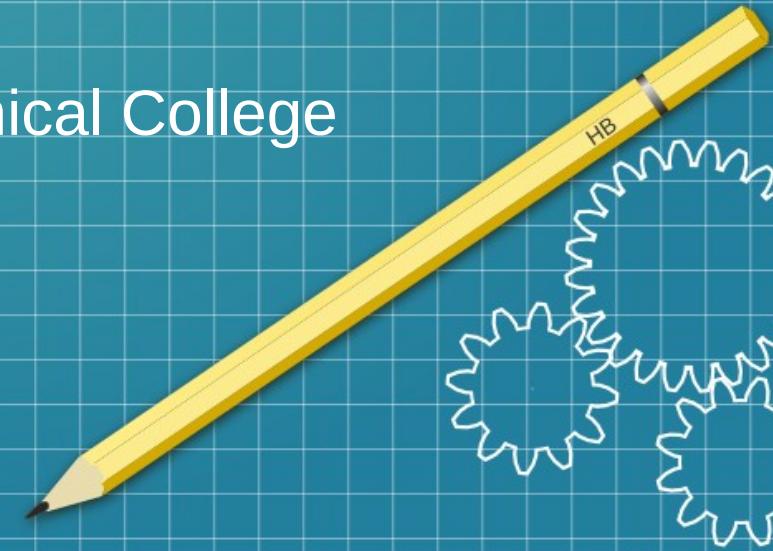


# Using AI Tools to Accelerate (not Automate) Video Creation

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



YOU SHOULD HAVE TAKEN AN  
EXISTING PRODUCT AND  
PUT A CLOCK IN IT OR SOMETHING.

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



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

Chris Sears 01/31/2024 11:35 AM  
I can share my PowerPoint once I have it written. I'm presenting at the end of February, so it will be a little while.  
The title is "Using AI Tools to Accelerate (not Automate) Video Creation".

Abstract:  
YouTube is a great place to find educational videos that are captioned and ready to share in Blackboard. But, what happens if you have a student population that cannot access any internet beyond one internal server? In this talk, I'll discuss how I use an AI tool called Vrew to streamline video recording and captioning for use outside of YouTube and Blackboard. (edited)

February 2, 2024

UX Researcher 02/02/2024 6:13 AM  
Hello, Mr.Sears!

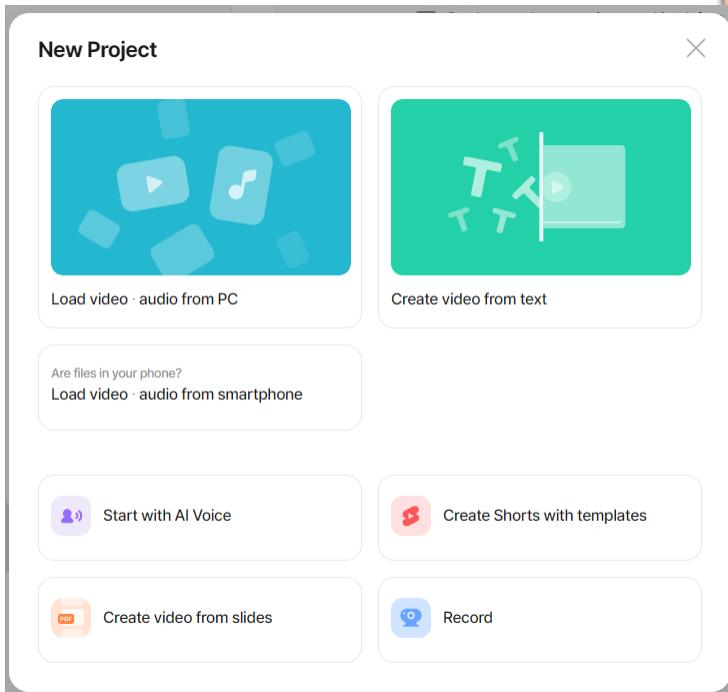
That sounds great! Thank you for sharing the abstract and the title of your presentation! I shared it with some of our team members, and they were very excited to hear this news. Moreover, we were delighted to acknowledge that you are on the same track with us when it comes to using Vrew as an accelerator not an automator. 😊

Also, I have sent you the written interview questionnaire via email! I hope you can revise it and communicate with me if you have any questions! If there are no comments or inquiries, you can freely write the reply and just send it back within a week. Of course, if you need more time, feel free to reach out whenever!

Have a great weekend, and thank you once more!

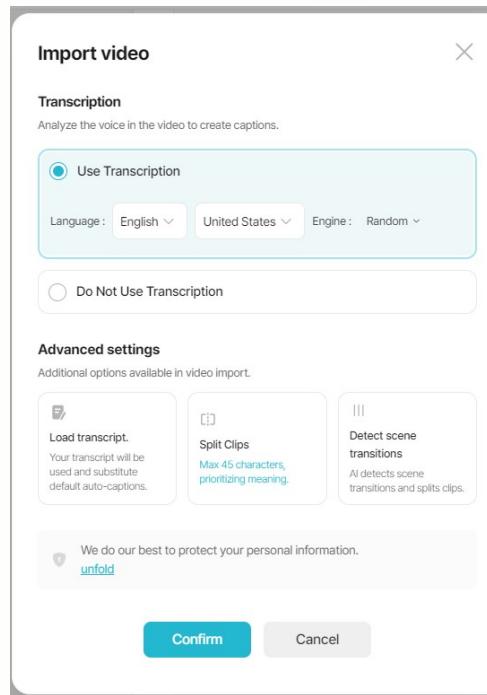
# My Two Use Cases

- 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



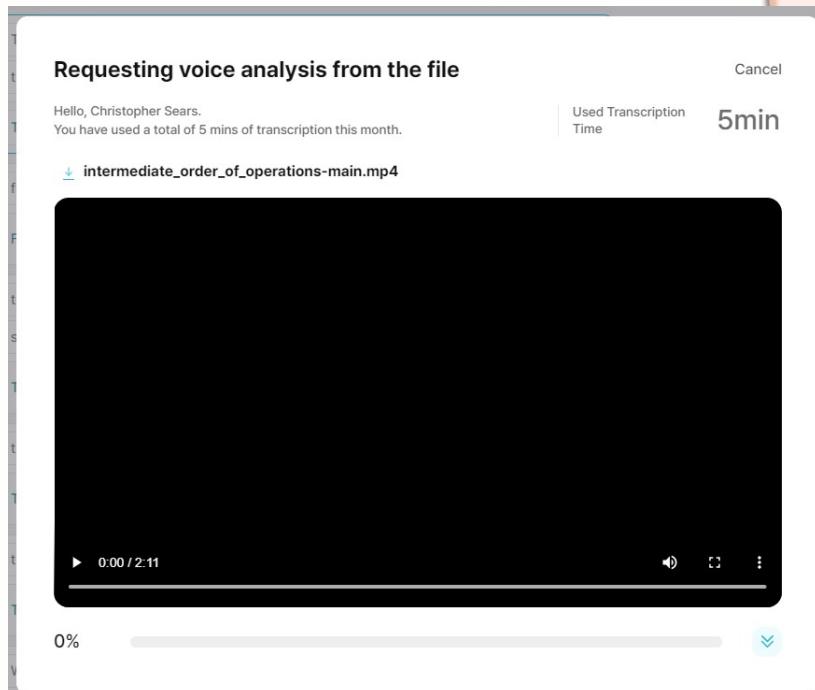
# Traditional Video Creations

- Create slides 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



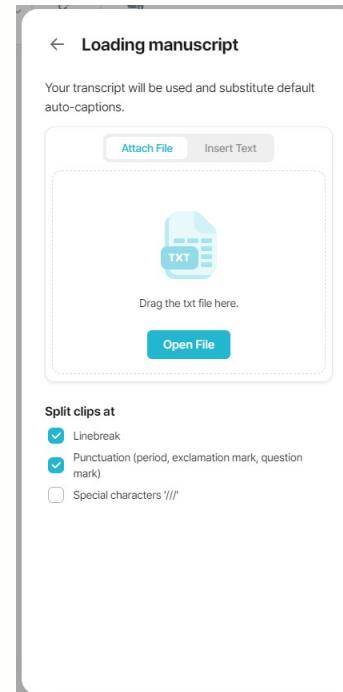
# Auto-Captioning

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



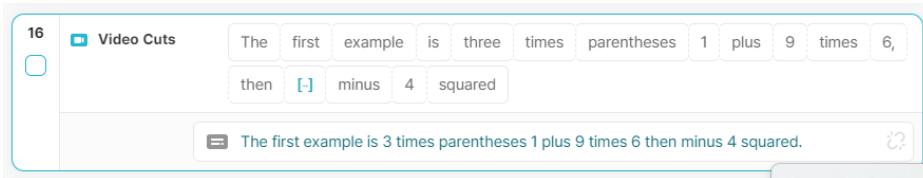
# Improving Speech Recognition

- 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

The screenshot shows a video player interface with various controls at the top:

- Import Time-coded Text
- Load Manuscript
- Load Caption File
- Show Caption (highlighted)
- Copy All Captions
- Delete All Captions
- Add Transl Caption

The video frame displays a mathematical example:

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

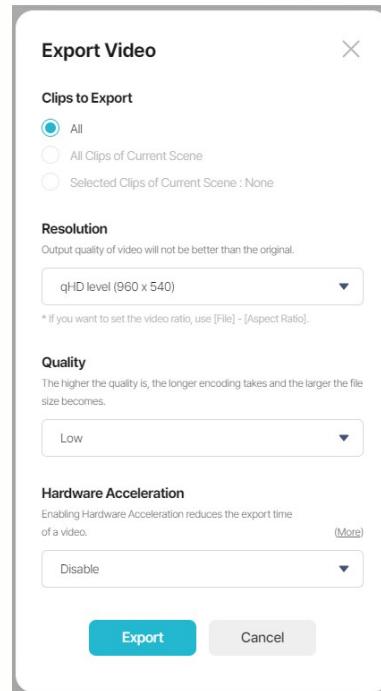
A green highlighted box contains the caption text:

The first example is 3 times parentheses 1 plus 9 times 6 then minus 4 squared.

Below the video frame, there is a progress bar showing 00:41 / 02:05, and a control bar with 1x, camera, and other icons.

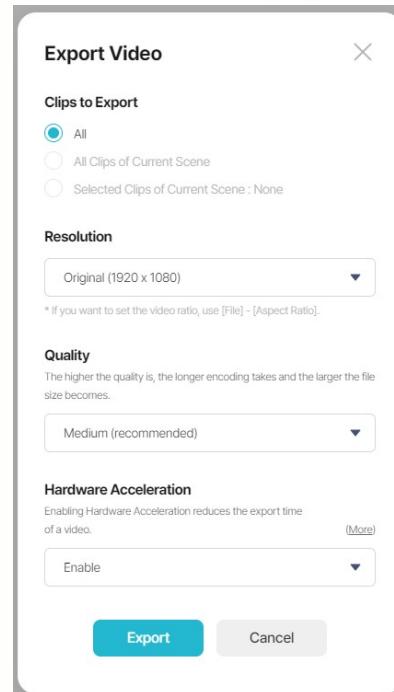
# Export for Lantern

- 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

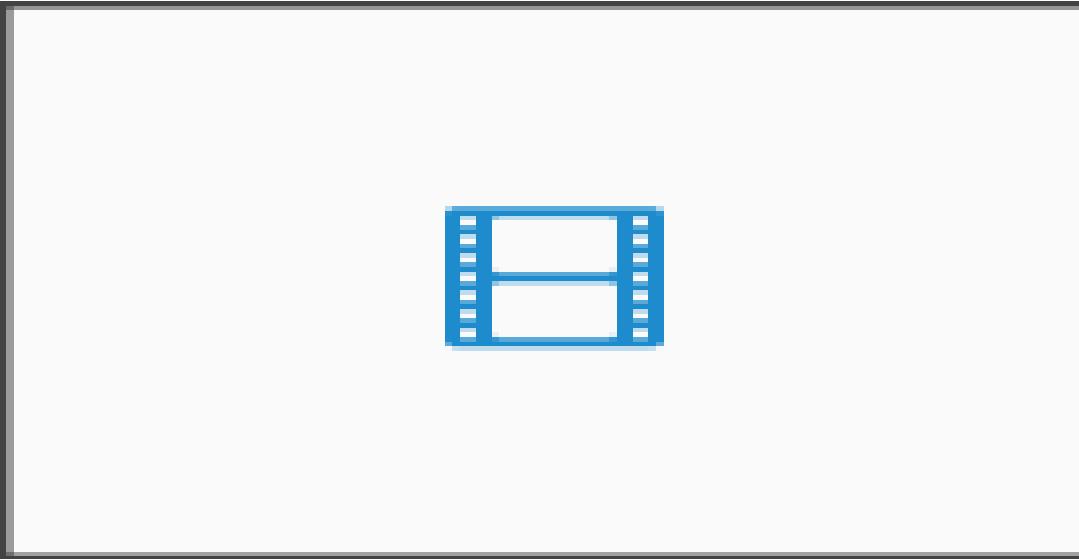


# Export for PeerTube

- 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

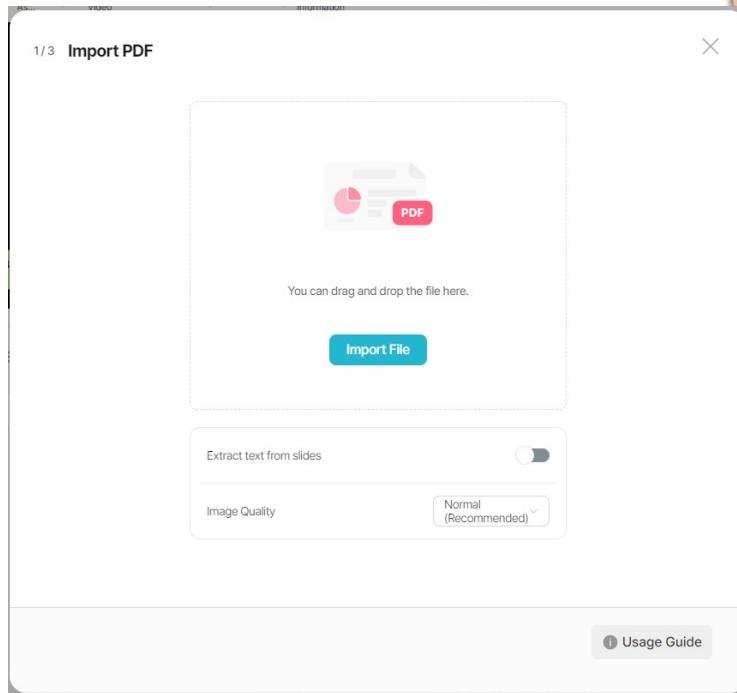


# Video Output



# Create Video from Slides

- 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

The screenshot shows a video editing interface for a slide titled "Algebra Review". The main content area displays the slide itself, which has the following text:  
Algebra Review  
Intermediate  
Order of Operations  
Problems

The sidebar on the left lists three slides:

- Slide 1: **Algebra Review**  
Overview:
  - Basics of Order of Operations
  - Examples
- Slide 2: **Review of Order of Operations**
- Slide 3: **Order of Operations**  
What order does operations have?  
1. Parentheses (innermost) or brackets  
2. Exponents  
3. Multiplication and Division (left-to-right)  
4. Addition and Subtraction (left-to-right)  
at the same time

At the bottom of the slide, there is a note: "Please enter subtitles" and "In this video, we'll do some more examples with the order of operations". A "Next" button is located at the bottom right.

# Finishing



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

Example

Simplify.

$3(1+9\cdot 6)-4^2$

R  
E  
MD  
AS

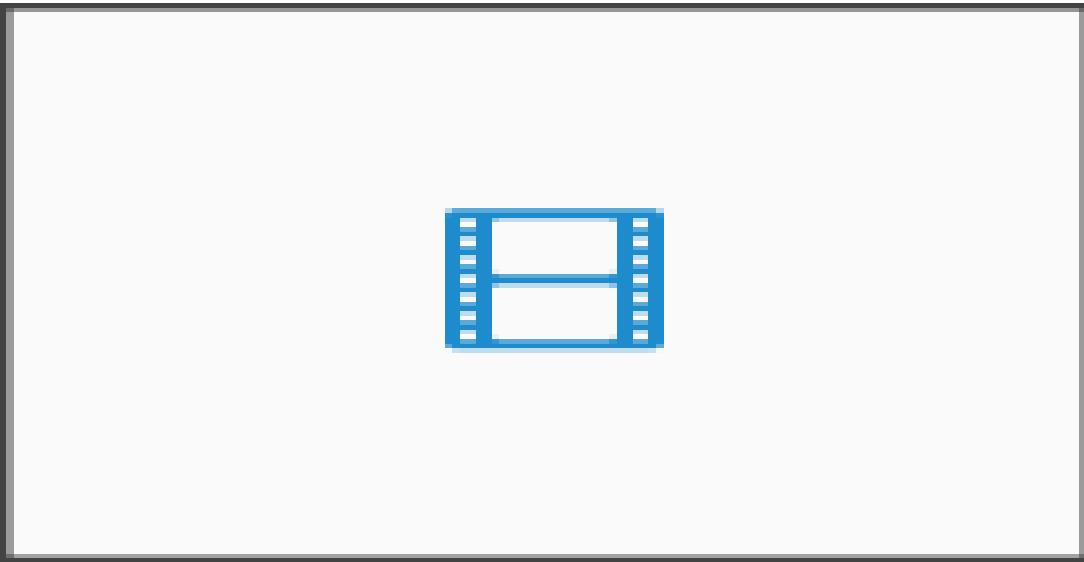
$3(1+54)-4^2$   
 $3 \cdot 55 - 4^2$   
 $3 \cdot 55 - 16$   
 $165 - 16$   

149

165 minus 16 is 149.

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

# Video Result



# 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**
- AI Voice
  - Background – 10:20
  - Work – 19:20
  - Script – 12:33
  - Edit – 16:40
  - Export – 1:51
  - **Total – 60:44**
- 11 scans, 7 slides, 314 word script, 2:05 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



This work is licensed under a Creative Commons  
Attribution-ShareAlike 3.0 Unported License.

It makes use of the works of Mateus Machado Luna.



## Where to find me:

- Mastodon: <https://qoto.org/@OmegaLimit>
- PeerTube:  
[https://spectra.video/c/chris\\_sears\\_teaching/videos](https://spectra.video/c/chris_sears_teaching/videos)
- Website: <https://prof-sears.github.io>
- GitHub: <https://github.com/Prof-Sears/Vrew-projects>