

Sam on Art Generation:

	images.ai	DEEP DREAM GENERATOR	Night Cafe
URL	https://images.ai/	https://deepdreamgenerator.com/ddream/2h4k279bcs	https://creator.nightcafe.studio/
Known tools	machine learning algorithms	advanced neural network that constantly evolves	stable diffusion
How chatGPT says it works	n/a	Convolutional Neural Network (CNN)	Generative Adversarial Network (GAN)
Credits based	no	yes	yes
Need to create account	no	yes	yes
“Draw me”	Returned a lisa frank style white polar bear (?) cub with only one ear and possibly 2 noses?	Returned a woman with light brown skin, a full face of makeup, earrings and 2 nose piercings, black and purple curly hair	Returned a picture with 4 fantasy scenes in it, all cloudy, no living thing
ranking	3rd	1st	2nd
reasoning	Very odd to use, updates with a feed of all the requests placed, each request gets placed in a queue to just wait	Easiest to use, used text with optional base image, recognized “you” and “me” in different phrases	Very click-bait-y, had a lot of options which was cool and had daily challenges you could enter and vote on

I found the three AI’s I used from an article rating art-generator AI’s. I enjoyed seeing what they made, but none of the AIs were particularly user friendly. I tried multiple phrases on each tool, but the one I enjoyed the most was “Draw me”, which produced the below results.

Images.ai



I thought this was interesting, I would be very interested to see the images associated with “me” in this algorithm

Deep Dream Generator



I am especially curious if the algorithm predicted I was a woman or associated “me” with women for some other reason. It is interesting that the image seems to be ‘signed’ by the AI.

Night Cafe



I am curious if the AI used previous searches (to include a lot of fantasy references) to decide what images to use.

I do not see a place for this in school or work. I do not think this will present an issue for assignments in a scholastic setting, but I could see this replacing artists in spaces like video games or hotel/basic wall art. Because none of the AI's websites were particularly forthcoming with how they got their data, I am led to believe they may be using work from artists they have not licensed or paid for in any way. This plays into a larger discussion of who owns pictures posted on social media, and how artists should be compensated in the digital age. I think this has potential to be devastating to artists and their communities, or to be incredible and boost the community overall.

Ethan on Code Generation:

Using this as a prompt: implement minhashing with 1000 hash functions on the 6 documents in python using characters as shingles and compare the documents using the minhash value. TLDR: Plagiarism checker for text documents.

These 3 AI were used because they were free and easy to use without having to install an IDE.

OpenAI Codex – Codex works with written language and then GPT-3 turns that into code. Does not give a full result because it is still in a beta phase. The small snippet it gave me compiled and was nearly the same as ChatGPT's output. As in using similar variable names and function names and having a similar order of operations for where certain functions are made in the code block. The only information I could find on Codex was it uses a couple hundred gigabytes of data from different github repositories as training data.

ChatGPT – Uses only GPT-3 model. Transformer based neural network. LLM (Large Language Model) generates text to seem like it is coming from a human. Gives the best result from the prompt. Gives a full running block of code that does what the prompt asks with no errors. Seems to be the best of the 3 if you give it a sizable prompt. It gets its information from different text databases around the internet. Apparently around 570GB of data.

YouCode – Blended Large Language model called CAL (chat, apps, Links). It is not a direct code writing ai but it is able to find code snippets online that are most like the prompt. Giving it the prompt, it gives me 3 different functions that when combined do what the prompt asks for. It also supplies where it found the snippets of code which happened to be 2 different stack overflow posts. It does not explain the code it finds; it only explains a possible solution to the prompt even if the code snippets it finds do not follow that explanation. The code does run and if I give it the same test input as I gave ChatGPT it gives the same output.

Final Report: Overall ChatGPT is the best of the 3 and gives a full running code block instead of snippets. It is also able to fully explain the code it wrote and answer any questions you could possibly ask about the code. I think once the Open AI codex is fully free to use it would most likely provide code very similar to what ChatGPT produced. YouCode was not made specifically for code, and I think if asked a much more complex prompt it would struggle to find working code blocks from Stack overflow.

Using an AI code generator in education can be fine for certain classes. For entry level programming classes, I think it would be best to not use it so the students can learn basic things for themselves. For more upper level classes I think it would be fine. It would make harder/fringe assignments easier and the ability to ask questions about code to an AI and have it answer them

is very useful instead of scanning Stack overflow for the same question for hours. I also think this same concept can apply to the work place. It's like having an experienced programmer you can ask questions or write basic code for you.

Joel on Essay Generation:

ChatGPT Essay creation

Here's a sample of how the screenplay for "It's a Wonderful Life" could be turned into a comedy:

Title: It's a Hilarious Life

FADE IN:

EXT. BEDFORD FALLS - DAY

We see a bustling town with people going about their day. Suddenly, we hear a loud crash.

CUT TO:

INT. GEORGE BAILEY'S OFFICE - DAY

George is standing in the middle of the room with a shocked expression on his face. He just knocked over his desk.

GEORGE (to himself) Well, that's one way to start the day.

Suddenly, his business partner, Harry, bursts in the door.

HARRY George, you won't believe it! We just got an order for a hundred widgets!

GEORGE (excitedly) A hundred widgets?! That's amazing!

HARRY (proudly) Yes, and it's all thanks to our new slogan: "Widgets: They're not just for breakfast anymore!"

George looks at Harry with a confused expression.

GEORGE (whispering to himself) What does that even mean?

CUT TO:

INT. BAILEY HOME - NIGHT

George is sitting with his wife, Mary, at the dinner table.

MARY George, you look stressed. Is everything okay at work?

GEORGE (sighing) It's just the usual. Running a business isn't as easy as I thought it would be.

Suddenly, their son, Tommy, runs in the room.

TOMMY (excitedly) Daddy, daddy! I just won first place in the science fair!

George looks at Mary with a proud expression.

GEORGE (whispering to Mary) He gets his brains from you.

Suddenly, the phone rings.

GEORGE (annoyed) I'll get it.

He picks up the phone.

GEORGE (into phone) Bailey's Widgets, George speaking.

VOICE ON PHONE (angrily) George, I ordered a hundred widgets and you only sent me fifty!

GEORGE (panicking) Oh no, I'm so sorry! Let me make it up to you. How about a free set of steak knives?

VOICE ON PHONE (skeptical) Steak knives?

GEORGE (pleading) Please, it's the least I can do!

CUT TO:

EXT. BAILEY PARK - DAY

George is walking through the park, talking to himself.

GEORGE (to himself) What am I going to do? I can't afford to give away free steak knives!

Suddenly, he bumps into his guardian angel, Clarence.

CLARENCE (smiling) Hello, George!

GEORGE (panicking) Who are you? What do you want?

CLARENCE (calmly) I'm your guardian angel, George. I'm here to show you what life would be like if you were never born.

GEORGE (skeptical) Never born? That's ridiculous!

CLARENCE (smirking) Well, let's find out, shall we?

CUT TO:

INT. BAILEY HOME - NIGHT

We see a scene of chaos with Mary, Tommy, and their baby crying. The house is a mess.

MARY (crying) I can't do this on my own, George. I need you here with me!

Suddenly, George reappears.

GEORGE (happily) I'm back, Mary! And I brought steak knives for everyone!

Everyone looks at him with confusion.

GEORGE (defensively) What? They're useful!

FADE OUT.

THE END.

Top of Form

Regenerate response

Bottom of Form

How does it work:

- Uses natural language processing
- Trained on 8 million documents and over 10 billion words.
- Uses human feedback to evaluate it
- Reward models done using Proximal policy optimization on a Microsoft supercomputer

- 175 billion parameters
- GPT = generative pre-training transformer
- Uses:
 - o Uses a transformer type neural network: processes sequential data using attention mechanisms. It only generates text without encoding any of it.
 - o Tokenization: each portion of text is tokenized and can be analyzed.
 - o Input embedding: the token is put into neural network for analysis
 - o Output Generation: generates text output based on its learned probabilities given by the analysis in the neural network

Essay Bot:

- Uses information directly from the internet and rephrases it for you to add to the essay
- Gives information from a given topic or prompt
- Will cite and edit your writing
- It uses machine learning to analyze writing and structure
- Specifically it uses:
 - o Latent Semantic Analysis: to determine how the relationships between words and documents. Creates a matrix of the words in a document. Uses singular value decomposition to find patterns.
 - o Natural Language Understanding: analyzes the words for meaning and then matches that to training data to determine intent of the words
 - o Neural networks: to bring connections between different ideas within its database Done by using interconnected to recognize patterns
 - o Decision Trees: used to classify information and give predictions and analyze quality of the writing while also giving recommendations for improvement. Gives predictions of what might happen given different decisions that appear as a tree
 - o Part of Speech tagging: labels parts of speech such as nouns and verbs. Helps other processes to understand meanings

QuilBot:

- Helps users rewrite text to be more readable and not plagiarize
- Takes information and puts it into a form that is more easily readable
- Checks grammar, sentence structure
- Can change words using synonyms and alternate phrasings.
- NLP processing
- Word embeddings: to represent words in high-dimensional space by vectors to understand their relationships and find synonyms. Do things like sentiment analysis, machine translation, or question answering
- Sequence to sequence models: converts one sequence of data into another. Uses an encoder and decoder. Encodes the data into a fixed length vector. The decoder will take that information and generates the output sequence. Allows text to be represented differently but with the same meaning.
- Attention Mechanisms: used in neural networks to focus on a specific portion of the text for generating new text from the meaning of the old
- Reinforcement learning: receives input from outside users to determine the quality of its results and can adjust accordingly

The best essay generation tool that I found was ChatGPT. Among the many things it can do, it does essay generation best. Any type or length of document can be created. One of the reasons that it is this great is the amount of people using it so that it is constantly being updated. Also the amount of testing that has been done with the software, 10 billion word data test set, has made it probably the best AI tool currently in use.

Portion of report:

These are hard to use in education. ChatGPT is pretty much cheating if it is used in an English class for an essay. There will be some things that teachers can see that will give it away but most of the time the essays will score well while the student does almost nothing. The other 2 are less illegal in the sense of being considered cheating in the classroom. They are primarily used to assist the writer, but there are still portions that would be considered cheating. I don't believe they

would affect the marginalization of any communities beyond those that do not have access to the internet. The purpose of most of these should be to help writers, but there are a lot of ways that they could and probably will be used to cheat on assignments in education