



# Captioning

Presented by

**CATS**  
**U**  
**N** The City  
**Y** University  
of New York

Assistive  
Technology  
Services



# Overview

- What is Captioning and its importance
- Creating ADA-Compliant Captions
- Types of Captioning
- Outsource vs. In-House
- IT/Academic Computing Center vs. Disability Services

# What is Captioning?


- Captioning is an applied form of audiovisual information and communication which is accessible to people who are deaf or hard of hearing in a wide range of situations.
- Captions which are also known as subtitles are the written representation of a video's soundtrack. It is also a great tool for improving the reading and listening skills of others.
- It should also includes character names to help the audience follow who is speaking.

# Why is Captioning important?

- Captioning is a very important part of Universal Design for video material, especially for educational material.
- Captioning provides an alternative form of information that allows a larger audience to have access and understanding of the video.
- Provides a better understanding and experience for the audience members who are deaf or hard of hearing.
- It improves comprehension for all viewers, especially for those with English as a second language.

# Tips for writing captions:

- Captions should be synchronized and appear at approximately the same time as the audio.
- Words should be exact when time allows or as close as possible in other situations.
- Add music or other descriptions inside square brackets such as [music] or [laughter].
- Captions should appear onscreen long enough to be read (between 3 to 4 seconds)
- It is preferable to limit onscreen captions to no more than three lines.

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- Speakers should be identified when more than one person is onscreen or when the speaker is not visible.
  - Punctuation is used to clarify meaning.
  - Spelling is correct throughout the production.
  - Use of slang and accent is preserved and identified.
  - Use italics when a new word is being defined or a word is heavily emphasized in speech.
  - Write out sound effects when they add to understanding.
  - All words are captioned, regardless of language or dialect.

# Creating ADA-Compliant Captions

The following are the best practices for ADA compliant captions:

- One to three lines of text appear onscreen all at once, stay there for three to seven seconds, and are then replaced by another caption.
- Timed to synchronize with the audio.
- Do not cover up graphics and other essential visual elements of the picture.
- Require the use of upper and lowercase letters.
- Use a font similar to Helvetica medium.
- Have good resolution.
- Include not more than 32-characters-per-line.



# Types of Captioning

There are a number of different ways to caption a speaker's words, and the type of captioning used often depends on how it is being used:

1. Closed Captioning
2. Open Captioning
3. Real-Time Captioning
4. Remote Real-Time Captioning
5. Voice to Text

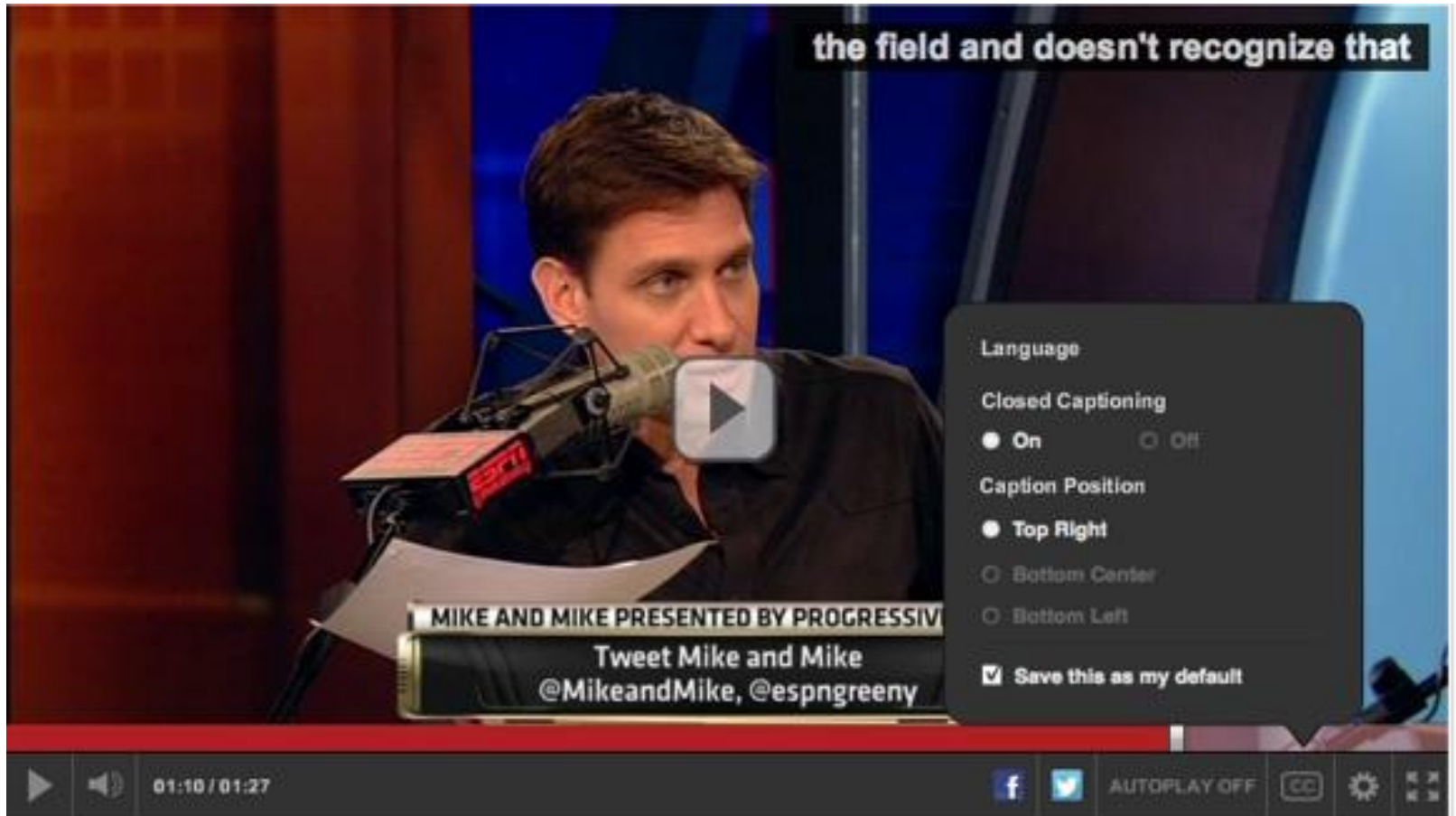




# Closed Captioning

- Captions are not visible until activated by the viewer, usually via the remote control or menu option.
- Done by having a separate file attached to the video file that is read by a decoder and then outputted onto the screen.
- All programming for broadcast in the United States must be closed captioned. The rules for the requirement of closed captions were directed by the U.S. Congress in the Telecommunications Act of 1996 and became effective starting in 1998.

# Example of Closed Captioning



The image shows a screenshot of a YouTube video player. The video frame displays a man speaking into a microphone. A black caption box in the top right corner of the video contains the text "the field and doesn't recognize that". A semi-transparent settings menu is overlaid on the right side of the video, showing the following options:

- Language
- Closed Captioning
  - On
  - Off
- Caption Position
  - Top Right
  - Bottom Center
  - Bottom Left
- Save this as my default

At the bottom of the video frame, there is a black banner with white text that reads: "MIKE AND MIKE PRESENTED BY PROGRESSIV", "Tweet Mike and Mike", and "@MikeandMike, @espngreeny". The video player interface at the bottom includes a play button, a volume icon, a progress bar showing "01:10 / 01:27", social media icons for Facebook and Twitter, and a "CC" icon.



# Open Captioning

- The captions are embedded into the video file and cannot be turned off.
- This removes the sometimes annoying task of searching through menus to enable the captioning feature.

# Example of Open Caption

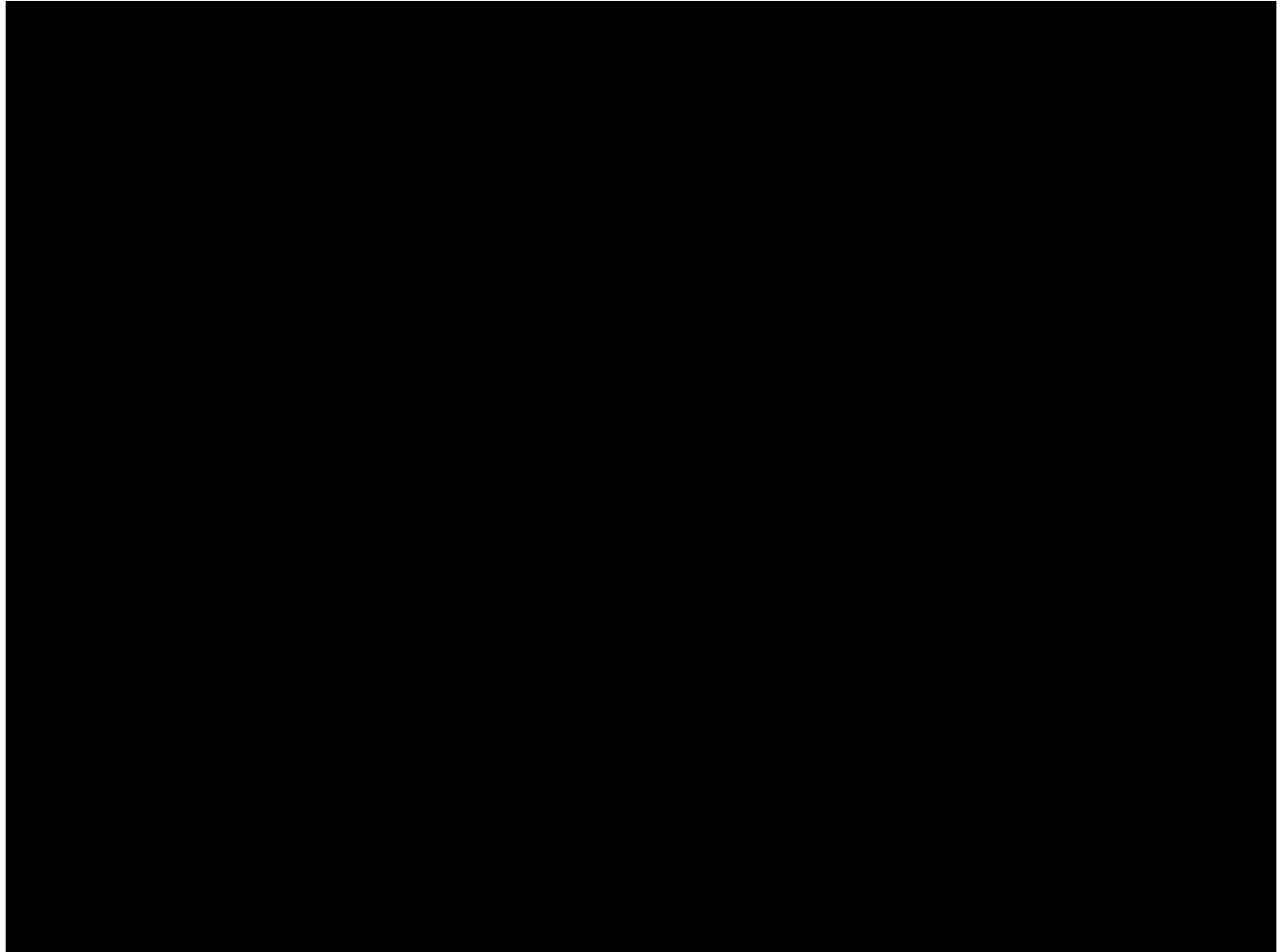




# Camtasia Studio 8

- Video editing software
- Camtasia has a multifaceted interface.
- Able to do complex editing task such as adding transitions, adding music and separating an audio tracks from a video.
- Low-mid range learning curve

# Captioning with Camtasia Studio 8





# MovieCaptioner

- Captioning Software
- Immerses the user in the captioning process which in turn, makes the captioning process faster.
- Gives the user the option to create an Open Captioned video and/or export the created transcript to file so the user can create a Closed Captioned video.
- Low learning curve



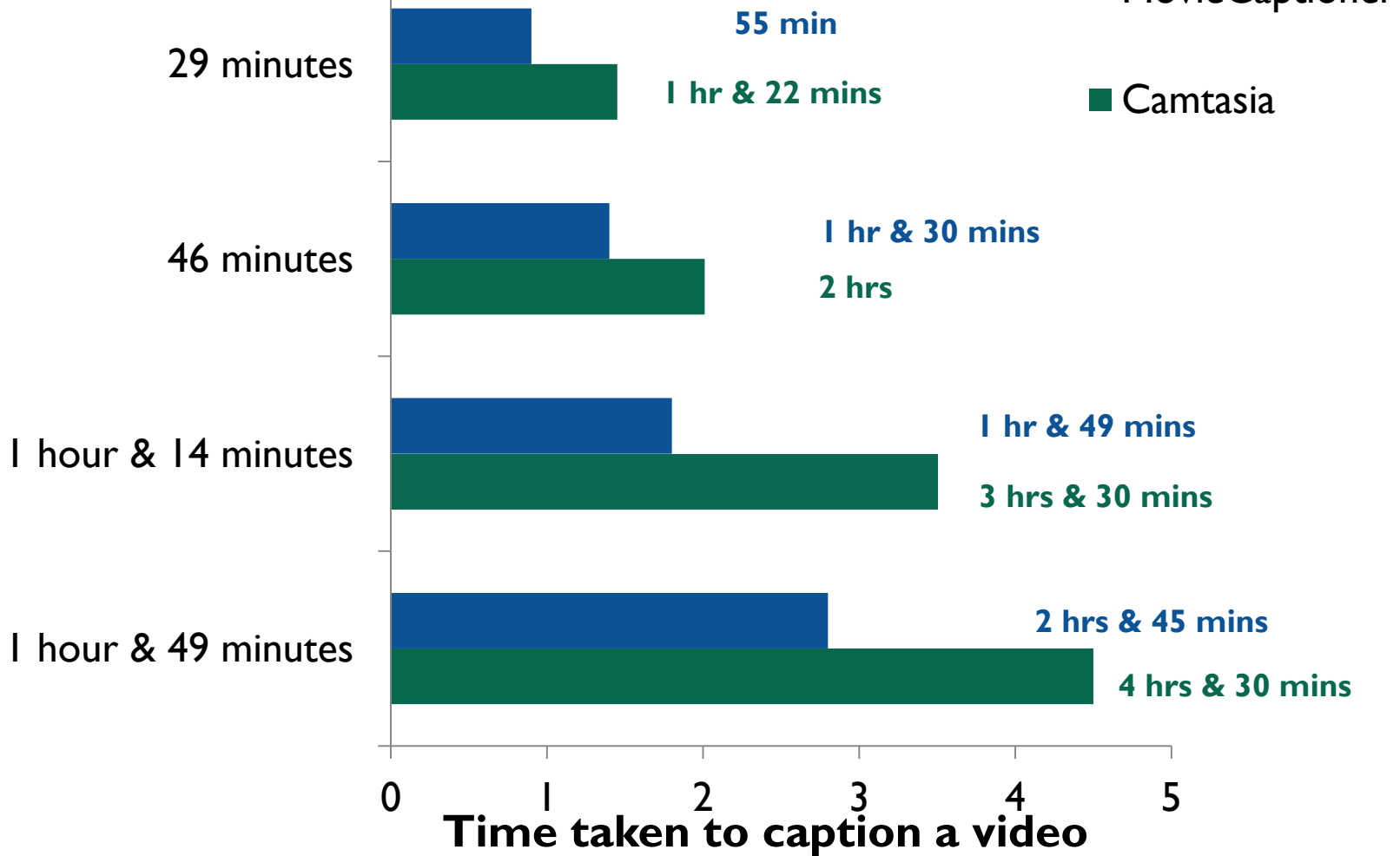


# Camtasia Studio 8

vs.

# MovieCaptioner

Video Length



\*Time may vary based on video content

# Extra Details

## MovieCaptioner

- Windows or Mac
- \$50 Single License  
(Educational Discount)
- (Link to Purchase)  
[http://www.synchrimedia.com/buy\\_movcaptioner.html](http://www.synchrimedia.com/buy_movcaptioner.html)

## Camtasia Studio 8

- Windows Only
- \$179 Single License  
(Educational Discount)
- (Link to Purchase)  
<https://store.techsmith.com/order/camtasiastudio.asp>

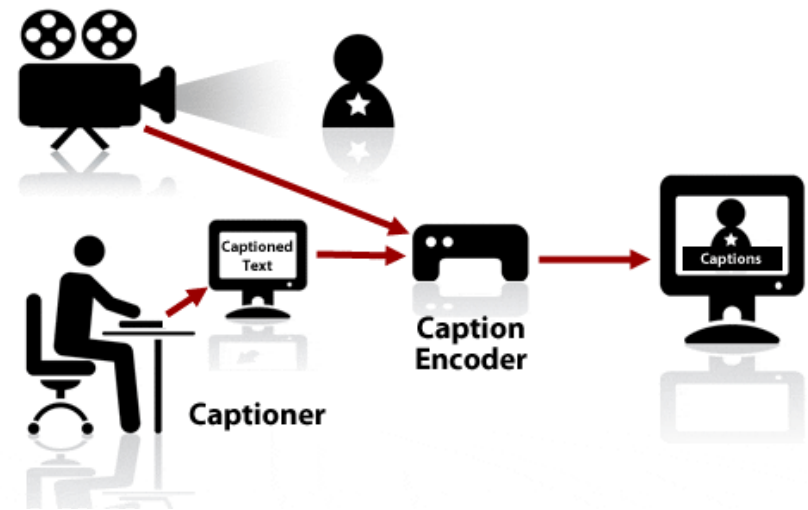
# CART/Real-Time Captioning

- **CART** (Communication Access Real-time Translation)  
A captionist/stenographer uses a steno machine, notebook computer, and real-time software to render instant speech-to-text translation on a computer monitor or other display for the benefit of an individual or larger group.
- **Real-time Captioning** uses the same equipment as CART but the output is different.
- Real-time Captioning contains a few lines of text in addition to a video picture.
- A slight delay may occur when using either types of captioning because of the captioner's need to hear and enter the words and the computer's processing time.

# Examples of CART & Real-time Captioning



**CART**

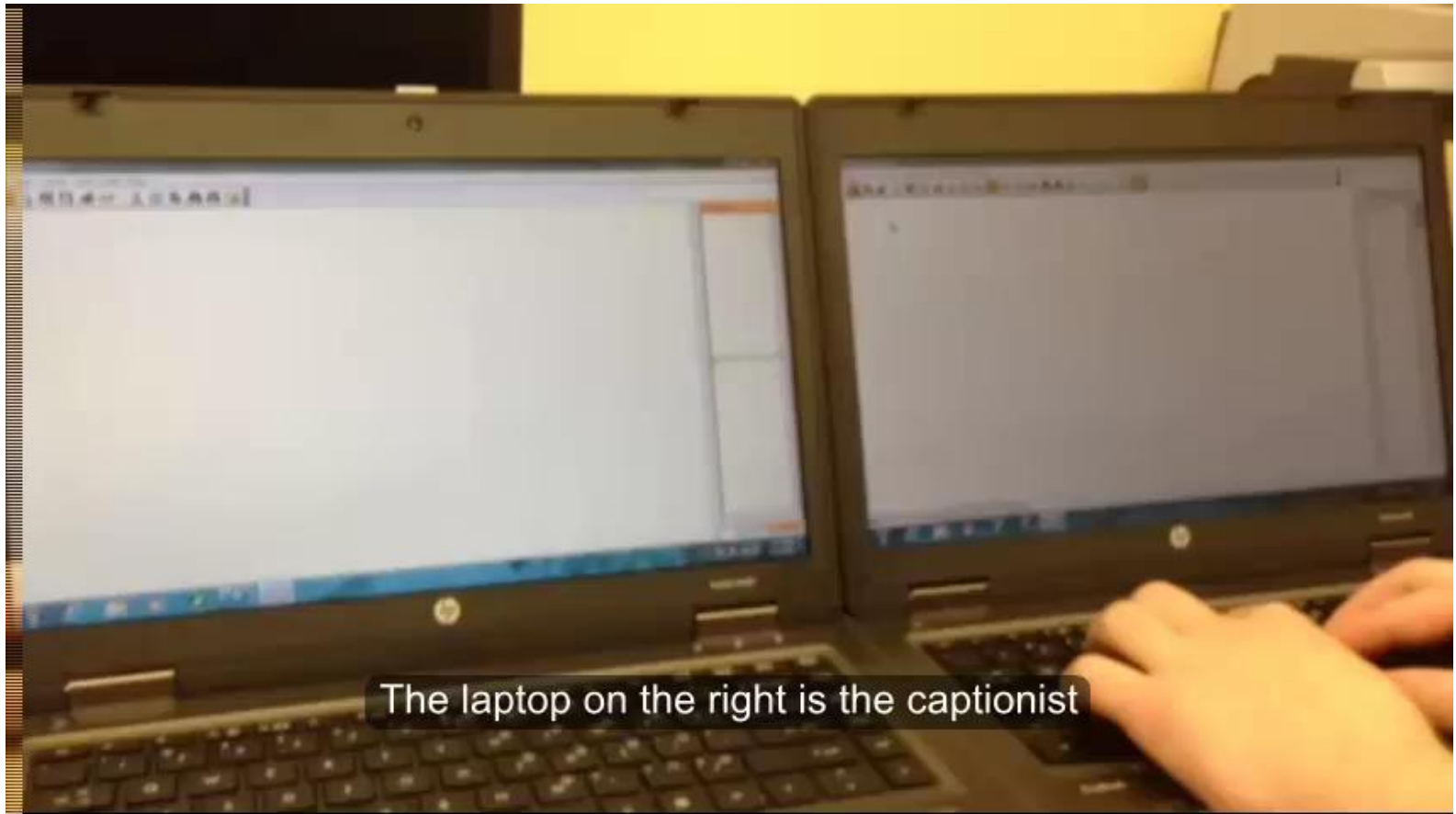


**Real-Time Captioning**

# C-Print

- Developed at the National Technical Institute for the Deaf (NTID) to convert spoken messages into text.
- A C-Print typist, specifically trained in text-condensing strategies types on a laptop computer using an abbreviation system.
- The text can be viewed by one or more students in different ways, such as including additional computer (laptops) or display monitors.

# C-Print Demonstration



The laptop on the right is the captionist

# Remote Real-Time Captioning

- A variation of Real-Time Captioning that requires the student's computer to be connected to a stable internet connection (preferably high speed) that then accesses a captionist at another location.
- The speaker uses a special wireless microphone that transmits the voice to a receiver, and then through the internet connection to the captionist.
- The captionist listens and records the information, which is then transmitted back to the student's computer screen almost instantly.



# Voice to Text

Voice-to-text is speech recognition software that converts speech into text. This was originally developed as an assistive technology for the hearing impaired. When voice-to-text first came about it was extremely limited due to the fact that the programs had to be trained to recognize a person's specific speech before having the proper level of accuracy. Newer programs now can figure out that person's speech without intensive training.



# Dragon Naturally Speaking

- Voice Recognition software which allows the user to express their thoughts and writing with great ease.
- By using a microphone Dragon Naturally Speaking allows the user to work virtually hands-free when creating a document, accessing data, sending emails or working on the web.
- Dragon Naturally Speaking provides automatic transcription of voice, voice mails and web audio contents.
- Users are able to communicate comfortably.

# Sylencer and SmartMic



**The SmartMic™**

# Outsource vs. In-House

	<u>Outsource</u>	<u>In-House</u>
<b>Cost</b>	<ul style="list-style-type: none"><li>• \$125-\$175 (per hour)</li></ul>	<ul style="list-style-type: none"><li>• \$15 (per hour)</li></ul>
<b>Turn around Time</b>	<ul style="list-style-type: none"><li>• 1hr video takes 3hrs to caption.</li></ul>	<ul style="list-style-type: none"><li>• 1hr video takes 5hrs to caption.</li></ul>

\*Time may vary based on software and video content.



# IT/Academic Computing Center vs. Disability Services

## IT/ACC

- More Staff members
- Better Resources for Captioning Videos
- Equipment

## Disability Services

- Smaller Staff
- Small budget

# CUNY Assistive Technology Services (CATS)

**We can assist your campus with  
captioning content.**

**Visit us at**

**[catsweb.cuny.edu](http://catsweb.cuny.edu)**

