

3. Teaching Tools

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Faculty Workshop

Rice Business 2026

Workshop Overview

AUG 10
3:00–4:00

Intro to Claude

AUG 11
3:00–4:00

Working with Claude

AUG 12
3:00–4:00

Teaching Tools

AUG 13
3:00–4:00

AI Tutors

AUG 14
3:00–4:00

Student Projects

AUG 17
3:00–4:00

AI for Research

AUG 19
3:00–4:00

Personal Assistants

AUG 19
4:00–5:00

Overflow/Extra

Today's Session

1

Plugins



2

Thoughts on teaching



3

**Building teaching
assistants**

Slide narration · Grading
assistants · Other tools

Plugins

A shipping protocol for skills plus scripts, MCP connectors, and other files

Visit the Anthropic plugin directory: Enter **/plugin** as a Claude prompt or visit <https://github.com/anthropics/claude-plugins-official>

Thousands of people (including me) have created their own plugin marketplaces. Everything is free.

The most useful ones will be the ones you create (with Claude's assistance) — for example, a code script that you know works and a SKILL.md that tells Claude when to use it

Thoughts on Teaching

How to Assess

Out-of-class assessments

- We must expect AI to be used on every out-of-class assignment.
- We cannot reasonably grade out-of-class assignments unless they are assignments to use AI to do something.

In-class assessments

- participation, presentations, quizzes,
- “solutions” to problems/cases that they can evaluate with basic calculators or paper and pencil

Content

Everyone **can now compute** whatever

Checking work becomes more important than doing work, and we can assess that

Interpretation and correct application have become more important than ever

More cases, more emphasis on **communication** seem in order

Teaching Cases

Might change a little

- We should have higher standards for student preparedness
- We can do more live work in class. A student can lead while the instructor types prompts. Or allow time for students to work with AI and then screen share.

Using and writing cases

- HBS's policy is "do not upload cases to chatbots," so don't do it live in class
- AI is good at writing cases. It knows the HBS style: "Grace was in her office on a Friday afternoon gazing out at the autumn leaves ..."

Grading with AI

Grading Team

1

Involve multiple AI graders for diversity of opinions



2

Maybe a second round — share opinions from the first round



3

In Claude, main agent (one you talk to) is orchestrator, other graders are subagents

Obviously, you are responsible for grades. What the AI provides is advice.

FERPA

With an enterprise agreement

"do not train" is contractual and satisfies FERPA. It is OK to upload student assignments with names attached.

Without an enterprise agreement

student assignments must be de-identified before uploading.

If you de-identify, then you can bring in other models (ChatGPT, Gemini) for greater diversity of opinion (more later).

Rice Policy (tss.rice.edu/ai-usage-guidelines)

Information considered sensitive or confidential by University Policy 808 (<https://policy.rice.edu/808>), including private information about individuals and protected research data, should not be used with consumer-focused or publicly available AI services.

Anonymizing Student Assignments

Canvas submissions

- Student name is in filename
- Instruct students to put names nowhere else
- Run Python script to encrypt filenames and strip metadata

Handwritten

- Instruct students to put names in specific location (e.g., top left, 1 inch above answers, or on cover page)
- Python script to strip names, create a table of names and filenames
- Python OCR + Claude image viewing until text is coherent (weakest link)

Create a Skill for Grading

1

Create a recipe

How to anonymize, how many subagents (or other models), how many rounds, what to do if there is disagreement, how to record the grades, how to provide info about the grounds for grades



2

Invoke it

You provide the grading rubric (maybe a filename) at runtime and the name of the folder containing assignments

Product vs Process

Upcoming Plugins

- I'm going to suggest you install some plugins I've created
- Claude created all of them and can do the same for you
- My plugins may be a useful starting point but shouldn't be your final version
- Ask Claude to revise to fit your preferences

The process of creating things is more important than any particular products
Give a person a fish and they eat for a day, teach them how to fish and ...

Maybe They End Up in the Water with an Alligator?



Narrated Slide Decks

Do We Need Voiceovers?

Push instruction to pre-class

You can record yourself, or you can write narration text (with Claude's assistance) and use AI text-to-speech

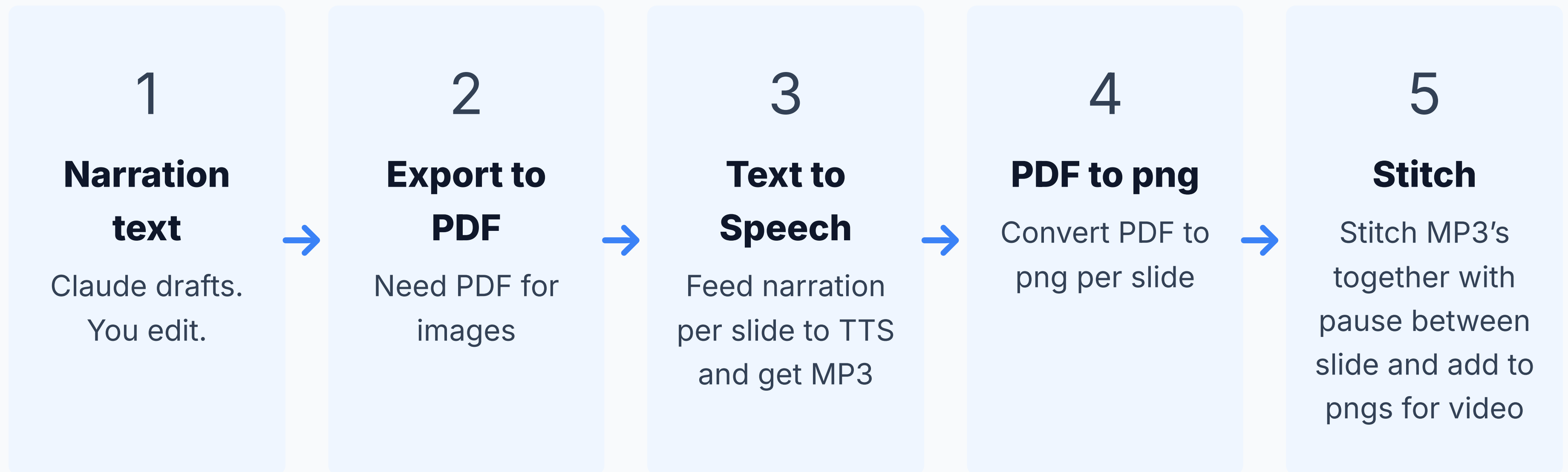
Text to Speech

- There are many TTS providers
- ElevenLabs is a popular one (used by Claude for voice features)

- It includes editable pronunciation guides and voice cloning
- It has a free plan (non-commercial use and small quota).

I'm on the Creator plan (\$220 per year).

A Pipeline for Narration



Voiceover Plugin

A Python script can

- feed narration per slide to ElevenLabs
- convert PDFs to pngs
- stitch MP3's together, add pngs, and generate video

GUI

- Convenient to edit narration text
- Convenient to set TTS configuration (voice, style, ...)

Ask Claude to add the plugin marketplace github.com/kerryback/skills (only need to do that once) and then to install voiceover@kerryback-skills.

Test It

1

**Start a new
conversation**



2

**Export a PowerPoint
deck to pdf**



3

**Tell Claude to generate
a voiceover**

- Claude should first walk you through getting an ElevenLabs API key and setting it up
- Then it should draft narration
- Then it should open the GUI

Make It Yours

Everything is in text files (.py, .md) that you now own. Any behavior you want to change — tell Claude.

Participation Recorder

Grading Class Participation

Less emphasis on out-of-class assignments → more emphasis on class participation?

Personally, I need help in recording participation

Luckily, I have a friend named Claude!

What Do I Want?

A screen with names and faces, maybe 0 to 3 scoring on quality and quantity, maybe a notes field

I want it to be easy to pop up, record, save, and close

Photos are a must for me

Esther Ingester

1

Get the roster

Esther/Class Roster/View with Photo and then
right-click to print to PDF



2

Hand it to Claude

Give to Claude at beginning of term to create
a participation recorder that lives in your
class folder

Use

1

Open class folder

Tell Claude to record participation



2

Screen opens in browser

(inside Academic Studio)



3

Check scores, add notes, close



4

Claude adds a row

to its ongoing record of all participation in the term for that course

Install, Test, and Make it Your Own

Tell Claude to install
**participation@kerryback-
skills**

Create a test folder.
Download Esther
photos from an old
class. Tell Claude to
set up and launch the
participation recorder.

Everything is in text
files that Claude can
edit. Just ask for
changes.

Polls and Screen Shares

Live Polling

Poll Everywhere, Mentimeter, ... are great, but maybe they could be easier to use, and I don't think I can quickly spin up a poll on the spot with them

If I have Claude open on the classroom computer, could I give Claude a question to ask and have it instantly show up on the screen?

Ask Claude!

Ways to Display a Poll

Reverse tunnel

We need to run a web app. It may be possible to do this from the classroom computer, using a reverse tunnel. But Rice IT might block it or block connections (not sure yet)

Use a cloud host

An alternative is to run a small app on a cloud host (easy to do, even on a free plan). Claude could control it via an API

Reverse Tunnel Demo

1

Install

Ask Claude to install
poll@kerryback-skills.



2

Need a volunteer

Install, then open a new conversation. Enter /poll. Share the window that pops up. Everyone else uses their phone (don't need Claude).



3

Ask a question

After we've signed on with our phones, instructor enters in Claude: /poll:word-cloud what is your favorite flavor of ice cream (for example)

Or Write It Before Class

You can also tell Claude to prepare questions beforehand. Claude will save them in a file.

Then enter **/poll <filename>** to run the poll

Screen Shares

If we flip the classroom, there will be more work in class, so it is very useful to have students share screens

It can be done with Canvas, but that seems very clunky to me

Reverse tunnel is again the easy way, though might be blocked. Run a small app if it is.

Similar to polling: QR Code, instructor's panel allows selection of student to share, then that student's screen appears on the panel and is projected. Reverse tunnel is in **screenshare@kerryback-skills**

Takeaways

Teaching tools you might wish to have are a conversation away. Install mine as a starting point, then tell Claude to make them yours. Tell Claude to build anything else you want. And share!