

Melissa Adams
Training and Development Program
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Part I: Information Needs Assessment

“Getting old is not for wimps” is how the quote goes¹. It certainly is not. Learning new things when we are old also isn’t for wimps, but it need not be unnecessarily difficult if the educator is both experienced and informed about the characteristics and needs of the elderly learner. Learning to use the computer can be at least an entertaining, if not a profoundly transformational, experience for the elderly if appropriately administered but it is important to first understand the elderly as a population group, a social group, and as a special needs learning group.

This three-part training module is aimed at elderly people, age 65 and older; who live alone, have no home access to computers, and who have had little or no previous exposure to computers and the World Wide Web. Although the workshop welcomes women and men, there is some interest in focusing on the recruitment of elderly women. My interest in this group of learners was inspired by my grandmother and my mother-in-law, who are both recent entrants to the online world and new to computer use in general. They are each in their own way typical of the user group I have chosen. They are representative of the characteristics of the elderly population in general and are representative, specifically, of elderly computer users.

¹ As nearly as I can discover, this quote is credited to a Mr. A. Schwarzenegger.

Understanding the Population Group: Population Statistics

The elderly of the United States represent a significant and growing portion of population. In the year 2003 those aged 65 and older numbered 35 million, representing 12.4% of the population. The elderly population is expected to increase dramatically. By the year 2050 the population is forecast to more than double to 86 million people, with those 85 and older to increase in population more than five times its current count of 4 million. (www.agingstats.gov, 2003)

Marital Status and Education:

In 2003, 56% of the elderly population reported being married, with twice as many men as women being married. The overall number of elderly at age 85 and older who reported being married dropped to 29% with only 11% of that number being women. In 2000 71.5% of the elderly reported attaining at least a high school diploma, with 17.4% having reported attaining a Bachelor's degree, or higher. (www.agingstats.gov, 2003) This compares to 85% of the general population completing at least high school, and 27% completing a Bachelor's degree or higher. (U.S. Census, 2003)

Gender, Living Arrangements, and Income:

Women aged 65 and older represent 59% of that age group, though women outnumber men two to one by the age of 85. Although the ratio of women to men age 65 and older is not surprisingly disparate, women who live alone outnumber men who live alone by nearly two to one. By the age of 85 the ratio widens slightly to 50% of women of that age group living alone compared to 22% of those men living alone. (www.agingstats.gov, 2003) The Administration on Aging reported in 2002 the median yearly income for men age 65 and older was \$19, 436 and \$11, 406 for women of the

same age group. At the same time, this study revealed that 17% of the elderly population lived at or below the poverty level (\$8,980/year or below²). Due to the lower lifetime earning power of women, and their likelihood of living alone in old age (thus having reduced access to a deceased husband's Social Security), elderly women are statistically at a greater risk of poverty.(www.esbci.org, 2004)

Understanding the Population Group: Special Needs

Although 56% of U.S. residents report using the Internet, a study conducted by the Pew Internet & American Life Project (2001) reported that only 15% of the elderly population have access to the Internet, and in a survey of the general population from the same study, 81% of the people who said they would never go online were over the age of 50. Since education and income levels are the greatest predictors of which side of the digital divide one will find him or herself occupying, it is not surprising that the elderly have their own technologically impoverished sub-division: the "silver digital divide". Despite overall increases in the education levels of the United States population, the elderly remain one of the least educated of all population groups and, especially for those who live alone, also the poorest. (AoA, 2000) Significantly, bearing in mind the number of elderly women living alone and their increased risk of poverty compared with men, 60% of wired seniors are men. (Pew Institute, 2001).

Although income and education make strong contributions to the elderly's lack of access to computer-based information, there are some other contributing factors to keep in mind. While people in younger age brackets have led part or all of their lives with

² Federal Poverty Guidelines (2003)

computers at work, school, and home, the elderly have simply not grown up with the computer and the online community. Even so, studies have shown that computer and Internet interest levels among the elderly and younger people are identical. (Czaja, 1997) Social stereotyping by a younger population has assumed that the elderly have no interest in becoming wired, and the interpretation of elderly feelings of uncertainty and self-consciousness concerning computer use has been interpreted as techno-phobia by the younger population. (Hakala, 1996) For years, the elderly population has been largely “written off” by those who could have otherwise intervened more positively.

Although more online instruction and services are now offered to the elderly, and there has been a steady increase in elderly access and use of computers and the Internet, the elderly who report being unable or reluctant to join the online world report the following obstacles: (*Library Technology Reports (LTR)*, 2004)

- They feel intimidated by the technology.
- They are on a severely restricted budget and cannot afford a computer and Internet fees.
- They do not understand what a computer can do for them.
- They are not able to find a class that acknowledges and provides support for age-related impairments.

Once the elderly overcome the first three obstacles either on their own or through the support of friends, family, and/or community resources, it is important that the last obstacle be taken into consideration by those who wish to design and teach computer-based information literacy courses for the elderly.

Computer operating system developers, Web designers, and instructors who are not sensitive to natural elderly decline in physical and cognitive function can make any older person’s attempts at learning computer skills unsatisfying or frustrating. Understanding the physical and cognitive needs of elderly students, learning about adaptive technology

options, and making simple alterations to teaching materials can greatly improve the experience of elderly learners and keep them engaged in learning.

This list of things the library itself can do to improve teaching techniques, prepare the physical learning space, the technology, and the learning materials often require little extra time or money on the part of the instructor or library. The following is a small sample of recommendations made in the article, *Seniors and Computer Technology, Library and Technology Reports (LTR)* (2004) and by Zhao, H. (2001). *Universal Usability Web Design Guidelines for the Elderly*.

Psychological considerations:

- Immediately put elders at ease. Anxiety can interfere with cognitive functions such as memory and simply reduce enjoyment.
- Make all workshop sessions for the elderly strictly for the elderly. Many older people report feeling intimidated and anxious when taking classes with younger students.

Cognitive considerations:

- Make sure to have workshop sessions for all levels of elderly learners, starting from the most basic, which should begin with mouse training.
- Keep tasks simple, but provide enough training so that the students can begin applying what they learn right away.
- Take time to repeat tasks, and find multiple ways to teach the same skill.
- Provide the time and materials for independent, self-study for those learners who prefer this method, or would like to review workshop learning on their own between sessions.
- Provide multi-media learning materials so students can both see and hear, or take the choice of the two.
- Use humor, avoid stereotypes, and have patience.

Physical considerations:

- Modify and help students to modify Microsoft access features, such as light and contrast control, key controls, mouse function control, etc.
- Have trackballs on hand has some elderly find these easier to use.

- Increase font size wherever possible, including hand-outs and PowerPoint slides. Use high contrast font colors such as black on white. Avoid blues and greens when possible.
- Keep learning materials as visually simple as possible, avoiding backgrounds and distracting images or animation.

Literature Review

There is much attention given to computer and Internet use by elderly people. Many people are devoted to making computers and the Internet more accessible to the elderly. Computer science engineers suggest that interface design meets usability standards that take normal functional decline into consideration (Zhao, 2001). Communication researchers study the effects different instructional methods have on elderly computer user's attitudes and learning efficacy (Cody et al, 1999). Libraries are eager to provide services specifically designed for the elderly and many have long-established programs that serve as design templates for others (*LTR*, 2004). One of the most surprising things found was how long ago people began to be interested in this learner group. In the Washington Apple Pi Journal, Phil Shapiro (1995) references an Autumn 1973 article from *The Gerontologist* entitled "Computers and Technology: Aiding Tomorrow's Aged". The authors urge readers "to consider how technological advances can be used to promote intellectual vigor and independence in the elderly." Much of the article discusses how technological innovations to come would grant the elderly a level of independence in taking care of themselves so that they can "continue as viable participants in (society's) processes". Portions of this article refer to the elderly being able to access services from home. Before the use of the Internet as most of us

know it, and before the proliferation of the home computer, this was surely visionary stuff.

Significant attention has been devoted to these early considerations in many of the articles reviewed because the elderly face special problems, especially those who live alone. Many elderly face difficulties with physical and cognitive decline, social isolation, and depression (Barber, 1996) and are at a greater risk for fraud (Zimka, 2002), especially those involving health and finance. For those elderly who are at all physically able and who can find computer use programs to support their learning, there are profound benefits. According to a 1999 study, “Those who learned to surf the Internet had more positive attitudes toward aging, higher levels of perceived social support, and higher levels of connectivity.” (Cody et al) In 1995 *Forbes* reported that a 1993 West Chester University study “provided computers and Internet access to nursing home (revealing that) residents...after six months... were less depressed.” Although there have been other studies that refer to the beneficial effects of elderly use of computers, (Temple, L.L., & M. Gavillet, 1990; Hahm, W., and T. Bikson, 1989;) the words of a senior Webmaster, and SeniorNet survey (2004) participants speak representative volumes:

- “My computer has created for me an altered and expanded outlook on life that I otherwise would never have known about. There is hardly a day that goes by that does not include new knowledge acquired through using my computer. At my 84 years of age, it is an experience worth living.” (Homer Medford, 2002)

The following quotes are from the open-ended questions section of a 2004 SeniorNet survey:

- “Being profoundly deaf and immobile due to ill health, it (the Internet) is my life-saving occupation. I have no friends still living and before I got the computer, I was completely isolated. Now I am back in the world and can have intelligent conversations like hearing persons.”
- “I would feel so alone without the benefit of the Internet. It is my connection to folks MY age.”

Needs and Skills Identification

In addition to knowing about our elderly learner’s place in society and their needs, it is of some value to know a little about how they use the computer and Internet once they get their hands on them. In 2004, 1,461 SeniorNet.org members and Website users responded to questions designed to help SeniorNet plan their development of products and services to better meet the needs of their users. The survey revealed much about use and interest areas. Communication was the most important feature of Internet use for respondents with well over half stating that e-mail was the most important use they had for their computers. 71% replied that e-mailing family and friends was the greatest interest and 39% enjoyed sending and receiving photos via e-mail. 56% of respondents said e-mail was where they spent the most time on the computer. When asked about what features of the Web they were most interested in using and/or learning about, the highest percentage, 37%, replied they liked to find information about their health. The remaining responses were fairly evenly divided among such things as using online shopping safely, chatting, using government Websites, managing finances, and conducting genealogy research. Anyone planning to meet the needs of elderly Internet users is going to have to plan to meet a diverse range of interests. When asked about

reasons for wanting to become more effective Web users, the responses were evenly divided between

- becoming better informed consumers;
- taking more informed charge over health and person finances;
- being a better informed citizen;
- learning about current trends and history;
- being able to be a distance volunteer for organizations of interest;
- taking part in book chat groups.

In general the essence of the elderly respondents' interest in the computer and Web were to keep their minds active, experience the joy of learning, pursue a personal interest, and to simply have fun.

Once the elderly have access to computers, they are dedicated and enthusiastic learners. To wit, my mother-in-law: having problems with her computer (an older, horizontally oriented "cinderblock"), she unplugged it (significance: upon receiving her computer she was terrified to push a button), and carried it three blocks down a city street (she is 4' 11") to her neighborhood elder computing skills center. Once plugged in, the elderly have a lifeline to the world, one that has largely assumed the elderly are simply ticking off the days, and they are not about to let go of it, no matter how much it weighs.

Note: *the elderly need laptops.*

Although it is clear the elderly have a great diversity of interests in using the computer and accessing information with it, and also understanding their keen interest in e-mail, I have narrowed down some the needs and skill building necessary before entry into future workshops covering such things as e-mail access.

- **Need: Basic computer awareness and handling skills**
 - Skill: Identify parts: screen, keyboard, mouse, power switch, and power source.
 - Skill: Mouse use
 - Skill: Keyboard use
- **Need: Basic World Wide Web awareness and handling**
 - Skill: Recognize basic anatomy and function of the Web
 - Skill: Browser interface use
 - Skill: Search engine use and information retrieval
- **Need: Basic awareness of information authority and security**
 - Skill: Recognize that not all information on Web is authoritative or benign
 - Skill: Evaluate sources
 - Skill: Recognize classic scams aimed at elderly, both online and traditional
 - Skill: Use the internet to avoid scams

Part II: Training Module

Teaching methods

The ARCS framework is the most recognizable teaching method employed in this instructional module. While each component is self-contained, there are also aspects of each component repeated throughout each of the three sessions. A few examples of ARCS components from each of the three sessions are described here.

- **Attention:** I have used a range of attention grabbing devices from the brief and simple image of the cat thoughtfully considering the mouse in the introduction to the mouse session, to the odd contemplation of the purpose of the giant reference book, to the busy and dramatic snake oil advertisement on the Web. My intent in

using the image of the cat and mouse, in addition to being visually stimulating, was to add a dash of light humor to put my learners at ease, which is especially important in the first session (LTR, 2004). The reference book analysis was intended to attract attention because of the oddity of my request to explain what a book's purpose is and to begin to get my students to stretch their thinking as a little warm up exercise. The arthritis "treatment" site is meant to jangle and tantalize.

- **Relevance:** The relevance of my mouse session is established initially by discussing how important a mouse is in the use of the computer and Web, and throughout the session by letting the students find out just how much they can use their mouse, as the only device, to use the Web. Relevance was established throughout this session by letting the students explore Websites in which they are likely to be interested. In the Browser session students go to an interesting Website, World Time, to learn first-hand how to use browser features and how they enhance their Web experience.
- **Confidence:** In general Confidence is established throughout each session by showing the students they can perform tasks and get results. In the mouse session students have fun developing mouse skills through a guided practice that shows them how just a few clicks in the right places helps them to navigate an entire online newspaper's comic section. In the source evaluation Session 3, learners are given a common fraud scenario that they will have little trouble finding information about after discussing a search strategy both with the class and with their partners.
- **Satisfaction:** Each session is designed to set the learner up to succeed, often in an open-ended way. In the second session, Browsers and Search Engines, the students are given the tools needed to find a variety of things via Google. They can try several methods of searching and will find they can come up with all sorts of information in a variety of venues including news and images. In Session 3 the students are asked to unravel a little mystery: which of two sites appears to be

the most reliable source and how to tell. The students, by this time, have the basic tools they need to navigate and evaluate Websites and they can investigate and compare two sites satisfactorily. At the end of each session each of the learners will be presented with a certificate of accomplishment.

Learning Styles

Throughout the three sessions there are teaching methods and learning opportunities presented to appeal to a wide range of learners. Immediately in Session 1, any Learner 3s will be gratified to find out what exactly it is one *does* with a mouse via the mouse exercises and visits to the links, the latter perhaps appealing to Learner 1 when she discovers that the mouse can take one to places of interest. In Session 3 there is some partner work to allow the learners an opportunity to exchange ideas with one another in private conversations, and then to report their findings to the rest of the class, which might be of interest to Learner 4. Lectures coupled with interactive PowerPoint slides, and hand-on activities give the learners something to listen to, to see, and to do in order to vary, and enhance, their learning experience. Ideally, this workshop would be available online to serve as a means of review for some learners, and a means of independent study for others.

Survey

This pre-Session 1 survey found at <https://catalyst.washington.edu/webtools/webq/survey.cgi?owner=mkt5&id=2> is but a brief tool to help the instructor get a sense of each student's experience with and interest in computer and Internet use and whether there are any physical or cognitive limitations she could expect and make provisions for. This particular survey is limited in usefulness

if a student has no experience with using a mouse. A more likely version of this pre-survey would be a paper version, served to them upon registration for the class, if possible, so that each session could be modified appropriately.

Assessment

Three methods of assessment will be used to determine both the quality of the training module, the effectiveness of the teacher, and the experiences of the students. Students will be observed informally for cues indicating interest and anxiety levels and for skill achievement which will be calculated on a rubric. The following is an example of a rubric for the Session 1 mouse class. The rubric will be filled in by recording observations of student skills and by gathering results from the evaluation the students complete after the session, which can be found at <http://webq.catalyst.washington.edu/survey.cgi?user=mkt5&survey=1>. The results of the evaluation for each individual will be used to make modifications where possible for both the learning materials and in the delivery of the subsequent sessions (or future workshops) themselves.

Mouse Session Rubric

Objectives	Below Average	Average	Above Average	Exemplary Performance	Earned Points
Hold Mouse in Effective Manner (All objectives are part performance, part evaluation of what needs to be done by instructor to aid performance.)	0 points Cannot hold mouse.	1 point Holds mouse but has difficulty controlling/ making accurate movements.	2 points Holds mouse comfortably and is able to move mouse around accurately, but is unable to access left click.	3 points Holds mouse comfortably, able to move mouse around accurately, able to access left click.	
Mouse Navigation	1 point Can move mouse accurately to desired location.	2 points Can move mouse accurately to desired location, can single click.	3 points Can move mouse accurately to desired location, can single click, can click and drag.	4 points Can move mouse accurately to desired location, can single click, can click and drag, can double click.	
Web Page Navigation	0 points Is unable to click on links, use the back button or close button appropriately	1 point Can visit links	2 points Can visit links, can use close button appropriately	0 points Can visit links, can use close button appropriately, can use back button appropriately	
Perceived experience in Mouse Workshop	0 points Unhappy with experience/own performance. Not coming back.	1 point Not confident in own performance. Sees little relevance in activity for own purposes. Unclear if will continue.	2 points Not feeling completely confident in own performance. Not clear on the relevance of activities for own purposes. Reservedly ready for more.	3 points Confident with own performance, clear about relevance of activities for own purposes, enthusiastic and ready for more	
				Score:	

Additional Notes

While much attention has been focused upon the special cognitive and physical needs of senior learners, it may not be obvious in the following instructional plans that these needs are being addressed. Many of the adaptive needs should be seen to prior to

starting these sessions. Care needs to be taken to make the PowerPoint slides as readable as possible by enlarging font size, limiting distracting patterns, and using high contrast text against plain backgrounds. (Zhao, 2001) The physical space should be well-lighted and easily accessed by foot, walker, or wheel chair.(LTR, 2004) Some basic adaptive technology should be made available if possible, such as large monitors, magnifiers, track balls, the Assisted Mouse Adaptor from IBM which eliminates the effects of hand tremors on mouse operation, or software that alters Webpage appearance.

There are several limitation of this workshop, the most unsatisfying being the assumption of the learner's ability to get to the library. There is a basic assumption being made that the target group is relatively high-functioning and mobile. Where funds and other support are available, this would make a fine traveling laptop workshop available for those housebound and in nursing homes.

Mouse Work: Session 1

Computer Based Information Literacy for Independent Elderly

Concepts:

1. The computer mouse is used to navigate around the computer and the World Wide Web.
2. Three basic mouse skills are needed for effective navigation: aiming, clicking (single and double), and dragging.
3. Web links allow us to move around within the body of information stored on the World Wide Web.

Objectives: Students will be able to:

1. Identify the mouse as the most common computer and Web navigation instrument;
2. Identify and use the left click button;
3. Aim the mouse pointer with sufficient accuracy at intended targets;
4. Click on links and drag the scroll bar or other objects;
5. Use effectively the “Back” and “Close” icons on the browser window;
6. Verbally describe actions and experiences.

Materials for 10 students

- 10 computers (Windows assumed) with Internet access
- Interactive PowerPoint slides
- PowerPoint slide worksheets for reference and pencils
- Online Interactive Producer workshop
http://students.washington.edu/mkt5/560_final/producer_lis560/my560presentation_files/Default.htm
- Online Session 1 Evaluation
- 10 certificates of accomplishment

Activities

I. Attention

(Skills list: Recognizing the computer mouse as a navigation tool, identifying the left-click button, identifying common hand positioning)

- A. Introduce session with slide “Get to Know Your Mouse” with picture of a cat thoughtfully pondering a mouse while holding it by the tail.
- B. Hand out slide worksheets instructing the students to make notes on each slide as needed and outline agenda for the session:
 - Mouse anatomy
 - Mouse handling and exercises
 - Using the Mouse on the Web
 - Evaluation
- C. Identify parts of computer mouse, significance of the left-click button, and general mouse hand position.

II. Relevance

(Skills list: Identifying mouse pointers, moving mouse accurately, practicing common mouse actions including accessing a hyperlink, using the Windows “Close” icon, verbalizing experience)

- A. Discuss the importance of the mouse as a navigation tool in using the computer and the World Wide Web.
- B. Allow students to move mouse around and identify three mouse pointers and their briefly discuss their significance:
 - “I” Bar (pointer appearance over basic text)

- Arrow (pointer appearance over numerous items)
 - Pointing finger (pointer appearance over hyperlinks)
- C. Call students attention to hyperlink, which will send them to a mouse practice Web site at SeniorNet's <http://www.seniornet.org/howto/mouseexercises/placemouse1.html> which allows them to point, click, double click, drag, drop, and highlight.
- D. Prior to sending them to the site, describe the process and significance of using a hyperlink and the need to use the Windows "Close" red "x" icon to return to the session slide after using the mouse exercises. Circulate around the room to respond to questions.
- E. Ask students to describe experience. Encourage analogies. Discuss.
- F. Describe scrolling and let students practice using scroll bar in the PowerPoint slide window.

III. Confidence

(Skills list: Using the "Close" icon, using the "Back" button, using menus and hyperlinks, verbalizing experience)

- A. Indicate to the students that they will review one previously learned skill, using the "Close" icon, and two new skills while using a Web page:
- Using the "Back" button while using the Web to get back to where you started
 - Using hyperlinks

- B. Let students left click on the link for the Seattle PI online comic page, <http://seattlepi.nwsourc.com/fun/mutts.asp> while continuing to listen to instruction.
- C. Ensure you give plenty of time for the various pages to download each time as you introduce the students to the Web page, instruct them to use the drop down menu for dates by activating the menu, highlighting a date, and clicking “View Comic” to see an older comic, which is on a new Web page.
- D. After viewing the new comic, instruct the students to locate the “Back” button on the browser window to get back to the original comic (the original Web page they started on).
- E. Instruct the students to go to a different comic by using the menu to view a comic by another title. After viewing the new comic, instruct the students to use the “Back” button again.
- F. Allow the students to repeat these actions on their own and to use the “Close” icon when finished to get back to the instruction slides.
- G. Allow the students to describe to the best of their ability what they did and what significance each action had. Encourage analogies or other types of descriptions. Summarize their contributions.

IV. Satisfaction

(Skills list: Using hyperlinks and above skills independently, verbalizing experience, evaluating session experience)

- A. Give instruction for visiting a list of links to follow:

- Click on each of the links listed on the following page
 - Once there scroll and click on links
 - Use the “Back” button
 - Use the “Close” icon to return to list of links
 - Visit as many links as desired
- B. Assure the students that they should feel free to explore without fear of damaging anything.
- C. Give students access to the hyperlink³ slide and encourage them to explore. Remind students to ask for help. Discuss experiences.
- D. Describe agenda for the next session - browser use and using a search engine. Call attention to the search list template at the back of their worksheet packets and encourage students to arrive with a list of interests they have so they can conduct searches about them.
- E. Direct students to additional mouse exercises in the form of a Session 1 Evaluation.
- <http://webq.catalyst.washington.edu/survey.cgi?user=mkt5&survey=1>. If students would prefer to use a paper version, direct their attention to the form at the back of their worksheet packet. Award each student with a certificate of accomplishment.
- F. Invite students to remain longer to continue exploring the list of links, or to review the workshop on their own, online via the Library Web site.

³ Try to include links to sites seniors tend to use. According to a SeniorNet 2004 survey: health care, government, finances, greeting cards, genealogy, other elders’ Web pages, and photo sharing sites ranked highly as Websites of interest.

Browser and Search Engine: Session 2

Computer Based Information Literacy for Independent Elderly

Concepts:

1. Browsers allow us to access the World Wide Web.
2. There are many different browsers including Internet Explorer and Firefox.
3. Basic browser functions make using the Web a little more convenient including the Back and Forward functions, Stop and Refresh functions, Home, Bookmarks, and History functions.
4. Search engines help us find things on the Web – they will use Google.
5. Basic search includes entering a search term into the search field and clicking Google Search or Feeling Lucky.
6. One can also search Google Images and Google News.

Objectives: Students will be able to:

1. Describe what a browser is;
2. Use effectively at least 4 basic browser functions – Back, Forward, Home, Bookmarks;
3. Describe what a search engine does;
4. Use Google to conduct a basic search using Google Search and Feeling Lucky;
5. Search Google Images and News;
6. Use the mouse and keyboard to execute the above objectives;
7. Verbally describe actions and experiences.

Materials for 10 students

- 10 computers with Internet
access
- Interactive PowerPoint slides
- Online Interactive Producer
workshop
- PowerPoint slide worksheets
for reference and pencils
- 1 Exceptionally Large
Reference Book of your
choosing
- Online Session 2 Evaluation
- 10 certificates of
accomplishment

Activities

V. Attention

(Skills list: Forming a basic analogy to understanding browsers and search engines)

A. Get a really big reference book from the stacks and show it to the students.

Ask them to describe what it is and what it does. You might need to acknowledge that this sounds like a silly question.

B. Summarize what they offered and give this additional interpretation:

- It is a book and it holds information, in this case information about weather phenomena (or whatever).
- The book is not the information itself, not the chapters, not the images but it holds the information and images and gives us convenient access to them.
- We access the information by visiting the pages. We can go forward, we can go backward, we can skip around, even go to other books that have been referenced in this book, use bookmarks to help us find things again, and we can browse for interesting things at random or search for specific things using the index or the table of contents.

C. Explain that today's session will help the students understand and use a Web browser and a search engine and that they might be able to tell you at the end of the session what a book and a Web Browser and search engine have in common.

D. Hand out slide worksheets instructing the students to make notes on each slide as needed and outline the agenda for the session:

- Browsers and their basic anatomy
- Browser handling and exercises
- Finding things on the Web by using a search engine
- Evaluation

VI. Relevance

(Skills list: Witnessing and describe the functions of the Back, Forward, Refresh, Stop, Bookmark, and History functions)

- A. Open the library's home page through Internet Explorer. Review some of the features of the browser that the students have used before such as recognizing and using a hyperlink and the "Back" button.
- B. Call the students attention to the entire area where the "Back" button is. This area is the most obvious feature of a browser. A browser is a special piece of software that allows us to use the Web in a convenient manner. Demonstrate some basic actions while narrating what is done. A Web browser allows us to visit links, go back to previous pages, and go forward to pages just visited and a host of other things. In essence a browser provides an access framework around all of this information so we can get to it easily. Acknowledge that while this is a simplified description, it suits our purposes entirely adequately.
- C. There are other browsers. Note at the top this states Microsoft Internet Explorer. That is the name of this browser and it performs its job in a

certain way. Exit IE and enter FireFox. Call students attention to the top where that name is indicated. Ask the students to describe how it is the same or different. Use FireFox for the rest of the session.

D. Let students use some of the common browser tools in a guided experience:

- Have the students note the refresh button (blue arrows). Go to the World Time Server at

http://www.worldtimeserver.com/current_time_in_HT.aspx

This is a world time viewer but it does not function in real time. Have the students note the time on their computer clock, and the WTS web site. Talk about something and wait until the minutes on the computer clock have changed over twice. Let the students click the Refresh button to see what happens.

- Take control of the screens and have the students notice the grey stop sign with the white “X”. Since this is not a critical skill just let them see what the “Stop” function does by going to another link on that page, but stopping it before it finishes loading. You might have to do this twice.

Discuss.

- Show them how to use the “Bookmark” function by letting them bookmark the WTS page. Use the Bookmark icon and then view the Bookmarks.

- Have them use the “Home” button and then, have them find and use the Bookmarks to get back to the world time site again.
- Review the “Back” button as many times as it takes to get to the Library page again, and introduce the “Forward” button to get to the time again.
- Say you want to get back to something you saw a few minutes ago, but forgot to Bookmark it ...if only you had a way to tickle you memory...Introduce the “History” button and how to navigate around in History to get back to something – it doesn’t matter what.

VII. Confidence

(Skills list: Using the Back, Forward, Refresh, Stop, Bookmark, and History functions)

- A. Let the students explore the world time site where they can use their familiar browser features and the new ones just encountered. Place a list of the above actions (and pictures of the icons) you would like them to perform in a prominent place for their reference. Circulate through the room.
- B. Allow the students to describe to the best of their ability what they did and what significance each action had. Encourage analogies or other types of descriptions. Summarize their contributions.

VIII. Satisfaction

(Skills list: Performing a basic Google search, searching Images, News, using basic browser features again.)

- A. It might be possible to find something you are looking for by clicking through endless links beginning with one Website. After all, the Web is just that, a connected network of information, so theoretically you could get to everywhere from one spot. But the information is simply copious and not organized in any recognizable form and it would take forever to find something in this way, just as it might take a long time to find something in our big book of weather by turning each and every page until we found what we are looking for. That is where search engines come in. They help us find things on the Web.
- B. Ask a student to volunteer something from their lists they are interested in finding out about. Go to Google. Describe the layout of the Google home page and type in the student's query in a simple manner that makes sense to the student and that would likely render appropriate results. Have the students click Google Search. Discuss results and let the group decide what hit to click on. Do so and discuss results. Ask students to brainstorm a list of related search words and spend a minute or two using those in the search field. Discuss.
- C. Discuss "Feeling Lucky". Enter a well-known retailer, like Target, into the search field. Ask the students what they think Feeling Lucky might do for this kind of query. Have the students click Feeling Lucky and discuss results. How was this different than the first example?

- D. Give a brief overview of the keyboard indicating that the only keys they need concern themselves with are the letters and perhaps the space bar. They need not be concerned with upper and lower case or punctuation during this session.
- E. Let the students conduct their own searches using the search field and both search buttons. Encourage the use of the browser functions they learned earlier. Discuss results. Did anyone learn anything new about their topic? Did anyone get any surprises?
- F. Let the students use these terms again to search in Images and News. Discuss results.
- G. Direct students to the Session 2 Evaluation and a survey regarding Web information they would like to access. If students would prefer to use a paper version, direct their attention to the evaluation and survey at the back of their worksheet packet. Award each student with a certificate of accomplishment.
- H. Invite students to remain longer to continue exploring Google, or to review the workshop on their own, online via the Library Web site.

Identifying “Good” Information: Session 3

Computer Based Information Literacy for Independent Elderly

Concepts:

1. Information on the Web is abundant but largely uncontrolled;
2. As a result of the former, not all information found on the Web is accurate, unbiased, or benign to the intended user;
3. Reliable organizations exist that vet Web sites. Tools exist to help us do our own vetting to help protect ourselves and others from victimization.

Objectives: Students will be able to:

1. Use reputable services to find reliable information, such as SeniorNet.com
2. Use an assessment tool to determine whether information on the Web is reliable.
3. Use the Web to help determine the reliability of offers made in the “real world”
4. Use the mouse, keyboard, and search engine to execute the above objectives
5. Verbally describe actions and experiences

Materials for 10 students

- 10 computers with Internet access
- Interactive PowerPoint slides
- Online Interactive Producer workshop
- PowerPoint slide worksheets for reference and pencils
- Online Session 3 Evaluation
- Online Workshop Evaluation
- 10 certificates of accomplishment

Activities

IX. Attention

(Skills list: Understanding the basics of WWW history, operation, and architecture)

A. Introduce session with slide from Web site,

<http://www.jointpainremedy.com/?adMac=2320547000->

[1117577394&adSEN=](http://www.jointpainremedy.com/?adMac=2320547000-1117577394&adSEN=) using one of the quotes from the page, such as,

“Scientists develop all-natural secret formula that stops crippling arthritis, joint pain and muscle pain within 15 minutes flat...even if you’ve been suffering for years.” Ask for immediate responses to this statement.

B. Hand out slide worksheets instructing the students to make notes on each slide as needed and outline agenda for the session:

- What is out there on the Web, anyway?
- Identifying and using trusted resources
- Becoming your own trusted resource
- Evaluation of session and workshop

C. Discuss the Web as a source of information, its history, and basic architecture, including how information is put on the Web. Stress that anyone can put virtually any information on the Web, and even that which is illegal is often difficult to monitor because of the sheer volume of information on the Web.

X. Relevance

(Skills list: Identifying one reputable source that vets Web information, using a basic set of reference questions to evaluate a Website, checking the reputability of a source, verbalizing observations)

- A. Still, there is a great deal of benign and even great information on the Web. Let the students click on the link, <http://www.seniornet.org/php/default.php> and walk them through a number of features, perhaps letting them choose links for the class to explore together.
- B. Go to the Health link on SeniorNet.com at, <http://www.seniornet.org/php/default.php?PageID=5536> and click the link in the body of the page entitled “How to Search the Web for Trustworthy Health Information”. Discuss what they have found there.
- C. Many sites dedicated to senior citizens take a special interest in evaluating and presenting reliable resources to their users. Allow the students some time to explore these links.
- D. Go back to our site: <http://www.jointpainremedy.com/?adMac=2320547000-1117577394&adSEN=>. Discuss the need to do one’s own research sometimes, such as is the case when they might be faced with information like this during a search. Break up the class into groups of two, and divide the Website up into manageable pieces. Assign each group a section of the Website so they can make an initial evaluation of the site. They

should try to answer these questions (and give examples) to the best of their abilities on their worksheets:

*Does this Webpage:

- Make excessive claims to certainty?
- Make appeals based on emotion?
- Appeal to prejudice and innuendo?
- Transform words to suit aims?
- Minimize or maximize problems?
- Use vague references to “experts”?

E. Ask students to report on findings. Discuss.

F. Present the following information to the students and work through these issues together:

- Who is responsible for its content? Find the author of this site, Arcangelo Capozzolo. Ask the students for ideas about finding information about Mr. Capozzolo. Let a student conduct a Google search for the class.
 - Authority and Reputability? Hits indicate, from reputable sites such as www.sec.gov, that Mr. Capozzolo is in trouble for making purposefully misleading statements on another of his Websites, which is purported to be a stock market trading site.

*From: <http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/Evaluate.html>

- Currency? Although this will likely be a bit above students' heads, the site indicates the information was last updated on that very day you will be looking at this site. Go to View Source and briefly explain what it is. Show them the section that he has written into the code that makes the date change daily. Discuss this in terms of how people can be at risk of fraud by those who take advantage of others' lack of tech savvy. Why would the author include this code?
 - What is the purpose of the page? Discuss. Why would this page "work" on someone?
- G. Although everyone everywhere is always in danger of being scammed, discuss how and why seniors are at particular risk.
- <http://www.fraud.org/elderfraud/elderbroch.htm> Let them know this section of the workshop is not meant to scare them (or depress them) it is to show them they have control over the riff-raff out there.

XI. Confidence

(Skills list: Using search skills to find information about a common scam, using guidelines for evaluating two websites, verbalizing experience)

- A. Find a common fraud scenario to describe such as the telephone voter scam where an "official from the election board" calls to verify voters' eligibility by asking for victims' SSNs or credit card numbers and says that only immediate compliance will maintain their eligibility. Ask the students to give examples of how to react to this call. Fill in tips as

needed. Ask caller to identify themselves, ask for a return phone number, firmly refuse request, and call police. Suppose we want to find out more about this and how to report it to a more direct official. Discuss possible search terms and let them pair up again to conduct the search and report on their findings.

- B. Allow the students to describe to the best of their ability what they did and what significance each action had. Encourage analogies or other types of descriptions. Summarize their contributions.

XII. Satisfaction

(Skills list: Using search skills, using guidelines to evaluate information, verbalizing experience, evaluating session experience)

- A. Give the student teams pairs of mystery links to choose from which include a reputable source and “fishy” sounding source ideally about a similar issue. Suggest they pursue evaluating each of the two sites using the Berkeley guidelines. Report on findings.
- B. Students can use their search skills to learn more about amazing-sounding offers that appear both online and “offline” before they act, providing they do not give scam artists what they want first. Send them to <http://www.fraud.org/elderfraud/seniortips.htm> for a complete list of fraud information.
- C. Discuss session experiences.
- D. Discuss the next three-part workshop about setting up and using an e-mail account (more about fraud and security) and developing advanced search

skills to pursue an interest area/hobby. Direct students to the session and overall workshop Evaluations. If students would prefer to use a paper version, direct their attention to the form at the back of their worksheet packet. Award each student with a certificate of accomplishment.

- E. Invite students to remain longer to continue exploring the Web, or to review the workshop on their own, online via the Library Web site.

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