digital divide. By offering classes specifically targeted to seniors and designing the classes using research on how seniors learn technology, patrons like Violet and Harold will not be left behind in the Information Age.

In addition, libraries are well-positioned to address the second level digital divide —the gap between seniors who have access to technology and their ability to actually use technology effectively.

The issue of older adults and ICT is particularly timely now that the first Baby Boomers have already hit 65. The population of older adults is expected to double by 2050, according to the U.S. Census Bureau (2014). By 2040, 21% of the population will be over 65 (U.S. Department of Health and Human Services, 2012).

Computer use among older adults is soaring. In 2015, 58 % of those over 65 were using the Internet, up from just 14 % in 2000, according to the Pew Research Center (2015). However, even those seniors who are using computers say they face hurdles gaining access to technology and want help (Pew Research Center, 2014).

Research on seniors and technology instruction indicate what kinds of programs and instruction techniques work best for older adults. This guide will look at class make-up, pacing, instruction, practice time, accessibility and training materials. This guide also addresses the need to consider barriers for this group, including computer anxiety and the lack of perceived need for computer

skills. Finally, it will look at the importance of peer coaching in teaching technology to seniors, the need for social interaction during instruction and providing long-term support for older learners.

Barriers to ICT for Seniors

While seniors like Violet and Harold may want to acquire computer skills, there are a number of barriers that often prevent older adults from acquiring ICT skills. Most of the barriers can be overcome if libraries are aware of the issues and can plan programming and marketing to address them.

- **Lack of perceived benefit or need**. Some seniors who are not using the internet don't think they would get much out of doing so (Gitlow, 2014). Research has shown that seniors are very task-oriented when learning ICT skills and need to understand exactly what the benefit of learning technology will be before they are motivated to do it (Callahan, Kiker & Cross, 2003). To help older adults see a need of benefit, it may be helpful to demonstrate relevant skills. For example, showing an avid sports fan how to find stats for any sports team. For another patron, it might be quickly locating that old-fashioned hand cream they've been trying to find for years. Marketing of the class might be more effective when it mentions the specific need. A class called "Email your grandkids" or "Keep up with your family on Facebook" might be enough motivation to sign up for a class.

- **Negative feelings about social media**. Older adults who have not used social media may have very negative views about using ICT for social networking (Vroman, Arthanat & Lysack, 2015). In their article, "Who over 65 is online? Older adults' dispositions towards information communication technology," Vroman et al. state that older adults dislike social networking in part because they fear it will have a negative effect on their face-to-face social interactions. They may be frustrated that communication modes have changed so drastically from phone calls and personal visits to emails, tweets and Skype. It may help to point out that seniors who do venture into the social networking universe have reported benefits in terms of social connectedness and increased interactions (Gatto & Tak, 2008). Rather than waiting for the rare handwritten letters, some seniors now set up Skype or Facetime sessions with their grandchildren.

- **Fears about Internet safety**. Some seniors may have a deep mistrust of putting any personal information on a computer and won't want to learn ICT until they feel safe going online (Fausset, Harley, Farmer & Fain, 2013). This can be addressed early on by talking about internet safety and best practices, such as creating strong passwords, adjusting privacy settings, and not posting personal information such as physical address or vacation dates in social media. Once students have mastered the mouse and move on to setting up email accounts, libraries may want to offer a specific class that deals with staying safe online that will cover topics including antivirus software, spam and phishing scams.

- **Computer anxiety.** Many seniors are fearful they will break the computer and may be extremely hesitant to touch the computer or to "play around" with any part of the computer. That anxiety will prevent them from signing up for the course or make it difficult to learn necessary skills. Some instructors start class by dangling the mouse by the cord or hitting a few incorrect keys just to show students that the computers are perhaps not as fragile as they thought (Bean, 2003).

- **Cognitive or physical issues.** Seniors experience declines in vision, memory, dexterity, mobility and other areas which may make it difficult to perform basic tasks such as handling a mouse or viewing a computer monitor. Modifications can make library computers used for training more accessible. For example, a larger flat screen monitor will help with declining vision. Some seniors may find it easier to use special keyboards such as a commonly available model that has large bright yellow keys with easy-to-read black letters. A number of adaptive technologies are built into popular software and seniors can be shown how to use them. Microsoft Windows 10 offers a number of accessibility options including a built in screen-magnifier and the option to use speech recognition to control your computer. For those with hearing issues, Windows 10 offers the option of a visual display or text display on the screen to replace the typical sound cues that tell you an activity is taking place or action is needed.

- **Lack of access.** Seniors may not have Internet access at home or may not have any access to a computer. Library computers are an obvious solution but only if the computers are available for practice while they are learning new skills. Setting up senior-only classes and practice times will help solve the problem of access. In addition, classes to help seniors figure out the differences between various computers might help those who are thinking about buying technology. Some libraries have tried "Technology Petting Zoos" where patrons can come at look at various laptops, tablets and desktops and explore how they work (Pew Research Center, 2013)

Despite the significant barriers seniors may face, they can be overcome with classes that are targeted to seniors and designed to address these hurdles. Next, let's look at the specifics of these classes and what elements are necessary for seniors to successfully learn ICT.

Class Makeup

- **Keep classes small.** Most people prefer smaller classes, but seniors especially like smaller classes for technology instruction (Mayhorn, Stronge, McLaughlin & Rogers, 2004). It is easier for them to hear the instructor and sit closer to the front of the classroom to see demonstrations. In a smaller, class, they may be more likely to ask questions and there is more time to address questions with fewer students. Ideally, classes would be around 12 students (Ricketts, 2002) and not exceed 20 students (Irizarry, Downing & West, 2002.)

- **Group students by ability.** Seniors who have never touched a mouse should not be in class with seniors who have already have figured out how to email. In Florida, the Palm Beach County Library System registers seniors for the library class with the equivalent of

a reference interview. They ask patrons if they have a computer, if they've used the library computers, or what they already do on the computer. These questions are likely to produce better results than just asking a patron "Do you know how to use a computer?" Depending on their answers, they might be enrolled in a mouse skills class or a more advanced class (Bean, 2003).

- **Don't forgot the more advanced seniors.** Given that 58% of adults over 65 are using ICT, some of those may already be comfortable with the basics. However, according to the Pew Research Center, many say they need help to do more advanced tasks such as organizing photos or adding new technology such as a tablet computer or a more complicated smart phone (2014). Even though they have the basic skills, they will still benefit from the senior-focused teaching techniques and long-term support.

- **Know that seniors may underestimate their computer skills.** Some seniors will describe their computer skills as very basic when they may actually have more advanced skills (Marquié, Boddaert & Huet, 2002). Feeling more confident about their computer skills will help seniors learn ICT.

- **Survey says!** At the beginning of the session – or at registration – ask students what brought them to the class and what they hope to learn. It might be helpful to know your students all want to shop online, look up bible verses or sign up for a senior dating site as you are teaching the class.

Pacing

- **Slow. Slower than you think you need to. Really Slow.** Much of the research points to the pace of the class as being a key predictor in how successful older students are in learning technology (Mayhorn et al. 2004). This calls for speaking slowly as well as moving through material slowly.

- **Allow for self-pacing.** Older computer students wanted to be able to take their time to master a skill before moving on to another skill. If the class is set up so that everyone has to get to the same point in order to move on, it may make an older adult nervous, or reluctant to ask for help if they fall behind. If there are activities that require every student to get to the same place, using volunteers or trained senior peer coaches may help keep the class on track.

Instruction and materials

- **"I can't find the dot!"** An older relative of mine took an introductory computer class and announced she would be fine if she could just find the dot – as in "dot com." It was clear her class hadn't started from Square One. For older adults, it is important to explain terminology that may seem organic to computer literate people. Start at the beginning and explain everything – including the dot.

- **Avoid jargon.** While so many computer terms are a part of our culture, some of the phrases have different meanings for seniors or are unfamiliar to them. For example, an icon might be called a picture when it is first introduced to students. (Bean, 2003). Before jumping into the "drop-down menu" it might be worth explaining that it is an extra list that you can look at. Terms like "click" also aren't necessarily clear for older adults. They might be thinking of Dorothy clicking her ruby slippers while the instructor is hoping for a left click on the mouse.

- **Break it down into very small chunks.** For some seniors, a course covering computer basics such as opening a browser, using a mouse and double clicking might be appropriate. But for other seniors, moving the mouse might be enough for a class. Some instructors actually just focus on the mouse for the first session – the instructor actually opens the browser for that first session so the student only has to concentrate on controlling the mouse (Bean, 2003).

- **Leave plenty of time for questions.** Seniors will most likely have questions and time for that needs to be included in the lesson plan.

- **Rinse and repeat.** Repetition is key for seniors to be successful. This involves repeating material during instruction, but also allowing for practice so newly-acquired skills can be repeated.

- **Simple instructions.** For seniors with diminished memory capacity, a long list of instructions to perform a computer task can be daunting. Instead keep the tasks simple and the instructions short (Mates, 2004).

- **Handouts should be easy to read.** That means the type is generally larger and there are step-by-step instructions with illustrations that are easy to follow. Detailed handouts should be provided so they can follow along in class and use them later when they try things on their own (Mates, 2004).

- **Relate new skills to past experiences.** It may help some students to imagine that moving a mouse is like ironing. That connection to a familiar task may help them learn the new skill. Others may find the image of knocking on a door helps them with double-clicking. They may want to compare fields on a computer screen to lines on a tax form (Chaffin & Harlow, 2005).

- **Multi-modal approach.** Research shows that seniors are most successful when instruction combines lecture, modeling and active participation (Callahan et al., 2003).

- **Give me a break!** It is helpful to allow students frequent breaks to stretch their legs, go to the bathroom and just take a deep breath. Learning technology can be hard work.

- **Give students a win early on.** When possible, try to provide an initial positive experience, which will build confidence and help with computer anxiety (Mayhorn et al., 2004).

- **Acknowledge that they may only want a slice of technology.** Because seniors are task-oriented, they may not want to learn about computers if they think they will have to learn *everything*. If their goal is emailing grandchildren, they may not be interested in learning about apps. Also, as stated earlier, they often want to know why they are learning a specific task rather than just learning technology in general (Callahan et al., 2008).

Practice

- **"I forgot what we did last week."** Practice is key to an older adult retaining the skills they learn. In addition to the repetition in class, they need to have access to a computer to practice. In some library systems, computer homework is assigned after the first class. Their first homework assignment might be to practice their mouse skills. This leads to the next point.

- **Provide a place and time to practice.** Having computers available in the library is a great resource but may not work for seniors who are just learning to use the computer. If they haven't mastered all the skills of the mouse, it is likely they won't know how to sign in, open a browser and navigate to the mouse exercise. Also, walking up to the computer next to someone who is actively surfing can be intimidating. Having an open time in the computer lab or classroom and a library staff person available to help out encourages practice.

- **Consider incorporating practice time to the end of class.** Strike while the iron – or the mouse – is hot and let seniors remain in the classroom to practice the new skills. This is also a great time for the students to get to know each other which will help with retention of students and other programs discussed below.

- **Think long term.** For older adults to truly master ICT skills, they will need long term support. It may take more than just one introductory series of classes. Many seniors repeat beginning-level classes. In addition, they will need to practice and will want to get technical support for an extended period of time. The goal, Xie and Jaeger (2009) argue, is not to have a student in the beginner computer class become completely computer literate after one session, but instead to train them to be able to eventually explore on their own.

Peer coaching and social interaction

- **"If you can do this, so can I."** Seniors sometimes learn best from older adults who know just a bit more than they do (Mates, 2004). Students are sometimes less intimated asking a senior peer coach a seemingly basic question than they are asking a younger computer expert. According to Xie, (2007) if the instructor is considered a "young IT elite", then older adults may not view them as helpful as an older instructor or a peer coach even though that person may be less skilled.

- **Surfing clubs.** Another way to encourage practice time and peer coaching is by setting up a social support system for seniors in the library. Creating senior computer clubs is

one way to encourage that (Xie & Jaeger, 2009). Once the seniors have gained basic computer skills, they might join a computer club with other seniors at their skill level. They might meet weekly and work on mastering those skills and adding new ones. Once they've done that, they might move on to more complicated projects such as putting together a photobook or cookbook. The club meetings could be hosted by library staff or by more advanced seniors.

Logistics

- **Time of day.** For many seniors, morning may be a better time to hold the classes. (May, Hasher & Stoltzfus, 1993). Unlike their younger counterparts, they probably are not working during the day and will be more alert in the earlier hours of the day. In addition, some seniors don't want to drive at night or during rush hour.

- **Brrrrrrr!** Be aware of cold classrooms. Some seniors find that age has brought circulation issues and they often are colder than those around them. While computer labs and classrooms are typically a bit cool, keep that in mind by either adjusting the temperature or by alerting students that it might be cooler in the classroom.

- **Consider registration for the beginning series.** Some libraries require a commitment to come to all the classes, often a series of three or four classes, when a student signs up. That ensures that a student is motivated and may prevent them from giving up if they get frustrated after the first class (Bean 2003). Make sure registration – especially for beginning classes — and information about the classes is available without having computer skills.

Tablets, or "I hate my computer, I love my iPad."

In their 2014 study, "Getting Grandma Online: Are Tablets the Answer for the Increasing Digital Inclusion for Older Adults in the U.S.?" (Tsai, Shillair, Cotten, Winstead & Yost), the authors argued that seniors who were frustrated with regular computers found tablets much more usable. The participants in the study ranged in age from 65 to 95.

The seniors in the study said they found their tablets intuitive or easy to use, convenient, and comfortable to hold. They really liked being able to easily move the tablet to a comfortable location such as favorite chair. Nearly 20 percent of them said they had struggled to use traditional computers. Many said they saw other seniors using tablets and that prompted them to want one for themselves.

Given the rise in tablet usage, libraries may consider offering classes specifically for older adults exploring this technology.

Conclusion

The guide has touched on some of the key points that will help librarians to plan effective ICT classes for older adults. As the over-65 population continues to grow, it will be increasingly

important for libraries to address their specific needs and help them bridge the generational and second-level digital divides. This guide will hopefully help libraries prepare successful classes for the growing number of older adults who are ready to embrace technology.

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