

SPEECH TO TEXT: GATEWAY TO ACCESS LIFE

PRESENTATION BY GLENN DAMIAN AND JESSE ARMIJO

MARCH 11TH, 2017

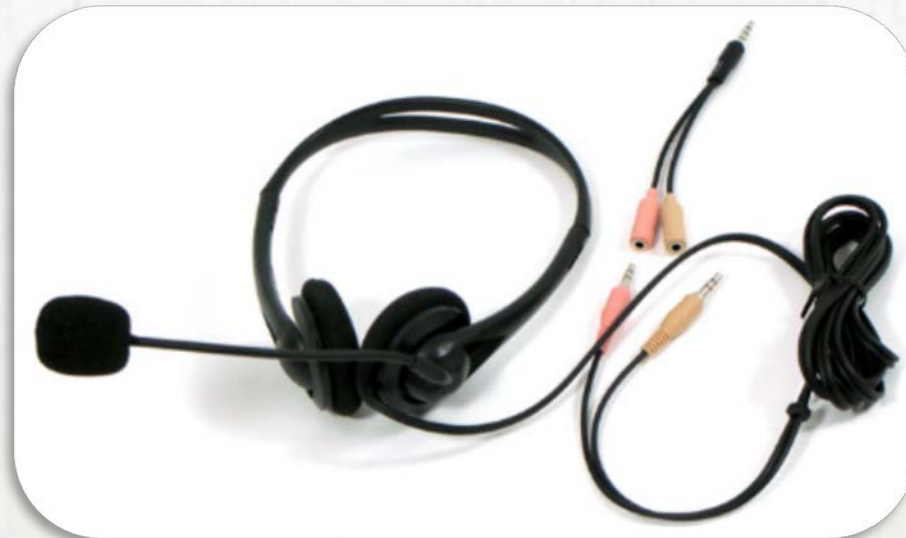
OUTLINE OF PRESENTATION

- Built-In Speech-To-Text Software
 - PC/Android
 - Mac/iPhone
- Hands-On Training of Dragon NaturallySpeaking
 - Dictation app on iPad
- Demonstration of Text-To-Speech Software and Devices
 - ZoomText
 - Prodigy
 - Prizmo



WHAT IS SPEECH-TO-TEXT?

- Speech-To-Text, also called Speech Recognition Technology, is a form of computer access. The user speaks into the computer, tablet, or phone, and the device performs the desired command. Most users use speech recognition for text entry and an alternative mouse for cursor control.



WHO CAN BENEFIT FROM THIS TECHNOLOGY?

- Individuals with Learning Disabilities
 - Quadriplegics or Paraplegics
 - Individuals with Traumatic Brain Injury (TBI)
 - Amyotrophic Lateral Sclerosis (ALS)
 - Cerebral Palsy (CP)
 - Stroke
 - Mobility Disability
-

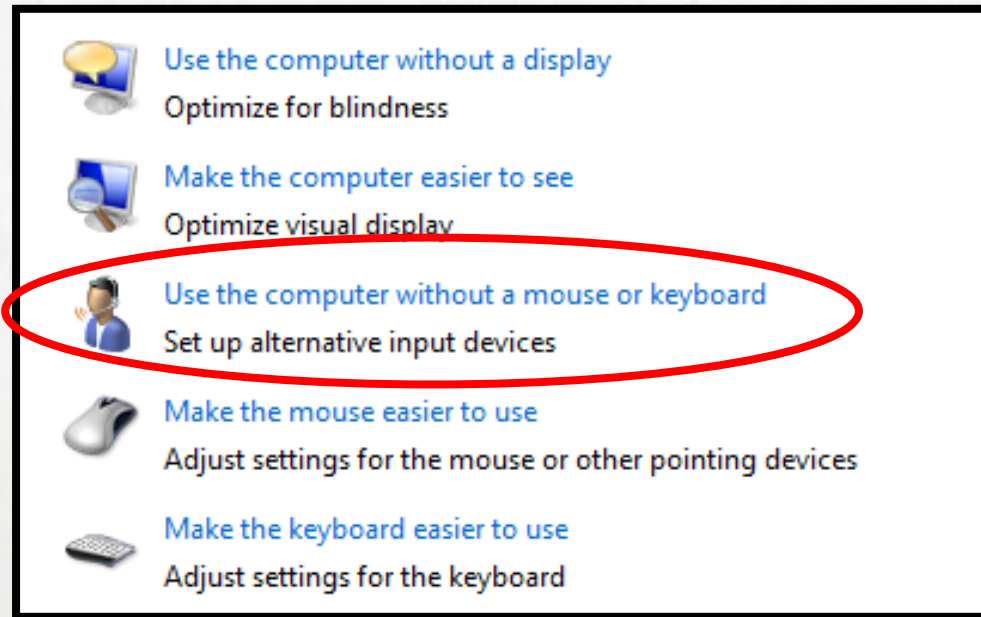
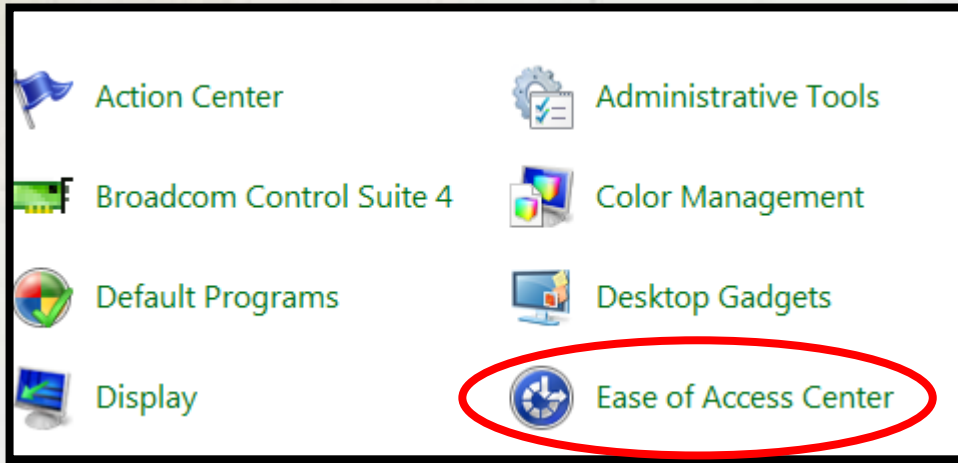
TECHNOLOGY IN MANY FORMS

Speech Recognition can be found in many different forms, for different purposes.

- Standalone Software
 - Dragon NaturallySpeaking
- Built-In Software
 - Third-Party Applications
- Home Automation
 - Amazon Echo
 - Google Home



BUILT-IN SPEECH-TO-TEXT



SPEECH RECOGNITION ON PC

Windows 7

Step 1: Go to the **EASE
OF ACCESS CENTER.**

Step 2: You will want to
select the option to **use
the computer without a
mouse or keyboard.**

Avoid using the mouse and keyboard

Speak into a microphone to control the computer, open programs, and dictate text.

[Use Speech Recognition](#)

SPEECH RECOGNITION ON PC

Step 3: Select the option to use Speech Recognition.

Configure your Speech Recognition experience



[Start Speech Recognition](#)

Start using your voice to control your computer.



[Set up microphone](#)

Set up your computer to work properly with Speech Recognition.



[Take Speech Tutorial](#)

Learn to use your computer with speech. Learn basic commands and dictation.



[Train your computer to better understand you](#)

Read text to your computer to improve your computer's ability to understand your voice. Doing this isn't necessary, but can help improve dictation accuracy.



[Open the Speech Reference Card](#)

View and print a list of common commands to keep with you so you always know what to say.

Step 4: Now, you will be at the speech recognition menu. From here, you can start dictating with just the internal speakers or you can use an external microphone.

SPEECH RECOGNITION ON PC

You can also train the computer to adapt to your voice. This will help with the overall accuracy of dictation.

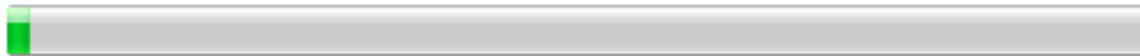
Good option if unable to use software like Dragon NaturallySpeaking.

Training Text

Please read the following text out loud:

The computer is learning the sound of my voice as I speak.

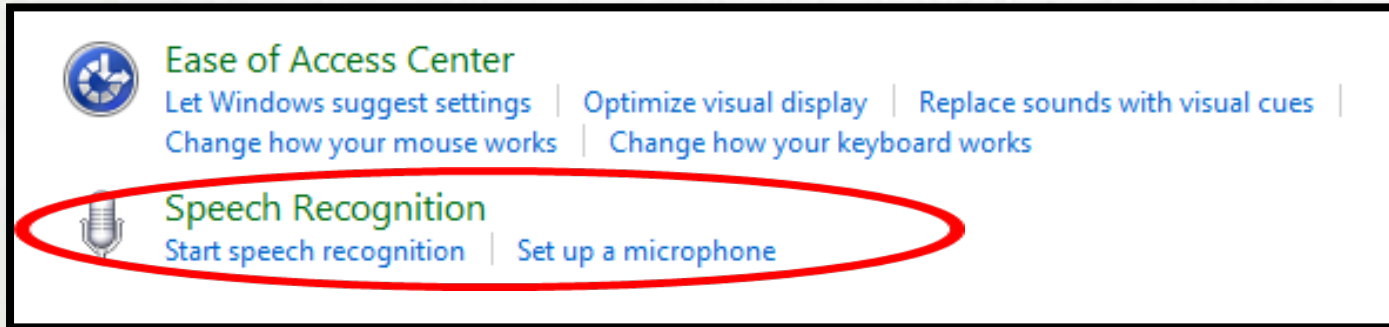
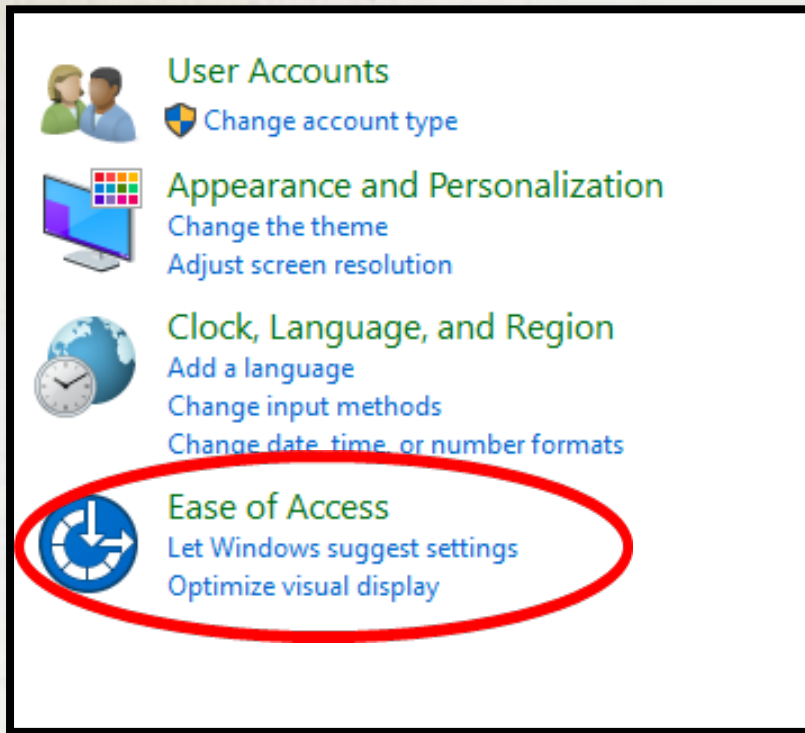
Training progress:

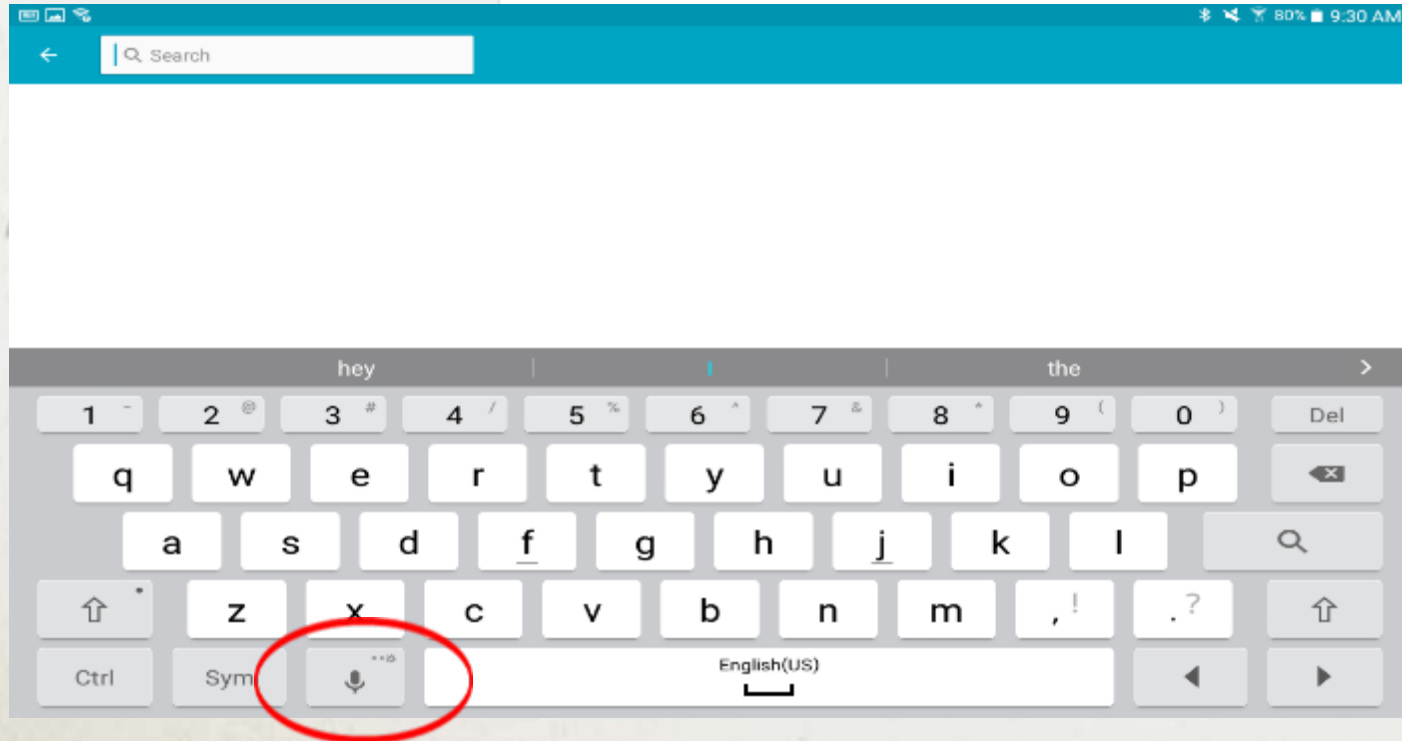
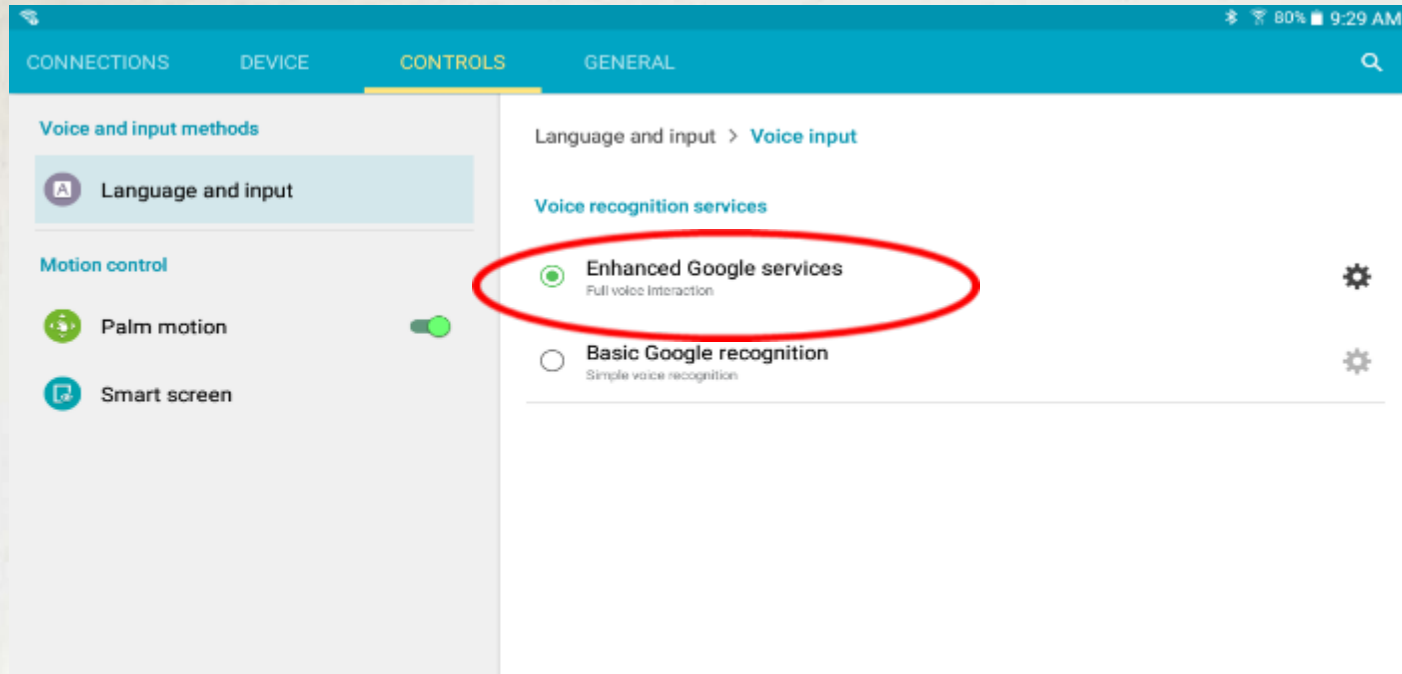


SPEECH RECOGNITION ON PC

Windows 10

Speech Recognition can be found in the same place. You will have to go through the control panel to find it, as it is not included in the Ease of Access options in settings.

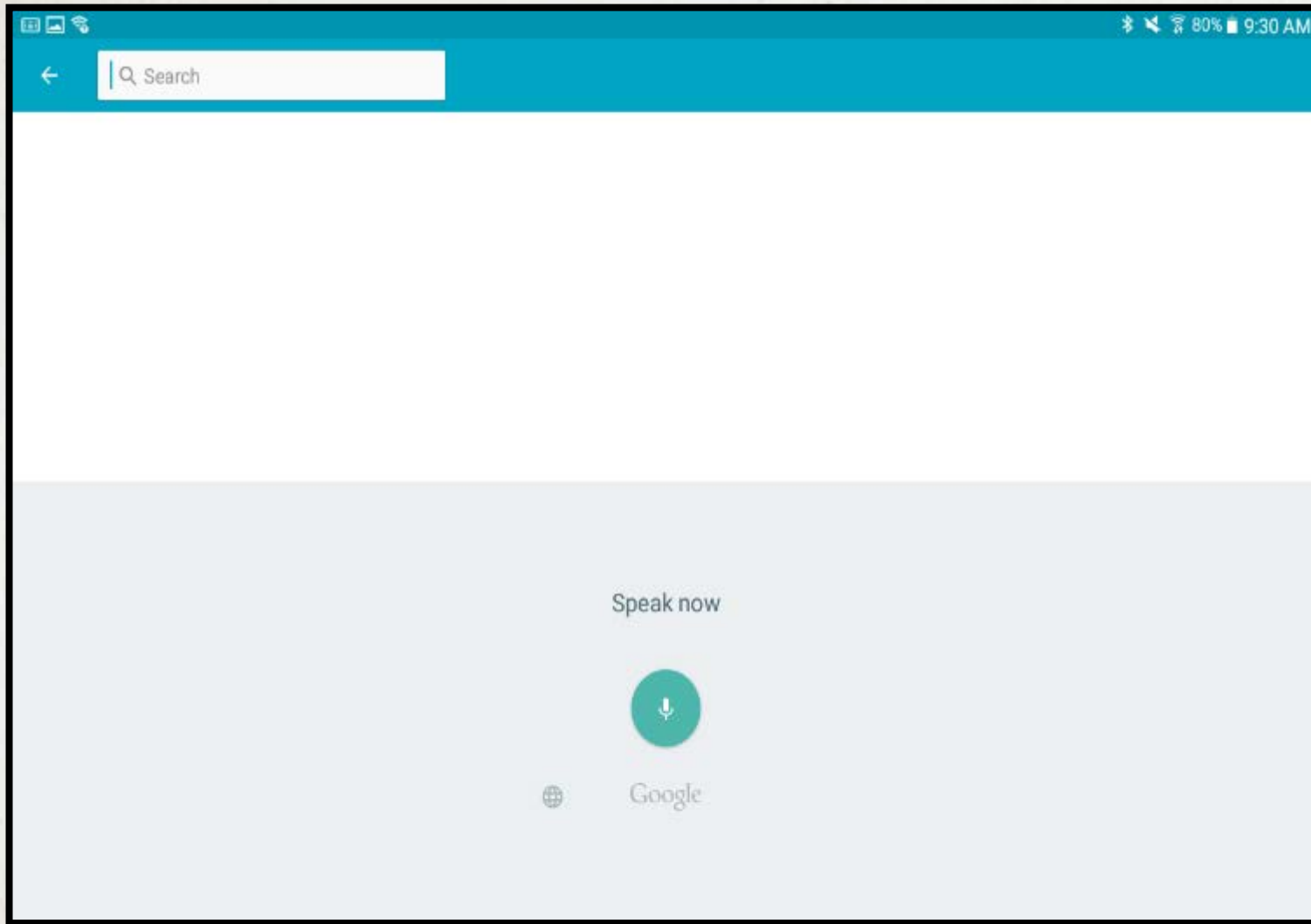




SPEECH RECOGNITION ON ANDROID

Step 1: Make sure your voice input is enabled on Android device. You have the option for either **Enhanced** or **Basic**.

Step 2: If you want to use dictation, simply hit the microphone button on the keyboard, next to the spacebar.



SPEECH RECOGNITION ON ANDROID

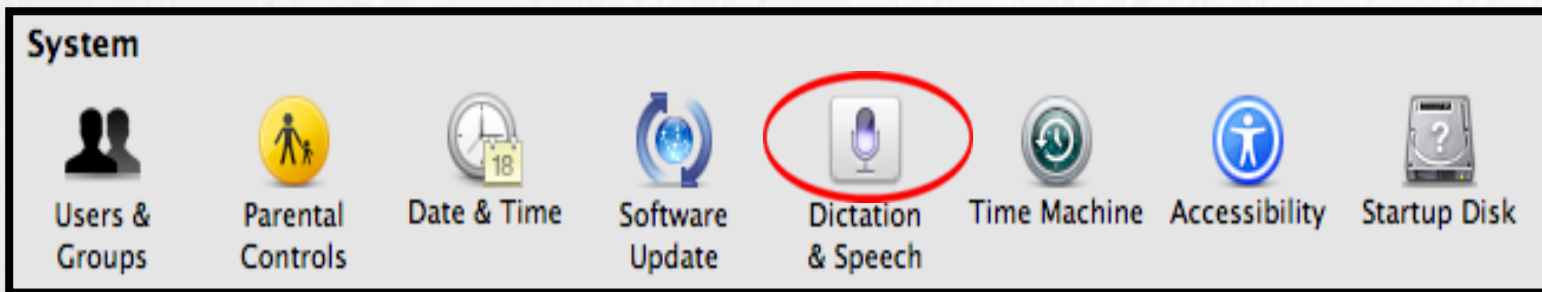
Step 3: When in dictation mode, your screen will look like the one on the right. This will convert your spoken word into text.

Great for composing text messages, emails, and notes. Does not have the ability to train to your voice like the built-in option or speech-to-text software.

SPEECH RECOGNITION ON MAC

Step 1: On the dock of applications, select the **System Preferences** button.

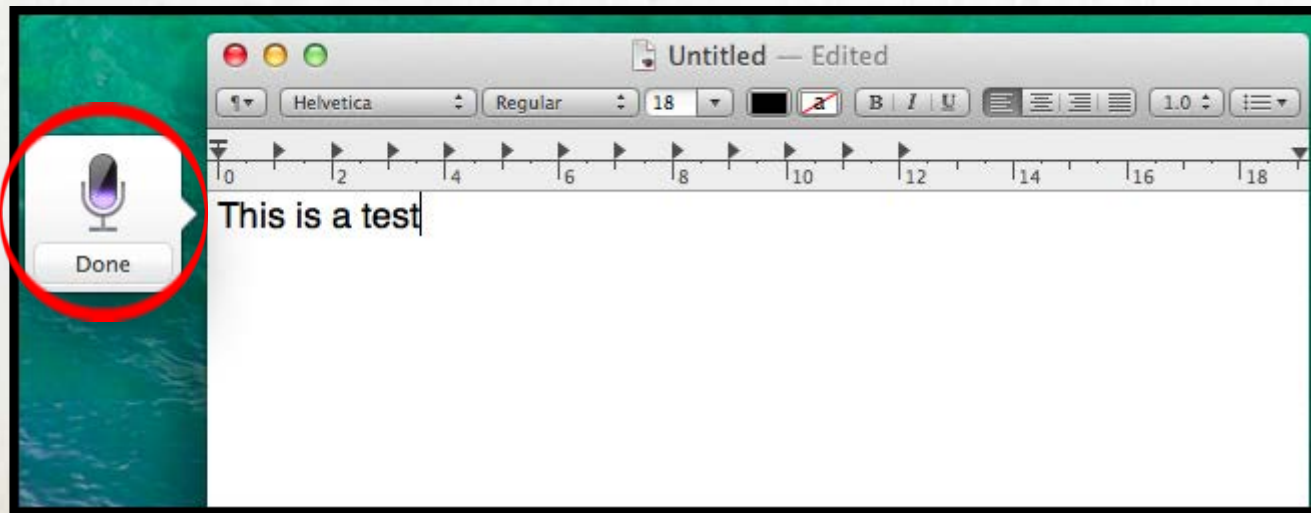
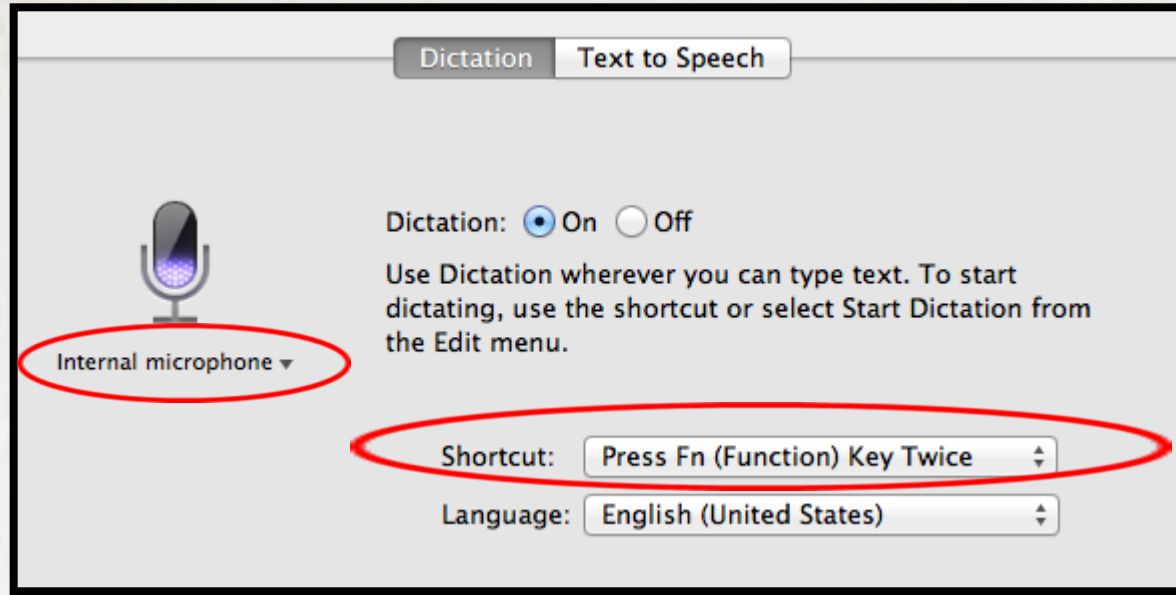
Step 2: Once inside, go to the system options and select the **Dictation & Speech** button.



SPEECH RECOGNITION ON MAC

Step 3: This is where you can enable or disable the dictation function. You can also set up another means of audio input instead of the internal microphone.

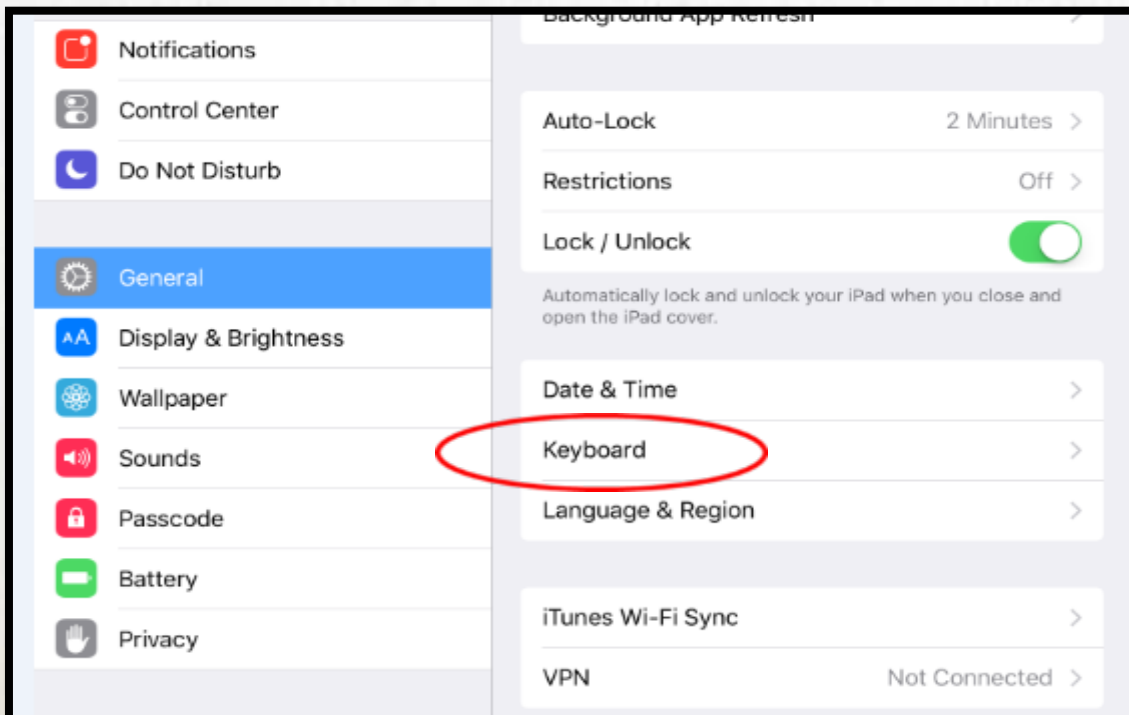
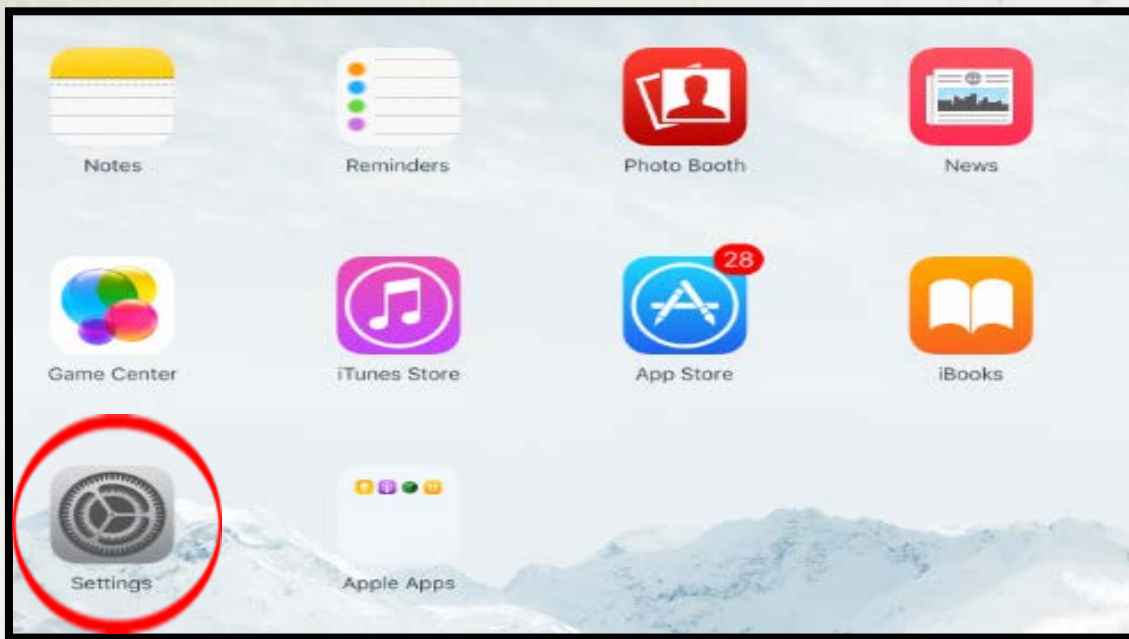
Step 4: Wherever there is text that can be typed, activate the dictation shortcut and click done when finished speaking.



SPEECH RECOGNITION ON IPAD/IPHONE

Step 1: Before you can start dictating, make sure that dictation is enabled. Go to the **settings** button.

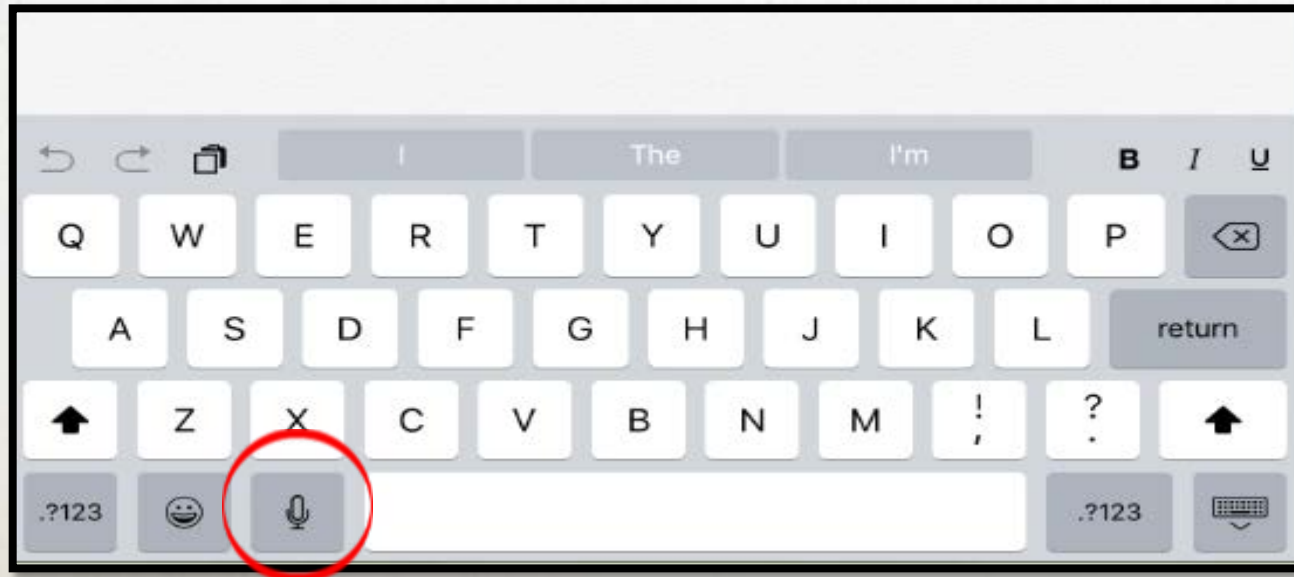
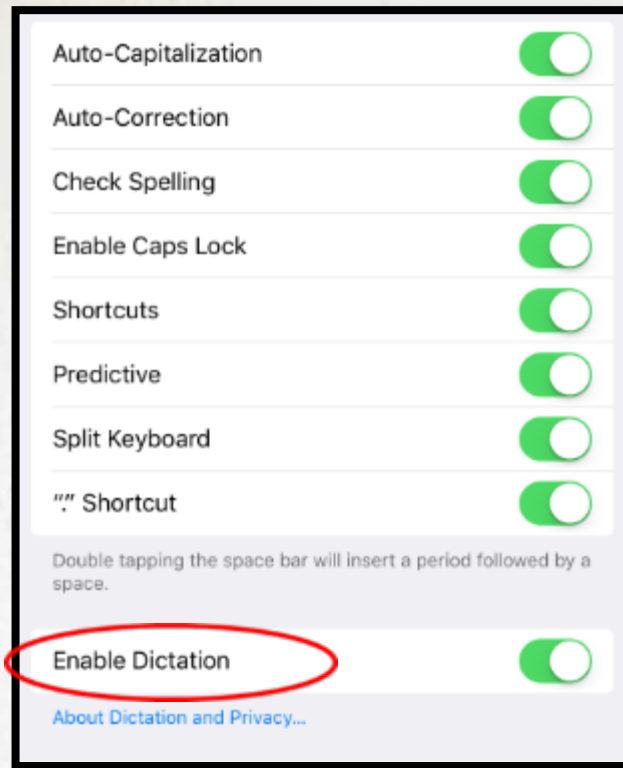
Step 2: From settings, go to **general** and then select the **keyboard** option toward the bottom.



SPEECH RECOGNITION ON IPAD/IPHONE

Step 3: In order to use the dictation feature, the button will need to be turned on.

Step 4: When typing a text message, an email, or a note, the on-screen keyboard will appear along with the dictation button next to the spacebar.



SPEECH RECOGNITION ON IPAD/IPHONE

Step 5: Pressing this button will allow you to compose messages with your voice.

Remember, this is just the built-in software. Not 100% accurate all the time.

Requires Wi-Fi for use.



DEMONSTRATION OF DRAGON NATURALLYSPEAKING

VARIATIONS OF DRAGON



**Dragon
NaturallySpeaking**



Dragon Dictation



Dragon Anywhere



**Dragon Remote
Microphone**

Also comes in: Dragon For Mac-Medical and Dragon Legal

TEXT-TO-SPEECH

WHAT IS TEXT-TO-SPEECH?

- Text-To-Speech is another form of access for individuals using a computer or other technological devices.
- Through **Optical Character Recognition (OCR)**, a device will capture the text from a book, letter, newspaper, etc. and convert it to spoken speech from a synthesized source.



ZOOM TEXT IMAGEREADER

- An image reader and software package that converts printed text into speech.
- Capable of capturing a 8.3" x 11.7" page.
- Only compatible with Windows computers.
- Also has the ability to highlight the scanned text.
- Will also work in conjunction with ZoomText software.



PRODIGI DUO 2 IN 1 CCTV

- Works as both a table top magnifier and as a portable unit.
 - \$2695.00 for both, \$1295.00 for portable unit.
- Will simplify the document into plain text while using OCR to read back the document.
- Can read in either a scrolling or column mode.
- Ability to store documents for future reference.



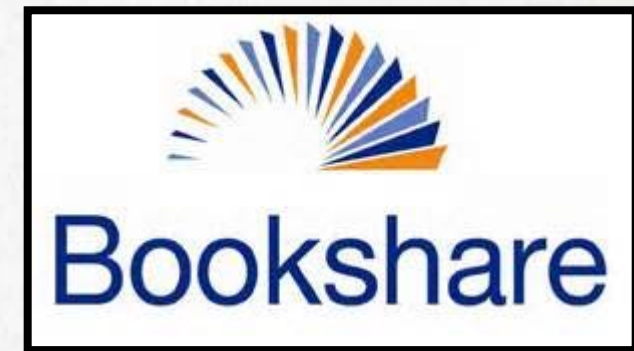
PRIZMO



- **Prizmo**
 - Requires iOS 8.0 or later. Costs \$9.99. Available for iPad and iPhone.
- App allows the individual to take a picture with the device, that can be scanned and converted into speech.
- Features language translation. Over 40 languages.
- Ability to crop images for a precise scan.
- No Wi-Fi needed to operate application.

LEARNING ALLY AND BOOKSHARE

- **Learning Ally**- features a library of 80,000 human read audiobooks.
 - \$135 a year for adults.
 - \$1,199 for 10 student access.
 - \$1,999 for 25 student access
- **Bookshare**- features a library of 500,000 text-to-speech books.
 - Free for U.S. Students and U.S. Schools
 - Other individuals \$50.00 annually
 - Other organizations \$6.00-10.00 per book.





CONTACT INFORMATION



GLENN DAMIAN

Program Director/NEREC
11th and Sulzbacher Ave.
Las Vegas, NM 87701
505-426-2265
gdamian@nmhu.edu

JESSE ARMIJO

AT Specialist/NMTAP
625 Silver Ave. SW Ste. 100 B
Albuquerque, NM 87102
505-841-4450
jesse.armijo@state.nm.us