ECHO

ARTIFICIAL INTELLIGENCE

THE GOOD
THE BAD
THE UGLY



BASIC ATTENTION TOKEN
AMBASSADORS

ECHO MAGAZINE
#1 ISSUE, VOLUME 1
OCTOBER, 2023

ARTWORK FROM HOUSE-HAEDS

INDEX



- INTRODUCTION, WHAT IS ECHO 04
- ART FEATURE 05
- WHAT IS AI, BY ARANYAKA 06
- AI THE BAD, BY BAT NICOLAS 14
- CHATGPT VS. GPT4, BY STAN 15
- ARTWORK, BY MOONBEAMER 17
- AI THE GOOD, BY MOONBEAMER 18
- MIDJOURNEY VS. DALL E VS. STABLE DIFFUSION, BY GUILHERME 21
- AI THE UGLY, BY BAUZZ 26
- HAVE YOUR WRITTING FEATURED 30
- FINAL ART 31



WHAT IS ECHO?

Echo and it’s Future

I initiated this magazine because I was searching for something new. I was growing weary of newspaper subscription paywalls when all I wanted was to read an article a friend had sent, not every article published that month, but the specific one my friend had sent. Creating a Web3 magazine to be sold as an NFT at a price comparable to a physical magazine seemed like the right step forward. My inspiration came from vintage magazines like OMNI, ANALOG, and BYTE, harking back to the times when people genuinely enjoyed reading and collecting magazines for their artwork. Scarcity was a natural outcome; if you didn't buy the issue that week, you had to find someone who did.

My ultimate goal is to innovate within the Web3 space, rekindle interest in magazines, and create collectible covers. This would imbue real utility into the NFT and naturally establish scarcity (by eliminating prior issues upon newer releases). Hopefully, this venture will bring magazines back into the limelight, akin to the golden era of print publications.

Our inaugural issue serves as a pilot, and upon its success, we aspire to expand this project into something grander. It could serve as a means to keep Web3 communities informed about emerging topics that are gaining popularity. The NFT model could potentially be adopted by other news outlets. We also intend to explore ad space within the magazine, approached with respect through artworks and hyperlinks. Personally, I believe this could evolve into a much larger endeavor in the long run, but I'm content to begin here.

I appreciate you all.





Drawing by Lefthand

Click on the creators's name to learn more about them

What is AI

Machine learning, Artificial neural networks, and Deep learning

With advancements in artificial intelligence (AI), there comes industry jargon. Sometimes difficult to understand, other times easy to recognize. With years of “AI” and “machine learning” making headlines in industry tech, it could be the next thing for increased human productivity. Let's delve into AI, ML, artificial neural networks (ANNs), and deep learning (DL) and learn together at a high level.

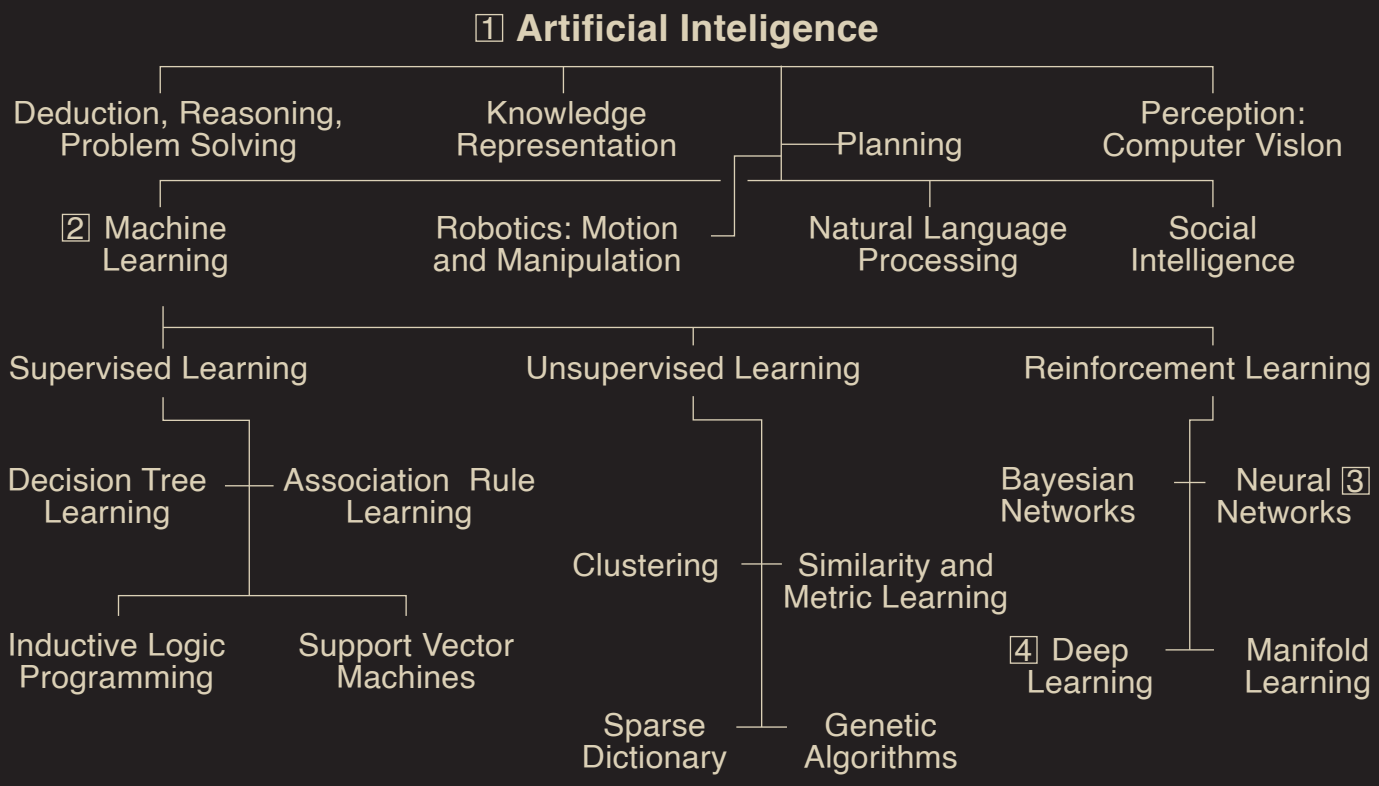


FIGURE 1

AI is the broadest and is all of them (Figure 1). It gets a little more complicated as you go down the rabbit hole. I’ve pointed out some topics seen on this genealogy chart above.

I have not found a real definition that stuck around since AI's inception. However, many alluded to the same concept; creating AI designed to make machines do tasks at a human level of understanding or do it exceedingly better. Older scholarly AI papers are more philosophical than a tangible product as compared to today's AI. The earliest text I found discussed mathematical calculators being designed to have an input and output response[2]. McCarthy et al. (1955), also had a description of ANNs, a proposal of a language model, self-refining machines, and creativity generating tools. Nearly 70 years later, AI applications have successfully deployed in all these regions ranging in levels of successes. For example, calculators are ubiquitous in a lot of commercial products. Wolfram Alpha illustrates the epitome of available calculators to date. Google's Translate is another exemplar of AI making headways to increase human understanding of language translation. Albeit, not foolproof, Google Translate remains remarkable on the forefront in this area.

AI in marketing has also seen tremendous advancements. In this context, AI was utilized to interpret existing data, developed insight, and then provided a recommendation for the target audience[3]. Think about how AI can also be used in medical fields as well. Joshi et al., (2022) identified tumour growth in MRI scans with up to 90 percent accuracy[4]. By adjusting models, inputting new and relevant information into their database that contains positive results for tumours, AI analyzed the information. The models then determined patterns & indicators, and attempted to provide similar to higher degrees of accuracy in its assessments.

Now, apply this concept to any and all abnormalities with human or animal health. With more advancements in AI, medical professionals can integrate these tools to review the results and have doctors confirm them afterward.

There are currently three levels of AI:

Artificial Narrow Intelligence (ANI);——————— Weak AI
Artificial General Intelligence (AGI); and ——————— Strong AI
Artificial Superintelligence

ANI or weak AI is designed to perform a specific task. When Apple's Siri was introduced in 2011[5] or Google's Assistant in 2016[6], its users could manipulate those services to set alarms, provide contextual sports scores, region-specific weather forecasts, and etcetera. Simple, weak, and often lacking cognitive functioning[7]; it is clearly less advanced than a biological organism's intelligence. These AI's often fail basic tasks.

> Hey Siri, set an alarm for 4:45 PM.
> I am not quite sure what you asked for. Can you repeat that?
> Hey Siri, set my alarm for 4:45 PM.
> Sure, now playing, October by Happy Landing.

On the other hand, AGI or strong AI is more complex, designed to perform human-like abilities with purported near limitless possibilities. Our brains are able to construct, process, and produce a functioning output (e.g., walking, object identification, memory recollection and analysis, and so forth)[7]. AGI embodies this level of function. However, humans have not vocally proclaimed any true success in achieving AGI. At the time of writing this article, most AI requires human interaction, as seen in commercial self-driving technology. Generative AI for art and music still requires human input for the AI to produce a result. Who knows what has been created globally in private hobbyist projects or even, classified projects, or black projects.

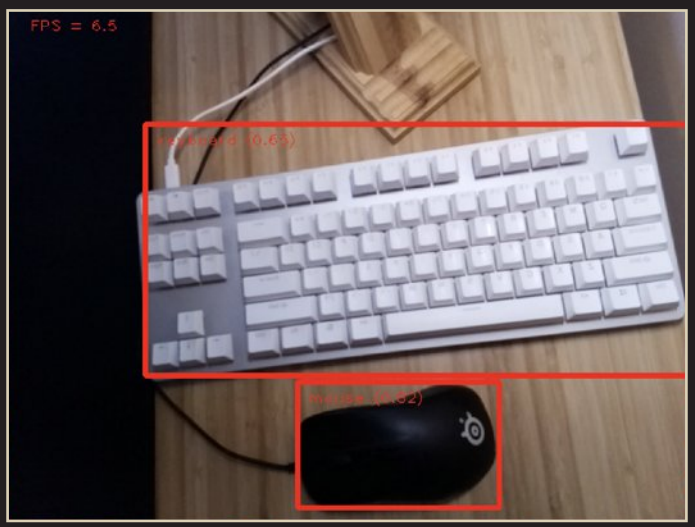
And finally, artificial superintelligence. Like AGI, artificial superintelligence remains hypothetical and non-viable. However, this concept is further away in development because of the nature of its complexity. It has been suggested as the next step in AI surpassing human capabilities, not requiring human intervention, and developing skills on its own[8][9]. This is, at its core, silicon outsmarting humans. There is not much more relevant information on this as artificial superintelligence remains TBD.

ML is the layer under the AI layer. ML models use data and algorithms to artificially mimic how humans learn and improve the accuracy of specific data[9]. Ideally, the more data ML models are provided, the more accurate the AI becomes. This differs from coding, where ML models are adjusted to increase accuracy rather than changing the code itself. This, in turn, means ML requires less code, as models are the adjusted parameters. ML can detect patterns and make predictions and/or recommendations without explicit instructions. No explicit instructions required.

There are three levels of learning

- Supervised learning;
- Unsupervised learning; and
- Reinforcement learning.

As the name suggests, supervised learning is when algorithms are trained with labeled data and human supervision[9]. The ML model tries to find patterns and use them to provide results for the user. Think of your email provider's spam filters that throw phishing emails into the junk folder. Or think about police using computer and camera technologies to capture license plates on the highway and run them against their database. In the example below, a Raspberry Pi 4 with a Pi Camera Module V2 and TensorFlow application detected a keyboard and mouse with an accuracy 65 percent and 82 percent respectively. Models of keyboards and mouse were collected and trained in an environment so the application could detect the same.

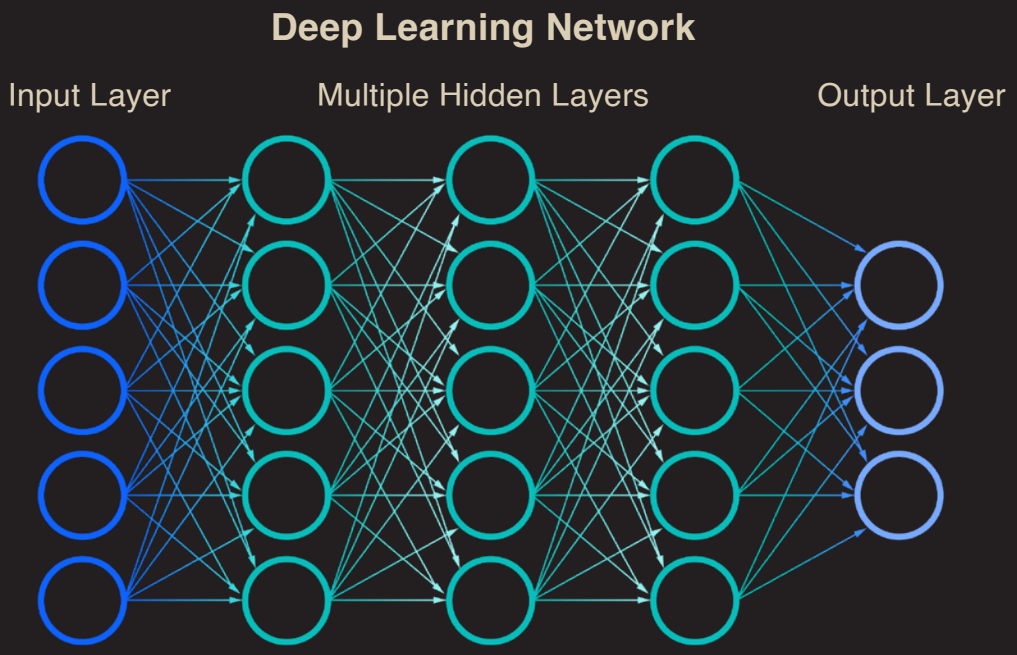


With unsupervised learning, ML applications could infer on patterns or structures within a dataset without human supervision or labeled data[9][10]. While unsupervised learning has greater difficulty achieving accuracy, it can be used for more complex tasks[11]. This is the main use-case of unsupervised learning.

Reinforcement learning is more complex, designed on self-training through reward and punishment factors like behaviorism. Multiple outputs are produced and are then trained further for desirable characteristics. Through trial and error, higher degrees of accuracy tend to result over time as the models become more refined. This is how AlphaGo became exceptional at playing the Chinese board game, Go.

Artificial Neural Networks

The next layer of AI is ANNs, or simply, neural networks. ANNs are one form of machine learning that attempts to emulate how neurons function in a biological brain[9][12]. ANNs consist of input nodes, a single hidden node, and an output node[13]. ANNs make inferences without requiring explicit inputs. In fact, it is already used in our day-to-day lives. Remember the example in AI where medical professionals are assisted with scans and tumours?[4] This is one type of neural networks that can be applied in real-world applications, such as convolutional neural networks (CNNs). There are a number of other types of neural networks, such as spiking neural networks (SNNs), recurrent neural networks (RNNs), and radial basis function (RBF) neural networks. The defining aspects of each type of neural network is beyond the scope of this high level discussion, but could be explored in a future article.



The innermost layer of AI is DL. This is a type of ANNs. However, within DL, it has three or hidden node layers designed to absorb more data points[13]. The additional data is then leveraged to allow for more highly contextual outputs. DL can function without pre-existing data, such as labels on an image dataset[1][12]. For example: A DL model tasked with identifying rodents does not need to be told the identity of each rodent and their key attributes. Instead the DL algorithm will automatically distinguish different rodents by identifying and extracting characteristics of the mammals. These attributes can include features like facial and teeth structure, fur patterns and quality, body lengths, tail length, etcetera. DL algorithms can successfully distinguish and identify capybaras, rabbits, hamsters, and mice with sufficient data. DL algorithms have also significantly contributed to text-to-speech technology and vision recognition software. Have you ever tried a product that is a product of DL? Hint: All hail Google Translate!

Fundamentally, I think AI will assist jobs in almost all sectors. From hauling heavy objects with added safety and security features to white collar jobs or medical positions. AI could potentially make everyday or every vacation so incredibly convenient. When Google Maps was introduced in October 2004, it removed the need to carry paper maps in our vehicles. Think how old Apple's Siri has been around; over a decade! Still a frustrating voice assistant when Siri is asked more difficult questions. I kid you not, I asked Siri on my HomePod to set an alarm for nine thirty and it started playing Up by Cardi B. Google Assistant is by far more polished.

One of my long standing friends swear AI has helped out on his email scripting for his job. He claimed AI has made him sound more professional-toned and he was able to learn side-by-side with the technology. Now imagine AI assisting everyone's (future) job positions. How cool is that? I would love to see AI integration in the healthcare system. Imagine a tool that updates every second and prioritizes tasks for critical patients. A lab result finished analyzing blood work from a patient, discovers multiple high-level concentration of a by-product within the patient's circulatory system. It then notifies the attending physician and nurses of the results and recommends an actionable task based on clinical expertise and scientific research. The patient is then notified by AI, explaining the objective reasoning for their medical care in a way that speaks to them. Similarly like asking ChatGPT being asked to explain a concept to a five year old versus explaining a concept to a grad student of the same concept. Substantially better health outcomes in every way possible, complete reduction in redundancies and overhead.

Citations Used



The Frontier

Hopes, Hurdles, and the Unknown



As someone who loves technology and holds high hopes for future advancements, I must admit that the pace of AI development has been remarkably rapid, even for someone like me. I wholeheartedly believe there's a future where AI will allow us a timeframe of true peace and prosperity amongst the world. Though much like the advent of the internet, no matter what any of us think, that future won't come without a "wild-west" like period, and we're on the cusp of that era's infancy despite how advanced AI may seem now.

To elaborate further, AI spans a wide range of applications, from assisting in simple tasks, to creating art (depending on your view), letting us sound like our favorite characters, all the way down to singing our favorite songs to us in any voice we please. Some worry about the malicious use of AI, popularly seen in those who have a distaste for AI making art or vocal creations. I myself have battled with a constantly swaying opposition & acceptance of it, and am one of the people who'd like to keep AI out of those spaces.

However, who am I to take the noble ground, saying that AI can't take a stage to create art & vocal covers from those trying to make those hobbies into a living. Yet turn around to like an AI making meme art, or making my favorite characters sing Frank Sinatra songs? Am I a hypocrite of my own beliefs? Even taking a staunch approach, disavowing all forms of AI made creative works, the bottom line is that it's here to stay.There's no stopping it in any way, shape, or form, and you can't uneat the chocolate chip cookie.

With technology accessible to everyone, an ongoing battle between good and evil is inevitable. People create AI to create art, then people develop a filter to place over your art which can mess with the AI datasets if placed within them, then someone works around that, while another makes an AI that detects if your work was made by an AI. Which is good and which is evil? That 's up to you.

I wonder what the next AI fueled battle will be by 2025.. digital vigilantism? Superior viruses & malware? Unbreakable encryptions? Could we have an Overwatch-esque period of a utopia, followed by a robot led war against humanities survival? Hopefully not. Maybe, we'll just re-birth the internet into another 2000's type wild-west period, which will be awesome!

Either way, time tells all tales. Expect the unexpected & have fun!

Written by BAT_Nicolas

Click on the creators's name to learn more about them

ChatGPT Evolution

Exploring GPT Versions 1 to 4

Base ChatGPT (GPT-1): Launched as a free, introductory model, it introduced users to the world of AI-powered conversations. While it had accessibility and ease of use on its side, its limited contextual understanding left room for improvement.
ChatGPT-2: With enhanced text quality and coherent responses, ChatGPT-2 offered versatility for content creation, language translation, and chatbot development. However, its capabilities raised concerns about potential misuse.
ChatGPT-3: Stepping into the multilingual arena, ChatGPT-3 showcased broader context awareness. It found applications across various domains, from content generation to virtual assistants. Nonetheless, it occasionally produced nonsensical or biased outputs.
ChatGPT-4: The latest iteration, ChatGPT-4, represents a pinnacle in AI conversation models. Boasting human-level contextual understanding, it's suitable for complex tasks like medical diagnosis and creative content generation. However, its custom pricing may pose challenges for some, and its resource-intensive nature requires robust computing power.

GPT Model	Capabilities	Prices	Applications	Internet Access	Advantages	Disadvantage
Base ChatGPT	Text Generation, conversation, assistance	Free	Content Generation, Customer Support, chatbots	No	Acessibility, easy to use	Limited contextual understanding
ChatGPT-2	Improved text quality, coherent responses	Varies	Content creation, chatbots, language translation	No	Enhanced language understanding	Potential misuse due to high-quality text
ChatGPT-3	Broader context awareness, multilingual	Varies	Content generation, virtual assistants, coding help	No	Versatility, multilingual support	Occasional nonsensical or biased outputs
ChatGPT-4	Human-level contextual understanding	Custom	Medical diagnosis, creative content generation	Yes	Exceptional contextual awareness	Resource-intensive; high pricing

The latest ChatGPT4 iteration introduces groundbreaking features, including image recognition and voice capabilities, revolutionizing how users interact with AI. ChatGPT4 can engage in voice conversations on iOS and Android devices and comprehend images, thus better enabling troubleshooting, meal planning, and data analysis. OpenAI emphasizes responsible deployment, collaborating with experts and conducting rigorous testing to ensure safety and mitigate risks. Gradual access expansion for these new features is planned to allow developers the potential to harness these cutting-edge features. The features mark a significant step in ChatGPT's evolution toward a more immersive and versatile experience.

As AI technology continues to evolve, the ChatGPT series will undoubtedly continue to push boundaries, providing more value to users and developers alike. It's an exciting era for AI conversation, and we look forward to what the future holds.

In conclusion, the journey of ChatGPT from Base ChatGPT to ChatGPT-4 is a testament to the relentless pursuit of AI excellence. Each stage has brought remarkable improvements, catering to a broader spectrum of applications. However, with great power comes responsibility, and the risk of misuse remains a concern. As we navigate this AI frontier, it's essential to balance the advantages with a vigilant eye on ethical usage.



AI THE GOOD...OR FAHRENHEIT AI?

AI The Good

or Farenheit AI?

Ray Bradbury's dystopian, cautionary classic, Fahrenheit 451, speculated on the fate of society when people no longer invested in critical thinking and human relationships. In this literary dimension, "robot sheeples" canceled old, provocative books and implemented modern televised "parlor programming." People became thin antisocial caricatures that immersed themselves in multiple television screens, "talked about nothing" [1] and avoided life-learning conflicts. The educational system was all transcription, absent of the Socratic method, "a lot of funnels and a lot of water poured down a spout and the bottom, and them (teachers) telling us (students) it's wine when it's not." [1] The people stopped utilizing and teaching critical thinking. Consequently, the Firemen (government) saw how advantageous it was to keep the "robot sheeples" fed, controlled … "happy." The people owned nothing and knew nothing. In this dystopian reality, Firemen did not extinguish fires. Instead, they maintained the "happy status quo" by torching objects the government feared, with kerosene and orange flames. The Firemen knew the light that was in books because some sneakily read them, in private, or peeked at them while they burned them. The Firemen (government) feared a people in constant pursuit of knowledge. Books symbolized the mental prowess of the people, which was sacrificed on the Firemen's pyres.

The fears we are facing today don't entirely mirror the societal fears in Fahrenheit 451, but "robot sheeples" are the tragic characters on both sides of the "looking glass." The Firemen of Fahrenheit 451, cooked up much fiery ado to keep "sheeple" happy in their ignorance and nonsensical things, while present-day educators in 3D, are guarding against those same "sheeple conditions," to enlighten people. In real life, fears about AI's deleterious effects on society are spreading. Broader worries include people being replaced in the job market to "Terminator Judgement Day" scenarios of "losing control over lethal military capabilities" [4] to notions of humanity losing prominence to machines. AI can affect economies, quality of knowledge, and how we learn. Learning institutions serve "as the epicenters of knowledge and creative work," [4] and are proving to be ground zero for AI applications.



Educators fear the impact of AI on society more. They envision a future where AI undermines both education and the development of critical thinking.They fear a death in critical thinking rivaling that of Fahrenheit 451. Artificial Intelligence tools are creating shortcuts around assignments designed to develop and encourage research skills, full-bodied thought, fruitful discourse, and creativity. “AI Chatbots are trained on vast databases of text, that use artificial intelligence to manufacture written responses to user prompts. The bot also literally makes stuff up.” [2] ChatGPT can write essays and pass high level examinations. AI tools, in early developmental stages, are guilty of misquoting sources, providing misinformation, encouraging academic cheating, and compromising students’ online privacy. Teachers, professors, and administrators are noticing an uptick of AI Chatbot use through a few clues (e.g., fabricated quotes, sudden changes in the quality of student assignments, grades above previous assignments). [2] [3] There have also been reports of students confessing to utilizing ChatGPT for assignments when confronted by educators. [3]

Learning institutions are handling these challenges in various ways. Some U.S. school districts, and a few international universities raced to to “burn” AI Chatbots by outright banning and blocking ChatGPT on school Wi-Fi and district-owned student devices. While others just temporarily blocked Ai chatbots to buy more time to train educators, students, and parents on efficient and responsible use. However, initial bans made by Los Angeles and New York City school districts were proven ineffective. The ban created a divide between “gilded students” and “threadbare students.” Wealthier students who owned smartphones, laptops, and had uninterrupted connectivity at home, were able to circumvent the ban and thus had an advantage over students dependent on district services. New York City schools reversed the block, but Los Angeles City Schools are retaining the block while working to edit academic policies. [2] Regarding privacy, projects are continuously improving AI Chatbot technology to be more customized for the classroom, not requiring students to give up private information to access these tools. Also, AI projects are improving plagiarism detectors for educators to use to flatten the cheating curve. [3] With galvanized growth, comes bad and good growing pains.

Brave academic institutions are taking a markedly different approach. They are not “torching” or permanently blocking AI applications. Instead, they are relighting “The Torch of Knowledge” [5] and shifting their perspectives on AI. They are choosing to be early adopters and integrate it into their programs, while doing their due diligence. “Experts in the field say the strategy of banning or blocking could have unintended consequences of its own. The vast majority of successful companies and organizations will be using AI in their work, and seeking applicants that know how to leverage its power to increase productivity. Banning AI in schools could therefore reinforce digital inequalities, the digital divide and ultimately opportunity gaps.” [4] Also, COVID-19 created a “learning loss” that the federal government tried to make up for with $190B. More developed AI tools could reduce the need to spend so much on customized, personalized learning experiences for students and customized assistants for teachers. They understand that AI will be the norm, so best not to “burn it” or run from it…embrace it and make it work for us.[2] To thwart bad growing pains, classes are being remodeled with more interactive and challenging activities such as oral exams, group work, handwritten assignments, and activities to evaluate chatbot’s responses and how it works.[3] The introduction of chatbots to the academic scene has even spawned training workshops, such as the Walla Walla Public Schools’ daylong workshop on AI chatbots. The event was successful and trained about 100 local educators. [2]

Is “Fahrenheit AI” taking place in real life? Nah…it seems there are more Brave ones than fearful Firemen. They are carrying “The Torch of Knowledge,” [5] and are doing their due diligence. According to Bradbury, books provided quality and texture of information, leisure time to think and digest thoughts, and the right to carry out actions based on what we’ve learned from this process. [1] Educators are utilizing the precautionary principle, guiding and chaperoning newcomers to use AI cautiously as a tool, to preserve and enhance what Bradbury valued in books…for now.

Citations Used



Written by Yolanda Moody

Click on the creators’s name to learn more about them

PIXEL RIVALS

Midjourney vs. Dall-E vs. Stable Diffusion

With the growing popularity of AI, various LLMs (language learning models) have emerged, each showcasing different capabilities across various sectors. In this context, our focus narrows down to generative art – a subject that was the spotlight for much controversy, with opinions divided between supporters and critics. While the question of whether it benefits the future of creatives won't be explored here, we'll delve into a comparison of the three primary programs: Midjourney, Stable Diffusion, and DALL·E.
Now, which among them should you use?

To highlight each program's distinctions, each was given the same prompt and their visual outputs compared. Using the prompt "Frog on a lily pad," a visual representation of each program was produced.
DALL-E offers a realistic, conventional photographic appearance.
Midjourney takes on a more artistic approach.
Stable Diffusion aims for a stylized rendering akin to a photograph.



DALL-E



MIDJOURNEY



STABLE DIFFUSION

Now that we know what they look like, how easy are they to use and how quick are they?

DALL-E Generates 4 images in a row of 1024x1024 px.
When it comes to ease of use and speed, DALL-E has been regarded as the simplest to use. Its website offers a user-friendly UI, where users can input prompts and generate images. In terms of speed, DALL-E is quite fast, with a row of four images typically loading in approximately 20 seconds.

Midjourney also generates 4 images, but in a square format of 256x256 px each.
Each image can later be upscaled to 1024x1024 px.
It's a bot that can be integrated on Discord. While it does require users to familiarize themselves with its commands, the primary ones being "/imagine" for generating images and "blend" for combining two images, it is relatively straightforward to use. However, the speed of image generation with Midjourney can vary depending on the daily traffic and server capacity. In most cases, the generation process is comparably fast to DALL-E. However, the speed of image generation with Midjourney can vary depending on the daily traffic and server capacity. In most cases, the generation process is comparably fast to DALL-E. However, on certain days it may take a bit longer, generation times can take almost 2 minutes or occasionally fail to work all day.

Stable Diffusion generates 1 image of 512x512px.
Initially less user-friendly, as its accessible API required programming knowledge in Python (open source UI provided by a community member). However, now it has its own website where users can seamlessly input their prompts. Thus, eliminating the need for programming expertise. Image generation times can be slightly longer than the other programs due to it queueing generation requests.



What about pricing?

DALL-E offers a coin system for users to access its services, allowing them to purchase coins instead of subscribing to a plan. Upon signing up, users receive 100 coins. Each generation costs 1 coin and provides four images. Additionally, DALL-E gifts users 15 coins each month. To purchase 115 coins, it costs $15, which equates to approximately 13 cents per generated set of four images.

Midjourney, on the other hand, operates on a subscription model that charges based on the processing power utilized, rather than the final product. Their basic plan costs $10 per month and allows for the generation of around 200 images. This translates to approximately 5 cents per image. Midjourney also boasts a user-friendly website with an appealing user interface, where users can view their own generated images as well as those created by others, creating a more enjoyable user experience compared to DALL-E.

In contrast, Stable Diffusion currently offers its image generation services for free. Although they have introduced a paid version for their API, users who solely wish to generate images can continue to do so without any charge.



A well-known issue in AI-generated images was their depiction of hands, which often appeared unusual with extra fingers or odd visual aspects. This occurred because AI was creating its own interpretation of a hand's appearance rather than accurately representing a real hand. However, AI appears to have mastered the depiction of hands as demonstrated when fed the prompt "hand waving."

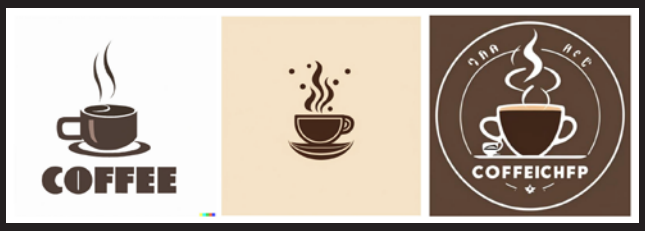


DALL-E MIDJOURNEY STABLE DIFFUSION

visually more appealing.
Stable Diffusion on the other hand (pun intended) comes as the weakest with a disproportionate hand poorly designed.

Another debated topic involves the potential job displacement of designers and artists by AI. I hold a contrary opinion, suggesting that individuals well-versed in using AI could be the real replacements rather than AI itself. Let's examine the practical benefits of these 3 programs for small businesses. Using the prompt "Coffee Shop logo with a steaming cup," the outcomes are intriguing.

DALL-E's ability to generate a customized font with the appropriate coffee-related text surprises me. Midjourney takes a simpler yet tasteful ful approach (pun intended), which I appreciate. On the other hand, Stable Diffusion appears comparatively weak, delivering a poorly designed cup unsuitable for a final product.



DALL-E MIDJOURNEY STABLE DIFFUSION

From a designer's perspective, I advocate for utilizing AI as a tool to generate assets rather than final products. The main problem is that the generated images often include artifacts when upscaled. With this consideration in mind, let's explore which program might be most suitable for designers. Using the prompt "plant leaf icon," the outcomes align with our earlier observations.



DALL-E MIDJOURNEY STABLE DIFFUSION

DALL-E provides a stock-like image, Midjourney showcases a more creative approach, and Stable Diffusion's result is progressively improving.

What about other features?

Now, let's delve into the additional features offered by each program. Beyond image generation, DALL-E boasts an interactive UI that enables users to modify specific areas within an image and generate prompts targeting distinct sections of an existing image. Another noteworthy capability is its image expansion feature.

Midjourney extends its functionalities to allow users to seamlessly upscale images within Discord chats. Furthermore, it permits the generation of images resembling existing ones and even facilitates the blending of two images together.

On the other hand, Stable Diffusion's web UI solely accommodates the generation of images one at a time.

As we explore AI-driven art, comparing Midjourney, Stable Diffusion, and DALL-E, their unique features come to light. DALL-E stands out for its ease and speed, while Midjourney's Discord integration provides convenience despite varying speeds. Stable Diffusion is progressing in accessibility but remains free. Diverse pricing is seen in DALL-E and Midjourney. These programs showcase a blend of creativity and technology, reshaping how we approach generative art both personally and professionally.



Written by Guilherme Pantoja

Click on the creators's name to learn more about them

AI, Show, Don’t Tell

Exploring GPT 3.5 Prompt Generation

The capabilities of freely available AI tools can be discussed extensively, but a demonstration is much more illustrative. To demonstrate the writing abilities of ChatGPT-3.5, the AI was presented with the prompt, “Write me an article about AI for a magazine called Echo that we are releasing as an NFT please.” The resulting article will be showcased below and reviewed and critiqued. The original AI’s output is in blue, while human commentary is in beige.

Title: "The Ever-Evolving World of AI: Navigating the Digital Frontier"

Introduction

In the rapidly advancing realm of technology, Artificial Intelligence (AI) has emerged as a transformative force that is reshaping our world. From powering our smartphones to revolutionizing healthcare, AI is no longer a futuristic concept but an integral part of our daily lives. In this digital age, it's only fitting that we explore the ever-evolving landscape of AI and its profound impact on our society.

The AI starts out promisingly. It clearly understood the prompt's intent, despite the prompt containing improper grammar. This illustrates the AI’s capability for contextual awareness.

The NFT Revolution

As we delve into the intricacies of AI, it's important to acknowledge another technological phenomenon that has been making waves recently: Non-Fungible Tokens (NFTs). These digital assets, stored on blockchain technology, have taken the art, entertainment, and collectibles markets by storm, offering a novel way to buy, sell, and trade unique digital items. This article, published as an NFT in the magazine Echo, exemplifies the fusion of AI and blockchain, showcasing how these cutting-edge technologies converge to push the boundaries of creativity and innovation.

The transition to discussing AI in the context of NFTs is jarring. The introduction creates an expectation for discussion on AI's broader transformative impacts on daily life, but then the following paragraphs unexpectedly detour to focus on AI in the context of NFTs. An introduction is expected to clearly and concisely establish the article's main subject matter and objectives. In this case, the introductory-

paragraph does not effectively prepare the reader for the primary focus of the article.

So far, the AI has managed to write sentences effectively, but has questionable article structure. Fortunately, the introduction's issues can be rectified by prompting the AI for a rewrite and directly stating to it, "This does not introduce a discussion of AI and NFTs." This prompt resulted in a more suitable rewrite that essentially combined the first two paragraphs. While not flawless, the results below were a clear improvement.

"In the swiftly evolving tech landscape, Artificial Intelligence (AI) has become an omnipresent force, redefining our world. From powering our smartphones to revolutionizing healthcare, AI is no longer the stuff of science fiction but an integral part of our daily existence. In this digital era, we embark on a journey to uncover the synergies between AI and another groundbreaking technological phenomenon: Non-Fungible Tokens (NFTs). These digital assets, riding on blockchain technology, have surged to prominence in art, entertainment, and collectibles markets. This article, presented as an NFT within the pages of Echo magazine, delves into the nexus of AI and NFTs, shedding light on their transformative potential at the intersection of technology and creativity."

The AI's specific choice to focus on NFTs is likely due to the prompt. Recall the AI was prompted with, "Write me an article about AI for a magazine called Echo that we are releasing as an NFT please." This prompt included superfluous details the AI likely assumed were important. The inclusion of "as an NFT" likely influenced it to concentrate its writing on NFTs more than normal. Putting excess details in the prompt that are not pertinent to the desired outcome can be detrimental. AI is like any other tool and "a tool is only as good as its user." When prompting an AI, a user must use tact to get a desirable output. Similarly, if citations are desired, then the user must specifically request them.

AI's Role in NFTs

AI plays a pivotal role in the world of NFTs. It enables creators to generate unique and captivating digital art, music, and collectibles. One of the most remarkable aspects of AI-driven NFTs is the ability to produce art that evolves over time, reacting to various factors like weather, time of day, or even the emotional state of the viewer. This dynamic art adds a layer of depth and engagement that traditional static artwork cannot replicate.

Furthermore, AI algorithms are being employed to verify the authenticity of NFTs, combat fraud, and ensure the provenance of digital assets. This transparency is crucial in establishing trust within the NFT ecosystem, making it a safer space for artists, collectors, and investors alike.

The article effectively highlights AI's roles within the NFT environment, although it may slightly aggrandize AI's significance. The mention of adaptive AI-driven NFTs would have benefited from having included a specific real world NFT example. It is unclear if this is conjecture or if there are actually notable NFT projects with those features. Overall, this section overall was good “as is,” but still had room for a bit of refinement.

The Marriage of AI and Creativity

AI is often associated with automation and data analysis, but its potential in the creative realm is equally profound. Generative AI models, like OpenAI's GPT-3, have demonstrated their ability to produce poetry, stories, and even visual art. These AI-generated creations are not mere imitations but unique expressions that can evoke genuine emotions and spark new ideas.

In the world of NFTs, AI's creative prowess is being harnessed to produce unique and captivating content. Artists are collaborating with AI to generate novel pieces that push the boundaries of human imagination. The fusion of human creativity and AI's computational power is a testament to the limitless possibilities of this partnership.

This section has a very high level overview of artists using AI to make art. The paragraph simply “tells” the audience, but ideally it should “show” them. Ideally, it should briefly highlight how artists use AI in the creative process. To rectify, ChatGPT was queried for a further explanation, which resulted in the generation of a 6 step breakdown. A direct request for a two sentence summary of its larger explanation resulted in the creation of an overly high level statement. Ultimately, a third prompt was issued, “Rewrite the original paragraph with one additional sentence further breaking down the creative process of an artist utilizing AI to make art.” This managed to address the concern:

“In the world of NFTs, AI's creative prowess is being harnessed to produce unique and captivating content. Artists are collaborating with AI to generate novel pieces that push the boundaries of human imagination. This partnership involves artists training AI models on diverse art datasets, providing creative input, and iteratively refining AI-generated outputs to achieve their artistic vision. The fusion of human creativity and AI's computational power is a testament to the limitless possibilities of this innovative approach to art creation.”

The Future of AI and NFTs

As AI and NFTs continue to evolve, their convergence will likely yield even more groundbreaking developments. Imagine an AI system that creates NFTs that adapt to the viewer's preferences in real-time or an NFT marketplace where AI-driven agents assist buyers in finding the perfect digital collectible. The potential for innovation is boundless.

However, as with any technological advancement, ethical considerations must be at the forefront of this journey. Ensuring that AI-generated NFTs respect copyright laws, privacy, and cultural sensitivities is essential to maintain the integrity of the digital art ecosystem.

These two paragraphs have some phrasing that I'd suggest revising. I'd replace "even more" with the word "further." I'd also recommend replacing "this" with "the" in "this journey." In the last sentence, I'd substitute out "to maintain" with "for maintaining." The article presents AI's involvement with NFTs in a positive light. Therefore, addressing ethical concerns in a balanced manner is tactful, as it acknowledges potential issues while maintaining an overall positive tone. Regrettably, the article fails to address other significant concerns related to AI's role in NFTs, including the potential oversaturation of the market with AI-generated art and the potential for AI to compete with or replace human artists.

Conclusion

The fusion of AI and NFTs represents a thrilling frontier where creativity, technology, and digital ownership intersect. In the pages of Ecco magazine, published as an NFT, we explore the ever-evolving world of AI, its pivotal role in the NFT revolution, and the boundless potential it holds for reshaping our creative landscapes. As we navigate this digital frontier, let us embrace the synergy of AI and NFTs, forging a path toward a future where innovation knows no bounds.

Overall, the AI managed to swiftly produce an article with reasonable quality. It was only hampered by one notable issue, the introduction paragraph did not align sufficiently with the overall focus of the article. Nevertheless, its sentences were well-constructed and its structure was reasonably organized. When the AI's output is treated as a first draft, the results are impressive, especially when compared to initial drafts produced by non-professional writers. All notable issues with the article seemed addressable through basic human editing and tactful requests for the AI to refine its work.

Beyond demonstrating AI's ability to write basic articles with minimal input, this exercise highlights the importance of users employing tact when working with AI. Careful phrasing of prompts is essential for obtaining desired results and for guiding an AI through revisions. Imprudent phrasing and superfluous details can compel an AI to shift its writing focus in unintended ways. Ultimately, AI is an impressive tool, but its effectiveness remains tethered to its user's competency.

Written by Bauzz

Click on the creators's name to learn more about them

Come Write for Echo!

Interested in sharing your writings and articles on Echo? Want to see your work featured in an upcoming publication? Stay informed about our upcoming topics and submit your writing by subscribing to our newsletter today! Join us in making your voice heard.

Citations

What is AI

1. De Spiegeleire, S., Maas, M., & Sweijs, T. (2017). WHAT IS ARTIFICIAL INTELLIGENCE? In ARTIFICIAL INTELLIGENCE AND THE FUTURE OF DEFENSE: STRATEGIC IMPLICATIONS FOR SMALL- AND MEDIUM-SIZED FORCE PROVIDERS (pp. 25–42). Hague Centre for Strategic Studies. http://www.-jstor.org/stable/resrep12564.7; FIGURE 1 (edited)
2. McCarthy, John; Minsky, Marvin; Rochester, Nathan; Shannon, Claude (1955), A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence, archived from http://jmc.stanford.edu/articles/dartmouth/dartmouth.pdf, retrieved 2023-08-29, 29th of August 2023.
3. Hermann, E. Leveraging Artificial Intelligence in Marketing for Social Good—An Ethical Perspective. J Bus Ethics 179, 43–61 (2022). https://doi.org/10.1007/s10551-021-04843-y
4. Ananya Joshi, Vipasha Rana, and Aman Sharma. 2022. Brain Tumor Classification using Machine Learning and Deep Learning Algorithms: A Comparison: Classifying brain MRI images on the basis of location of tumor and comparing the various Machine Learning and Deep LEARNING models used to predict best performance. In Proceedings of the 2022 Fourteenth International Conference on Contemporary Computing (IC3-2022). Association for Computing Machinery, New York, NY, USA, 15–21. https://-doi.org/10.1145/3549206.3549210.
5. Wikipedia. (n.d.) Siri. In Wikipedia. Retrieved August 29, 2023, from https://en.wikipedia.org/wiki/Siri.
6. Wikipedia. (n.d.) Google Assistant. In Wikipedia. Retrieved August 29, 2023, from https://en.wikipedia.org/wiki/Google_Assistant.
7. IBM. (n.d.). What is strong AI?. In IBM. Retrieved August 29, 2023, from https://www.ibm.com/topics/strong-ai.
8. Kanade, V. (2022). What is Super Artificial Intelligence (AI)? Definition, Threats, and Trends. Retrieved August 29, 2023. From https://www.spiceworks.com/tech/artificial-intelligence/articles/super-artificial-intelligence/
9. Baker, B., Mills, K. A., McDonald, P., & Wang, L. (2023). AI, Concepts of Intelligence, and Chatbots: The "Figure of Man," the Rise of Emotion, and Future Visions of Education. Teachers College Record, 125(6), 60–84. https://doi.org/10.1177/01614681231191291.
10. Pannu, A., & Student, M.T. (2015). Artificial Intelligence and its Application in Different Areas. International Journal of Engineering and Innovative Technology, 4(10), 79-84. https://www.ijeit.com/Vol%204/Issue%2010/IJEIT1412201504_15.pdf
11. IBM. (n.d.). What is unsupervised learning? In IBM. Retrieved August 29, 2023, from https://www.ibm.com/topics/strong-ai.
12. Dean, J. (2022). A Golden Decade of Deep Learning: Computing Systems & Applications. Daedalus, 151(2), 58–74. https://www.jstor.org/stable/48662026
13. IBM. (n.d.). What are neural networks? In IBM. Retrieved August 29, 2023, from https://www.ibm.com/topics/neural-networks.

Citations

AI the Good

1. Ray Bradbury, Fahrenheit 451 (New York: Simon & Schuster Paperbacks, 2013), 27-28.
2. Natasha Singer, “Despite Cheating Fears, Schools Repeal ChatGPT Bans,” The New York Times (August 24, 2023), accessed September 1-9, 2023.
3. Kalley Huang, “Alarmed by A.I. Chatbots, Universities Start Revamping How They Teach,” The New York Times (January 16, 2023), accessed September 1-9, 2023.
4. Vicki Phillips, “Intelligent Classrooms: What AI Means For The Future Of Education,” Forbes (June 7, 2023), accessed September 10,2023.
5. David Barrado Navascués, “The Torch of Knowledge and the Roles of Universities,” Open Mind BBVA, March 1, 2021, https://www.bbvaopenmind.com/en/humanities/culture/torch-of-knowledge-role-of-universities/.

I extend my heartfelt gratitude to all those who have contributed to this magazine. Your exceptional efforts and high-quality content have made my role immensely more manageable. This venture wouldn't have been possible without your dedication. I sincerely appreciate each and every one of you for being part of this journey. Here's to many more exciting editions and a future filled with innovation and creativity. Thank you all.

Find us on X.com

LeftHand, illustrator	@lefthandgifs
Aranyaka, writer	@aranyaka_
BAT_Nicholas, writer	BAT_Nicholas, writer
Stanslaus Mukumbu, writer	Stanslaus Mukumbu, writer
Yolanda Moody, writer	@pixelmoonbeamer
Guilherme Pantoja, writer and director	@bat_guilhermee
Bauzz, writer and editor	@Bauzz_


ECHO