



AI Art Museum

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Summary

This project is using current methodologies for generating AI art such as instructing a language learning model and using prompts, to create art. These will be created with art from students, and non-professional artists only. The project is looking to examine how AI art without the use of stolen artwork from professionals will not look as good as what most AI art tools are producing and show people how AI art is not magic; it needs a lot of data from artists that is currently being taken without their consent. The art will then be displayed in a virtual museum using unity and will show the original artists works as well.

Description

The researcher is looking to tackle the issue of ethical use of art in AI art. By using art that is from non-professionals, as well as intentionally bad, it will generate AI art of poor quality. Current AI tools are using art from many creators who did not consent to having their art on these training sets for AI art generation and are also not properly even cited. This can set a bad precedent for artists by taking away from the way they make money, which is creating art, as there is so much art already out there and by combining all of it together there is near infinite ways to generate new art from it. By using purposefully mediocre art it will show that AI art is wholly based on the art used in its training sets, and show that without it, AI art is not possible.

The Process

The current use of artists work in AI art generation is unethical, by taking their artwork without their consent and without any sort of credit given to the artists.

First more research will be put in to find out the best and easiest way to work with a small subset of data in terms of creating AI art with open source tools will be done. Then this work will be implemented, training a personal language model with only art gathered from novice and hobbyist artists. Then after the art has been generated, it will be implemented into a virtual museum to tour and walk through and interact with using Unity, and free assets.

The predicted outcomes will be to bring awareness to people that AI art is not what they are currently seeing without the vast and large amount of art taken from artists unethically. There needs to be standards for AI art generation, such as crediting, proper consent, and proper compensation to the artists.

Methods

- Open-source learning language models training
- Acquiring art from researcher creation and from novice artists
- AI art generation using prompts
- Creating a digital game to display art and allow interactivity
- Programs used:
 1. Github
 2. Visual Studio Code
 3. Google drive
 4. Stable Diffusion
 5. DreamBooth
 6. Open Source LLM

Deliverables

1. Artwork used and AI art generated
2. Full breakdown of method used for AI art creation
3. Itch.io website with downloadable game for Windows/Mac users
4. Full credit to artists that were pulled for each AI art generated.
5. Mock proposal of what an agreement between an artist and AI art generator may look like

Required Resources

1. Macbook Air with M2 processor
2. DreamBooth
3. Stable Diffusion
4. Adobe suite
5. Unity Student License

Schedule

Task	Start	End	Duration
Pick Topic	10/4/23	10/11/23	7
Research AI/ LLM	1/26/24	2/8/24	13
Art Generation/Gathering	2/9/24	2/19/24	10
LLM Input	2/20/24	2/27/24	7
AI Art Generation	2/28/24	3/13/24	15
Start Unity Project	3/4/24	4/19/24	45
Final Polish Game	4/2/24	4/19/24	17
Itch.io website creation	4/19/24	5/3/24	14
Turn in	5/16	5/17/24	1

Budget

Item	Estimate Amount	Total Spent
MacBook Air M2	1200.00	1306.00
Training Programs	200.00	120.00
Assets for Unity	50.00	22.00
Estimate	\$1450.00	Total \$1448.00

Results

The AI art generated was far from the originals and did not look very good even compared to the novice artwork used for the training. Many players of the game noticed the fact the art was not as good as some of the AI art they have seen online. Upon reading the section explaining which pieces were the submitted artwork and which were AI generated they began to understand that AI art needs a lot of artwork, and a lot of good artwork to produce the art they have currently seen. Otherwise, the results are much more peculiar looking.

Conclusion

AI art generation needs an agreement between the artists and companies employing these methods. There needs to be a standardized and ethical way of acquiring artwork, a consent form, and some sort of payment to these artists. The current employment of scrubbing the internet for photos and inserting artwork without any consent from artists cannot continue as AI art generation becomes easier, and even sold as a service to people benefitting only the companies and not the artists

Websites cited

How to use DreamBooth to Fine-Tune Stable Diffusion: <https://bytexd.com/how-to-use-dreambooth-to-fine-tune-stable-diffusion-colab/>

How to Generate and Use AI Art Ethically: <https://www.makeuseof.com/how-to-use-ai-art-ethically/>

How to Train AI Image Models Step By Step: <https://nightcafe.studio/blogs/info/how-to-train-ai-image-models-step-by-step>

I Trained an AI to imitate my own art style. This is what happened: <https://towardsdatascience.com/i-trained-an-ai-to-imitate-my-own-art-style-this-is-what-happened-461785b9a15b>

Looking to train an AI on my own art: https://www.reddit.com/r/aiArt/comments/zgkpgj/looking_to_train_ai_on_my_own_art/

How to create art using AI: <https://starryai.com/blog/how-to-create-art-using-ai#:~:text=Most%20of%20the%20time%2C%20art,as%20either%20real%20or%20fake.>

We Made Our Own Artificial Intelligence Art, and So Can You: <https://www.wired.com/story/we-made-artificial-intelligence-art-so-can-you/>

Estevez Gantt Chart Culmination Project

