

# ASSISTIVE TECH FOR A SMOOTH TRANSITION

# The New Knowledge Economy

“At first glance, these statistics would seem to imply that knowledge workers make up 58% of the total workforce. .... It is true that workers in the tertiary sector deal primarily with knowledge. But these labels do not capture the breadth of the trend. In our experience, it is not that simple. The use of computers in the workplace is turning almost every worker into a knowledge worker. Work of all kinds is becoming more data driven. And business challenges require more on-the-job thinking and learning.”

-- [Intangible Capital: Putting Knowledge to Work in the 21st Century Organization](#) by Mary Adams and Michael Oleksak

# Key Skills For Knowledge Workers

- Technological literacy
- Ability to learn and adapt to change
- Ability to locate information

So what does this  
mean for blind  
people?

# The Bad News

- ⦿ There is no such thing as “extra time” in the work world
- ⦿ No one is going to hand you anything in 24 point font
- ⦿ Despite the ADA, there are still misconceptions about people who are blind or have low vision in the workplace

# The Good News

- ① Assistive Technology makes it easier for a blind person to access information than ever before
- ① Employers care less about how you do something than the fact that you get it done
- ① Mastering core skills when you are young can prepare a blind person for a lifetime of learning

# Core Skills To Build On

- Keyboarding
- Reading using synthesized speech at least 300 wpm with high comprehension
- Performing efficient internet searches
- Getting information from paper and PDF documents
- Problem solving, choosing tools, and locating resources
- Storing and retrieving key information

# What Is Keyboarding?

- Letters and numbers
- Function keys: control, alt, Windows, application, shift, enter, tab, insert delete, home, end page up, page down, F1-F12, escape, backspace, arrow keys
- Knowing what each of the keys does generally
- Accurately hitting keys in combination



# Why Is Keyboarding Crucial?

- Keyboard commands increase efficiency
- While dictation is useful in certain situations, it is not feasible in many situations
- Many jobs require people to type at least 35 wpm

# Teaching Keyboarding

- Cover the keys
- In the beginning, accuracy is more important than speed, speed comes with practice
- Tools: Fun With Typability, Talking Typing Teacher, Talking Typer
- Practice, practice, practice

# Demo: Fun With Typability

- This program makes typing fun for young kids
- The younger you learn, the better you'll get
- Talking Typer or Talking Typing teacher often a better option for older learners

# Listen Fast, Listen Well

- College students and workers have so much material to get through, you need to read and comprehend quickly just to get through it all
- Even the fastest braille readers need a break

# How Do I Teach This?

- ⦿ Level up – increase speed a little every couple of weeks
- ⦿ Get materials in electronic formats to be read on the computer or iPad
- ⦿ Speed up your human reader materials

# Demo: Voice Dream Reader App

- Price: \$10
- Can import files from Bookshare, Project Gutenberg, Dropbox, iCloud, web browser, and more
- Voice rate is set in WPM to help track progress

# Google It!

- ① The internet is now our go-to source for the answer to nearly any question
- ① It's no longer about what you know, but how fast you can figure it out

# Teaching It?

- Using good key words
- Knowing the key commands
- Practice doesn't make perfect, but it makes less aggravated



# Key Commands -- JAWS

- ⦿ Control-f to find
- ⦿ H for heading
- ⦿ F for form control
- ⦿ Space to enter forms mode and escape to exit
- ⦿ Space to check a checkbox or radio button

# Components of Problem Solving

- ① Having multiple tools and knowing which to choose in situation
- ① Believing you can solve your own problems
- ① Building a resource network

# The Toolbox

- Low tech is always an option – your slate never runs out of battery and human readers rarely fail to recognize a page
- Knowing you have a backup plan builds confidence

# Learning to choose tools

- ① Have conversations and let the student brainstorm
- ② Have the student go online and look up devices and apps
- ③ Have the student network with other blind students to see what they do

# Paper and Inaccessible PDF

- ⦿ It's everywhere and it will pop up suddenly and without notice
- ⦿ How = what + when + why or put another way, best tool often decided based on length, quality, space, and time

# Teaching Exercise: Take the Taste Test

Scan some worksheets to a image only PDF and have the student practice reading them with a human reader and convenient OCR and magnification if applicable to see how each method works for them. Talk about efficiency and how it is more important to get the job done than “be like everyone else”

# Demo: Convenient OCR, portable magnifier, and KNFB Reader App

- Many models of magnifier to choose from
- Convenient OCR will now OCR windows, screens, and documents
- KNFB reader is the fastest, but Prizmo is very good and only \$10

# Storing and Retrieving Information

- Note taking
- Calendars
- Contacts
- Tasks



# Demo: Smart Displays – Vario and Braille Edge

- Smart display cost about half of what a standard sized notetaker costs
- The Braille Edge has function keys designed to facilitate use with Windows
- The Vario can pair with up to 4 Bluetooth devices

# Demo: ChromeBook and Android Tablet

- Features and limitations
- Variation among devices and manufacturers
- Recent improvements

Questions?