

Midjourney

Midjourney is a generative artificial intelligence program and service created and hosted by <u>San Francisco</u>-based independent research lab Midjourney, Inc. Midjourney generates images from natural language descriptions, called "prompts", similar to OpenAI's <u>DALL-E</u> and <u>Stable Diffusion</u>. [1][2]

The tool is currently in <u>open beta</u>, which it entered on July 12, 2022. The Midjourney team is led by <u>David Holz</u>, who cofounded <u>Leap Motion</u>. Holz told <u>The Register</u> in August 2022 that the company was already profitable. Users create artwork with Midjourney using Discord bot commands.

History

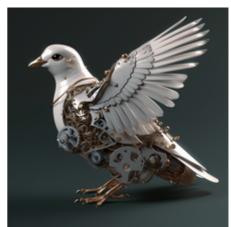
Midjourney, Inc. was founded in San Francisco, <u>California</u> by David Holz, <u>[7]</u> previously co-founder of Leap Motion. <u>[8]</u> The Midjourney image generation platform first entered open beta on July 12, 2022. <u>[3]</u> However, on March 14, 2022, the Discord server launched with a request to post high-quality photographs to Twitter/Reddit for system's training.

Model versions

The company has been working on improving its algorithms, releasing new model versions every few months. Version 2 of their algorithm was launched in April 2022^[9] and version 3 on July 25.^[10] On November 5, 2022, the alpha iteration of version 4 was released to users^{[11][12]} and on March 15, 2023, the alpha iteration of version 5 was released.^[13] The 5.1 model is more 'opinionated' than version 5, applying more of its own stylization to images, while the 5.1 RAW model adds improvement while working better with more literal prompts.

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A "mechanical dove" created with the V5 iteration of Midjourney's algorithm

Regular models		
Version	Release date	
V1	February 2022 ^[14]	
V2	April 12, 2022 ^[9]	
V3	July 25, 2022 ^[10]	
V4	November 5, 2022 (alpha) ^[11]	
V5	March 15, 2023 (alpha) ^[13]	
V5.1	May 3, 2023 ^[15]	
V5.2	June 22, 2023 ^[16]	

Other models		
Version	Release date	Notes
beta	August 22, 2022	
test/testp	August 28, 2022	
Niji	December 20, 2022	Collaboration between Midjourney and Spellbrush
Niji 5	April 2, 2023	tuned to produce <u>anime</u> and illustrative styles

Functionality

Midjourney is currently only accessible through a Discord bot on their official Discord server, by direct messaging the bot, or by inviting the bot to a third party server. To generate images, users use the /imagine command and type in a prompt; the bot then returns a set of four images. Users may then choose which images they want to upscale. Midjourney is also working on a web interface. [17]

Uses

Founder David Holz says he sees artists as customers, not competitors of Midjourney. Holz told *The Register* that artists use Midjourney for rapid prototyping of artistic concepts to show to clients before starting work themselves. Some artists have accused Midjourney of devaluing original creative work by using it in the training set; Midjourney's terms of service includes a DMCA takedown policy, allowing artists to request their work to be removed from the set if they believe copyright infringement to be evident. 19

The advertising industry has been quick to embrace AI tools such as Midjourney, DALL-E, and Stable Diffusion, among others. The tools, which enable advertisers to create original content and brainstorm ideas quickly are providing new opportunities such as "custom ads created for individuals, a new way to create special effects, or even making e-commerce advertising more efficient", according to $Ad\ Age.^{[20]}$

Notable usage and controversy

The program was used by the British magazine <u>The Economist</u> to create the front cover for an issue in June 2022. [22][23] In Italy, the leading newspaper <u>Corriere della Sera</u> published a comic created with Midjourney by writer Vanni Santoni in August 2022. [24] Charlie Warzel used Midjourney to generate two images of <u>Alex Jones</u> for Warzel's newsletter in <u>The Atlantic</u>. The use of an AI-generated cover was criticised by people who felt it was taking jobs from artists. Warzel called his action a "mistake" in an article about his decision to use generated images. [25] <u>Last Week Tonight with John Oliver</u> included a 10-minute segment on Midjourney in an episode broadcast in August 2022. [26][27]

A Midjourney image called *Théâtre d'Opéra Spatial* won first place in the digital art competition at the 2022 <u>Colorado State Fair</u>. Jason Allen, who wrote the <u>prompt</u> that led Midjourney to generate the image, printed the image onto a canvas and entered it into the competition using the name "Jason M. Allen via Midjourney". Other digital artists were upset by the news. [18] Allen was unapologetic, insisting that he followed the competition's rules. The two category judges were unaware that Midjourney used AI to generate images, although they later said that had they known this, they would have awarded Allen the top prize anyway. [28]

In December 2022, Midjourney was used to create the images in an AI-generated children's book in the span of a weekend. Titled *Alice and Sparkle*, the book features a young girl who builds a robot that becomes self-aware. The creator, Ammaar Reeshi, spent hours tweaking Midjourney prompts, rejecting hundreds of generated results to ultimately choose 13 illustrations for the book. [29] Both the product and process drew criticism: "the main problem... is that it was trained off of artists' work. It's our creations, our distinct styles that we created, that we did not consent to being used," one artist wrote. [30]

In 2023, the realism of AI-based <u>text-to-image</u> generators, such as Midjourney, <u>DALL-E</u>, or <u>Stable Diffusion</u>, <u>[31][32]</u> reached such a high level that it led to a significant wave of <u>viral</u> AI-generated photos. Widespread attention was gained by a Midjourney-generated photo of <u>Pope Francis</u> wearing a white puffer coat, <u>[33][34]</u> the fictional arrest of <u>Donald Trump</u>, <u>[35]</u> and a hoax of an attack on the <u>Pentagon</u>, <u>[36]</u> as well as the usage in professional creative arts. <u>[37][38]</u>



Théâtre d'Opéra Spatial, a Midjourney image that won first prize in a digital art competition



Alice and Sparkle, a children's book illustrated by Midjourney

Research has suggested that the images Midjourney generates can be biased. [39] For example, even "neutral" prompts in one study returned unequal results on the aspects of gender, skin color, and location.

Content moderation and censorship in Midjourney

Prior to May 2023, Midjourney implemented a moderation mechanism predicated on a "banned words" system. This method prohibited the use of language associated with explicit content, such as sexual or pornographic themes, as well as extreme violence. Moreover, the system also banned certain individual words including religious and political figures such as "Allah" or "Xi Jinping". This practice occasionally stirred controversy due to perceived instances of censorship within the midjourney platform. [40]



A Midjourney-created image of Donald Trump being arrested that went viral in March 2023^[21]

Commencing in May 2023, with subsequent updates post version 5, Midjourney transitioned to an "AI-powered" content moderation system. This advanced mechanism allowed for a more nuanced interpretation of user prompts by analyzing them in their entirety. It consequently facilitated the context-dependent use of

words that had previously been prohibited. For instance, users can now prompt the AI to generate a portrait of "Xi Jinping". However, the system will prevent the generation of contentious images, such as depictions of global leaders, including Xi Jinping, in situations of arrest. [41]

Litigation

On January 13, 2023, three artists – <u>Sarah Andersen</u>, Kelly McKernan, and Karla Ortiz – filed a <u>copyright infringement</u> lawsuit against <u>Stability AI</u>, Midjourney, and <u>DeviantArt</u>, claiming that these companies have infringed the rights of millions of artists, by training AI tools on five billion images scraped from the web, without the consent of the original artists. [42]

The legal action was initiated in San Francisco by attorney <u>Matthew Butterick</u> in partnership with the Joseph Saveri Law Firm, the same team challenging <u>Microsoft</u>, <u>GitHub</u>, and <u>OpenAI</u> (developer of ChatGPT and DALL-E 2) in court.

Subscription service

Midjourney had three subscription tiers which included a trial good for 25 image generations, but the company withdrew it citing high demand and misuse. [43] Currenty Midjourney costs between \$10 and \$60 per month, depending on the plan. [44]

See also

- Artificial intelligence art
- Computer art
- Generative art
- Synthography

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