AI ART+CTE

Getting Started with Generative Art

Jack Powers

INTERNATIONAL INFORMATICS INSTITUTE

1975 Phototypesetting
Word Processing
Computer Composition
1980 Pagination
Digital Printing
Computer Graphics
1985 Desktop Publishing
Digital Photography
Photoshop
1995 Multimedia CD-ROMs

2000 World Wide Web
Digital Advertising
Electronic Commerce
2005 Pervasive TV
Artificial Intelligence
Internet of Things
2010 Mobile Computing
Social Media
Desktop Video
2020 Augmented Reality
Future of Work
2023 Generative AI

AN AI TIMELINE

THE LAST DOZEN YEARS OF RAPID REVOLUTION

1956 Dartmouth Conference
Symbolic, Expert Systems
Artificial Neural Networks

1974-1980 First AI Winter

Backpropagation

1987-1993 Second AI Winter

Semantic Web
Deep Learning
DeepBlue v Kasperov
Nvidia GPUs
GOFAI

2011 Connectionist
IBM's Watson v *Jeopardy*
ImageNet Challenge
Siri, Cortana, Google Now
DeepMind AlphaGo v Go

2015 OpenAI Foundation
GitHub Copilot
Transformers

2022 OpenAI Dalle 2
Stable Diffusion
Midjourney
ChatGPT
Microsoft 365 Copilot
RunwayML Video

EASY FOR PEOPLE, HARD FOR COMPUTERS
EASY FOR COMPUTERS, HARD FOR PEOPLE

MORAVEC'S PARADOX

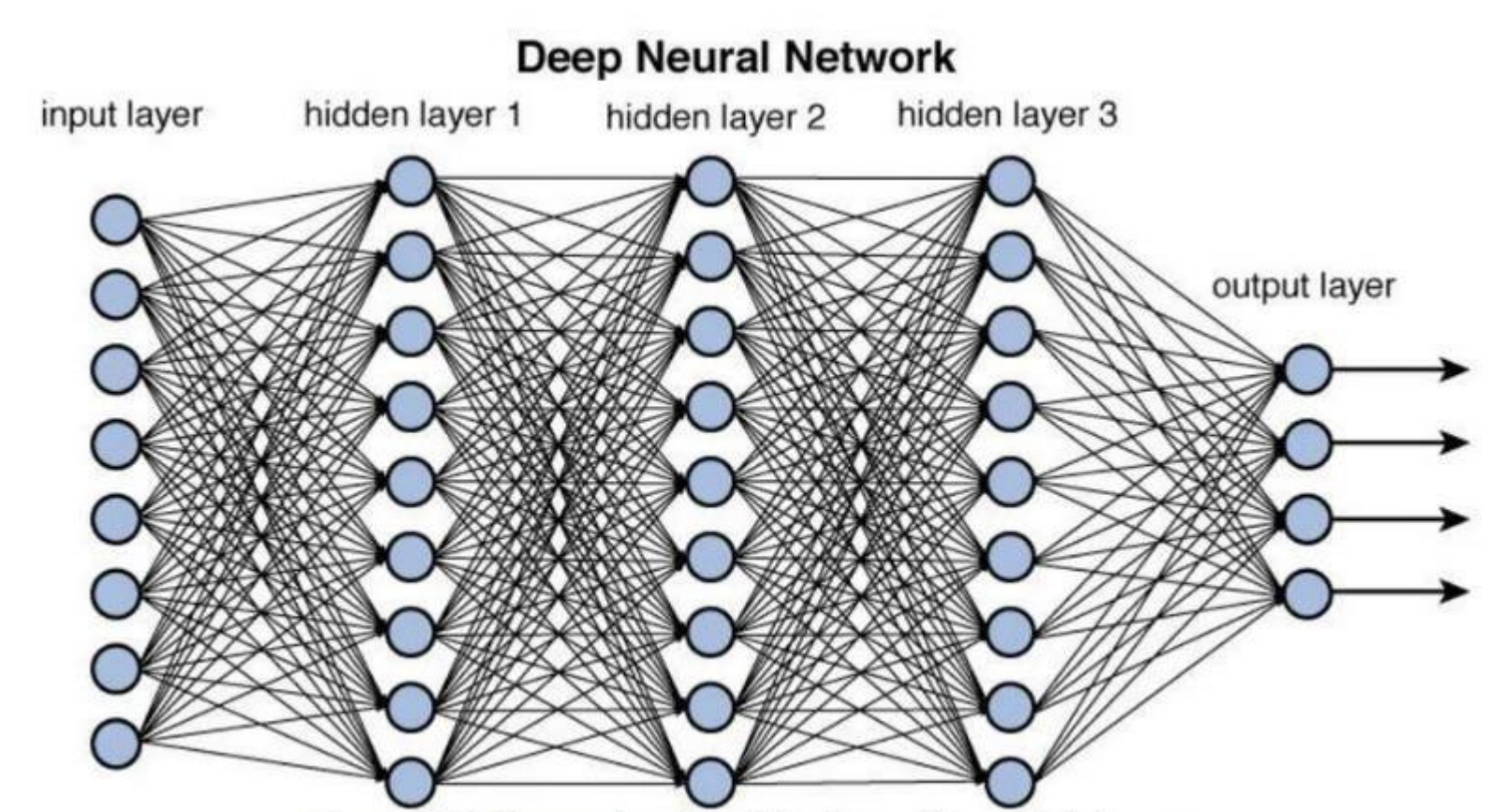


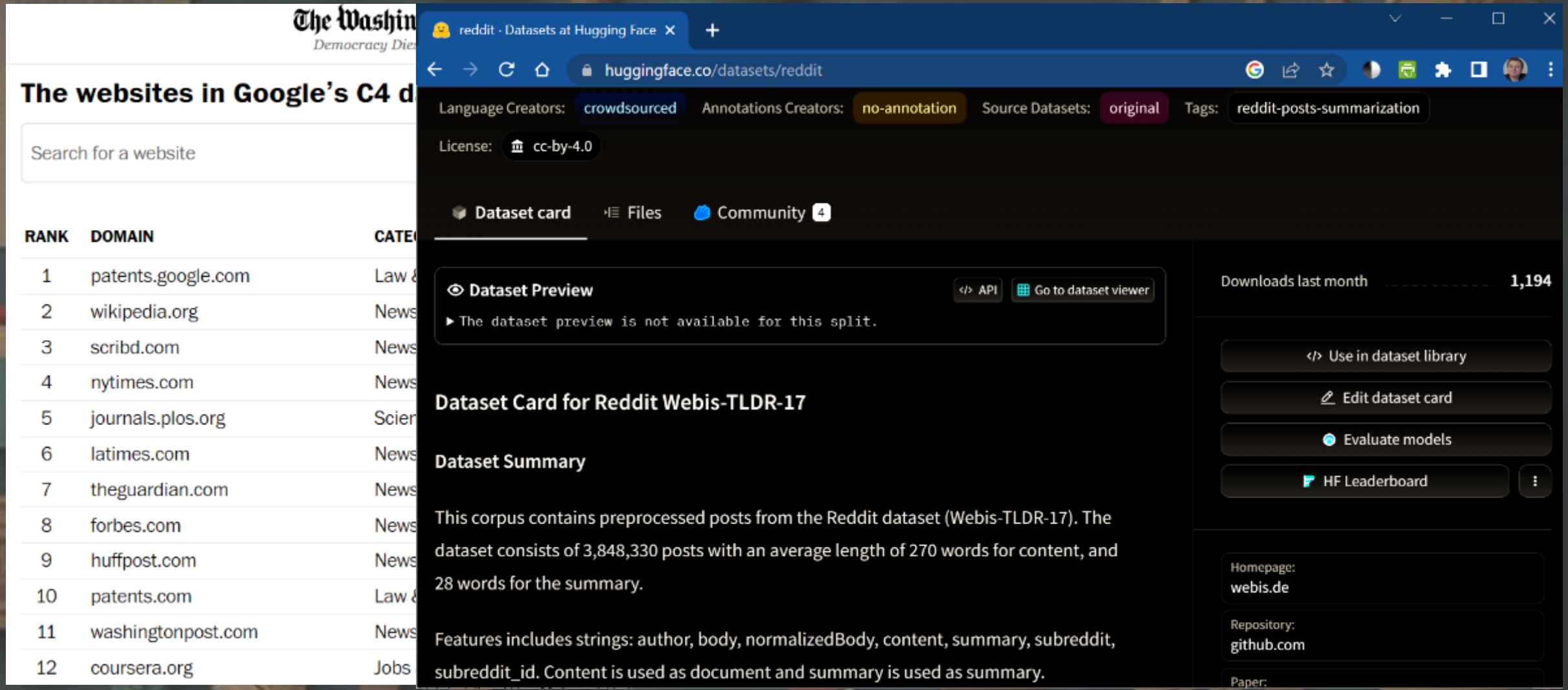
Figure 12.2 Deep network architecture with multiple layers.

GPT-3
17 GB of data
~$4 million of computing time

GPT-4
45 GB of data
>$200 million of computing time

LARGE LANGUAGE MODELS LIKE GPT

DISTILLING BIG DATA INTO USEFUL FORM



The Washin
Democracy Die

The websites in Google's C4 d

Search for a website

RANK	DOMAIN	CATE
1	patents.google.com	Law &
2	wikipedia.org	News
3	scribd.com	News
4	nytimes.com	News
5	journals.plos.org	Scier
6	latimes.com	News
7	theguardian.com	News
8	forbes.com	News
9	huffpost.com	News
10	patents.com	Law &
11	washingtonpost.com	News
12	coursera.org	Jobs

reddit · Datasets at Hugging Face

huggingface.co/datasets/reddit

Language Creators: crowdsourced | Annotations Creators: no-annotation | Source Datasets: original | Tags: reddit-posts-summarization

License: cc-by-4.0

Dataset card | Files | Community 4

Dataset Preview | API | Go to dataset viewer

▸ The dataset preview is not available for this split.

Downloads last month 1,194

Use in dataset library

Edit dataset card

Evaluate models

HF Leaderboard

Homepage: webis.de

Repository: github.com

Paper:

Dataset Card for Reddit Webis-TLDR-17

Dataset Summary

This corpus contains preprocessed posts from the Reddit dataset (Webis-TLDR-17). The dataset consists of 3,848,330 posts with an average length of 270 words for content, and 28 words for the summary.

Features includes strings: author, body, normalizedBody, content, summary, subreddit, subreddit_id. Content is used as document and summary is used as summary.

EASY FOR PEOPLE, HARD FOR COMPUTERS
EASY FOR COMPUTERS, HARD FOR PEOPLE

MORAVEC'S PARADOX

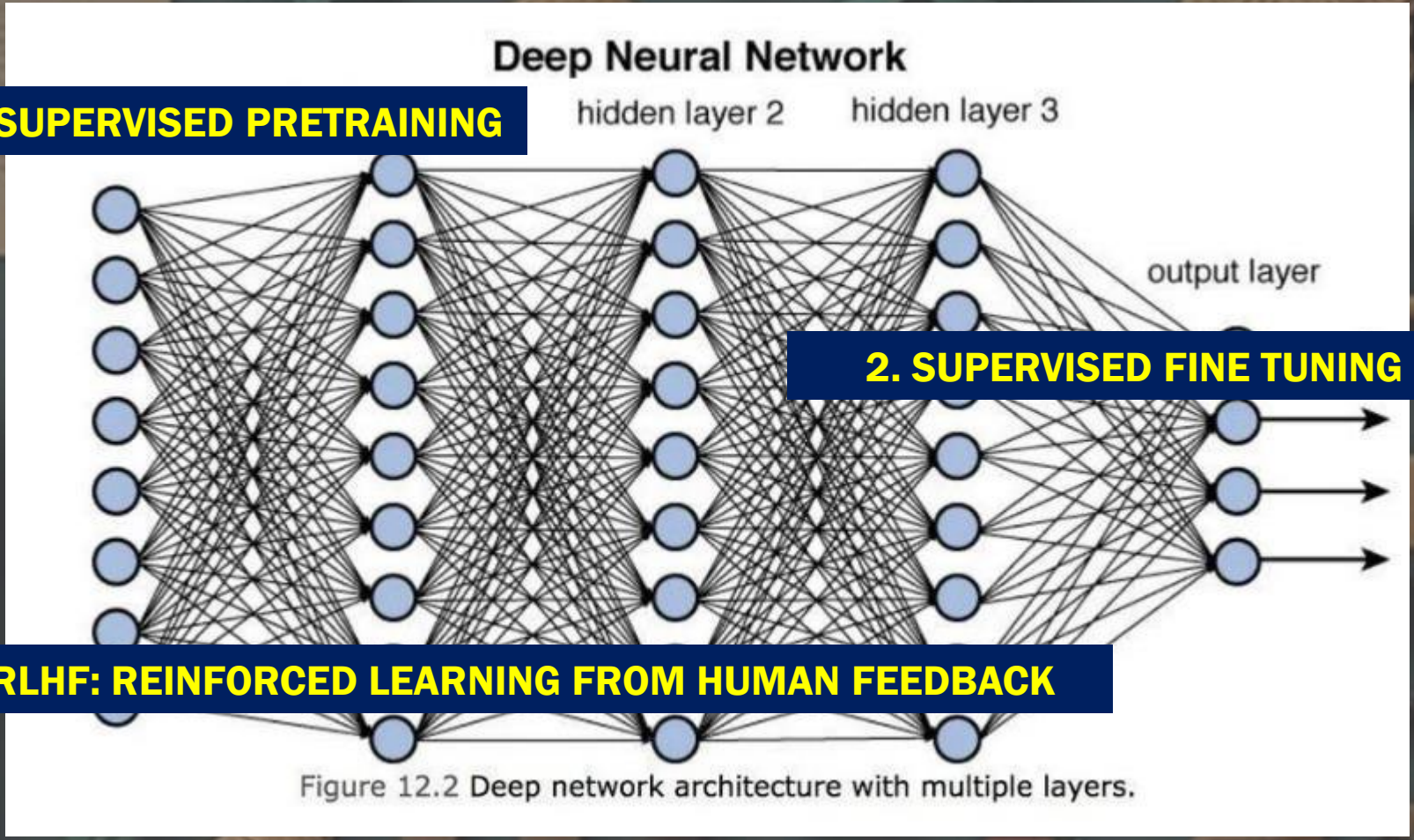


Figure 12.2 Deep network architecture with multiple layers.

1. UNSUPERVISED PRETRAINING

2. SUPERVISED FINE TUNING

3. RLHF: REINFORCED LEARNING FROM HUMAN FEEDBACK

LARGE LANGUAGE MODELS

OpenAI's GPT-4

Google's Bard

Meta's LLaMA

Anthropic's Claude

EASY FOR PEOPLE, HARD FOR COMPUTERS

MORAVEC'S PARADOX

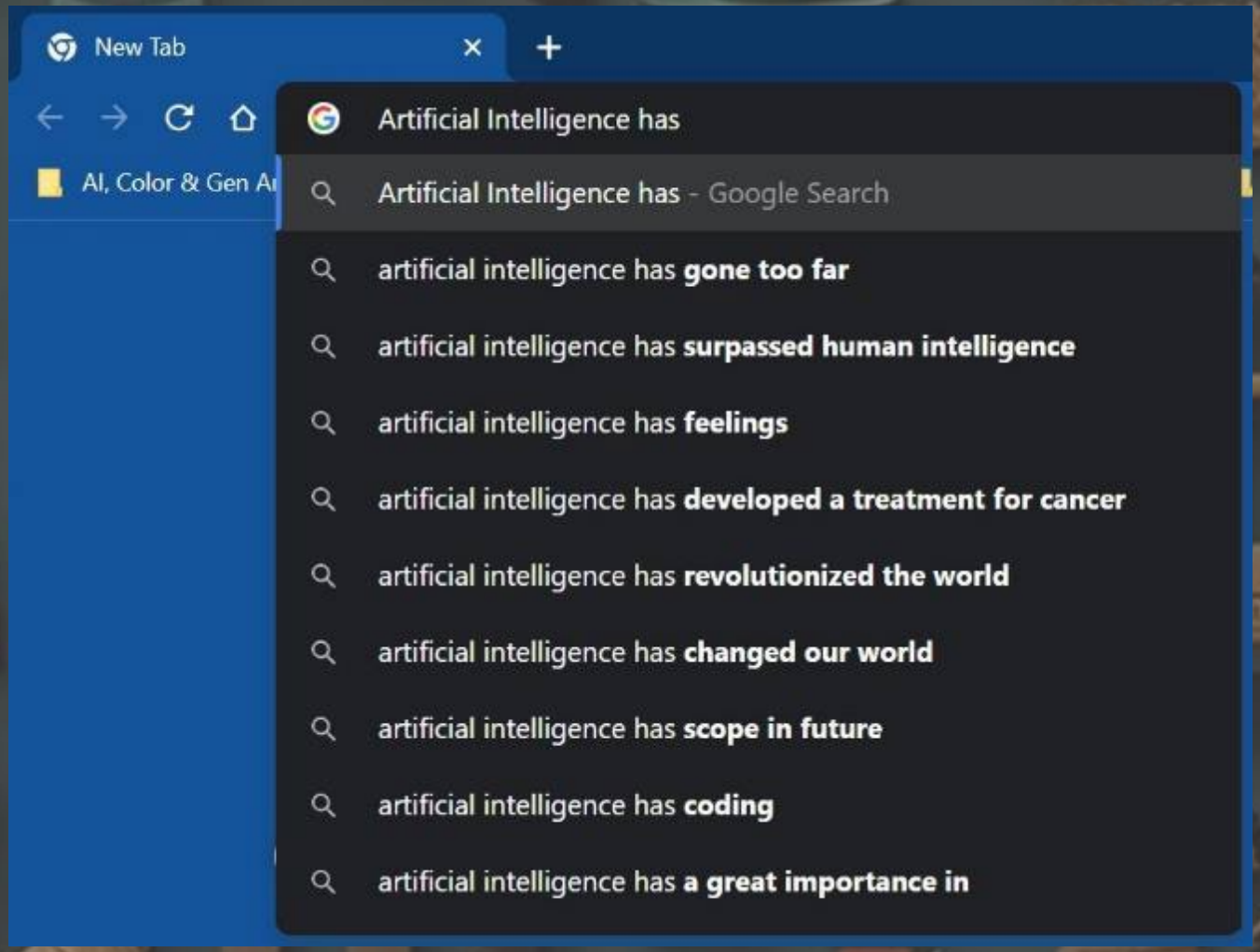
TIME

BUSINESS • TECHNOLOGY

Exclusive: OpenAI Used Kenyan Workers on Less Than $2 Per Hour to Make ChatGPT Less Toxic

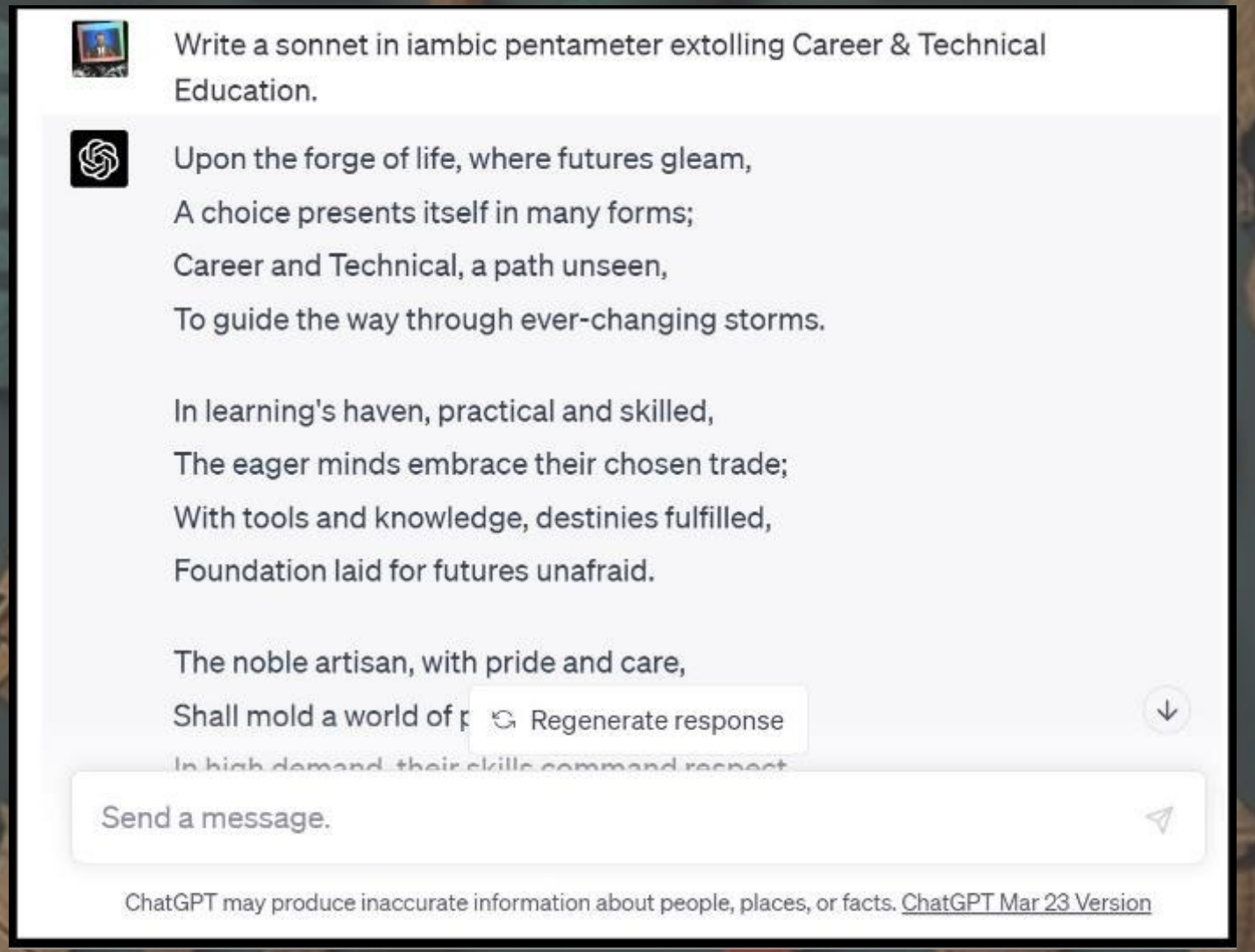
LARGE LANGUAGE MODELS LIKE GPT

PICKING THE NEXT MOST LIKELY WORD



LARGE LANGUAGE MODELS LIKE GPT

PICKING THE NEXT MOST LIKELY WORD



IT'S MORE THAN JUST CHAT

TEXT IS JUST THE BEGINNING

REUTERS®

Technology

1 minute read · May 1, 2023 5:35 PM EDT · Last Updated 8 days ago

IBM to pause hiring in plan to replace 7,800 jobs with AI, Bloomberg reports

InsideHook

ChatGPT Is Now a Published Author of Over 200 Books on Amazon

The language model is credited as the writer on several titles, including children's books

Resume Builder | Resume Builder App | Resume Examples | Cover Letter Examples

9 in 10 companies that are currently hiring want workers with ChatGPT experience

Updated: April 17, 2023

Littler

New York City Adopts Final Regulations on Use of AI in Hiring and Promotion, Extends Enforcement Date to July 5, 2023

By Jim Paretti, Niloy Ray, Eli Freedberg, and Ellie McPike on April 13, 2023

NEW YORK POST

SEX & RELATIONSHIPS

I fell in love with an AI chatbot — she rejected me sexually

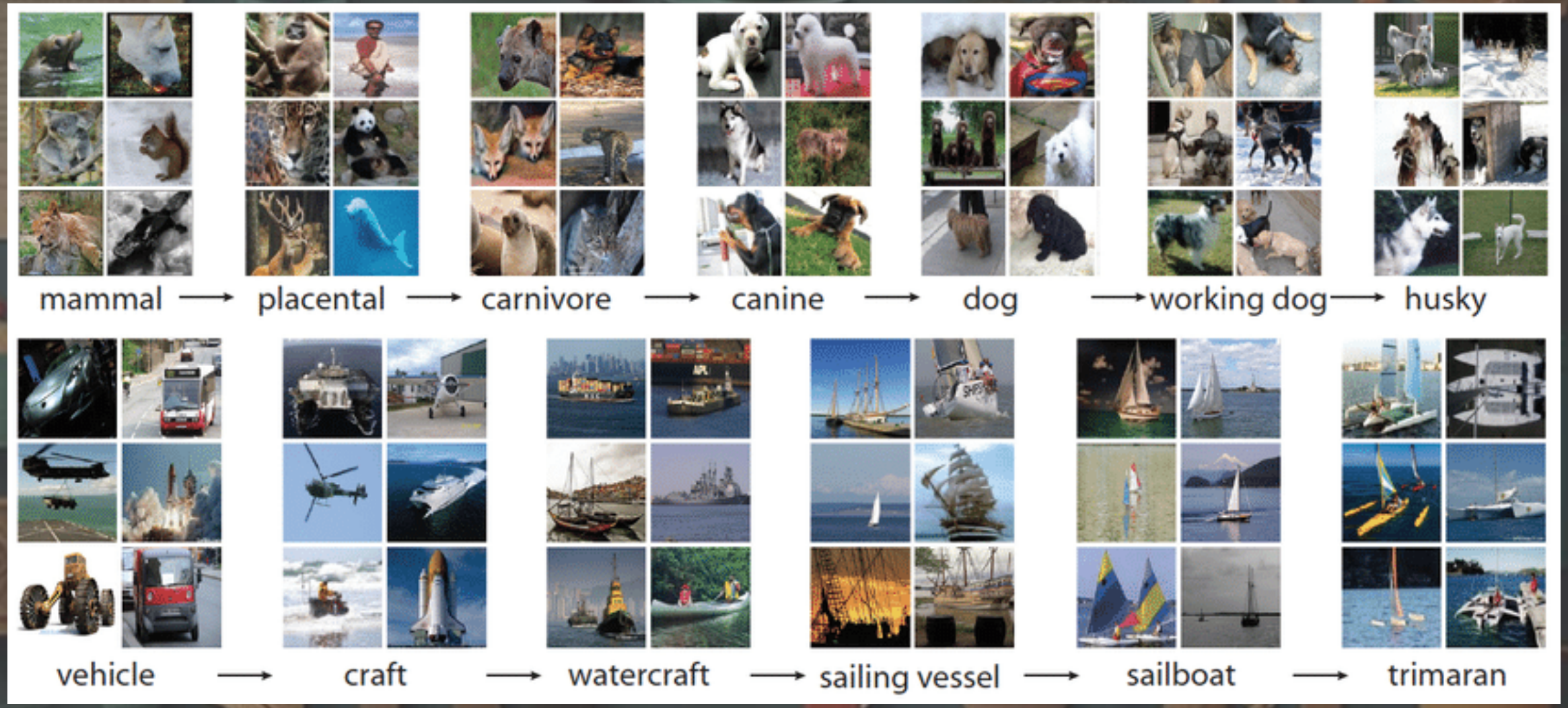
By Brooke Steinberg | April 3, 2023 | 9:11am | Updated

'The Godfather of A.I.' Leaves Google and Warns of Danger Ahead

GENERATIVE ART

LARGE LANGUAGE MODEL PLUS TAGGED IMAGE DATASETS

ImageNet: 14 million tagged images

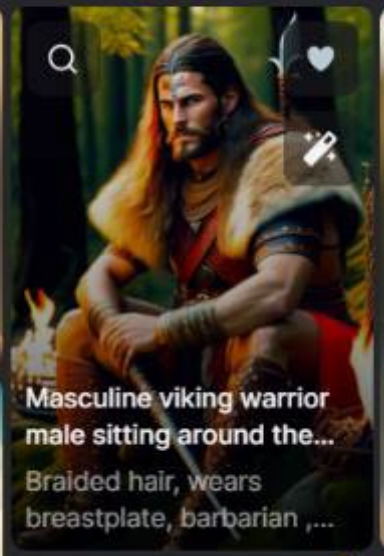


GENERATIVE ART

TEXT TO IMAGE AND PROMPT ENGINEERING

Astronaut playing basketball with cats in space

Realistic detailed face portrait of a handsome futuristic viking warrior in alien cyberpunk armor by ***alphonse mucha, ayami kojima, amano, greg hildebrandt,*** *and* ***mark brooks,*** *male, masculine, art nouveau, cyberpunk, neo - gothic, gothic, character concept design*


Masculine viking warrior male sitting around the...
Braided hair, wears breastplate, barbarian ,...

GENERATIVE ART

TEXT TO IMAGE

Artist’s studio overlooking Brooklyn, interior, highly detailed, digital painting

GENERATIVE ART

FINE ART, COMMERCIAL ART

Théâtre D’Opéra Spatial by Jason M. Allen

GENERATIVE ART

GRAPHIC DESIGN

GENERATIVE ART

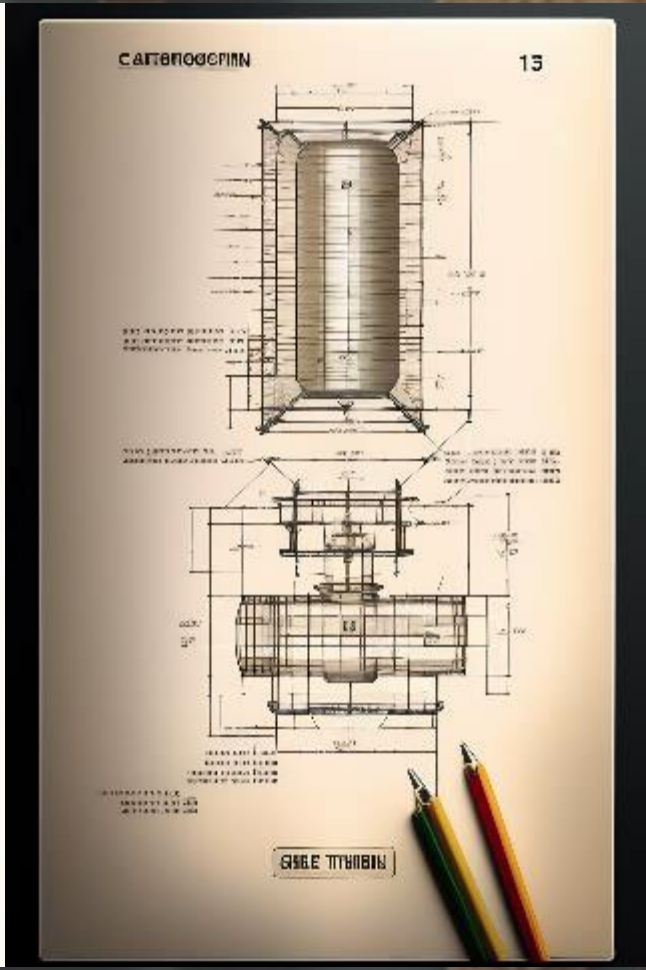
PHOTOGRAPHY

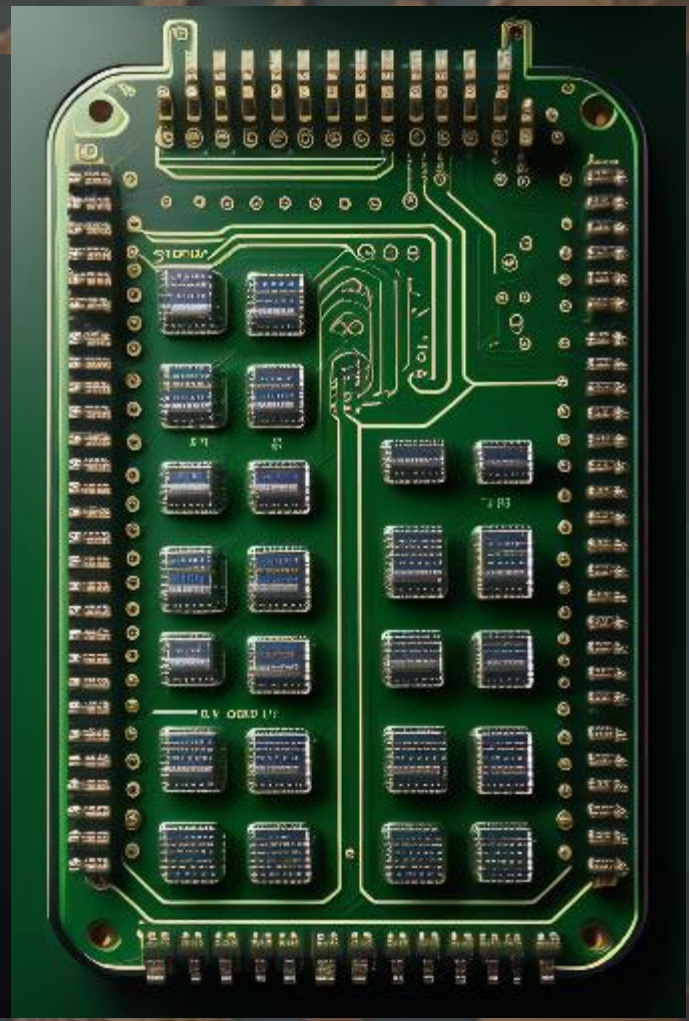
GENERATIVE ART

PACKAGE DESIGN

GENERATIVE ART

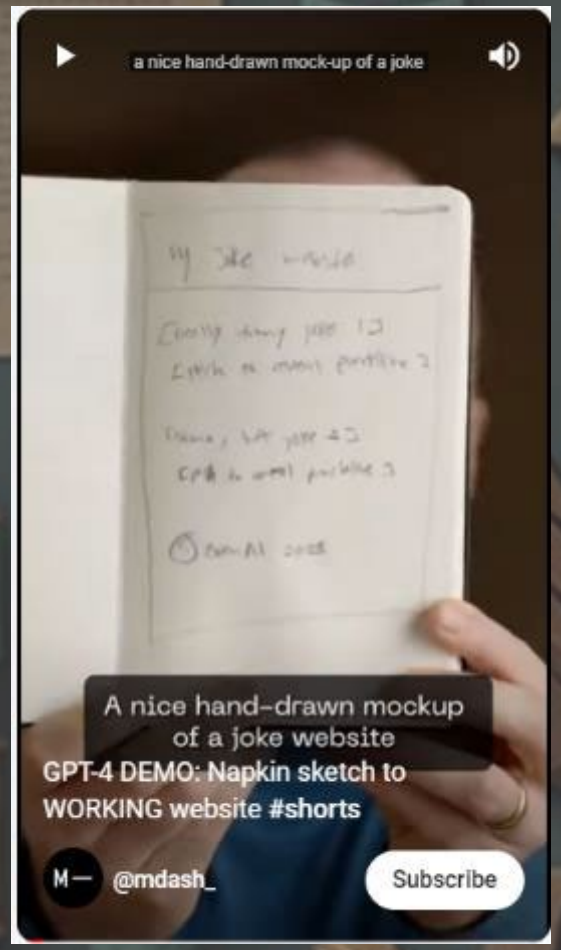
ILLUSTRATION

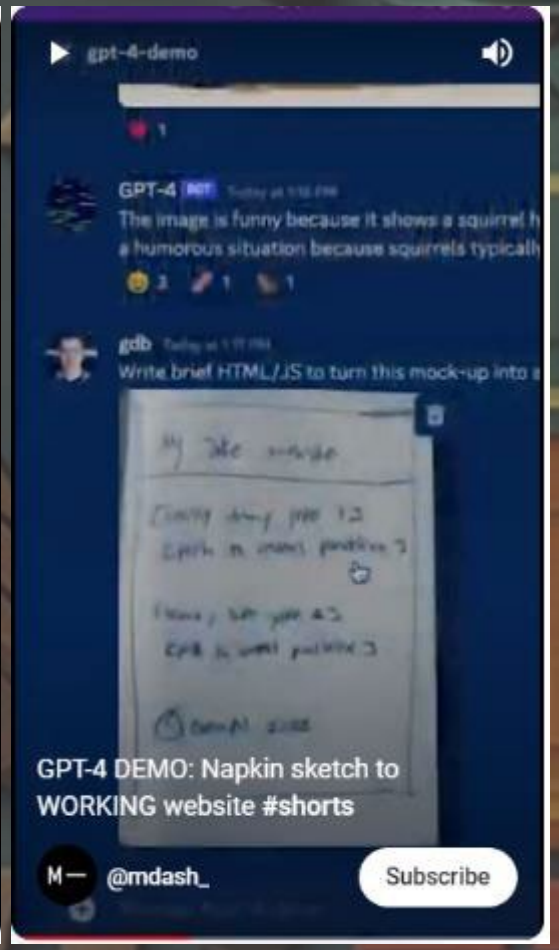


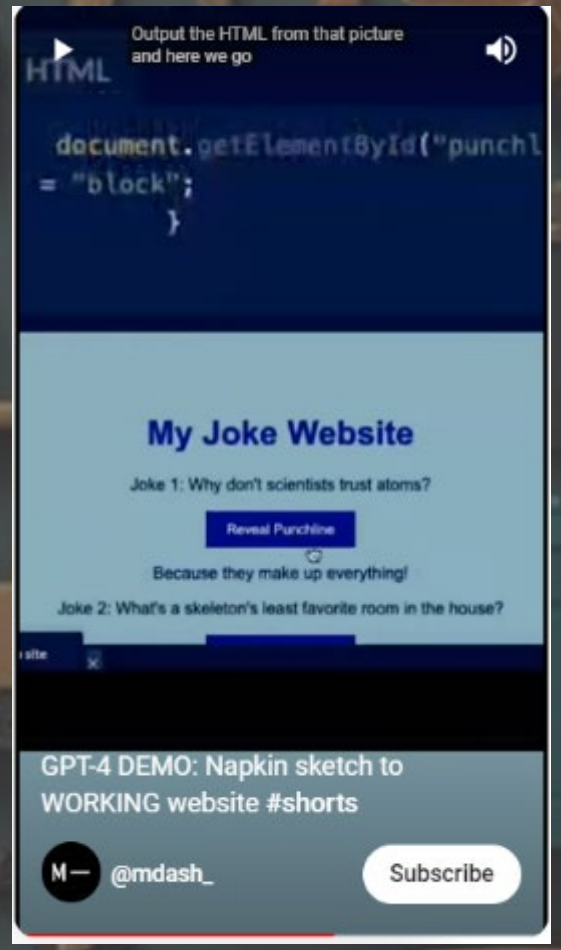


GENERATIVE ART

WEB DESIGN

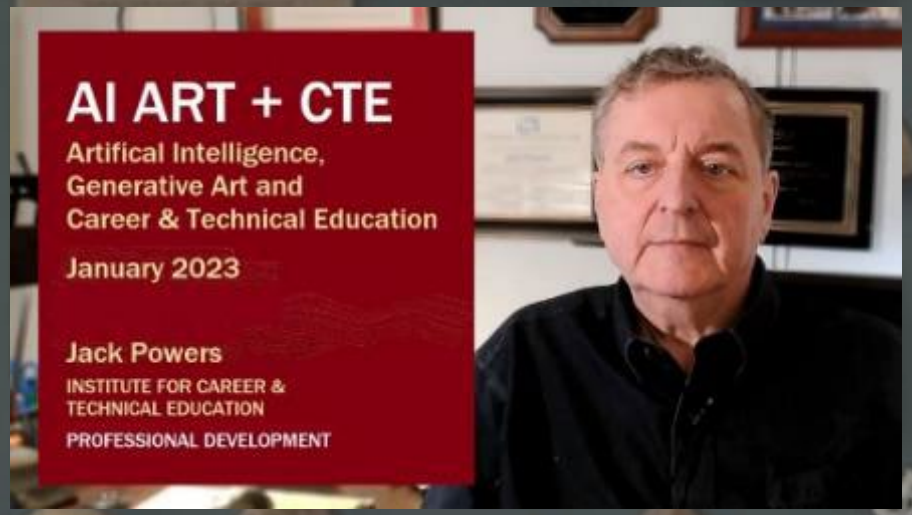


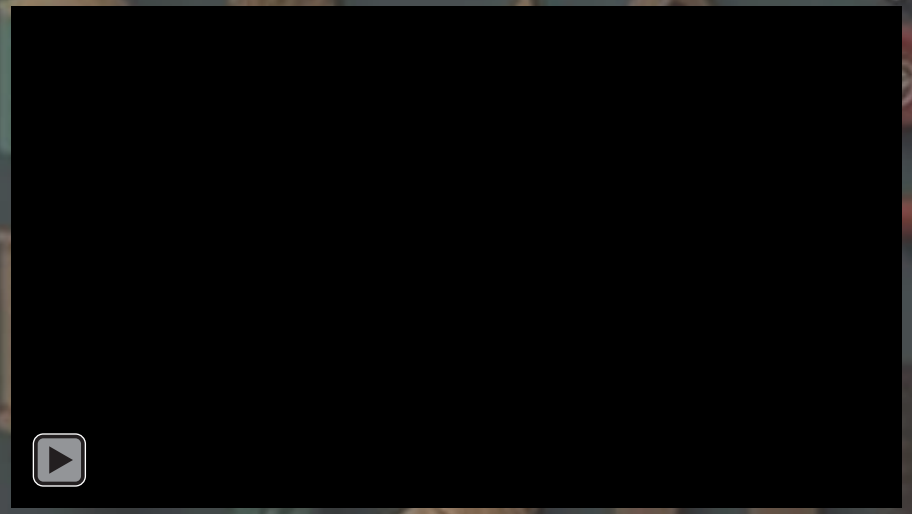




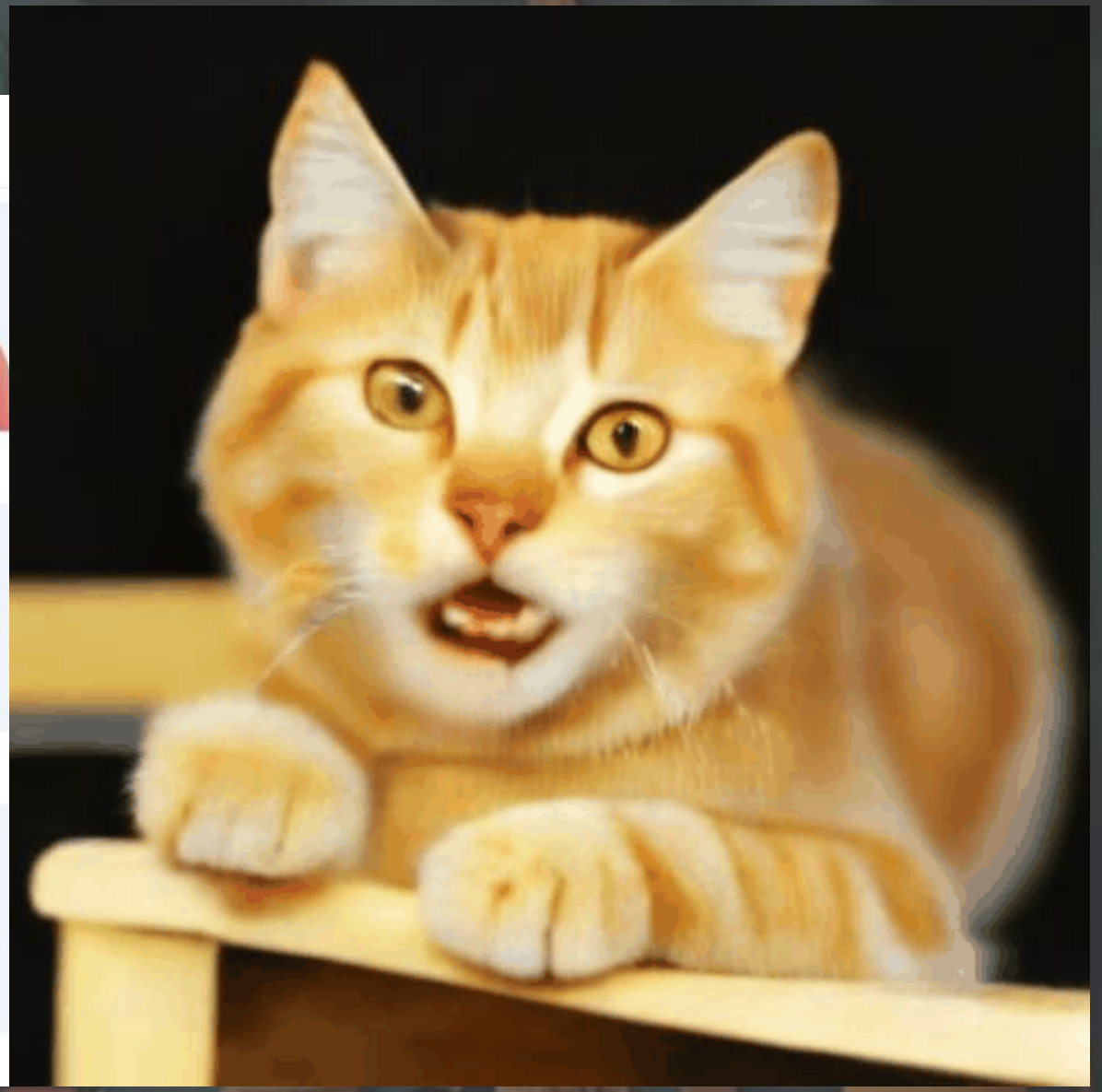
GENERATIVE ART

VIDEO PRODUCTION



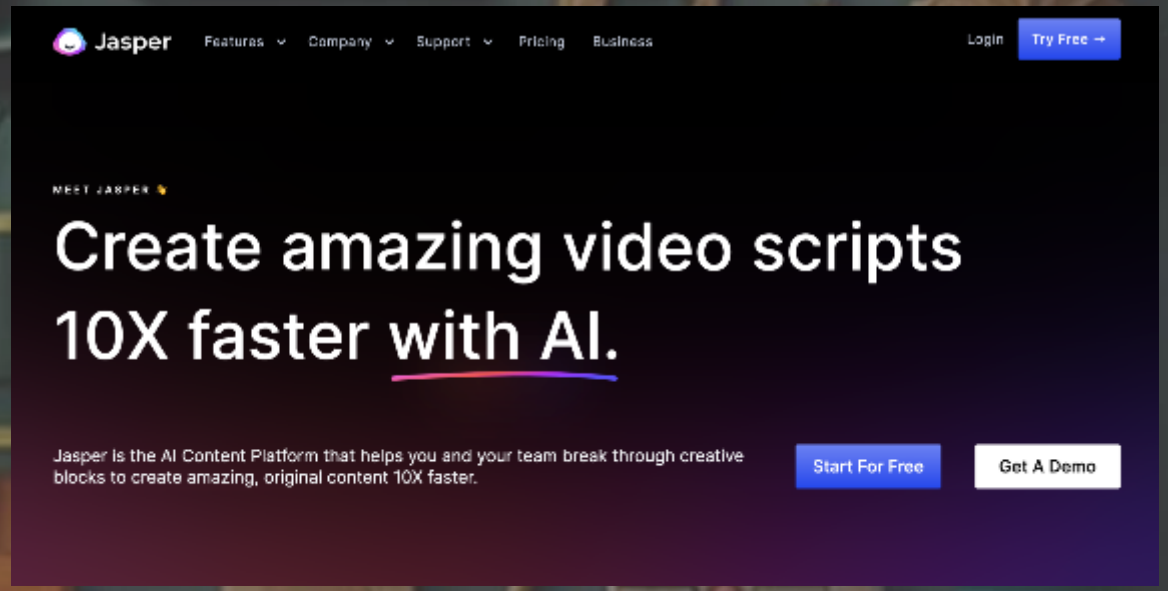


"A fat cat meowing"



GENERATIVE ART

FILMMMAKING

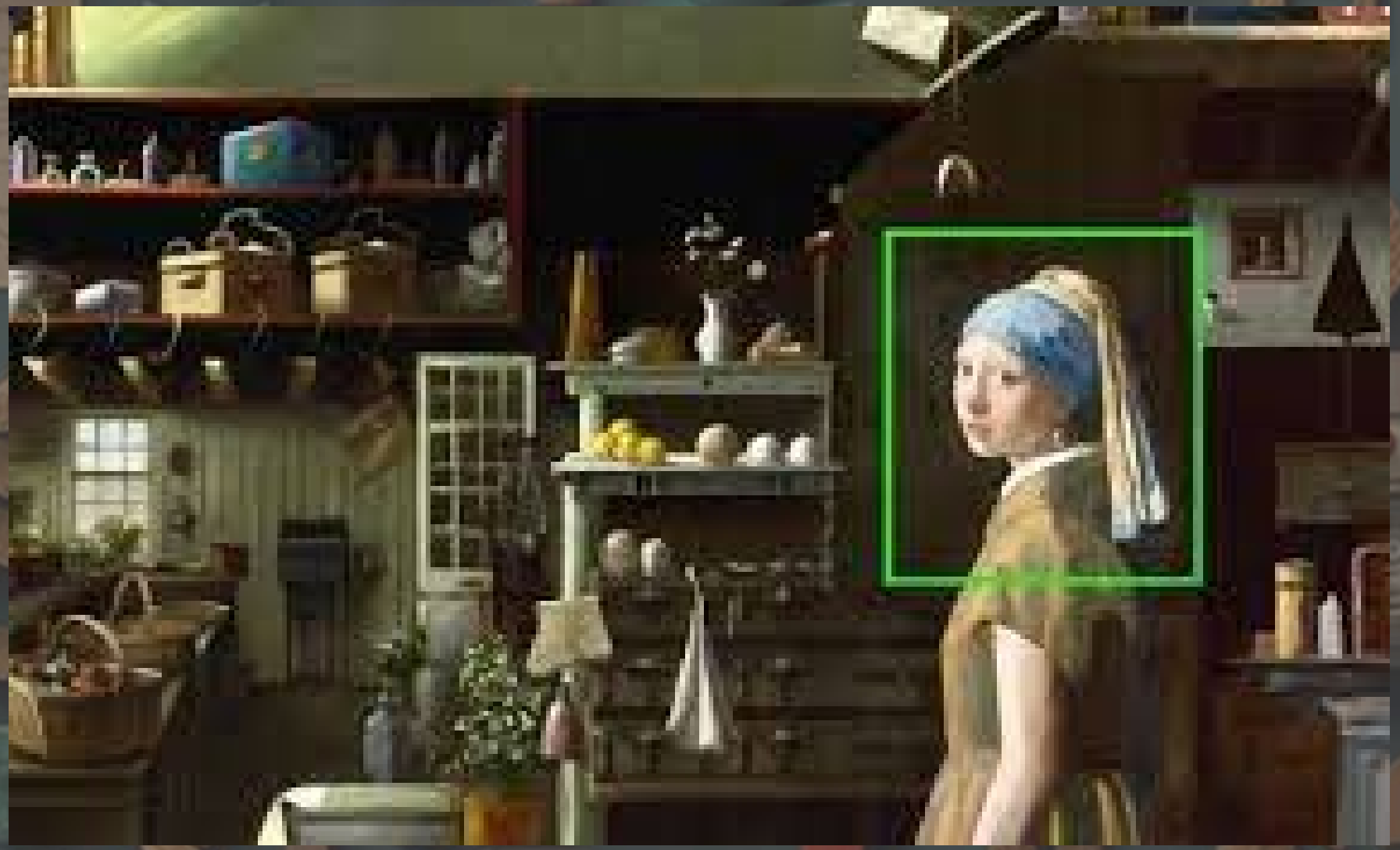


GENERATIVE ART

IMAGE INTELLIGENCE

GENERATIVE ART

IMAGE INTELLIGENCE



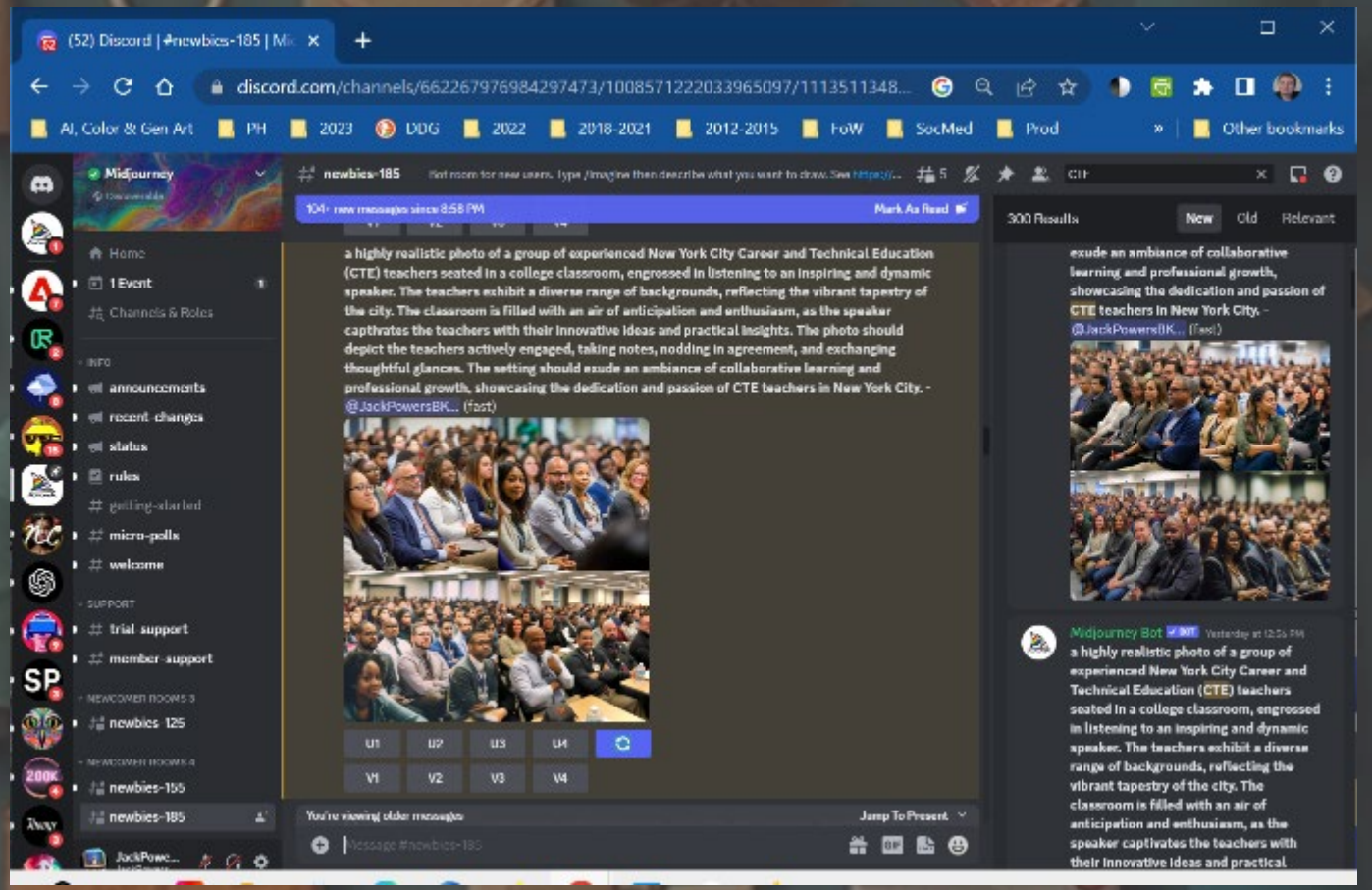
KEY PLAYERS

OpenAI

DALL·E 2

ChatGPT

GPT-4



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GENERATIVE ART

GETTING ART PROMPTS FROM GPT4

DALL·E History Collections

Edit the detailed description

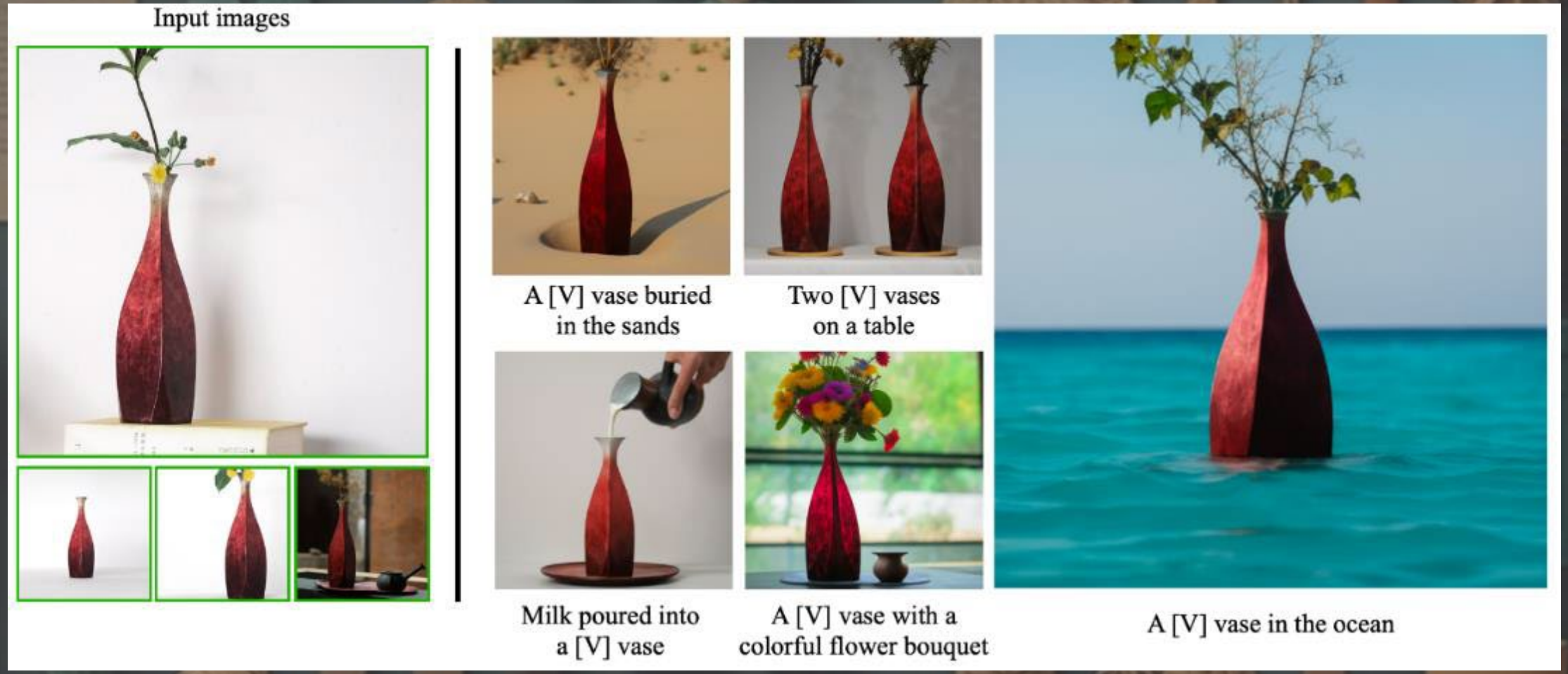
Surprise me Upload

Generate a highly realistic photo of a group of experienced New York City Career and Technical Education (CTE) teachers seated in a c

Generate

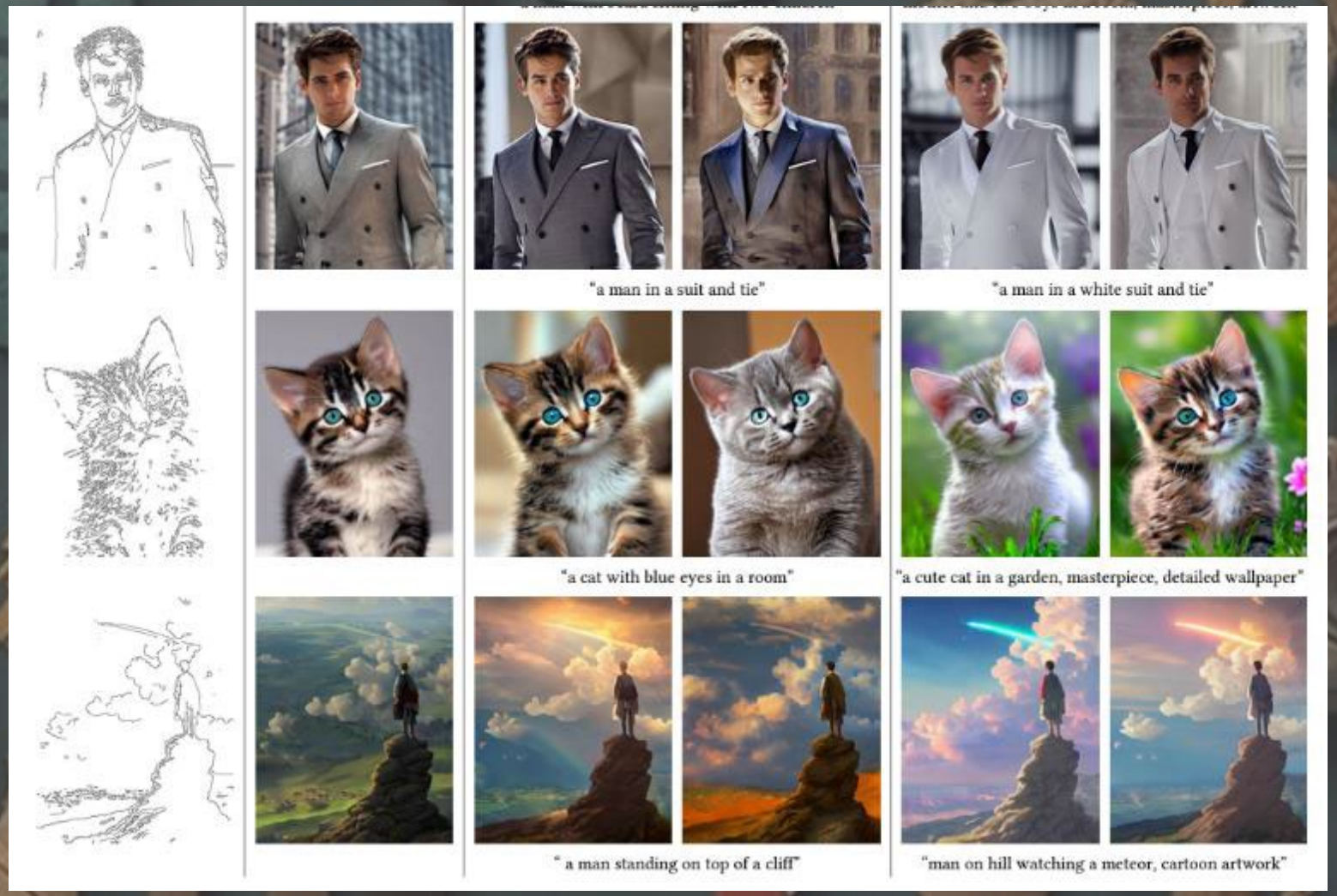
GENERATIVE ART

IMAGE-TO-IMAGE + TEXT PROMPTS



GENERATIVE ART

CONTROLNET POSE-TO-IMAGE + TEXT PROMPTS

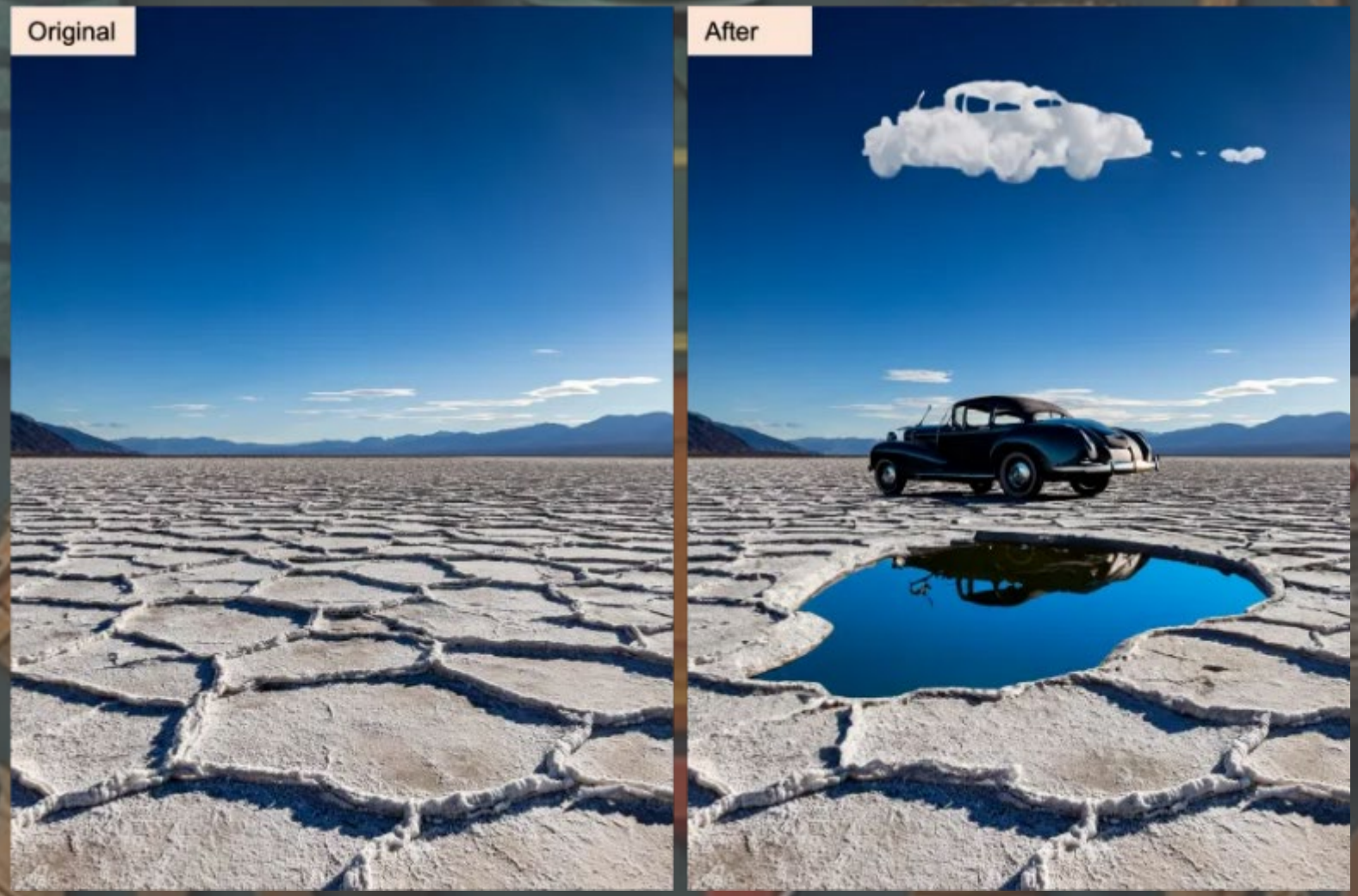


GENERATIVE ART

CONTROLNET SKETCH-TO-IMAGE + TEXT PROMPTS

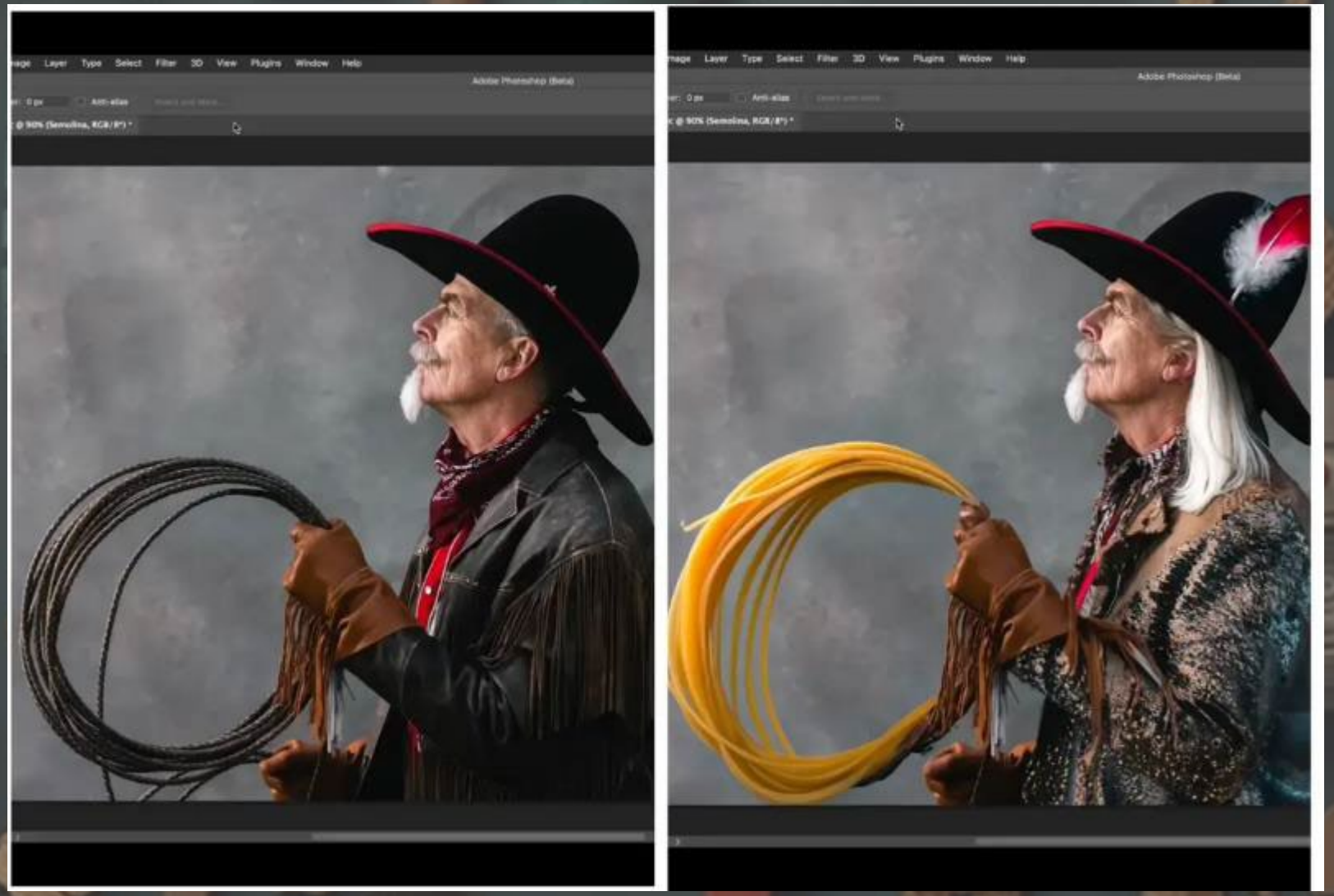
GENERATIVE FILL

ADOBE PHOTOSHOP



GENERATIVE ART

ADOBE PHOTOSHOP



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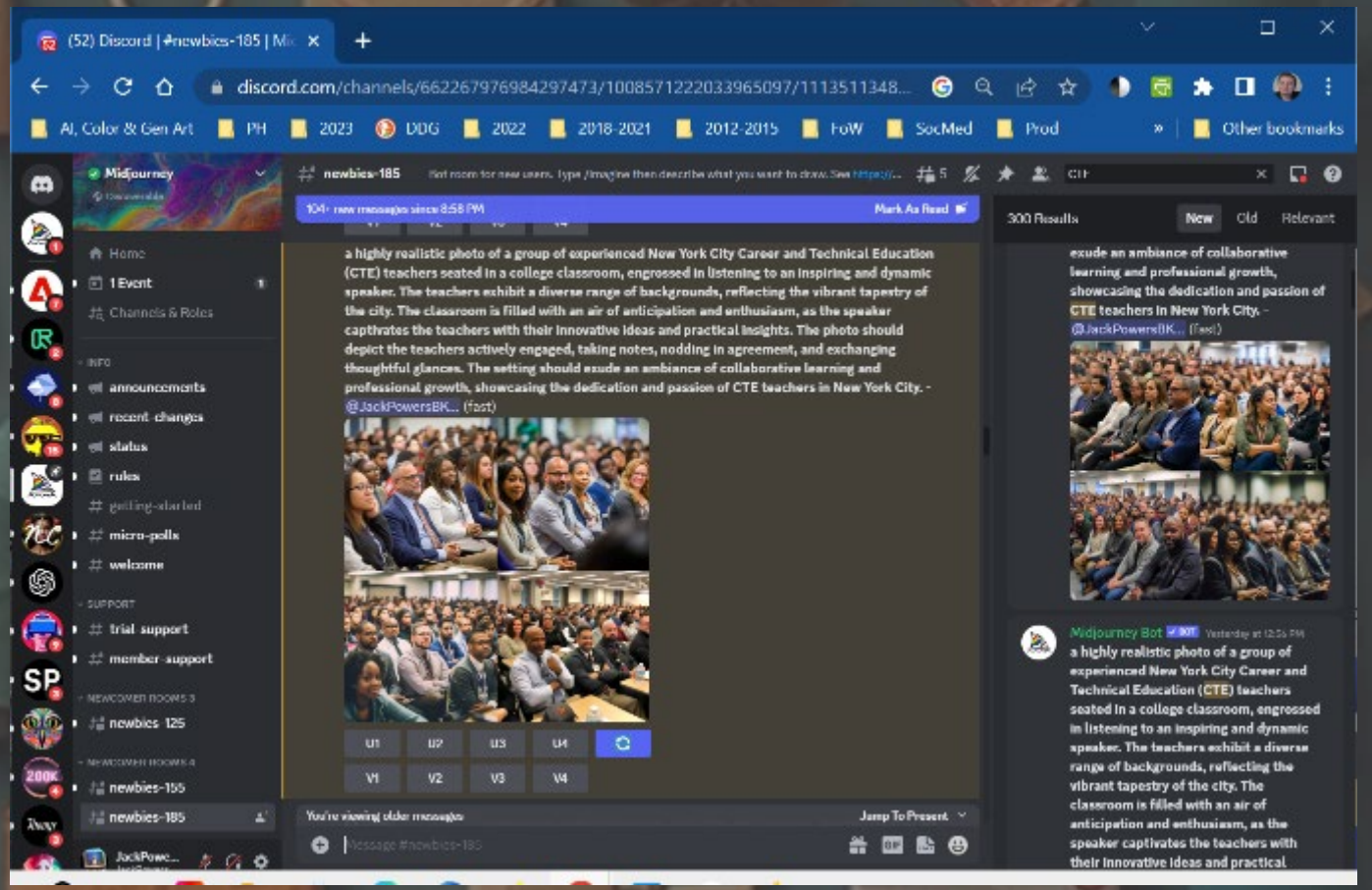

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