TWO NEW WORKPLACE ACCOMMODATION DECISION TOOLS

Work ACCESS & Assistive Software Knowledgebase
Need for Work Accommodation Tools

Employers / employees make the majority of accommodation determinations

• In a Georgia Tech. survey:
  o One-third of employees received accommodations through a vocational rehabilitation (VR) program
  o 46% through employer-supported programs
  o 19% identified their own accommodations

• After VR made accommodations, 47% of respondents asked for additional ones because of changing needs

• Employees receiving services from VR seldom return when accommodation needs change (Syracuse Univ.)
An online (website /mobile app) workplace accommodation **assessment tool** for employers and employees to use together. It presents questions about the problem and recommends accommodations based on the answers.
Tool #2: Assistive Software Knowledgebase

A centralized, online resource on assistive software and mobile apps used as workplace accommodations. It provides general product information as well as other information to help an employee maximize his or her use of the software.
Session Overview

1. Work ACCESS
2. Assistive Software Knowledgebase description
3. Crowd sourced development
4. Share your thoughts!
Work ACCESS
Work ACCESS: Design Specifications

- Assessment questions collect information about individual, environmental, activity, & external factors
- A rule set / decision tree links difficulties with performing activities to accommodation suggestions
- Consider a broad range of accommodations, including assistive technologies, home modifications, strategies, and universal features
- Recommendations prioritized based on individual, environmental, activity, and external factors; as well as evidence of effectiveness
Work ACCESS: Design Specifications (2)

• Consistently identifies the same problems and solutions as would be identified by an accommodation expert
• Warn users when a situation is more complicated and experts need to be involved
• Links to articles/videos describing accommodations, information about specific products, and resources to help with funding and implementation
• Prompts and information appropriate for users with varying degrees of accommodation expertise
• Interface designed for maximum usability & accessibility
Initial Activities (with an Office focus):

- Moving About Workplace
- Using a Workstation
- Communicating Face-to-Face
- Reading / Writing Print
- Using a Computer
- Time Management
- Learning Work Tasks
Work ACCESS

What would you like to do today?

☑ Begin a new assessment
☐ Review a previous assessment
☐ Explore resources (e.g., links to services, funding)
☐ Complete a follow-up survey

Suppose an employee with low vision is having difficulty with reading ...
First, we ask about what **Activity** the employee needs an accommodation for.

**What activities do you want to explore today?**

- Facility Access
- Workspace
- Communication
  - Communicating face-to-face
  - **Reading / writing printed text**
- Using Work Tools & Materials
  - Using a computer
  - ...
- Organization
I need supports for...

+ Sitting, standing, or moving around
+ Reaching, grasping, or pinching
- Seeing, even with glasses/contacts
  - Light sensitivity
  - Seeing details
  - Seeing a full field of vision
  - ...
+ Reading, remembering, or planning

Next, we collect information about the Person.
What tasks do you want to explore today?

Which tasks might require a workplace accommodation?

☑ Reading printed text
☐ Writing printed text

The specific tasks that need accommodation are selected.
We’ve identified potential task difficulties based on what you told us

What problems does the employee have with the task?

- Color / contrast makes print difficult to see or causes eye strain
- Glare and/or lighting levels make print difficult to see or cause eye strain
- Small size makes print difficult to see or causes eye strain
- Documents (text and/or graphics) cannot be seen
- Tracking / visual processing issues make documents difficult to read
Which of the following apply?

- Use a shared workstation
- Work in an open office setting
- Need a portable solution
- ...

Depending on the scenario, we ask additional questions about the

- Person (e.g., preferred communication method)
- Activity / Environment (e.g., interacting with clients at workstation)
We’ve identified some possible accommodations

Reading & Vision: Small size problematic
+ Change the text style
- Increase text / graphic size
  • Make a large print version of document
  • Use a video magnifier / CCTV to magnify the document [portable]
  • Use application’s View/Zoom settings
  • Adjust computer’s text size / color settings [not shared workstation?]
  • Use e-documents with magnification software [not shared workstation?]
  • ...
+ Present the information through sound [possible distraction if open office]

A list of solutions is provided. Clicking on a solution pulls up a longer description....
Solution: Use e-docs with magnification software

Use electronic documents along with built-in or dedicated magnification software that enlarges all of the information on the screen (e.g., text as well as icons/menus). ...

• If the person has not previously used this software, consultation with an low vision or AT specialist may be helpful.

• This type of solution addresses computer access issues as well as print access.

Learn more about this type of solution: (link)
For product examples: (link)

Solutions may include links to additional implementation information or product examples (e.g., Assistive Software Knowledgebase)

We also include information about when an expert should be called in.

Users can add promising solutions to a list that can be printed at the end of the assessment
Assistive Software Knowledgebase
Assistive Software Knowledgebase: Design Specifications

• Provides general product and compatibility information, user reviews, and usage and training tips.

• Supports searches by keyword, user group/activity, or product type, that can then be narrowed by other characteristics (e.g., platform, features, price)

• Includes commercial products, shareware, freeware, and open source options.

• Provides structured user reviews that include information about how the software is used in the workplace, most helpful features, compatibility, training needs, likes/dislikes, and usage tips.
Assistive Software Knowledgebase: Design

**Information Sources**
- Manufacturer info
- Crowd sourcing
- Other resources / discussion sites

**Resource Information**
- General Product Information
- Compatibility
- Reviews
- Usage and Training Tips

Assistive Software Knowledgebase
Searches

Search by
- Keyword
- User group + activity
- Product type

Narrow search by
- Platform
- Operating system
- Features
- Price
- ...

Searches
Online Surveys Prompt Users About:

- Product ratings
- How it is used in the workplace
- Most helpful features / configuration used
- Compatibility (hardware and software)
- Training needs
- Likes / dislikes
- Usage tips
Sample Product Entry: Magnifier for Windows

**Product Type:** Screen magnification software

**Description:** Make program information, menus, and icons appear larger by magnifying all or part of the screen. This particular program is included in Windows’ built-in Ease of Access settings.

**User Group:** People who have low vision

**Platform:** Windows

**Price:** Free
Features:

- Magnification Range: 1x – 16x
- Choice of Magnification Window Style: Yes
- Choice of Screen Color: Yes (invert colors)
- Supports Dual Monitors: Yes*
- Includes Speech Output: No
- Magnification Windows: Full, Lens, Docked
- Tracking: Mouse pointer, keyboard focus, text insertion
- Monitor / Cursor Settings: Adjusted with other Microsoft settings, not this program
- Learning Curve: Medium – 1-2 days
Sample Product Entry: Magnifier for Windows

Requirements:

**Platform:** Windows 7, Windows 8.1, or Windows 10

**Expert assistance need:** Unnecessary by itself

**Language support:** ...

**Purchasing:**

**Manufacturer:** Microsoft

Price... Purchasing Options... Demo Available
Sample Review: Magnifier for Windows (1)

Overall satisfaction: 4 stars
Reviewer: I use it myself
Configuration used: Single monitor, full screen magnification (3x), standard screen colors & cursors
Most helpful feature: Ability to quickly increase the contents within the viewport
No compatibility problems with: Microsoft Office, Google Chrome, Gmail, Google Docs, Camtasia ...
Training: not necessary
**Like:** It is built into the OS, which allows it to be quickly and easily accessed with minimal system resources.

**Dislike:** It does not always track the active cursor or element that has focus, which makes it limited in capability. It pixelates text and images more often than many third party screen magnification programs.

**Other comments:** If a person requires more than 3x to 4x magnification, and relies on a screen magnification program for the majority of the day versus relying on the enhancements within the applications themselves, consider using a paid third party screen magnification program.
Sample Tips: Screen Magnification

- Become familiar with basic application keystrokes (e.g., open/close program, increase/decrease magnification)
- Adjust tracking options to maximize your preferences
- Customize magnification increments (e.g., 0.5x, 1x increments) to your most frequently used range of magnification
- Consider switching to screen reading if magnification of 4x or higher is needed
Analysis of Reviews: Research Questions

Coming soon...

- What features / configurations do people use & why?
- Do end-users’ and service providers’ opinions agree?
- Is training needed and is it being provided?
- Are users aware of all of the included features?
We Want to Hear from Potential Users! Crowd Sourcing

Submit a software program / mobile app review

• http://assistivesoftware.gatech.edu/reviewers

Review our accommodation decision trees and share your accommodation outcomes experience

• Online group interviews (several scheduled for late March and next month, and tentatively during the RESNA conference)
• Online surveys for validation of the decision trees
Next Steps

- Ongoing expert interviews/focus groups & validation surveys ...
- Launching Assistive Software Knowledgebase this spring
- Field-testing Work ACCESS this summer (comparing standard assessment to results when using Work ACCESS)
- Launching initial version of Work ACCESS this fall (free to people who agree to provide beta-tester feedback)
We Want to Hear from Potential Users: What Topics Should We Cover Next?

Initial Activities (with an Office focus):
- Moving About Workplace
- Using a Workstation
- Communicating Face-to-Face
- Reading / Writing Print
- Using a Computer
- Time Management
- Learning Work Tasks

Currently Considering:
- Remote Communications
- Moving / Lifting Materials
- Using Restrooms
- Collaborative Work??
- Other Work Settings (e.g., retail, warehouse, ???)
- ???
We Want to Hear from Potential Users!

- When should we refer people to seek out experts for help?
- What other factors (e.g., uses a shared workstation) should be considered when choosing an accommodation?
- How can we best engage people to post reviews and help develop decision trees?

Other questions / comments?
Thank you!

If you have any questions or comments, please contact:

Carolyn Phillips - carolyn.phillips@gatfl.gatech.edu
Karen Milchus - karen.milchus@design.gatech.edu

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