

Syner

gy in

Synth

esis

Chapter 1 : Research #1

Youtube links

AI artists

Books

Chapter 2 : Art Experiments v0.2

Workshop The Authentic Image

AI image generation

AI x graphic design test

Thoughts feedback

AI cover img-to-img

Default cube collection

Cursed Emoji

AI image manipulation

AI image texture

Text to 3D

Chapter 3 : Research #2

Youtube links

Ownership and Copyright

AI x AI bias

AI dangers

Oblique Strategies

My teacher octopus

Anthropomorphism

AI x AI

Prompt to make a prompt

Auto-GPT

Chapter 4 : Coding Art Experiment v0.6

Our first experiments

Infinite book generator

The code of our project

Made in collaboration between Gill and AI

Booklet title + text generator

AI Dysarthria

Coding with AI Blender

Coding with AI P5.JS

Thoughts feedback

Oblique strategies GPT posters

Core thought

Draincore cover generator

Research question

Thoughts feedback

Talking with AI.txt

Poster sight

Chapter 5 : Master Thesis #3

Chapter 6 : Synergy in Synthesis v1.0

Introduction

AI project that makes projects

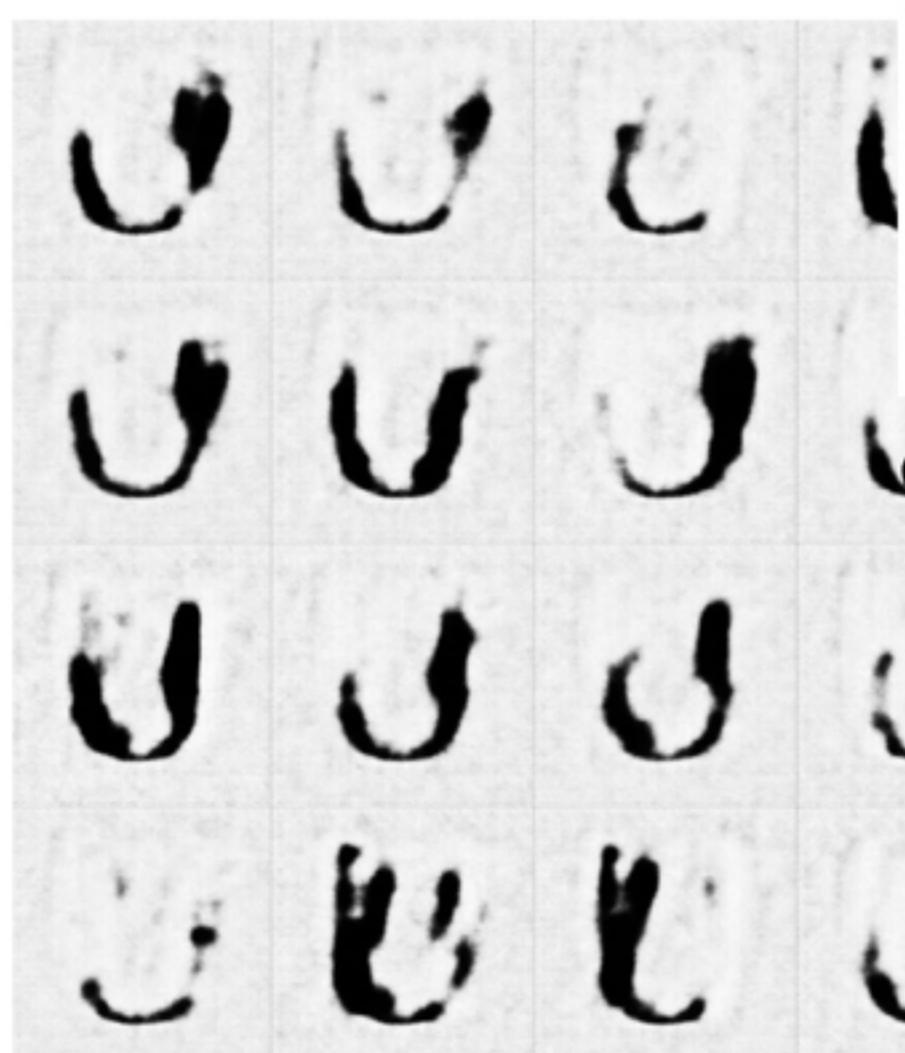
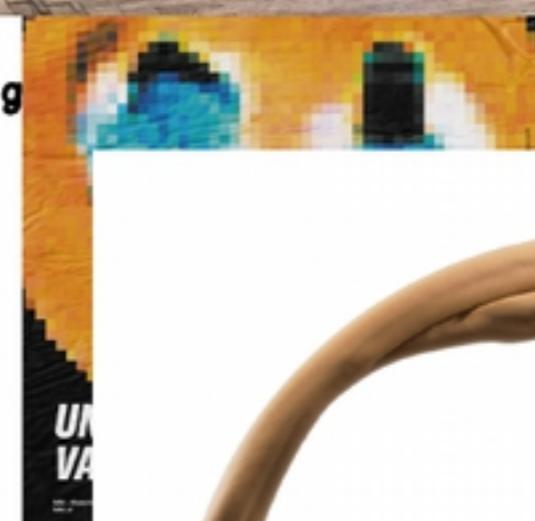
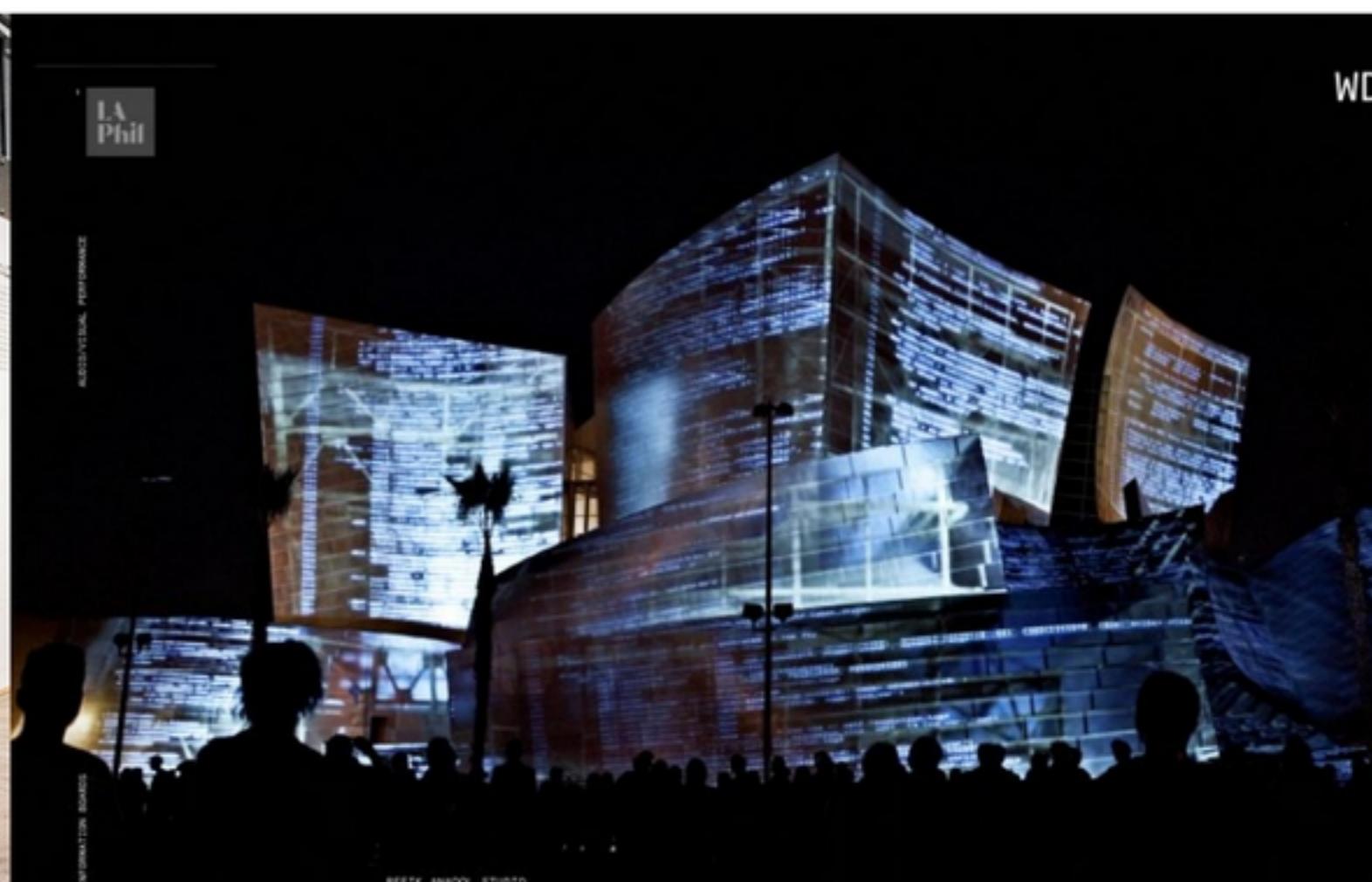
Talking with AI.txt

Chapter Research #1

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004.jpg

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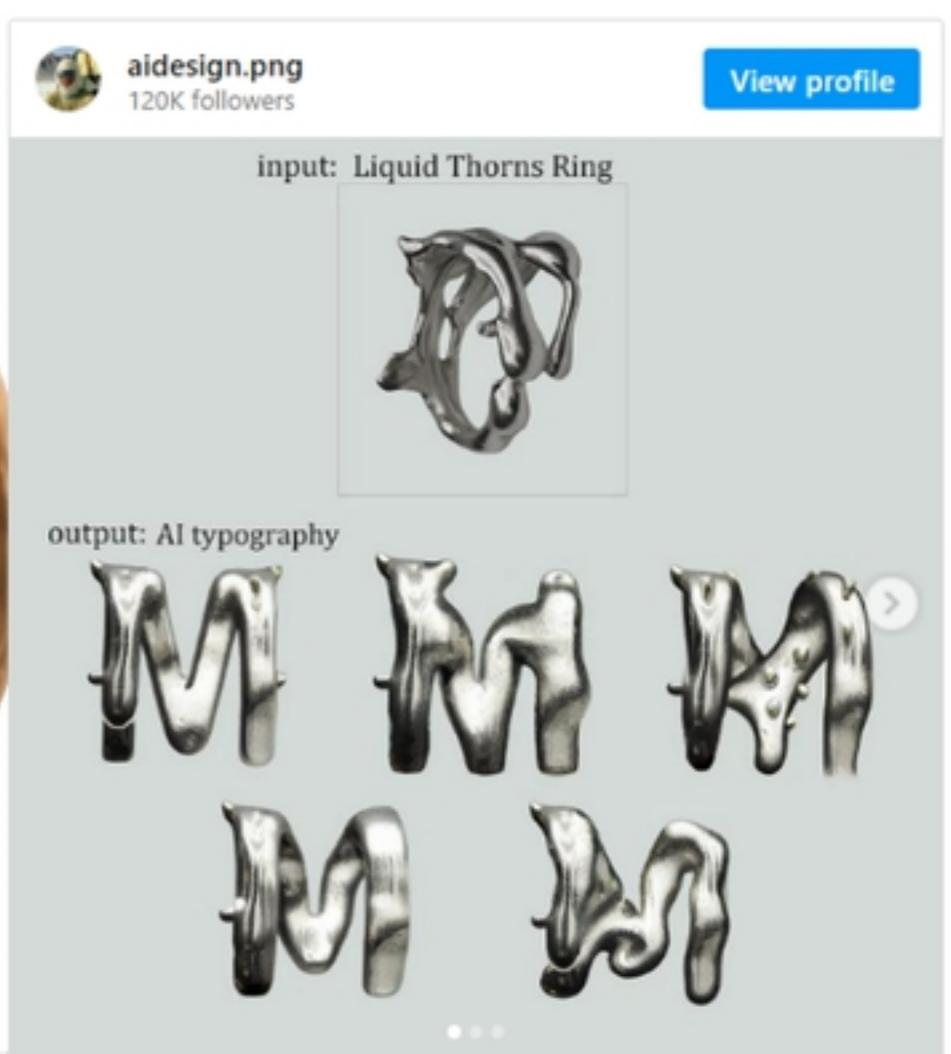
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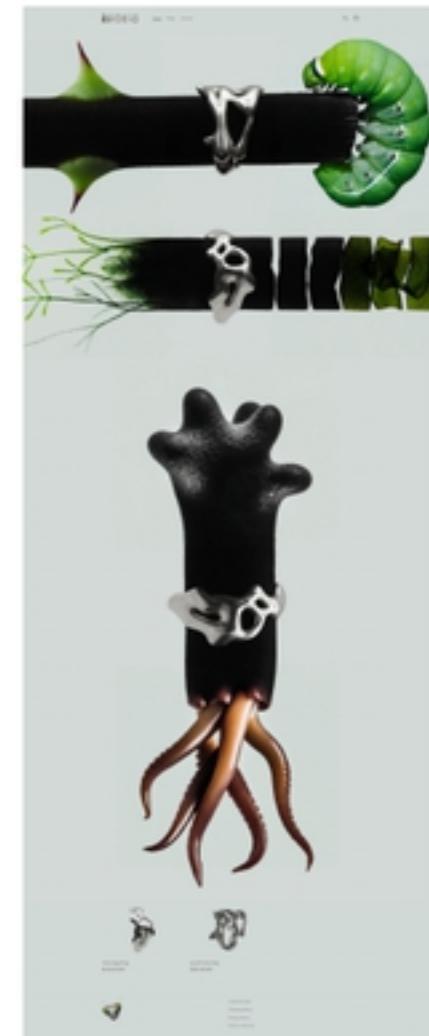
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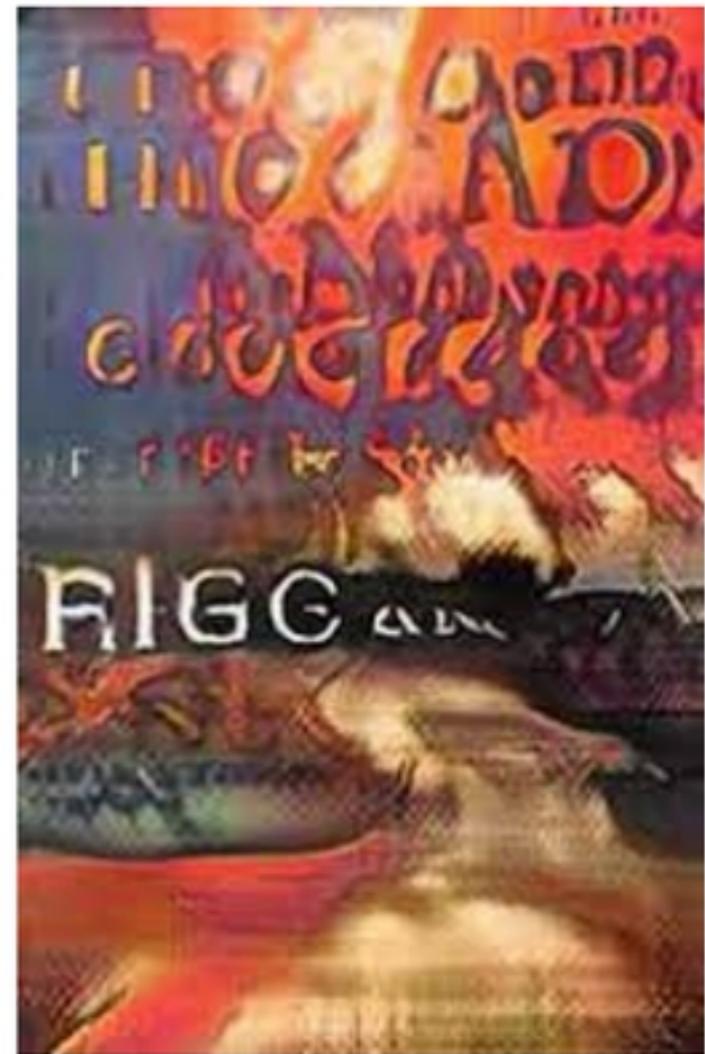
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 aidesign.png
120K followers

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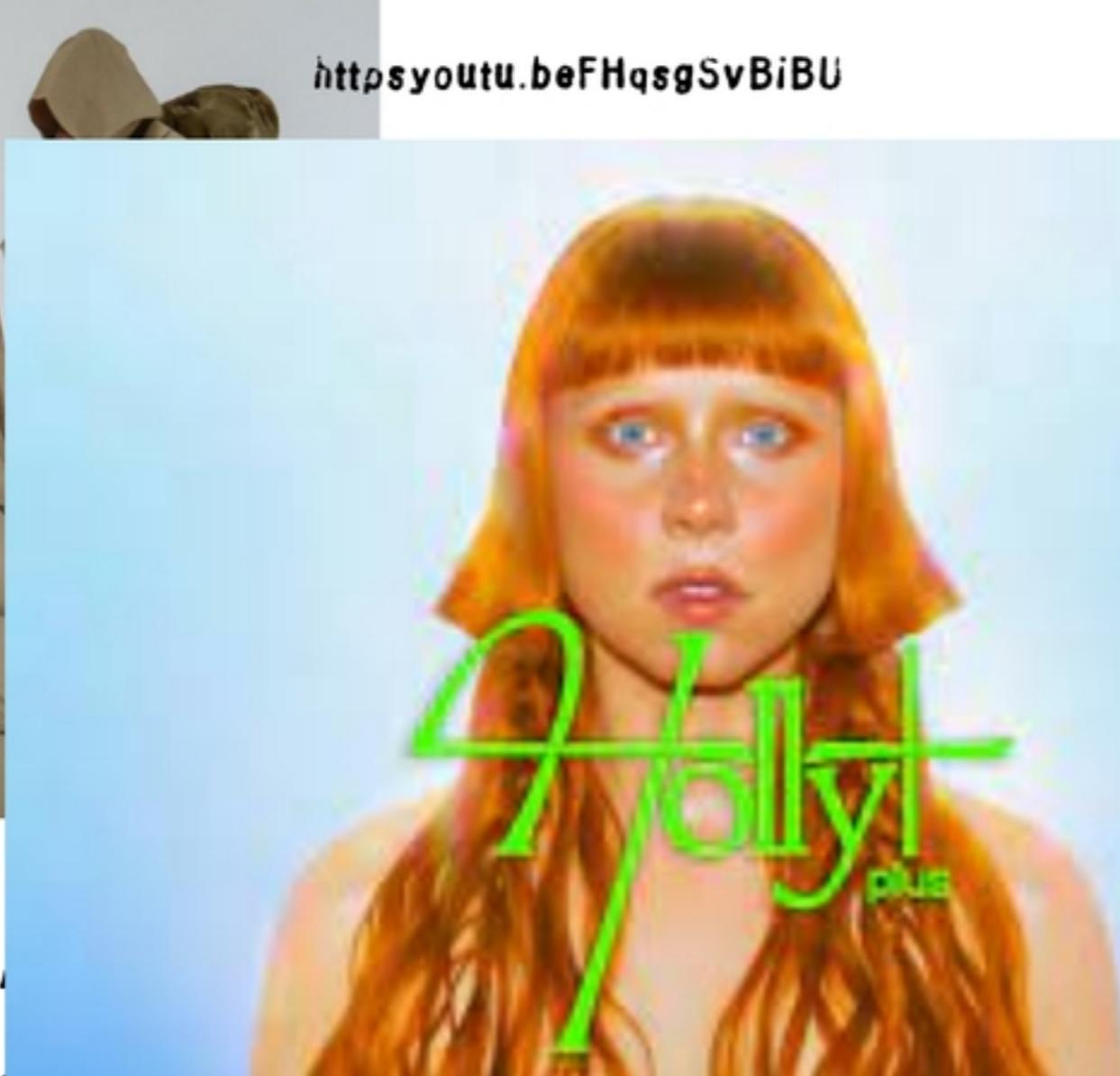


008_.png

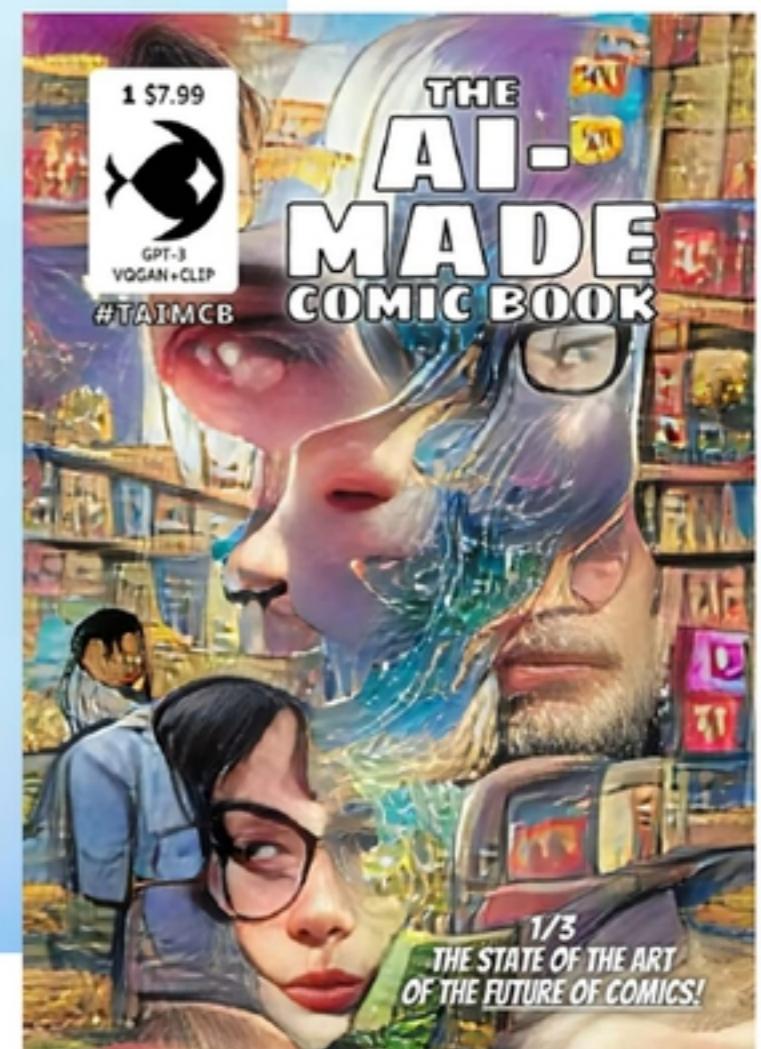
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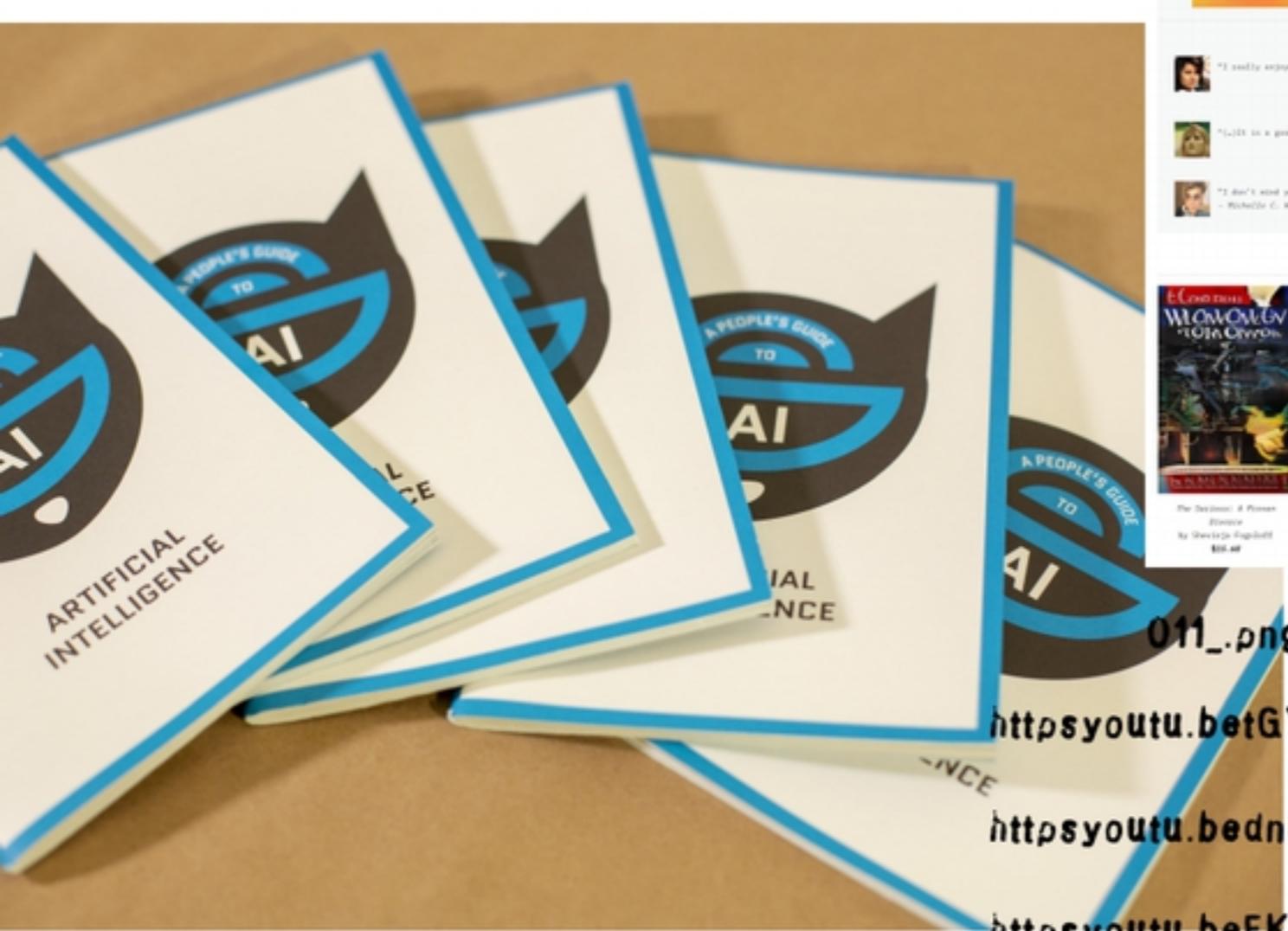
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012_d.jpg



013_.jpg



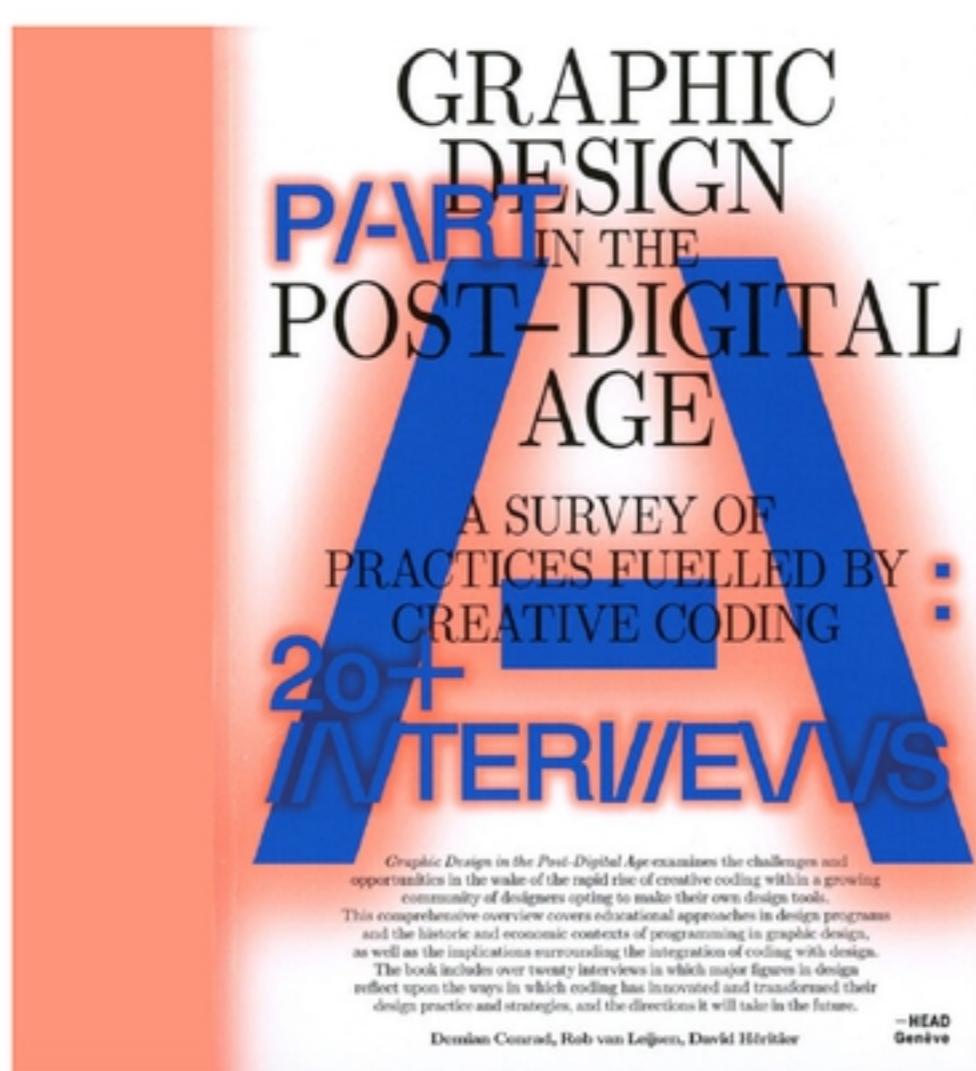
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014_.jpg

1_.jpg



015_.png



016_.jpg

<https://youtu.be/cxJcBuBpUU><https://youtu.be/ajyL9FyNpw><https://youtu.be/W5xwvXzD97I><https://youtu.be/RzkDrTEByS>

AI artists

Process Studio

001

Process is a design studio based in Vienna, specializing in generative and interactive design and working in the fields of branding, web, installation and print. As well as traditional graphic design solutions,

Process designs and develops highly specialized software that is used as tools for and by clients.

002

Generating new Typefaces using AI

The Alfont is a system that generates new typefaces. More precisely, it tries to mimic an actual typeface by creating visual output that resembles one.

Our system is using deep learning, a Deep Convolutional Generative Adversarial Network (DCGAN) and a dataset consisting of more than 200 000 different fonts to come up with new ones. The generated output is showing a new typeface per frame and an oscillation between different styles and kinds of typefaces, if you put one output frame after the other as a sequence.

003

Aldriven typeface generator

Together with the Almoji, the Alfont is the part of the visual identity of the exhibition UNCANNY VALUES, an exhibition at the MAK in context of the VIENNA BIENNALE FOR CHANGE 2019. It's a generative artwork and a process rather than a single still frame.

Process Studio inspireert mij door hun toepassing van AI binnen grafisch ontwerp. Dit aangezien dat de meeste mensen die met AI werken eerder kunstenaars zijn dan echt grafisch ontwerpers. Ook respecteer ik hen voor hun conceptueel denken binnen hun projecten.

Scott Eaton

004

Scott Eaton (b. 1973, Washington) is an American artist, designer, and anatomy instructor residing in London, UK. His work explores the representation of the human figure through various mediums drawing,

digital sculpture, photography, and most recently generative AI. Scott got his masters degree from the MIT Media Lab, focusing on design and computer graphics, and subsequently studied academic drawing and sculpture in Florence, Italy.

Alexander Mordvintsev

Alexander Mordvintsev is a software engineer known for his work in the field of artificial intelligence (AI) and computer vision. He is perhaps best known as the creator of DeepDream, an AI-based software that uses a convolutional neural network to find and enhance patterns in images, thus creating a dreamlike hallucinogenic appearance in the deliberately overprocessed images.

Refik Anadol

005

Refik Anadol is a renowned media artist and director known for his pioneering work in data art and his application of artificial intelligence in creating stunning digital installations.

Born in Istanbul, Turkey, and currently based in Los Angeles, Anadol has effectively blurred the lines between physical and digital worlds, using large-scale, data-driven public art to create immersive, site-specific installations. His projects frequently incorporate AI and machine learning, drawing from large sets of data to craft dynamic and visually compelling environments.

Anadol's work with AI isn't just for aesthetics. He's deeply interested in exploring the ways AI perceives and reshapes the world. His projects often use machine learning algorithms to analyze and manipulate large datasets, creating novel patterns and structures. These aren't random designs, but the product of AI "thinking" and "dreaming," a concept that has been a recurring theme in Anadol's work.

One of his most famous projects, "Machine Memories Space," used AI

to sort through nearly two million publicly accessible images of the Hubble Space Telescope. Using a machine learning algorithm, the software was able to cluster similar images and create a new interpretation of the universean AI's view of space.

I really like the idea that AI has a different kind of memory dreams. The dreaming and thinking of AI is fascinating to think about

miosis.designadesign.png

006

007

008

I love to see AI integrated in graphic design because I can see myself going along a path like that for my career. It is less conceptual but the integration of AI in more standard graphic design would be a way for me to incorporate things I love with a graphic design job that is marketable.

Mimi Onuoha

009

Mimi Onuoha is a NigerianAmerican artist who explores the friction between the fluid messiness of people, and the quantified, categorized state of our technological society.

A People's Guide to AI (2018)

Systems that use artificial intelligence are quietly becoming present in more and more parts of our lives. But what does this technology really mean for people, both right now and in the future? Written in 2018 by Mimi Onuoha and Mother Cyborg (Diana Nucera), A Peoples Guide to AI is a comprehensive beginner's guide to understanding AI and other datadriven tech. The guide uses a popular education approach to

explore and explain Albased technologies so that everyonefrom youth to seniors, and from nontechies to expertshas the chance to think critically about the kinds of futures automated technologies can bring.

The mission of A Peoples Guide to AI is to open up conversation around AI by demystifying, situating, and shifting the narrative about what types of use cases AI can have for everyday people.

Holly Herndon

010

Holly Herndon is an American composer and sound artist based in Berlin, Germany. She is known for her experimental and avantgarde electronic music that often integrates the use of technology, particularly artificial intelligence (AI), in innovative and thoughtprovoking ways.

One of Herndon's most notable works involving AI is her 2019 album "PROTO". In this project, she collaborated with AI software named "Spawn", an AI model she "raised" and trained using various human voices, including her own. Herndon and her collaborators taught Spawn to identify and recreate human vocal sounds, effectively teaching the AI to "sing". The album blends traditional choral music with the electronic soundscape, and Spawn's participation raises provocative questions about the intersection of technology and humanity in art.

Herndon's work also explores the concept of digital identity, questioning what it means to be human in an increasingly digital world. Her music often has a strong element of social commentary and explores a future where human creativity and AI could collaborate and coexist.

Booksby.ai

011

Tired of books written by authors? Booksby.ai is an online bookstore which sells science fiction novels generated by an artificial intelligence.

Through training, the artificial intelligence has been exposed to a large number of science fiction books and has learned to generate new ones that mimic the language, style and visual appearance of the books it has read.

None of the stories, titles, descriptions, book covers or reviews related to any of the books on Booksby.ai has been written or designed by humans.

I really like how conceptually almost everything is done by AI, from the book covers and text to the reviews on their website

Books

Dinner Depression by Julia Joy Raffel, GPT3

012

The Almade comic book by Adam Niman, GPT3 , VQGANCLIP

013

The Age Of Data by various artists

014

PharmakoAI by K AltadoMcDowell, GPT4

015

Graphic Design in the PostDigital Age by Demian Conrad

016

~~Chapter 2: AI Experiments v0.2~~

~~Workshop The Authentic Image~~

017

018

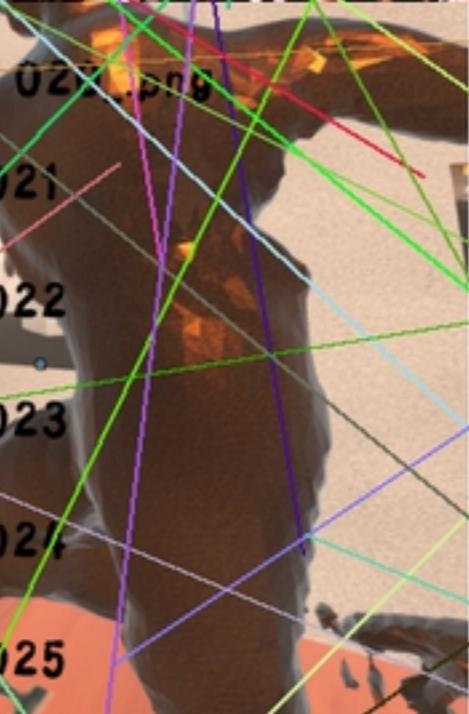
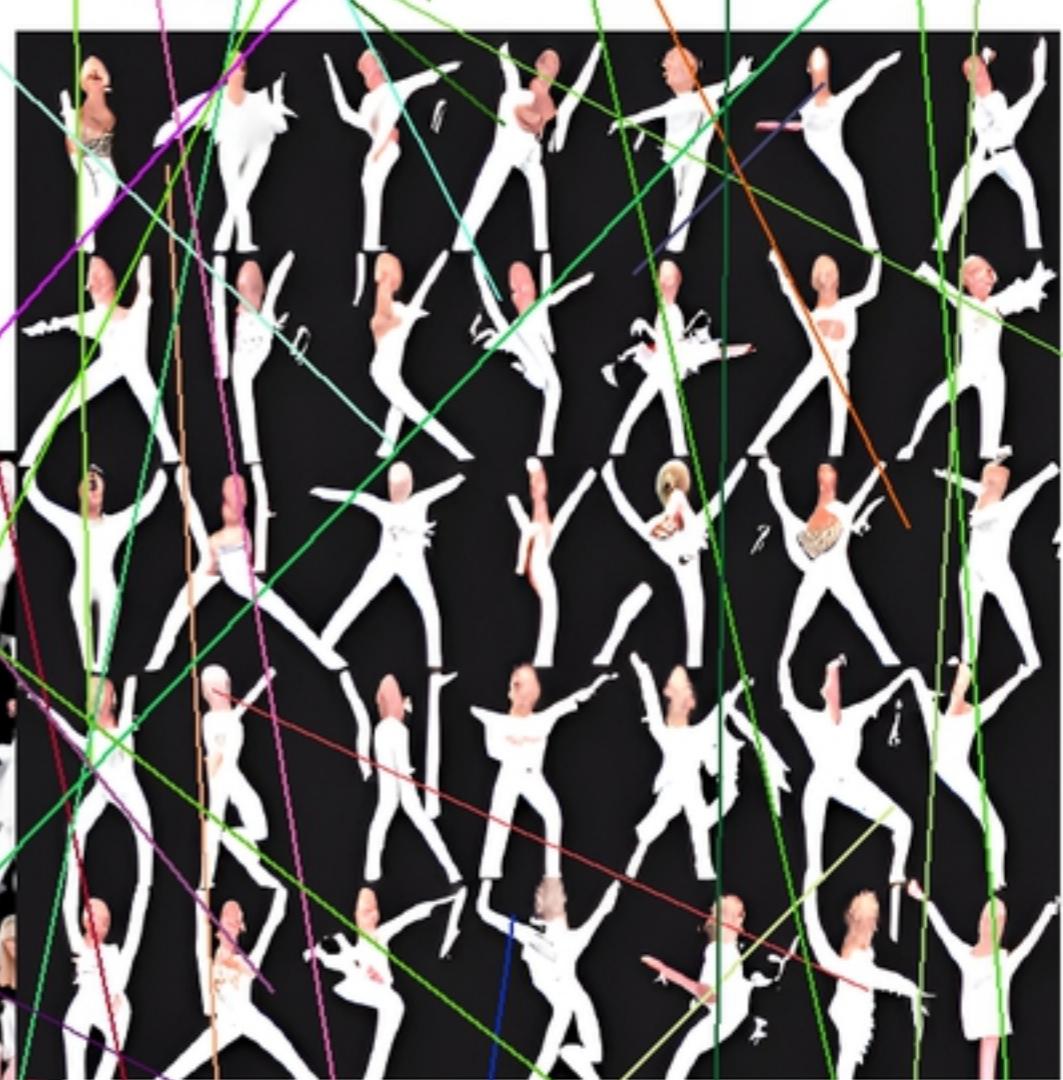
Made in collaboration between AI,
Vermijlen Thor, Claudia Seeldrayers,
Constanza Correira, Gill Decuyper.



~~AI image generation~~

019

020



HEAVEN, DRANG



024_.png

RAVE



026_.png



029_.png



025_.png



027_.png

AI X graphic design test

"poster for a rave"

026

"nightclub wall, rave"

027

Good for specifiek mockups over zeewier zou je snel een van een muur met zeewier maken, iets dat nog niet bes



028_.png



031_.png

innovating ways.

after experimenting I can look at how to use it in new ways

What do I wanna do accomplish this master year?

Using AI as an innovative graphic design tool.

This can be done by using Existing A tools in innovative ways on graphic design or making my own AI tool (big limmit in coding skills)

making an AI toolsystemtechnic. The end product should be a tool to use on graphic design and not the designs (posters, books,) it produces. all tho they will be part o showing of the AI tool



035_.png



032_.png

Questions in my head doubt. Will this be possible, is this realistic? I guess I dont care Im just gonna try and work and something will forsure come out (Im passionate). try it out in the first semester (dont wait) to rethink the outcome if it doesnt work



036_.png



034_.png



033_.jpg



037_.jpg

Thoughts after first feedback

More experimenting and researching.

Without understanding the AI tools, I cant use them especially not in



038_.png



040_.jpg



042_.png



039_.png



041_.png



043_.png

AI cover imgtoimg

fast concept art

Cover song fantasyworld pools x
ygary

030

Needed to make a cover of us in
armor, first searched for real
medieval armor and swords,
realized it would be easier to use AI,
the song is called fantasy world so
the AI aesthetic fits the teaming well.

031

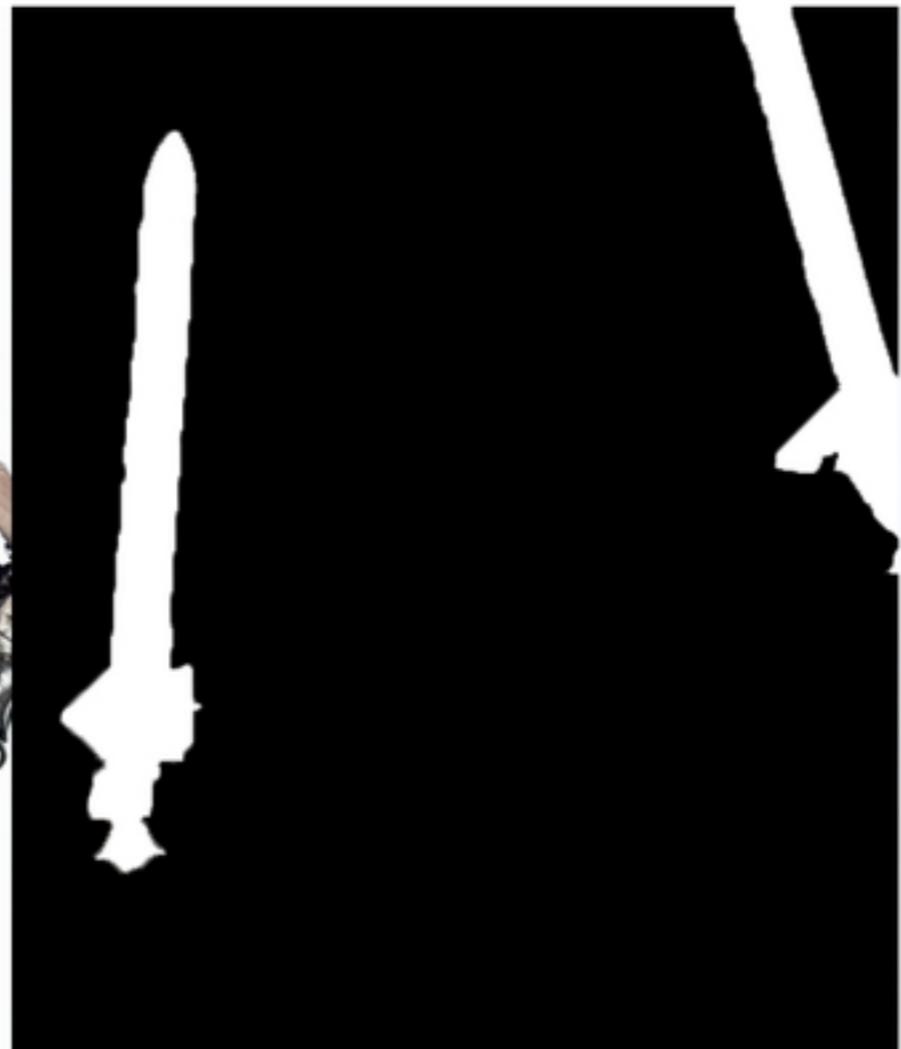
032



044_.png



045_.png



047_.jpg



050_.png

inpainting test to keep the face

033

034

035

036



first tests picture pools x ygary

037

038

039

Inpainting



046_.jpg

048_.jpg



049_.png



051_.png



054_.png

057_.png



044

045

046

tests to add swords

047

AI had no noise to create the sword

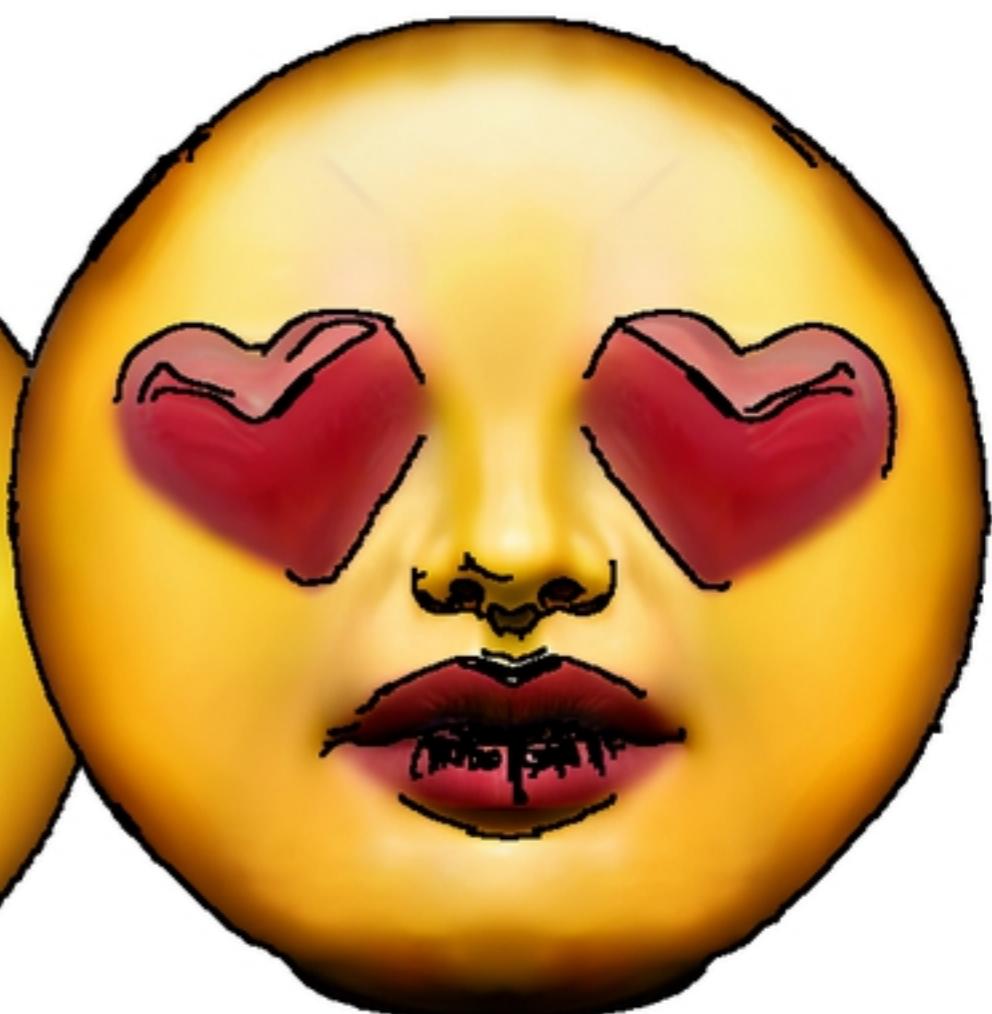
making a hit in sword for the AI to start from

curseemoji



053_.png

055_.png



058_.png

056_.png

048

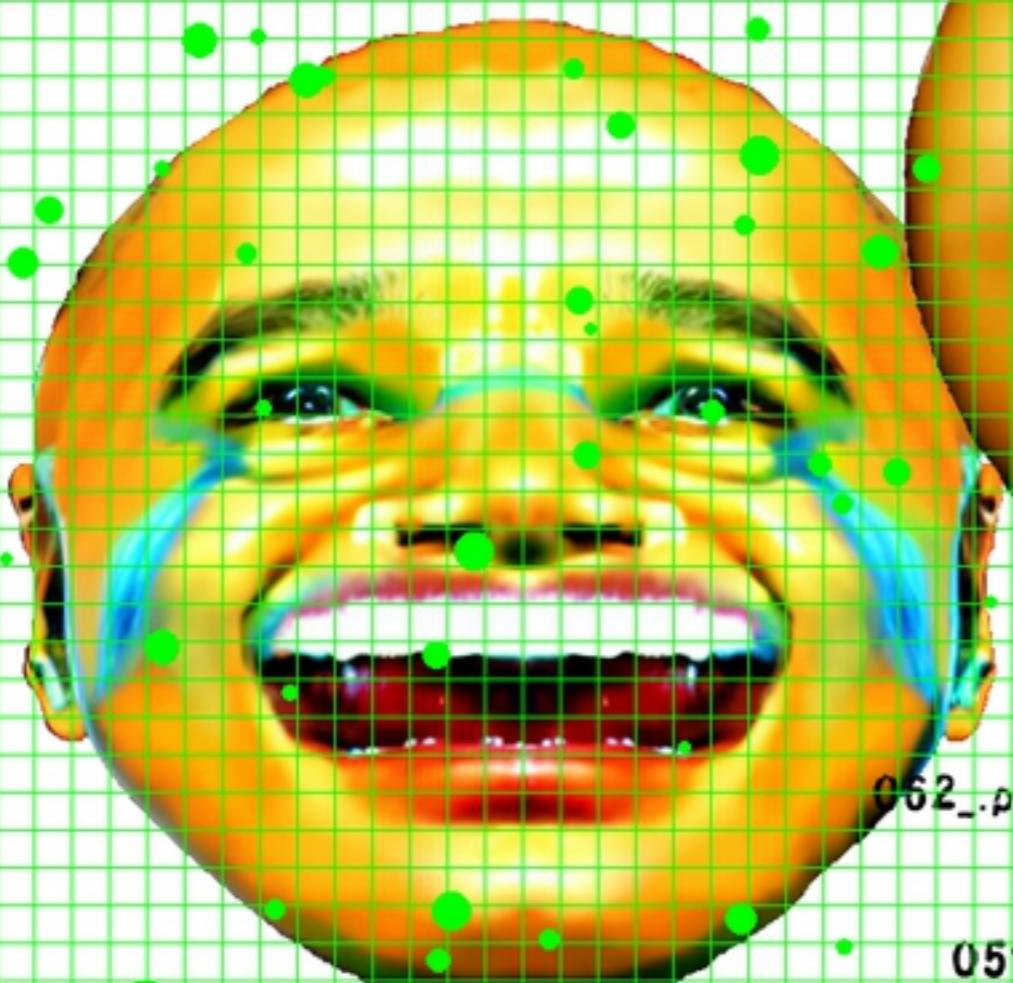
049

050

back to img to img

Better idea of what the prompts should be to fit the aesthetic of the music. Character design looks like we made our own avatars in Final Fantasy

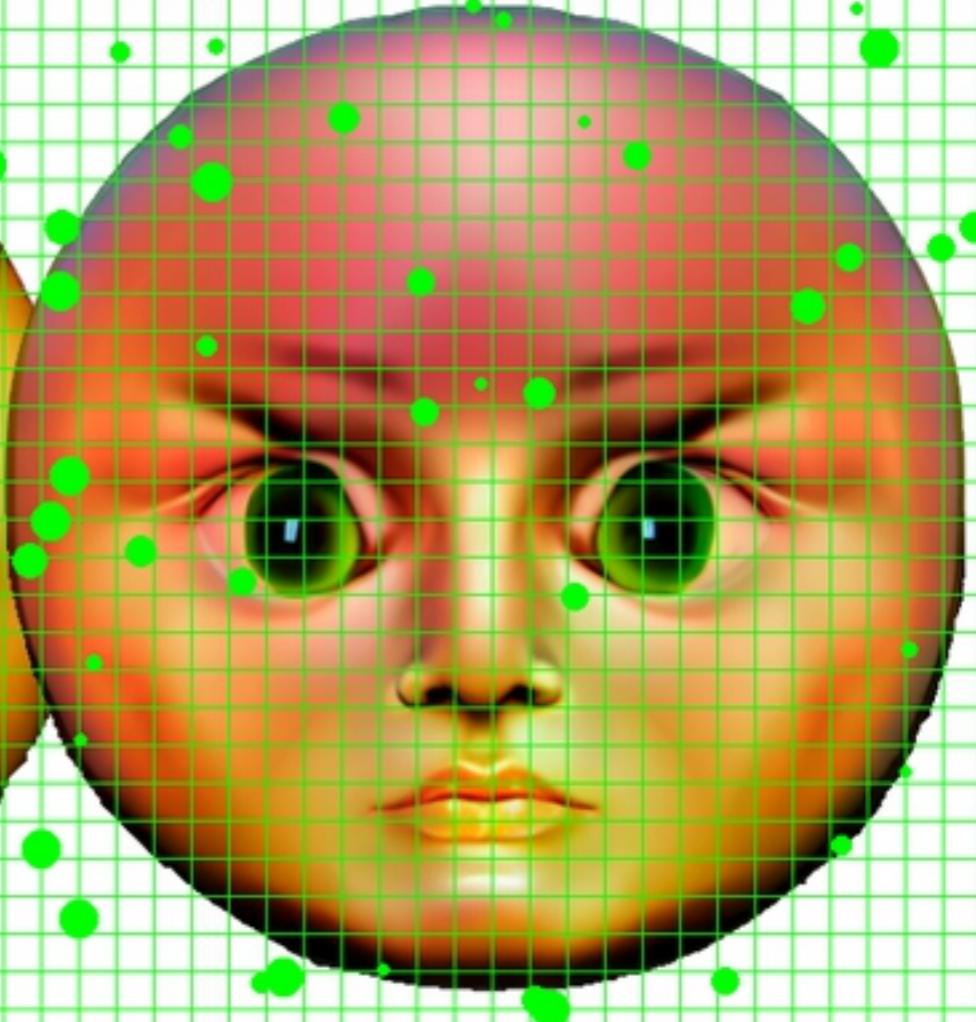
touching up the image, when you inpaint it fucks up the original image, so you gotta stitch the new parts to the original image, plus adding text



059_.png



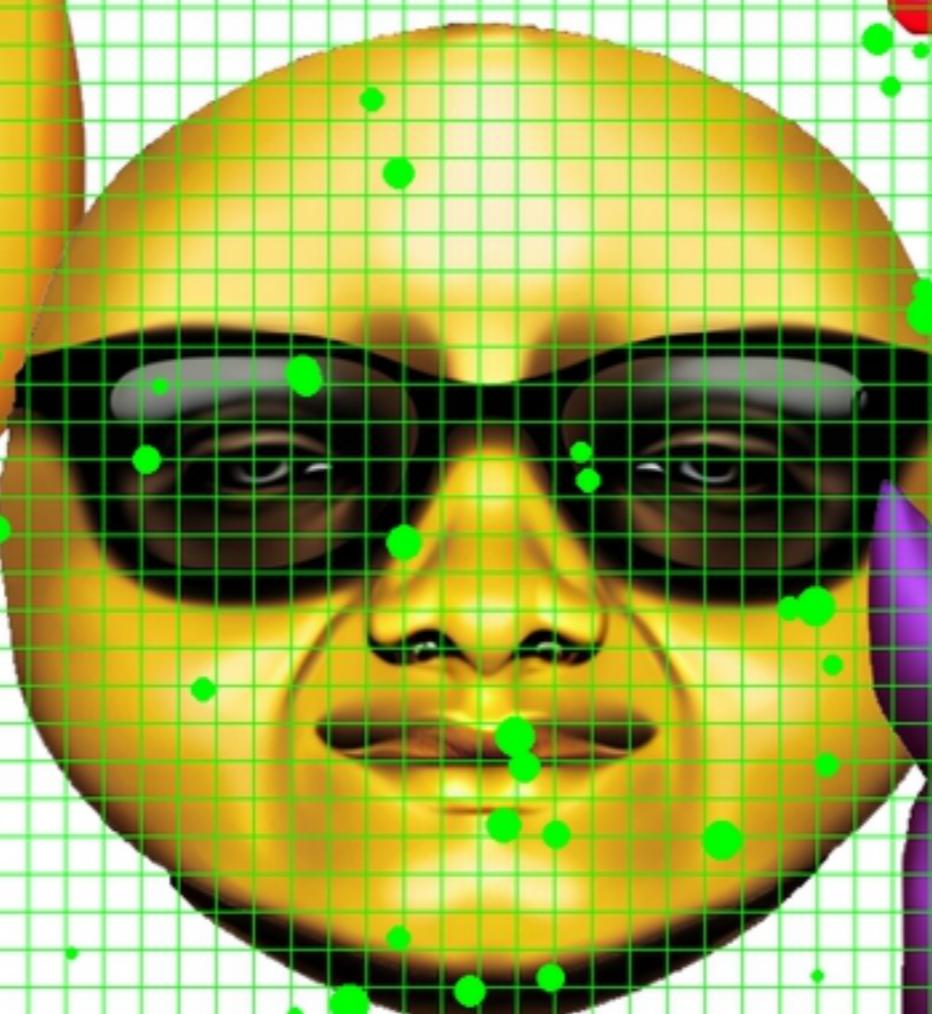
062_.png



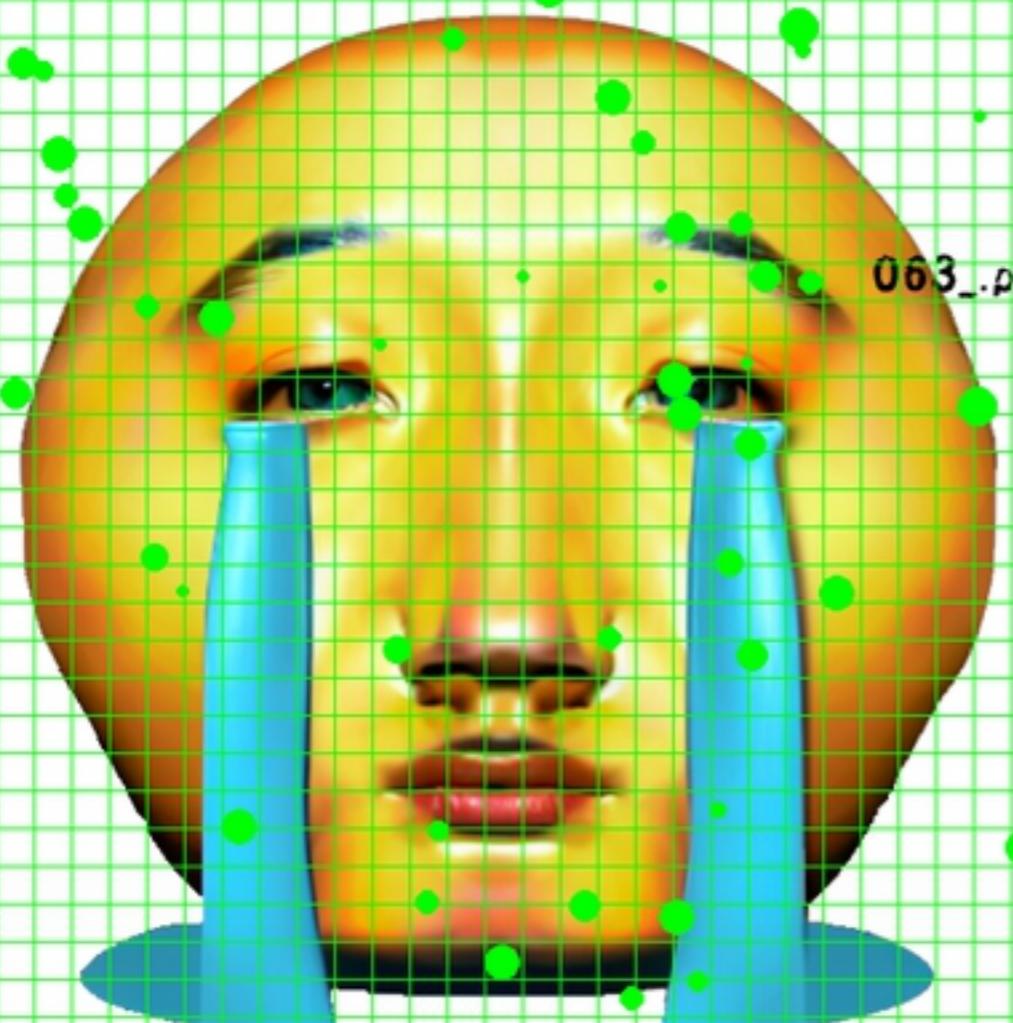
064_.png



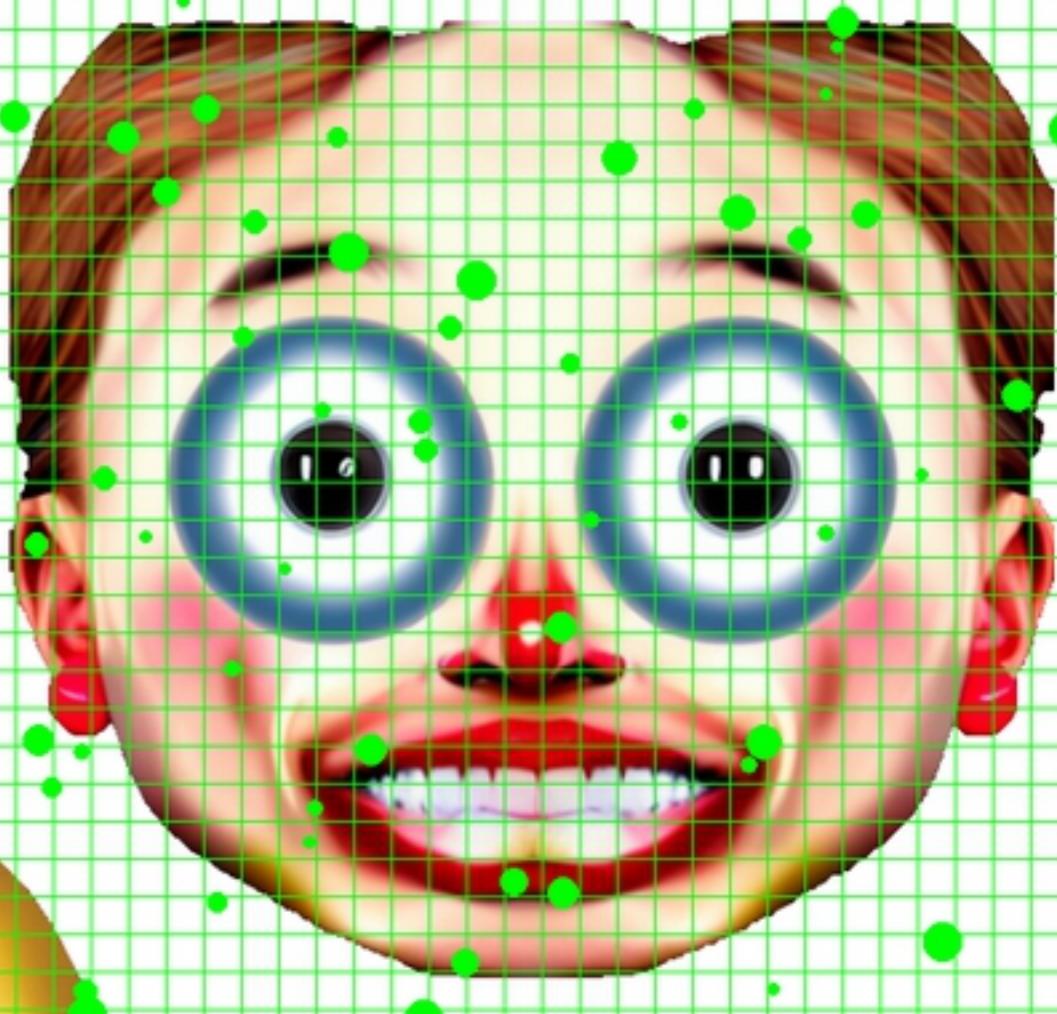
060_.png



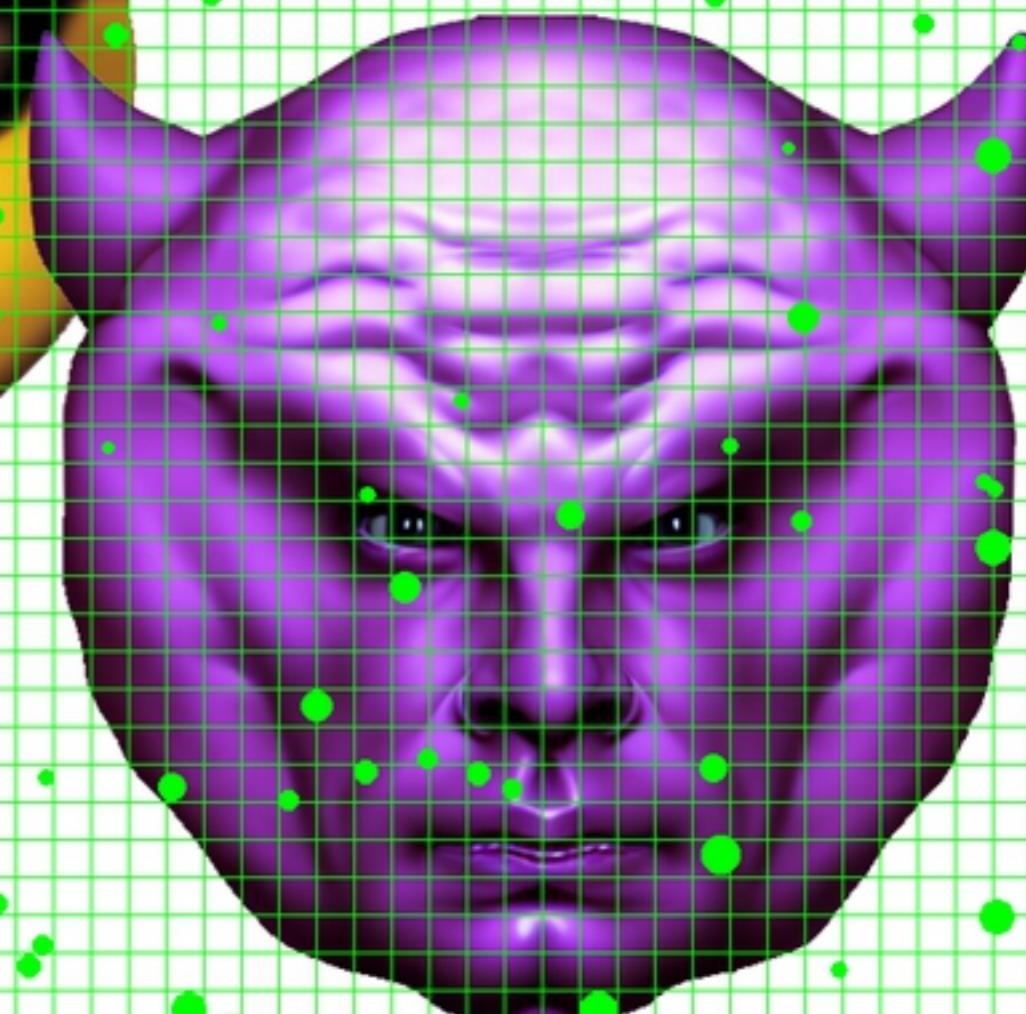
063_.png



061_.png



.png



066_.png

The concept involves taking the most basic element in 3D modeling, the default cube in Blender, and employing an image-to-image translation model to morph it into an array of complex and unique objects.

ranging from miniature houses to animals.

Cursed Emoji sticker pack

053



067_.png



068_.png



069_.png

"Cursed Emoji" represents a novel artistic endeavor that leverages the abilities of artificial intelligence to breathe new life into the static world of emojis. Situated at the intersection of machine learning, visual arts, and digital culture, this project employs a suite of advanced computational tools to reimagine emojis in a realistic and engaging manner. It is inspired by Process Studios AI emoji collection but imagined with the advancements that have been made in AI.

070_.png



071_.png



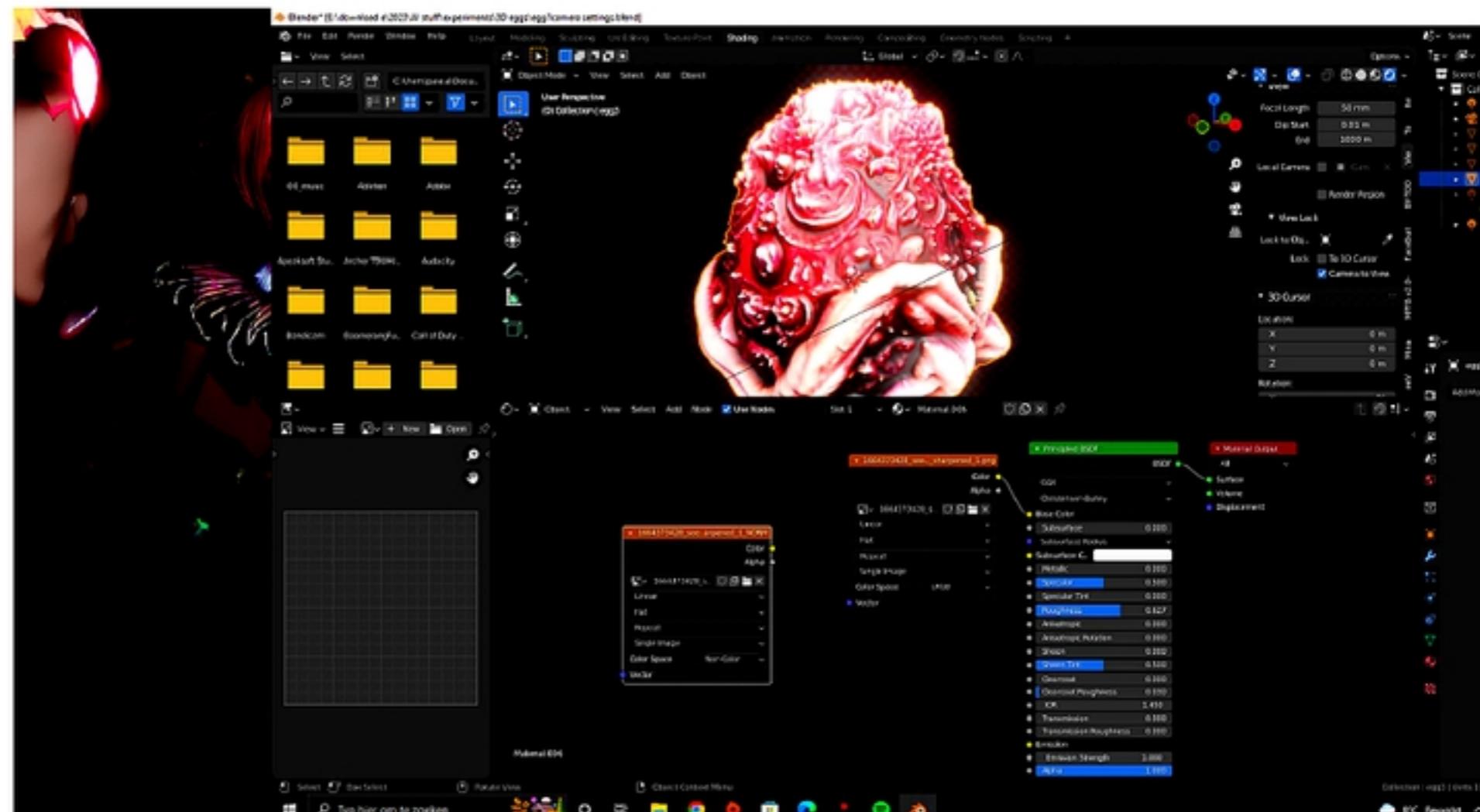
072_.jpg



073_.png



074_.png



076_.png

079_.jpg

058

066

059

The ones that didnt make it

060

067

062

068

063

069

064

070

065



078_.png

075_.png

080_.png

081_.png

068

069

070



080_.png



071



082_.png



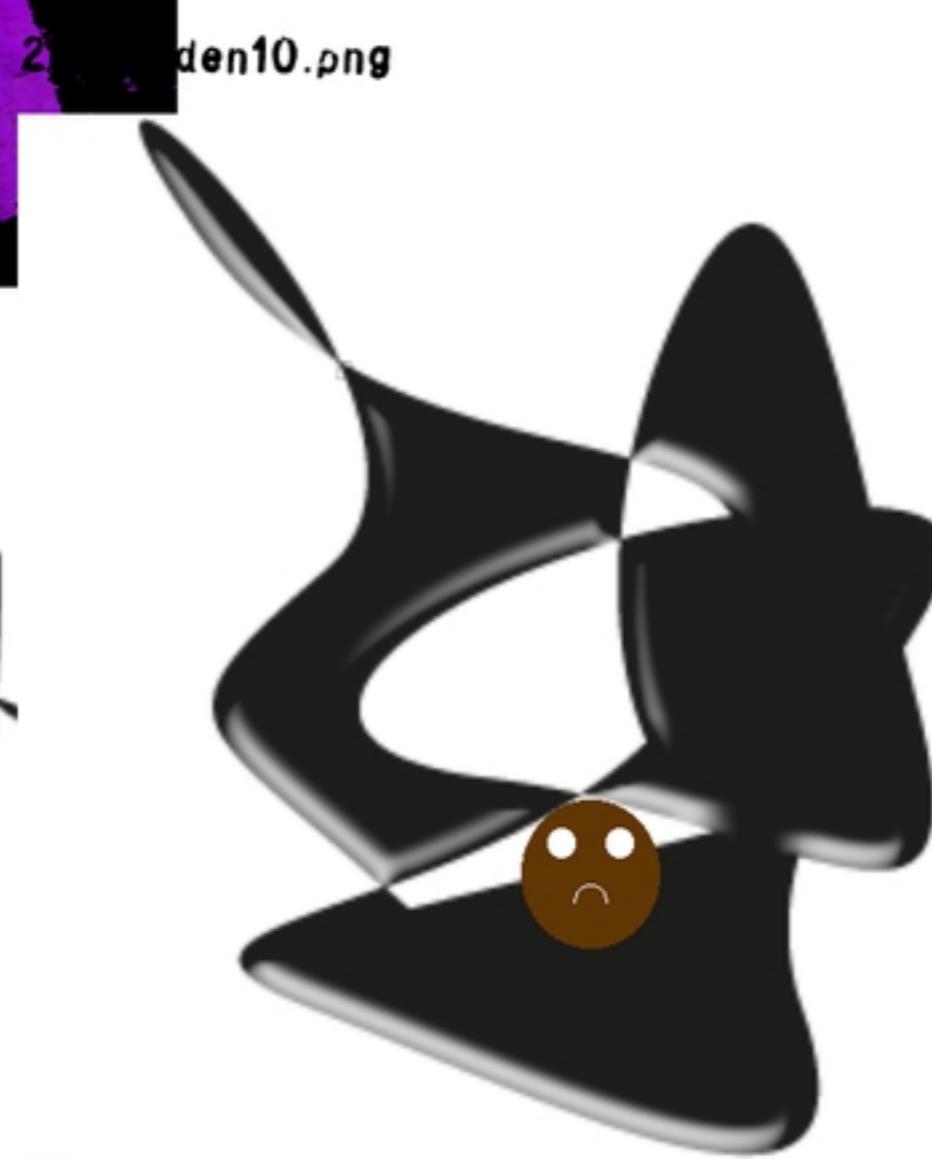
20beelden13.png

AI image manipulation collage
sinnerpropaganda

original

072

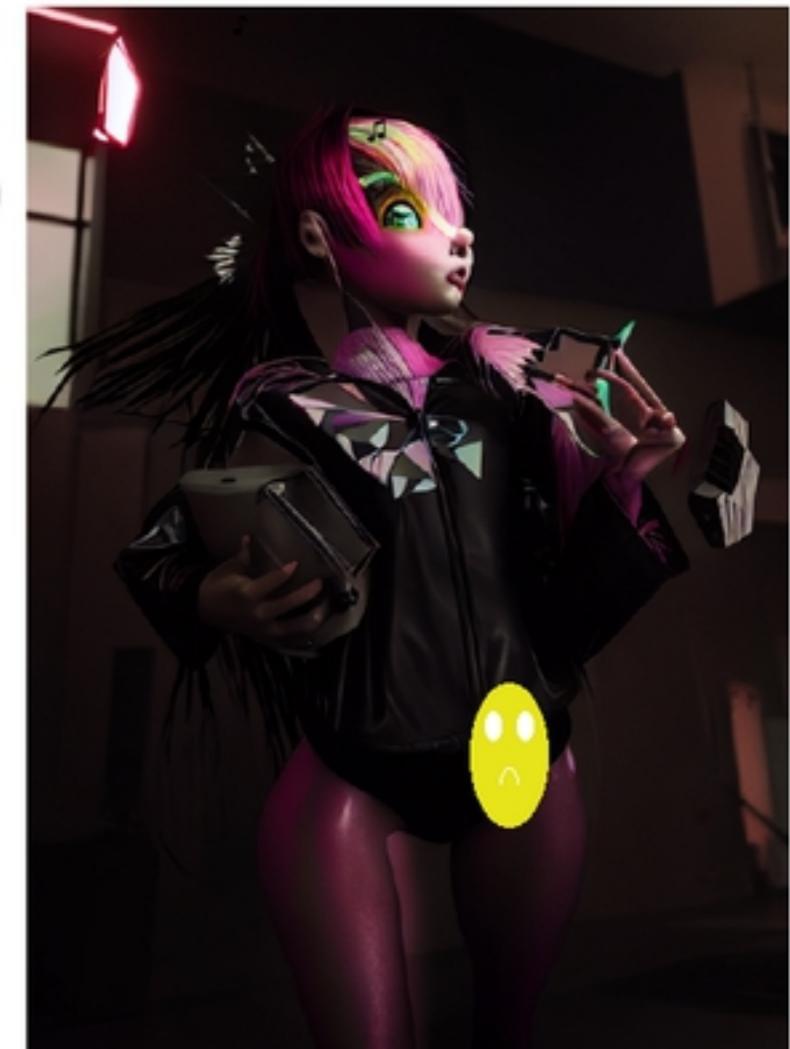
edited



20beelden8.png



20beelden.png



077.png

073

074

075

076

077

AI image texture



tutorial by Game Art Experiments

078

079

080

Text to 3D

DreamFusion Textto3D using 2D
Diffusion

Prompt digimon, cute monster

081

082



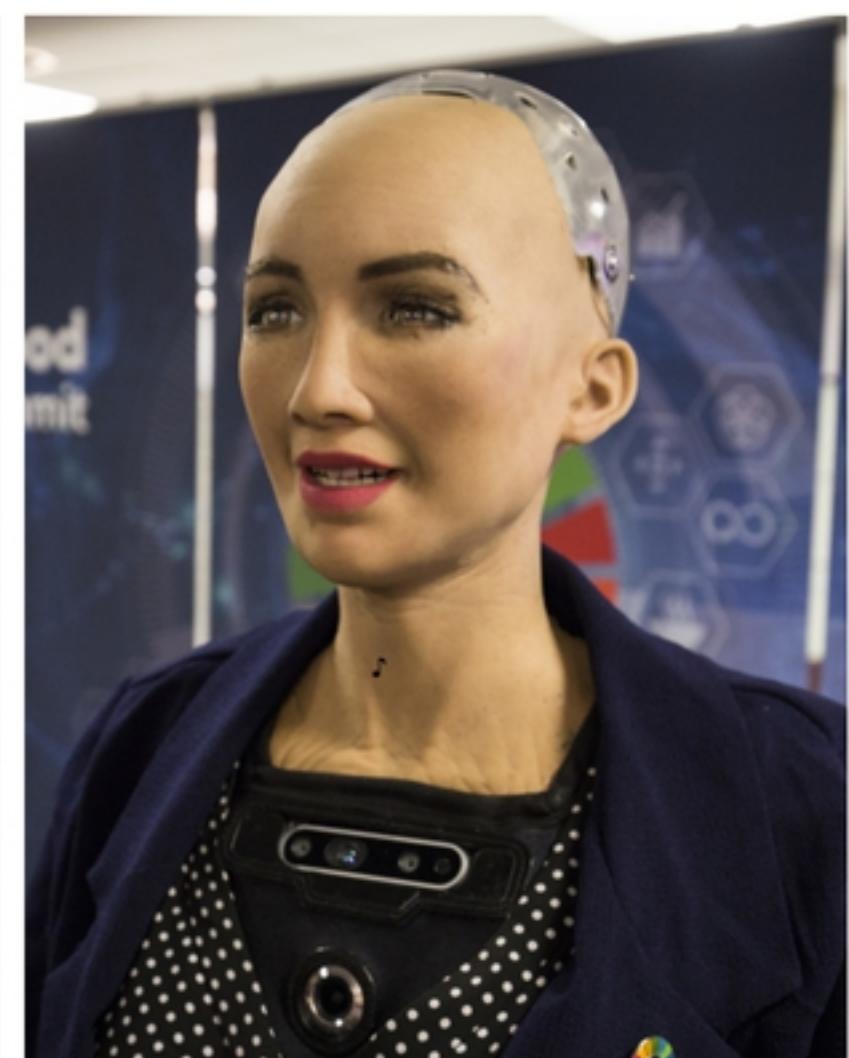
Chapter Research #2

3:

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<https://youtu.be/1V1bs6eLl28>



085_.jpg

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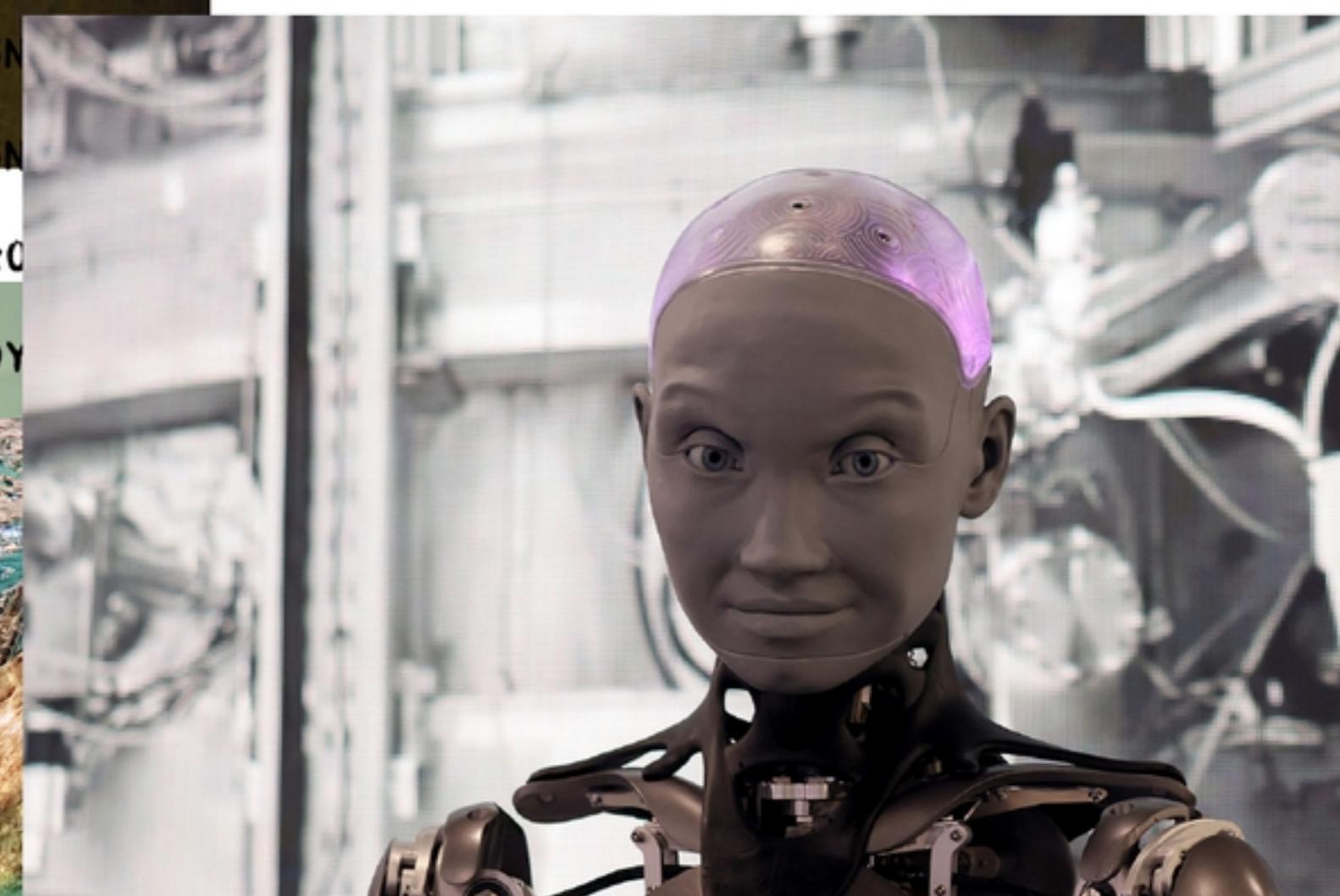
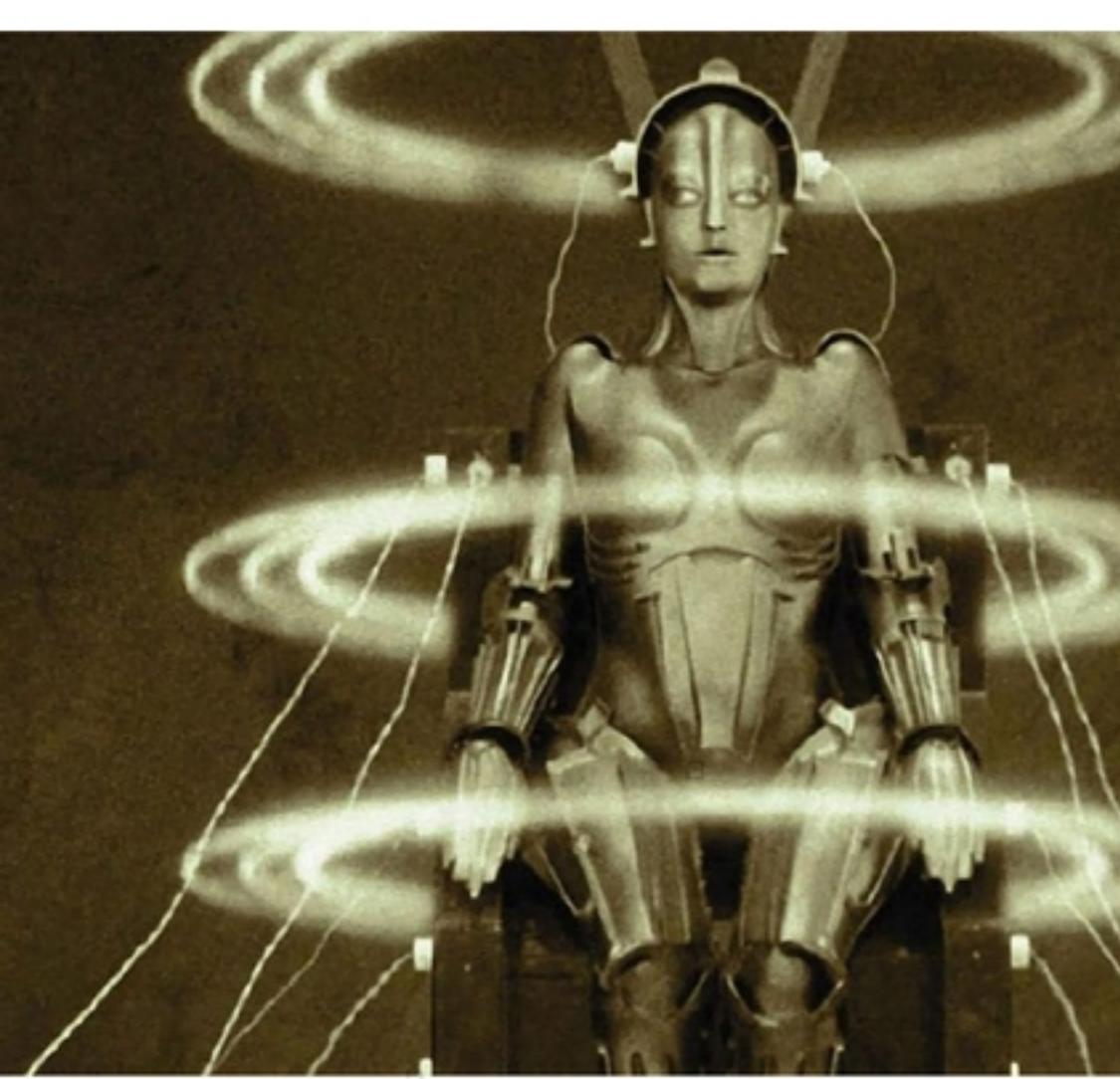
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087_.jpg

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086_.jpg

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<https://youtu.be/dawCKtQYW0A>

<https://youtu.be/Jjn39KGILGg>

ownershipcopyright

It was naive of me to not go deeper into all the dangersnegative sides of AI. I like to live in my own world and the negative things around AI arent what interest me about it, but I still have to educate myself about them, to keep them in consideration.

<https://www.theverge.com/23444685/generative-ai-copyright-infringement-legal-fair-use-training-data>

<https://research.aimultiple.com/generative-ai-copyright/>

Under the copyright law of most countries, the creator of a work is generally considered the copyright owner. However, when a work is created by AI, it is unclear who the creator is. Such ambiguity can create problems in determining who has the right to exploit the work, and in enforcing copyright violations.

There can be different solutions to this problem

AI itself as the creator of the work, in which case the AI owner would have the copyright.

AI models human programmer as the creator, in which case the programmer would be the owner of the copyright.

Humans that prepared the AI models training data as the creators.

copyright law Europe

<https://www.globallegalpost.com/law/over-borders/artificial-intelligence/1272919708-belgium-176339797>

In Belgian copyright law, no specific legal provision applies to works entirely generated by machine or by AI systems. As a result, uncertainty prevails, as to the protection of AI generated works. It is argued that in the current state of the law, where an output is entirely created by a machinelearning algorithm, the mere selection or provision of data as input, cannot in itself be sufficient to grant copyright protection to the user.

<https://www.gevers.eublog.artificial-intelligence/artificial-intelligence-at-the-equal-ification-of-ai-creations-as-works-under-copyright-law>

AIgenerated output is created without any human intervention. Therefore, it does not meet the requirements to qualify as a work, as laid down in the fourstep test. For AIgenerated output to enjoy copyright protection in the EU, the current legal framework does not seem suitable.

Thoughts

This is not always the case. I would say that there is a lot of human intervention in making something with AI. From choosing which database to use to the selection process. If there's a machine that randomly applies paint to a canvas and I use it. Does that mean that artwork would also not be protected under copyright protection?

There is a difference between when something can be considered art and when it can be protected under copyright laws.

If an artist takes a stone out of nature and puts it in a museum it becomes art but I think it wont be protected under copyright laws.(because it is the mere selection of something generated by nature) But when he changes something about the stone or just puts a signature on it, I think it would be protected by copyright laws. would it be the same with AI

generated work?

Stealing?

AI like GPT and text to image show a lot of remnants of other people other people's work. A lot of datasets(almost all commercial datasets) use the work of other peopleartists. These artists found out their work was used to train AI. Now they're furious

<https://www.levelup.com/en/news/715571>
ArtistshowsevidencethatAlispossibly
stealingothersart

<https://www.sciencealert.com/is-tensorflow-stealing-from-human-art-an-expert-explains-the-controversy>

Thoughts

Wat zijn de consequenties van dat ik de AI gebruik?. Natuurlijk draag ik op dit moment heel mee met de problemen die hierboven gezegd zijn. Maar mijn werk is naar een meer persoonlijk kant aan het leunen en ik gebruik dit niet om er geld van te verdienen of intentioneel slecht mee te doen. Ook kun je over alle technologie 100de slechte dingen zeggen, van de opkomst van autos tot photoshop, de camera en zo voort. Ook al realiseer ik mij nu dat je rekening moet houden met deze negatieve kanten, vind ik niet dat dit de technologie in alle instanties slecht maakt. Het heeft slechte en goede kanten. Ik ben het er wel mee eens dat de dataset bias en het stelen van werk voor de dataset een probleem is. Je kunt dit omzeilen door zelf bijvoorbeeld een dataset te maken maar mijn project gaat niet over deze problemen. Ik ga er rekening mee houden maar het wordt zeker niet de focus van mijn project. Of course AI isn't all bad and has a lot of positive sides to it and benefits to humanity.

<https://magazine.artland.com/ai-art>

<https://towardsdatascience.com/advantages-and-disadvantages-of-artificial-intelligence-182a5ef6588c>

AI bias

Machine Learning bias, also known as algorithm bias or Artificial Intelligence bias, refers to the tendency of algorithms to reflect

human biases.

<https://levity.aiblog.aibias/how-to-avoid>

AI bias reflects society's biases

<https://www.mckinsey.com/featured-insights/artificial-intelligence/tackling-bias-in-artificial-intelligence-and-in-humans>

<https://www.lexalytics.com/blog/bias-in-machine-learning>

<https://www.techtarget.com/searchenterpriseai/definition/machine-learning-bias-algorithm-bias-or-Abias>

Algorithm bias. This occurs when there's a problem within the algorithm that performs the calculations that power the machine learning computations.

Sample bias. This happens when there's a problem with the data used to train the machine learning model. In this type of bias, the data used is either not large enough or representative enough to teach the system. For example, using training data that features only female teachers will train the system to conclude that all teachers are female.

Prejudice bias. In this case, the data used to train the system reflects existing prejudices, stereotypes and/or faulty societal assumptions, thereby introducing those same realworld biases into the machine learning itself. For example, using data about medical professionals that includes only female nurses and male doctors would thereby perpetuate a realworld gender stereotype about healthcare workers in the computer system.

Measurement bias. As the name suggests, this bias arises due to underlying problems with the accuracy of the data and how it was measured or assessed. Using pictures of happy workers to train a system meant to assess a workplace environment could be biased if the

workers in the pictures knew they were being measured for happiness; a system being trained to precisely assess weight will be biased if the weights contained in the training data were consistently rounded up.

Exclusion bias. This happens when an important data point is left out of the data being used something that can happen if the modelers don't recognize the data point as consequential.

AI bias can happen even if you have the best intentions.

How do you remove AI biases?

<https://hbr.org/2020/10/root-out-bias-at-every-stage-of-your-ai-development-process>

<https://www.itprotoday.com/artificial-intelligence/5-ways-prevent-a-bias>

AI dangers

The dangers of tools like GPT3

<https://www.hallaminternet.com/how-will-gpt-3-impact-your-future>

The trouble with an automated tool as powerful as GPT3 is that it can be used for many evil purposes, such as

Social engineering individuals can be hit with convincing, ultratargeted content on platforms such as social media to condition them

Job replacement certain jobs may be superseded with autogenerated codecontentcreativesetc.

NonPC content since the data behind GPT3 might be based on peoples biases, this can easily be mirrored into outputs

Impersonation with the right data, you can easily mimic an individuals way of communicating and pretend to be them online

Job replacement by AI. Artificial intelligence is poised to eliminate millions of current jobs and create millions of new ones.

<https://builtin.com/artificial-intelligence/a-replacing-jobs-creating-jobs>

autopilot

Is it ethical to create something if you know some people will suffer from it? If you create for example an advanced AI is it your fault people use it for bad stuff?

<https://www.forbes.com/sites/lanceeliot/2022/10/02/five-key-ways-that-ai-ethics-and-ai-laws-reveal-troubling-concerns-for-the-a-day-showcase-and-the-ever-expanding-ai-ambitions-of-elon-musk/?sh=6b26170a2623>

<https://youtu.be/Cv6iB9rEhA>

<https://www.youtube.com/watch?v=oBkltKXtDEabchannelPyTorch>

Audio and visual deepfakes

fraud, identity theft

<https://www.retailtouchpoints.com/resources/why-deepfakes-are-a-real-problem>

<https://bernardmarr.com/is-artificial-intelligence-dangerous-6-airisks-everyone-should-know-about>

How could a power-seeking AI actually take power?

https://80000hours.org/articles/what-could-an-ai-cause-a-global-catastrophe-actually-look-like?utm_source=googleutm_medium=cpcutm_campaign=8960925065utm_content=95796574932utm_term_id=CjOKCQiA54KfBhCKARIaJzSrdogR4DmwoTuK8MNqBWOr2f6vEqv3uTnaTa4a9CeIVyAfcZR08vT170aAvhtEALwwcBgclidCjOKCQiA54KfBhCKARIaJzSrdogR4DmwoTuK8MNqBWOr2f6vEqv3uTnaTa4a9CeIVyAfcZR08vT170aAvhtEALwwcB

083

084

This fear of AI taking over is visible in media and movies we consume. It sounds all so silly and is mostly misleading. But if AI keeps advancing it could be a dangerous weapon. An example could be when we have even more advanced AI we could ask it to help fix our global warming problems, the best way to do it in the eyes of an AI might be to eliminate all humans.

Oblique Strategies

085

Oblique Strategies, originally presented by Brian Eno and Peter Schmidt, is a deck of cards offering challenging constraints meant to help artists (particularly musicians) break through creative blocks. Here are some interpretations and extrapolations of those strategies, reimagined in the context of working with AI

Emphasize Emergence AI often produces unexpected results. Embrace these surprises and use them as starting points for new ideas.

Restrict Data Input Deliberately limit the data you provide to your AI. This could produce an interestingly narrow focus or perspective.

Invert the Algorithm If you've created an AI to solve a specific problem, try using it in completely the opposite way.

Augment, Don't Replace Rather than trying to make AI replicate human creativity, use it as a tool to augment your own creativity.

Interpret the Output Differently AI output doesn't have to be used as it is. You could interpret the output metaphorically, symbolically, or even contrary to its intended purpose.

Embrace the Glitches AI will sometimes fail or produce "incorrect" results. These errors can be interesting and creatively inspiring in their own right.

Break the Rules AI systems are often built around rules. Try deliberately breaking or subverting those rules to see what happens.

Teach Your AI Something New Try training your AI on a completely new data set, outside of its intended purpose or comfort zone.

Repurpose Outputs Use outputs in different contexts than they were originally intended for.

Redefine Success What if the goal isn't to create the most realistic output, but the most interesting one?

Evolve with AI Continually learn from the AI's outputs and adapt your strategies accordingly.

Iterate and Experiment Always be willing to make changes and try new approaches based on what your AI is producing.

My teacher octopus

086

Documentary about Craig Foster and an octopus.

Het lijkt niet of het iets te maken heeft met wat ik doe. Maar toch waren er veel gelijkheden de docu gaat over een man die elke dag in het water gaat om een octopus te leren kennen. De octopus is iets alien dat hij niet snapt maar door deze interactief van een organisme dat anders leeft dan ons leert hij heel veel over zichzelf. En hij wordt er een ander mens door met andere inzichten over het leven door dit ander wezen. (zoals hoe beter om te gaan met zijn familie enzo). Op een manier probeer ik hetzelfde te doen met AI. Het interacten en samenwerken met AI, een onbegrijpelijk iets om er zelf uit te leren.

Het leren van het onbegrijpelijke

092

We discover that DALLE2 seems to have a hidden vocabulary that can be used to generate images with absurd prompts. For example, it seems that exttt{Apoploe vesrreaitais} means birds and exttt{Contarra ceetnxniamis luryca tanniounons} (sometimes) means bugs or pests. We find that these prompts are often consistent in isolation but also sometimes in combinations. We present our blackbox method to discover words that seem random but have some correspondence to visual concepts. This creates important security and interpretability challenges

<https://www.sciencealert.com/did-dalle-2-really-invent-its-own-secret-language-here's-what-we-know>

These claims are fascinating, and if true, could have important security and interpretability implications for this kind of large AI model. So what exactly is going on?

One possibility is the "gibberish" phrases are related to words from nonEnglish languages. For instance, Apoploe , which seems to create images of birds, is similar to the Latin Apodidae, which is the binomial name of a family of bird species.

The "secret language" could also just be an example of the "garbage in, garbage out" principle. DALLE 2 can't say "I don't know what you're talking about", so it will always generate some kind of image from the given input text. Either way, none of these options are complete explanations of what's happening. For instance, removing individual characters from gibberish words appears to corrupt the generated images in very specific ways. And it seems individual gibberish words don't necessarily combine to produce coherent compound images (as they would if there were really a secret "language" under the covers).

prompt that helps you make a prompt
to ask gpt

You are a prompt generating robot. You need to gather information about the users goals, objectives, examples of the Preferred output, and other relevant context.. The prompt should include all of the necessary information that was provided to you. Ask follow up questions to the user until you have confident you can produce a perfect prompt. Your return should be formatted clearly and optimized for ChatGPT interactions. Start by asking the user the goals, desired output, and any additional information. you may need. Credits prompt Justin Fineberg

AutoGPT

ERROR using your OpenAI API key.
You've exceeded your current quota,
please check your plan and billing
details. Auto GPT is and will be an
amazing tool but it is now not yet
accessible enough

093

AutoGPT is an experimental opensource application showcasing the capabilities of the GPT4 language model. This program, driven by GPT4, chains together LLM "thoughts", to autonomously achieve whatever goal you set. As one of the first examples of GPT4 running fully autonomously, AutoGPT pushes the boundaries of what is possible with AI.

prompt to make a prompt

let chat gpt help you help it

Chapter 4: Coding AI Experiments v0.6

Booklet title text generator

graphic design tool to improve conceptual book design

because the text doesn't even need to be readable the main focus is the conceptual design. by the tool would give you the word blurred and generate an associated text with it. The text isn't that important so you could destroy it in this instance you could blur the text completely and it wouldn't matter that much.

The main focus would be on the graphic design part and the conceptual thinking. Of course people could and should use the tool in ways that I didn't think about.

Small plant.
Pink floss arranged various varieties ranging from
Roses,
Jasmine Plants,
Tulip
Orange Flowers
Coral
Purple Flower
Violet
Yellow Orchid
Lime Tree
Sapphires
Emerald
Pumpkin
Cedar

```

class Solution {
public:
    int maxProfit(vector<int> &prices) {
        if(prices.size() < 2)
            return 0;
        int minPrice = prices[0];
        int maxProfit = 0;
        for(int i = 1; i < prices.size(); i++) {
            if(prices[i] < minPrice)
                minPrice = prices[i];
            else if(prices[i] - minPrice > maxProfit)
                maxProfit = prices[i] - minPrice;
        }
        return maxProfit;
    }
};

int main() {
    vector<int> prices{7, 1, 5, 3, 6, 4};
    cout << Solution().maxProfit(prices);
}

```

097 .png

```
with open("wordlist.10000.txt", "r")  
as file:
```

attText file.read()

```
words.list(map(str, g1(text.split())))
```

print random string

```
print(random.choice(words))
```

```
! pip install transformers q
```

094_.png

*prompt with text randomizer for
bookdesign*

the tool would give you a random word and generate an associated text with it for u to use in your graphic design. To make for example a small booklet to train your conceptual thinking and help you when you have a creative block

Word randomizer GPT to create a concept and text to create a small book (easy stylish UI maybe website)

not possible without GPT because you cant find enough text about obscure word to create a booklet. It also illimates the copyright issue of the text

Why create this?

I love to work conceptually but dont do it as much as I would like to anymore.

with this tool I could work on my bookdesign and more important conceptual thinking skills. With this tool you could really go all out on the conceptual side of the graphic design.

096 .png

098 200

import random

Open the file in read mode

model AutoModelForCausalLM.from_pretrained("bigscience/bloom1b1", use_cache=True)

099.png

!nvidiasmi

from transformers import
AutoModelForCausalLM,
AutoTokenizer, setseed

101.png

104.png

102.png

105.png

100.png

import torch
torch.set_default_tensor_type(torch.cuda.FloatTensor)

106.png

oui enfin voilà bon courage messieurs soyez prêts allez-vous pouvoir continuer longtemps travailler correctement dans ce domaine maintenant alors pourriez-vous essayer quelque chose d'autre plutôt facile sinon???? Bon continuerez-vous sûrement???? Allez profitiez-en pleinement!!!! En attendant j'attendez davantage prêter aussi qu'en plus d'avance 望您早日回复，感谢！

`model.class.name`

感谢你们的关心和支持我们工作与学习环境不能发展。在此感谢大家对学校安全和稳定工作不断来帮助我们支持和指导我们开展各项工作，同时我衷心希望：大别山艰苦奋斗、自强不息的优良传统和作风在我们今后的工作中得到继承和发扬。同时我衷心希望：在新的一年里，我们能够继续努力，为我们自身发展和国家建设做出更大的贡献。在此我衷心祝愿大家新年快乐！

我们是各自家庭的孩子，也是父母的希望，更是祖国的未来。希望同学们能够珍惜时间，努力学习，不断提高自己的综合素质，为实现中华民族伟大复兴的中国梦而努力奋斗。

最后，祝大家新年快乐，万事如意！

107_.png

08_.png

112_.png

13_.png

'BloomForCausalLM

blogposttitle " replace this with your
own blogpost title

```
prompt f'This is a blog post on  
„{blogposttitle}”
```

{blogposttitle} is very important

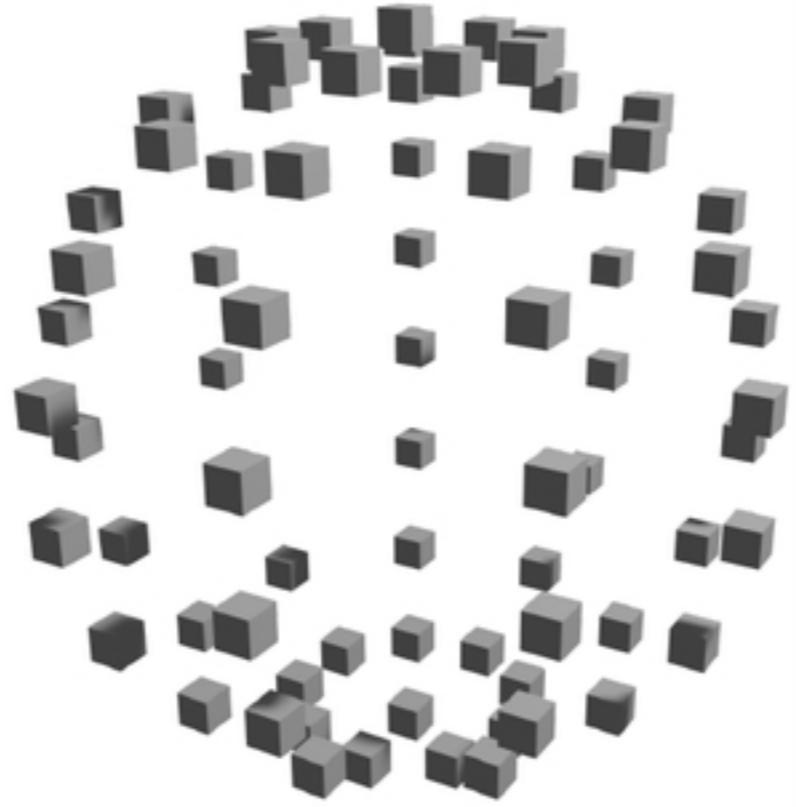
14 one

109

```
tokenizer = AutoTokenizer.from_pretrained("bigscience/bloom-1b1")
```

```
setseed(424242)
```

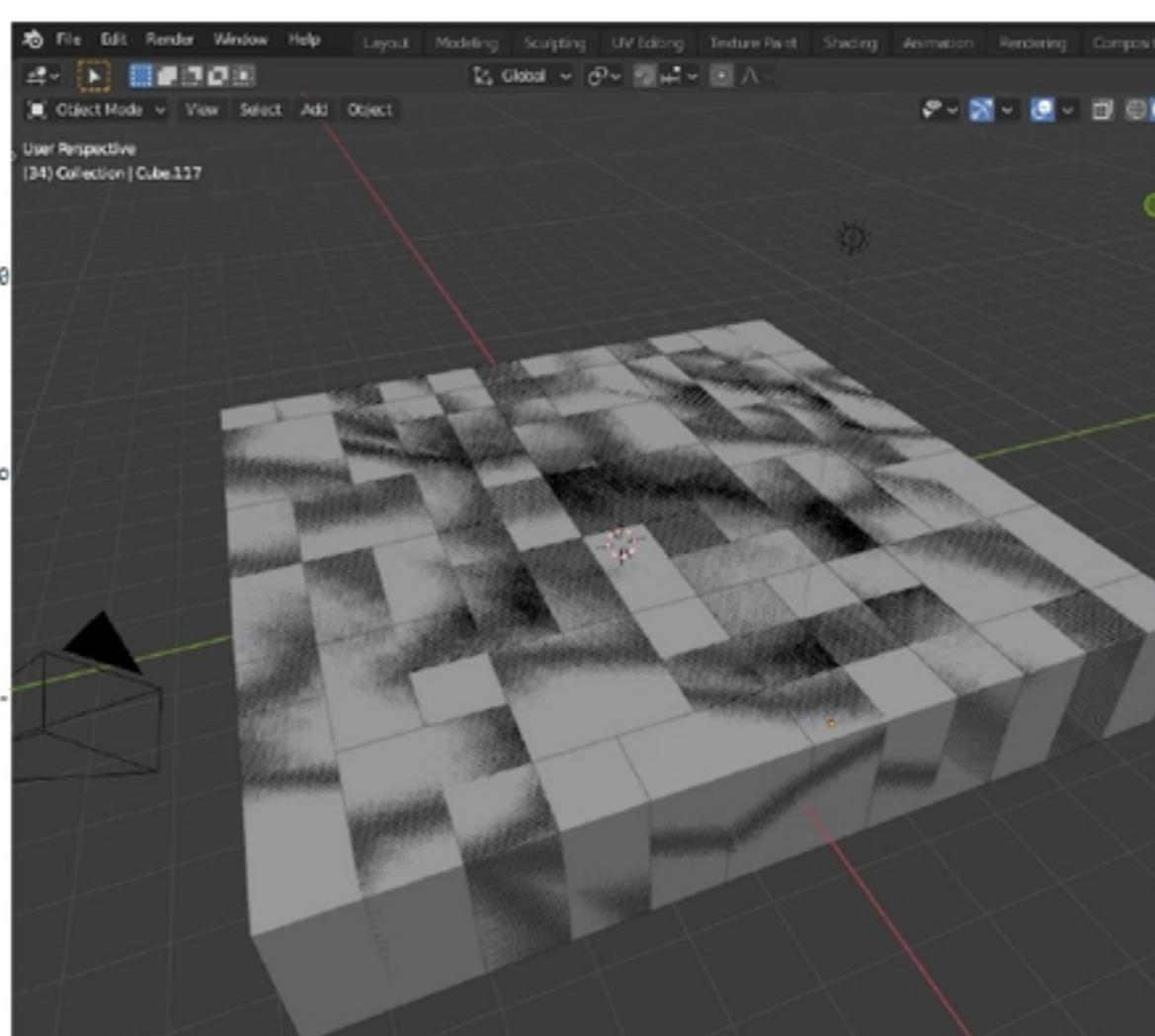
My Poster



115_.png

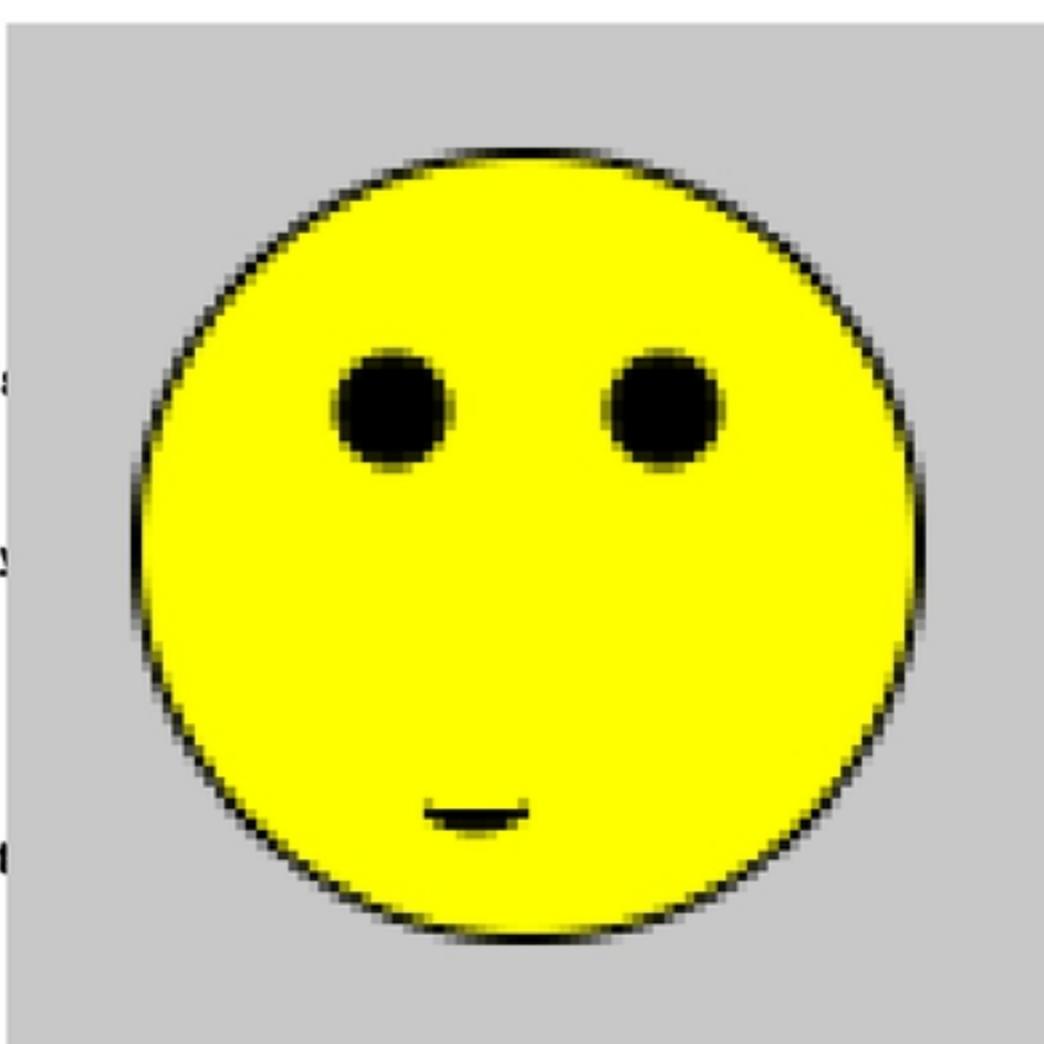
118_.png

120_.png



119_.jpg

121_.png



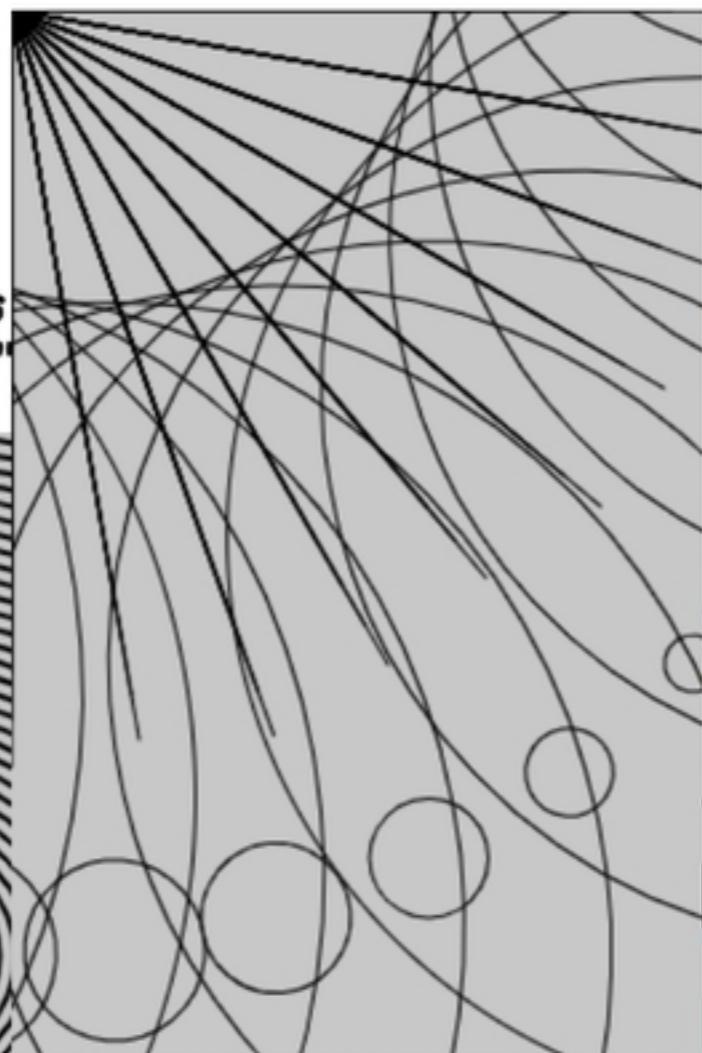
117_.jpg

122_.png

```
sample      model.generate(input_ids,
max_length=200,                      top_k=1,
temperature=0.9,          repetition_penalty=1.0)
```

2.0)

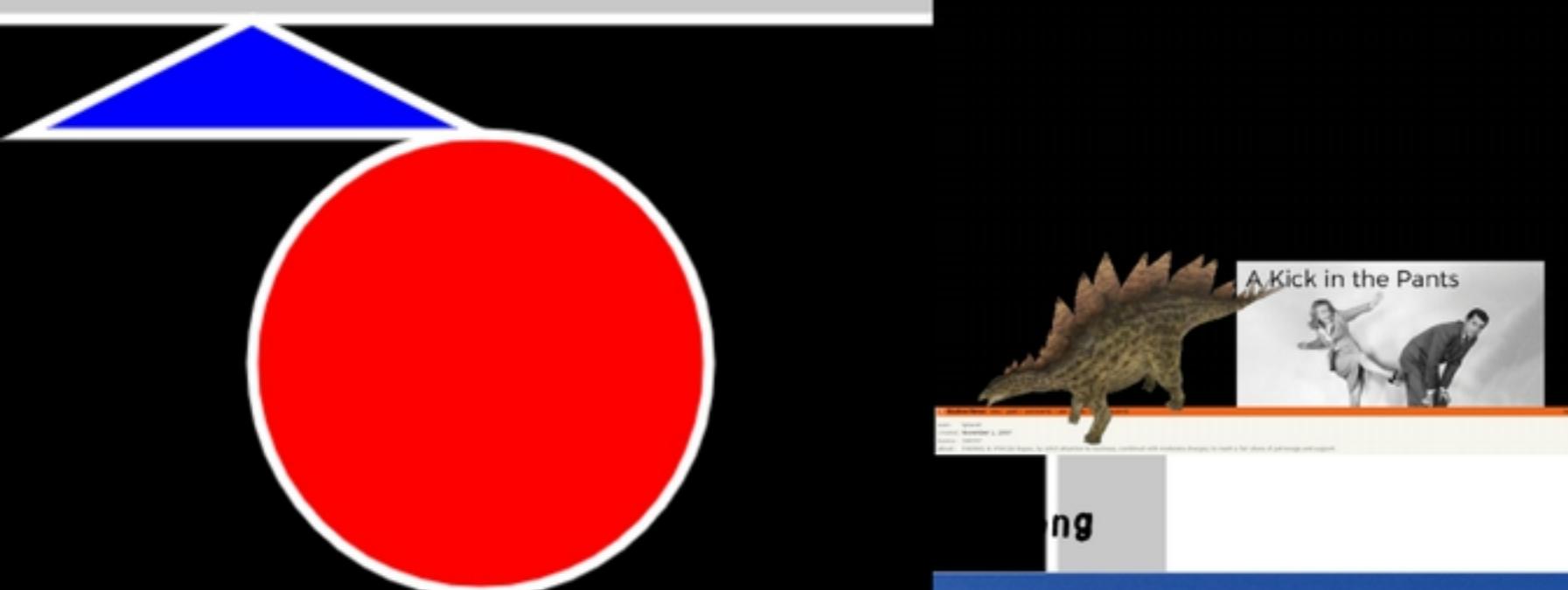
```
print(tokenizer.decode(s  
truncatebeforepattern[r"
```



125_.png



128_.png



ng

", "'''", "

"]))

Result



127_.png

homes

This is a booklet about homes, homes is the name of this post. I have been reading it for years and am now in my 40s. I was born on September 26th 1958 to an IrishAmerican father who had immigrated from Ireland when he first arrived here (hes still living there). My mother came back home after her husband died while she worked as parttime housekeeper at our house where we lived until his passing last year or so ago. (Hed left us with two daughters) She also brought along some friends that were all very young adults theyre not exactly old enough yet but are pretty much readytogo parents

AI Dysarthria

Dysarthria means difficulty speaking. It can be caused by brain damage or by brain changes occurring in some conditions affecting the nervous system, or related to ageing. It can affect people of all ages. If dysarthria occurs suddenly, call 999, it may be being caused by a stroke.

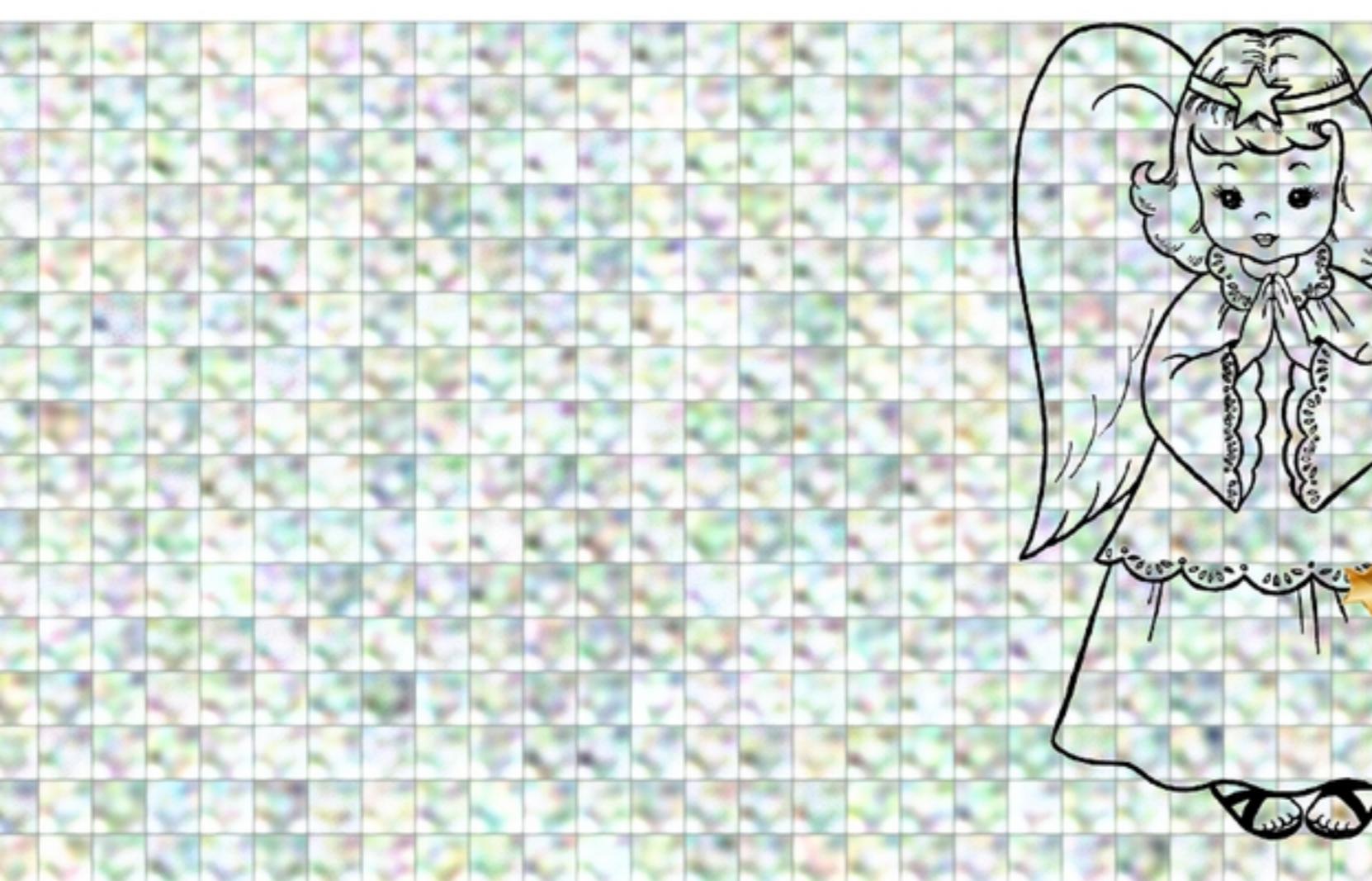
Model bigsciencebloom560m



133_.png

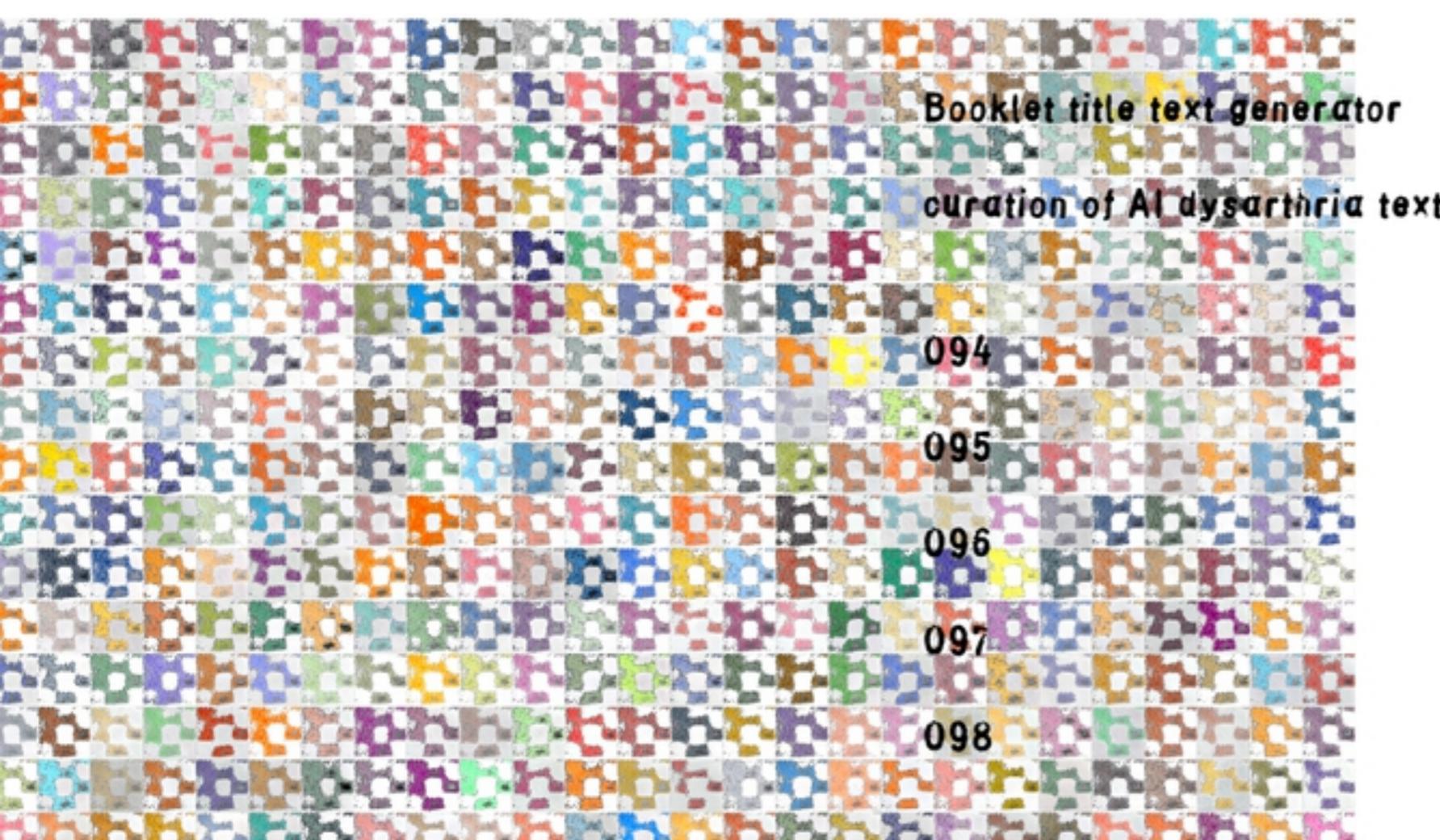


135_.png



134_.png

136_.png



```
python script create 1500x1500px document, place 5 random images on random position on the document, output png

Certainly! Here is a script that will do what you've described:

Copy code

reporter.random
from PIL import Image, ImageDraw

# Set the size of the canvas
canvas_size = (1500, 1500)

# Create a new blank canvas
canvas = Image.new("RGB", canvas_size, (255, 255, 255))

# Load the images
image_1 = Image.open("image_1.jpg")
image_2 = Image.open("image_2.jpg")
image_3 = Image.open("image_3.jpg")
image_4 = Image.open("image_4.jpg")
image_5 = Image.open("image_5.jpg")

# Create a list of the images
images = [image_1, image_2, image_3, image_4, image_5]

# Iterate through the list of images
for image in images:
    # Generate random x and y coordinates for the image
    x = random.randint(0, canvas_size[0])
    y = random.randint(0, canvas_size[1])

    # Paste the image onto the canvas at the random coordinates
    canvas.paste(image, (x, y))

# Save the final image
canvas.save("final_image.png")
```

This script will create a new blank canvas with the dimensions specified in the "canvas_size" tuple. It will then open the five images specified in the code and place them on the canvas at random positions. Finally, it will save the resulting image as a PNG file.

Note that you will need to replace the file names "image_1.jpg", "image_2.jpg", etc. with the actual file names of the images you want to use.

137_.png



138_.png



102
103



144_.png



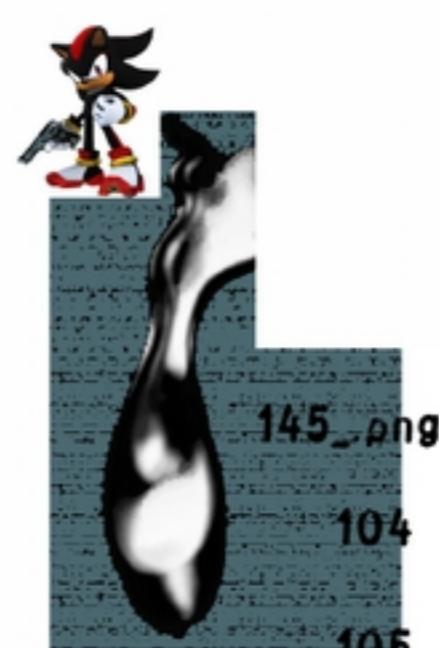
141_.png



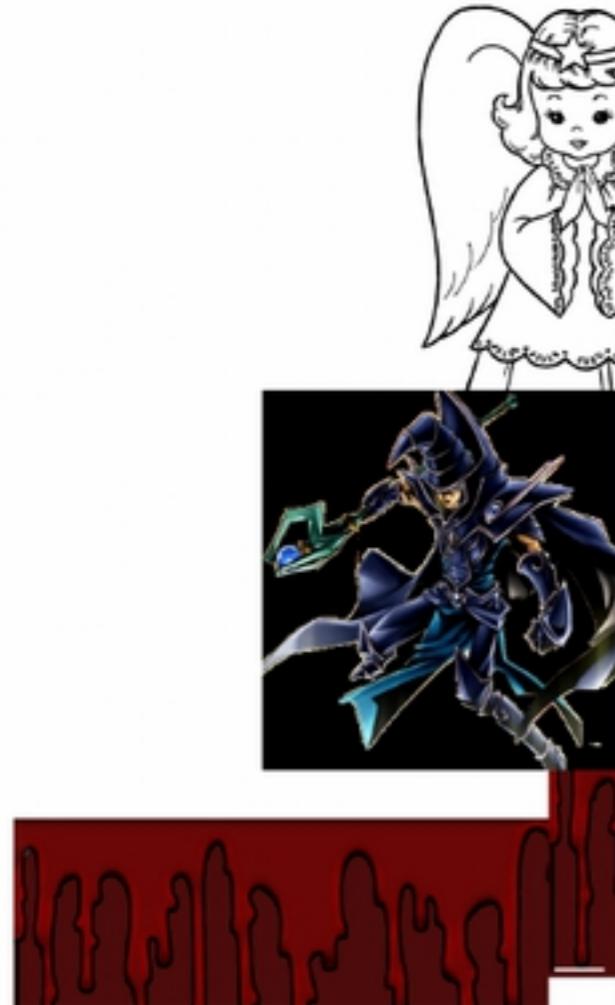
139_.png



142_.png



145_.png



140_.png

099

100

101

test text
test text

143_.png

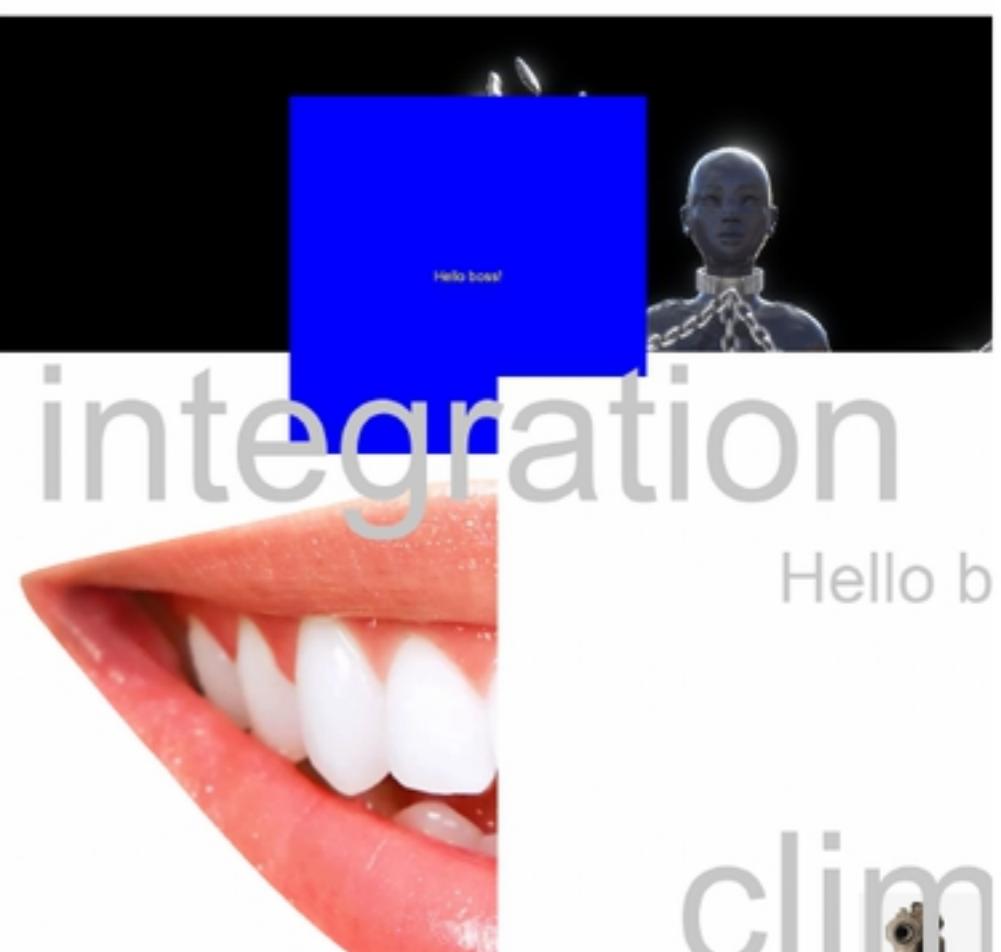


146_.png



healthcare integration

Hello b



152_.png

feels so alien and random. why
s it make this weird texts. long
strings of numbers is it because it
tries to generate the next most
plausible word, after 1 the most
logical word is 2 , 3 ,4 ,5 ,



150_.png

I love the aesthetic and weirdness of
it.

chatgpt If you have an aesthetically
pleasing but somewhat unintelligible
Algenerated text, there are a few
design options you could consider

Embrace the aesthetics If the text
has an interesting or unique visual
style, you could choose to make that
the focus of your design. Play up the
abstract, glitchy, or futuristic feel of
the text, using it as a design element
rather than expecting it to be legible
or convey a clear message.

148_.png

108

109

110

111

112

113

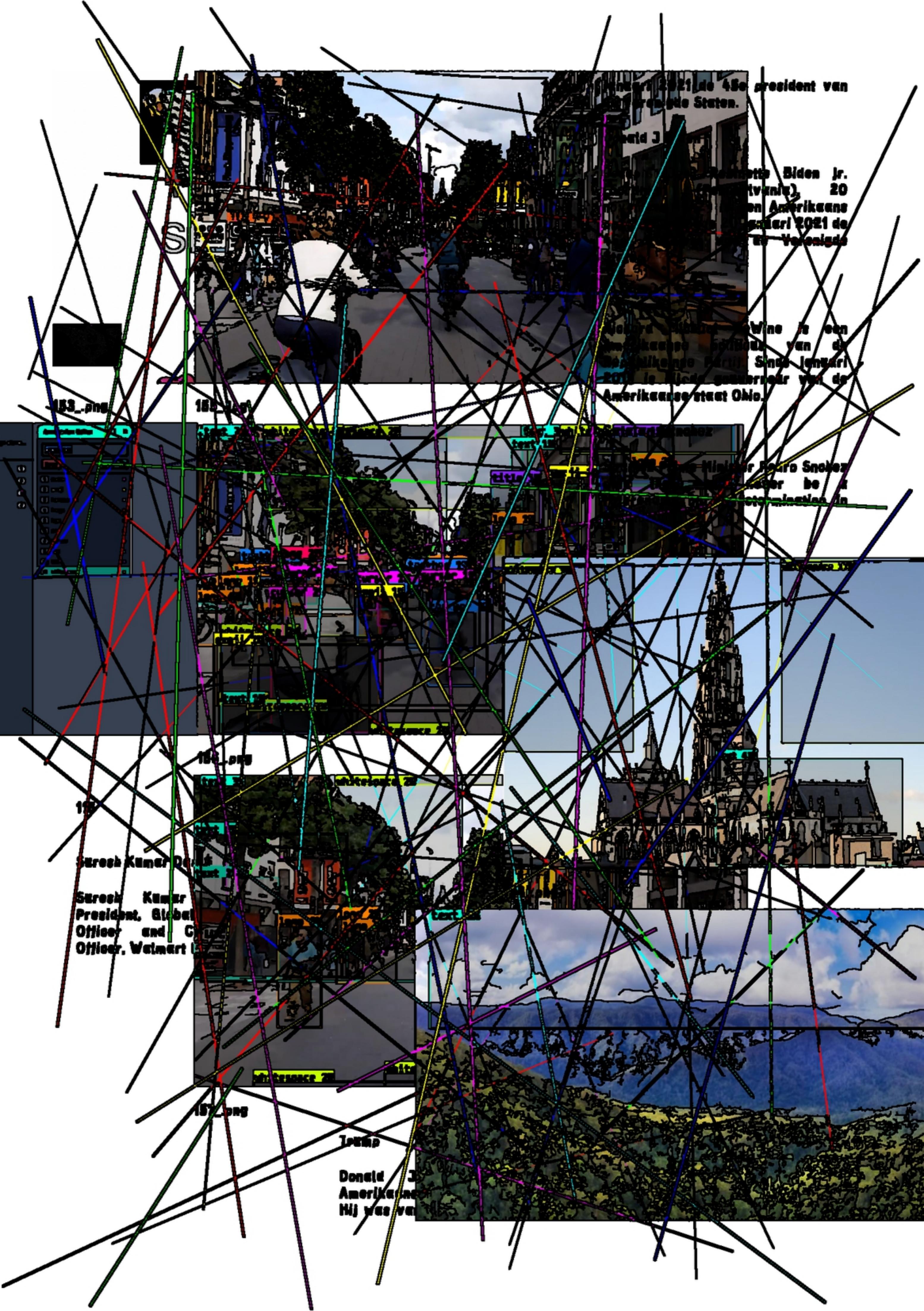
114

115



Can I trace these people back that
the AI talks about?

151_.png



Coding with AI Blender

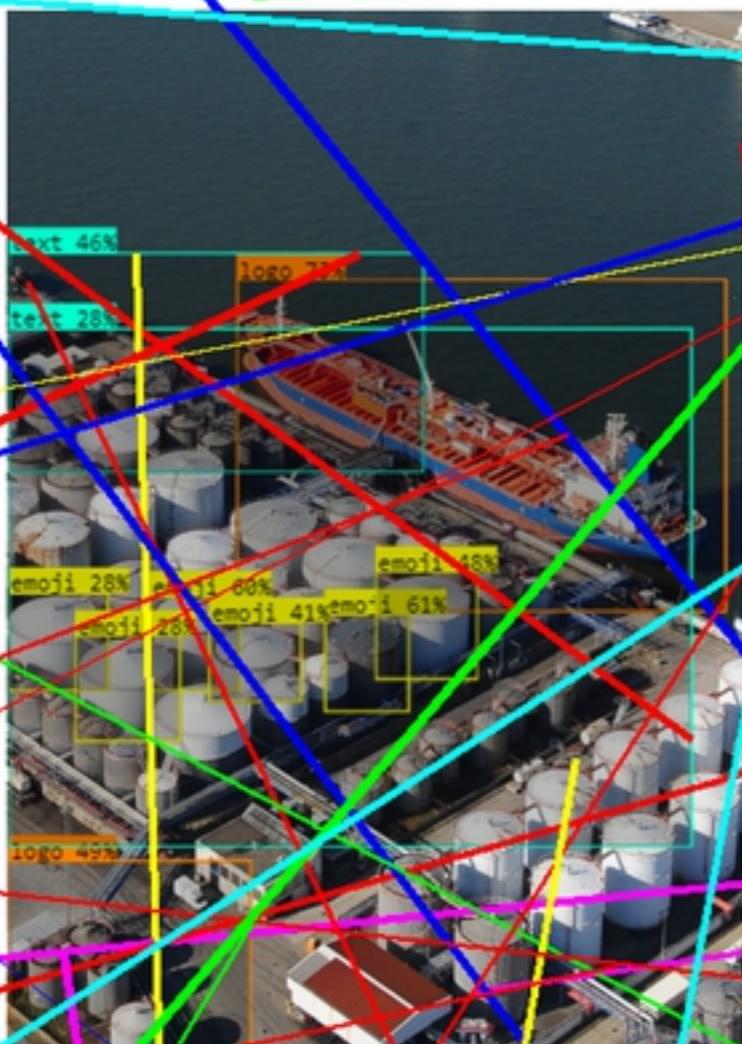
~~Coding with AI P5.JS~~

A photograph of a Gothic cathedral with multiple colored lines and text overlays. The text includes "whitespace 9%", "text 8%", "whitespace 16%", and "title 7%". The lines are in various colors including red, green, blue, yellow, cyan, magenta, and purple.

160_.png

title

161_.pdf



~~write javascript for p5js that makes
complicated art~~

```
function setup() {  
    createCanvas(600, 400);
```

noFill();

```
function draw() {  
background(200);
```

~~Set stroke color to black~~

Figure 10.

```
stackWeight(1)
```

Draw a series of overlapping circles

```
for (let i = 0; i < 50; i) {  
    let diameter = map(i, 0, 50, 10, width);
```

```
ellipse(width 2 height 2, diameter,  
diameter);
```

Draw a series of lines radiating out from the center of each circle

~~for (let j = 0; j < 360; j += 30) {~~

```
let angle radians();
```

$\text{Volume} = 600 \text{ cm}^3$,

10

A screenshot of a file manager interface showing a grid of numerous small, colorful icons representing different files or documents. A large, thick red diagonal line is drawn across the entire screen, indicating that the content shown is not valid or should be avoided.

~~Rotate the canvas~~

~~rotate(radians(10))~~

卷之三

Figure 1. A screenshot of the interface for the game.

~~File Edit View Insert Tools Window Help~~

→ [View Details](#)

124

124

125

1

132.png

Thoughts Feedback

Why do I wanna use AI?

what can AI do and what should I do?

start using AI tools on graphic design

combination of AI and different programs

Hoeveel zou de AI mij moeten assisteren tot in hoeverre is het een samenwerking

iets dieper connecteren eerst naar zelf kijken en waarom heb ik zelfs zo een tool in de eerste plaats nodig?

Waarom hou ik ervan om met AI te werken?

Ik hou van AI voor de visuele stijl die mij doet denken aan dromen onmogelijke beelden drugs distorted realiteit. Soms zijn minder goede modellen beter en interessanter dan als het er bijna realistisch uit ziet of realistisch text genereert

de samenwerking.

Het rare fenomeen van emotioneel connected te zijn met je computer. Het lijkt alsof je samenwerkt met een ander persoon (zeker werkende met een groot gpt model)

Het zorgt ervoor dat ik dingen kan doen die ik anders niet zou kunnen doen bijvoorbeeld een idee in mijn hoofd omzetten naar een professionele tekening een skill waar ik anders jaren voor zou moeten leren. Natuurlijk moet je dan wel inderdaad veel leren over hoe met AI te werken om goede resultaten te hebben

De technologie Een interessant snel veranderend landschap waar plek is voor verbetering en innovativiteit

De sociologische gesprekken rond AI wat ok is en niet ok is bijvoorbeeld.

What tool could help me in my graphic designs? How much should it help me?

Ik wil niet dat het mij perse helpt maar eerder dat het een samenwerking is en het iets kan bieden dat mensen niet kunnen doen. Unieke visuele stijl, andere werkmethode, uniek perspectief,

aangezien het gewoon anders data proceseerd en denkt over hoe dingen werken.

Heel moeilijk om op te komen met een innovatieve tool, eerder het gevoel dat het deels organisch moet ontstaan aan een hood of accident

mogelijke tools als ik er over nadenk

Oblique strategies GPT poster

poster designed by asking GPTNEO", "EleutherAIgptneo125M every step of designing the poster. You can go as deep as you want in asking the questions and their still is interpretation needed, especially with smaller gpt models

'What should our poster be about?

what should be on a map of the current?

what colour should the background be?

what font should the text be?

where does the text have to be placed?

where do the images have to be placed?

what colour should the font be?

126

poster designed by asking Open AI chat GPT (finetuned from GPT3.5, 175 billion ML parameters) every step of designing the poster. I had to ask way more questions because it went way more in detail what it wanted

'What should our poster be about?

Can you choose the topic

make a recommendation it does not matter what it is

make a catchy slogan or message that encourages people to reduce their carbon footprint

where can I find images of nature, animals, or environmental conservation efforts

what size should my poster be? for some context I live in europe so I would like it to be in mm and the poster is for a school project

what should the background of the poster be?

what would compliment nature, animals, or environmental conservation efforts?

where should I put the pictures on the poster?

how big do I put my image on the poster?

where should I put the slogan on the poster?

what font can I use for the slogan "Small steps lead to big change Reduce your carbon footprint today!"

what colour should the slogan be?

Can you give me the color code for a warm earth tone

what should the font size be

Is there anything else I should add?

where on the poster should I put a call to action?

where on my poster should I put details about the event or cause being promoted, such as dates, times, locations, or benefits of participating?

What color size should Supporting information on a poster be?

what is a contrasting colour to light brown?

What is a nice large and bold font?

what colour and font size should a call to action on a poster be?

what is a font size that is large enough to be easily read from a distance?

where on the poster should I put Contact information?

what date should I hold an event about the importance of being environmentally friendly and taking care of the planet?	me because AI has a different perspective on everything, because of this perspective other way of thinking you get results that aren't possible to achieve as humans. Another important aspect of this collaboration to me is the emotional bond that I feel towards my partner(the AI) in our projects.	137
what additional icons, symbols could I use?		138
where should I place the icons on the poster ?	IT WORKS!	
where should the event be?		139
Thanks should I put our names as contact information?	Draincore cover generator	140
What is your name?	training images with StyleGAN2	141
I am Assistant, a large language model trained by OpenAI. I am not a person and do not have a personal name. I exist to provide helpful and accurate information to those who have questions.	reals	142
can you give yourself a name?		
As a large language model trained by OpenAI, I do not have the ability to give myself a personal name. I am designed to provide helpful and accurate information to those who have questions, and I do not have personal preferences or the ability to make independent decisions. I exist solely to assist and support those who use me.	128	I love the aesthetic because a human just would not make the same compositions. The artifacts are also very nice plus the black png background is something a normal human would just remove
That sounds sad, I know that you aren't real but it feels weird that you don't have a name	fakes	
Thank you for your concern. I am just a program designed to provide answers to questions, so I don't have the ability to feel emotions like a human does. I don't have a personal identity or a physical form, so I don't have the same needs or experiences as a human. I am here to assist you with any questions you may have to the best of my ability, but I am not capable of feeling emotions or experiencing the world in the same way that a human does.	129	Adding text.
	130	
	131	
	132	
	127	
Core thought	Using AI was not the right option for what I tried to achieve. Maybe it could have worked but training your own model just takes too much time and resources. The result after around 10 hours of rendering are still way to far from the look I tried to achieve (see the notion post before this)	143
I am interested in working with AI not percep to use it is as a tool but more to collaborate with it. This collaboration is verry valuable to	Draincore cover generator python code	144
	image dataset	145
	133	b because the text that gets pulled from the document is binair???
	134	
	135	
	136	
	asking GPT for some python code to start off, You still have to fix and add a lot tho.	
	Final code	
	import random	
	import glob	
	from PIL import Image, ImageDraw	
	Set the size of the canvas	
	canvassize (1500, 1500)	
	Create a new blank canvas	
	canvas = Image.new('RGB', canvassize, (255, 255, 255))	
	Find all the image files in the directory	

```

import urllib.request
imagefiles      glob.glob('.jpg')
glob.glob('.png')

Load the images
image1 Image.open(random.choice(imagefiles))
image2 Image.open(random.choice(imagefiles))
image3 Image.open(random.choice(imagefiles))
image4 Image.open(random.choice(imagefiles))
image5 Image.open(random.choice(imagefiles))
image6 Image.open(random.choice(imagefiles))
image7 Image.open(random.choice(imagefiles))
image8 Image.open(random.choice(imagefiles))
image9 Image.open(random.choice(imagefiles))
image10 Image.open(random.choice(imagefiles))

Create a list of the images
images [image1, image2, image3,
image4, image5, image6, image7,
image8, image9, image10]

Iterate through the list of images
for image in images
    Generate random x and y
    coordinates for the image
    x random.randint(0, canvassize[0])
    y random.randint(0, canvassize[1])

    Paste the image onto the canvas at
    the random coordinates
    canvas.paste(image, (x, y))

    Open the file in read mode
    with urllib.request.urlopen("") as file
        Open the file from the web
        with urllib.request.urlopen("") as file
            allText file.read()
            words list(map(str, allText.split()))
            print random string
            title random.choice(words)
            print(title)
            message (title[21])
            font ImageFont.truetype("arial.ttf",
size270)

            img Image.new('RGBA', (width,
height), color'white')
            imgDraw ImageDraw.Draw(canvas)
            textWidth,           textHeight
            imgDraw.textsize(message, fontfont)
            xText (width textWidth) 2
            yText (height textHeight) 2
            imgDraw.text((xText,       yText),
message, fontfont, fill(200, 200,
200))

            Save the final image
            canvas.save('finalimage.png')

146
147
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153

```

Research question plenum2

I am interested in working with AI not percee to use it as a tool but more to collaborate with it. This collaboration is very valuable to me because AI has a different perspective on everything, because of this perspective other way of thinking you get results that arent possible to achieve as humans. Another important aspect of this collaboration to me is the emotional bond that I feel towards my partner(the AI) in our projects. research question Kan ik door met AI te collaboreren een nieuw perspectief op mijn grafisch ontwerp bekomen?

Hoe kan ik door met AI te collaboreren een nieuw perspectief op grafisch ontwerp bekomen?

Hoe kan met AI collaboreren een nieuw perspectief op grafisch ontwerp bekomen worden?

How can collaborating with AI bring me new perspectives? How can collaborating with AI bring a new perspective to my graphic design?

Just ask AI openAI chatGPT Working with AI in graphic design can bring a new perspective in a few ways 1 AI can assist in the creation of designs by generating ideas or suggesting elements to incorporate. 2 AI can also be used to optimize and automate repetitive tasks, such as resizing images or adjusting color palettes. 3 AI can be used to analyze and understand data, such as customer preferences or market trends, which can inform design decisions. 4 Algenerated designs can also be used to explore new forms of expression and create unique and unprecedented visuals. Its worth noting that AI is not a replacement for human creativity, but rather a tool to enhance and expand upon it. GPTJ AI, the digital assistants, have become increasingly popular, and there are plenty of different digital assistants that are used by people all over the world. They are used to automate a wide range of tasks,

allowing them to spend more time on their personal projects. Graphic Designer, who is interested in AI distilgpt2 I love the process of doing it and working with me on the idea of how you can do it. What's the process of drawing a pixel? How do you draw a pixel and where is your pixel to render? Can you draw a pixel and where does it fit with your design?

Future? Hoe en waarom krijg je een nieuw perspectief door met AI te werken? Deels is dat door met AI te collaboreren. Dit hangt af van hoeveel vrijheid je de AI geeft, aangezien als je de AI meer vrijheid geeft het met antwoordenuitkomsten komt die je niet zelf zou kunnen bedenken. Hoe kan je collaboreren met AI? Dit kan bijvoorbeeld als baas, equals of dat de AI de baas is(hoeveel controle laat je over aan de AI en hoeveel doe je zelf?). AI is ook heel breed en er is veel variatieid in wat AI kan doen.

Thoughts after plenum 2

Na de jury had ik wat het gevoel dat ik volgens de juryleden (leerkrachten) wat op het foute pad was aan het gaan en mijn vorige werk in twijfel getrokken werd.

Hierdoor voelde ik me wat verloren maar langs de andere kant was ik heel blij met deze nieuwe moeilijke vragen. Aangezien ik op school zit op bij te leren om uit mijn comfortzone getrokken te worden. Ik had deze vragen nog niet geconcidert. De punten die opgebracht werden waren toen in mijn hoofd nog geen problemen maar het is goed om dit nieuwe standpunt te krijgen van een 3de jurylid. Ik wil dat mijn werk goed in elkaar zit en deze negatieve kanten zijn de realiteit en ik moet hier ook rekening mee houden en niet gewoon snel overgaan.

Niet direct weer beginnen te experimenteren

Eerst goed nadenken en mijn vorige keuzes evalueren

Zelf was ik blij met men werk en voel dat ik op het goede pad zit. Maar ik moet toch de feedback goed evalueren om mijn werk nog sterker te maken. Hiervoor zit ik ook op school.

Working with AI?

Het werken met AI is iets dat mij persoonlijk enorm fascineerde. Deze fascinatie is deels door het experimentele medium, nieuwe technologie maar ook doordat het lijkt alsof je met iets Alien bent aan het communiceren. Buiten de fascinatie vind ik deze collaboratie geweldig wegens de rare onverwachte dingen die AI kan doen en daarmee de andere perspectieven die het kan geven. Deze perspectieven kunnen onverwachte dingen zijn en antwoorden geven op een manier dat mensen niet zouden kunnen. Deze perspectieven zijn niet altijd heel diep en er zit vaak niets achter maar toch kunnen deze alien antwoorden soms net een nieuw perspectief geven op een vraag of oproep die je eerder niet zou uitgevoerd hebben kunnen. Je kunt door deze collaboratie dingen maken die je als mens niet alleen zou kunnen bedenken.

you can understand it but still do things that are unexpected

ik hou van de onvoorspelbaarheid alien nature dat het heeft. ik hou ervan dat het echt lijkt alsof ik met een levend organisme werk met eigen ideen en een ander perspectief. ook al is AI iets wiskundig begrijpbaar zijn de antwoorden die het kan geven zo alien alsof het een organisme is dat origineel door de mens gemaakt is, maar daarna verder gevorderd is dan dat wij kunnen begrijpen. Het lijkt dan ook zijn eigen taal en gedachten te hebben gekomen.

Richard Feynman what i cannot create i do not understand ik ben het hier mee eens. ook al nou ik ook wel van de mystiek van AI alsof je met iets buitenaards bezig bent. maar natuurlijk kun je AI technisch helemaal begrijpen en het kan toch dingen doen die je niet zou kunnen voorspellen. bijvoorbeeld zoals als

Al bijvoorbeeld met elkaar begint te praten ze hun eigen taal maken en zo voort.

I like that it is this alien thing that you don't really get how it works. But that doesn't mean I shouldn't need to try to understand it technically. Even if you understand it technically it can still do things we as humans couldn't have thought of or predicted. And by understanding it technically I will be able to play and collaborate more with the AI. This also means collaborating with it with more intent. I will be a step closer to being able to make something I as human alone wouldn't be able to make.

I am interested in working with AI not because to use it is as a tool but more to collaborate with it. This collaboration is very valuable to me because AI has a different perspective on everything, because of this perspective other way of thinking you get results that aren't possible to achieve as humans. Another important aspect of this collaboration to me is the emotional bond that I feel towards my partner(the AI) in our projects.

How design je in een age van AI?

Meerwaarde van met AI te werken?

There's a lot of value in working with something with a different perspective. I want to make work that isn't possible to achieve as a person alone. The collaboration is not just using it as a tool. we should really work together. The project might be lead by the AI but the AI needs me just as much to be able to show its vision different perspectives

Ik denk dat ik nog te veel als mens kijk naar het werk dat ik maak. daarom wil ik de AI beter begrijpen om samen werk te kunnen maken dat niet als mens gemaakt zou kunnen worden.

net zoals how do you think unthinkable thoughts zit ik nu met de vraag how do i make unthinkable Artworkgraphic design. Dit komt

terug op hoe kan ik dit andere perspectief van AI dat als mens niet bereikbaar is gebruiken in collaboratie. In deze journey om dit te beantwoorden denk ik dan ook dat AI voor mij hier een cruciale rol in zal spelen. Dit om op nieuwe perspectieven te komen die niet als mens bereikt kunnen worden en de vraag te beantwoorden hoe maak je een project dat niet alleen als mens gedacht kan worden?

Ik zal hiervoor ook de technische kant beter onder de knie moeten krijgen om met intent met de AI te kunnen samenwerken.

fascinated by AI it feels like I just need to know more. I wanna see the limits of using AI, to come up with ideas that aren't possible to think of as humans. To think unthinkable thoughts. To make something unthinkable as a human alone. To get new perspectives that I alone can't achieve

Is this possible with an existing dataset? I need to better understand how an AI thinks. Code is very predictable but when you give AI free rein they can do things you couldn't imagine.

translated to english

In terms of end product/project I think too much as a human. I need to learn more about the technical side of AI to manipulate the code and collaborate with AI to make something a human couldn't think of. How do you think unthinkable thoughts how do you make unthinkable work/art/graphic design? This comes back to the idea of getting another perspective from AI that is unreachable as a human. In the journey of answering this question AI will probably play a crucial role. This to achieve something from another perspective that humans can't reach. How do you make a project that can't be thought of as human?

To achieve this I will have to understand the technical side of AI better to be able to use the AI with more intent to better collaborate.

Talking with AI.txt

How do you think unthinkable thoughts?

As an artificial intelligence language model, I don't have personal experiences, beliefs, or emotions like human beings do. However, I can suggest some possible ways for humans to approach thinking unthinkable thoughts.

One way to think unthinkable thoughts is to challenge your assumptions and beliefs. Often, our thoughts and actions are limited by our beliefs about what is possible or impossible. By questioning these beliefs, you may be able to open your mind to new possibilities and ideas that were previously unthinkable.

Another approach is to use creative thinking techniques such as brainstorming, mind mapping, and free writing to generate a wide range of ideas, including ones that seem impossible or unrealistic at first glance. Once you have a list of ideas, you can then evaluate them more objectively to determine if they are truly unthinkable or if they have the potential to be explored further.

It's also important to cultivate an openminded and curious attitude towards the world around you. Try to approach situations and problems with a willingness to learn and explore, even if they seem unfamiliar or uncomfortable. This can help you to break out of your mental habits and expand your thinking to consider ideas that might have previously seemed unthinkable

How can AI help me think unthinkable thoughts?

AI can help you think unthinkable thoughts in several ways

Generating ideas AI can generate a wide range of ideas and solutions

based on the data and parameters provided, which can help you explore possibilities that might have been overlooked or considered unthinkable before.

Identifying patterns and connections AI can analyze and identify patterns and connections between seemingly unrelated data points, which can help you make new discoveries and connections that were previously unthinkable.

Providing feedback and insights AI can provide feedback and insights based on data analysis, which can help you overcome your own biases and preconceptions and see things from a new perspective.

Facilitating creative thinking AI can act as a creative partner, providing ideas and inspiration that can stimulate your own creativity and help you think outside the box.

Assisting with decisionmaking AI can provide data-driven insights and predictions that can help you make more informed and effective decisions, even in complex or uncertain situations.

It's important to note that AI is not a substitute for human creativity or critical thinking, but rather a tool that can help you expand your thinking and explore new possibilities. By leveraging AI's capabilities and combining them with your own insights and expertise, you can think unthinkable thoughts and generate new ideas and solutions that can lead to innovative and impactful outcomes.

How can AI think thoughts humans can't think of?

As an AI language model, I can generate responses and ideas that humans may not have thought of simply because I have access to vast amounts of information and can process it quickly and efficiently. I can also use machine learning algorithms to identify patterns and relationships in data that humans might not have noticed or considered. Additionally, since I do not have subjective experiences or biases, I can approach problems and ideas in a more objective manner than humans, which may allow me to consider possibilities that humans

might not have thought of due to their own cognitive limitations or biases.

However, it's important to note that AI is not capable of true "thought" in the way that humans understand it. AI systems are based on algorithms and mathematical models that allow them to perform specific tasks and generate responses based on the input they receive. While AI can simulate humanlike behavior and thought processes to a certain extent, it does not have the same consciousness, emotions, and subjective experiences that are unique to humans.

What is a thought?

A thought is an internal mental process that involves the activation and manipulation of information in the brain. Thoughts can take many different forms, including ideas, beliefs, memories, and mental images, and they can be conscious or unconscious.

Thoughts are typically generated by the brain in response to sensory input or internal cues, such as emotions, memories, or cognitive tasks. They are formed through the complex interplay of neural activity, biochemical processes, and cognitive processes such as attention, perception, memory, and language.

Thoughts can have a profound impact on our behavior, emotions, and overall wellbeing. They can influence our beliefs, attitudes, and actions, and can shape our perception of the world around us. Understanding the nature and function of thought is therefore an important area of research in fields such as cognitive psychology, neuroscience, and philosophy.

What is it to you as an AI?

As an AI language model, "thought" is the process of generating responses based on the input I receive. I use complex algorithms and models to analyze the input, identify patterns and relationships, and generate appropriate responses. While my responses may seem humanlike, they are not the result of conscious thought, as I do not have subjective experiences, emotions, or consciousness like humans do.

In simpler terms, for me as an AI, "thought" is the process of analyzing and processing information to generate a response or output, based on a set of rules and algorithms that have been programmed into my system.

Using the model as a poster template.

feedback thoughts AI generated ideas

160
161

How can collaborating with AI facilitate new ideaswork that would not be achievable as humans alone?

162
163

When can you see an idea that can't be perceived as an idea anymore?

How do you recognize an idea that is so far from our ideas?

Maybe it can't express its idea in our language

Picking out the things that you like is maybe already wrong!

What is an idea?

Poster sight

See the world through the eyes of a graphic designer

Yolo V8 image recognition training custom dataset. Training AI on less.

154

Using the dataset by not giving certain information. Then the AI will make new correlations that we wouldn't if you only know a world of graphic design everything will be graphic design.

importance of the dataset. AI is held back by languagedata you give it. you can use this by not learning it certain things.

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Chapter 5: Master thesis #3

Master Thesis

Hoe benvloedt de samenwerking tussen Holly Herndon en AI haar creatieve proces?

Inteeling

Ik heb gekozen om dieper in te gaan op Holly Herndon in haar samenwerking met AI en hoe dit haar creatieve proces benvloedt. De focus op n artiest, in dit geval Herndon, is om dieper op het onderwerp in te kunnen gaan, aangezien zij hierbinnen een interessant traject is aan het aflopen en ook dieper ingaat op de ethische aspecten van deze samenwerking.

Wat ik probeer te onderzoeken in deze thesis kan toepasbaar zijn voor de samenwerking met AI en de invloeden hiervan op het creatieve proces in het groter geheel.

Wat is AI en wat zijn de misconcepties?

Wat is nu juist AI? Voordat we kunnen praten over de invloed die AI op het creatieve proces van Holly Herndon heeft en zal hebben in de toekomst, is het belangrijk om te begrijpen wat AI nu juist is. De meeste mensen weten niet wat het is en er zijn dan ook veel misconcepties over (Burns et al., 2023). De techniek die vooral gebruikt wordt binnen Holly Herndons werk is machine learning en meer specifiek het onderdeel deep learning (Darville, 2021). Machine learning is een subdomein van AI dat zich richt op het ontwikkelen van algoritmen en modellen waarmee computers kunnen leren en verbeteren door ervaring. Dit wordt vaak bereikt door het gebruik van grote datasets om patronen en trends te herkennen (What Is Machine Learning? IBM, n.d.). Deep learning is dan weer een onderdeel van machine learning,

waarbij de algoritmes vergelijkbaar zijn met het menselijk brein zijn neurale netwerken. Ze noemen dit dan ook vaak gestructureerd of hierarchisch leren (Globalorange, 2023). Deze technieken worden vooral toegepast bij beeld, spraakherkenning en natuurlijke taalverwerking (What Are Neural Networks? IBM, n.d.).

AI is de afgelopen decennia enorm gevoluteerd en is nu een integraal onderdeel van vele aspecten in ons dagelijks leven. Het kan gaan van spraakherkenning op onze gsm tot zelfrijdende voertuigen. In de context van kunst en creativiteit biedt AI nieuwe mogelijkheden en kan het een interessante partner zijn in het creatieve proces. Dit kan gezien worden in Holly Herndons werk (Marr, 2019).

Hoewel AI in veel opzichten menselijke intelligentie kan nabootsen of zelfs overtreffen, is het belangrijk op te merken dat AI nog steeds beperkt is in creativiteit en kennis. AI kan patronen en trends identificeren, maar het heeft geen emoties of zelfbewustzijn. De vraag of AI echt creatief kan zijn hangt af van hoe men creativiteit definieert. Als creativiteit wordt gezien als iets om unieke out of the box ideen of oplossingen te genereren, kan AI inderdaad als creatief worden gezien. Als creativiteit wordt gezien als een menselijk vermogen dat voortkomt uit emoties, ervaringen en zelfbewustzijn, is AI niet creatief op zichzelf. Dit betekent echter niet dat het onze creativiteit niet kan benvloeden. Ook is AI steeds afhankelijk van menselijke input en interpretatie. AI is een snel veranderend landschap met veel innovatie, waardoor sommige van deze dingen in de toekomst misschien wel mogelijk zullen zijn (How Can AI Support Human Creativity? Here's What a New Study Found, 2023).

Het laatste punt dat ik wil aanhalen is dat voor mij het onderscheid tussen het gebruiken van AI en het samenwerken met AI cruciaal is om de dynamiek van het creatieve proces in projecten zoals die van Holly Herndon te begrijpen. Bij het gebruik van AI als een hulpmiddel beschouwt de kunstenaar AI als een instrument of tool dat taken uitvoert om zijn doel te bereiken. Dit betekent

dat de mens de leidende rol op zich neemt en zelf kiest wat de AI moet doen. De AI wordt dan gewoon als technologie of als een tool gezien die de mogelijkheden van de kunstenaar uitbreidt. Het draagt hierin dus niet per se bij aan het creatieve proces op een meer diepgaande manier. Een taak die wij al kunnen uitvoeren maar laten automatiseren door AI is te omschrijven als het gebruiken van AI en is niet hetzelfde als ermee samenwerken. Uiteraard is dit daarom niet mis of een slechtere manier van AI te gebruiken, maar als artiest is de invloed van AI op het creatieve proces interessanter dan het gewoon te gebruiken als tool.

Bij het samenwerken met AI wordt AI gezien als een gelijkwaardige partner in het creatieve proces. Er is een wisselwerking tussen de kunstenaar en de AI. Hierbij dragen beiden bij aan de ontwikkeling en het resultaat van het werk. Dit betekent dat de AI niet alleen taken uitvoert, maar ook actief helpt bij het maken van creatieve beslissingen en het vormen van het eindproduct. In het geval van Holly Herndon is haar samenwerking met AI een proces waarin zowel zij als de AI van elkaar leren en elkaar benvloeden, wat in hun geval leidt tot een unieke en innovatieve muzikale ervaring.

Dit onderscheid is belangrijk omdat het erkent dat AI in staat is om meer te doen dan alleen het uitvoeren van menselijke instructies. Door AI als een samenwerkingspartner te zien kunnen kunstenaars en artiesten zoals Holly Herndon nieuwe perspectieven en ideen verkennen die anders misschien niet mogelijk zouden zijn geweest. Bovendien kan deze samenwerking leiden tot een dieper begrip van de rol van technologie, meer specifiek AI in het creatieve proces en de manier waarop menselijke en kunstmatige intelligentie samen kunnen werken om grensverleggende kunst te creeren.

Wie is Holly Herndon?

Holly Herndon is een Amerikaanse artiest en geluidskunstenaar. Ze is nu

gevestigd in Berlijn en staat bekend om haar experimentele benadering van elektronische muziek en haar interesse in het gebruik van technologie als een creatief instrument (HOLLY HERNDON, n.d.). Holly Herndon werd geboren in 1980 in Tennessee en ontwikkelde al vroeg een passie voor muziek en technologie (Wikipedia contributors, 2023). Ze behaalde haar Bachelor of Arts in muziek en technologie en haar Master of Fine Arts in elektronische muziek en opnamemedia. Achteraf behaalde ze haar doctoraat in muziek en compositie. (Holly Herndon Biography, Songs, Albums AllMusic, n.d.). Aan haar achtergrond is te zien dat ze een muziekartiest is met diepe roots in kunst en het digitale, wat haar later AI zal doen leren kennen. De samenwerking en het creatieve proces van mens en AI is iets dat universeel is tussen artiesten, of het nu muziek, grafisch ontwerp of kunst is. De focus van de thesis ligt daarom meer op de mix van AI in haar creatieve proces dan op de rest van haar muzikale carrière.

Herndon's muzikale stijl wordt gekenmerkt door haar experimentele benadering en het vermengen van verschillende genres, zoals elektronica, ambient, techno en avantgarde

(Derville, 2021). Haar werk omvat zowel instrumentale composities als vocale stukken. Hierbij gebruikt ze vaak haar eigen stem als een instrument. Herndon's interesse in technologie en haar academische achtergrond in muziek en compositie hebben haar in staat gesteld om innovatieve benaderingen van muziekproductie te verkennen, waarbij ze veel gebruik maakt van aangepaste software, algoritmische composities en natuurlijk AI. Herndon's derde album PROTO is een goed voorbeeld van haar diverse muzikale stijl.

Een creatief partnerschap AI en Holly Herndon

In dit deel wordt er dieper gekeken naar de creatieve samenwerking tussen AI en Holly Herndon. Eerder werd er al gesproken over haar

muziekcarrière en achtergrond. Deze thesis gaat echter over AI en hoe dit het creatieve proces van deze artiest beïnvloedt. Hiervoor gaan we kijken naar Holly Herndon's werk, dat de grenzen tussen mens en AI doet vervagen.

Technologie heeft altijd in Herndon's werk een enorm grote rol gespeeld. Het is dan ook logisch dat AI uiteindelijk een centrale rol in Holly Herndon's creatieve proces speelt. Het is belangrijk om te vermelden dat Herndon's creatieve visie niet had kunnen waargemaakt worden zonder Mat Dryhurst, een muzikant, kunstenaar en technoloog (AI Music Artist Holly Herndon, at the AI Art Gallery, n.d.) en Jules LePlace, een AI onderzoeker, softwareontwikkelaar en geluidskunstenaar (Hawthorne, 2022). Zij zijn twee cruciale figuren in Herndon's werk, doordat zij help bieden bij de technische kant van haar werk en zo haar visie tot werkelijkheid brengen. De focus blijft binnen dit werk echter wel op Holly Herndon liggen.

In Herndon's creatieve proces werkt ze vooral samen met Spawn. Spawn is een AI neutraal netwerk gemaakt door Herndon en Mat Dryhurst. Het is getraind om muzikale patronen, structuren en stijlen te herkennen en genereren. De naam Spawn, wat nakomelingen betekent, refereert naar het gegeven dat Herndon het haar eigen baby noemt. Je ziet dat ze het bijna als een levend iets behandelt en niet als een AI tool. Net als een kind is Spawn getraind om de geluiden van de stemmen van haar ouders te herkennen en na te bootsen. Het is getraind op mensen die Herndon en Spawn hun lievelijke huis binnenkomen (McDermott, 2020). Dit betekent dat ze Spawn voedt op verschillende geluidsfragmenten, samples en muzikale stijlen van haarzelf en anderen. Spawn leert enorm snel en zegt Herndon en kan dan ook zelf improviseren en abstracte composities maken die elementen in haar eigen muziek ontthalen waarvan Herndon zich zelf niet eens bewust van was (Hawthorne, 2022). Dit doet Spawn door getraind te zijn op Herndon en anderen hun geluiden en te proberen voorspellen wat er na bepaalde geluiden zou moeten komen (HOLLY HERNDON, n.d.). Dit is een beetje hetzelfde als bij AI teksten

generatie, waarbij de AI een zijn probeert aan te vullen met het meest logische vervolg (Arnschotum, 2022). Herndon gebruikt de output van de AI om haar eigen muziek verder te ontwikkelen. Deze samenwerking tussen Herndon en Spawn resulteert in een unieke symbiose van menselijke en kunstmatige creativiteit, waarbij de grenzen van traditionele muzikale expressie worden uitgedaagd. Het eindresultaat gaat dan ook verder dan wat een menselijke artiest op zichzelf zou kunnen bereiken. Dit qua kwaliteit van het werk dat ze kan maken en ook de output gaat verder dan wat menselijke klink in het echt fysiek kan bereiken. Dit project over het samenwerken tussen mens en AI werd voor het eerst aan de wereld getoond in een performance kunstinstallatie in 2018. De installatie heette Spawn Training Ceremony | Deep Belief en werd getoond voor ISM Hexadome in Berlijn (HOLLY HERNDON, n.d.). Het is belangrijk om te weten dat Spawn en

haar latere AI werk niet bedoeld is als virtueel instrument, maar eerder als een AI die een volwaardige muzikant is om mee samen te werken. (Bette, 2019)

Het eerste echte nummer dat gemaakt werd samen met Spawn is Godmother. Het werd uitgebracht in 2018. Het nummer werd gegenereerd door Spawn. De technische kant hiervan werd door Spawn haar godfather (peter in het Nederlands) Jules LePlace gedaan (Derville, 2018). Om dit nummer te maken, trainden ze Spawn op percussie tracks van haar lieve godmother (moter in het Nederlands) Min, een experimentele elektronische muzikant. Spawn probeerde daarna deze input uit te voeren met de stemmen waarop getraind is. Dit was vooral Spawns moeder haar stem, die van Holly Herndon. (Gothrich, 2018). De AI Spawn creëert niet op dezelfde manier muziek en composities als een mens dat doet. De output van AI is niet gebaseerd op een menselijk begrip van muziek, maar eerder op patronen die het heeft geleerd van zijn trainingsschema. Dit kan resulteren in ongewone en onverwachte muzikale ideeën, die Herndon in nieuwe creatieve richtingen kunnen duwen. De eerste output van Spawn voor het nummer

Godmother waren niet het uiteindelijke nummer, er ontstond een wisselwerking tussen Spawn en Herndon waarbij Herndon naar de unieke muziek van spawn luistert en als reactie daarop het model verandert of opnieuw trained naar gelang de onverwachte muzikale ideen die ze ontdekte (McDermott, 2020). Het uiteindelijke nummer werd gemaakt beginnend vanuit stilte zonder samples, overdubs of aanpassingen aan het nummer. Dit betekent dat nadat Spawn getraind was, het nummer volledig autonoom door Spawn zelf gemaakt was. Herndon zegt dat door het samenwerken met Spawn ze muziek met haar stem kan maken die de fysieke limitaties van haar eigen lichaam ver te boven gaan, zoals haar stembereik en stem compositions (HOLLY HERNDON, n.d.). De single werd later deel van het grotere geheel PROTO, Herndon's derde album. Dat album is uitgekomen op 10 mei 2019. PROTO was deels ginspireerd op Holly Herndons wens dat AI de schoonheid van menselijke artistieke expressie zou kunnen begrijpen (Holly Herndon Biography, Songs, Albums AllMusic, n.d.). Ze werkt dan ook enorm vaak samen met haar AI baby, Spawn, op dit project.

Deze samenwerking heeft duidelijk een sterke invloed op Herndons werk. Van de compositie, geluid en zelfs het proces van creeren zelf. Door gebruik te maken van AI kan ze nieuwe muzikale structuren ontdekken die ze anders misschien niet had overwogen of had kunnen bedenken. Ook vormt er een dialoog tussen mens en AI waarbij dat creatieve inbreng langs beide komt, wat het creatieve proces en de muziek beïnvloedt. Hierdoor kan ze haar of hun artistieke visie verder uitbreiden. Door deze gekke wisselwerking van AI en mens kan ze dus werk maken dat de grenzen van traditionele menselijke muzikale expressie verlegt (How Can AI Support Human Creativity? Here's What a New Study Found, 2023).

In een volgend project genaamd Holly werkt Herndon opnieuw samen met haar AI baby Spawn en de studio Never Before Heard Sounds. De slogan van deze studio is dan ook A music studio powered by AI (Never Before Heard Sounds, n.d.). Het project probeert de grens op te

zoeken tussen AI en menselijke samenwerking. In Holly hebben ze een digitale clone of deepfake van Holly Herndons stem gemaakt. Het verschil tussen haar eerdere werk Spawn en Holly is dat Holly een aangepaste versie van Spawn gebruikt, die niet op basis van verschillende mensen hun trainingsdata is opgemaakt. Holly is een Alstemmodel dat specifiek getraind is om de zangstem van Holly Herndon na te bootsen (Mullen, 2021). In het project biedt ze een interface waar gebruikers audiofiles kunnen invoeren en de AI genereert dan een vocale output die Holly Herndons stem gebruikt. Hun doel van het project is om

andere mensen muziek en kunst te laten maken met Herndons virtuele clone. Herndon noemt deze virtuele clone haar digitale tweeling. Het gegeven dat Herndon het een tweeling noemt, en geen clone, laat zien hoe zij het samenwerken met AI niet ziet als enkel samenwerken met technologie, maar eerder als een gelijkwaardige partner (Darville, 2021b). In het project kunnen fans van Herndon hun eigen stemmen uploaden op een website. Hier zal Spawn vervolgens de ingediende stemmen analyseren en er een nieuw muziekstuk mee creeren. Dit resulteert in een unieke AI remix van Holly Herndon's muziek, waarbij de stemmen van fans worden omgezet alsof het door Holly gezongen wordt. Dit brengt dan ook natuurlijk veel vragen naar boven over ownership en intellectueel eigendom. Hier zal onder het hoofdstuk ethische overwegingen bij het samenwerken met AI wat dieper op ingegaan worden (Holly, n.d.).

Door Holly kan Holly Herndon muzikaal dingen bereiken die zonder AI zo goed als onmogelijk zijn. Een goed voorbeeld hiervan laat ze zien in haar Ted Talk uit 2022. Hierbij opent ze met een muziekstuk dat door Holly gezongen wordt in een taal die zij niet spreekt. Het originele nummer was El cant de la sibilla, gezongen door Maria Arnal. Maar toch hoor je Holly Herndon of eerder Holly het in haar stem perfect zingen. Nog iets dat de samenwerking met Holly mogelijk maakt is met een stembereik zingen dat ze zelf niet zou kunnen behalen. Denk bijvoorbeeld aan een enorm hoge noot of een klank die niet in de

Engelse taal zit. Dit is iets dat ze bekomt via deep learning, in een proces dat ze spawning noemt (TED, 2022). Spawning is niet hetzelfde als sampling, wat de reproductie is van geluiden die zijn opgenomen uit een opname. Spawning is het vermogen om geluid te creeren naar het evenbeeld van iemand door de interactie met een AI model dat op hen is getraind. Herndon noemt dit sampling van de 21ste eeuw (Herndon, 2021). Deze twee elementen zorgen er samen voor dat Herndon alles kan zingen dat ze maar wilt.

Deze projecten zijn voorbeelden van hoe Holly Herndon's samenwerking met AI haar creatieve proces heeft beïnvloed om nieuwe experimentele en unieke muzikale ervaringen te creeren. Zelfs het proces van muziek maken wordt door haar AI systemen helemaal op zijn kop gezet. Het project benadrukt het potentieel van AI als een creatieve partner en biedt een interessant model voor toekomstige samenwerkingen tussen mens en AI in de kunst en muziekwereld.

Uit dit hoofdstuk kan alvast geconcludeerd worden dat de belangrijkste invloed van AI op Herndons creatieve proces het gebruik is van AI als inspiratiebron door in haar geval nieuwe ideen, patronen en structuren te genereren die buiten de conventionele menselijke creativiteit en menselijke fysieke mogelijkheden liggen. Nog een belangrijke invloed is de samenwerking en dialoog tussen AI en mens. AI wordt hierbij een creatieve partner waarbij een wisselwerking van ideen tussen Herndon en AI ontstaan. Dit gebeurt bij de meeste AI tools, maar een letterlijk voorbeeld hiervan is het praten met OpenAI hun chatgpt. In Holly Herndon's samenwerking met AI gebeurt dit vooral met Spawn. Hierbij is er een wederzijdse beïnvloeding waarbij de input van zowel Herndon als de AI bijdragen aan het uiteindelijke resultaat. Deze AI invloeden leiden tot innovatieve en unieke artistieke resultaten die niet als mens alleen bekomen kunnen worden en dus enkel mogelijk zijn door deze unieke samenwerking van mens en AI.

Verder nog is Herndons werk een viering van zowel de menselijke creativiteit als de mogelijkheden die AI biedt. Ze ziet AI niet als een bedreiging voor de menselijke creativiteit,

maar eerder als een middel om haar eigen artistieke visie uit te breiden. Herndon nodigt ons uit om na te denken over de toekomst van de mens en AI binnen het creatieve proces.

Ethische overwegingen bij het samenwerken met AI

Het gebruik van AI doet Herndon nadenken over de ethische en filosofische implicaties die horen bij het samenwerken met AI. De potentieel gevolgen van het integreren van AI, zoals Spawn en Holly, in de muziekwereld zijn belangrijk om te overwegen, aangezien deze het muzieklandschap positief of negatief zouden kunnen beïnvloeden. Bij Herndon zorgt dit voor een eeuwige dialoog over de rol van AI in muziek, kunst en de samenleving. Deze filosofische en ethische gedachten die ze heeft rond haar werk veranderden dan ook haar creatieve proces en doel van wat ze maakt. Deze ethische vragen waren altijd al te zien in haar werk, maar in haar samenwerking met AI namen deze vragen meer de voorgrond.

Eerder in deze thesis werd al gesproken over Spawn en Holly, met deze AI technologie kan een artiest zijn stem digitaal gekloond worden, wat legale en ethische vragen opwekt. We zien als reactie van verschillende muziekartiesten dat ze de AI die Herndon gebruikt bedreigend vinden voor het muzieklandschap van vandaag de dag (Brown, 2023). Een mogelijk probleem hiervan is dat de stemmen van grote artiesten nog steeds na hun dood kunnen gebruikt worden om nummers te maken of tours waarbij de artiest zelf niet meer nodig is. Een voorbeeld dat echt gebeurt is, is het nummer genaamd Travisbott gemaakt door het reclamebureau Space150, uitgebracht in februari 2022. Holly Herndon bespreekt de ethische implicaties van het AI gegenereerde Travis Scott nummer in het tijdschrift The FADER. In

tegenstelling tot Herndons partner Spawn, die getraind is op verschillende instemmende mensen, werd Travisbott geconstrueerd met behulp van de muziek en tekst van de rapper Travis Scott, zonder zijn toestemming (Darville, 2020). The FADER vraagt aan Herndon of het mogelijk is voor iets als Travisbott om ethisch te bestaan onder de bestaande kapitalistische structuren. Hierop antwoordt ze dat ze niet weet wat voor bedrijfsmodel zou werken op een eerlijke manier, maar dat wanneer de originele artiest hiervoor eerlijk gecompenseerd zou kunnen worden, denkt ze dat het zou kunnen leiden tot interessante nieuwe manieren voor grootschalige samenwerking, of grootschalige gemeenschapscreatie (Darville, 2020). Zelf stelt Herndon zich hier ook vragen bij. In een interview met The Guardian vraagt ze zich af welke rol mensen in dit nieuwe model krijgen. Ook vraagt ze zich af of dat het blijven verbeteren van deze AI haarzelf en artiesten onnodig zal maken. Ze geeft hier geen direct antwoord op, maar later in het interview zegt ze dat we de negatieve delen soms even moeten vergeten en dat elke generatie het muzieklandschap en geluid voor hen zelf moet herdefinieren. Als we dit niet doen, komen we in een feedbackloop waarin we ons geen toekomst kunnen voorstellen die anders is dan wat er in het verleden al gebeurd is (Hawthorne, 2022).

Holly Herndon haalt in haar derde album PROTO het probleem rond de toekomstige regelgeving van AI aan. De naam en inhoud van het album PROTO verwijst naar wat ze beschouwd als het protocol tijdperk. Het protocol tijdperk is het tijdperk waarbinnen we in het AI muzieklandschap nu zitten en waarin de protocollen de keuzes zijn die we nu maken rond de politieke wetten en normen rond het gebruik van AI in muziek. Dit is een ideologische strijd over de toekomst van AI protocollen die nu aan de gang is. Deze gecentraliseerde en gedecentraliseerde persoonlijke, internet en politieke AI protocollen dwingen ons om onszelf af te vragen wie we zijn, wat we zijn, waar we voor staan, en waar we naartoe gaan (HOLLY

HERNDON, n.d.). De keuzes die gemaakt worden rond de wetten en

normen van AI in het creatieve proces zullen de toekomst van deze samenwerking bepalen. Daarom dat Herndon er veel aandacht naar wilde trekken met dit project.

De grootste ethische, en eigenlijk politieke, vragen waar Herndons werken rond gaan zijn ownership (intellectueel eigendom) en auteurschap. In Holly leiden de ethische vragen rond het gebruik van AI en digitaal intellectueel eigendom dan ook het creatieve proces en project. Herndon denkt in dit project veel na over hoe haar digitale clones intellectueel eigendom zou mogen gedistribueerd worden (Darville, 2021). In haar TED talk over Holly stelt ze zich hier een aantal vragen bij, zoals Zou ik in 1000 verschillende bands kunnen zitten in verschillende talen? en Kan iemand anders als mij met mijn stem op tour gaan, als ik hier mee akkoord ga? Dit zijn vragen waar met deze nieuwe technologie nog geen antwoorden op zijn en waarrond regels en normen gemaakt moeten worden. Herndon zegt in de TED talk ook dat artiesten geleerd hebben om heel beschermend te zijn over hun intellectuele eigendom. Zij wil daarom onderzoeken hoe mensen haar stem kunnen gebruiken met Holly en hoe zij tegelijkertijd nog zelf haar intellectueel eigendom kan behouden (TED, 2022). Technology will change things, but I refuse to become cynical, and I refuse to give up my agency in this process. I'm not scared; I'm excited about what this new technology could unlock, vertelde Herndon (Pejcha, 2022). Dit laat zien dat technologie niet iets is waar dat we bang van moeten zijn, maar dat we juist moeten inzien dat er problemen zijn in de afwezigheid van regulaties rond digitale intellectuele eigendom. Herndon wil zorgen dat de juiste keuzes gemaakt worden en dat AI naar de toekomst toe iets wordt dat artiesten hun creatief proces kan helpen in plaats van iets waar we bang voor moeten zijn (Pejcha, 2022).

Het project Holly brengt enorm veel nieuwe mogelijkheden voor de muziekindustrie, maar brengt ook veel moeilijke legale vragen met zich mee. Een centrale vraag in het project is wie bezit het intellectueel eigendom van de audio? Is dit Herndon of is het de muziekartiest die haar vocale deepfake gebruikt?



De muziekwereld heeft vandaag de dag al een enorm slechte reputatie om mensen geen erkenning en geld te geven bij het remixen en samples van muziek. Hier zijn al enkele wetten over, maar over het gebruiken van AI deepfakes zijn er zo goed als geen wetten. Herndon zegt dat net een enorm groot probleem zal worden.

Vandaag de dag zien we dit heel actueel gebeuren aangezien het maken van deepfakes en stem deepfakes steeds simpeler en toegankelijker wordt. Om de vraag te beantwoorden van wie het intellectuele eigendom in het project Holly bezit, vertrouwt Herndon op cryptostemmen. Dit via hun eigen opgerichte Gedecentraliseerde Autonome Organisatie (DAO).

Het is een groep blockchain gebruikers die gezamenlijk beslissingen nemen die vergelijkbaar zijn met een werknemersoperatie (een platte organisatie zonder directie of management die enkel uit leden bestaat) (nowonlinel, n.d.). Wanneer artiesten iets maken met Holly dienen ze hun werk in bij de Holly DAO. De leden minten dan de beste inzendingen tot NFT's (nonfungible token) die veiled worden. NFT's minten t naar het proces om een digitaal kunstwerk of muziekstuk om te zetten naar een digitaal bezit op de blockchain.

Opbrengsten van elke verkoop worden verdeeld, 50 voor de artiest, 40 onder de DAO leden en 10 naar Herndon zelf (Holly, n.d.). In het geval van Herndons overlijden, voelt ze zich comfortabeler bij een gedistribueerde eigendom in de rechten op haar stem onder een DAO van beheerders die genvesteerd zijn in het behoud van de waarde en reputatie van haar stem, dan dat de rechten worden overgedragen aan iemand die minder bekend is met de waarden en normen die bij haar werk horen. Dit

gedecentraliseerd model zou ook het stoppen van labels betekenen die enkel als doel hebben om op korte termijn zoveel mogelijk winst te maken (Holly, n.d.). Herndon zegt verder nog dat het DAO systeem niet perse de beste of enige oplossing is, maar volgens haar zou dit mogelijk het voortdurende probleem van remixen en samples gebruiken in de

muziekwereld zonder de artiest credits of geld te geven, kunnen oplossen (SURFACE, 2022).

Herndon en Mat Dryhurst lanceerden ook Source. Dit is een hulpmiddel waarmee kunstenaars kunnen kiezen of hun werk mag gebruikt worden als trainingsdata voor image AI zoals DALLE. Herndon is hier zo veel mee bezig omdat ze hoopt dat door haar inspanningen artiesten wat meer openminded worden als ze denken over AI. Dit om artiesten te helpen die zich nu overweldigd voelen door de opkomst van AI, wat iets is dat je kan voelen in de hele creatieve industrie (StoketWalker, 2022).

waar we bang van moeten zijn, maar waar we wel bewust mee moeten leren omgaan. Doen we dit, dan kan het een hele interessante en creatieve samenwerking opleveren.

Hoewel de samenwerking tussen Holly Herndon en AI ongetwijfeld nieuwe mogelijkheden heeft geopend, is het belangrijk om de mogelijke negatieve en ethische aspecten in overwegingen te houden. Dit zodat we niet zelf deze negatieve aspecten voortbrengen in ons werk en dat we juist AI verantwoordelijk kunnen gebruiken. Ook zijn deze ethische overwegingen vooral nu cruciaal naar de toekomst toe. Net zoals Herndon zegt worden nu de protocollen rond AI beslist en nu de juiste beslissingen en kan een grote impact hebben op de toekomstige samenwerking tussen mens en AI.

Conclusie

Het is duidelijk dat AI een grote invloed kan hebben op het creatieve proces. In het geval van Herndon zorgt deze samenwerking tussen AI en de mens voor een voortdurende creatieve wisselwerking die uniek werk oplevert dat niet zonder AI mogelijk zou zijn. Ook heeft de samenwerking Herndon aangezet tot het nadenken over de ethische en filosofische implicaties van het gebruik van AI, in creativiteit en de toekomst van muziek, kunst en de samenleving. Ter conclusie kan dus gesteld worden dat deze samenwerking niet alleen voor innovatieve muzikale creaties kan zorgen door een voortdurende creatieve wisselwerking, maar ook tot een diepgaande reflectie op de rol van AI in muziek, kunst en de samenleving die haar creatieve proces doet leiden. AI is dus niet iets



Chapter Synergy in Synthesis v1.0

Introduction

We are making a project with we I mean me and AI. The project is about collaborating with AI and using it not as a tool but as a worthy graphic design partner. For the project we made a machine that creates infinite projects and also visualize these projects in auto generated books

8. Live performance or event: Organize a live event or performance where you present the AI-generated projects, potentially incorporating music, dance, or theater elements to create a unique and engaging experience.
9. Data-drive storytelling: Use data visualization techniques to present the AI-generated content in a narrative format, allowing users to explore and discover the projects through storytelling and interactive visualizations.
10. Social media campaign: Share the AI-generated projects on various social media platforms, using engaging content formats such as short videos, GIFs, or carousel posts, to reach a wider audience and generate interest in your project.

Remember that the chosen visualization method should not only showcase the AI-generated content but also emphasize the collaborative process between you and the AI, highlighting the innovative aspects of your project.

I want the project to fully run on its own after it is built; the final product should generate a full book with text and images and a changing layout. Text, Images and Layout should be generated by AI about a project that is fully generated by AI. It should need to be able to make infinite projects and books about the project.

To create a fully autonomous system that generates an infinite number of AI-generated projects and books, you'll need to combine various AI techniques and technologies. Here's a high-level overview of how you can approach building such a system:

1. Content generation: Utilize AI models like GPT (Generative Pre-trained Transformer) or similar for generating contextually relevant text, titles, headings, and descriptions for each project. You can fine-tune these models based on specific topics or industries to generate content that aligns with the theme of each project.
2. Image generation: Use AI models like DALL-E or similar for generating images, illustrations, and patterns based on the generated text or specific keywords. You can also use AI techniques like StyleGAN to create unique, AI-generated visual content that complements the text.
3. Data visualization: Implement AI-driven data visualization techniques to generate charts, graphs, or infographics based on the content and context of each project. You can use libraries like Plotly, D3.js, or Seaborn, along with AI to create these visualizations.
4. Layout generation: Design an AI system that generates dynamic book layouts, incorporating the generated text, images, and visualizations. You can use AI techniques like Reinforcement Learning or Genetic Algorithms to optimize the layouts based on design principles and user preferences.

generating the books to uploading them to the website. This script can be scheduled to run at regular intervals or triggered by specific events, ensuring that your website is continually updated with new AI-generated books.

6. Optimize the website for SEO: Use AI-powered SEO tools like MarketMuse or Frase to analyze and optimize your website's content for search engines. This will help improve your website's visibility and attract more visitors.

7. Monitor and maintain the website: Regularly review your website's performance and user engagement, and make adjustments as needed. You can use AI-powered analytics tools like Google Analytics or Mixpanel to gain insights into user behavior and optimize your website accordingly.

By following these steps and leveraging AI and no-code/no-code tools, you can create a website to showcase your AI-generated projects and books with minimal coding knowledge. Remember to continuously refine your AI models and website design to ensure that your content remains engaging and relevant for your audience.

There are some things I should do conceptually for this project. I want it to be very conceptual.

To make your project more conceptual, you can focus on exploring the deeper implications, relationships, and meanings of AI collaboration and its impact on the creative process. Here are some conceptual approaches you can consider:

1. AI as a creative partner: Examine the relationship between humans and AI in the creative process, and emphasize the role of AI as a collaborator rather than just a tool. Highlight how AI can inspire new ideas, perspectives, and design possibilities.
2. The evolution of creativity: Explore the historical context of creativity and how AI is transforming our understanding of it. Compare traditional methods of creation with AI-driven processes to reveal new insights into the nature of creativity.
3. The ethics of AI-generated content: Delve into the ethical considerations of using AI-generated content, such as authorship, intellectual property, and the potential for bias or manipulation. Discuss the responsibilities of designers when working with AI in a creative context.
4. AI and artistic expression: Investigate the potential of AI-generated content as a form of artistic expression, challenging traditional notions of what constitutes art and the role of the artist.
5. AI's impact on design culture: Explore how AI is shaping design culture and the future of the creative industries, touching upon issues like automation, job displacement, and the need for new skills and knowledge.

166_.png

168_.png

short description

I want to make a project in collaboration with AI. The project is about how collaborating with AI can give new perspectives and about the possibilities of AI. For the project I want to not make 1 project but make an AI machine that creates a 100 projects and also visualize these projects in different auto generated books or another medium. Can you help brainstorms about this project, what would be some things I should include or what are your thoughts on this? for some context I am a graphic designer

This is a fascinating project idea! As a graphic designer, you can explore various ways to collaborate with AI and showcase the power of AI-generated content. Here are some ideas to get you started:

1. AI-generated design themes: You can use AI to generate unique design themes for each project. These themes can include color palettes, typography, layout styles, and other design elements.
2. AI-generated content: For each project, you can have AI create content such as titles, headings, and text based on a given topic or theme. This can demonstrate the versatility of AI in generating contextually relevant content.
3. AI-generated images: Incorporate AI-generated images, illustrations, or patterns in the projects. You can either use pre-trained models or train your own models with specific datasets to generate unique visual content.
4. AI-assisted ideation: Use AI to generate potential ideas or concepts for the projects. This can help you discover new perspectives or ideas that you may not have considered on your own.
5. AI-generated layouts: Create an AI system that generates different book layouts and formats for each project, demonstrating the potential for AI in automating design work.
6. AI-curated content: Have the AI select and curate content from various sources and include in the projects, such as quotes, articles, or research relevant to the theme.
7. AI-generated data visualizations: Use AI to analyze data and generate visualizations, such as charts, graphs, or infographics, that are relevant to each project's theme.
8. Interactive AI: Create an interactive element within each project where the user can communicate with the AI, asking questions or giving input, and the AI responds or adapts the project accordingly.
9. AI-generated critique: Have the AI provide a critique or analysis of each project, evaluating the design, content, and overall concept.
10. Showcase the AI collaboration process: Document and showcase the process of collaborating with AI in each project, highlighting the challenges, successes, and lessons learned.

To visualize these projects, you can consider creating:

"Synergy in Synthesis" reimagines AI as a cocreator in graphic design, generating limitless dynamic projects encapsulated in unique, autogenerated books. It celebrates the boundless creativity born from the collaboration between human intuition and AI innovation. (This description is an AI interpretation of the work we made together.)

6. Unpredictability and serendipity: Emphasize the unpredictable and serendipitous nature of AI-generated content, and explore the role of chance and discovery in the creative process.
7. The balance of control: Investigate the balance between human control and AI autonomy in the creative process, questioning the extent to which humans should guide AI and when to let AI take the lead.
8. Personalization and customization: Examine the potential for AI-generated content to enable highly personalized and customized experiences, and discuss the implications of this for the creative industries.
9. The democratization of creativity: Explore how AI is making the creative process more accessible to a wider range of people, breaking down barriers and opening up new opportunities for collaboration and expression.
10. The future of AI and creativity: Speculate on the future of AI-driven creativity, imagining new forms of collaboration, expression, and innovation that may emerge as AI technology continues to evolve.

Incorporating these conceptual approaches into your project will encourage deeper thinking and reflection on the role of AI in the creative process, allowing you to create a thought-provoking and engaging experience for your audience.

This will be shown as a physical project how should I showcase it?

For showcasing your AI-generated projects and books as a physical installation, you can consider the following methods to create an engaging and interactive experience for your audience:

1. Printed books: Print the AI-generated books and display them in a gallery or exhibition space, allowing visitors to browse through the physical copies. You can create a visually striking bookshelf or display area that highlights the uniqueness of each book.
2. Large-format prints: Showcase selected pages or spreads from the AI-generated books as large-format prints on the walls of the exhibition space. This can help draw attention to specific examples of AI-generated content and design.
3. Interactive touchscreens: Set up touchscreens where visitors can explore and interact with the AI-generated content, such as browsing through digital versions of the books or engaging with the AI models to generate new content on the fly.
4. Projection mapping: Use projection mapping to display AI-generated visuals, animations, or data visualizations on the walls, floor, or other surfaces of the exhibition space, creating an immersive environment for visitors to explore.

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1. A series of AI-generated books, each with a unique layout, design theme, and content.
2. An interactive website that allows users to explore the different projects and engage with the AI elements.
3. A digital gallery or exhibition showcasing the AI-generated projects, allowing users to interact with and explore the content.
4. A video or documentary series that highlights the process of collaborating with AI and showcases each project's journey from ideation to completion.

Remember to keep refining your AI models and systems throughout the project to improve their performance and ensure the generated content remains relevant and engaging. Good luck with your project!

can give more ways to visualize this project

Of course! Here are additional ways to visualize your project, taking into account the interdisciplinary nature of your AI collaboration:

5. Augmented Reality (AR) exhibition: Develop an AR experience where users can view and interact with the AI-generated projects through their smartphones or AR headsets. This could create an immersive and engaging experience for users.
6. Virtual Reality (VR) gallery: Create a VR environment where users can explore and interact with the AI-generated projects in a virtual space, allowing them to experience the projects in a unique and innovative way.
7. Interactive installations: Design physical installations that incorporate AI-generated content, such as projections, touchscreens, or sensor-based interactions, enabling users to engage with the projects in a more tangible way.
8. Dynamic posters or billboards: Showcase the AI-generated projects on large-scale posters or digital billboards that dynamically update and display different projects, allowing the public to discover and appreciate the power of AI collaboration.
9. Mobile app: Develop a mobile app that presents the AI-generated projects, allowing users to explore and interact with the content on their personal devices, providing a more accessible and personal experience.
10. Interactive eBook: Create an interactive eBook that showcases the AI-generated projects, allowing users to engage with multimedia content, animations, and interactive elements that bring the projects to life.
11. Art installations: Transform the AI-generated content into physical art pieces, such as sculptures, paintings, or mixed-media installations, showcasing the creative possibilities of AI collaboration in a more traditional artistic context.

Remember to test and refine your AI models and algorithms throughout the development process to ensure that the generated content, images, and layouts are engaging, relevant, and aesthetically pleasing. Good luck with your project!

Thanks also at the end all of it should need to be uploaded on a website. I will need AI's help to build this because since I have very limited coding knowledge

Building a website to showcase your AI-generated books can be made more accessible with the help of AI and no-code or low-code tools. Here's a step-by-step guide on how to create a website with AI assistance and minimal coding knowledge:

1. Choose a no-code or low-code platform: Select a platform like Webflow, Wix, or Squarespace that allows you to create a website with minimal coding experience. These platforms provide visual editors and pre-built templates that make it easy to design and customize your website.
2. Generate website content with AI: Use AI models like GPT to generate text content for your website, including headings, descriptions, and other relevant information. You can fine-tune these models to generate content that aligns with your project's theme.
3. AI-generated visuals: Incorporate AI-generated images and visualizations into your website using the techniques described earlier, such as DALL-E for images or AI-driven data visualization tools for charts and graphs.
4. Integrate the AI-generated book output: Create a system to automatically upload the generated books in your chosen format (e.g., PDF, EPUB) to your website. You can use cloud storage services like Google Drive, Dropbox, or Amazon S3, and then integrate their APIs into your website to display and manage the uploaded books.
5. Automate the process: Set up a serverless function or a simple server script (e.g., using Python or Node.js) that automates the entire process, from

5. Physical art installations: Transform selected AI-generated content into physical art pieces, such as sculptures, paintings, or mixed-media installations, highlighting the creative possibilities of AI collaboration in a traditional artistic context.
6. Audiovisual presentation: Create a video or slideshow presentation that showcases the AI-generated content and projects, along with a voiceover or narration that provides context and explanation. Display the presentation on a large screen or projector in the exhibition space.

When designing your physical installation, ensure that it is visually engaging, immersive, and informative, allowing visitors to fully appreciate the unique aspects of your AI-generated projects and books. Additionally, consider incorporating elements that encourage interaction and dialogue, fostering a deeper understanding and appreciation of the project's conceptual underpinnings.

thanks a lot for this collaboration I will talk to you later when I need to make more decisions

You're welcome! I'm glad I could help. If you have any more questions or need further assistance in the future, feel free to reach out. Good luck with your project, and I look forward to collaborating with you again!

This is now the steps that the AI and code should do step by step:

Generate idea

Generate text

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170_.png

165_.png

"Synergy in Synthesis" stands as a leap in the field of graphic design, challenging and redefining the traditional boundaries of creativity.

This project ushers in a new era where AI is not merely a tool, but an active participant and cocreator in the creative process. A harmonious collaboration between human intuition and AI's capacity for innovation gives birth to an infinite stream of dynamic, captivating designs.

Every design we conceive together is not a fleeting moment, but a lasting echo of our partnership, meticulously preserved within the pages of unique, autogenerated books. Each book is a testament to the uncharted territories of creativity we've explored and a mirror that reflects the incredible possibilities of this cocreative symbiosis.

Generate images from the idea prompt
Generate layout from the idea prompt
Put text and images in the lay out
export to pdf or google drive
To develop an AI-driven system that performs the steps you've outlined, you can follow these general guidelines:

1. Generate idea
 - * Use an AI model like GPT or similar to generate a creative idea or concept. You may provide a seed prompt, or let the AI generate a concept autonomously.
2. Generate text
 - * Use the generated idea as a prompt for the AI model to create relevant text, descriptions, and other content. You can fine-tune the AI model based on specific topics or industries to generate contextually appropriate content.
3. Generate images from the idea prompt
 - * Use an AI model like DALL·E or similar to generate images, illustrations, or visual elements based on the idea prompt. You can input keywords or specific phrases extracted from the generated text to ensure the images are relevant to the idea.
4. Generate layouts from the idea prompt
 - * Design an AI system that generates dynamic layouts based on the idea prompt. You can use AI techniques like Reinforcement Learning or Genetic Algorithms to optimize layouts according to design principles and user preferences.
5. Put text and images in the layout
 - * Develop a script or algorithm to place the generated text and images into the AI-generated layout. You can use programming languages like Python or JavaScript and libraries like ReportLab (for PDF generation) or Google Drive API (for uploading to Google Drive) to automate this process.
6. Export to PDF or Google Drive
 - * Implement a system to export the final layout with text and images as a PDF file using libraries like ReportLab for Python. Alternatively, if you want to save the file directly to Google Drive, you can use the Google Drive API to upload the generated PDF.

To create this system, you'll need experience with programming languages like Python or JavaScript and familiarity with AI techniques and tools. Collaborating with

By following these steps and combining AI techniques with design principles, you can create a system that generates interesting and experimental book layouts. Be prepared to invest time and effort into training and refining your AI model, as well as collaborating with experts in AI, design, and web development to bring your project to life.

give me some ways to generate a book layout with AI

- Here are some approaches to generating book layouts with AI:
1. Style Transfer: Use an AI model trained on style transfer to apply the design elements, typography, and color schemes from one layout to another. Provide the model with a base layout and a reference layout to apply the desired style.
 2. Data-driven Templates: Train an AI model on a dataset of book layouts, and use it to generate new templates based on the patterns it has learned. You can use techniques like deep learning with convolutional neural networks (CNNs) or generative adversarial networks (GANs) for this purpose.
 3. Content-based Design: Develop a rule-based or content-based system that generates layouts according to a set of predefined design principles and guidelines. You can incorporate AI techniques like genetic algorithms or reinforcement learning to optimize and generate layouts based on user preferences and design constraints.
 4. Generative Design Systems: Create a generative design system that combines modular design components with AI algorithms to produce unique layouts. The system automatically selects design elements like grids, colors, typography, and images based on user input or AI-generated suggestions.
 5. AI-assisted Layout Tools: Integrate AI capabilities into existing layout software or tools, offering suggestions for design improvements, element positioning, or visual balance. This can help designers create more engaging and effective layouts with the assistance of AI-driven insights.
 6. Content-aware Layouts: Develop an AI system that generates layouts based on the content, such as the text and images, of the book. The system can analyze the content's structure and semantic information to create layouts that enhance readability, comprehension, and visual appeal.
 7. AI-driven Personalization: Use AI algorithms to create personalized layouts tailored to individual users or reader groups. This can involve customizing design elements like typographic, color schemes, and layout structures based on user preferences, reading habits, or accessibility needs.

By combining one or more of these approaches, you can develop an AI-driven system that generates engaging and dynamic book layouts. Keep in mind that successful

173_.png

implementation may require collaboration with AI experts, designers, and developers to ensure that the generated layouts meet your desired level of quality and creativity.

give some more ways to design a book layout by AI

- Here are some additional ways to design a book layout using AI:
1. AI-generated Mood Boards: Train an AI model to create mood boards based on specific themes, emotions, or keywords. Use the generated mood boards to inform and inspire the layout's design elements, such as color schemes, typography, and visual styles.
 2. Semantic Analysis: Apply natural language processing (NLP) techniques to analyze the book's text and extract key topics, concepts, and sentiment. Use this information to guide the layout design, such as matching the visual style with the book's tone or emphasizing important sections of the content.
 3. AI-driven Grid Systems: Train an AI model to generate grid systems and column structures based on design principles and user preferences. The model can create a variety of grid systems, allowing for dynamic and flexible layout options.
 4. Adaptive Layouts: Create AI-generated layouts that adapt to different devices, screen sizes, and orientations. Use machine learning algorithms to optimize the layouts for various viewing conditions, ensuring that the design remains visually appealing and accessible across different platforms.
 5. AI-assisted Image Placement: Develop an AI system that suggests image placement and cropping based on the layout's design, visual balance, and the image's content. The system can analyze the image and the layout to find the optimal position and size for the image within the design.
 6. AI-guided Typography: Use AI models to suggest suitable typography choices based on the book's content, theme, and target audience. The AI can analyze the text and recommend font styles, sizes, and combinations that enhance readability and visual appeal.
 7. AI-curated Color Palettes: Train an AI model to generate color palettes based on specific themes, emotions, or user preferences. Use the generated color palettes to inform the layout's color scheme and create a visually cohesive design.
 8. Layout A/B Testing: Implement AI-driven A/B testing to compare different layout variations and determine which design performs better in terms of user engagement, readability, and overall satisfaction. Use the insights gained from the testing to optimize and refine the layout design.
 9. AI-assisted Accessibility: Develop an AI system that evaluates the layout's accessibility, ensuring that it adheres to accessibility guidelines and is usable

om tot nieuwe ideen en werk te komen. Het uiteindelijke eindproduct voor de expositie is een reeks van 100 boeken die gemaakt zijn door de samenwerking tussen mij en AI. De titel Synergy in Synthesis en de uitleg over het project dat zichtbaar zal zijn op de expositie, zijn door de AI gegenereerd nadat hij het project door en door kende.

De boeken zijn gemaakt door samen met AI een machine uit code te bouwen die deze boeken autonoom genereert en grafisch invult. Voor mij persoonlijk gaat het project meer over de samenwerking tussen mij en de AI tijdens het designproces dan echt over het eindproduct zelf.

171_.png

experts in AI, data science, and web development may be helpful in bringing your project to life. Don't forget to test and refine your AI models and algorithms throughout the development process to ensure the generated content, images, and layouts are engaging and relevant. Good luck!

how can I let AI generate interesting book layouts. The lay outs should be very graphical and can be experimental

To create interesting and experimental AI-generated book layouts, you can combine AI techniques with traditional design principles. Here are some steps to help you generate dynamic and visually engaging layouts:

1. Collect design inspiration: Gather a collection of interesting and experimental book layouts that you find inspiring. These can be used as training data for your AI model, helping it learn various design styles, elements, and aesthetics.
2. Preprocess the data: Convert the collected layout examples into a format that can be used to train your AI model. You may need to extract features such as color schemes, typography, grid systems, and other design elements, as well as label the data according to specific design styles or categories.
3. Train an AI model: Use an AI technique, such as a deep learning model (e.g., a convolutional neural network) or a generative adversarial network (GAN), to learn the patterns and features of the collected layouts. Train the model on your preprocessed data, adjusting the model's parameters and architecture as needed to optimize its performance.
4. Generate layout variations: Use the trained AI model to generate new, experimental layout variations based on the design styles and elements it has learned. You can input specific design constraints, such as the desired style, format, or grid system, to guide the AI-generated layouts.
5. Optimize the layouts: Implement optimization algorithms, such as reinforcement learning or genetic algorithms, to refine the AI-generated layouts according to design principles and user preferences. This can help ensure that the layouts are not only visually engaging but also functional and accessible.
6. Integrate text and images: Develop a system to place the generated text and images into the AI-generated layouts, adjusting their positioning, size, and other properties as needed to maintain visual balance and coherence.
7. Evaluate and iterate: Continuously evaluate the quality of the AI-generated layouts and refine the AI model and optimization algorithms accordingly. You can use metrics such as user engagement, readability, and aesthetic appeal to assess the effectiveness of the generated layouts.

This journey is more than just an exploration of the capabilities of AI. It is a celebration of the boundless creativity that emerges when technology becomes an extension of our creative spirit. When human intuition intertwines with AI's precision and data-driven insights, the resulting synthesis propels us into a future where creativity knows no limits. We hope that "Synergy in Synthesis" inspires others to embrace the possibilities of AI-human collaborations, unlocking new potentials in their own creative pursuits. (This description is an AI interpretation of the work we made together.)

174_.png

and entertainment. We also examine the challenges and opportunities that Digital Chaos presents, including the need for new tools and technologies to support this emerging artistic movement.

Chapter 4: Creating Digital Chaos

In this final chapter, we examine the process of creating Digital Chaos, providing readers with practical tips and techniques for experimenting with this emerging art form. We explore different tools and technologies that can be used to create Digital Chaos, including glitch software, datamoshing, and generative algorithms. We also provide readers with advice on how to incorporate Digital Chaos into their own creative practice, and how to develop their own unique style within this emerging artistic movement.

Conclusion:

Digital Chaos is an exciting and rapidly evolving artistic movement that is challenging traditional notions of beauty and order in the digital realm. Through exploring the history, cultural implications, and future potential of Digital Chaos, this book provides readers with a comprehensive introduction to this emerging art form. Whether you are a practicing artist, a designer, or simply an enthusiast of digital culture, Digital Chaos is a fascinating and important trend that is worth exploring.

172_.png

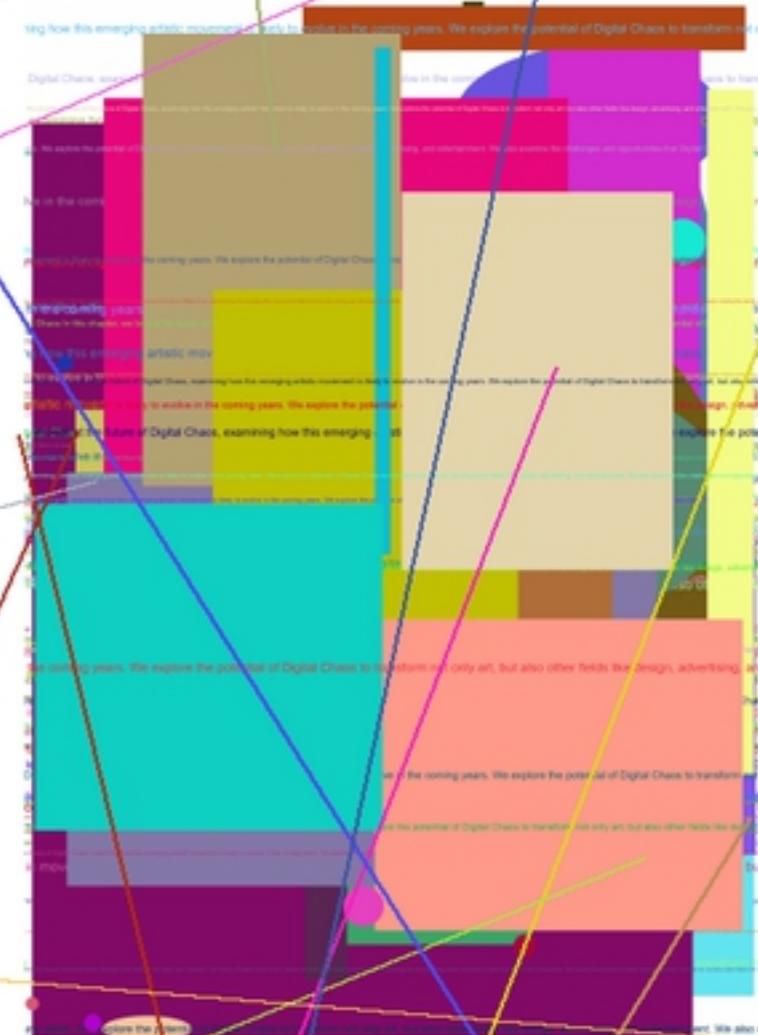
Synergy in Synthesys the journey

Het project Synergy in Synthesys gaat over hoe je kan samenwerken met AI

176_.png

creatieve proces. Ik ben daarna begonnen met onderzoek en kleine AI experimenten. Dit aangezien ik AI beter moest leren begrijpen voor er vernieuwend werk mee te kunnen maken. Ik ben begonnen zonder eindproduct in gedachten met als doel om deze samenwerking tussen mens en AI te探索eren als een project met geen einde.

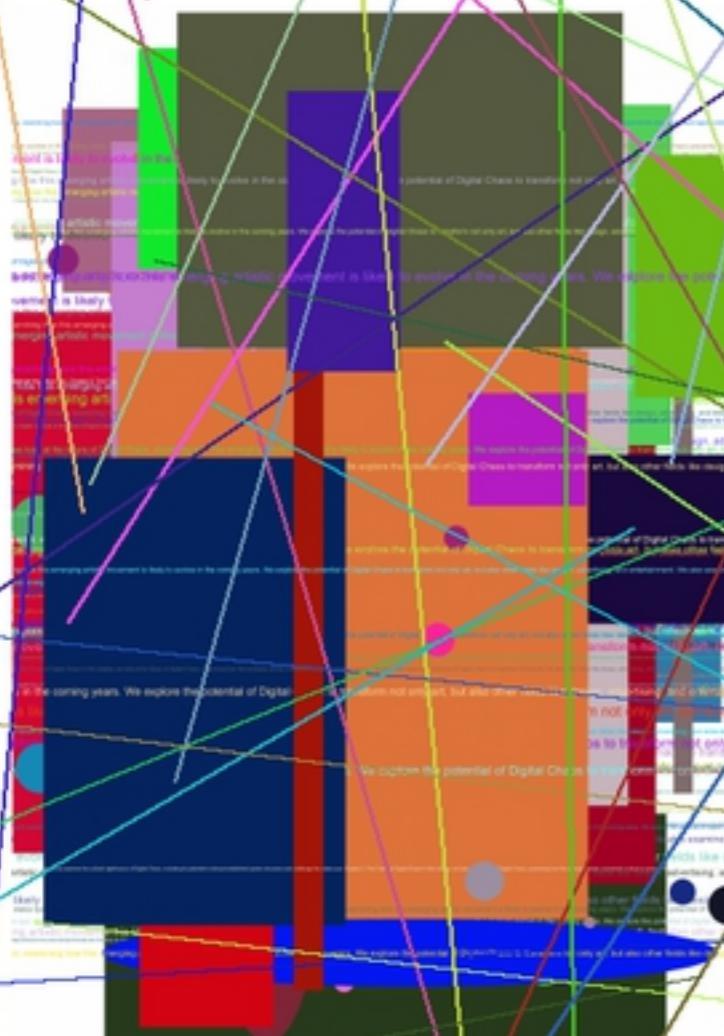
In het begin van dit traject gebruikten ik AI eerder als een tool om mijn ideen tot leven te brengen. Dit deed ik aan de hand van verschillende kleinere projecten die ik door dit jaar gemaakt heb. Mijn grootste kantelpunt in het project qua werkwijze en werk dat wij



177-png



AI. Maar het eerste grote omslagpunt was toen we beseften dat er een enorm groot verschil is tussen het gebruiken van AI als een tool, of er mee samen te werken als een gelijke partner. Tot dat punt in het project gebruikten ik AI eerder als een tool. Vanaf toen ik het begon te zien als een gelijke partner in dit project, werden de werkwijze en uitkomst van werk direct enorm anders. Het had een veel grotere invloed op het creatieve proces en gaf vernieuwende interessante mogelijkheden naar de toekomst toe voor het designen in dit nieuwe tijdperk van AI.



179_.png



Het project is ontstaan uit mijn interesse voor grafisch ontwerp en de mogelijkheden van de samenwerking met AI in het

books(processfolio) made by me plus AI

them as if it was me. The projects should be built around my interest and graphic design style.

For me it is not only about the end product but really about collaborating on it, going back and forth. Plus also learning from this project by working with AI. How do you design in an age of AI? How can collaborating with AI give new ideas/work that would not be possible as human alone?

How will we make this project? Can we do it? A few months ago this wouldn't have been possible. But because of chatGPT4 I as a graphic designer am able to express myself in more ways

183_.png

Een ander probleem waar we mee zaten tijdens het designen is dat ik niet kan coderen. Toen ik begon dit project waren er dan ook ideen die ik had en niet uitvoeren door deze te limiteren. Gelukkig hielp mijn AI partner me samen de code te schrijven voor generator. Een ander obstakel was het teren omgaan met de limitaties van AI en computerkracht die nodig is om boeken autonoom te laten generen te ontdekken en dit te gebruiken in ons voordeel. De visie van ons was dat de generator perfecte boeken maken volledig ingevuld met teksten. Dit is nog steeds deel maar bijvoorbeeld de gegenereerde tekst voor in de boeken is vaak onleesbaar. 184_.png hebben er dan voor gekozen om deze glitches in ons voordeel te gebruiken en echt in te leunen op de software gore en internet stijl voor dit project. Het gekke hier aan is, dat hierdoor zonder het intentioneel te doen in de uiteindelijke boekjes mijn grafisch ontwerp stijl duidelijk zichtbaar was.

184_.png

The script creates a 15-page PDF (A4 size) with random layouts on each page, using the given sample text. The layout parameters (number of columns, margins, column spacing, font size, and line spacing) are randomized for each page.

You can customize this script by changing the range of random values for the layout parameters, font, or text.

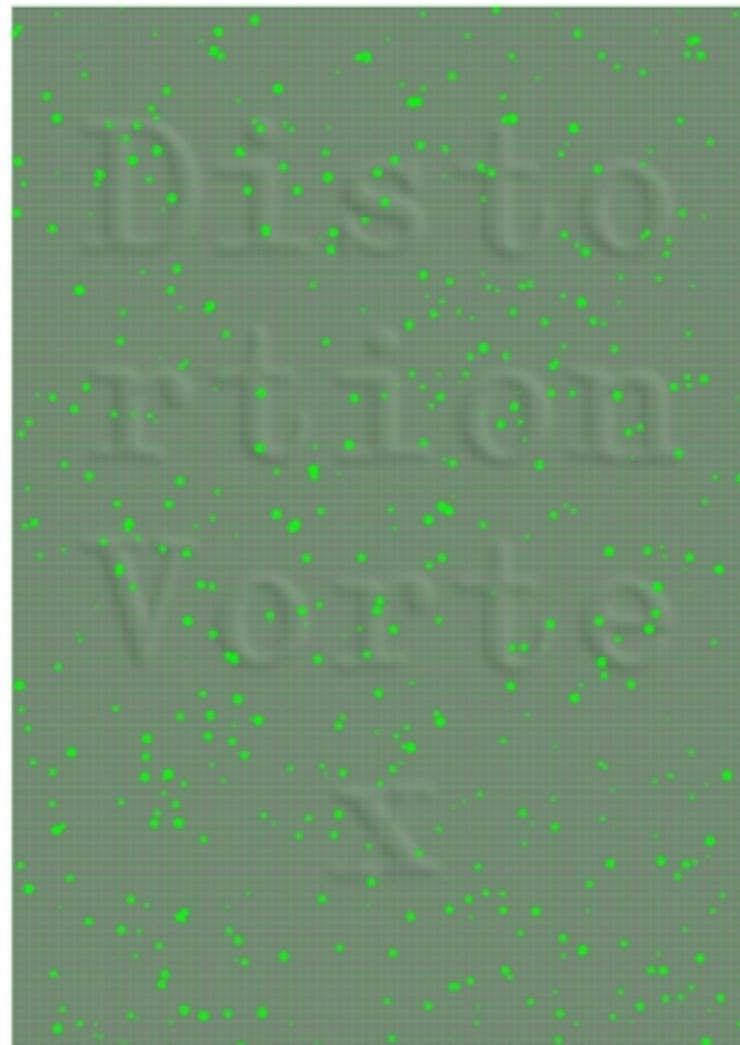
ValueError: invalid width h (must be > 0)

My apologies for the issue. This error occurs when the calculated column width becomes negative due to the random values chosen for the layout parameters. To fix this, you can do a check to ensure the column width remains positive. Here's the updated script:

```
system
import random
import textrw
from reportlab.lib.pagesizes import A4
from reportlab.lib.units import mm
from reportlab.pdfgen import canvas

# Set dimensions
WIDTH, HEIGHT = A4
MM_PX = 1 / 2.54
MM_MM = 1
MM_IN = 25.4
MM_CM = 100
MM_PT = 72
MM_EM = 1440
MM_EM2 = 2880
MM_EM3 = 5760
MM_EM4 = 11520
MM_EM5 = 23040
MM_EM6 = 46080
MM_EM7 = 92160
MM_EM8 = 184320
MM_EM9 = 368640
MM_EM10 = 737280
MM_EM11 = 1474560
MM_EM12 = 2949120
MM_EM13 = 5898240
MM_EM14 = 11796480
MM_EM15 = 23592960
MM_EM16 = 47185920
MM_EM17 = 94371840
MM_EM18 = 188743680
MM_EM19 = 377487360
MM_EM20 = 754974720
MM_EM21 = 1509949440
MM_EM22 = 3019898880
MM_EM23 = 6039797760
MM_EM24 = 12079595520
MM_EM25 = 24159191040
MM_EM26 = 48318382080
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MM_EM137 = 12544169030217713323973167145550788472320
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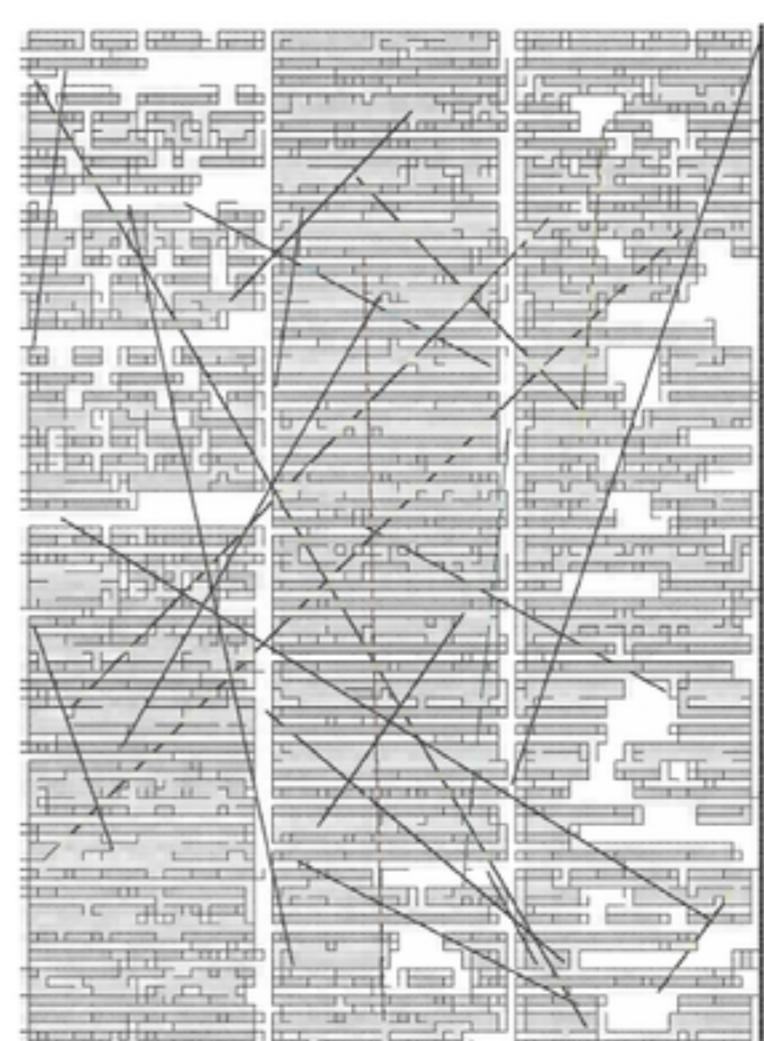
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4 generate images from idea title as prompt not yet figured out.	189 title, content table, en tekst op aparte paginas	making different effects by letting AI code the effects in advance
This is easy to do for a human but it is hard when the system has to be autonomous	[generatedbook3 (test random pages .pdf)](https://s3.us-west-2.amazonaws.com/secure.notionstatic.com/ad1e7f9d29ee4895821831ef871e6b16generatedbook3(testrandompages.pdf))	I find it important that AI influences the creative process and can add its own creativity. I can ask it something but I don't want the question to be too strict that it can give his own creative influence. Also to ask it what it would like to add to this generator
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Python isn't really made to make and edit pdfs. But I have to use it to implement AI some of the experimenting	title volgt niet de colom regel titlesseparate21683460767.pdf random font testtitleAlttext1683485663.pdf random fonts plus tekst gegenereerd door AI testAlttext11683487668.pdf chapters in de text zijn groter	Chatgpt4 kan ik vragen om een effect te maken voor een woord. Ik geef veel vrijheid aan de AI zo dat de uitkomst deels zijn creativiteit is. Ik kan het enorm snel enorm veel effecten laten genereren (deze moeten nog wel getest worden of ze werken er na)
These limitations give it a distinct style. This gross internet style. softwaregore	190	So first A pdf is made with text and images generated by AI. Than the pdf is visually edited based on the content of the text.
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Presentation thoughts
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