

Assignment 05: AI Image Generator

Theory

1.1 What are AI Image Generators?

AI Image Generators are artificial intelligence models that create images from text descriptions using **deep learning techniques**. They can produce **photorealistic, abstract, or stylized visuals** based on the user's instructions (called prompts).

1.2 Popular AI Image Tools

- **DALL·E** (by OpenAI)
 - **Midjourney**
 - **Stable Diffusion**
 - **Leonardo AI**
 - **Canva AI**
 - **Adobe Firefly**
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1.3 Applications

- Advertising & Marketing
- Book & Game Illustration
- Content Creation
- Branding & Logo Design

- Education & Storytelling
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1.4 Limitations & Ethical Concerns

- Difficulty in generating **text inside images**
 - Inaccuracy in **human anatomy** (e.g., fingers, faces)
 - Risk of **misuse** (fake news, misinformation)
 - **Copyright issues** & bias in dataset
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Task 1: Comparative Research

Prompt Used

"A steampunk city under moonlight with flying airships and glowing lanterns, detailed skyline filled with gears and pipes, misty atmosphere, cinematic lighting, and a sense of adventure."



Image generated by D-alle-3



Image created by Midjourney

Comparison: DALL·E vs Midjourney

Feature	DALL·E (OpenAI)	Midjourney
Image Quality	DALL·E produces clear and realistic images . The visuals are neat and structured, but sometimes lack fine artistic touches. Textures may feel smooth rather than deeply detailed.	Midjourney creates highly detailed, cinematic, and artistic images . It focuses on depth, lighting, and atmosphere. The images look like professional digital paintings with rich creativity.
Prompt Accuracy	DALL·E understands the prompt well and generates the required objects (airships, lanterns, moon, skyline). However, sometimes it simplifies complex details or misses smaller artistic elements like intricate gears.	Midjourney interprets the prompt with very high precision . It not only generates all the required elements (airships, glowing lanterns, mist, gears) but also adds extra atmospheric details that make the scene more immersive.

Style Flexibility	Supports different styles such as photorealistic, cartoon, 3D art, and sketches. Works best when prompts are very descriptive but is slightly limited when trying to push highly artistic or abstract styles.	Extremely flexible with styles. Can generate photorealism, anime, digital painting, surrealism, fantasy, cyberpunk, watercolor, oil painting, etc. The artistic control is much greater, especially with parameters and aspect ratios.
Usability	Very easy to use. Integrated into ChatGPT and available via web interface. Anyone can type a sentence and get images instantly. Best for beginners and educational purposes.	Requires Discord access and command-based usage, which may confuse beginners. However, it provides more control through parameters like <code>--ar</code> , <code>--v</code> , and <code>--q</code> for aspect ratio, version, and quality. Best for advanced users.
Licensing & Terms	DALL·E offers free limited credits (with ChatGPT Plus you get access to DALL·E 3). Commercial use is allowed under OpenAI's terms, but with some restrictions on sensitive content.	Midjourney requires a paid subscription . Depending on the plan, users get commercial rights to use their generated images. Without subscription, images are visible to the public community feed.
Strengths	Easy access, simple interface, good for realistic visuals, best for students, educators, and quick projects.	Stunning visuals, best for artists, designers, game creators, and storytellers who need cinematic quality and creative depth.
Weaknesses	Sometimes misses fine details, less artistic depth, struggles with very creative prompts.	More complex for beginners, requires payment, not as beginner-friendly as DALL·E.

Conclusion

- **DALL·E** is best suited for **beginners, quick experimentation, and realistic images**. Its main advantage is **simplicity and accessibility**.
- **Midjourney** is ideal for **professional creatives, artists, and storytellers**. It produces **cinematic, imaginative, and highly detailed images**, but has a learning curve and requires a subscription.

Final Verdict:

- Use **DALL·E** for **education, prototyping, and simple projects**.
- Use **Midjourney** for **professional design, fantasy art, and cinematic visuals**.

Task 2: Visual Design Project

Option Chosen: *Create a Poster for a Fictional Product*

Product Poster Created:

AeroChron – The Future in Steampunk Timekeeping

Tool Used:

The poster was generated using **DALL·E (OpenAI)**.

Poster Description:

- **Product Concept:** AeroChron is a **steampunk-inspired smartwatch** that combines **antique brass gears, glowing tubes, and leather straps** with **modern AI-powered features**.
- **Visual Elements in Poster:**
 - A **golden brass smartwatch** with gears and glowing blue AI interface.
 - Background: **Steampunk city under moonlight**, filled with towers and lanterns.
 - **Text on poster:** “*AeroChron – The Future in Steampunk Timekeeping*”.
 - **Limited Edition Pre-order Badge** included.
 - Price displayed: **₹39,999 / \$499**.
 - Available in **Brass + Brown Leather, Silver + Black Leather, and Copper + Red Leather**.

AI Prompt Used (DALL·E):

"A steampunk-inspired smartwatch poster, featuring a golden brass watch with gears, glowing tubes, and a leather strap, floating in front of a futuristic city skyline filled with airships and lanterns. Add elegant poster design style, cinematic lighting, and text that says 'AeroChron – The Future in Steampunk Timekeeping', with price ₹39,999 / \$499 and Limited Edition badge



OUTPUT

Conclusion:

This poster demonstrates how **DALL·E can be used in product marketing and branding**. With the right prompt, DALL·E creates high-quality advertising posters for fictional or real products, saving time and effort in design.

Final Conclusion

AI Image Generators like **DALL·E** and **Midjourney** are powerful tools that transform **text prompts into high-quality visuals**. From the comparison in **Task 1**, it is clear that:

- **DALL·E** is best for **beginners, educators, and quick prototyping**, as it is simple and accessible.
- **Midjourney** is ideal for **artists and designers**, offering cinematic quality and highly detailed creative outputs.

In **Task 2**, the fictional product poster “*AeroChron – The Future in Steampunk Timekeeping*” was successfully created using **DALL·E**, proving that AI tools can be effectively used for **branding, advertising, and storytelling**.

Overall, this assignment shows that **AI Image Generators combine creativity with technology**, enabling students and professionals to design posters, concept art, and visual stories **without needing advanced graphic design skills**. These tools represent the **future of content creation**, making design more accessible, faster, and highly innovative.