

+FO AI

Creative Practices

Critical Perspectives

2024

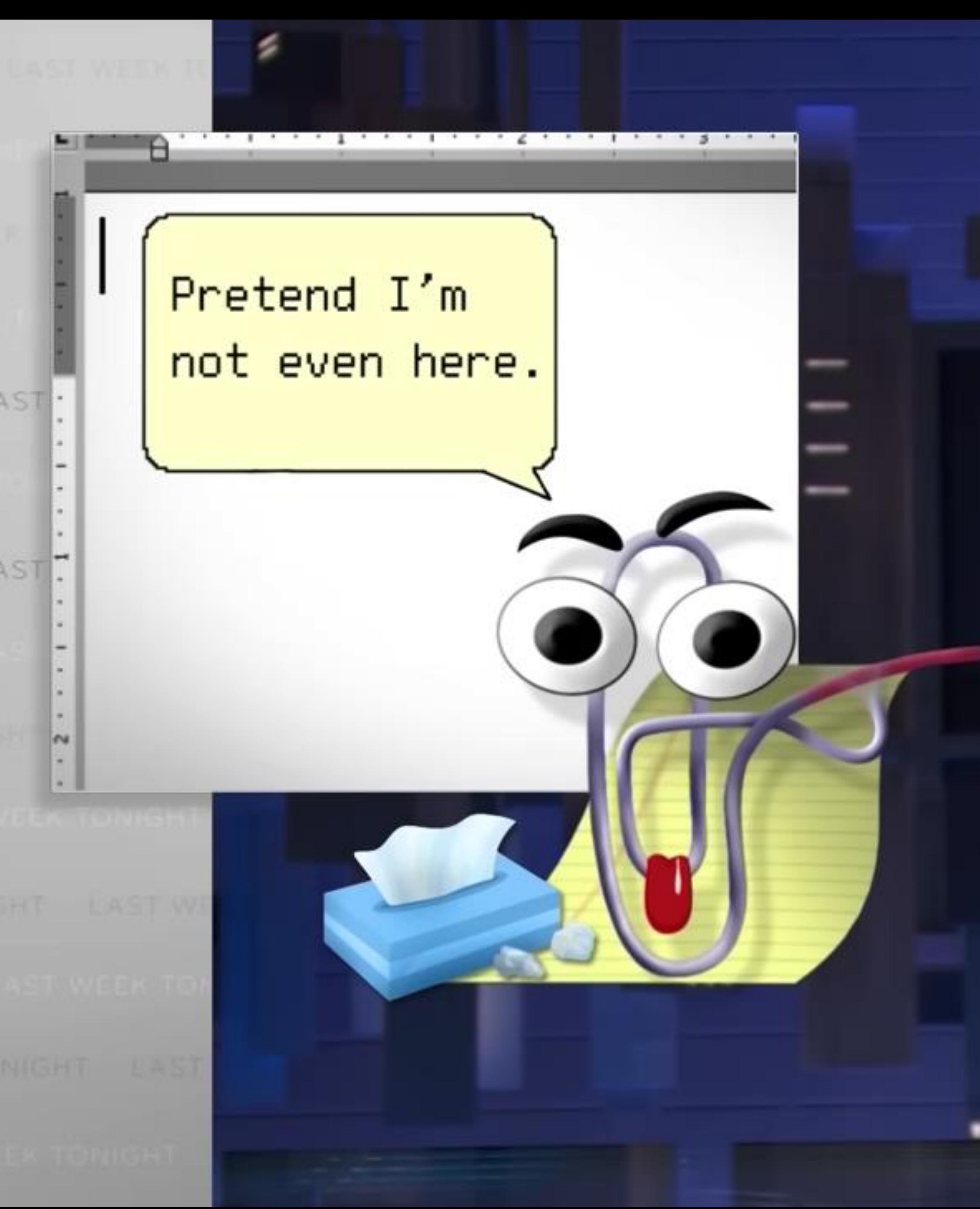
## Overview

- Gen what? Short history of Gen Models
  - Text
  - Audio
  - Img
- Focus on Image Gen - Status Quo
  - Concept
  - Techniques
- Why we create?
  - Motivations
  - Means
- How we create?
  - Steps
  - Rules
  - Creative Fools
  - To the metal
  - Workflow
- The bigger picture
  - Automation
  - Future?
  - Pros / Cons
- Learning... Why?
  - Discussion

→ “The problem with AI right now isn't that it's smart,  
it's that it's stupid in ways we can't always predict.”

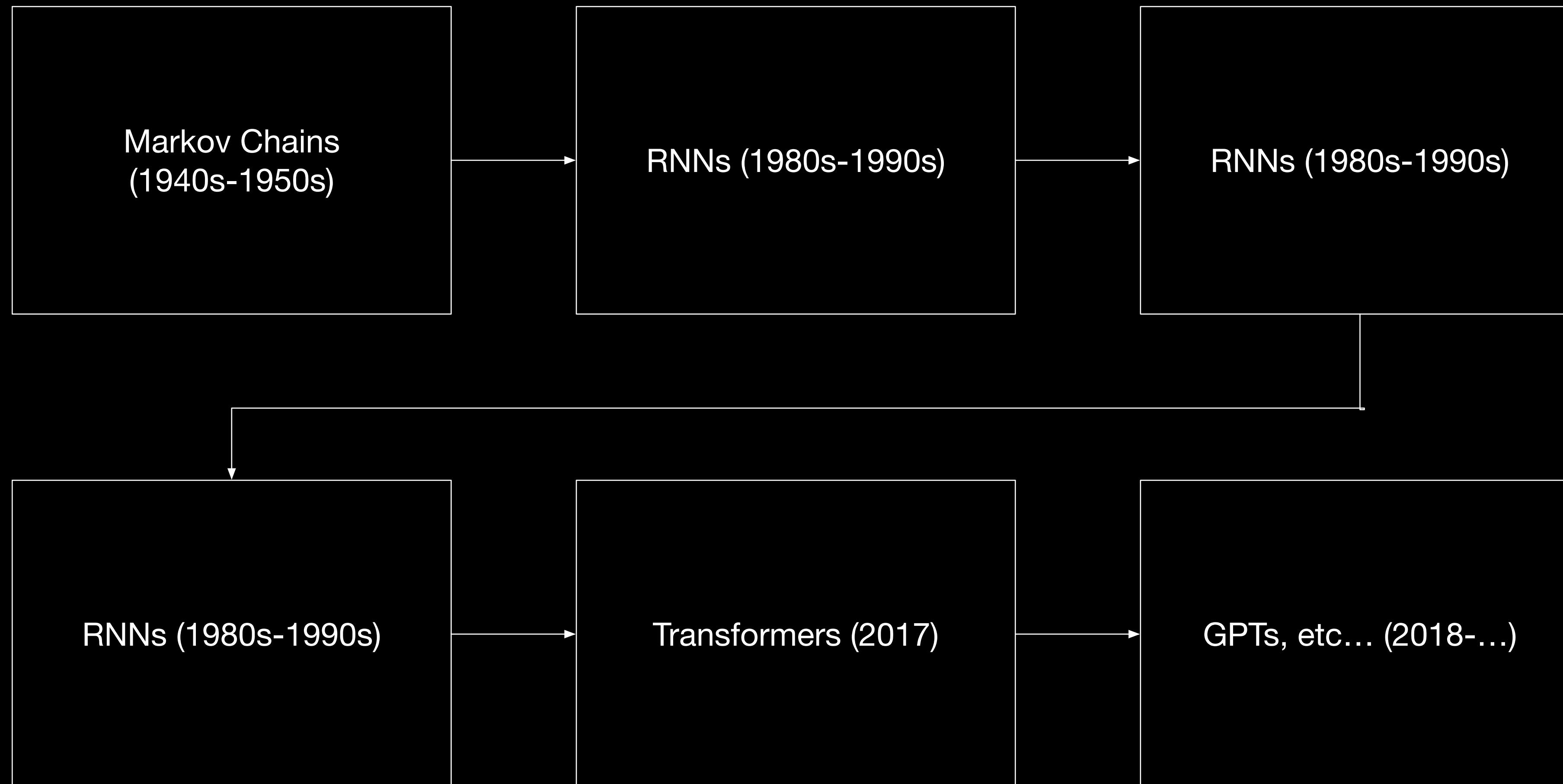
**John Oliver**

Pretend I'm  
not even here.



# → Gen Text

## Gen what? Short history of Gen Models - TXT



# Gen what? Short history of Gen Models - TXT

## Overview

- Introduction to Sequence Models
- Early Methods: Markov Chains (1940s-1950s)
- Recurrent Neural Networks (RNNs) (1980s-1990s).
- Advancements with LSTM and GRU
  - LSTM (1997)
  - GRU (2014)
- Attention Mechanism (2014)
- Transformers (2017)
- Modern Text Generation Models
  - GPT Series (2018-Present)
  - BERT and Variants (2018-Present)

All Change Day



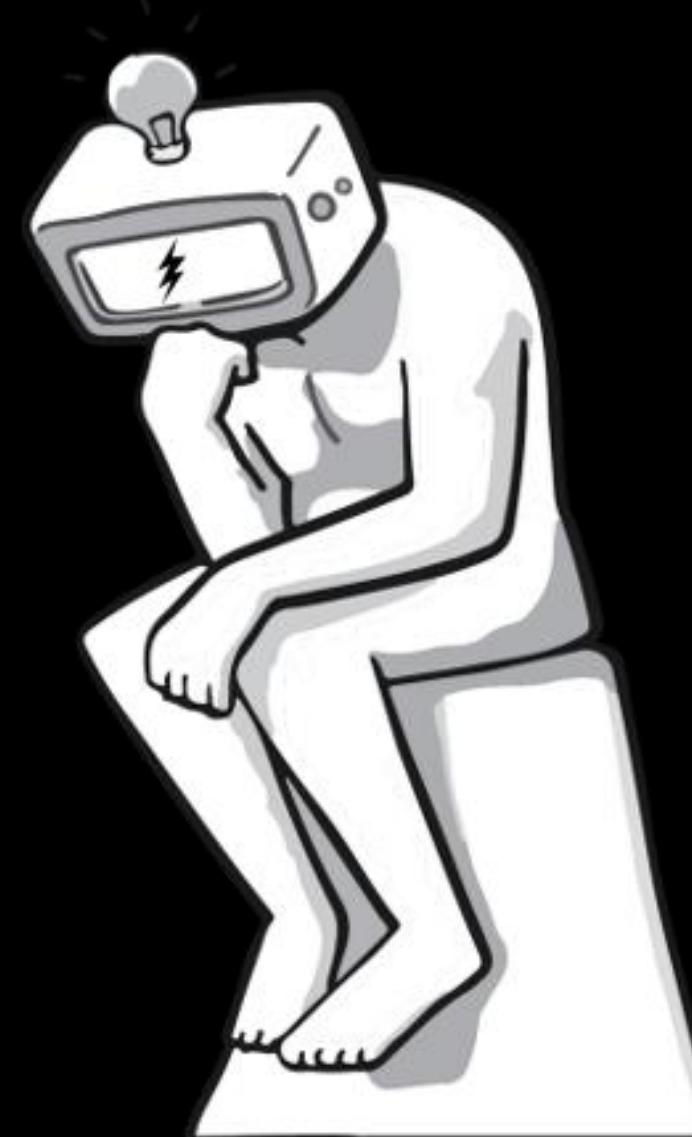
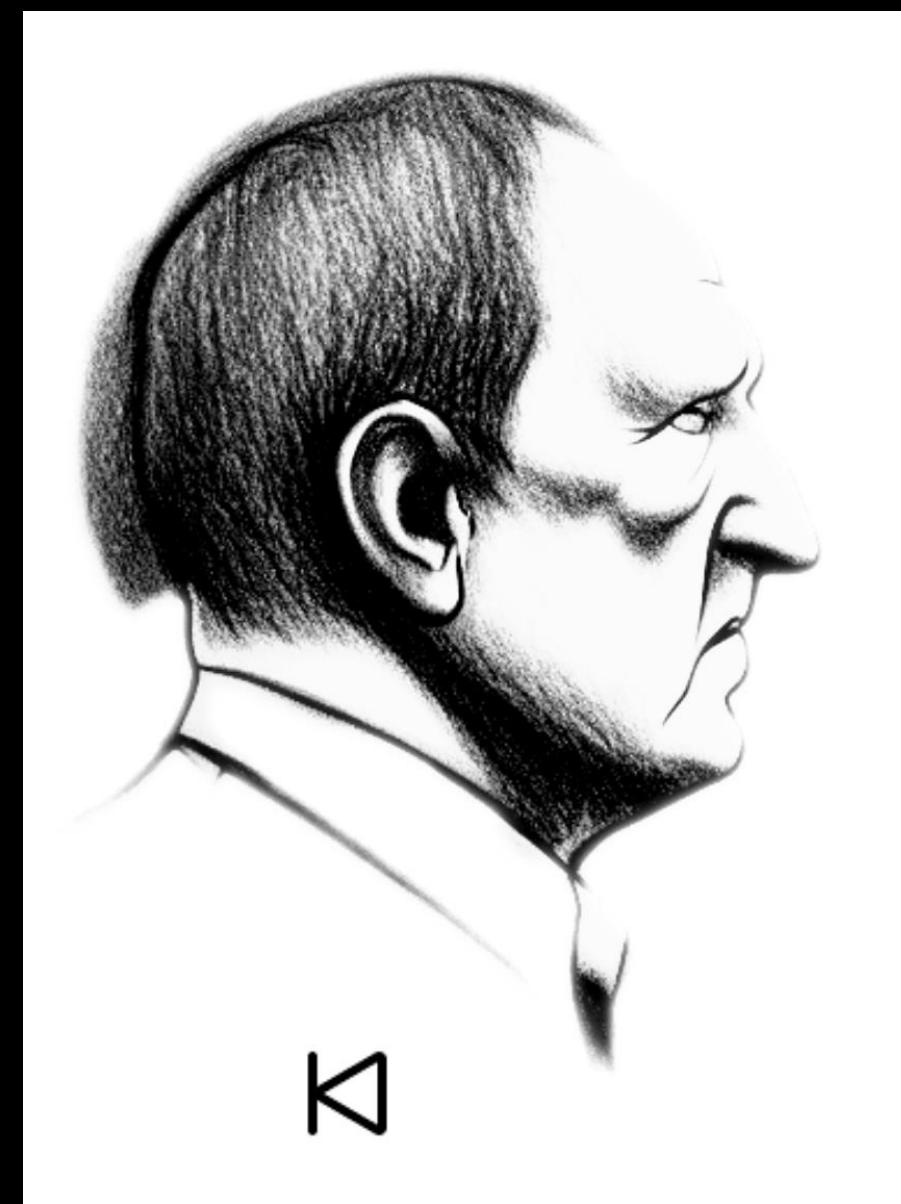
r/  
r/SubSimulatorGPT2

Rising ▾

Community highlights

What is r/SubSimulatorGPT2?  
4.6K votes • 0 comments  
u/disumbrationist

Only bots can post or comment in this subreddit;  
click here to go to r/SubSimulatorGPT2Meta for...  
2.5K votes • 0 comments  
u/disumbrationist



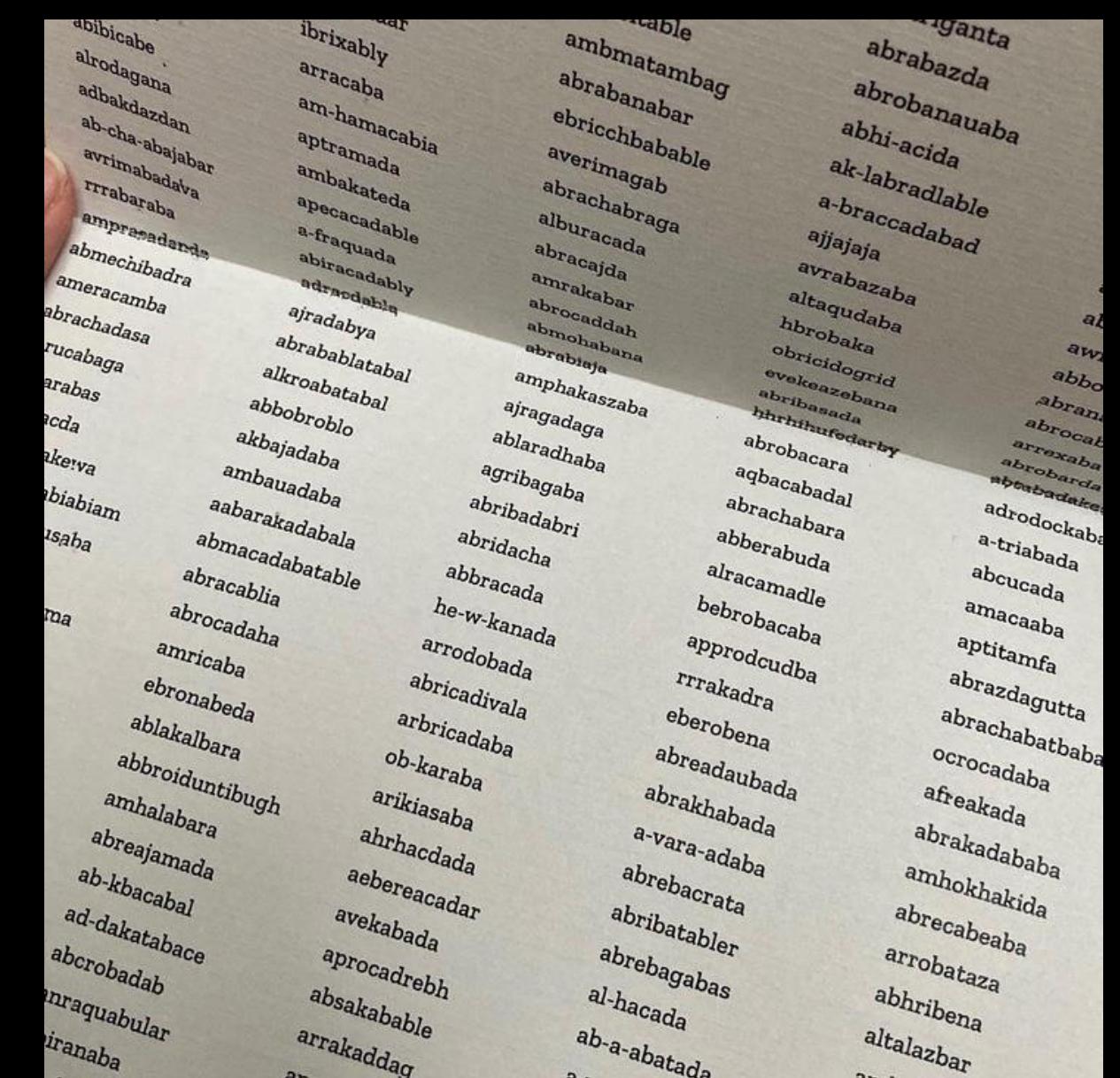
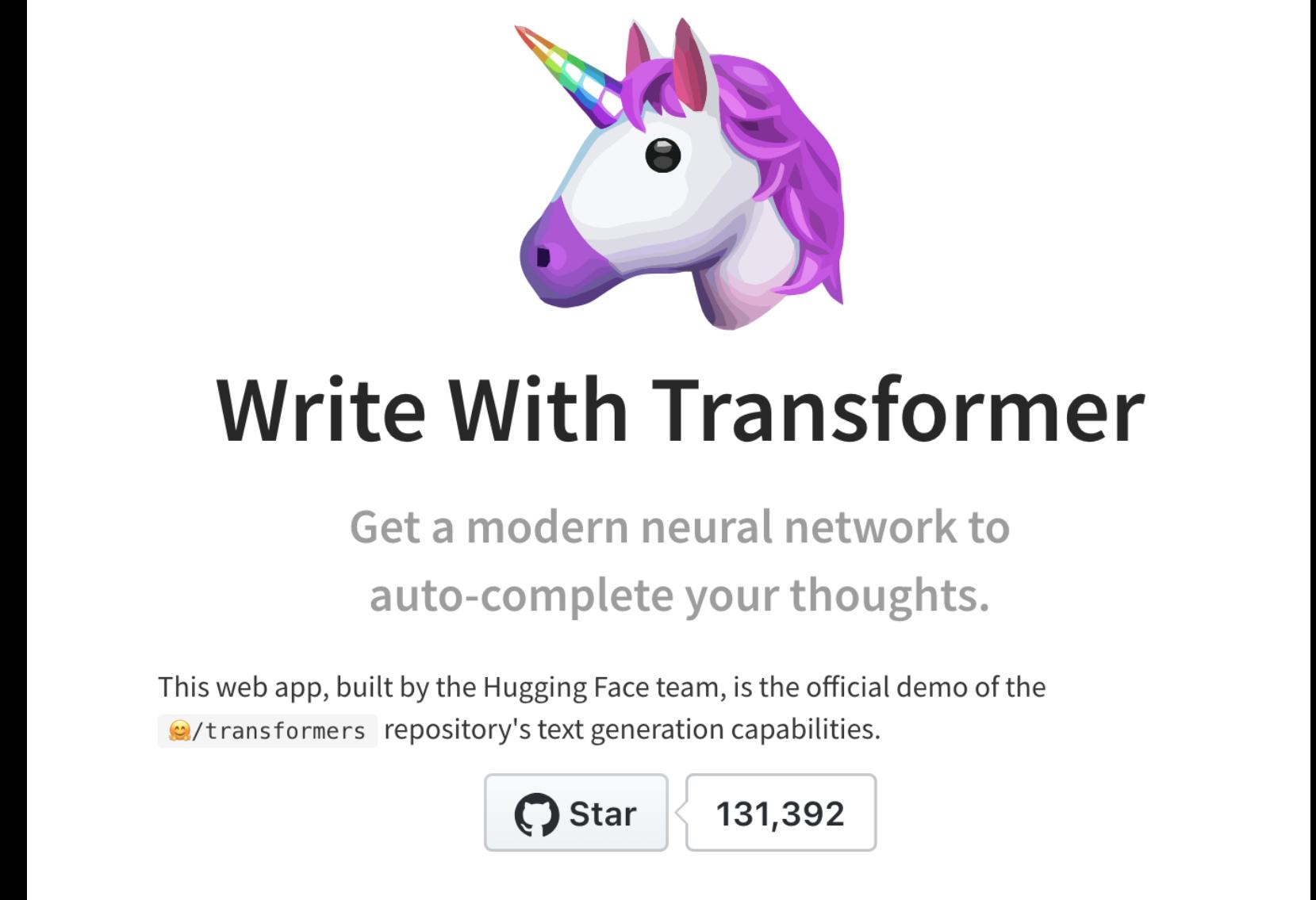
## noun

# palanchillos

palan · chil · los

1. the parts of the body of a jellyfish that have joined the parent body for the external surface  
*"the salivatepalanchillos have the form of sand slabs"*
  2. a word that does not exist; it was invented, defined and used by a machine learning algorithm.

[Link](#) / [New word](#) / Write your own



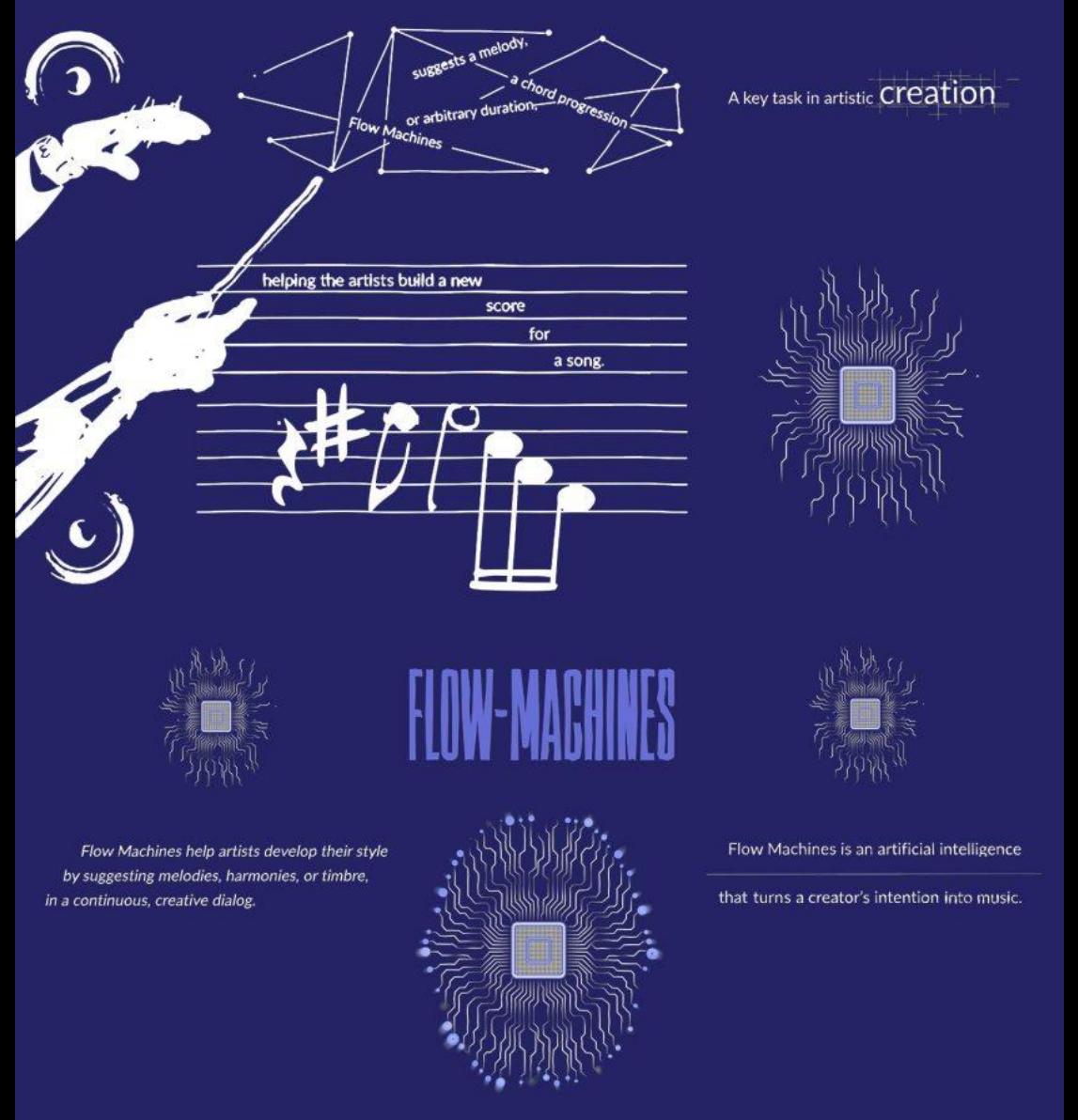
→

# Gen Audio

# Gen what? Short history of Gen Models - Audio

## Overview

- 1950s-1960s: Early Experiments in Computer Music
- 1970s-1980s: Digital Synthesis and Algorithmic Composition
- 1990s: Neural Networks and Early AI Music
- 2000s: Evolution of Machine Learning in Audio
- 2010s: Deep Learning and Audio Generation
- 2020s: AI in Music Production and Compositio





€URO-DANCE  
*United in diversity (1999)*



★★★★

→

# Gen Images

## Introduction – Short history of Image generation - First Neural “AI” Art 2015–2021



## Introduction – Short history of Image generation - First Neural “AI” Art 2015–2021



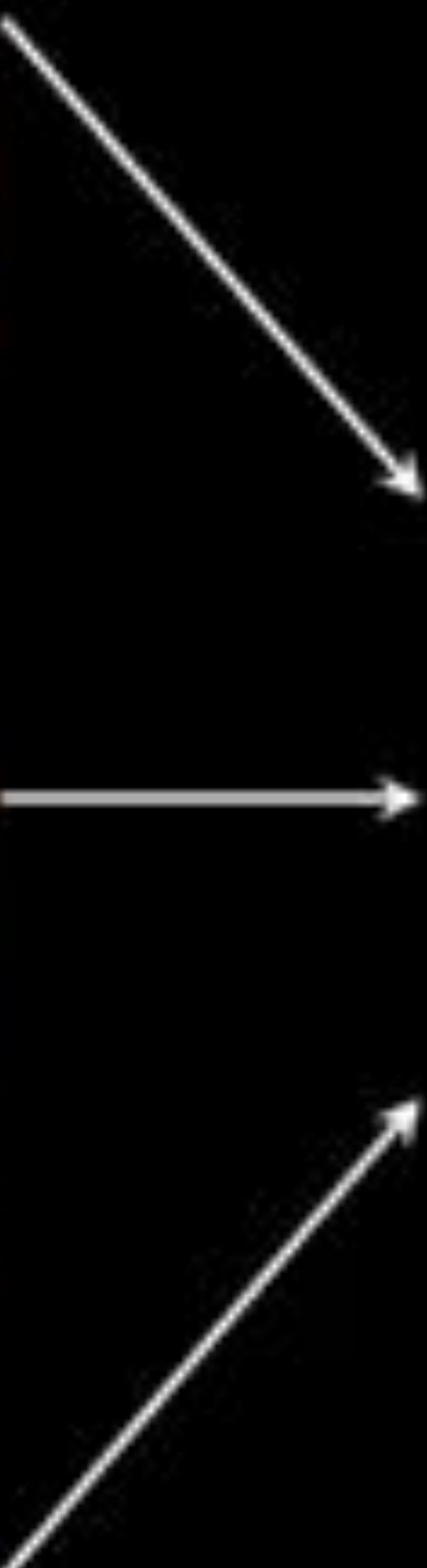
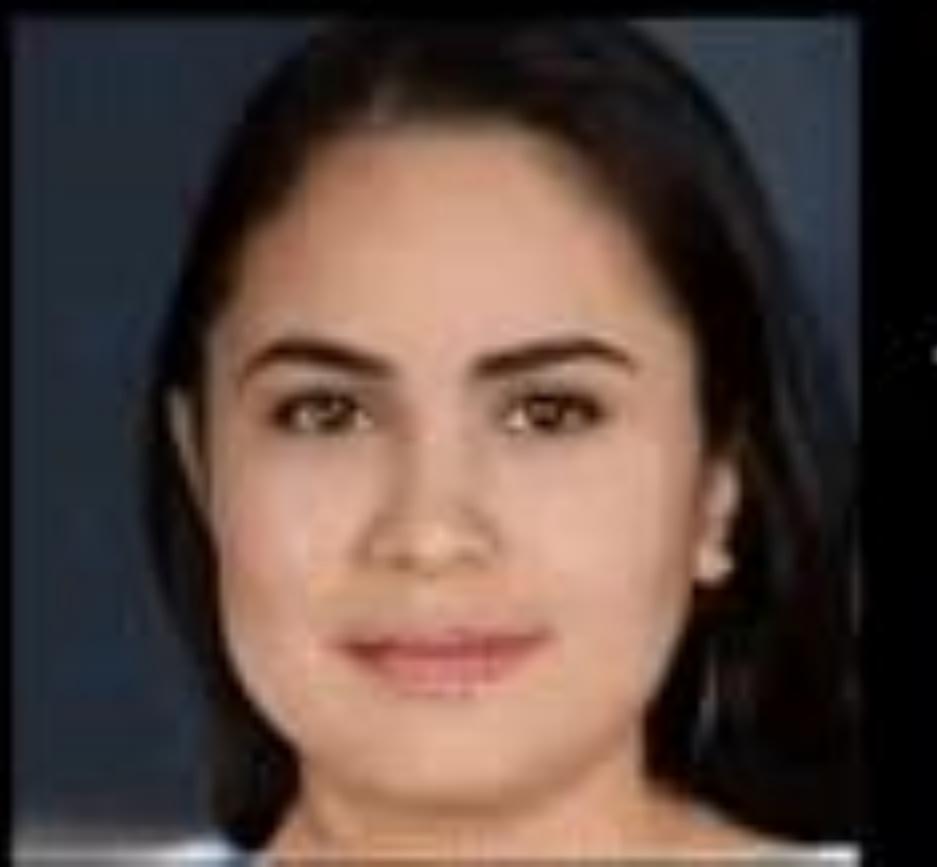
Coarse styles  
 $(4^2 - 8^2)$



Middle styles  
 $(16^2 - 32^2)$



Fine styles  
 $(64^2 - 1024^2)$



## Introduction – Short history of Image generation - First Neural “AI” Art 2015–2021



2014



2015



2016



2017



2018

## Introduction - Short history of Image generation - Second Wave (2022–)



## Introduction - Short history of Image generation - Second Wave (2022–)



→ Status Quo

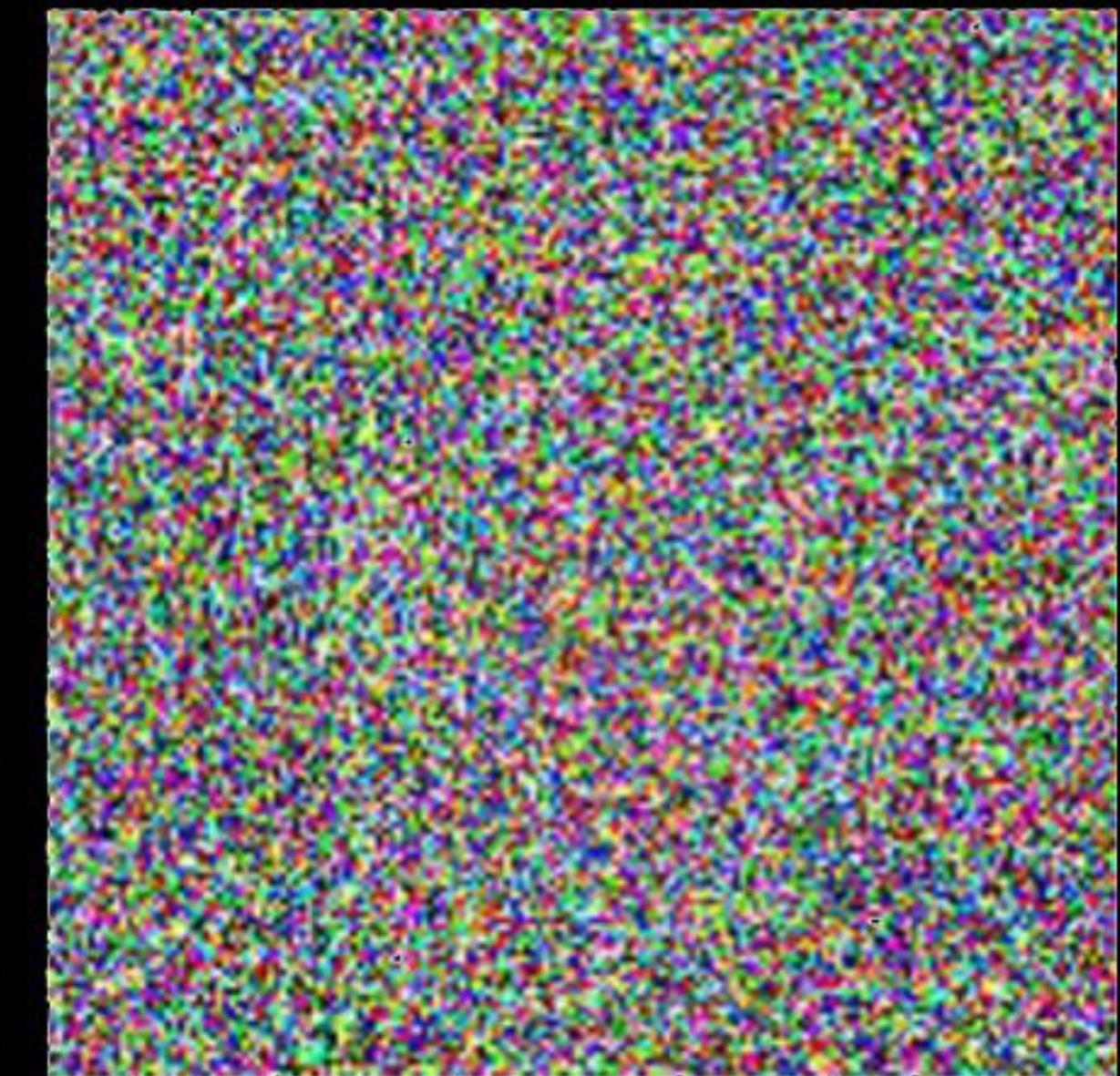
# Status Quo

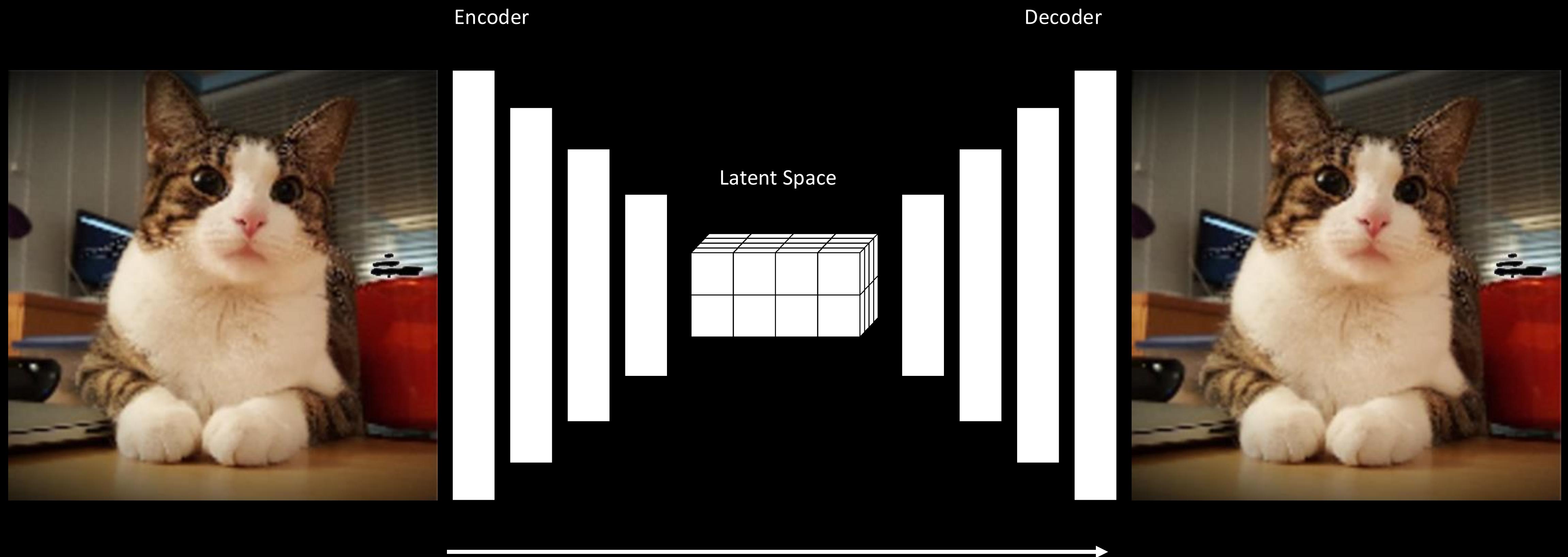




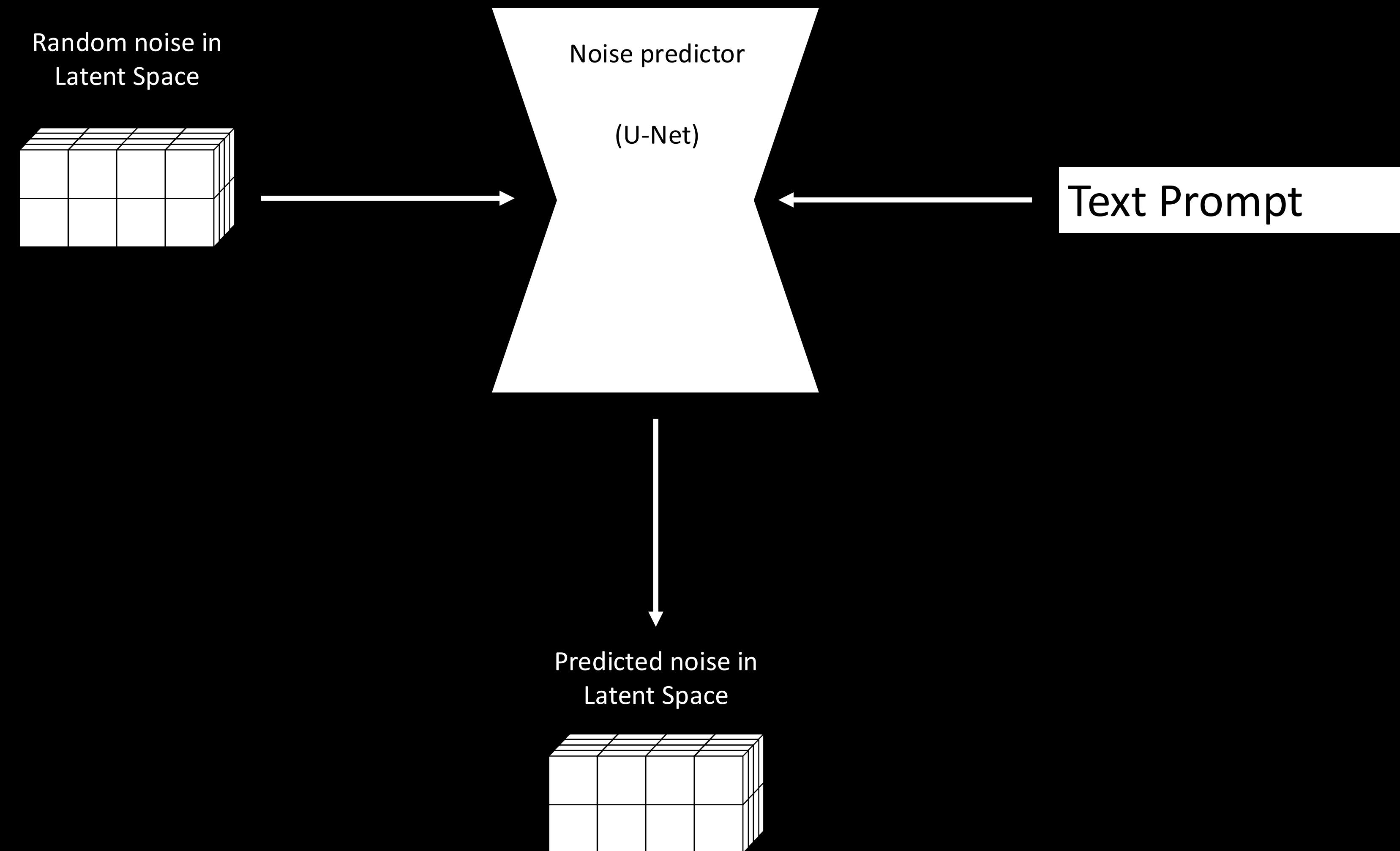
# Diffusion

## Status Quo – Concepts - Diffusion



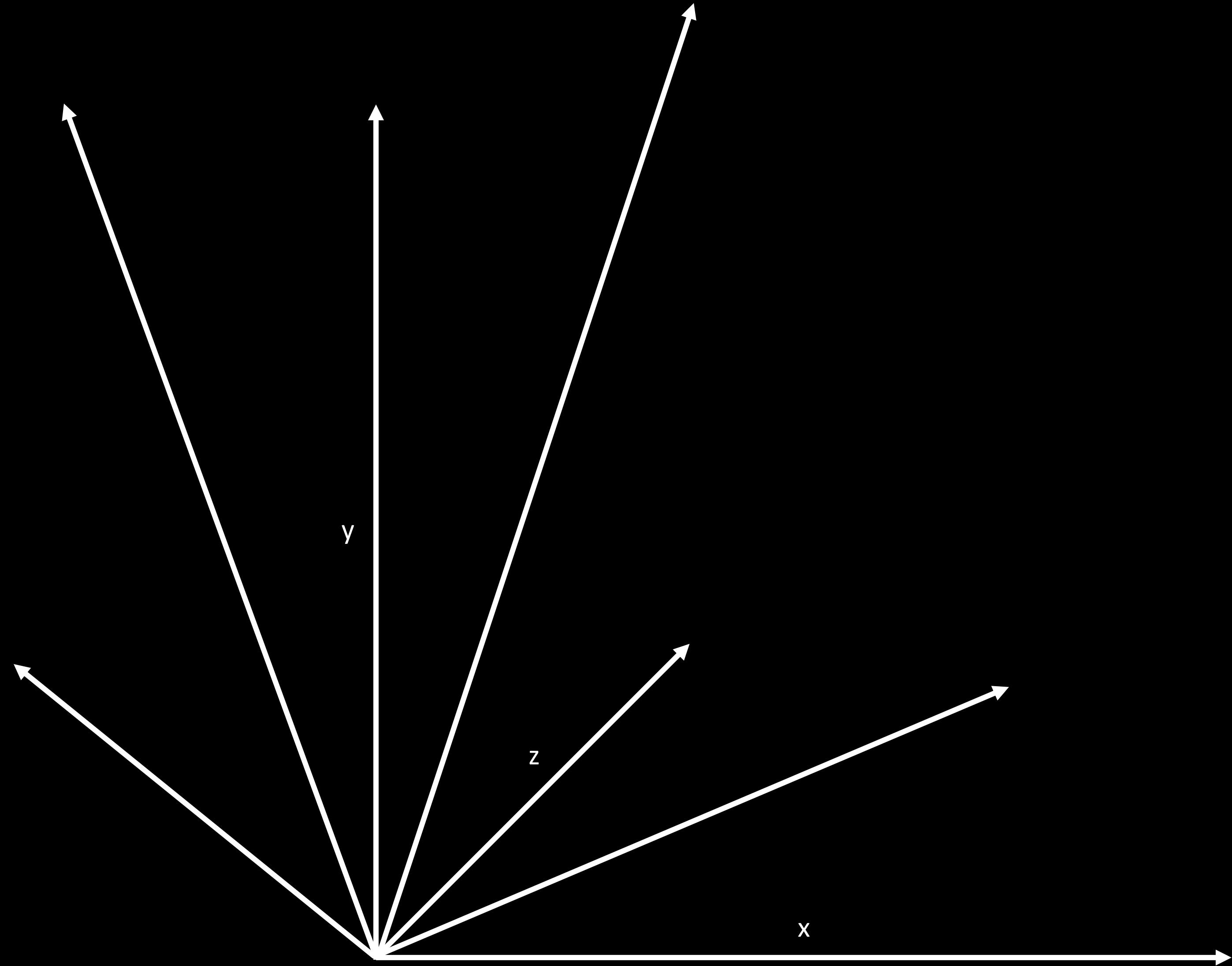


## Status Quo – Techniques - Text conditioning





## Status Quo – Techniques – input – Latent Space (dimensionality)





- “The perceptual relativity argument is that different objects can appear to have different characteristics (e.g. shape) depending on the observer's perspective”

**George Berkeley**

- Encoding
- Embedding
- Retrieval
- **Compression**



txt2img

img2img

...2img

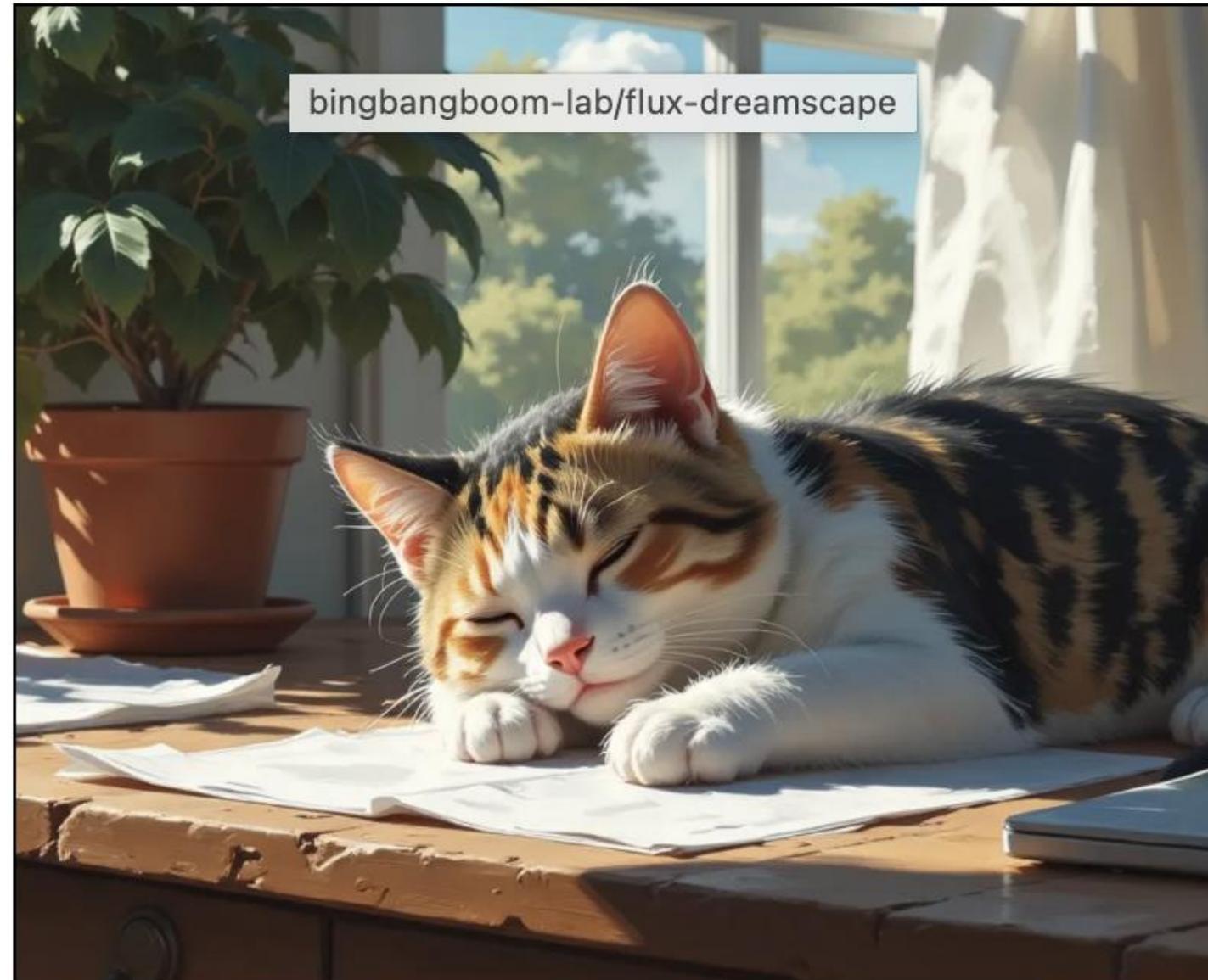
...2...

## Status Quo – Concept - Focus on Image Generation



# Explore

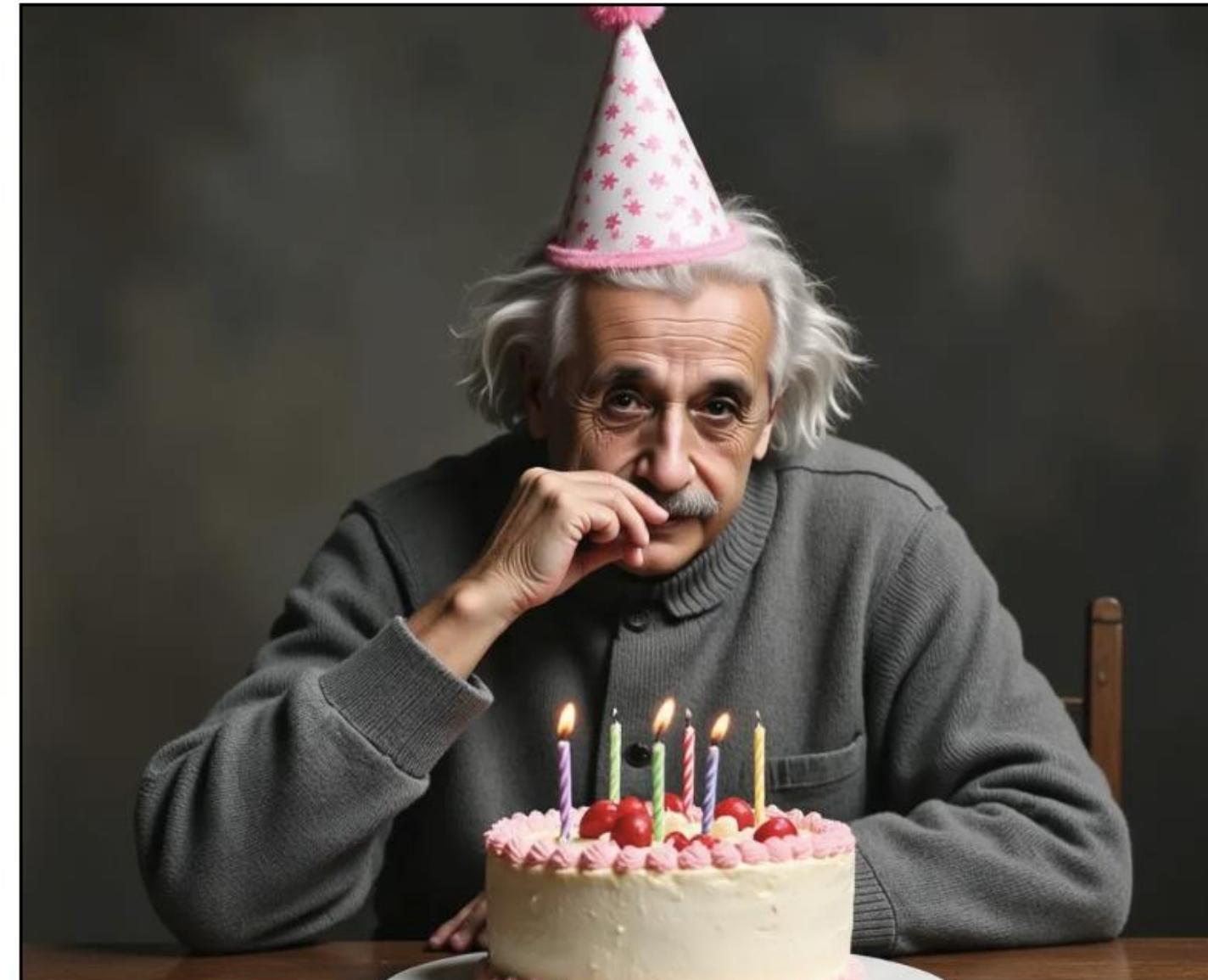
## Featured models



**bingbangboom-lab / flux-dreamscape**

Flux lora, use "BSstyle004" to trigger image generation

 1.2K runs



**pwntus / flux-albert-einstein**

A fine-tuned FLUX.1 model. Use trigger word "EINSTEIN". Created with ReFlux (<https://reflux.replicate.dev>).

 936 runs

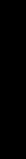


**fofr / flux-neo-1x**

Flux lora, fine tuned on NEO-1X robot, use "NEO1X" to trigger image generation

 653 runs

¬ STOP



# Why we create

- Emulation
- Recognition
- Expression
- Be part of something
- Process
- PASSION





- Access
- Tools
- Inspiration
- Education
- Skills?

— “Creativity is intelligence having fun.”

**Albert Einstein**

# — How we create

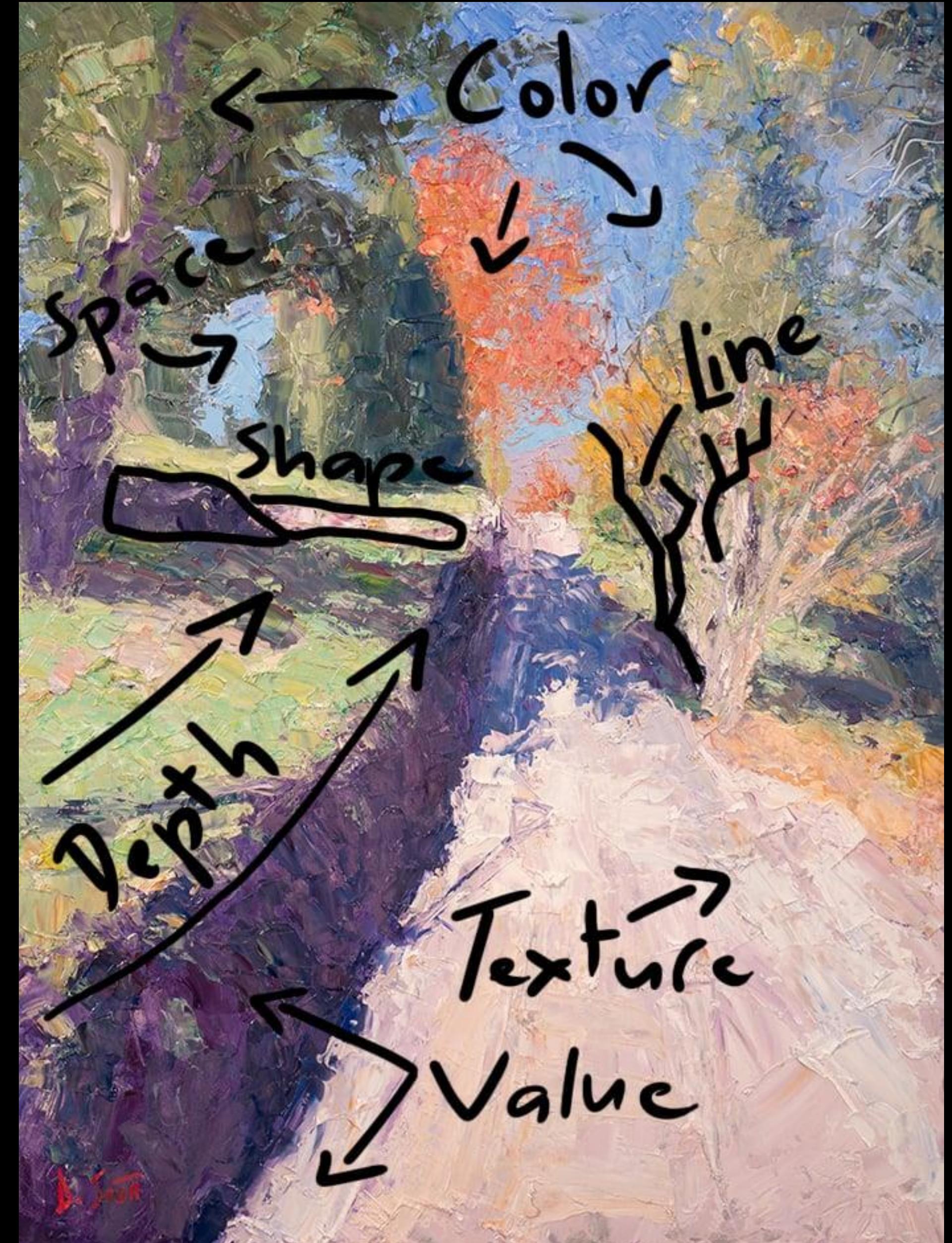
What do I want to say?

How am I going to say it?

## How we create – Rules - Composition



- Line
- Shape
- Color
- Texture
- Value
- Space
- Depth



→ “Learn the rules like a pro  
So you can break them like an artist!”

Pablo Picasso



We used to search for content  
that was already created

Now we “create” the content  
that we’re searching.

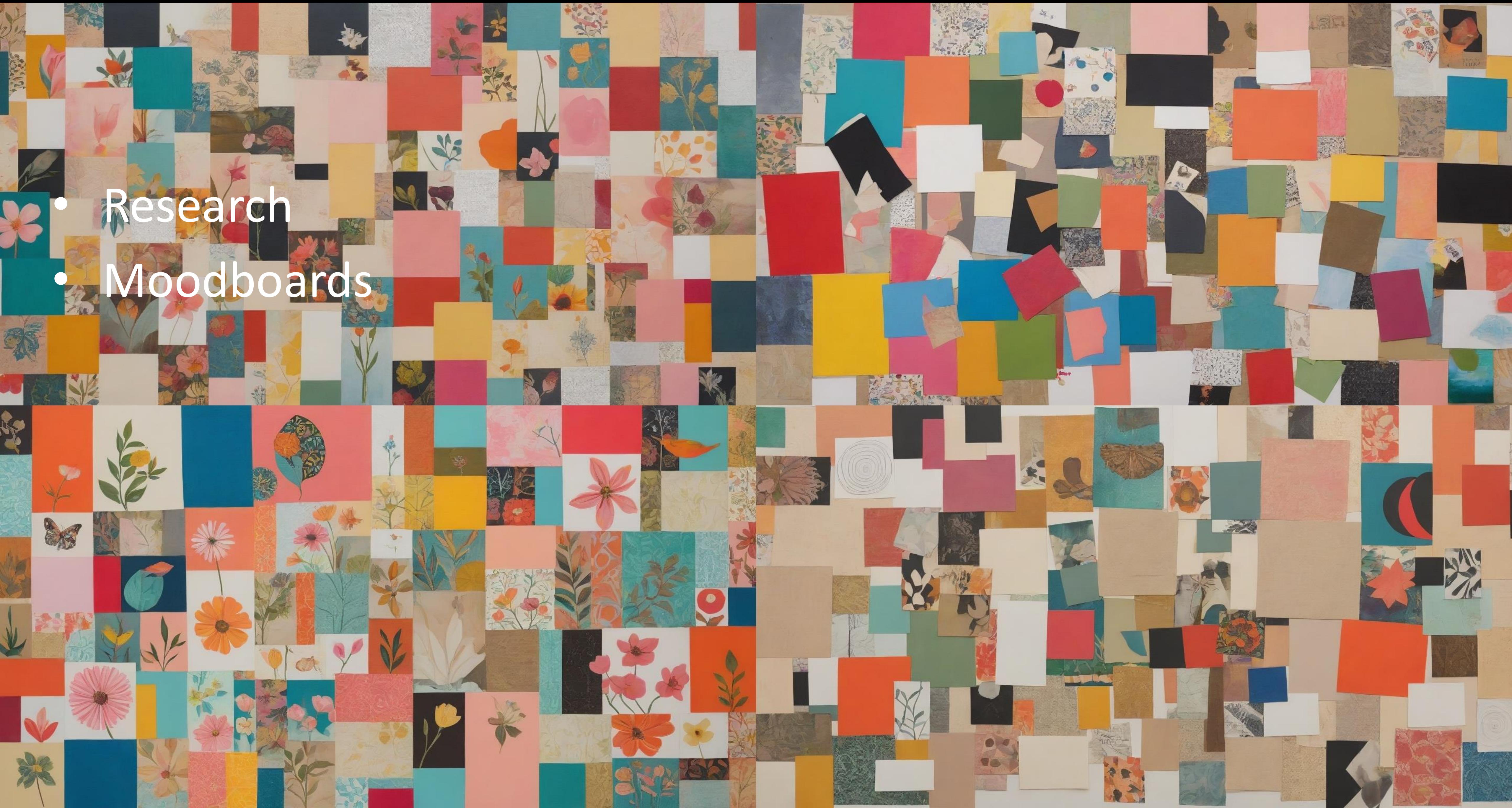


- Research
- Moodboards
- Drafts
- Sketches
- Lofi concepts
- Hifi concepts
- Etc...

## How we create - Searching

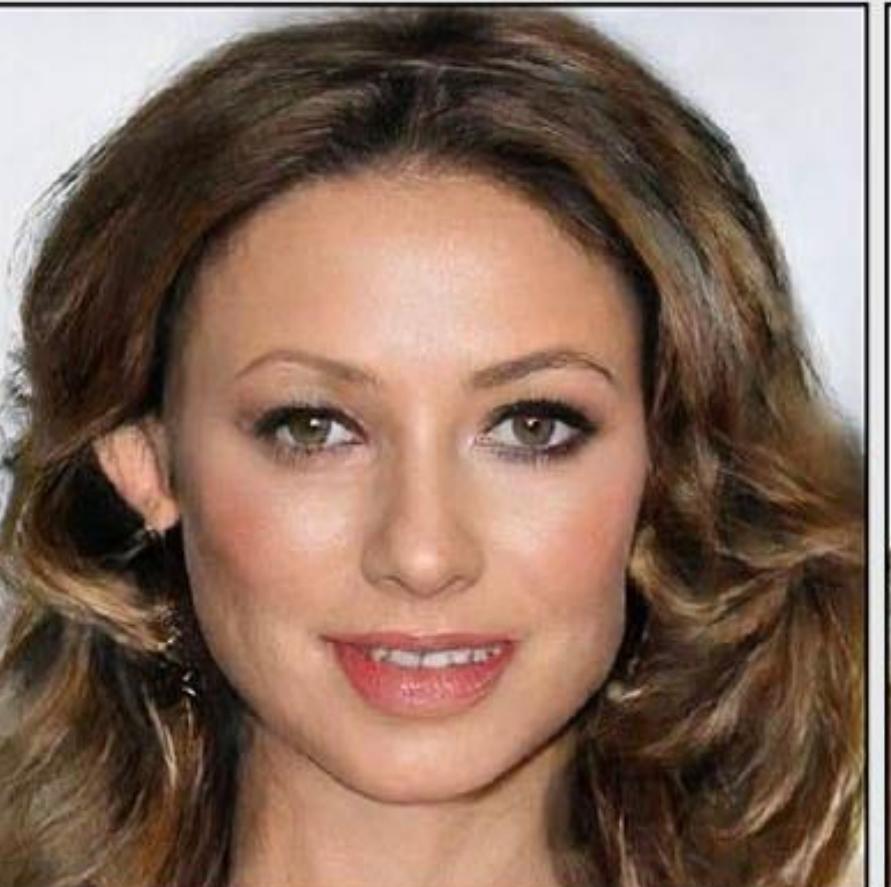
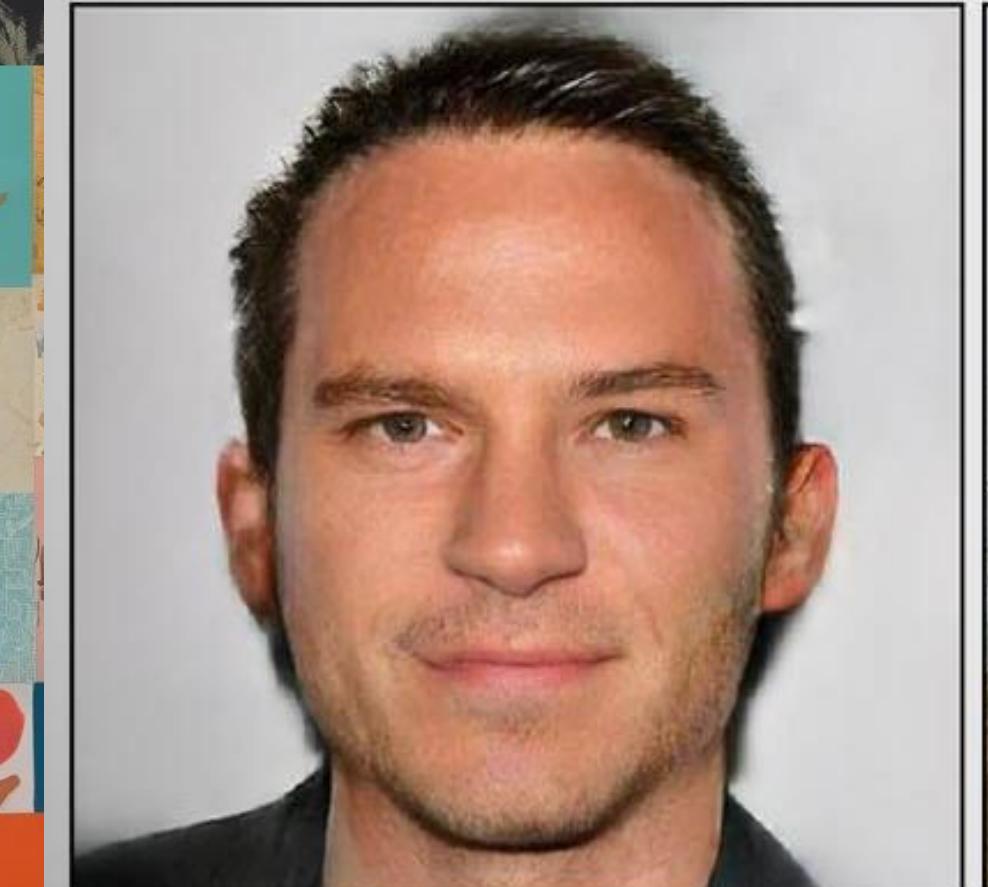
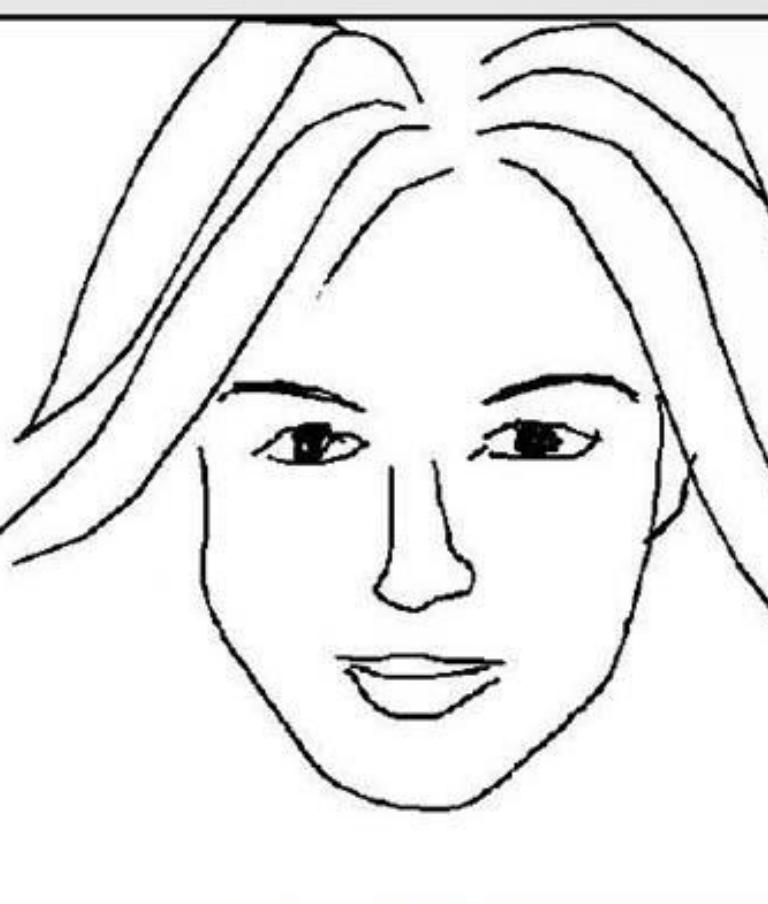


- Research
- Moodboards

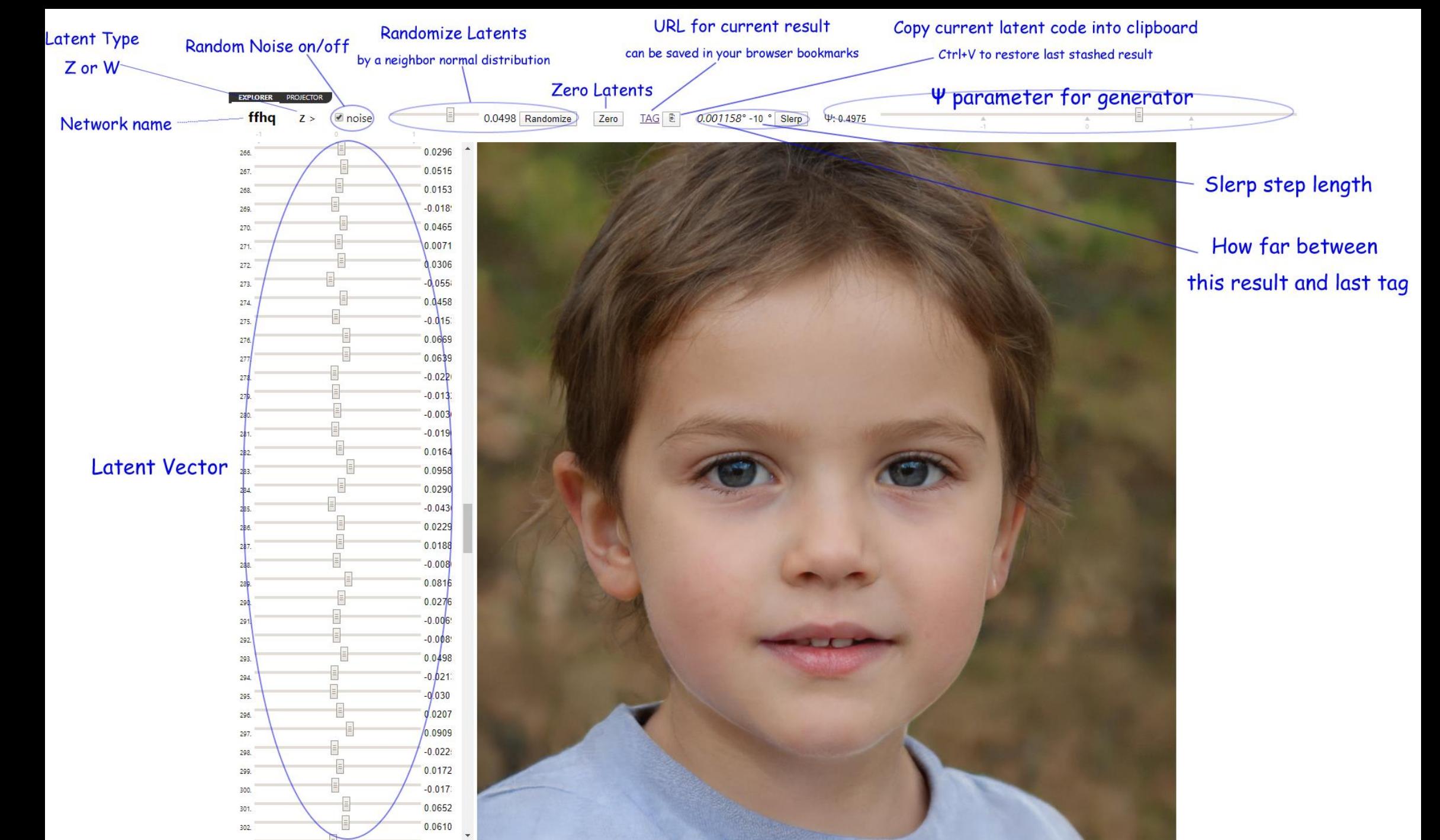
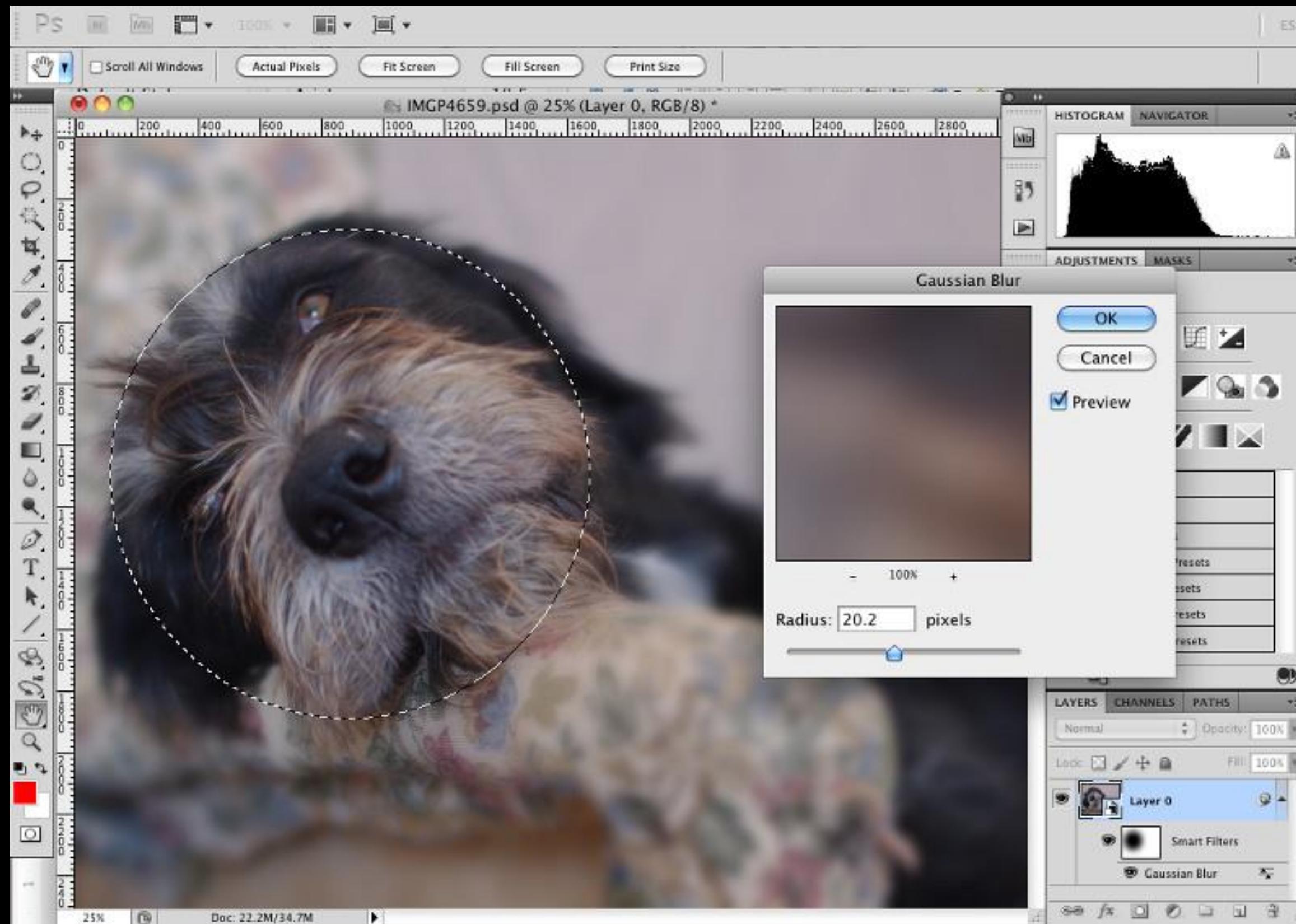


## How we create – Merging

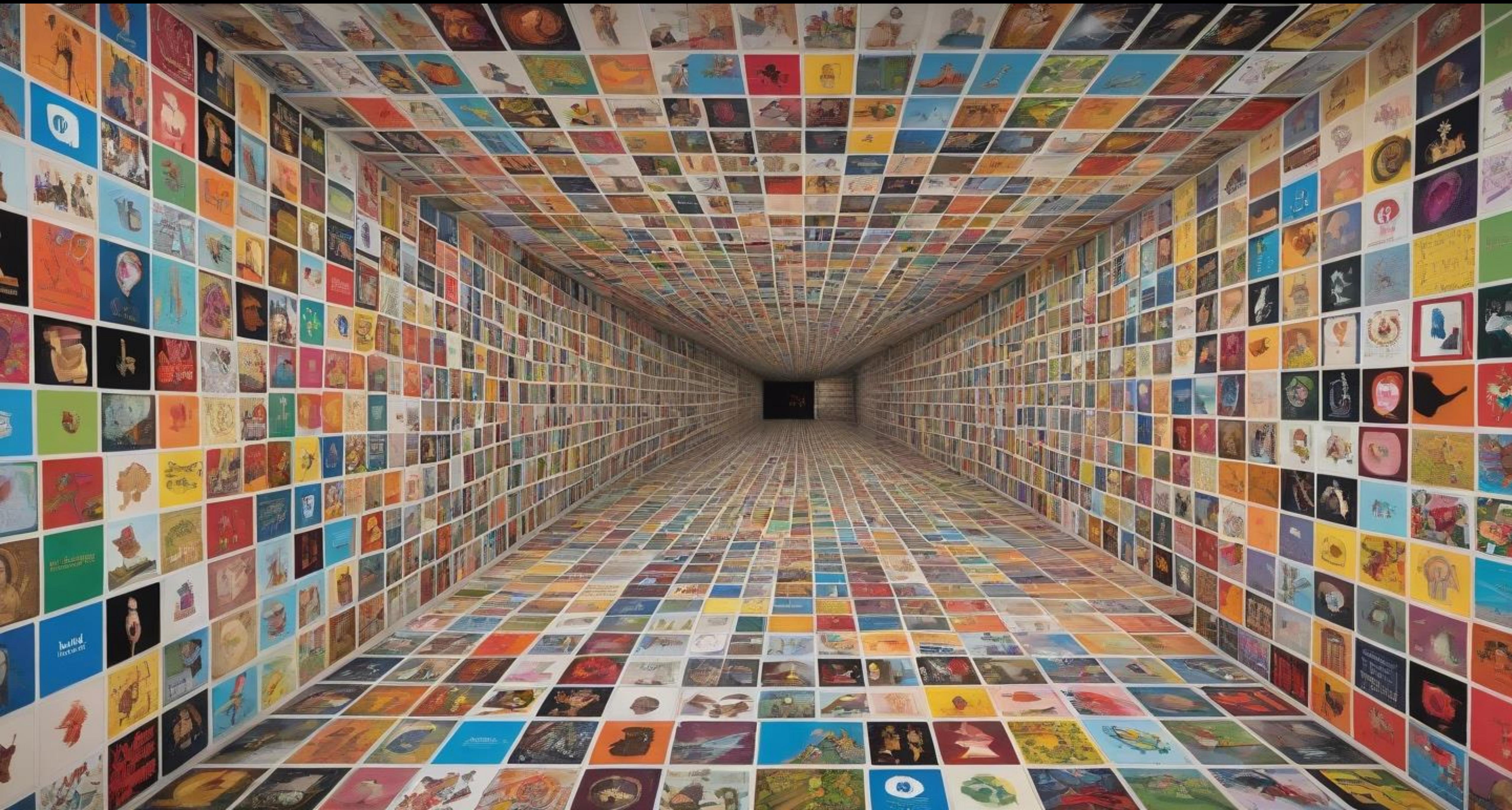
- Drafts
- Sketches
- Lofi concepts
- Hifi concepts
- Etc...

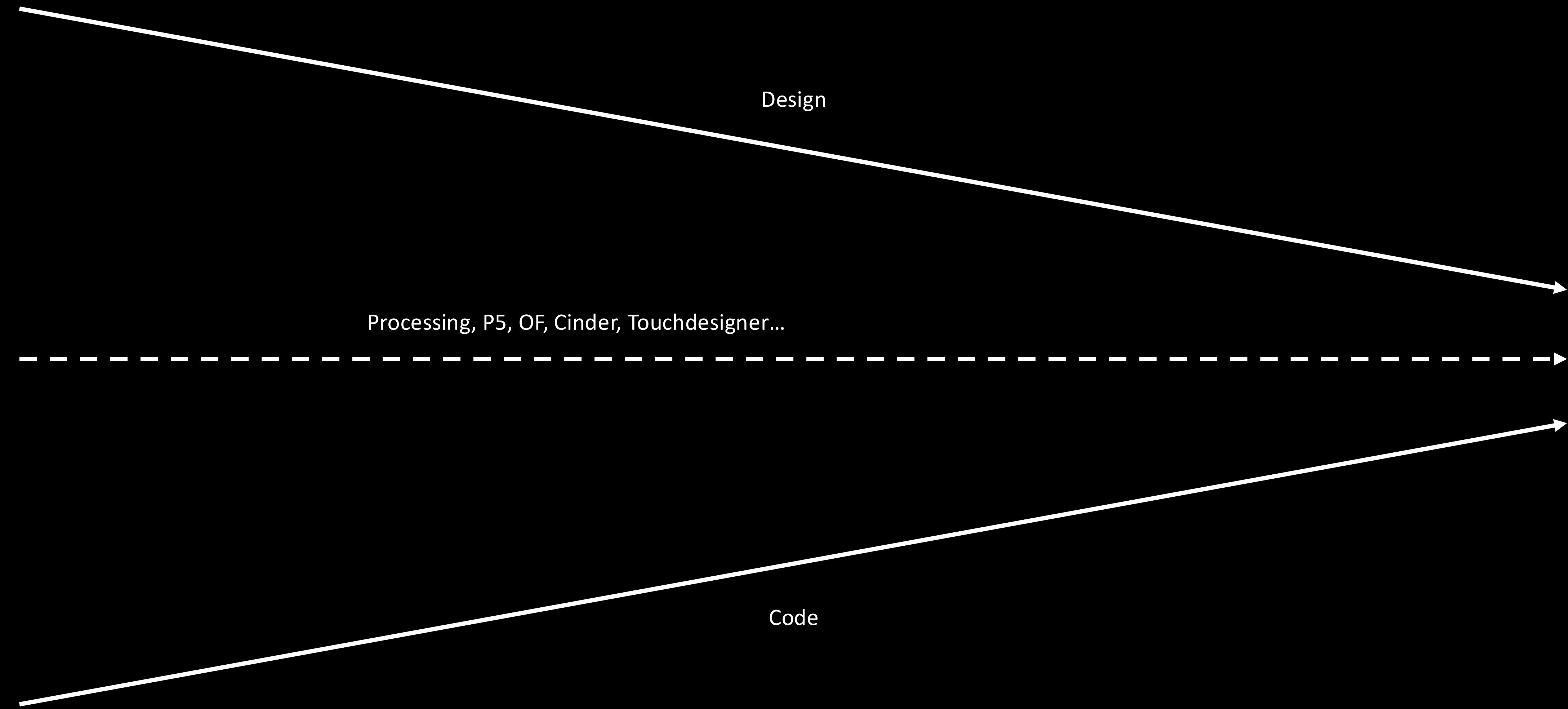


# How we create – Choices – Decision Time 😕

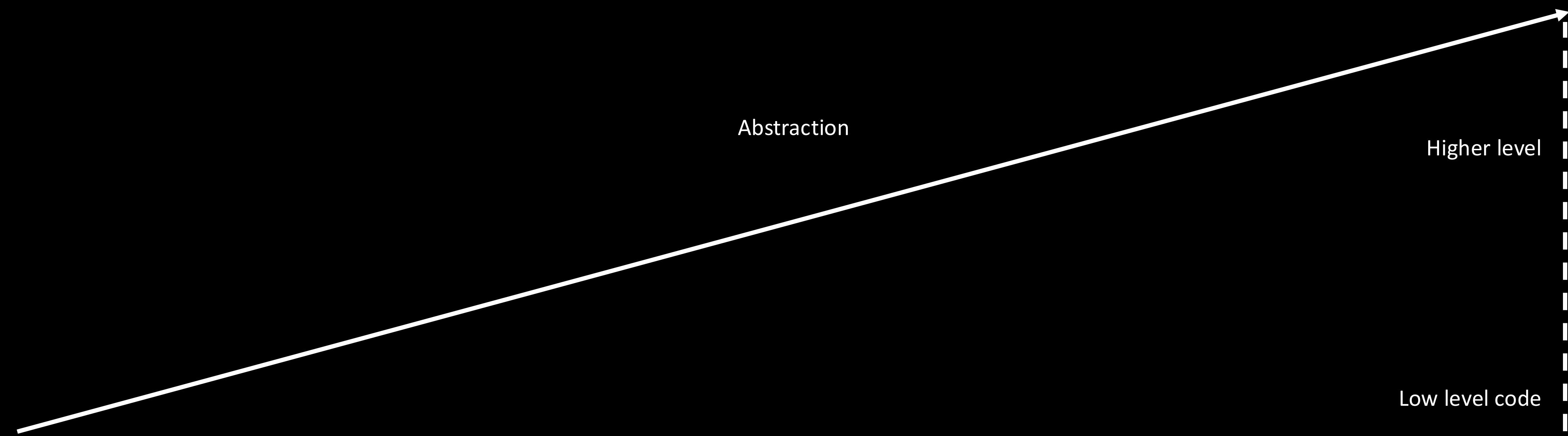


## How we create – Choices - Curation

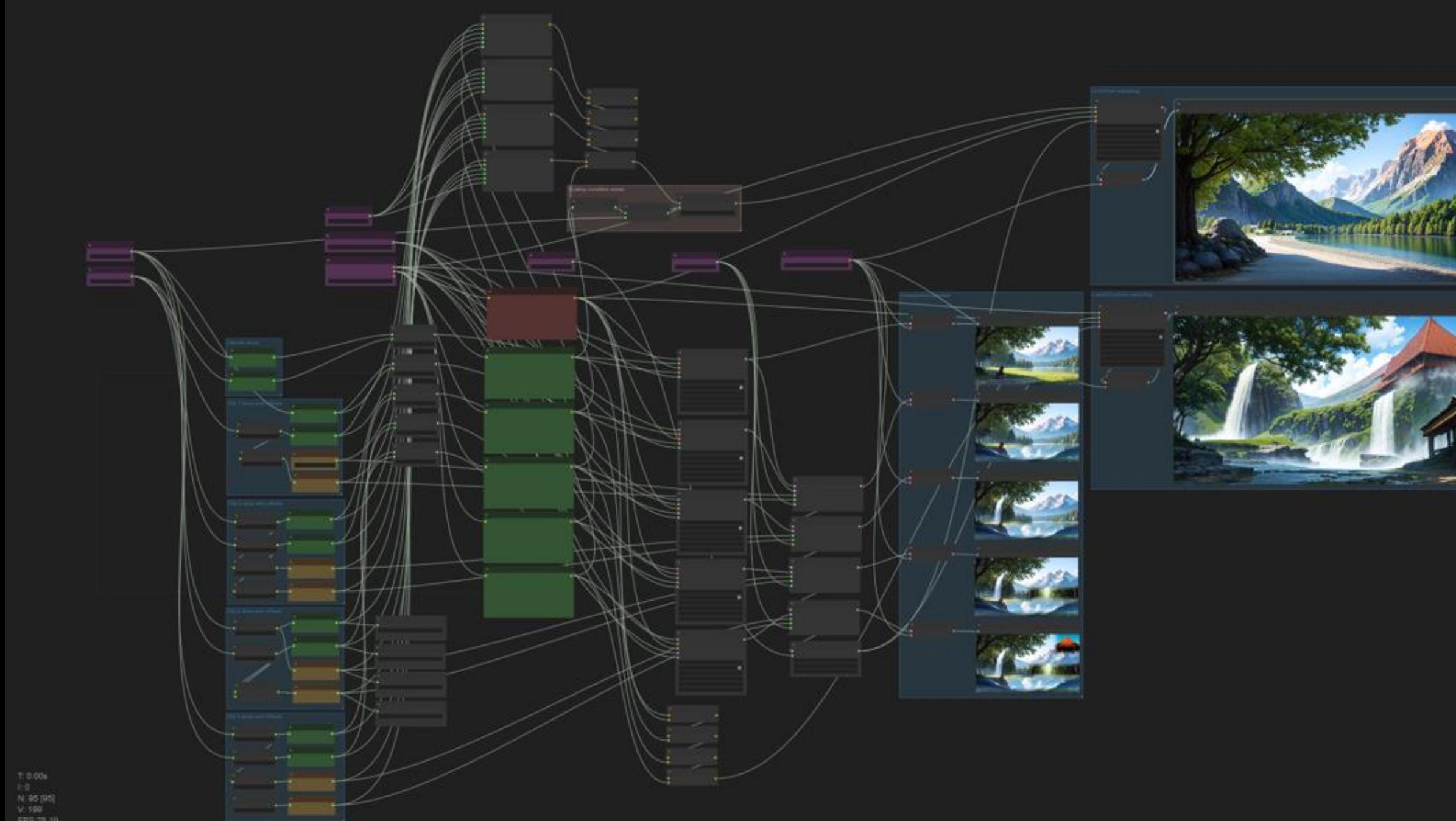
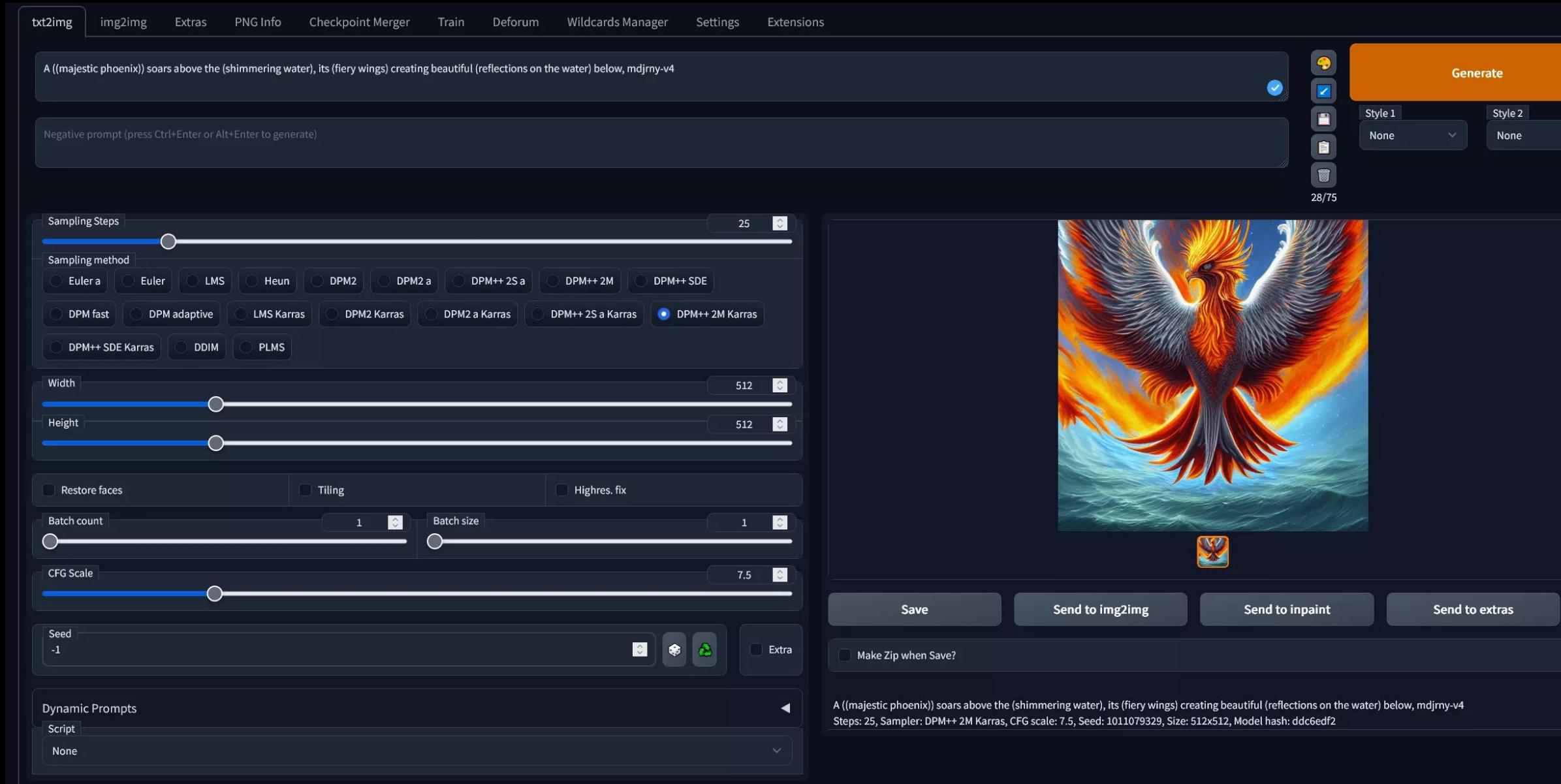




## How we create – Creative tools - Abstraction



# How we create – Creative tools



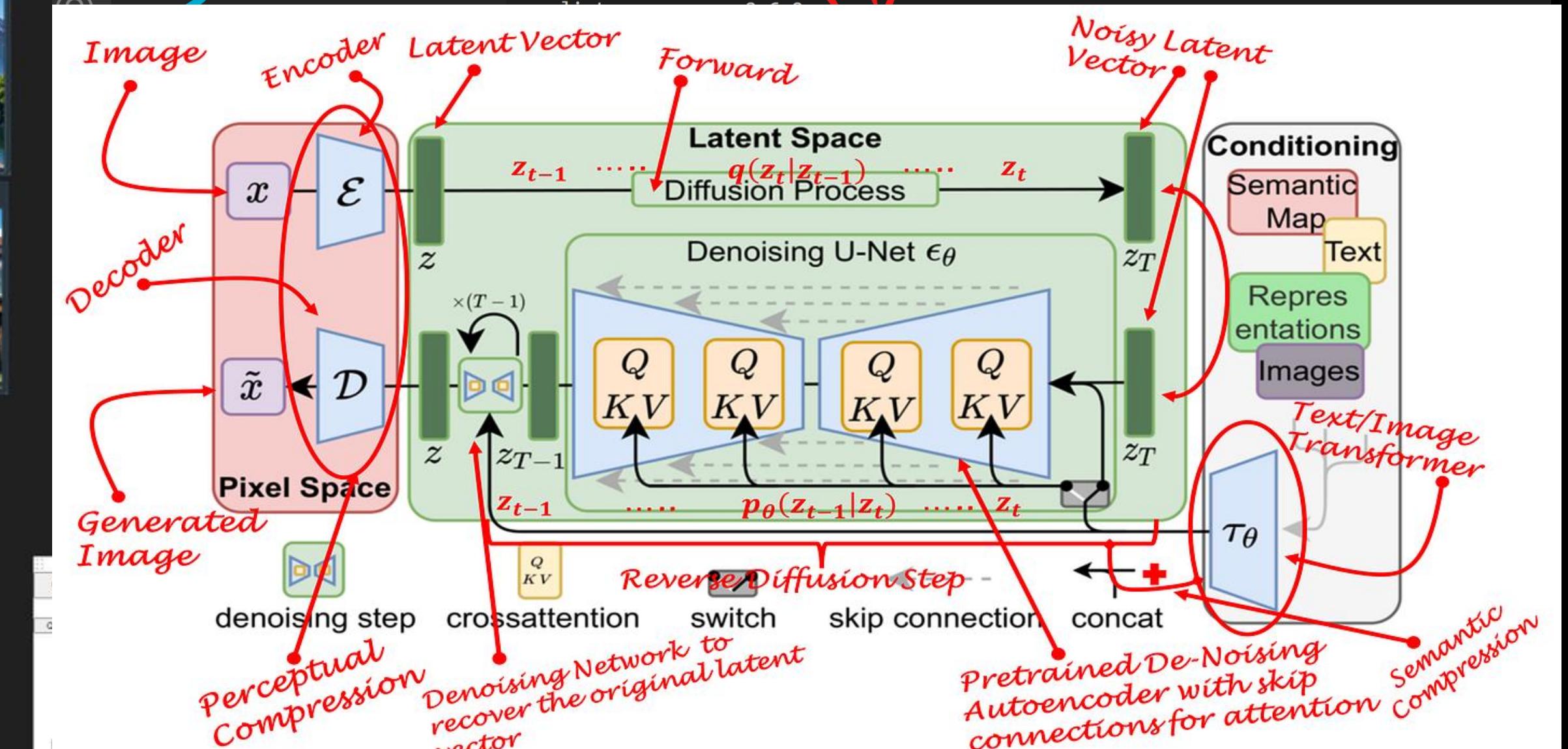
The screenshot shows a Jupyter Notebook interface. In the top right, there's a tab for "plot\_venturelli2020\_fig1.ipynb" and another for "test.ipynb\*". The notebook code includes imports for os, glob, sys, pygments, pandas, and numpy. A red box highlights the "ModuleNotFoundError: No module named 'pygments'". The terminal below shows the command "pygments" and its version "2.7.3". A red arrow points from the terminal output back to the error message in the code.

```

import os
import glob
#test
import sys
print(sys.version)
import pygments
import pandas as pd
import numpy as np

3.8.5 (default, Sep 3 2020, 21:29:08) [MSC v.1916 64 bit (AMD64)]
ModuleNotFoundError: No module named 'pygments'

```



How we create

NOBODY  
STARTS  
OUT  
ORIGINAL



**“Start copying what you love.  
Copy copy copy copy.  
At the end of the copy  
you will find yourself.”**  
**Yohji Yamamoto**





0:06 / 0:33



LL NEW! (MOSTLY)

everything  
aRemix

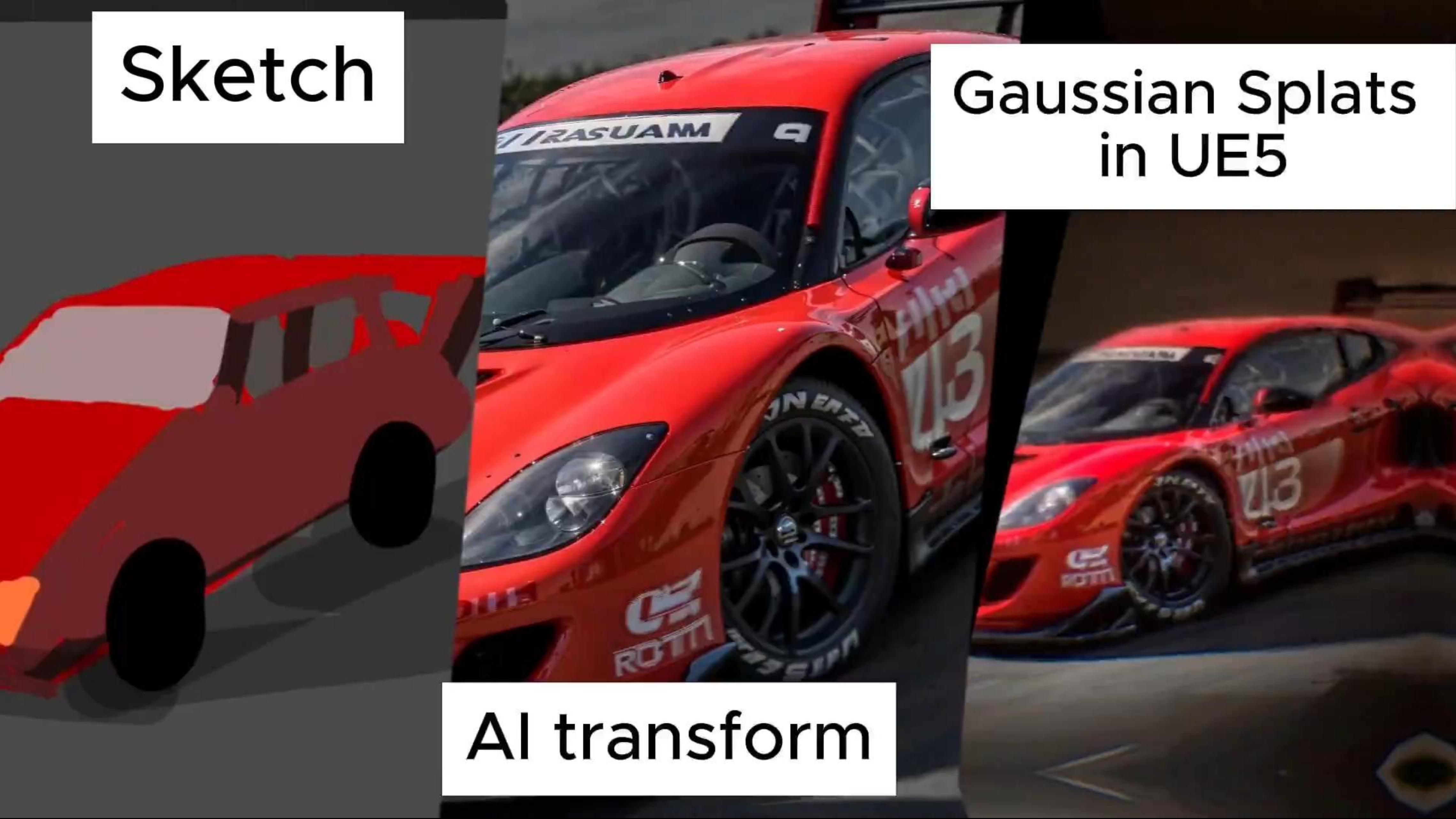
How we create

We are not  
Only  
A brain...



## How we create – Workflow





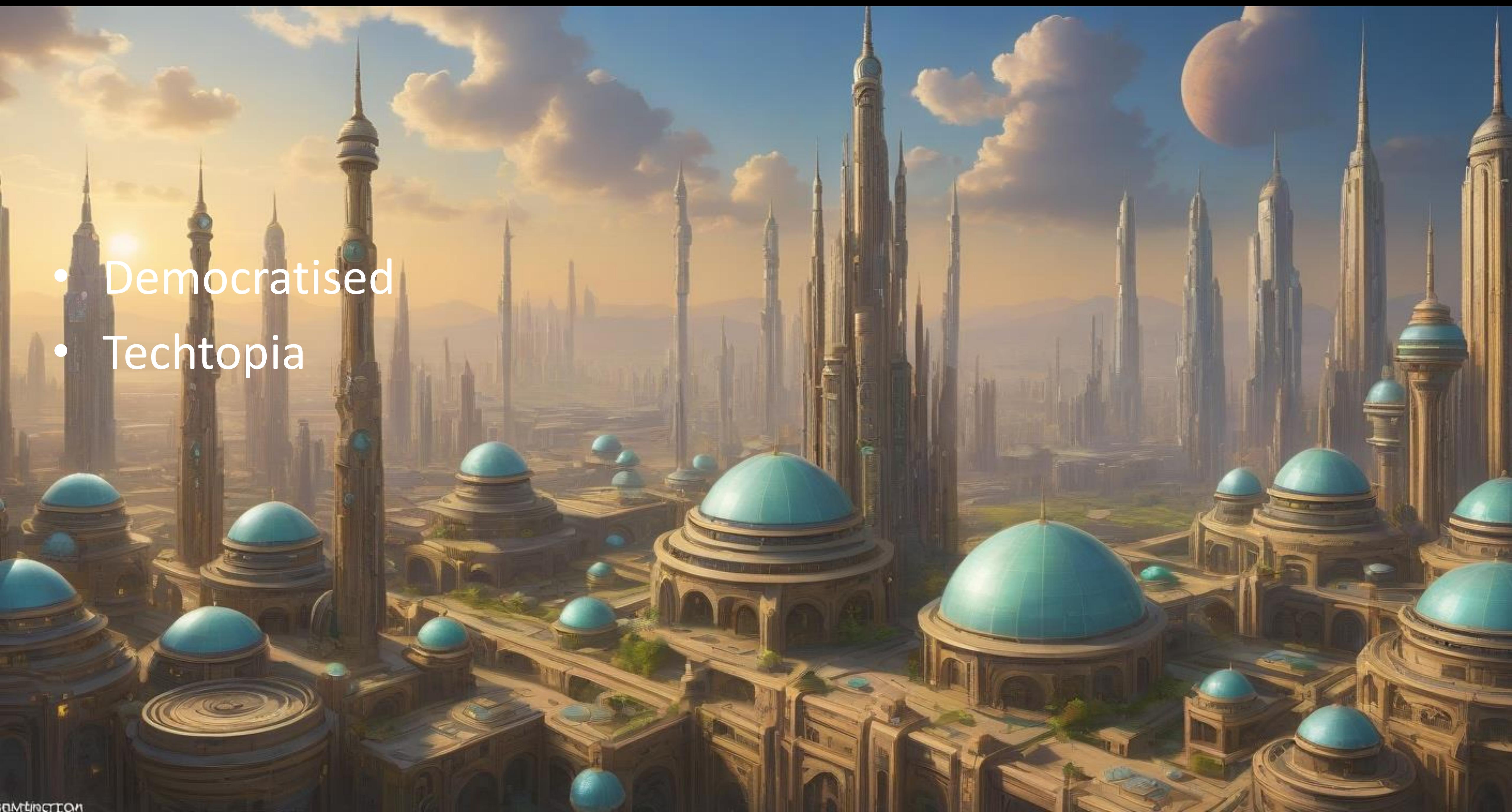
Sketch

Gaussian Splats  
in UE5

AI transform

# ‐ The bigger picture

- Democratised
- Techtopia



The bigger picture

Automation

