

AI: Image and Video Generation on a MacBook Pro

magnusviri (James Reynolds), October 23, 2025

About James Reynolds

- Bachelor of Music, 1999, University of Utah
- Marriott Library, 14 years (Mac admin)
- School of Biological Sciences, 11 years (Mac, Linux, network admin)
- College of Science (SBS), 3 months
- Security and AI are “hobbies” of mine



Slides: <https://magnusviri.com/saintcon2025>

Computer Requirements

- Nvidia CUDA, AMD Ryzen, Mac M-Series processor, or a fast CPU
- Minimum of 8GB of GPU RAM (used to be 16GB but it's getting lower)

Because It Takes A Long Time: LTX Video

- <https://ltx.video/>
- <https://github.com/Lightricks/LTX-Video>
- <https://github.com/Lightricks/ComfyUI-LTXVideo>
- <https://docs.comfy.org/tutorials/video/ltxv>
- ComfyUI LTX Video Demo!

How Is Image Gen Different From LLM's?

- Diffusion Model
 - Pixels and text are input
 - Pixels are output
 - Removes Gaussian noise
 - Repeat
- Large Language Model
 - Words are input
 - 1 word output
 - Predicts the next word
 - Repeat

Steps: 1



Steps: 2



Steps: 3



Steps: 5



Steps: 8



Steps: 10



Steps: 15



Steps: 20



Steps: 30



Steps: 40

Legal Issues with Image Gen

- Child porn is obviously illegal
- Non-consensual porn (including deepfakes) was made illegal in the US in June 2025
- AI images are not eligible for copyright*
 - * “a film that includes AI-generated special effects or background artwork is copyrightable, even if the AI effects and artwork separately are not”
 - * “Artists are also covered, to a degree, if they use AI to modify their existing human-made creative works”

<https://www.digitaltrends.com/computing/us-copyright-office-says-fully-ai-generated-images-cant-be-copyrighted/>

Andersen v. Stability AI

- Artists are suing Stability AI, Midjourney, and DeviantArt claiming copyright infringement
- Set to begin on Sept 8, 2026
- UMG, Sony Music, and Warner Records are suing Udio and Suno
 - Artists mostly own their art but musicians don't, the labels own the music (or at least profit the most)

The Social Contract

- Automating human activities isn't new, it was unexpected in this domain
- The term "handmade" exists for a reason
- People want to know if a thing is created by a real person and will pay a premium for it
- Please don't distribute AI images and pass them off as human made
- It turns the public against AI and destroys legitimate uses of AI



VS



Etsy-special gifts for Christmas

Get inspired

- Advent Calendars: \$37.14
- Festive Servingware: \$61.99
- Christmas Cards: \$157.77
- Calendars: \$20.51
- Home Decor: \$125.00
- Gifts: \$43.16 (was \$53.95)

Gifts as special as they are

- Hosting Decor Gifts
- Personalized Gifts
- Crafting Gifts
- Book Lover Gifts
- Anniversary Gifts

Shop our most-loved categories

- Party and gifting
- Men's t-shirts
- Blankets and throws
- Templates
- Home and living
- Prints

Dragon Con September 2025



Don't Break the Social Contract

AI-generated art won a fine arts competition – and artists are up in arms

News By [Joe Foley](#) last updated 7 September 2022

But how long did it take to make?

AI art generators have made a huge impact in digital art in recent months. The latest generation of tools, including DALL-E 2, MidJourney and Stable Diffusion are capable of creating an incredible range of images based on text prompts – you basically tell them what you want them to create, whether that's Sponge Bob Square Pants crossed with Godzilla, a surreal futuristic landscape or a realistic still life in the style of a Renaissance master.

This has all led to a lot of existential debate about where it will leave artists, photographers and designers, with some people worrying that they could replace human creatives. Now to add further fuel to the debate, someone's just won a fine art competition with an AI-generated image, and artists are fuming.



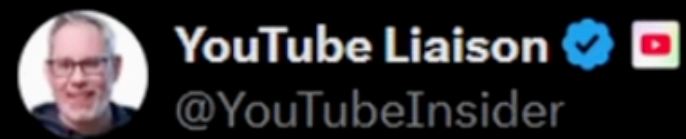
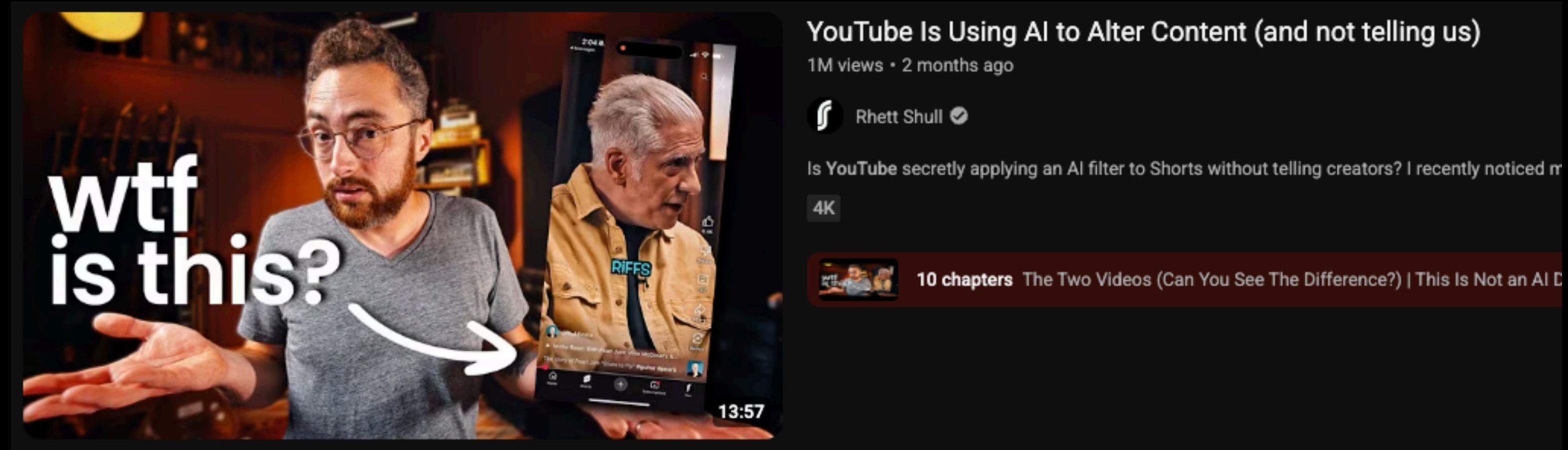
Jason Allen's AI-generated art won a prize at the Colorado State Fair
(Image credit: Jason Allen via Midjourney)

Image Gen and NSFW

- The big cloud providers filter NSFW
- The original Stable Diffusion release included a model and some scripts
 - The Stable Diffusion 1.x training data (LAION-5b) had CSAM in it
 - The original scripts had a NSFW filter but the repo wasn't maintained
- Every community SD app left off the filter (Invoke has one but it's off by default)
- Stable Diffusion 2.x didn't generate NSFW content very well and so the community never really adopted it—SDXL did better and was adopted
- CivitAI, the largest SD model repository, is overrun with NSFW and has problems

Sloppification

- Did you know?



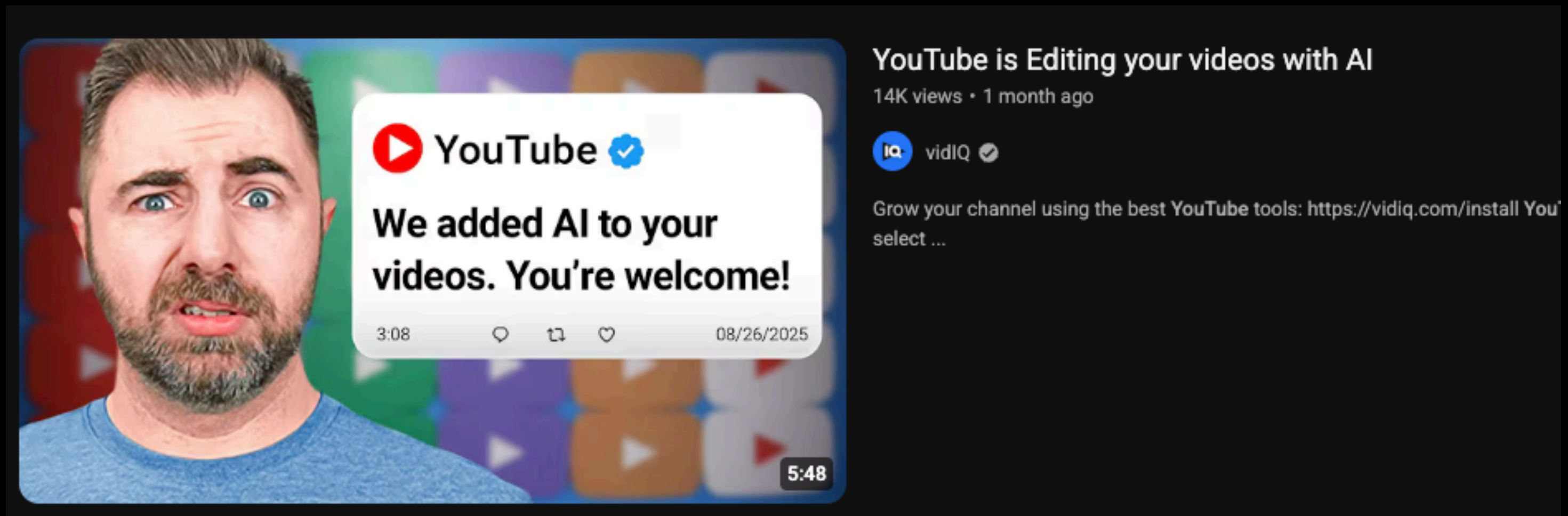
Creators, we've heard your feedback on YouTube's deblurring and denoising Shorts. There's a lot of good stuff coming in that pipeline, tbh. But if it's not for you, we're working on an opt-out. Stay tuned!

YouTube Liaison @YouTubeInsider · Aug 20

No GenAI, no upscaling. We're running an experiment on select YouTube Shorts that uses traditional machine learning technology to unblur, denoise, and improve clarity in videos during processing (similar to what a modern smartphone does when you record a video)

...
[Show more](#)

9:53 AM · Aug 26, 2025 · **49.2K** Views







Are AI Images Real Art?

- I'm a musician, I studied composition
- A year ago we reached the point where AI music became "ok"
- But I hear lots of missed opportunities
- After awhile I can feel an emptiness, don't ask me how I can tell
- I have zero interest in creating or listening to AI music
- Music is communication between composer, performer and audience

Where's the line?

Automate it away

I want to do it!



- Work in factory
- Click button over and over
- Sew
- Needlessly put my life at risk
- Wash clothes
- Make bed
- Dig holes
- Wash dishes
- Grow food
- Take care of pets
- Earn money
- Learn skills and use them
- Have pets
- Be wanted and needed
- Help someone
- Eat Bday Cake
- Make art
- Do something amazing and profound

Verdi's Dies Irae

The Problem with Image Gen Is

- The problem is that the images are so polished that if you don't know what you are doing, you're done with no work!
- The value of this "creativity" is zero
- Instead, have a idea of what you want and try to get there
- The 2nd problem is that I can only get 90-95% to my goal with AI
- Everytime I get really interested in what I'm making I just want to grab my wacom tablet and finish it myself (but I have to remind myself that I haven't put in enough time to get the polished results AI gives)
- This is like finishing someone else's work

Photoshop

- At first, Photoshop was an artistic sin
- It was eventually accepted as an art tool
- I know Photoshop pretty well and I still can't produce what artists produce
- AI has no taste, but AI can be a tool just like Photoshop
- You have to communicate something to your audience
- Which means you need an audience

- I prompted this AI image and I think it communicates with it's intended audience, which was someone looking for images to show off his underwater LORA
- It's still an AI creation, not mine, just my idea and prompt
- <https://civitai.com/bounties/6352/peeking-from-the-water-ororin-honor-of-the-followersororfirst-bounty>



- How much of the image is the eyes, which I put zero effort into?



- You are the intended audience
- I was kind of showing off that I uh, Nano Banana, could riff on the image on the SC website





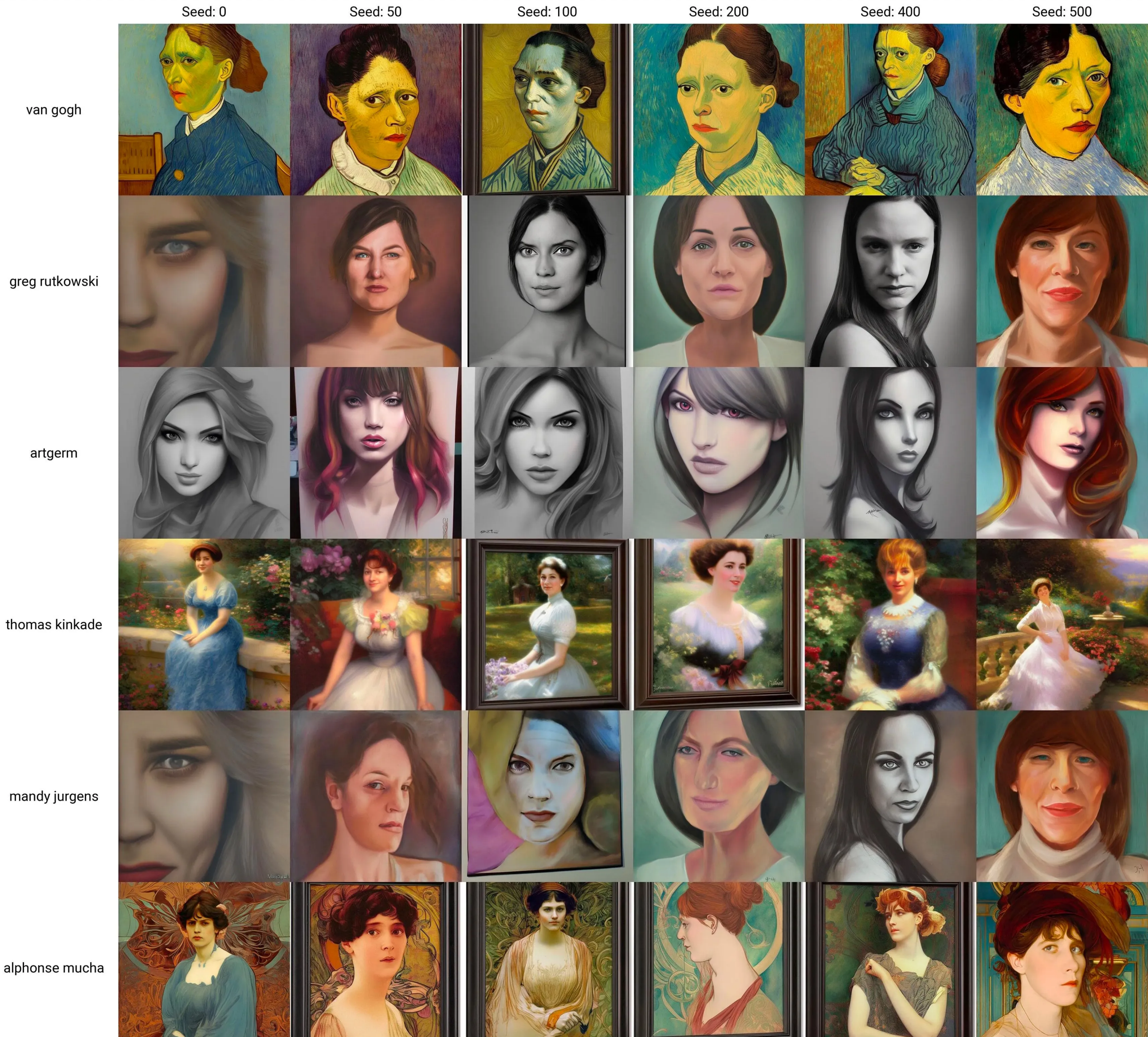
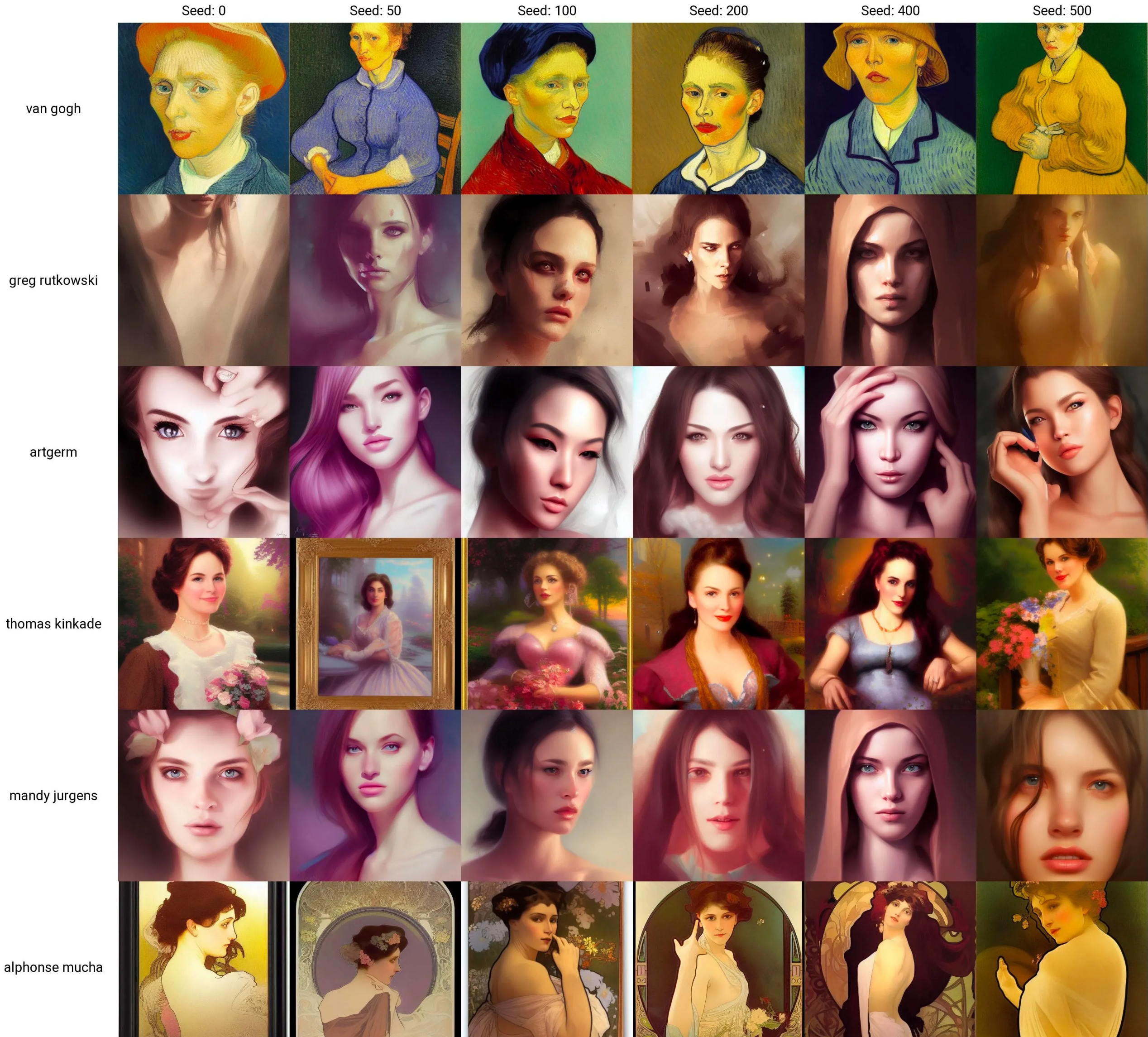
- And I, I mean AI, made a 3d model and 3d printed it too

Downloadable Generative Models

- SD 1.x (1.5 was the latest)
 - Released August 2022 (before ChatGPT) by Stability AI
 - 512 x 512, takes
 - The raw model was kind of garbage but people fine tuned it for better results
- SDXL
 - Released July 2023
 - High quality, people still use it
 - 1024 x 1024

base SD v1.5 ema

base SD v2.0 x768



Downloadable Generative Models

- Flux
 - Released August 2024 by Black Forest Labs
 - 3 original ML devs left Stability AI and started Black Forest Labs
 - Improved quality, increased model size and time to complete
- Flux Kontext
 - Released May 2025
 - Contextual image editing

Other Tools

- ComfyUI



- Workflow based

- Can also do audio, 3d models, video, etc.

- Automatic1111

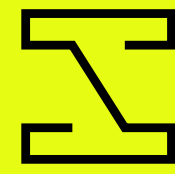
- Hasn't been updated since February, abandoned?

- Fork: <https://github.com/lllyasviel/stable-diffusion-webui-forge>

- Kind of a mess of a project IMO (I'm biased obviously)



Why InvokeAI?



invoke

- Made for artists
- Known copyright violating tools not included
- They were able to copyright an AI image:
A Single Piece of American Cheese
- They did more than just prompt
- <https://www.invoke.com/post/invoke-receives-copyright-in-landmark-ruling-for-ai-assisted-artwork>



How to Steer Denoising

- Fine Tuning checkpoints or LORAs
- Positive and Negative Prompts
- Inpainting
 - Inpaint Mask (w/ Noise)
- ControlNet
 - Canny, Depth
- IP Adapter
 - Global and regional guidance

InvokeAI Features

- Select Object
- Change background
- Change clothes on character w/ inpaint mask
- Change character w/ regional guidance

Invoke Demo

Questions