Syllabus: Screen Reader Savvy

Instructor Information
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Course Description:
This eight week class will cover screen reading software and practical use of such. Course content is outlined in the following pages of the syllabus.

Student Expectations:

- Have access to either JAWS or NVDA on a regular basis to allow for practice while viewing videos prior to class. Access to one of these screen readers during our class times is preferred, but not necessary.
- Have a PC loaded with the latest versions of Chrome and Firefox. Access to MS Word 2010, 2013, or 2016 is preferred. Office 365 is not covered, but if it is the only word processing software you have access to, it will work.
- View videos prior to meeting times
- Practice concepts and practical application discussed in the videos and in class. You might find it helpful to journal when you are going through the "action items" for each week. These are for your reference, not to be submitted.
- Come to our meeting times ready to learn and ask questions
- Even if you don't feel confident, try everything. If I haven't broken the internet yet, you won't either.

Instructor Expectations

- Have lessons prepared a minimum of 1 week prior to each session
- Be available by phone or email to answer questions or troubleshoot problems
- Provide current information to the best of his/her ability and if he/she does not have an answer to a question immediately, return to the next class with an answer or contact the class with an answer within a reasonable timeframe.

Week 1: Windows Commands With and Without Screen Readers

Objectives:

1. Students will name at least four Windows commands
2. Students will articulate the difference between Windows and screen reader commands
3. Students will navigate to the desktop, toolbar, system tray.
4. Students will open programs pinned to the taskbar using key commands
5. Students will navigate between open applications
6. Students will know the function of the "application key" and shift+F10 in terms of mouse actions

Agenda:

1. Introductions and class expectations/format
2. Sharing of experiences with screen readers
3. Introduction of the Windows Desktop and navigation in the Windows environment
4. Cover screen reader commands for navigating to the toolbar, system tray, start menu, and desktop as well as opening "pinned" items
5. Pinning and unpinning applications on the taskbar
6. Application key and "right clicking"

Action Items:

1. Choose one task you do regularly to or a program you normally open on your computer. Use the key command do open that program as much as possible. This may mean pinning the program to the taskbar and opening it with a Windows command each time
2. Block off 20 minutes per day to use as many key commands as you can remember to use. They do NOT need to be (nor should they be) the busiest 20 minutes of your day.
   a. Example: When reading your email, use "escape" to close an open message, the delete key to delete the message the system focus is on, Control+N to start a new message or Alt+S to send a message you have written. Note that this is JUST an example and key commands for your email client may not be the same as those listed.
3. Attempt to incorporate what you've learned with one of your students this week. It can be as simple as teaching them a simple windows command such as Alt+F4 to close a program or Control+F4 to close a window/tab.
4. Watch the video for next week's lesson and review the content.

Week 2: JAWS Interface

Objectives:

1. Students will be able to bring up the JAWS interface as needed and access the menus using key commands
2. Students will open the JAWS settings center and navigate to as well as modify the various settings in the tree view
3. Students will adjust the speech rate up and down using key commands and by opening the appropriate menu
4. Students will adjust the system volume using key commands
5. Students will explore the dictionary manager, the braille display menu, and the pronunciation dictionary.

Agenda:

1. Open JAWS and look at the layout of the interface
2. Practice accessing the menu bar with key commands. Note the keyboard shortcut written next to the menu item if present.
3. Explore how to adjust voice with key commands as well as adjust speaking rate.
4. Explore settings center, navigation of the setting center dialogue, and modifying settings
5. Navigate to the speech and braille dialogue boxes to review and explore those
6. Open the pronunciation dictionary and add a word to it that we want to pronounce differently.
7. Accessing help in JAWS; practice and application
8. Time for questions and clarifications

Action Items:

1. Continue to practice key commands from last week's lesson (including setting aside time to practice)
2. Practice accessing the dialogues and settings we looked at today at least three times this week. Refer to the notes and/or video for today if needed..
3. Attempt to incorporate what you've learned with one of your students this week. If they already know how to use JAWS effectively, have them show you the pronunciation dictionary. Most students don't know that one…
4. Watch the video for next week's lesson and review the content.

Week 3: NVDA Interface

Objectives:
1. Students will be able to bring up the NVDA interface as needed and access the menus using key commands
2. Students will open the NVDA settings center and navigate to as well as modify the various settings in the dialogue
3. Students will adjust the speech rate up and down using key commands and by opening the appropriate menu
4. Students will adjust the system volume using key commands
5. Students will explore the pronunciation dictionary and the braille display menu
6. Students will create and open a portable copy of NVDA

Agenda:
1. Open NVDA look at the layout of the menu structure
2. Practice accessing the menus with key commands. Note the keyboard shortcut written next to the menu item if present.
3. Explore how to adjust voice with key commands as well as adjust speaking rate.
4. Explore settings dialogue, navigation of the setting center dialogue, and modifying settings
5. Navigate to the speech and braille dialogue boxes to review and explore those
6. Open the pronunciation dictionary and add a word to it that we want to pronounce differently.
7. Discussion and practical application creating and opening a portable copy of NVDA
8. Accessing help in NVDA; practice and application
9. Time for questions and clarifications

Action Items:
1. Continue to practice key commands from previous weeks' lesson (including setting aside time to practice)
2. Practice accessing the dialogues and settings we looked at today at least three times this week. Refer to the notes and/or video for today if needed. If possible practice this on both JAWS and NVDA now that you've received some basic instruction in both.
3. Attempt to incorporate what you've learned with one of your students this week. If they already know how to use NVDA and/or effectively, have them show you the pronunciation dictionary. Most students don't know that one. If you taught a JAWS lesson last week, you may teach a follow up lesson this week. Or give them an introduction to NVDA if they have not used it.
4. Watch the video for next week's lesson and review the content.

Week 4: Reading, Navigating, and Basic Editing of Text

Objectives
1. Students will understand the difference between "reading" and "navigating" text.
2. Students will be able to identify the location of the cursor in relation to the text being read by either JAWS or NVDA
3. Students will be able to navigate by character, word, line, paragraph, and sentence as appropriate to either screen reader.
4. Students will be able to delete and insert text within the middle of the document using the screen reader of choice
5. Students will navigate within and read tables using either screen reader
6. Students will understand the difference between use of the backspace and delete keys and determine when use of each is most advantageous.
7. Students will be able to check spelling within a document using the screen reader and method of choice

Agenda
1. Explain and explore the difference between navigating and reading text. Review the commands to do each in both screen reader programs.
2. Practice navigating by character, word, line, sentence, and paragraph as appropriate. Use the handout as a reference as needed.
3. Talk about tables: accessibility vs user friendly.
4. Write a simple sentence. Add and remove words and/or phrases in the middle of the sentence to demonstrate understanding of cursor placement. Use both backspace and delete keys to demonstrate their use.
5. Check spelling activity: students will practice at least two ways of checking spelling in class. We will first go through all the methods.

Action Items
1. Continue to practice key commands and activities from previous weeks' lesson (including setting aside time to practice)
2. Find a document with tables (or make one). Practice navigating and reading the tables using each screen reader. If needed download a sample from online.
3. Write out the first verse to your favorite song in a word processing document. Practice navigating by character, word, line, etc. Make the words more interesting by changing them or adding to them (practicing editing skills). Example: "Hello darkness my old friend" might become "Hello silence my new foe"…
4. Attempt to incorporate what you've learned with one of your students this week. Give them a lesson to work on similar to the one above on text editing or provide them with a document full of spelling errors to correct.
5. Watch the video for next week's lesson and review the content.

Week 5: Key Tips and Advanced Editing in Word

Objectives
1. Students will be able to define what key tips are and what the advantage they provide to TVIs while teaching screen reading techniques
2. Students will be able to add and edit headers and footers as well as idenfity the advantages of being able to perform each task.
3. Participants will be able to add headings, and check word count using one of the two methods given.

Agenda
1. Review key tips in a variety of programs and how they come up. Explore settings of the programs (word processing in particular) to ensure that key tips are visible as needed.
2. We will make sure that the screen readers being used are set to "beginning" verbosity level so it will echo key tips. Discuss how this is useful as well as navigating ribbons with tabs to determine what key tips and combinations are available.
3. Identify key tips in programs that have menus (note that key combinations are often visible next to items for which shortcuts are available)
4. Practice adding a header and editing it. Also continue to do the same with footers. Discuss citation of sources using footers (MLA citation for example).
5. Add headings, lists, and other items to documents in Word using key commands.
6. If time permits, discuss style sets and changing default formatting

Action Items
1. Continue to practice commands and concepts from previous weeks' lesson (including setting aside time to practice)
2. Practice utilizing key tops to help reinforce common key commands and processes. Try to do this for half an hour at least three times this week. See if you can remember the command sequences you used the most. Can you come up with fun ways to remember them?
3. Attempt to incorporate what you've learned with one of your students this week. Pass on at least one useful key command or key combination you've discovered from practicing using key tips. Encourage the student to access the ribbon and get the screen reader to echo key combinations that he/she can use to access a setting of his/her choice.
4. Watch the video for next week's lesson and review the content.

Week 6: Working on the Web Part 1

NOTE: This is a very heavy topic, so we will be working through it very slowly. Please feel free to ask questions and for clarifications as needed.

Objectives:

1. Students will understand the importance of browser and screen reader combinations and how to determine if a combination no longer functions well enough to use.
2. Students will use general windows or browser commands to access the areas within the browser such as open the downloads page, access and create bookmarks, open and navigate between tabs, etc.
3. Students will define an element and be able to provide examples. Also students will define "single letter navigation"
4. Students will be able to navigate a web page by heading, link, next non-linked text, as well as three other elements (i.e. form fields, frames, buttons, lists, etc).
5. Students will articulate why some websites are accessible by screen readers and others are not.

Agenda

1. Review of browser commands verses screen reader navigation commands. Brief discussion on what makes a website "accessible" and that looks can be deceiving.
2. How can we tell when a website is not accessible? How can we tell whether the problem lies with the browser and screen reader combination rather than the website itself?
3. Discuss importance of navigating among open tabs and closing tabs that are not needed anymore. Why is navigating between tabs different than navigating among programs?
4. Go over single letter navigation commands (see list in handouts) and visit a few websites where they are available.

Action Items

1. Using your screen reader and browser combination of choice, open your bookmarks, add/delete a bookmark, open the downloads page, and practice navigating between open tabs.
2. Go to a site like CNN.com and navigate among headings, find a story/article you wish to read and practice reading it. Note that the read all command (insert + down arrow) may give you more information than you want, so using headings, links, and next non-link text may be good commands to try
3. Go to a website you enjoy visiting. Look at it from an accessibility standpoint. Do you think it will be screen reader friendly? Why? Test your hypothesis.
4. Work with a student on what you've learned this week. Is he/she proficient with web navigation? Does he/she understand page elements and the various ways of navigating a website? Assess your students' knowledge and impart some of the knowledge that may help fill in the gaps in his/her learning.
5. Watch the video prior to week seven's lesson

Week 7: Working on the Web Part 2
NOTE: As was the case last week, this is a very heavy topic, so we will be working through it very slowly. Please feel free to ask questions and for clarifications as needed.

Objectives:
1. Students will be able to access the various elements dialogue boxes in both JAWS and NVDA as well as how to navigate them (including first letter navigation)
2. Students will be able to define forms mode, browse mode, and be able to enter and exit forms mode
3. Students will understand the role of Placemarksers and Landmarks in NVDA and JAWS as well as the differences in the two.
4. Students will be able to articulate when an item on a web page may be defined as more than one element (link and heading, form field and edit box, etc)

Agenda
1. Review of last week and discuss how it will tie in to this week's topics
2. JAWS – discuss and practice with the various elements dialogues (headings, links, frames, etc)
3. NVDA – discuss and practice with the elements dialogue, determine how it is different from the JAWS dialogues, and practice navigating the dialogue so the screen reader can navigate a web page by headings, links, and other listed elements.
4. JAWS – discuss and practice the placemarkers dialogue, adding a temporary placemarker, adding a permanent placemarker, and the difference between the two.
5. Forms mode: how do we determine whether we are in forms mode? Can we exit it if we enter it inadvertently?
6. Navigate to various websites to determine their accessibility. Discuss as a group how to determine this. Are their strategies to work with sites that are partially inaccessible?

Action Items
1. Using your screen reader and browser combination of choice, go to a minimum of three websites. Try to navigate each one. It may help to cover the screen so your vision does not interfere with what you are hearing from your screen reader.
2. Open the elements dialogue(s) in your screen reader of choice. Navigate the website in this way. Is there an advantage to using dialogue boxes over first letter navigation? When might that be?
3. Go to Google.com and perform a search. How can you tell you are in the search box? How do you exit the search box? Are you able to navigate the search results? If so, what method are you using?
4. Work with a student on what you've learned this week. Expand on what you taught him/her last week. Did they retain the information you taught them last week? What did you teach them from this lesson. Have they ever used dialogue boxes to navigate by element type?
5. Watch the video prior to week seven's lesson

Week 8: Troubleshooting, NVDA Add-ons, JAWS Scripts, and Wrap Up

Objectives
1. Students will determine what sorts of issues may arise when using a screen reader and provide potential solutions.
2. Students will define an add on and a script. What's the difference? What is the advantage of acquiring these things?
3. Students will define "Convenient OCR" within JAWS and name several times it might be useful to a screen reader user.

Agenda
1. Students will be given various problems and be asked what they might do to resolve the issue (i.e. I can't hear JAWS talking, why does it look like I'm in Word but my screen reader won't allow me to interact with it, etc).
2. Students will explore the various add-ons for NVDA. Name a couple that might be useful to have and name why.
3. Students will explore JAWS scripts. How do these differ from NVDA add-ons? When might having a specific script be helpful.
4. Time will be given to practice "Convenient OCR" to access items or areas that might otherwise not be accessible with a screen reader
5. Participants will be encouraged to participate in an open Q&A session where all questions and topics are welcome.

Action Items
1. Users of NVDA should practice adding at least one add-on to the program from sites provided. How has the add on helped you? If it has not, what might make the add on better?
2. Users of the trail version of JAWS, find a PDF online or an inaccessible site and try Convenient OCR. Did it help to access the information on the screen? If so, how and if not, what could have made it better.
3. Please participate in an anonymous survey about this course and instructor. Honest and constructive feedback is welcome.