



AI & ART, WHAT IS HAPPENING?

by Gianluca Guglielmo

TOPICS COVERED

AI - A BRIEF OVERVIEW

GENERATIVE AI

IS AI ART, ART?

AGENDA

AI - A BRIEF OVERVIEW

WHAT IS A?



Are these AI?

"AI is the science and engineering of making intelligent machines, especially intelligent computer programs"

NARROW VS GENERAL AI

Narrow AI:
trained for **specific** tasks.



Self-driving cars



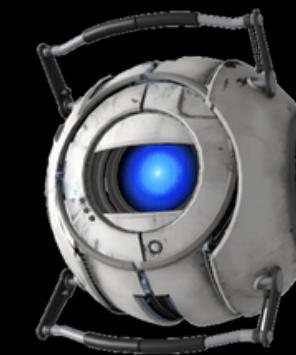
Recommender
systems



Game engines



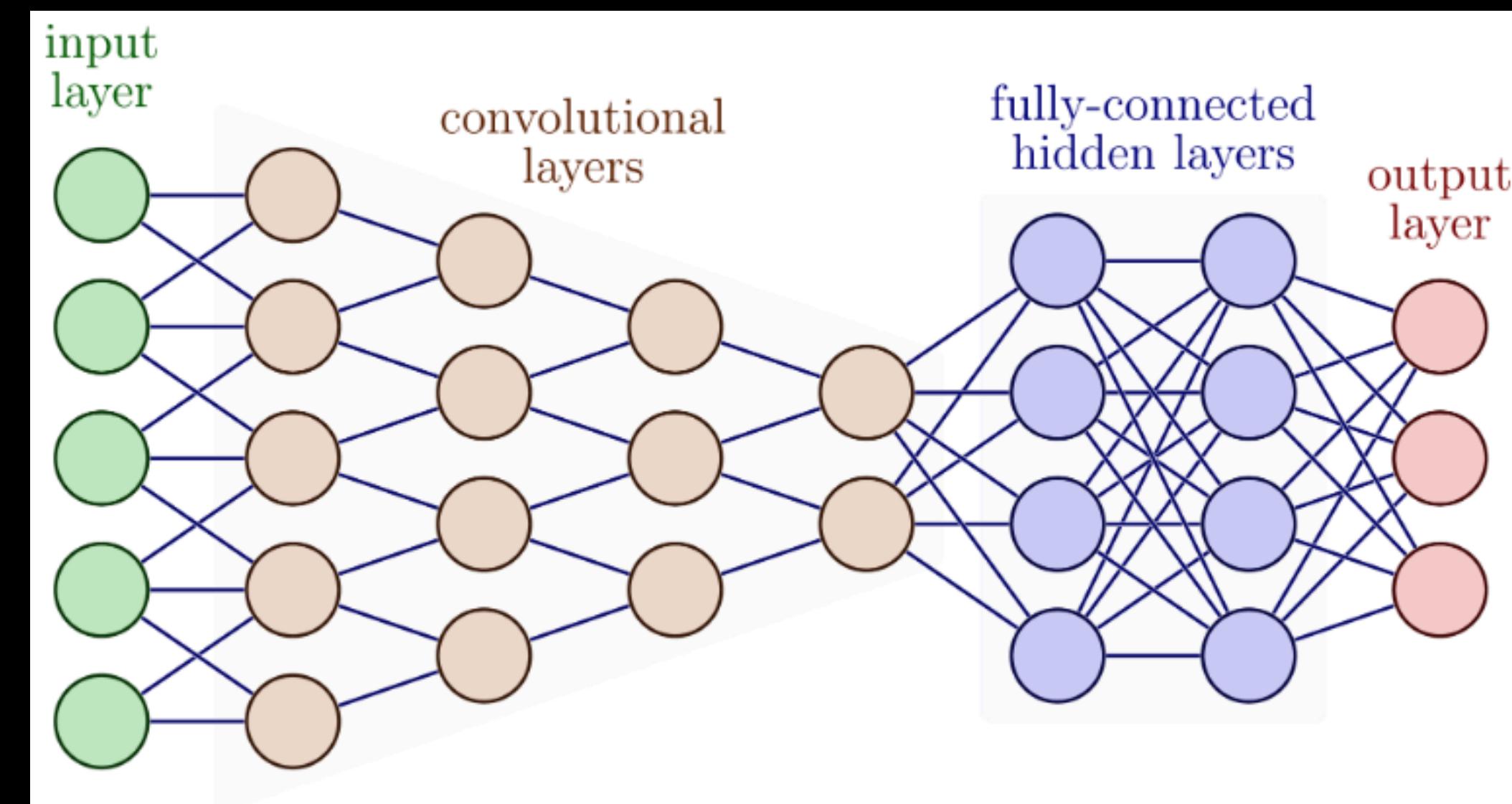
Generative AI



Wheatley from Portal

General AI:
multiple functions,
self-consciousness (?)

NEURAL NETWORKS

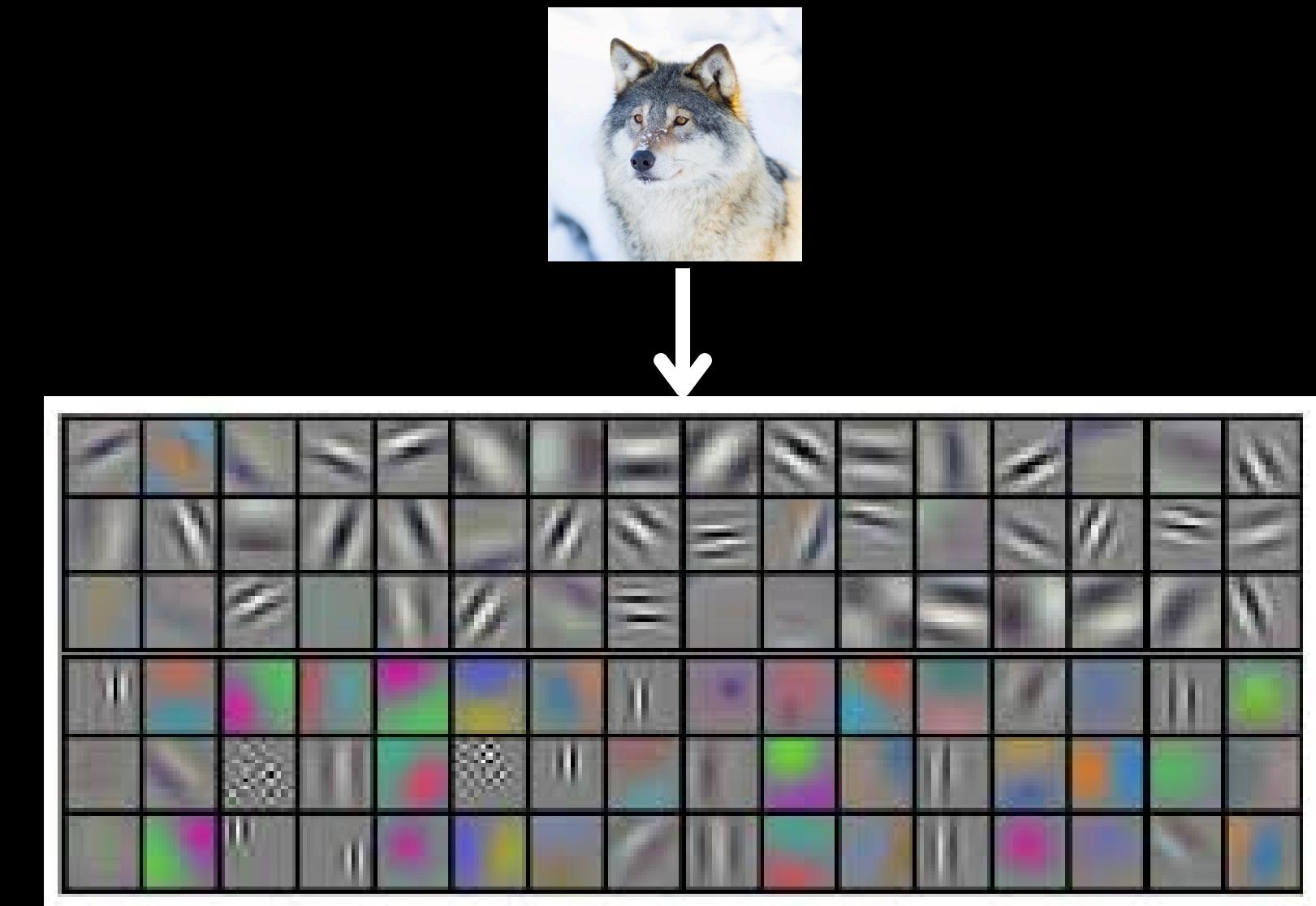


The building block of modern AI

NEURAL NETWORKS



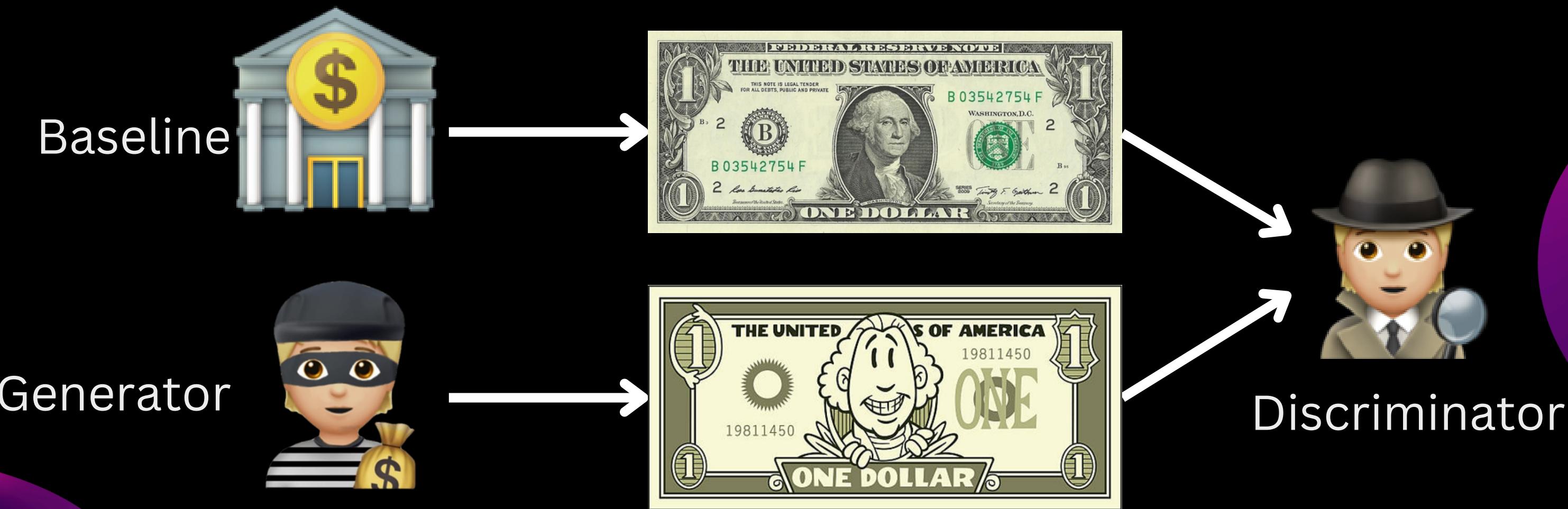
Siberian husky or wolf?



"Clearly a wolf"

GENERATIVE AI

GENERATIVE ADVERSARIAL NETWORKS



SUPER-RESOLUTION



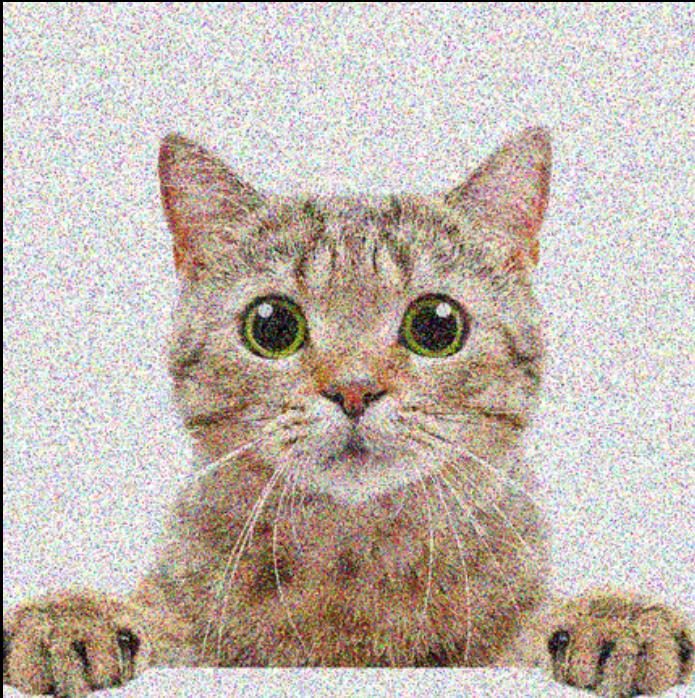
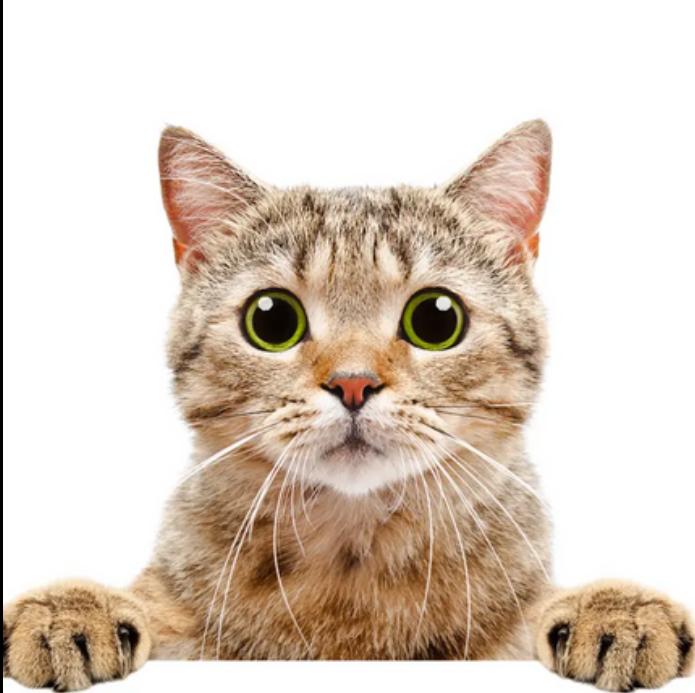
Original
(low resolution)



Recreated
(higher resolution)

DIFFUSION MODELS

Denoising



Adding noise

A CLEAR EXAMPLE

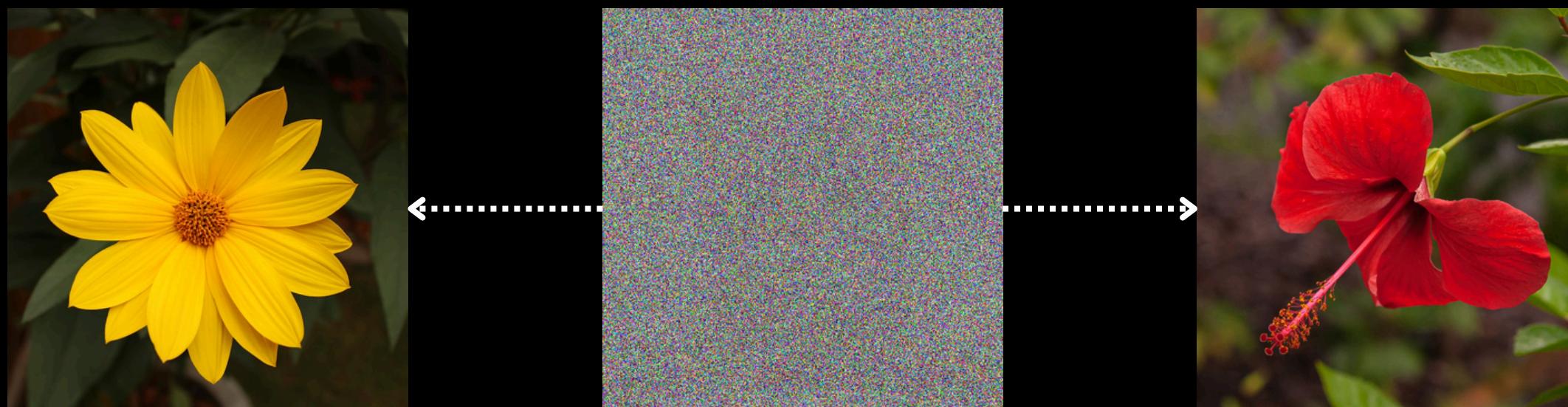


Noisy



Denoised

DIFFUSION MODELS

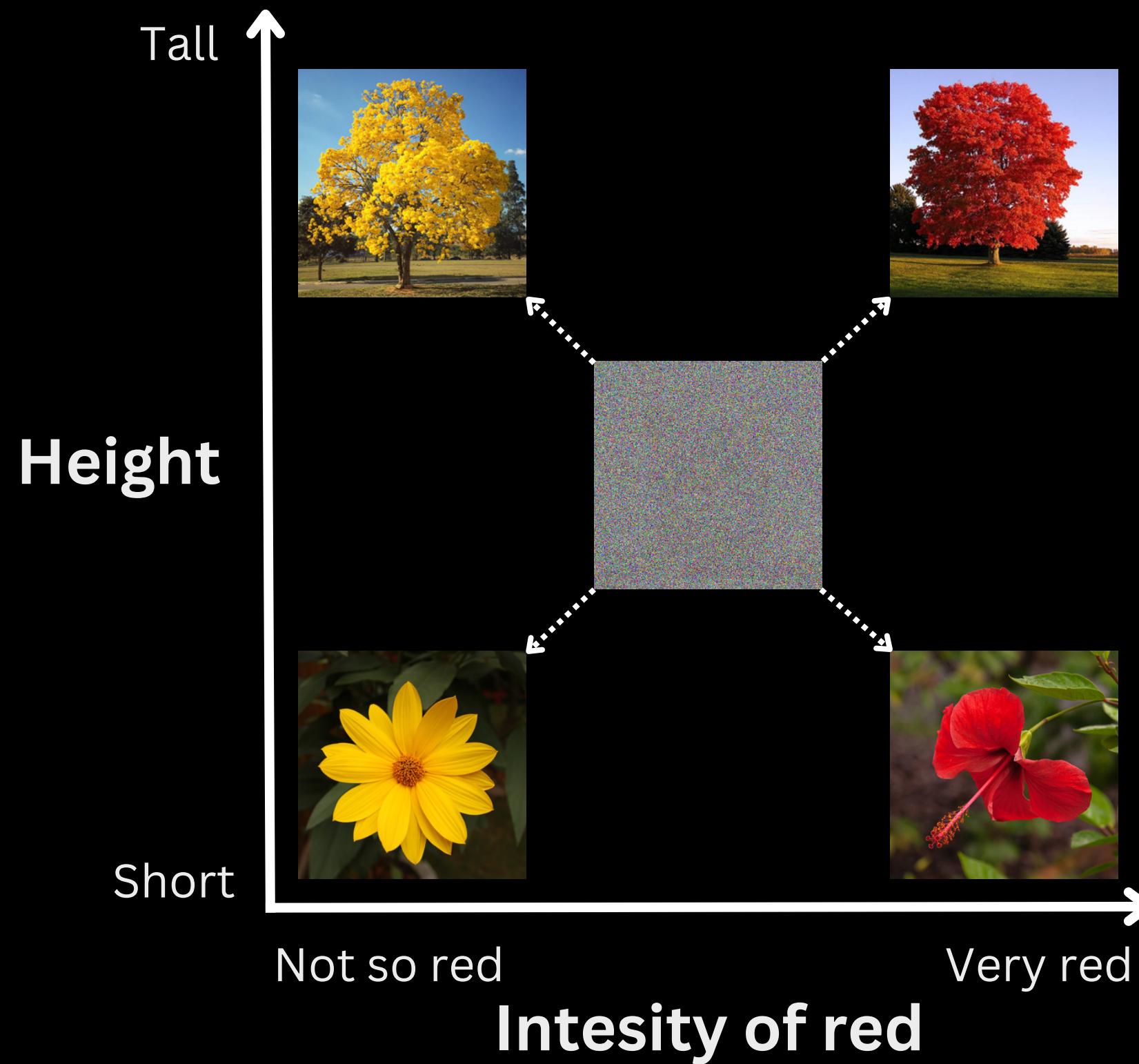


Not so red

Very red

Intensity of red

DIFFUSION MODELS



DIFFUSION MODELS



Da vinci-esque

Warhol-esque

Artistic style

OUTPAINTING

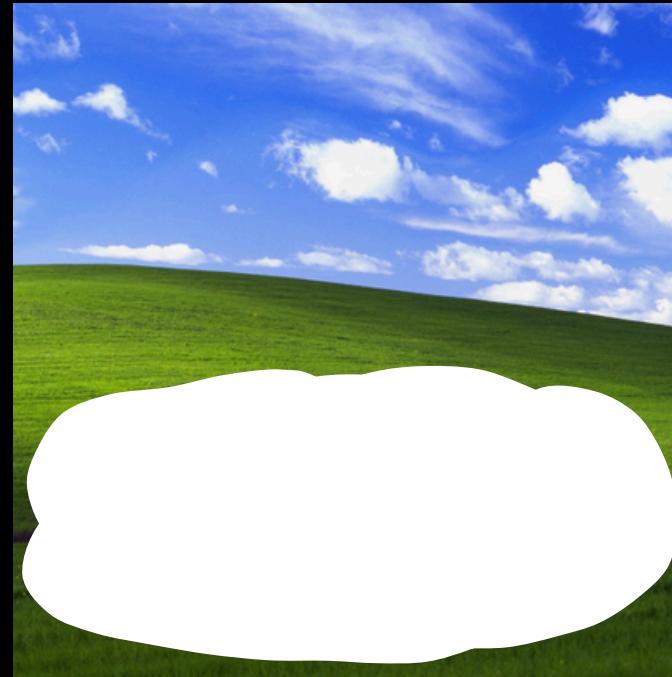


Cassius Marcellus Coolidge, A Friend in Need

INPAINTING



Original



User-provided
erasing
+

A Finnish metal band

User-provided
description



Recreated

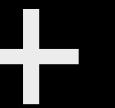
IMAGE VARIATION



Original



Add noise

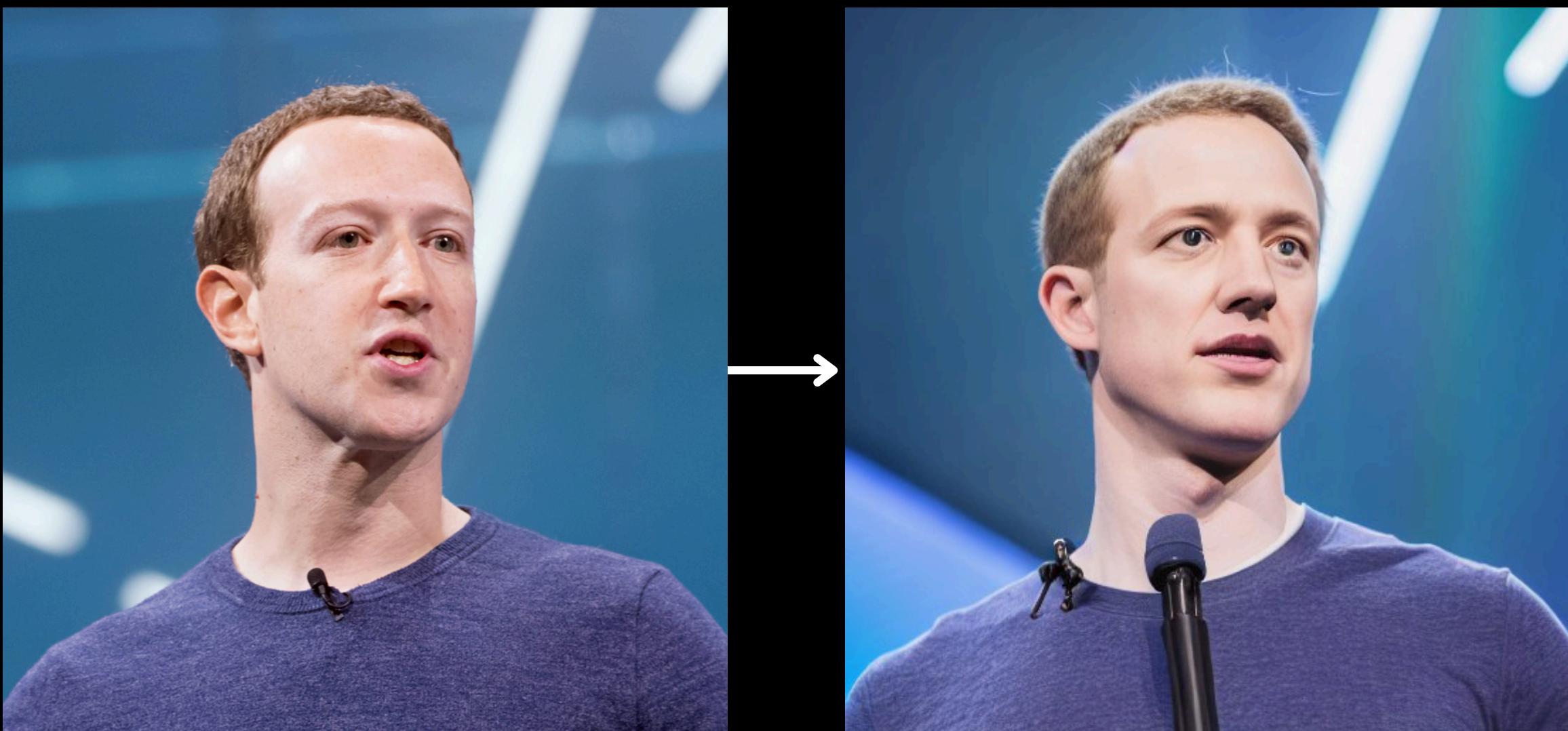


Recreation

Description

a person holding a banana in front of a group of people, attack on titans, her skin is light brown, self deprecating, wearing a general's uniform, everything is in balance, anthropomorphic cheese wedge, meme format, prosthetic, potatoes, one panel

IMAGE VARIATION



Original

Recreated

IMAGE VARIATION WITH USER PROMPT



Original

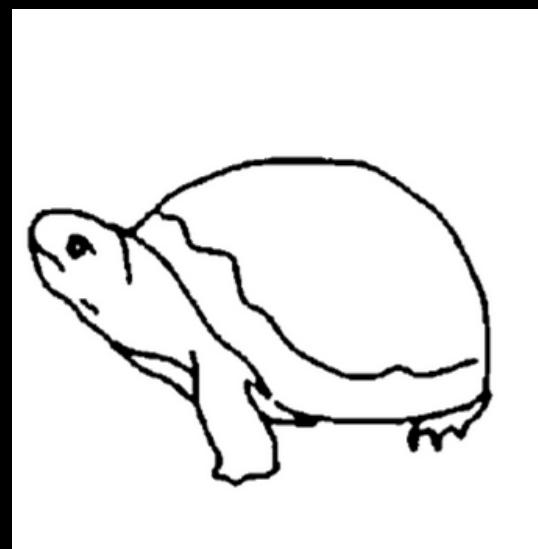
A Michelangelo Statue

User-provided
description



Recreated

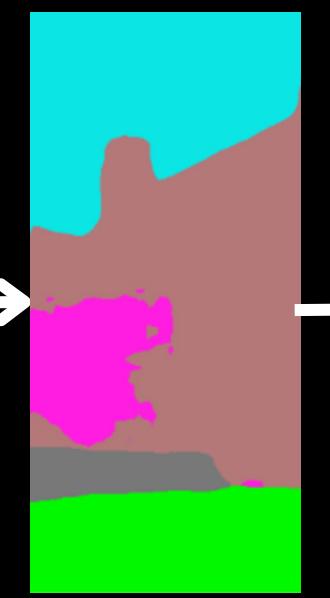
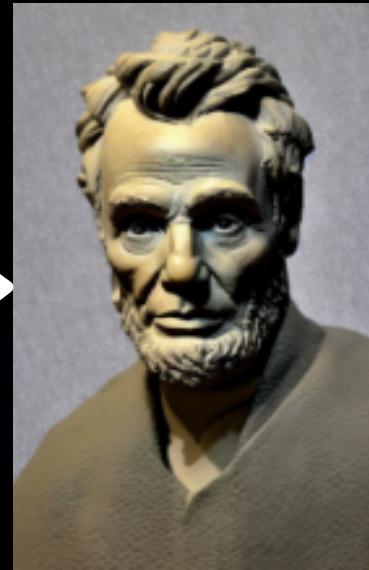
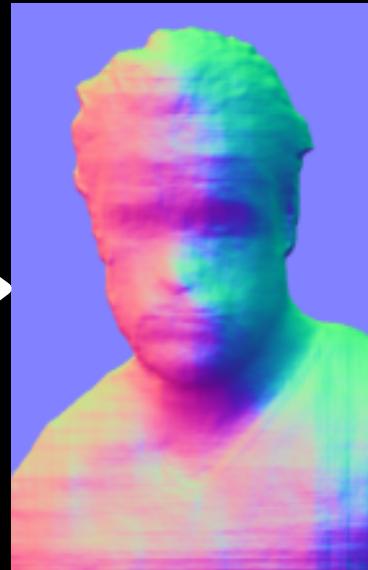
INTERPOLATION



Skribble map



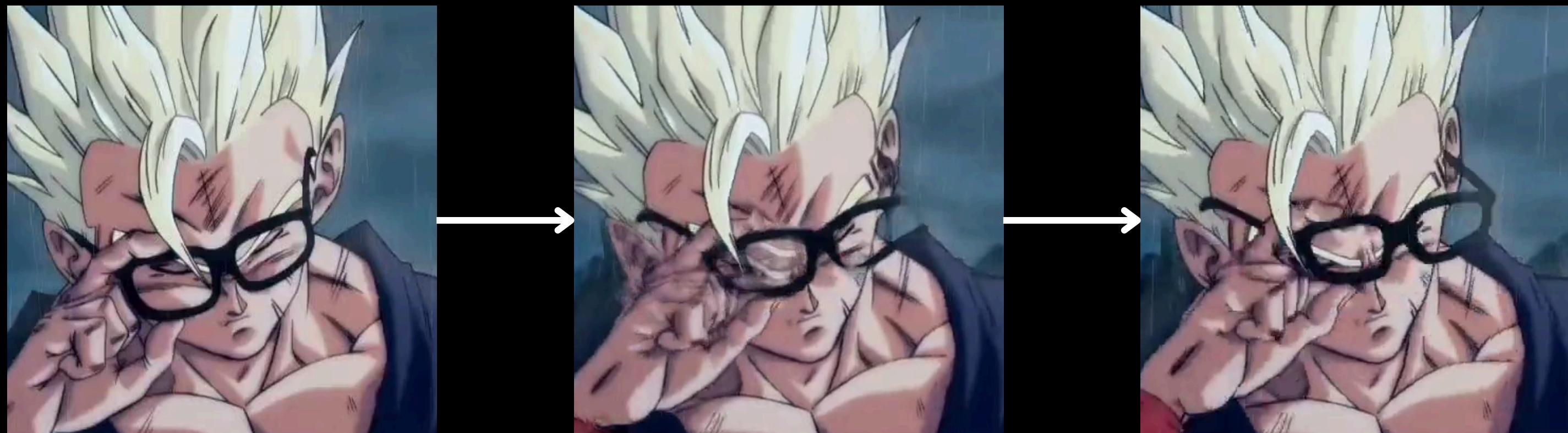
Pose map



Normal map

Segmentation map

FRAME INTERPOLATION

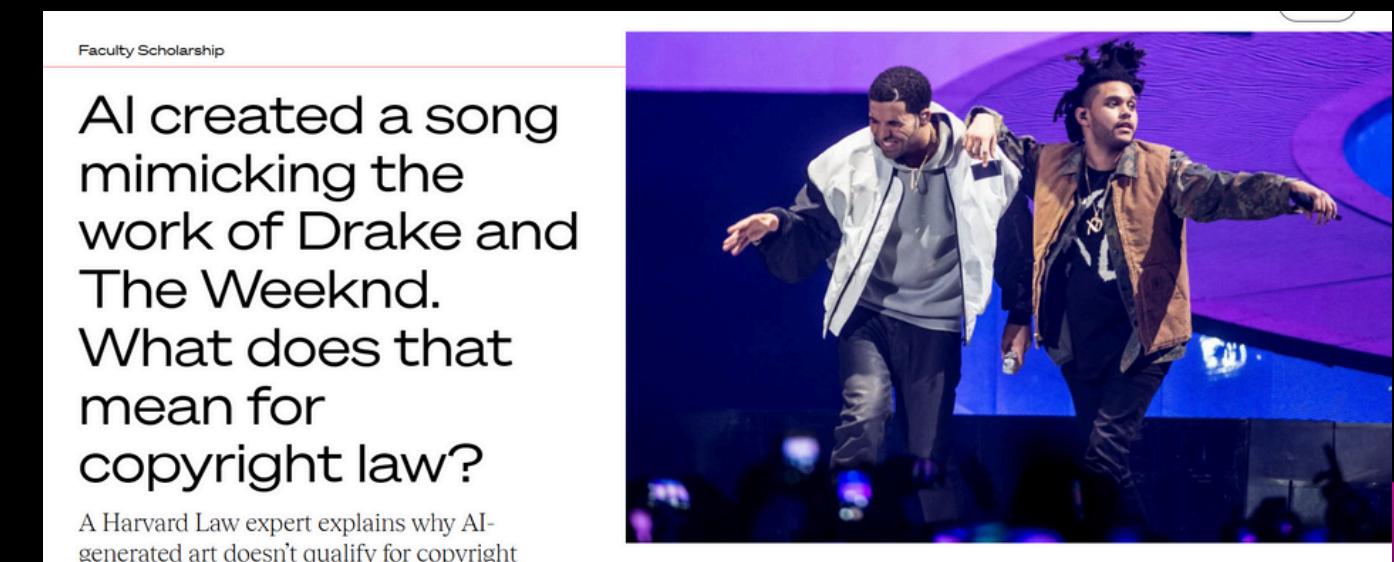


Frame 1
real

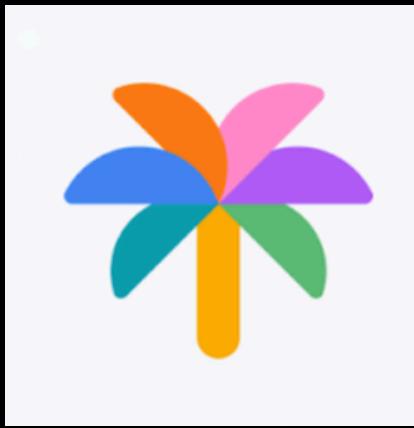
Frame 2
interpolated

Frame 3
real

MUCH MORE!



Video generation



Language models

Music generation



Programming aid

PROGRAMS & ALGORITHMS



rb.gy/g09sk

THE LAW

Lawsuit Filed Against AI Image Generators Stable Diffusion and Midjourney

JAN 17, 2023

MATT GROWCOOT

ARTIFICIAL INTELLIGENCE / TECH / LAW

Getty Images is suing the creators of AI art tool Stable Diffusion for scraping its content

The Copyright Office will not register works whose traditional elements of authorship are produced solely by a machine, such as when an AI technology receives a prompt from a human and generates complex written, visual or musical works in response. According to the Office, in these cases, the AI technology, rather than the human user, determines the expressive elements of the work, making the generated material ineligible for copyright protection.



IS AI ART, ART?

RELATED QUESTIONS

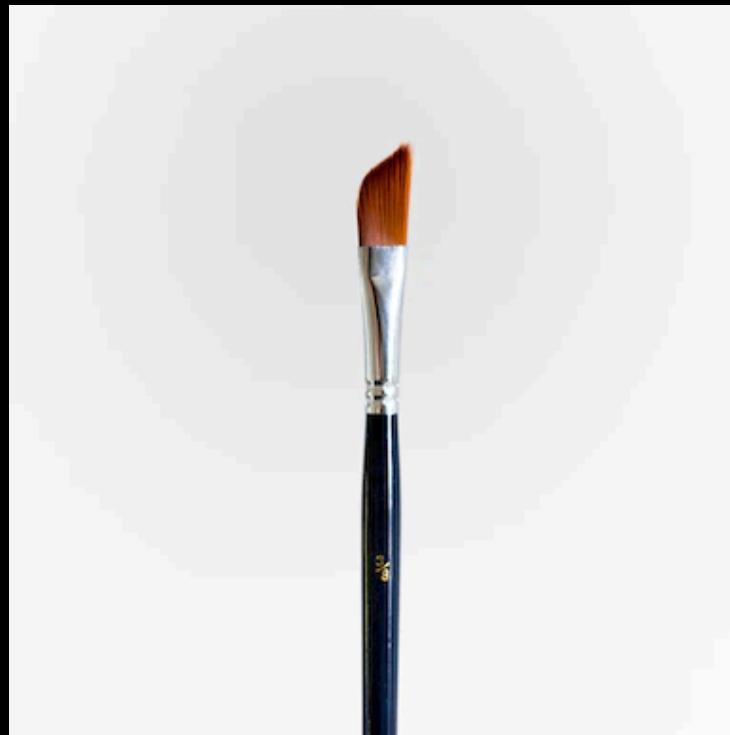
Is there creativity?

Is there uniqueness?

Is there skill?

Is there sensitivity?

HISTORICAL TECHNOLOGIES



Brush



High manual skill



Camera



Photoshop



Midjourney

Manual skill



Low manual skill

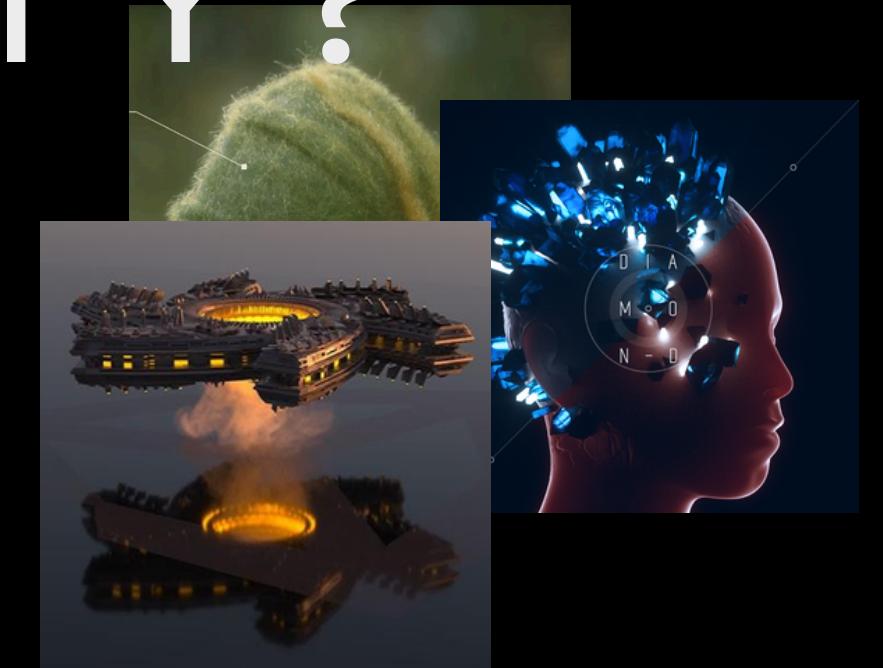
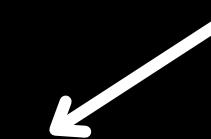
IS THERE CREATIVITY?



Steampunk



Steampunk cat, octane
render, hyper-realistic.



octane render

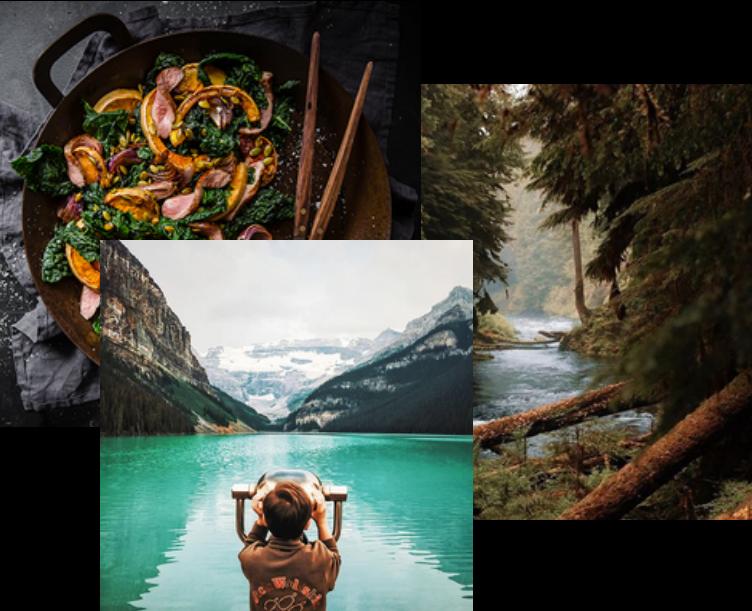


hyper-realistic

IS THERE UNIQUENESS?

Photography

Generic



Unique



AI generated
images



?

IS THERE SKILL?



Ideation

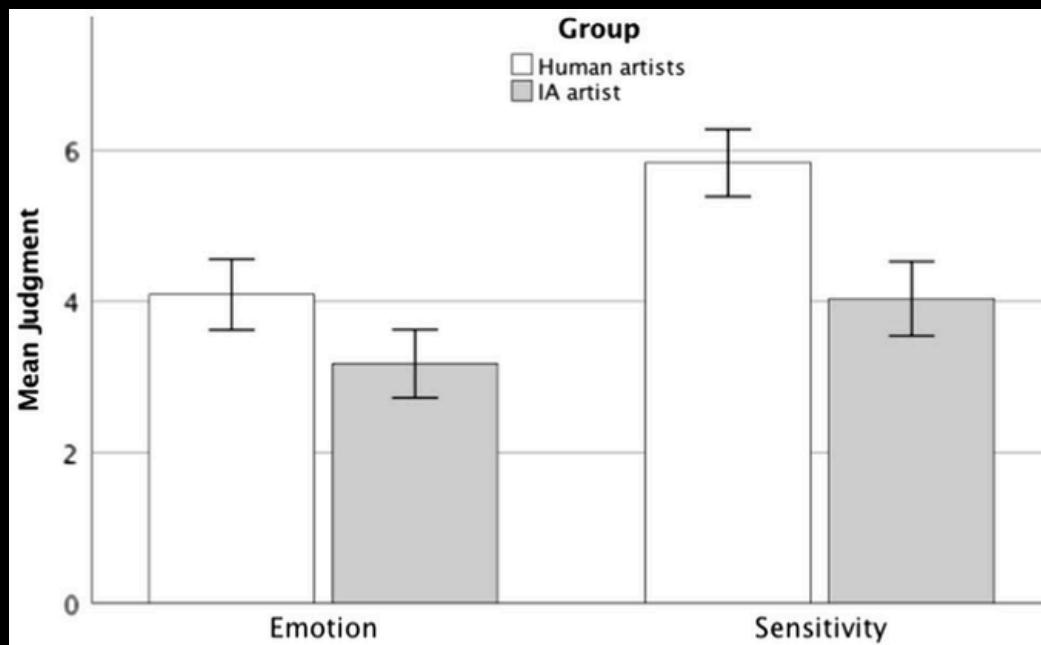
Big tree.



Huge sequoia, green
leaves, Friedrich style,
noon, bird nests...

Prompt engineering

IS THERE SENSITIVITY?



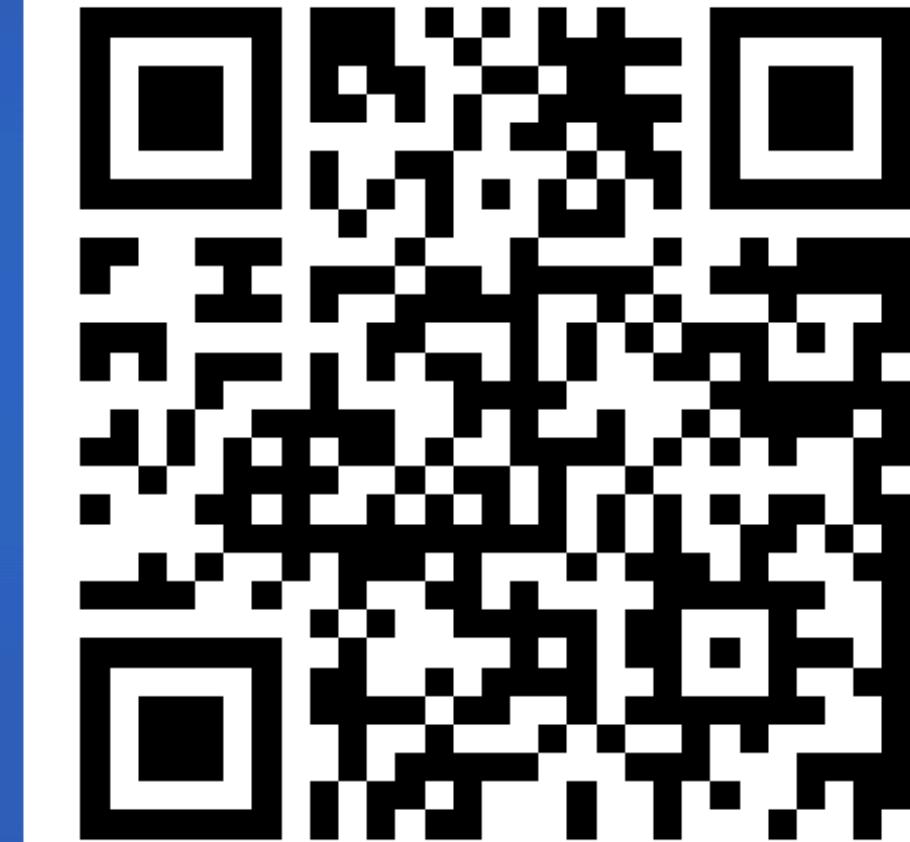
Assessing Emotion and
Sensitivity of AI Artwork



Boris Eldagsen's
award winning photo

WHAT DO YOU THINK?

Join at
slido.com
#8597 783



It's your time to shine

THANK YOU!