

An Exploration of **Default Images** in Text-to-Image Generation

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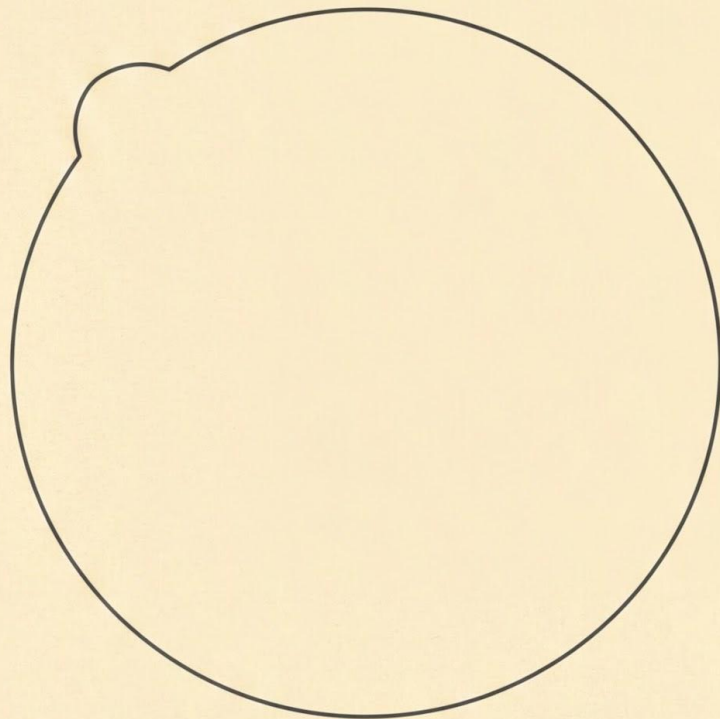
ACM CHI Conference on Human Factors in Computing Systems 2026

University of Oulu • Carleton University • IST, University of Lisbon & IHA-NOVA FCSH / IN2PAST, Portugal

April 16, 2026



Prompt Engineering for Text-to-Image Generation



“Non-creative image generation”

- (1) Music lyrics
- (2) Random snippets of text
- (3) Single characters & emojis

“Highly creative image generation”

Novel prompts that have
never been written before

Prompt: “invalid cell in the valid world”



Image Generation Experiments on Midjourney

“protruding goofus”



“the perfect life”



“what a cool frood”

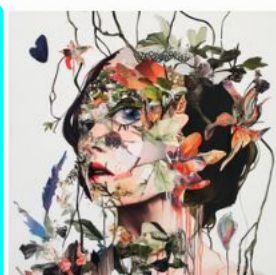
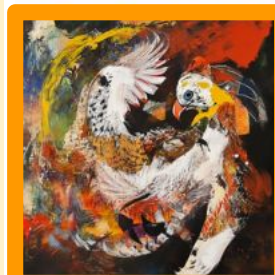


Image Generation Experiments on Midjourney

“Default Images”:
visually similar images
from dissimilar prompts

Identifying Default Images on Midjourney

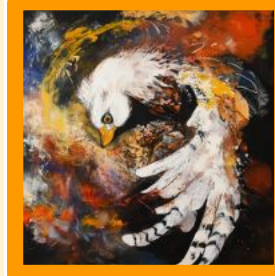
Tagalog words



bata

seed 123456 v 6.1 stylize 0

(child)



apoy

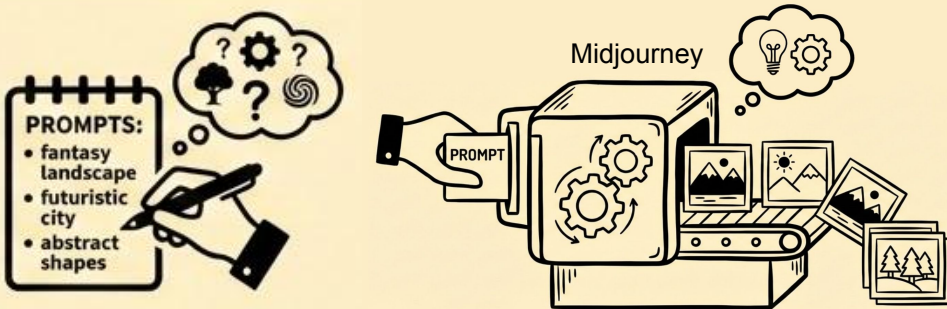
seed 123456 v 6.1 stylize 0

(fire)

Two-Part Methodology

I.

Manual

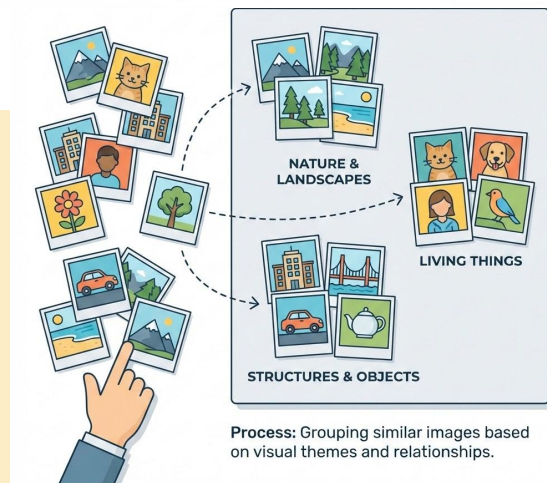


II.

Computational

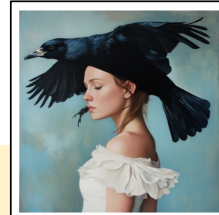
- 750,000 images (~188,000 prompts \leq 25 chars) from Midjourney Discord
- Convert to embeddings (CLIP ViT-L)
 1. Cosine similarity clustering
→ visually similar images
 2. Prompt filtering with two rules:
lexical overlap & semantic similarity

AFFINITY DIAGRAMMING

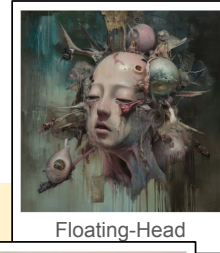


I. Default Image Prompts

- 1. Unique fantasy names:** *Nuoka Zuberi, Shelan Creswell, Soraya Lonescu, ...*
- 2. Corrupted Words:** *Greagoft, Shuttastfr, Shuttagolt, ...*
- 3. URLs:** *www.amazon.com, www.bing.com, www.chatgpt.com, ...*
- 4.1 Finnish words:** *maito, kinkku, suola, ...*
- 4.2 Tagalog words:** *apoy, bata, pagpag, ...*
- 5 Glitch tokens:** *Rawdownload, PsyNetMessage, ...*
- 6 Abbreviations:** *bcd, gsod, dqae, ...*



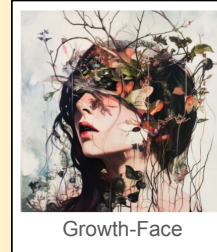
Lady-Birdhead



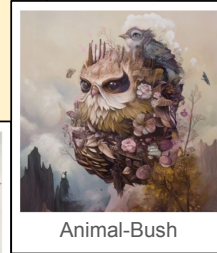
Floating-Head



Psychedelic-Eye



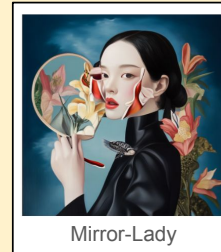
Growth-Face



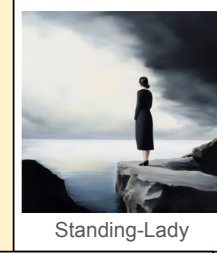
Animal-Bush



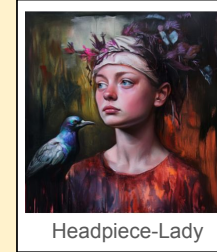
Eagle-Circle



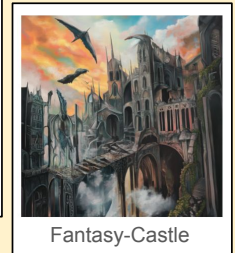
Mirror-Lady



Standing-Lady



Headpiece-Lady



Fantasy-Castle



bcd



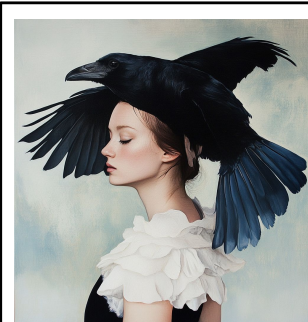
greamylt



greawarz



kasvi



kinkku



suola



Shelan Creswell



Soraya Lonescu











Tzivani Rhekai



www.tumblr.com

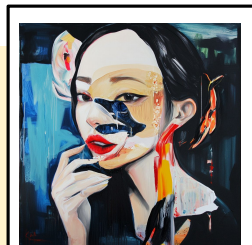
I. Default Image Occurrence

								
1 Unique names	75%	25%	20%	45%	0%	0%	50%	15%
2 Corrupted words	70%	25%	40%	25%	0%	15%	10%	25%
3 URLs	60%	55%	15%	20%	20%	0%	20%	5%
4.1 Finnish	85%	35%	50%	35%	15%	10%	20%	15%
4.2 Tagalog	50%	45%	25%	45%	0%	5%	15%	5%
5 Glitch tokens	80%	10%	50%	20%	0%	20%	20%	30%
6 Abbreviations	90%	40%	35%	40%	0%	5%	15%	20%

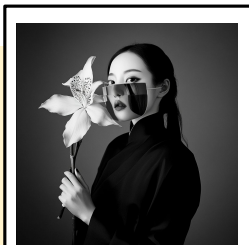
I. Online Study on Prolific (N = 48)

default images can
lead to user dissatisfaction

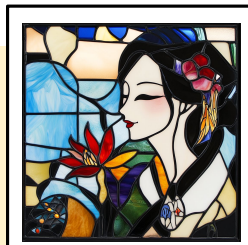
I. Default image concepts behave like normal concepts!



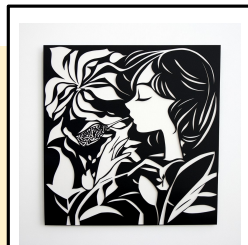
kinkku, expressionism, painting



kinkku, B&W



kinkku, stained glass



kinkku, papercut



kinkku, black and white



kinkku, mixed media



kinkku, sepia



surreal kinkku



kinkku, oil on canvas

II. Default Image Occurrence

**4.8% potential
default images***

* in dataset (prompts \leq 25 chars)



50's cartoon



concussion



art deco
transhumanism



electric hats



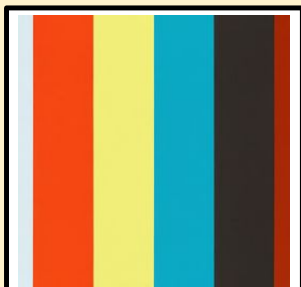
brooklyn by joseph
yoakum



murphys law



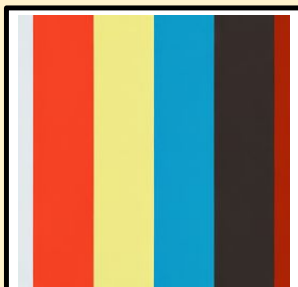
frog eating a rainbow



moebius style
pokemon



time is a love machine



panem et circenses



a cat apologizing

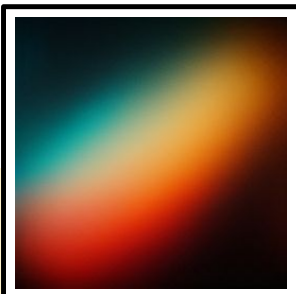


oligopoly

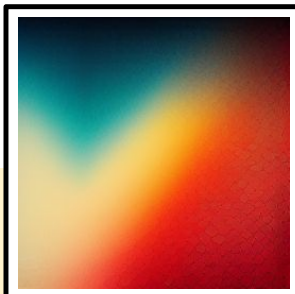
Midjourney v1



array



mediacode



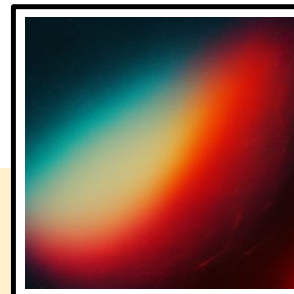
learning spanish
language



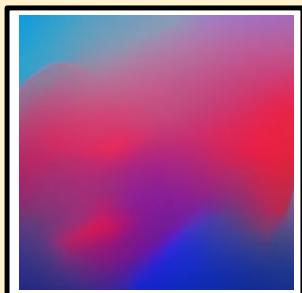
design is overrated



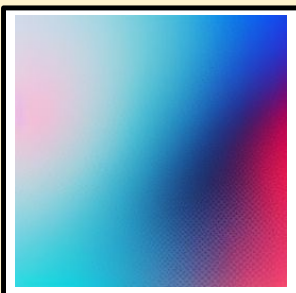
inclusive design



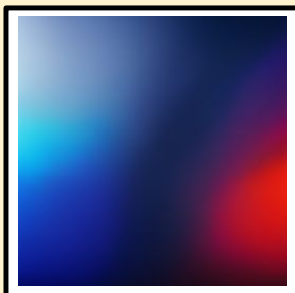
ljlkl;j



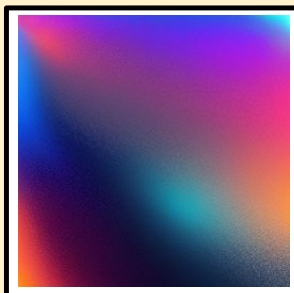
abcdefg



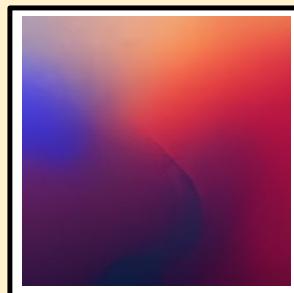
perfect html



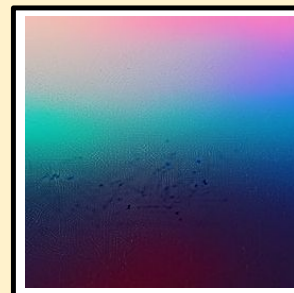
playstation 5



vscode but in 3d



trending in artstation

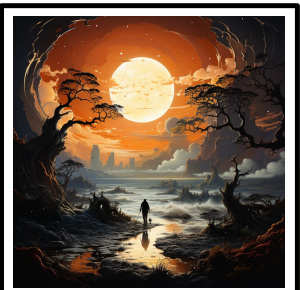


_eternalcrown_

Midjourney v1



a test



crescent



emerging background



nothing at all



psychedelic odyssey



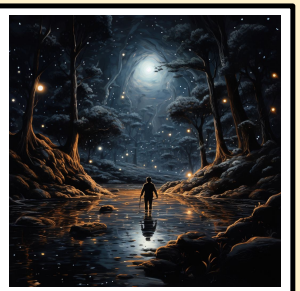
saudade



$|\psi\rangle = \alpha|0\rangle + \beta|1\rangle$



tyndall effect



the brightest night



random image

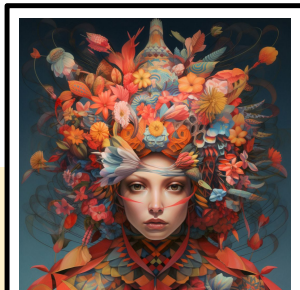


retribution

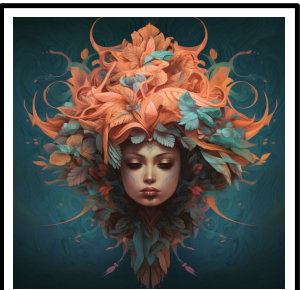


album art work artsy

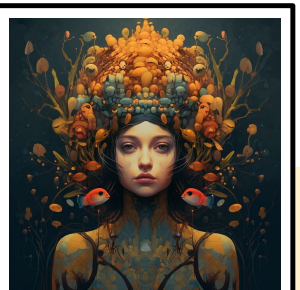
Midjourney v5



modernika



ninfeta



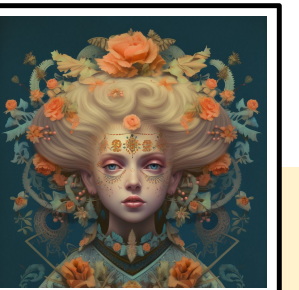
mulher borbolet 8k



alina kova



mana



fantisy



symatic images



reset your mind



v



culture and respect



a shapeshifter



ai heloc

Midjourney v5

Why does it matter?

Highly-creative Image Generation

- Default images can early-stop and derail the creative process
- **Highly creative practitioners are “punished” with default images**
- Frustration, dissatisfaction, sense of lost control over the creative process
- Undermines user trust, agency, perceived accuracy, and usability



“Modernika”

Future Work

- Methods for detecting default images (in longer prompts)?
- Better UI? (e.g. alert users)
- Blending? Personalization?
- Bias in text-to-image generation?





An Exploration of **Default Images** in Text-to-Image Generation



Hannu Simonen Atte Kiviniemi Hannah Johnston Helena Barranha Jonas Oppenlaender

Hugging Face

Search models, datasets, users...

Models

Datasets

Spaces

Community

Docs

Enterprise

Pricing

Datasets: tti-dev/default-images like 0

Dataset card

Files and versions xet

Community

Settings

Dataset Viewer

Auto-converted to Parquet

API

Embed

Duplicate

Data Studio

Split (1)

train · 758k rows

Search this dataset

date	datetime	user	content	prompt	prompt_raw
string · date	string · date	string · lengths	string · classes	string · lengths	string · lengths
2022-02... 2025-03...	2022-02... 2025-03...	1 32	0 values	1 25	13 125
2023-07-13T15:59:15.320000+00:00	2023-07-13 15:59:15.320	larsjoran	null	cluster bomb anime	**cluster bomb anime** - @larsjor
2023-07-13T15:59:15.320000+00:00	2023-07-13 15:59:15.320	larsjoran	null	cluster bomb anime	**cluster bomb anime** - @larsjor



Size of downloaded dataset files:
564 GB

Size of the auto-converted Parquet files:
564 GB

Number of rows:
757,728