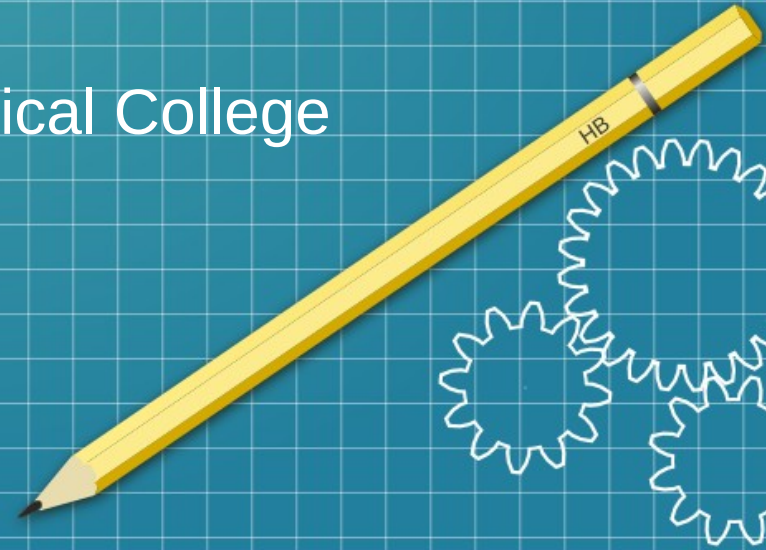


Using AI Tools to Accelerate (not Automate) Video Creation

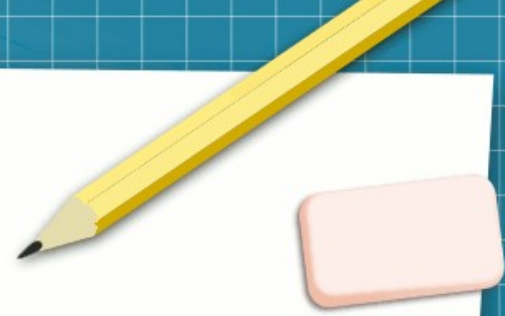
Christopher Sears
Maysville Community and Technical College

KYMATYC 2024



Overview

- Problem Statement
- Main AI Tool
- Two Use Cases
- Comparison Between Methods

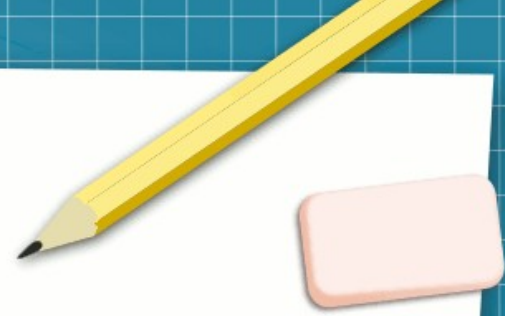


More than a Solution Looking for a Problem



Brother, Can You Spare Two Dimes?

Problem Statement



- Want to caption videos to meet KES standards
- YouTube auto-captions are OK, can edit to be better
- YouTube is changing into a version of TikTok:
 - Advertising important focus
 - Algorithm steering people toward toxic content
- Want to move to an algorithm free video sharing platform
- Lose auto-caption capability

Problem Statement (Part 2)



- Started teaching online course at East Kentucky Correctional Complex (EKCC)
- Students unable to access remote sites, including YouTube and MyLab Math
- Use Lantern LMS instead of Blackboard
- Storage space limited to 1GB for entire course
- Still need captions when Lantern LMS doesn't have that capability

Vrew to the Rescue

- Found Vrew right before KYMATYC 2023
- Searching for auto-caption software
- Found more uses for it later
- Under rapid development
- Based in Korea, but moving into US

vrew

Community

Pricing

Try

Download

Your first video editor, your easiest choice.

Create publish-ready videos with Vrew, your comprehensive AI-assisted video editor. Dive into a vast pool of stock resources, and bring any content to life – be it videos, photos, or slides. Vrew's AI not only suggests creative ideas and writes scripts but also crafts stunning visuals and auto-generates captions. Step into the future of video creation with Vrew, where every idea becomes a masterpiece.

Free download



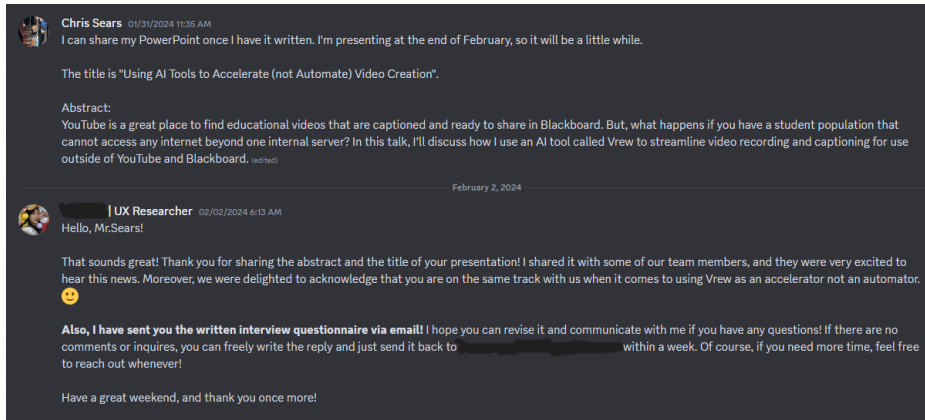
Try a demo →

Available on Mac, Windows, and Ubuntu.

Disclosure

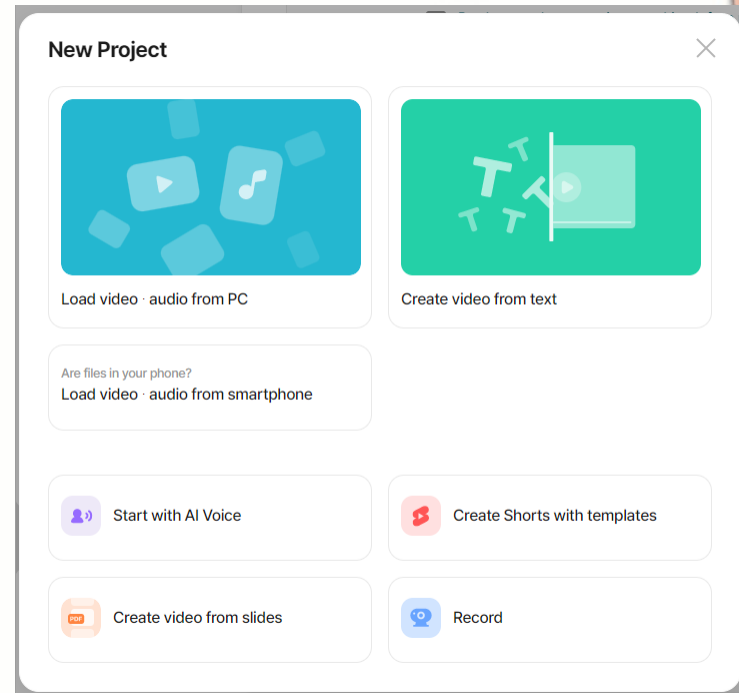


- I helped the Vrew team answer a questionnaire about how I use the product
- I am not sponsored by Vrew
- I declined their generous offer of compensation for my help with the questionnaire



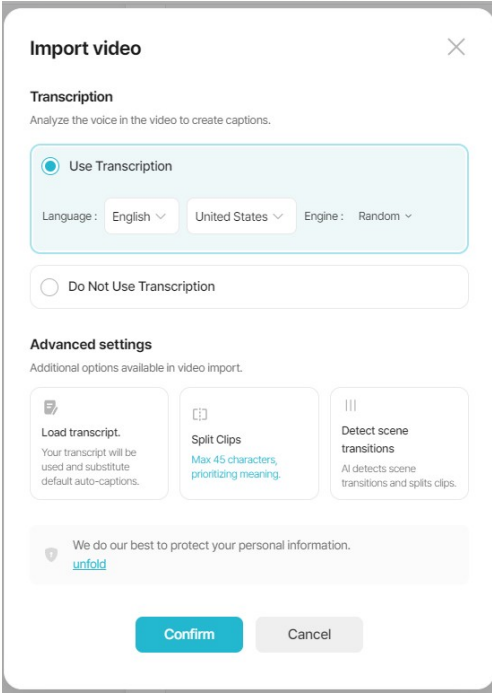
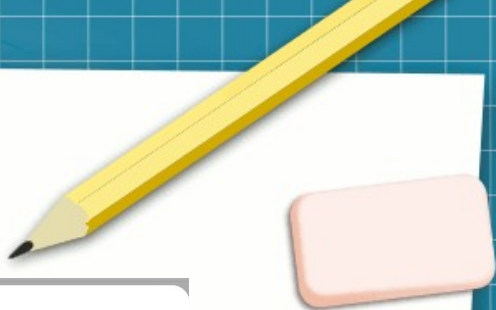
My Two Use Cases

- Started by creating my videos normally and importing to Vrew for captioning and cleanup
- Also use to create video from PDF document using AI generated voice
- Both methods create correctly captioned videos



Traditional Video Creations

- Create slide in LibreOffice
- Record audio in Audacity
- Write work by hand and scan with desktop scanner
- Match audio, slides, and work in Shotcut
- Caption video in Vrew
- Export from Vrew



Import video ×


Transcription
Analyze the voice in the video to create captions.


☒ Use Transcription


Language: English United States Engine: Random


☐ Do Not Use Transcription

Advanced settings
Additional options available in video import.

 **Load transcript.**
Your transcript will be used and substitute default auto-captions.

 **Split Clips**
Max 45 characters, prioritizing meaning.

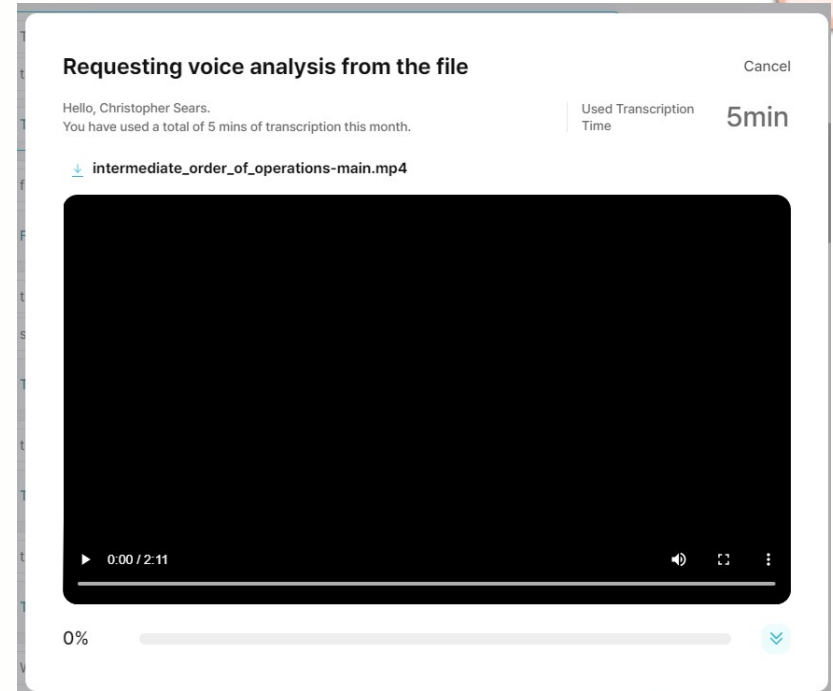
 **Detect scene transitions**
AI detects scene transitions and splits clips.

 We do our best to protect your personal information. [unfold](#)

Confirm **Cancel**

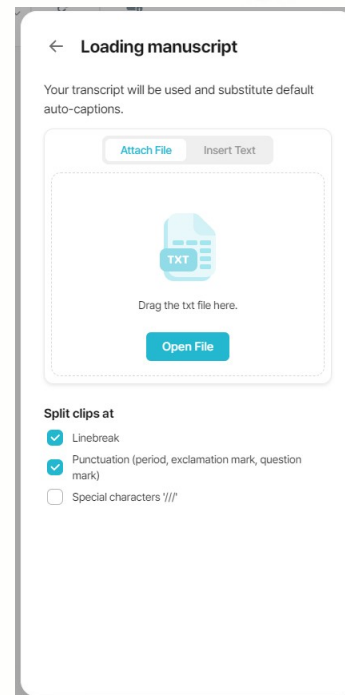
Auto-Captioning

- Vrew detects speech and creates captions
- Free account limited to 120 minutes each month
- AI great for regular speech
- Not so great for math

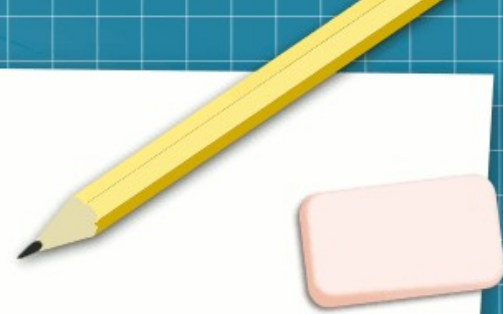


Improving Speech Recognition

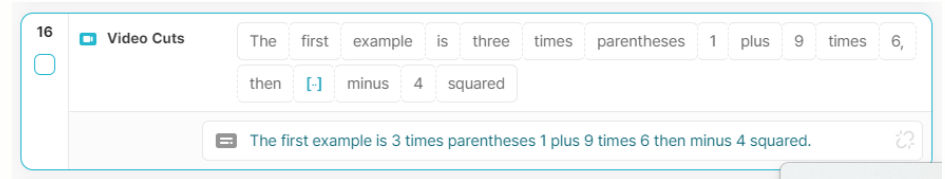
- Can add manuscript as text file too
- Writing a script cuts down on video length and size
- Still struggles to match text to math terms
- Easy to edit



Editing Captions

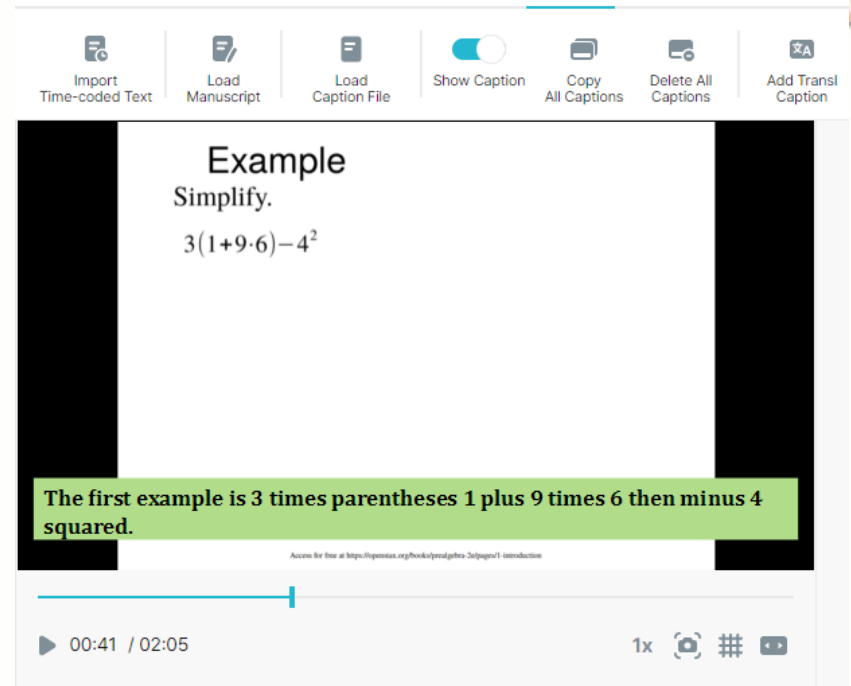


- The UI breaks the text into boxes
- Each box represents a piece of the video
- Can delete pieces of the video by deleting the boxes
- Great for removing breaths and mouth noise
- Can edit captions in the text box below



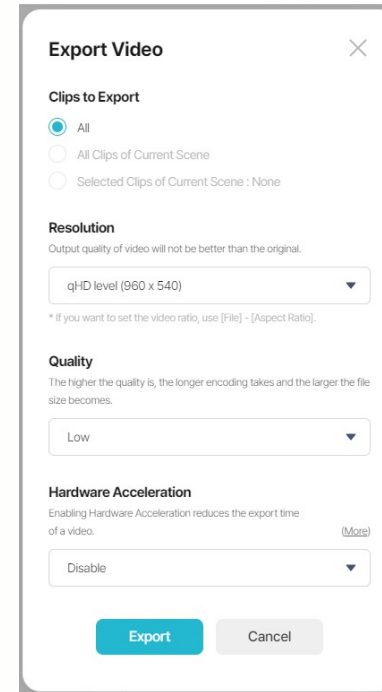
Captions

- Captions are displayed in the video
- Captions can be removed from the video
- You can format the captions to taste



Export for Lantern

- Students use tablets to access course materials
- Video resolution limited to 480p or so
- Export with captions on
- Lowest quality settings
- Find hardware acceleration increases file size

A screenshot of a mobile application's 'Export Video' dialog box. The dialog has a title bar with a close button (X). It contains several sections: 'Clips to Export' with three radio button options ('All' is selected), 'Resolution' with a dropdown menu set to 'qHD level (960 x 540)' and a note about output quality, 'Quality' with a dropdown menu set to 'Low' and a note about encoding time and file size, and 'Hardware Acceleration' with a dropdown menu set to 'Disable' and a note about export time. At the bottom are 'Export' and 'Cancel' buttons.

Export Video ✕

Clips to Export

☒ All

☐ All Clips of Current Scene

☐ Selected Clips of Current Scene : None

Resolution

Output quality of video will not be better than the original.

qHD level (960 x 540) ▼

* If you want to set the video ratio, use [File] - [Aspect Ratio].

Quality

The higher the quality is, the longer encoding takes and the larger the file size becomes.

Low ▼

Hardware Acceleration

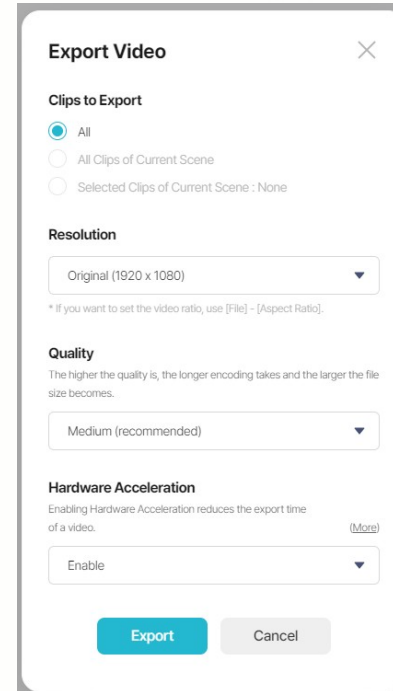
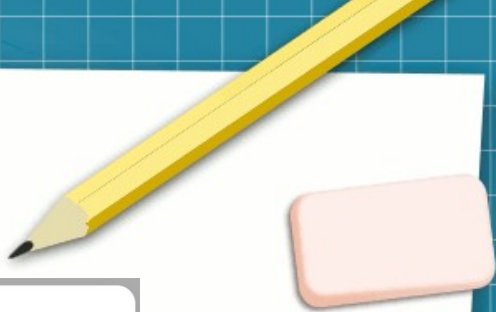
Enabling Hardware Acceleration reduces the export time of a video. [\(More\)](#)

Disable ▼

Export Cancel

Export for PeerTube

- Embed PeerTube into Blackboard
- Higher resolution is good
- Export with captions turned off
- Export captions in separate SubRip file
- SupRip file can be imported into PeerTube or YouTube

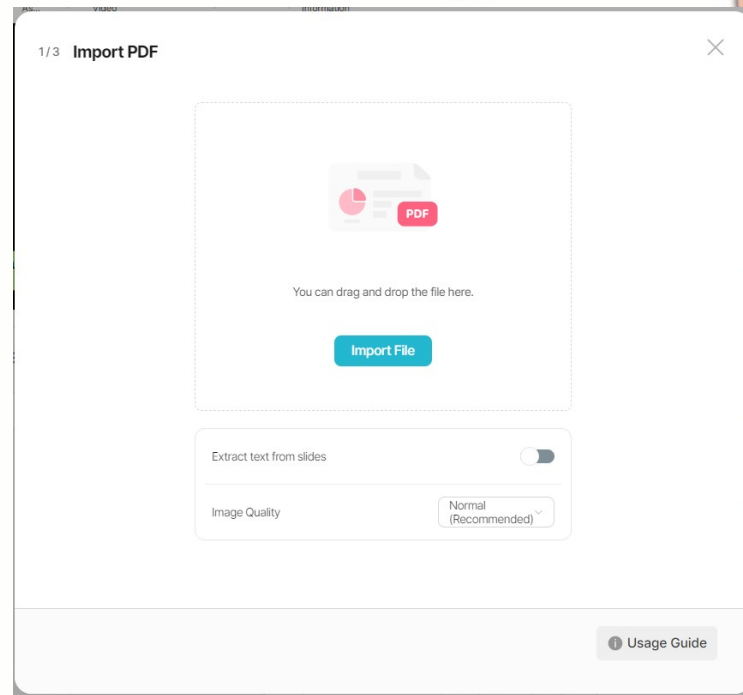


The screenshot shows a 'Export Video' dialog box with the following settings:

- Clips to Export:** 'All' is selected with a radio button.
- Resolution:** A dropdown menu shows 'Original (1920 x 1080)'.
- Quality:** A dropdown menu shows 'Medium (recommended)'. Below it is a note: 'The higher the quality is, the longer encoding takes and the larger the file size becomes.'
- Hardware Acceleration:** A dropdown menu shows 'Enable'. Above it is a note: 'Enabling Hardware Acceleration reduces the export time of a video.' with a '(More)' link.
- At the bottom are two buttons: 'Export' (in a blue box) and 'Cancel' (in a grey box).

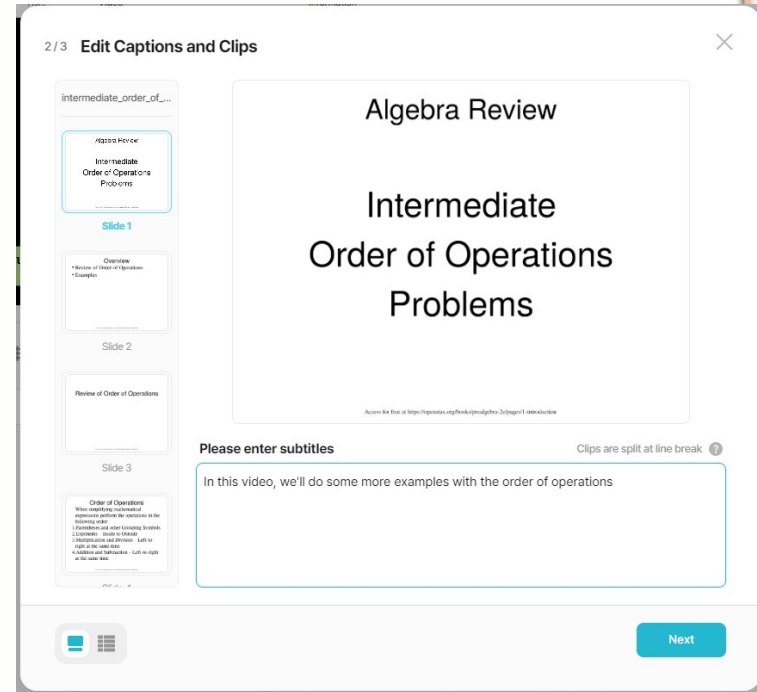
Create Video from Slide

- Slides have to be in PDF format
- Can export from PowerPoint, LibreOffice Impress, or LaTeX Beamer
- Still do work on paper with scans



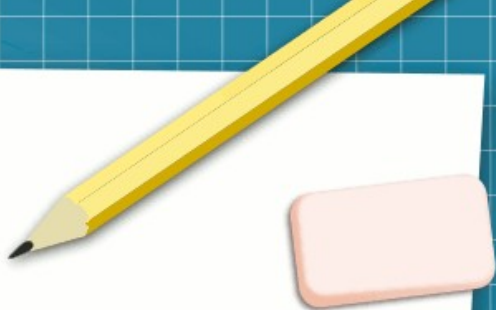
Writing Captions

- Write captions for each slide
- Each line becomes it's own caption
- Can spell check and edit captions in next step



Finishing

- Overlay math work on top of slides
- Simple drag-and-drop
- Export as before



Example
Simplify.
 $3(1+9\cdot6)-4^2$

PEMDAS

$3(1+9\cdot6)-4^2$
 $3(1+54)-4^2$
 $3\cdot55-4^2$
 $3\cdot55-16$
 $165-16$
149

$9\cdot6=54$
 $1+54=55$
 $4^2=16$
 $3\cdot55=165$
 $165-16=149$

165 minus 16 is 149.

Access for free at <https://openstax.org/books/prealgebra-2/pages/1-introduction>

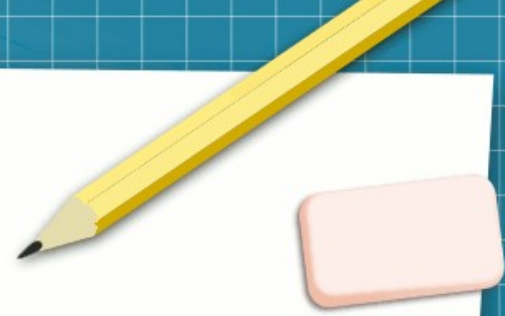
Comparison of Methods



- Traditional Video
 - Background – 8:39
 - Work – 12:34
 - Script – 9:45
 - Audio – 9:16
 - Video – 12:43
 - Caption – 6:09 (cut 6 seconds of breaths)
 - Export – 1:02
 - **Total – 61:35**
- 11 scans, 7 slides, 314 word script, 2:05 length
- AI Voice
 - Background – 10:20
 - Work – 19:20
 - Script – 12:33
 - Edit – 16:40
 - Export – 1:51
 - **Total – 60:44**
- 18 scans, 7 slides, 332 word script, 2:26 length

Final Thoughts

- Like Vrew for both video editing and captioning
- AI Generated voice speeds the process
- Adding personal character to video worth the extra time
- Can find more efficiencies in process



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Where to find me:

- Mastodon: <https://qoto.org/@OmegaLimit>
- PeerTube:
https://spectra.video/c/chris_sears_teaching/videos
- Website: <https://prof-sears.github.io>
- GitHub: <https://github.com/Prof-Sears/Vrew-projects>

