

The Use of Artificial Intelligence Art Generator “Midjourney” in Artistic and Advertising Creativity

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Midjourney, AI Art Generator, Artificial Intelligence, Advertising, Dall-E

ABSTRACT:

Among the new technologies that have appeared and become available to users is a technique called The AI Art Generator “Midjourney”, where anyone writes simple words in English and through those words, the pc draws a whole painting in minutes derived from the written words. The technology isn’t images that are combined, but the pc imagines words and convert them into reality.

This paper aims to clarify this new technology concerning advertising design, as the Midjourney’s technology is capable of drawing with such precision because it elicits its information from the countless paintings and artworks that have been incorporated into its software as well as its understanding of the laws of art and painting.

This paper follows the descriptive approach to clarify the concept of Midjourney AI art Generator. The results indicate that the AI-powered generative networks are trained to perform the technique of transforming words and subjects into the resulting breathtaking creative panoramic art (Rob, 2022).

This research paper participates in identifying this contemporary technology, which is the future of the current virtual design in the world that will change the concept of design in the near future. This research paper will discuss the Midjourney technique and what it can produce from different design solutions, with the analysis of a group of actual models produced by this technique. This research also includes Applied part of what was analyzed accompanied by a questionnaire.

Introduction:

Artificial intelligence techniques have made an incredible development in all fields, and a brand new technology has recently spread which will move images in very prime quality as if they were recorded as a video and not as an image. This creative technology can replace faces, imitate sound, and is named deep fake, as all this is done with the press of a button on the computer, at an imaginary speed that did not exist before.

Previously, similar things were done by a whole team of specialists who performed complex processes in order to produce creative and unique designs. But now ordinary users use artificial intelligence, because the companies responsible for these technologies need ordinary people to participate and experiment with the technology so that the technology can learn from using it. Humans, for example, an intelligence program that uses human faces with each uploaded image and AI learns from it. (Mahmoud, 2022).

Midjourney is a new art-making tool in closed beta. The Midjourney technique is the most complete technology for many similar previous experiences, such as a technique called Dall-E, which is a technology that is currently under development as well, and it can be tried for free. Dall-E, is the beginning of the Midjourney appearance.

Midjourney's technique is able to draw with such precision because it has learned from the millions of art boards that have been entered into its software, as well as an understanding of the laws of art and painting. (Mahmoud, 2022).

DALL-E is a 12-billion parameter version of GPT-3 trained to generate images from text descriptions, using a dataset of text-image pairs. It was found that it has a diverse set of capabilities, including creating anthropomorphized versions of animals and objects, combining unrelated concepts in plausible ways, rendering text, and applying transformations to existing images. (Open AI, 2021).

GPT-3, or the third generation Generative Pre-trained Transformer, is a neural network machine

learning model trained using internet data to generate any type of text. GPT-3 has been used to create articles, poetry, stories, news reports and dialogue using just a small amount of input text that can be used to produce large amounts of quality copy. While the DALL-E and Midjourney programs convert words into images. (Ronald, 2021).

An open beta, (also known as a public beta) is beta testing open to any user, who is known as a beta tester. Closed beta (also known as a private beta) is beta testing only available to a select few individuals or only company employees. (Computer Hope, 2022).

The present study mainly tried to answer the subsequent questions:

Q1: How can the creative Midjourney technique be useful in enriching modern advertising?

Q2: How can artificial intelligence (Midjourney) be able to design genius advertising solutions with a different vision?

This study aims to shed light on new technologies in virtual reality that serve advertising and design in all its fields and contents, besides taking advantage of all the different and innovative design solutions to enrich the field of advertising design, and giving the opportunity to unleash the imagination and linking different topics with it, giving innovative solutions and alternatives to the designer.

This paper also pays attention to the generation of the awesome art using AI generator, the possibilities are enormous and the results are fascinating. Midjourney was the AI used by several authors to create works of art of fantasy and sinister horror, taking advantage of the particular style of their creations. One of the advantages of Midjourney is that it allows producing base images up to 1,792 x 1,024 pixels, which makes slightly larger images and where the AI has more space to create. (Gbenga , 2022).

Midjourney is a completely new and very interesting opportunity for artists, designers, illustrators, and many others to increase the art sophistication and flight of fantasy. Move away

from the existing framework, come up with something new and crazy, and look at it from the outside. The bot will help realize the greatest ideas in just a few seconds. (Andrii, 2022).

This study assumes that the new technology, Midjourney, will change the concept of design and advertising in the next few period and employing this new technology in the field of advertising and design will lead to impressive, unconventional and interesting results.

Theoretical Framework:

In the 21st century, we don't even notice how technology surrounds us and is present in every part of our lives. Smartphones, games, the internet, television, supermarket cashiers, or autopilot in cars. All this is created by people or artificial intelligence. Thanks to them, we are now used to live in comfort and in a partially automated world. (Poole, Mackworth, Goebel, Randy, 2022).

Artificial intelligence technology:

Artificial intelligence (AI) is the intelligence demonstrated by machines, as opposed to the natural intelligence displayed by animals and humans. AI research has been defined as the field of study of intelligent agents, which refers to any system that perceives its environment and takes actions that maximize its chance of achieving its goals. (Russell, Norvig, 2021).

Artificial intelligence art: refers to any artwork created through the use of artificial intelligence. (Wikipedia, 2022).

- **Computer art:** is any art in which computers play a role in production or display of the artwork. Such art can be an image, sound, animation, video, CD-ROM, game, website, algorithm, performance or gallery installation. (Wikipedia, 2022)
- **Generative art:** refers to art that in whole or in part has been created with the use of an autonomous system. An autonomous system in this context is generally one that is non-human and can independently determine features of an artwork that would otherwise

require decisions made directly by the artist. (Wikipedia, 2022).

Midjourney description:

Midjourney is an AI art service that allows generating images created by artificial intelligence based on input prompts on a Discord server.

Besides generating images, the Discord server is great to interact with like-minded artists from all over the world. Inside, members share their artworks and explore other members' creations in theme-based image galleries. Additionally, designers can find lively discussions not only on AI topics but also on philosophy and the future in general. (Unita, 2022).

Midjourney Benefits:

Midjourney's service allows to generate stunning images by inputting text preference and creative topics. As a free member, designers have 25 free queries to test the service before buying a membership.



Figure (1) some creative images generated by Midjourney technique

https://fb.watch/eR_AxQRrVp/

Connect with other AI-generated art designers:

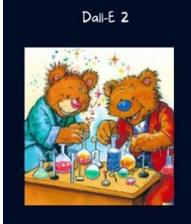
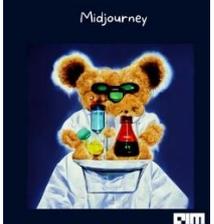
The community's Discord server is a great place to interact with like-minded artists, share creative artwork, and explore AI-generated art galleries. (ArchKhanah, 2022).

The difference between DALL-E 2 and Midjourney: (Sri Krishna, 2022).

A trend in the AI world that marked at least the first half of the year has to be text-to-image generation tools.

Table (1) identifies the difference between DALL-E 2 and Midjourney:

Point of comparison	DALL.E 2	MIDJOURNEY
Launch date	April 2022	July 2022
Description	<p>It is a generative language model that can create stunning images from natural language instructions or contextual clues.</p> <p>DALL-E 2 is good at close-up photographs and discrete objects. It recognizes a wide range of pop culture references, especially those in visual media or literary works with film adaptations.</p>	<p>Text-to-image service in, which, given a natural language prompt, generates visual depictions that are accurate to the description.</p> <p>Midjourney can create some absolutely stunning artwork with the right prompts. It's exceptional at creating larger scene. Giving more detailed, higher resolution image.</p>
Parameters	3.5B parameters	More than DALL-E 2
Image resolution	1024×1024	2048×1280
Founder	Sam Altman	David Holz
Produced images	Produces four images for each natural language prompt and three images for each edit and variation prompt.	Produces almost immediate result, in a matrix of four images that are all variations of the theme.
Technique	CLIP (for Contrastive Language-Image Pre-training) is one of the most	Midjourney, unlike DALL-E 2, combines CLIP with a constantly changing set of

	important building blocks in the DALL-E 2 architecture, as it is the primary link between text and images.	image generation methods.
Example 1: Prompt: A bowl of soup that looks like a monster knitted out of wool		
Example 2: Prompt: An astronaut riding a horse in a photorealistic style		
Example 3: Prompt: Teddy bears mixing sparkling chemicals as mad scientists as a 1990s Saturday morning cartoon		

Midjourney Discoveries:

Midjourney is a completely new and very interesting opportunity for artists, designers, illustrators, and many others to increase the art sophistication and flight of fantasy. Move away from the existing framework, come up with something new and crazy, and look at it from the outside. The bot will help to realize the most creative ideas in just a few seconds. (Andrii, 2022).



Figure (2) Examples of creative Images generated by Midjourney AI generator
<https://stepico.com/blog/midjourney-as-an-artificial-intelligence-system/>

Midjourney creative example designs:

1- Nike Design in AI Art form: (Jeffhandesign, 2022).



Figure (3) some creative and unusual designs generated by Midjourney experiment for NIKE ·
<https://www.instagram.com/p/Cfbr00oc5t/>

2- Cinderella design in AI Art form: (Jeffhandesign, 2022).



Figure (4) some creative and unusual designs generated by Midjourney experiment for Cinderella ·
<https://www.instagram.com/p/Cglc--duMY9/>

3- "McDonald's in Underwater: Store Design" in AI Art form: (Jeffhandesign, 2022).



Figure (5) some creative and unusual designs generated by Midjourney experiment for Macdonalds .
https://www.instagram.com/p/CeeN6KbpkW8/?utm_source=ig_embed&ig_rid=d4d4903b-885f-424a-9951-b52164b31df2

4- Architecture and art design in the form of various innovative designs suitable for advertising and movie posters in AI form: (ArchKhanah, 2022)



Figure (6) various innovative designs suitable for advertising and movie posters generated by Midjourney ·
https://fb.watch/eR_AxQRrVp/

Steps to Use Midjourney Beta:

To use the service, first join Midjourney's free Discord server. Then, go to one of the "newbie" bot channels and type "/imagine". After that, input a text prompt. The bot will give 4 images in about 60 seconds, and can later get up scales or variations of those images. (Benj, 2022).

- 1- A Discord account is needed to use the Midjourney Beta to give text prompts to the Midjourney bot. Designers can sign up for a free account on Discord's website, then use Discord in a web browser or download the app for Windows, Mac, Linux, Android, and iPhone. Once set up with Discord, head over

to the Midjourney website and select “Join the Beta”. Then select “Accept Invite.”. (David Holz, 2022).



Figure (7) the official website for Midjourney
<https://www.midjourney.com/>

2- To get started, go to one of the “Newcomer Rooms” channels in the sidebar and use “#newbies-42”.

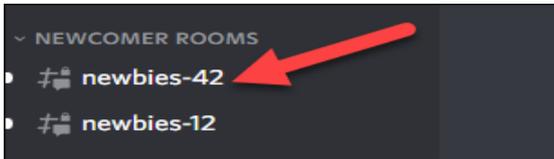


Figure (٨) An illustration of the step

3- In the text box, enter /imagine and then type any prompt and submit it.

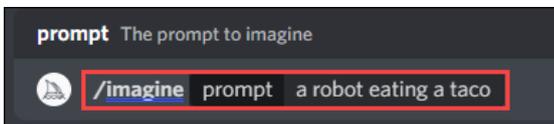


Figure (٩) An illustration of the step

4- Designers can watch the progress as the four images are created.

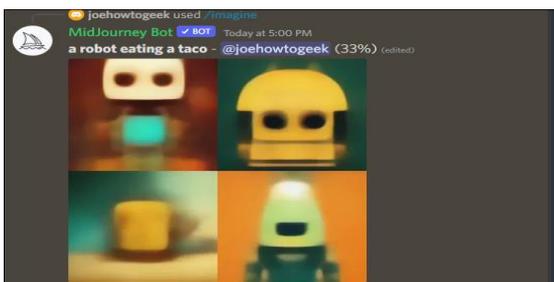


Figure (١٠) An illustration of the step

5- When the images are finished, they’ll be displayed in a new message, besides some additional options. (Joe, 2022).

U = Upscale: Creates a larger version of the image.

V = Variation: Creates a new image based on the one you selected.

Refresh: Get four new images from the same prompt.



Figure (١١) An illustration of the step

6- The results will be delivered in a new message just like before, and have some new options to make more variations or upscale it to the max.



Figure (١٢) An illustration of the step

7- To save the images, simply select the image and tap the download icon on mobile or “Open Original” on desktop to see the full-size image to save.

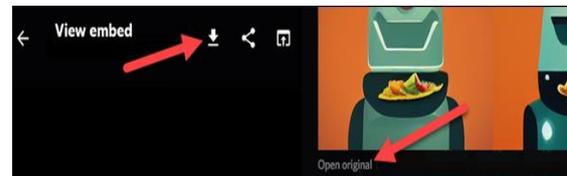


Figure (١٣) An illustration of the step

8- In the Midjourney Beta, simply type /imagine and follow it with a prompt. Keep in mind certain words aren’t allowed, but it’s mostly fair game, and you can see what others are creating. (Nidhin , 2022).

The use of artificial intelligence in artistic creativity and the experiences of some users: (Sasapost, 2022).

Until recently, humans outperformed artificial intelligence in imagination, creativity, and feelings, features that the latter lacks and are considered the preserve of humans. That traditional image that began to disintegrate with the entry of “artificial intelligence” into the world of arts, as we were surprised recently, when the

images of the artificial intelligence program “Midjourney” flooded social networking sites, after many ordinary individuals were able to create very beautiful and creative paintings with the click of a button. By entering some "keywords". Which brought to mind this age-old question: Can AI compete with human creativity? And what will be left for us after that?

Research methodology:

The research is exploratory and descriptive in nature. Observational, and critical writing is adopted, in collecting theoretical information associated with the new technology of Midjourney AI generator, the new and creative designs and innovative solutions in designing the topics. Midjourney will change the concept and vision of advertising and innovative designs that are difficult for the designer to implement.

A large number of designers who used this experience in designing different themes were observed and obtained impressive results that exceeded their expectations. Their experience was monitored and documented in this research paper

Introduction about the Midjourney AI Art Generator Technology: (David Holz, 2022).

It is a technology among the new technologies that have appeared and become available to users, a technique called midjourney, where anyone writes simple words in English and through those words, the computer draws a complete painting in minutes derived from the words that you have written. The technology is not images that are combined, but rather the computer imagines words and turns them into reality.

a) About:

- Midjourney is an independent research lab exploring new mediums of thought and expanding the imaginative powers of the human species.
- We are a small self-funded team focused on design, human infrastructure, and AI. We have 11 full-time staff and an incredible set of advisors.

b) Executives

- David Holz :Previously: Founder Leap Motion, Researcher at NASA, Max Planck

c) Advisors

- Jim Keller :Lead Silicon at Apple, AMD, Tesla, Intel, Coauthor X86-64, CTO Tenstorrent
- Nat Friedman :CEO Github, Chairman of GNOME Foundation
- Philip Rosedale :Founder of Second Life, CTO RealNetworks
- Bill Warner :Founder of Avid Technology, inventor of nonlinear video editing

d) Research and Engineering

- Daniel, Max, Jack, Thomas, Red, Sam, Nadir, Sebastian.

e) Legal and Finance

- Max Sills (legal advisor), Nadia Ali.

f) Official website: <https://www.midjourney.com/>

Some illustrated examples about generative art created by the artificial intelligence “Midjourney”

Example 1:

Using artificial intelligence in creating some of Arabic illustrations of Animals Art through Midjourney App, under the name of "The Power OF Arabic Letters". (Yasser, 2022).



Figure (١) designs made by Midjourney about The Power OF Arabic Letters ·
<https://www.behance.net/gallery/147907645/Generative-Art-The-Power-Of-Arabic-Letters>

Conclusion:

- Arabic fonts have been combined with animals in unique and different combinations with attractive visual solutions for the recipient through artificial intelligence techniques in abstract and hollow three-dimensional designs in a very short time (within a minute), as the professional designer needs a long time to design such designs with the same quality. Which will change the future of Arabic and foreign fonts later and will change the vision of the advertising designer and Arabic calligraphy and will launch the imagination in design to the farthest extent.

Example 2:

Using artificial intelligence in creating some of ancient social media illustration Art through Midjourney App, under the name of “Social Media Designs”. (Graeme, 2022).



Figure (١٥) designs made by Midjourney about social media designs
<https://m.facebook.com/TeamKingkortobyabimur/posts/>

Conclusion:

- Using artificial intelligence, and within a few minutes, the icons of (Instagram, Twitter, Facebook and youtube applications) were merged with the pharaonic stones and some inscriptions in bright colors and the texture of the stones, which gave it a unique pharaonic character, which may take the designer more than a day to work with different two- and three-dimensional programs.

Example 3:

Using artificial intelligence in creating some media illustration Art for Adidas shoes through Midjourney App, under the name of “futuristic Adidas sneakers 2077”. (Badr, 2022).



Figure (١٦) designs made by Midjourney about adidas 2077
<https://www.behance.net/gallery/148262185/Adidas-Sneakers-2077>

Conclusion:

- Some innovative designs for Adidas were made to use the brand and an innovative three-dimensional shoe shape in attractive colors by artificial intelligence, as there is more than one visual solution and small details inside the shoe, which makes artificial intelligence the ability to create innovative advertising designs within a few minutes, which is what It will necessarily change the future of advertising and the designer's vision of advertising ideas and expand the ability to imagine with continuous innovation.

Example 4:

Using artificial intelligence in creating some media illustration Art for the city of Babylon through Midjourney App, under the name of “The city of Babylon and the hanging gardens using artificial intelligence”. (Alnadawi, 2022).



Figure (١٧) designs made by Midjourney about The city of Babylon and the hanging gardens
<https://www.facebook.com/photo/?fbid=10216642492174308&set=pcb.317254722632902>

Conclusion:

- In this example, the Hanging Gardens of Babylon were devised and imagined through artificial intelligence, which was difficult to design through traditional programs such as Photoshop and Illustrator. It was possible to create these scenes with 3D programs such as those used in science fiction films, but these designs take a lot and a lot of time effort, imagination and innovation to appear this way. Artificial intelligence programs work on the principle of wide vision and build complete scenes within a few minutes with the possibility of modification with infinite details.

Example 5:

Using artificial intelligence in creating some media illustration Art for Pharos through Midjourney App, under the name of “Reimagining Scenes from a Pharaonic city”. (Henar, 2022).



Figure (1^8) designs made by Midjourney about “Reimagining Scenes from a Pharaonic city” · <https://www.facebook.com/photo/?fbid=10222618513754915&set=pcb.10222618524715189>

Conclusion:

- In this example, the Pharaonic civilization has been revived again by innovative designs, bright colors and different engravings, which is what the Midjourney program does when the designer writes the description of the scene he wants to create, where the artificial intelligence works to translate every word of the input to give accurate innovative outputs and Creative design solutions, which enables the designer to imagine all scenes and re-create them comprehensively and with a clearer vision.

Example 6:

Using artificial intelligence in creating some media illustration Art for some characters with new vision through Midjourney App, under the name of “Mixed steampunk and horror elements with some icons”. (Anthony, 2022).



Figure (1^9) designs made by Midjourney about “Mixed steampunk and horror elements with some icons” · <https://www.facebook.com/photo/?fbid=10227557752105255&set=pcb.1396508424192193>

Conclusion:

- In this example, artificial intelligence works to embody and personify people and bodies in a very creative and innovative way by paying attention to very minute details while integrating them with some science fiction inputs to produce outputs suitable for use in the advertising field, for example in science fiction movie posters.

Example 7:

Using artificial intelligence in creating some media illustration Art for creative nature houses through Midjourney App, under the name of “Making cool houses”. (Patrick, 2022).



Figure (1^0) designs made by Midjourney about “Making cool houses” · <https://www.facebook.com/photo/?fbid=405848681535535&set=pcb.405849924868744>

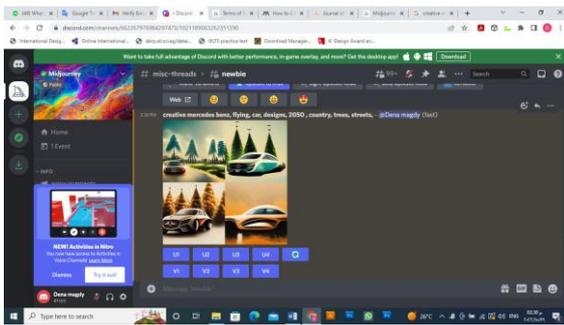
Conclusion:

- In this last example, some innovative houses derived from nature, trees and rocks were designed in a modern way that is difficult for the ordinary designer to imagine and design due to the large number of very minute details in the image. The program, which will change the concept of architectural and interior design in the coming years, and there is no doubt that it may be suitable for use in advertising as innovative backgrounds for different topics

Applied Models created by the researcher using the Midjourney Ai Generator in contribution with advertising:

1- The first applied example:

The researcher assumed a design “creative Mercedes Benz, flying car, 2050, country, trees, streets” and the results were as follows:



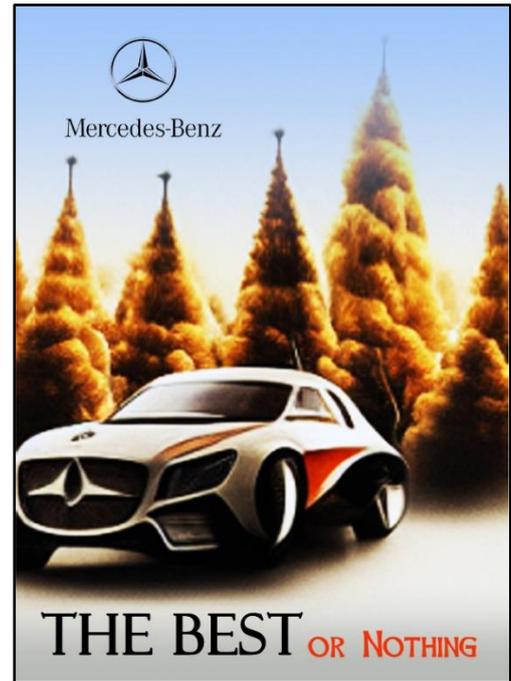
The program window after entering the keywords



The choices made by the program

➤ Suggested design after modification and editing by the researcher:

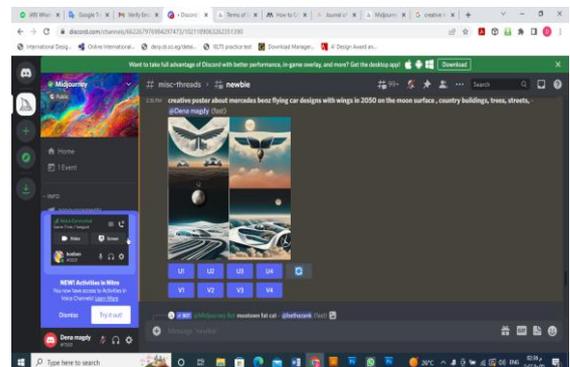
One image was selected from the produced choices of the Midjourney to design an advertising poster for Mercedes Benz creativity and the result was as follows:



The supposed poster design

2- The second applied example:

The researcher assumed a design “creative poster about Mercedes Benz flying car design with wings in 2050 on the moon surface, country buildings, trees, streets” and the results were as follows:



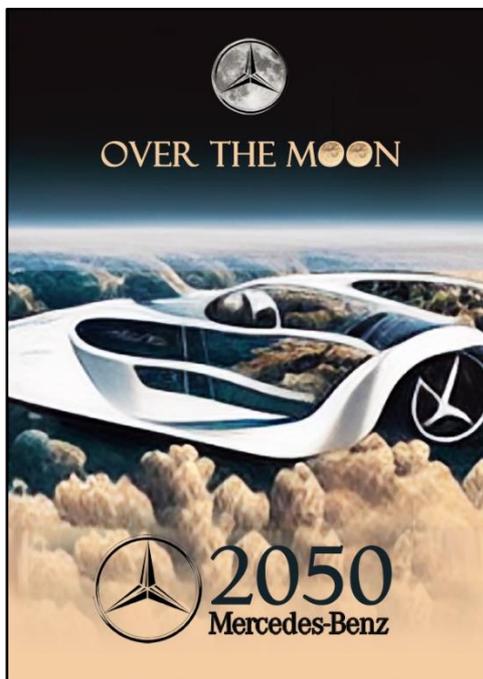
The program window after entering the keywords



The choices made by the program

➤ **Suggested design after modification and editing by the researcher:**

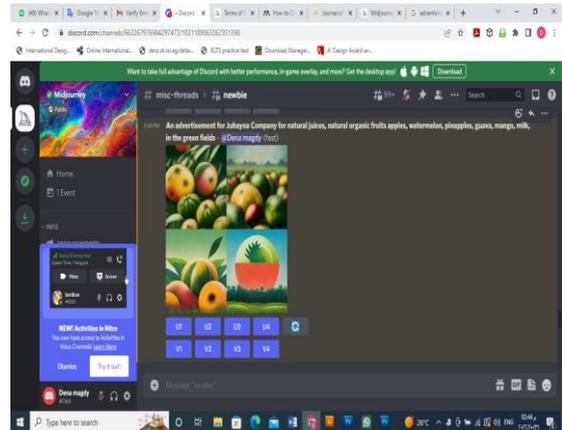
One image was selected from the produced choices of the Midjourney to design an advertising poster for Mercedes Benz in future 2050, and the result was as follows:



The supposed poster design

3- The third applied example:

The researcher assumed a design “an advertisement for Juhayna company for natural juices, natural organic fruits, apples, watermelon, pinapples, guava, mango, milk” and the results were as follows:



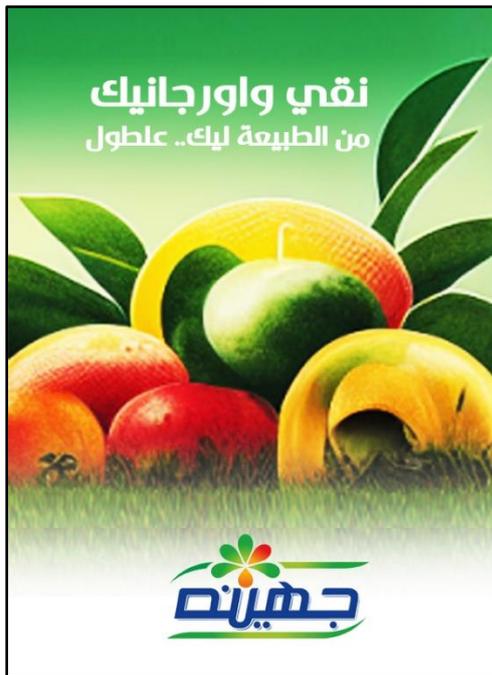
The program window after entering the keywords



The choices made by the program

➤ **Suggested design after modification and editing by the researcher:**

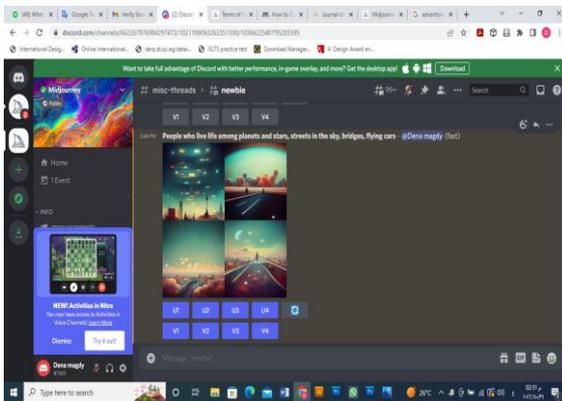
One image was selected from the produced choices of the Midjourney to design an advertising poster for Juhayna company and the result was as follows:



The supposed poster design

4- The fourth applied example:

The researcher assumed a design “People who live life among planets and stars, streets in the sky, bridges, flying cars” and the results were as follows:



The program window after entering the keywords



The choices made by the program

- Suggested design after modification and editing by the researcher:



The supposed poster design

Applied Questionnaire, recruitment of the participants and sample size:

The sample was selected (100 recipient) who were subjected to the applied advertisements above. The questionnaire was distributed to them in order to identify their opinions regarding the use of

Artificial Intelligence Art Generator “Midjourney” in artistic and advertising creativity, The majority of them are specialists in the field and designers.

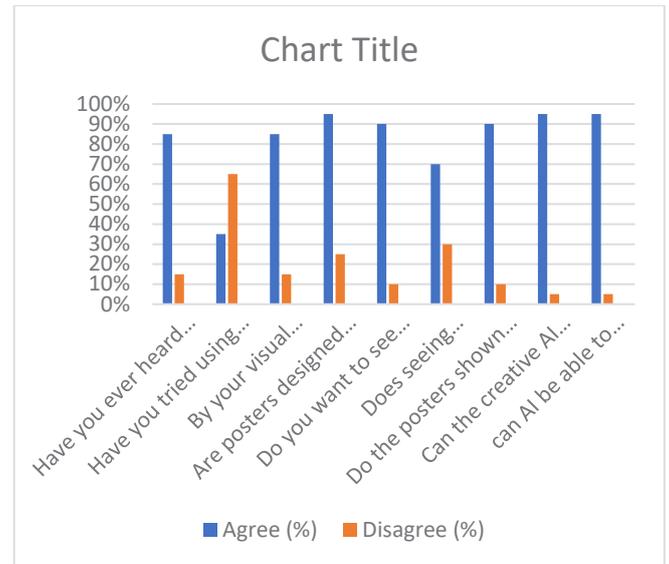
Table (2) sample percentage for the study:

	Distributed questionnaires	Returned questionnaires	Excluded questionnaires	Analysis questionnaires
No.	100	83	17	83
Per.	100%	83%	17%	83%

The questionnaire form was designed to measure the response of the audience about the AI Artificial Generated Midjourney compared to traditional designs and the results related to the questionnaire statistical analysis was as follows:

Table (3) results of questionnaire related to statistical analysis:

Elements of designing questionnaire	Agree (%)	Disagree (%)
Have you ever heard about Midjourney AI Artificial technology before?	85%	15%
Have you tried using this technique?	35%	65%
By your visual experience, do you see a difference between normal design and AI design?	85%	15%
Are posters designed using AI technology impressive?	95%	5%
Do you want to see more of these AI works and designs used in advertising?	90%	10%
Does seeing advertising posters using AI, call for meditation?	70%	30%
Do the posters shown to you have a clear design idea?	90%	10%
Can the creative AI technique be useful in enriching modern advertising?	95%	5%
can AI be able to design genius advertising solutions with a different vision?	95%	5%



Questionnaire results estimated from the above tables results showed that:

- 1- The questionnaire estimated that 85% of targeted audience have heard about the AI artificial generator technology, and 15% only didn't catch up this technique.
- 2- The percentage of 35 only of the targeted audience tried using this technique in comparison to the total number of who have been surveyed, this is relatively because it is a new technique and most users do not know how to register on their site.
- 3- 85% of the surveyed audience see and feel the difference between the traditional and artificial intelligence generated images compared to the total number, and this percentage we see is related to the first question, which is the percentage that actually got to know the technology, and they are the same percentage who realized the difference.
- 4- 95% of the recipients, after seeing the designed posters, realized that the technique used in the design is different, innovative and invites contemplation and admiration.
- 5- The vast majority of 90% stated that they would like to see more images and designs created by AI.

- 6- 70% of respondents admitted that watching posters using artificial intelligence requires meditation.
- 7- The largest proportion of people (90%) who were shown advertising posters, designed with artificial intelligence, admit that the design idea was clear.
- 8- 95% of surveyed audience see that AI technique can be useful in enriching modern advertising, besides creating new challenges.
- 9- The ratio of 95% after seeing the designed ads changed their perception relatively about the traditional design and stated that AI can create deferent vision solutions and also save a lot of time and hard work.

General Results:

From the different examples illustrated in the research, we can extract and conclude the following results

- 1- Artificial intelligence using the Midjourney program gives different and impressive results in all fields when entering the words that the designer wants to design, so that the program produces many impressive design solutions in a very short time that is difficult for the designer to produce.
- 2 - Design using artificial intelligence can produce many design solutions in all fields, including architecture, design, art, science fiction, anatomy, sculpture ... etc.
- 3 - Design using artificial intelligence programs saves time and effort for designers and non-designers of users
- 4- Design by these programs creates complete, wide and integrated scenes for the particular subject that is required to be designed
- 5- It can be used in illustrations, abstract drawings, different textures and backgrounds.

General conclusion and discussion:

- The technology is very new, and it will take some time to become mature until to the point that it can be accepted as a unique tool for creating inspiring conceptual images.

Midjourney frees the designers to be far more focused on creativity and imagination in their ideas. For the time being, it appears that to meet creative artists' needs. But as these tools expand, it will be fascinating to see how they interact and how fresh approaches to creative exploration take shape. These brand-new AI "apps" undoubtedly move AI closer to widespread adoption and toward becoming a genuine real-time creative design collaborator. ⁽³³⁾ (Hamid, 2022).

- Besides generating images, the Midjourney server is great to interact with like-minded artists from all over the world. Inside, members share their artworks and explore other members' creations in theme-based image galleries. ⁽³⁴⁾ (Unita, 2022).
- Artificial intelligence technology will change the concept of art, photography, architecture and design in the coming period and will unleash more imagination for designers in all fields, which will be reflected on public taste, convictions, trends and artistic design vision in the next stage.

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