Voice Recognition: It’s Okay To Talk To Your Computer

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- Intro
- What is Voice Recognition
- When is it the Right Choice
- Some of the Different Programs Available
- Training
- Demo / Questions
- M.S. Bioengineering, Clemson Univ.
- Worked for 3-years in Motion Analysis Lab at Shriners Hospital in Greenville, SC
- Working with ADRS for 13 years
- I work with:
  - Childrens Rehab.
  - Vocational Rehab.
  - Independent Living
- Currently cover:
  - 12 counties
  - Offices in Dothan, Troy, & Andalusia
What is Voice Recognition

- Text input using the user’s voice

- Original versions required “discrete dictation”
  - You…had…to…talk…like…this

- Newer versions use “continuous speech”
  - Looks at sound patterns and statistical models based on probability of word sequence
  - Takes advantage of faster processors
What is Voice Recognition

- Marketed toward business professionals, lawyers, & medical professionals to improve efficiency

- Life-changing assistive technology for many individuals with disabilities
What is Voice Recognition

- Physical Impairment
  - Spinal Cord Injury, arthritis, upper limb amputation, spinal muscular atrophy, CP
- Learning Disability
  - Dyslexia, L.D. specific to writing
- Vision Impairment
When Is It The Right Choice

Things to look for when deciding if voice recognition is an option

- Voice clarity
  - Slurring
  - Clear enunciation
  - Accent
  - Using correct speech
When Is It The Right Choice

- Need to also look at:
  - The user’s patience
  - Environment
Choosing the Right Equipment

- Computer
  - Meet or preferably **EXCEED** the system requirements
  - Pay particular attention to the processor and RAM
Choosing the Right Equipment

- **Microphone**
  - **Headset**
    - Included with some software
    - Least affected by environment
  - **Bluetooth**
    - Eliminate the wires
    - Needs to be charged
  - **Array microphones**
    - Completely hands-free

- Check for compatibility
Some of the Common Programs

- Dragon NaturallySpeaking
- Microsoft Speech Recognition
- SpeakQ
- Dragon Dictate for Mac
- Mac OS X’s Speech Recognition
Dragon NaturallySpeaking

- Various versions available
  - Home, Preferred, Professional
- Ranges from $75 - $600
Microsoft Speech Recognition

- Free, built-in to Windows
- Compatibility with Microsoft programs is good, but 3\textsuperscript{rd} party programs is not as good
- Can’t create macros
SpeakQ

- WordQ & SpeakQ (need both)
- $140
- 30-day free trial
- PC only
- For dictation only
- Immediate correction required
iOS X Speech Recognition

- Free, built-in to Mac OS X
- Voice command versus Dictation
- Can set up one of two ways
  - Continuous listening – you say keyword
  - Listen when key pressed
iOS X Speech Recognition

- Does not learn your speech so dictation errors are constant
- Time limits to Dictation
- Dictation requires live internet connection
Dragon Dictate for Mac

- $150
- Learns your speech
- Not as many features as its Windows counterpart
Comparing the PC Options

- Depends on use and individual
- SpeakQ – only dictating and making use of the features in WordQ (text-to-speech and word prediction)
- I choose NS over MSR
  - If funding available
  - Ability to edit commands
  - Training options and tutorial
Comparing the Mac Options

- Depends on use and individual
- Why not PC
- Trial period with built-in before recommending Dictate
Why Not Use an App

- Dragon Dictation
- Siri
- S Voice
Why Not Use an App

- Good for quick messages
  - Text, email, quick reminder
- Some require live internet connection
- Does not learn your speech
- Not ideal for lengthy recordings
Training

- Built-in tutorials that allow you to follow along
- Downloadable workbooks
- Video tutorials
- In-person training
  - Lakeshore Foundation
  - Rehab. Tech. Specialists
Training

- When all else fails…
  - PC – “What can I say”
  - Mac – “Show available commands window”
Demo

- Let’s give this a shot…
Questions / Discussion

TECHNOLOGY

"A computer once beat me at chess, but it was no match for me at kick boxing." - Emo Philips