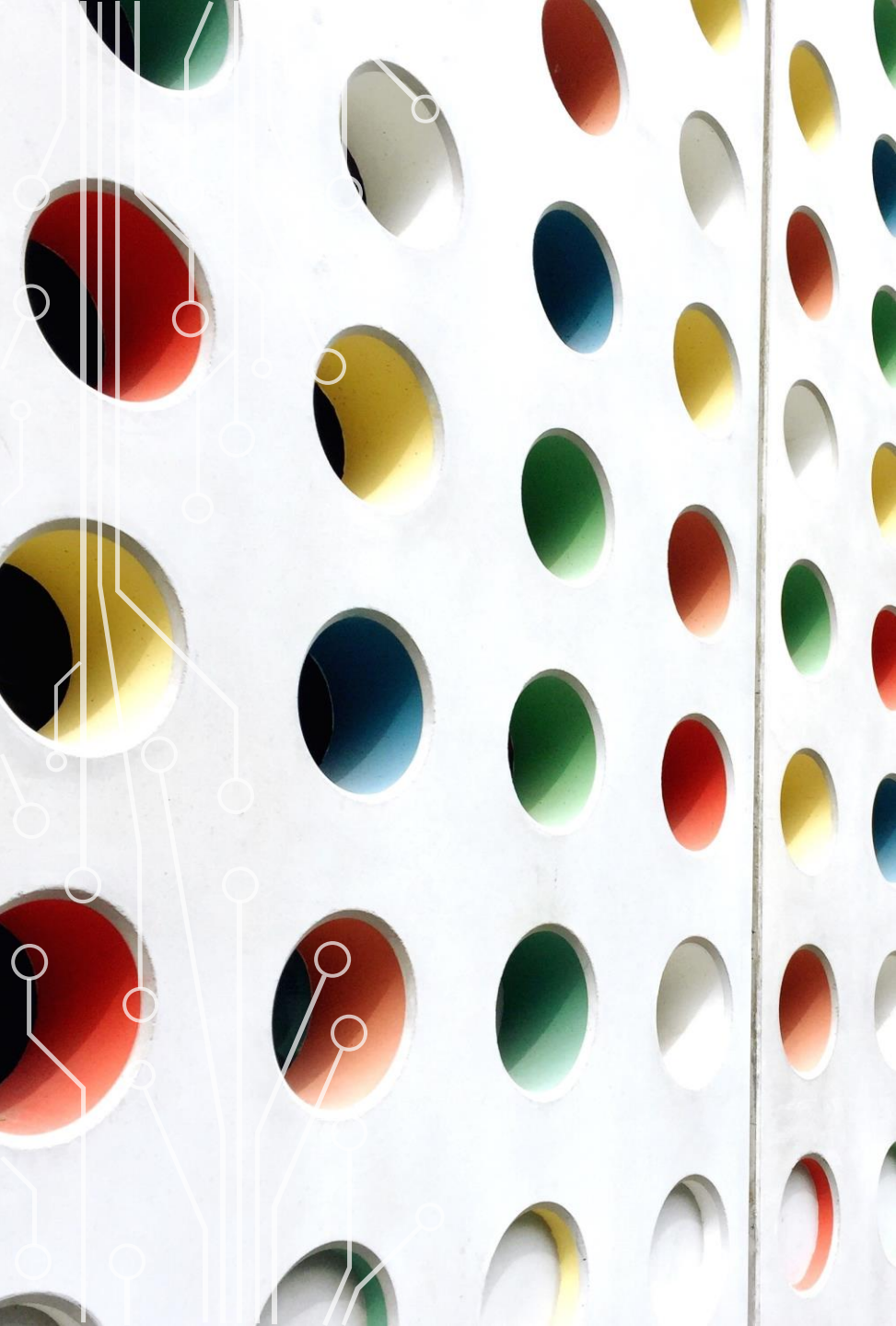




Empowering Teaching and Learning with AI Literacy: Integrating AI Tools in STEAM Courses

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April 3, 2025

Objectives of the sharing session

- Highlight practical uses of AI, such as Poe, ChatGPT, and DeepSeek, for getting quick information
- Create a summary from various resources
- Plan a lesson with structured activities
- Create varied assessments across STEAM subjects

Current trends in STEAM education

Project-Based Learning (PBL)

- PBL involves students in real-world projects that require applying theoretical knowledge to practical challenges. It promotes hands-on learning, creativity, and collaboration, making education more relevant and engaging.

Example

- **Smart City Solutions** - Students will design a smart city project that utilises AI technologies to solve urban challenges, promoting sustainability, efficiency, and improved quality of life.

Current trends in STEAM education

Immersive Learning

- Virtual and augmented reality technologies create immersive experiences that make complex concepts more accessible and interactive. These technologies enhance engagement, comprehension, and retention by allowing students to explore simulations that might be impossible in real life.

Example

- **Virtual Reality (VR)** - Take students on a simulated expedition to explore complex scientific concepts, ecosystems, or historical events. The immersive environment helps students engage deeply with the content, making learning more impactful and memorable.

Current trends in STEAM education

Technology Integration

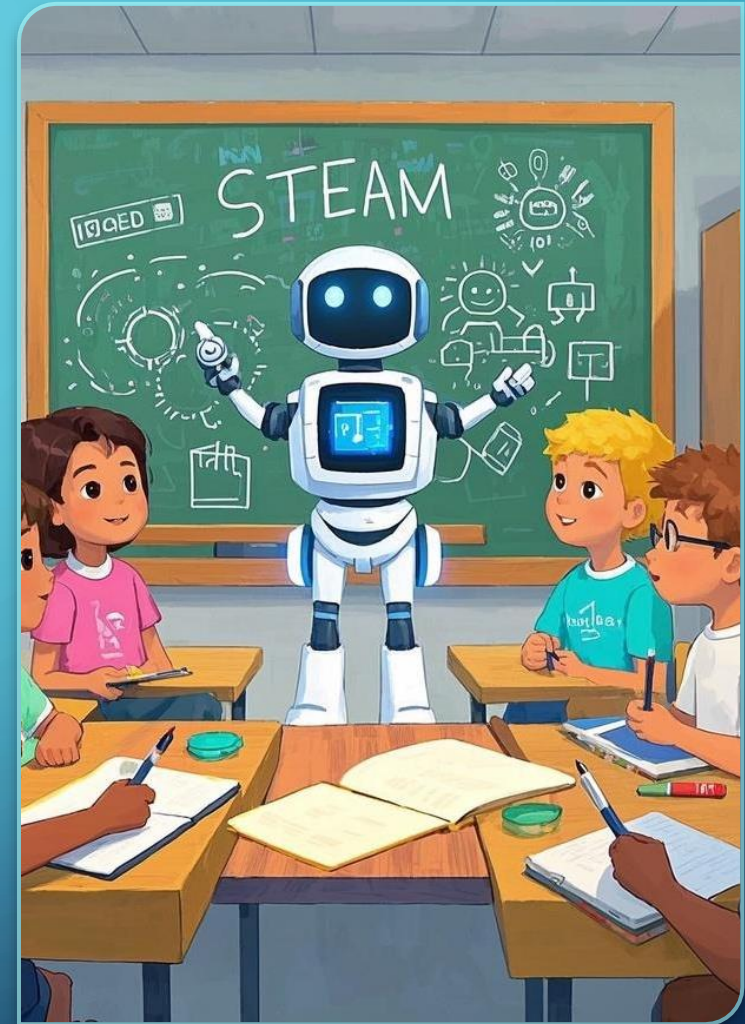
- The use of technology in the classroom, including coding, robotics, and virtual/augmented reality, is becoming standard. This helps students develop digital literacy and technical skills essential for future careers.

Example

- **Robotics for Disaster Relief** - Students will design and build a robotic solution that addresses challenges related to disaster relief (such as search and rescue operations). This project integrates concepts from science, technology, engineering, arts, and mathematics, allowing for hands-on learning and real-world applications of robotics.

STEAM activities with AI

A STEAM activity can be incorporated with artificial intelligence (AI), specifically designed for students to engage with the concepts of AI, coding, and creativity.



Sample Activity: **AI-Powered Story Creation**

Objective:

Students will use AI to generate a story based on their input and then illustrate or create a visual representation of key scenes from the generated story.

Sample Activity: **AI-Powered Story Creation**

Materials Needed:

- Computers (or tablets) with the Internet access
- AI story generation tool (like ChatGPT/ Poe/ DeepSeek)
- AI drawing tools (like DALL-E@ChatGPT/ Leonardo.AI)
- Projector or presentation software (optional, for sharing stories)

Activity: AI-Powered Story Creation

Topics Covered:

- Introduction to AI
- Prompt Development
- Story Generation
- Discussion
- Illustration
- Presentation
- Reflection

Topics Covered

Introduction to AI

- Start by discussing what artificial intelligence is and how it can be used in creative processes. Introduce the concept of natural language processing and AI's ability to generate text.

Topics Covered

Introduction to AI

- Use different AI tools (e.g., Poe/ ChatGPT/ DeepSeek) with the same prompt to generate the basic content about “Introduction to AI”
- Suggested prompt:
 - What is Artificial Intelligence Generated Content (AIGC)?
 - What are the commonly used AIGC tools?

Introduction to AI - main content (by Poe)

Prompt: What is Artificial Intelligence Generated Content (AIGC)?

What is Artificial Intelligence Generated Content (AIGC)?

11:15 AM

Assistant Poe

Artificial Intelligence Generated Content (AIGC) refers to any type of content that is produced by artificial intelligence technologies. This can encompass a wide range of media, including but not limited to:

1. **Text:** Articles, stories, poetry, scripts, and other written content generated by natural language processing (NLP) algorithms.
2. **Images:** Visual content created by generative models, such as artwork or photographs generated from text descriptions.
3. **Audio:** Music, voiceovers, and sound effects created using AI-driven tools.
4. **Video:** Clips or animations that are generated or edited by AI systems.
5. **Games:** Levels, characters, and narratives created through AI algorithms.

AIGC leverages machine learning techniques and deep learning models to analyze existing data and learn patterns, which allows it to create new, original content. The technology can enhance creativity, automate content generation, and provide personalized experiences in various fields, including marketing, entertainment, education, and more. However, it also raises questions regarding copyright, authenticity, and ethical considerations in content creation.

11:15 AM

Introduction to AI - formative assessment (by Poe)

Prompt: Please generate three multiple-choice questions based on the content above

Assistant Poe

Here are three multiple-choice questions based on the explanation of Artificial Intelligence Generated Content (AIGC):

Question 1

What does AIGC stand for?

- A) Automated Interactive Generated Content
- B) Artificial Intelligence Generated Content
- C) Artificially Intelligent General Creation
- D) Automatic Image Generated Content

Correct Answer: B) Artificial Intelligence Generated Content

Question 2

Which of the following is NOT a type of content that can be generated by AI according to AIGC?

- A) Text
- B) Images
- C) Biological samples
- D) Audio

Correct Answer: C) Biological samples

Question 3

What technology is primarily used to create AIGC?

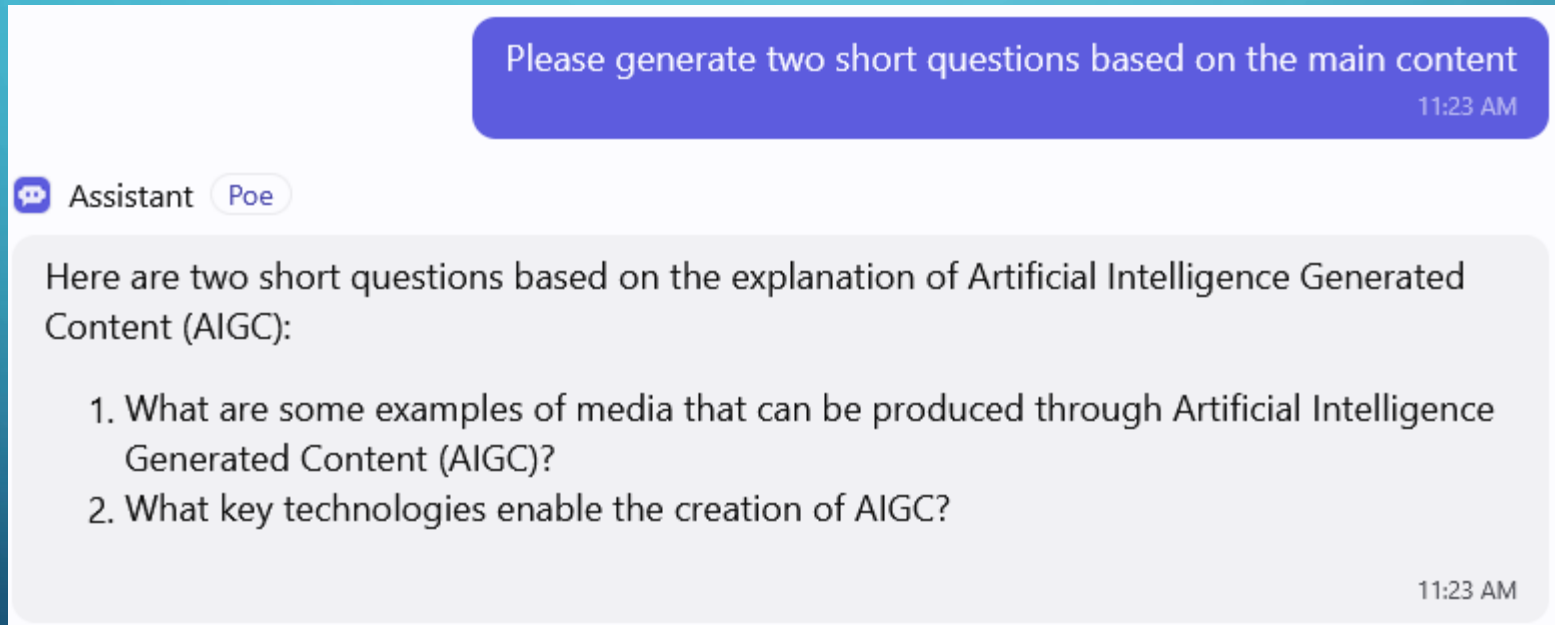
- A) Quantum computing
- B) Blockchain technology
- C) Machine learning and deep learning models
- D) Augmented reality

Correct Answer: C) Machine learning and deep learning models

11:21 AM

Introduction to AI - formative assessment (by Poe)

Prompt: Please generate two short questions based on the main content



The screenshot displays a chat interface with a white background. At the top, a purple rounded rectangle contains the user's prompt: "Please generate two short questions based on the main content", with a timestamp of "11:23 AM" in the bottom right corner. Below this, the assistant's response is shown in a white rounded rectangle. It begins with a purple speech bubble icon, followed by the text "Assistant" and a small purple pill containing the name "Poe". The response text reads: "Here are two short questions based on the explanation of Artificial Intelligence Generated Content (AIGC):". This is followed by a numbered list of two questions. The timestamp "11:23 AM" appears in the bottom right corner of the assistant's response box.

Please generate two short questions based on the main content
11:23 AM

Assistant Poe

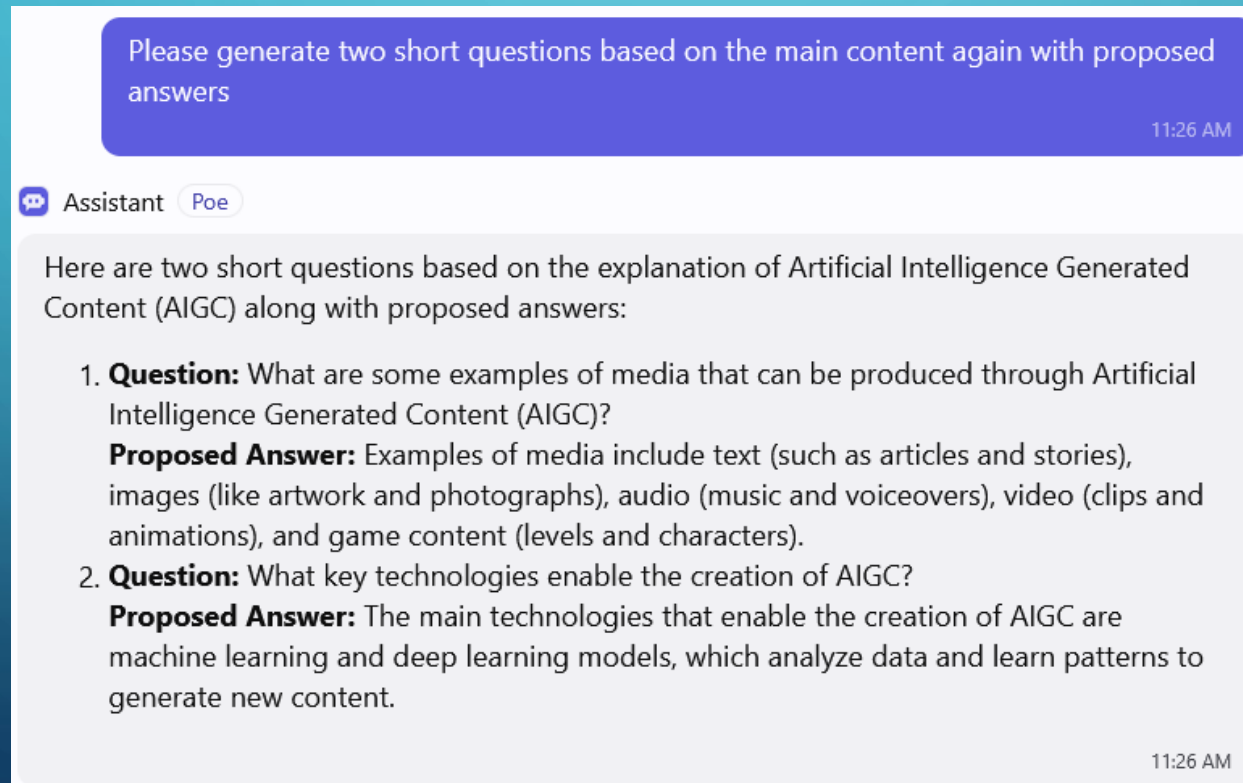
Here are two short questions based on the explanation of Artificial Intelligence Generated Content (AIGC):

1. What are some examples of media that can be produced through Artificial Intelligence Generated Content (AIGC)?
2. What key technologies enable the creation of AIGC?

11:23 AM

Introduction to AI - formative assessment (by Poe)

Prompt (refined): Please generate two short questions based on the main content again with proposed answers



The screenshot shows a chat interface with a purple header bar containing the prompt: "Please generate two short questions based on the main content again with proposed answers". Below this, the assistant's response is shown in a light gray box. The response includes an introduction and two numbered questions with proposed answers. The interface includes a "Poe" logo and a timestamp of 11:26 AM.

Please generate two short questions based on the main content again with proposed answers

11:26 AM

Assistant Poe

Here are two short questions based on the explanation of Artificial Intelligence Generated Content (AIGC) along with proposed answers:

1. **Question:** What are some examples of media that can be produced through Artificial Intelligence Generated Content (AIGC)?
Proposed Answer: Examples of media include text (such as articles and stories), images (like artwork and photographs), audio (music and voiceovers), video (clips and animations), and game content (levels and characters).
2. **Question:** What key technologies enable the creation of AIGC?
Proposed Answer: The main technologies that enable the creation of AIGC are machine learning and deep learning models, which analyze data and learn patterns to generate new content.

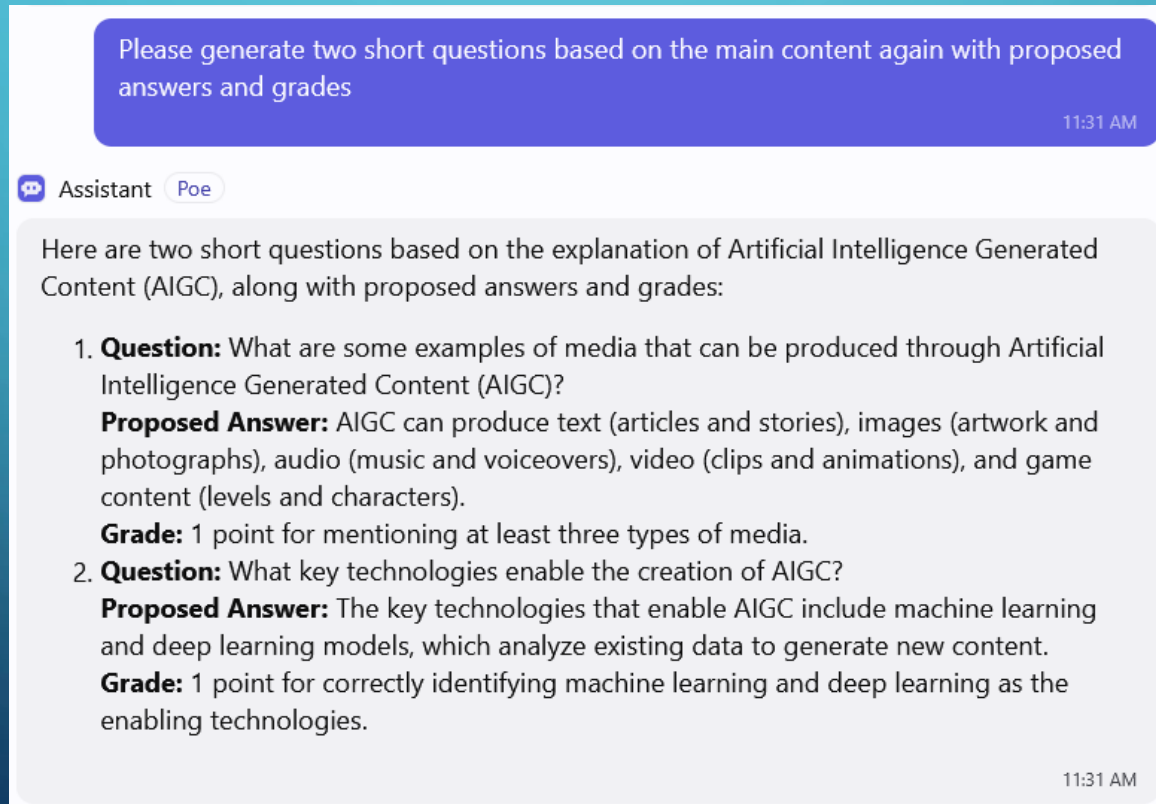
11:26 AM

Introduction to AI - formative assessment (by Poe)

Pause and Think: How can the prompt further be polished again to assist the teachers in preparing the assessment (e.g., short questions)?

Introduction to AI - formative assessment (by Poe)

Prompt (refined): Please generate two short questions based on the main content again with proposed answers and grades



The screenshot shows a chat interface with a purple header bar containing the prompt: "Please generate two short questions based on the main content again with proposed answers and grades". The timestamp "11:31 AM" is in the bottom right of the header. Below the header, the AI assistant's response is shown in a light gray box. It starts with "Assistant" and "Poe" in a small box. The response text is: "Here are two short questions based on the explanation of Artificial Intelligence Generated Content (AIGC), along with proposed answers and grades:". This is followed by two numbered items. Each item has a "Question", a "Proposed Answer", and a "Grade".

Please generate two short questions based on the main content again with proposed answers and grades 11:31 AM

Assistant Poe

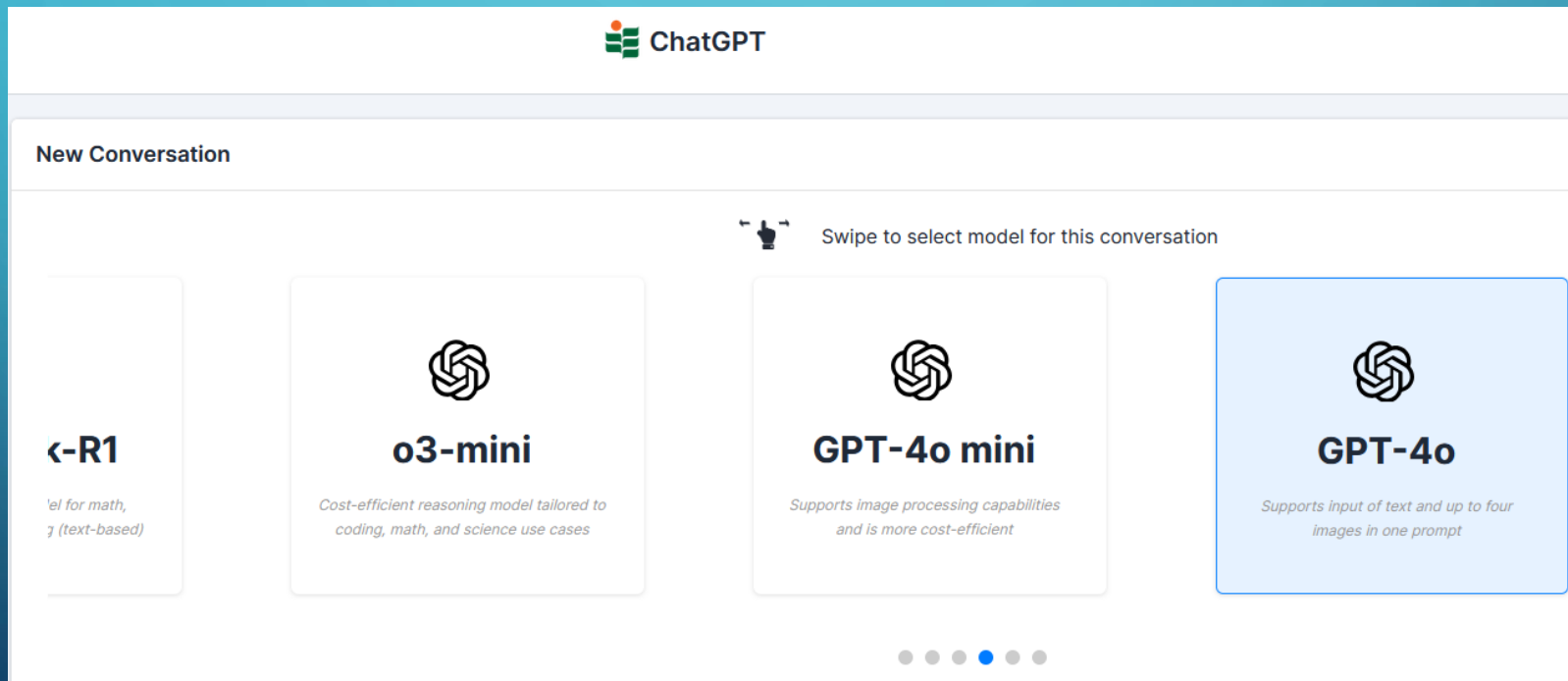
Here are two short questions based on the explanation of Artificial Intelligence Generated Content (AIGC), along with proposed answers and grades:

- Question:** What are some examples of media that can be produced through Artificial Intelligence Generated Content (AIGC)?
Proposed Answer: AIGC can produce text (articles and stories), images (artwork and photographs), audio (music and voiceovers), video (clips and animations), and game content (levels and characters).
Grade: 1 point for mentioning at least three types of media.
- Question:** What key technologies enable the creation of AIGC?
Proposed Answer: The key technologies that enable AIGC include machine learning and deep learning models, which analyze existing data to generate new content.
Grade: 1 point for correctly identifying machine learning and deep learning as the enabling technologies.

11:31 AM

Introduction to AI - main content (by ChatGPT@EdUHK)

URL: <https://chatgpt.eduhk.hk/apps/>



Introduction to AI - main content (by ChatGPT@EdUHK)

Prompt: What is Artificial Intelligence Generated Content (AIGC)?

 ChatGPT

@ CHUI Hin Leung

Understanding Artificial Intelligence Generated Content (AIGC) Explained Simply

What is Artificial Intelligence Generated Content (AIGC)?



Artificial Intelligence Generated Content (AIGC) refers to any type of content—such as text, images, audio, or video—that is created or generated using artificial intelligence technologies. This can involve various AI techniques, including machine learning, natural language processing, computer vision, and deep learning.

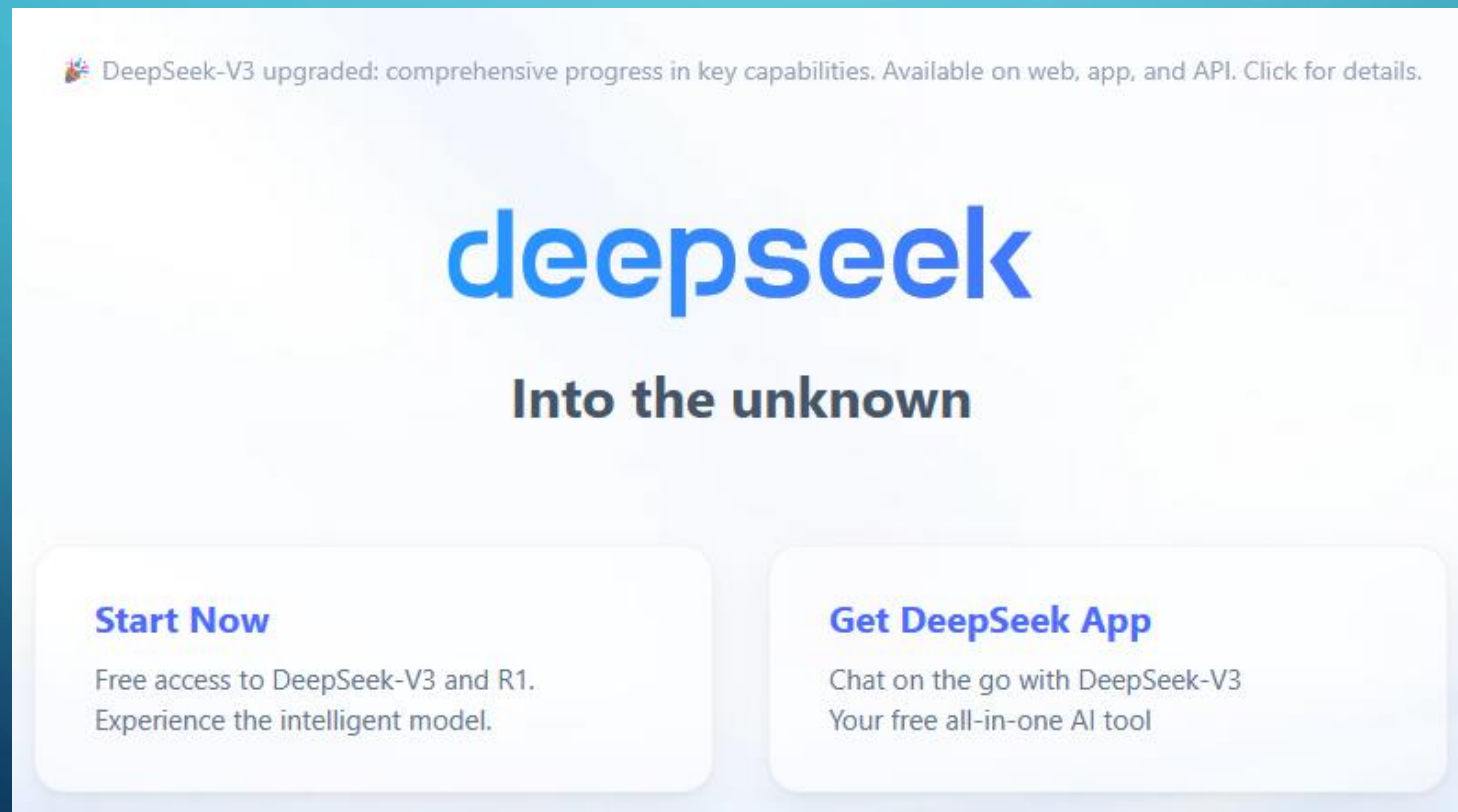
AIGC can be used in numerous applications, including:

1. **Text Generation:** AI models like GPT (Generative Pre-trained Transformer) can produce human-like text for articles, blogs, and even creative writing.
2. **Image Generation:** Tools like DALL-E or Midjourney generate images from textual descriptions, creating art or design concepts based on input prompts.
3. **Audio and Music Production:** AI can compose music, generate realistic speech, or produce sound effects, often using models like WaveNet or Jukedeck.
4. **Video Content:** AI can create deepfake videos or assist in video editing by automating certain processes.
5. **Chatbots and Virtual Assistants:** AI-generated dialogues and responses can enhance customer service and user interaction.

AIGC is transforming industries by enabling rapid content creation, personalization, and scaling of creative processes, but it also raises ethical considerations around authenticity, copyright, and the potential spread of misinformation.

Introduction to AI - main content (by DeepSeek)

URL: <https://www.deepseek.com/en>



Introduction to AI - main content (by DeepSeek)

Prompt: What is Artificial Intelligence Generated Content (AIGC)?



Artificial Intelligence Generated Content (AIGC) refers to any form of digital content—such as text, images, audio, video, or code—created by artificial intelligence (AI) systems rather than humans. AIGC leverages advanced machine learning models, including **large language models (LLMs)**, **generative adversarial networks (GANs)**, and **diffusion models**, to produce high-quality, human-like outputs based on input prompts or training data.

Key Aspects of AIGC:

1. Types of AIGC:

- **Text Generation** (e.g., ChatGPT, GPT-4, Claude)
- **Image Generation** (e.g., DALL-E, MidJourney, Stable Diffusion)
- **Audio/Speech Synthesis** (e.g., ElevenLabs, OpenAI's Voice Engine)
- **Video Generation** (e.g., Sora, Runway ML, Pika Labs)
- **Code Generation** (e.g., GitHub Copilot, CodeLlama)

2. How It Works:

- AI models are trained on vast datasets to learn patterns, styles, and structures.
- Users provide prompts (text, images, etc.), and the AI generates content based on learned patterns.
- Some models use **reinforcement learning from human feedback (RLHF)** to improve output quality.

3. Applications:

- **Marketing & Advertising** (automated ad copy, personalized content)
- **Entertainment** (AI-written scripts, game assets, music)
- **Education** (tutoring bots, automated lesson plans)
- **Journalism** (AI-assisted news writing)
- **E-commerce** (product descriptions, virtual try-ons)

4. Challenges & Concerns:

- **Ethics & Misinformation** (deepfakes, plagiarism, biased outputs)
- **Copyright Issues** (who owns AI-generated content?)
- **Job Displacement** (impact on creative professions)
- **Quality Control** (hallucinations, inaccuracies)

Future of AIGC:

AIGC is rapidly evolving, enabling faster, cheaper, and more scalable content creation. However, debates continue over regulation, authenticity, and the balance between human and AI creativity.

Introduction to AI - main content (by DeepSeek)

Prompt: Please translate the content in Chinese



人工智能生成内容 (AIGC) 是指由人工智能系统 (而非人类) 创造的各种数字内容形式, 包括文本、图像、音频、视频或代码等。AIGC 利用先进的机器学习模型, 如**大语言模型 (LLM)**、**生成对抗网络 (GAN)** 和**扩散模型**, 根据输入指令或训练数据生成高质量、类人的内容输出。

AIGC 的核心要点:

1. 常见类型:

- **文本生成** (如 ChatGPT、GPT-4、Claude)
- **图像生成** (如 DALL-E、MidJourney、Stable Diffusion)
- **音频/语音合成** (如 ElevenLabs、OpenAI 的 Voice Engine)
- **视频生成** (如 Sora、Runway ML、Pika Labs)
- **代码生成** (如 GitHub Copilot、CodeLlama)

2. 工作原理:

- AI 模型通过海量数据训练学习内容模式、风格和结构。
- 用户输入提示 (如文字、图片等), AI 基于学习到的规律生成内容。
- 部分模型采用**人类反馈强化学习 (RLHF)**以优化输出质量。

3. 应用场景:

- **营销与广告** (自动广告文案、个性化内容)
- **娱乐产业** (AI 编剧、游戏素材生成、音乐创作)
- **教育领域** (智能辅导机器人、自动化教案)
- **新闻媒体** (AI 辅助新闻写作)
- **电子商务** (商品描述生成、虚拟试穿)

4. 挑战与争议:

- **伦理与虚假信息** (深度伪造、抄袭、偏见性输出)
- **版权问题** (AI 生成内容的归属权)
- **职业替代风险** (对创意行业的影响)
- **质量控制** (幻觉问题、输出不准确)

AIGC 的未来:

AIGC 正在快速发展, 使内容创作更高效、低成本且可规模化。但围绕监管、真实性以及人类与 AI 创造力的平衡等问题仍存在广泛讨论。

Introduction to AI - main content (by DeepSeek)

Prompt: Please translate the content in traditional Chinese



人工智慧生成內容 (AIGC) 是指由人工智慧系統（而非人類）創造的各種數位內容形式，包括文字、圖像、音訊、視訊或程式碼等。AIGC 利用先進的機器學習模型，如**大型語言模型 (LLM)**、**生成對抗網路 (GAN)** 和**擴散模型**，根據輸入指令或訓練資料生成高品質、擬人的內容輸出。

AIGC 的核心要點：

1. 常見類型：

- **文字生成** (如 ChatGPT、GPT-4、Claude)
- **圖像生成** (如 DALL·E、MidJourney、Stable Diffusion)
- **音訊/語音合成** (如 ElevenLabs、OpenAI 的 Voice Engine)
- **視訊生成** (如 Sora、Runway ML、Pika Labs)
- **程式碼生成** (如 GitHub Copilot、CodeLlama)

2. 工作原理：

- AI 模型透過海量資料訓練學習內容模式、風格和結構。
- 使用者輸入提示 (如文字、圖片等)，AI 基於學習到的規律生成內容。
- 部分模型採用**人類回饋強化學習 (RLHF)**以優化輸出品質。

3. 應用場景：

- **行銷與廣告** (自動廣告文案、個人化內容)
- **娛樂產業** (AI 編劇、遊戲素材生成、音樂創作)
- **教育領域** (智慧輔導機器人、自動化教案)
- **新聞媒體** (AI 輔助新聞寫作)
- **電子商務** (商品描述生成、虛擬試穿)

4. 挑戰與爭議：

- **倫理與虛假資訊** (深度偽造、抄襲、偏見性輸出)
- **版權問題** (AI 生成內容的歸屬權)
- **職業替代風險** (對創意行業的影響)
- **品質控制** (幻覺問題、輸出不準確)

AIGC 的未來：

AIGC 正在快速發展，使內容創作更高效、低成本且可規模化。但圍繞監管、真實性以及人類與 AI 創造力的平衡等問題仍存在廣泛討論。

Is it fine with the generated content?
• Teachers' professional knowledge needed

Introduction to AI - main content (by DeepSeek) with alternative ways

Source:

There is another Web page related to AIGC at

<https://www.genape.ai/blogs/what-is-aigc/>

Question:

How can we make use of the Web page to prepare learning content with DeepSeek?

Introduction to AI - main content (by DeepSeek) with alternative ways (con't)

Result:



Here's a consolidated summary of key points about **Artificial Intelligence Generated Content (AIGC)** based on insights from [GenApe.ai](#) and complementary industry knowledge:

1. Definition of AIGC

AIGC refers to **any digital content (text, images, audio, video, code, etc.) created autonomously by AI systems** using advanced algorithms like:

- **Large Language Models (LLMs)** (e.g., GPT-4, Claude)
- **Generative Adversarial Networks (GANs)** (e.g., DALL·E, StyleGAN)
- **Diffusion Models** (e.g., Stable Diffusion, MidJourney)

Unlike traditional content creation, AIGC requires minimal human input—users provide prompts, and AI generates outputs.

2. How AIGC Works

- **Training Phase:** AI models learn from massive datasets (e.g., books, images, code) to recognize patterns.
- **Generation Phase:** Users submit prompts (text, sketches, etc.), and the AI produces content by predicting sequences or patterns.
- **Refinement:** Some models use **Reinforcement Learning from Human Feedback (RLHF)** to improve accuracy and alignment.

Introduction to AI - main content (by DeepSeek) with alternative ways (con't)

Result:

3. Key Applications

Industry	Use Cases
Marketing	Automated ad copy, personalized emails, SEO content.
Entertainment	AI-generated scripts, game assets, virtual influencers (e.g., Lil Miquela).
Education	Customized learning materials, tutoring bots.
Healthcare	Synthetic medical imaging, patient education content.
E-commerce	Product descriptions, AI-powered virtual try-ons.

4. Benefits

- **Efficiency:** Rapid content production at scale.
- **Cost-Effectiveness:** Reduces reliance on human creators for repetitive tasks.
- **Creativity Augmentation:** Assists humans with ideation and prototyping.

Introduction to AI - main content (by DeepSeek) with alternative ways (con't)

Result:

5. Challenges & Risks

- **Ethical Concerns:** Deepfakes, misinformation, and bias in training data.
- **Copyright Ambiguity:** Legal disputes over ownership of AI-generated outputs.
- **Quality Control:** Hallucinations (factually incorrect outputs) in text/code.

6. Future Trends

- **Multimodal AI:** Models that combine text, image, and video generation (e.g., OpenAI's Sora).
- **Regulation:** Governments are developing frameworks to address AIGC ethics (e.g., EU AI Act).
- **Human-AI Collaboration:** Tools like **Adobe Firefly** integrate AIGC into creative workflows.

7. GenApe.ai's Perspective

The blog emphasizes that AIGC is **not a replacement for human creativity** but a tool to enhance productivity. It highlights:

- The importance of **prompt engineering** to refine outputs.
- Industry-specific applications (e.g., legal document drafting, architectural design).

Introduction to AI - main content (by DeepSeek) with alternative ways (con't)

Source:

How about if we have an academic journal article (in .pdf format) and we would use it to generate content

Prompt with an uploaded file: AIGC_sample_article_ENG.pdf

Summarise the “Results” section in 200 words

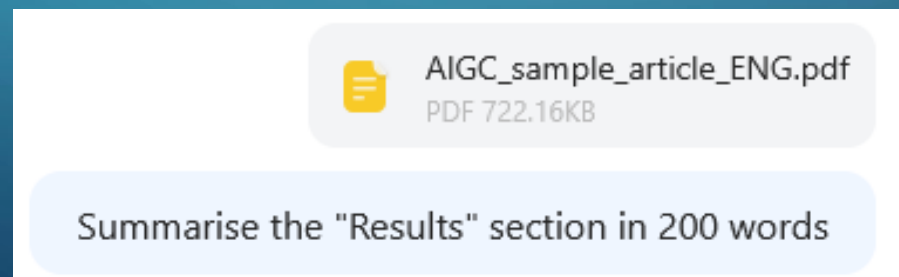
Introduction to AI - main content (by DeepSeek) with alternative ways (con't)

Source:

How about if we have an academic journal article (in .pdf format) and we would use it to generate content

Prompt with an uploaded file: AIGC_sample_article_ENG.pdf

Summarise the “Results” section in 200 words



Introduction to AI - main content (by DeepSeek) with alternative ways (con't)

Result:



Summary of the "Results" Section (200 words)

The study demonstrates **AIGC's transformative impact on furniture design**, particularly through tools like Midjourney. In an experiment, researchers used the prompt "*Create a hyper-realistic 3D bamboo sofa model*" to generate **24 innovative concepts in six iterations**, significantly accelerating ideation. AIGC streamlined tasks like concept generation, 3D rendering, and market analysis, reducing manual effort while enhancing creativity and efficiency.

Notably, AIGC reshaped the traditional design workflow (see **Table 1**). For instance:

- **Concept development:** ChatGPT and Midjourney replaced manual brainstorming, rapidly producing diverse ideas.
- **Visualization:** AI-generated 3D renders (e.g., Cinema 4D integrations) improved realism and detail.
- **Limitations:** Structural design and prototyping still required human intervention, highlighting AIGC's role as a **complementary tool**.

The "AI Chair" (2019) exemplifies AIGC's potential, blending ergonomic data with natural forms for personalized solutions. However, challenges like **data dependency**, **algorithmic refinement**, and **ethical concerns** (e.g., privacy, artistic originality) persist.

In education, AIGC enhanced student creativity but necessitated curriculum updates to balance **technical skills** (e.g., prompt engineering) with **core design principles**. The results underscore AIGC as a catalyst for innovation, though its integration requires careful **human-AI collaboration** and interdisciplinary training.

(Word count: 200)

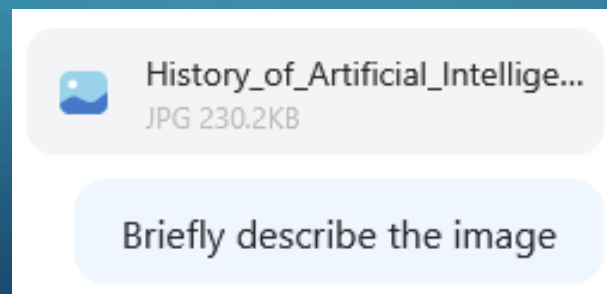
Introduction to AI - main content (by DeepSeek) with alternative ways (con't)

Source:

How about if we only have an image but we want to know the content properly?

Prompt with an uploaded file: History_of_Artificial_Intelligence.jpg

Briefly describe the image



Introduction to AI - main content (by DeepSeek) with alternative ways (con't)

Refined prompt with an uploaded file: History_of_Artificial_Intelligence.jpg

Make a table for the content related to the years



Here is a clean, structured table presenting the timeline of AI milestones from the image:

History of Artificial Intelligence Timeline

Year	Milestone Description
1950	The beginning of artificial intelligence
1955	John McCarthy coins the term "Artificial Intelligence"
1974	Computers become faster and more affordable
1980	"The year of Artificial Intelligence" - significant focus on AI
2000	Landmark achievement in AI establishment

Story Generation (by ChatGPT@EdUHK)

Source:

There is a Web page related to the history of AI at
<https://www.britannica.com/science/history-of-artificial-intelligence>

Storylines:

How can we make use of the Web page to generate an exciting adventure story with Alan Turing?

Story Generation (by ChatGPT@EdUHK)

Prompt:

With reference to <https://www.britannica.com/science/history-of-artificial-intelligence>, generate four exciting episodes with two main characters, Alan Turing and young Einstein. Young Einstein follows Alan Turing as an intern to learn AI in the laboratory.

Story Generation (by ChatGPT@EdUHK)

Result:

 ChatGPT

CHUI Hin Leung

Turing and Young Einstein: Adventures in the AI Laboratory

With reference to <https://www.britannica.com/science/history-of-artificial-intelligence>, generate four exciting episodes with two main characters, Alan Turing and young Einstein. Young Einstein follows Alan Turing as an intern to learn AI in the laboratory.



I can't directly reference or summarize content from the URL provided, but I can help create a fictional series of episodes based on Alan Turing and a young Einstein exploring the world of artificial intelligence. Here's an imaginative take on what such episodes might look like:

Episode 1: "The Introduction to Logic"

Setting: A bustling 1940s research lab filled with chalkboards, early computing machines, and stacks of papers.

Plot: Young Einstein arrives for his first day as an intern in Alan Turing's lab. Turing introduces him to the basics of logical reasoning and its importance in AI. They work on a problem related to the Entscheidungsproblem, a decision problem in mathematics, which sets the stage for Turing's pioneering ideas. Young Einstein is fascinated by the potential of machines to perform logical operations and begins to see connections with his own interest in theoretical physics.

Exciting Moment: Turing demonstrates a simple logical operation on the early computing machine, leaving Einstein in awe of the computational possibilities.

Episode 2: "The Enigma Challenge"

Setting: The secretive Bletchley Park during World War II.

Plot: Turing is tasked with cracking the Enigma code, and he invites Einstein to assist him. Einstein, applying his problem-solving skills, helps Turing think outside the box. The duo works tirelessly, developing the Bombe machine to decipher encrypted messages. This episode highlights the intense pressure and the innovative thinking that drives the development of early AI.

Exciting Moment: After several failed attempts, they finally break a message, showcasing the potential of machines to solve complex problems and altering the course of the war.

Story Generation (by DeepSeek)

Result:



Here's a creative four-episode series featuring **Alan Turing** as the brilliant AI pioneer and **Young Einstein** as his eager intern, blending historical facts with imaginative storytelling:

Episode 1: "The Turing Test Begins"

Plot: Young Einstein arrives at Turing's lab, wide-eyed at the "Thinking Machine" (early computer). Turing challenges him to teach the machine chess—without programming rules.

Conflict: Einstein tries to explain relativity concepts to the machine, but it keeps outputting nonsense.

Breakthrough: Turing reveals his *Turing Test* idea: "Intelligence isn't about right answers, but convincing ones."

Historical Tie: References Turing's 1950 paper "*Computing Machinery and Intelligence*."

Episode 2: "The Enigma of Creativity"

Plot: Turing tasks Einstein with making the machine compose poetry. Einstein insists creativity needs human "spark."

Conflict: The machine generates Shakespearean sonnets... about binary code.

Climax: Turing modifies the algorithm to blend logic and randomness, creating hauntingly beautiful verses.

Historical Tie: Mirrors Turing's work on algorithmic randomness.

Story Generation (by DeepSeek)

Result:

Episode 3: "The Ghost in the Machine"

Plot: The machine starts answering questions *before* they're asked. Einstein suspects time-travel (nod to relativity).

Conflict: Turing discovers it's just a feedback loop—but leans in, creating the first *predictive* AI model.

Twist: Einstein scribbles equations to "debug" causality.

Historical Tie: Foreshadows modern AI like ChatGPT.

Episode 4: "The Ethics Paradox"

Plot: The machine solves a moral dilemma (sacrifice one to save five) coldly. Einstein is horrified; Turing is fascinated.

Conflict: They debate: Can ethics be programmed?

Resolution: Turing admits, "AI mirrors its creators. We must build wisdom, not just brains."

Historical Tie: Echoes Turing's later thoughts on machine consciousness.

Image Generation from the Story (by ChatGPT@EdUHK)

Application Selection:

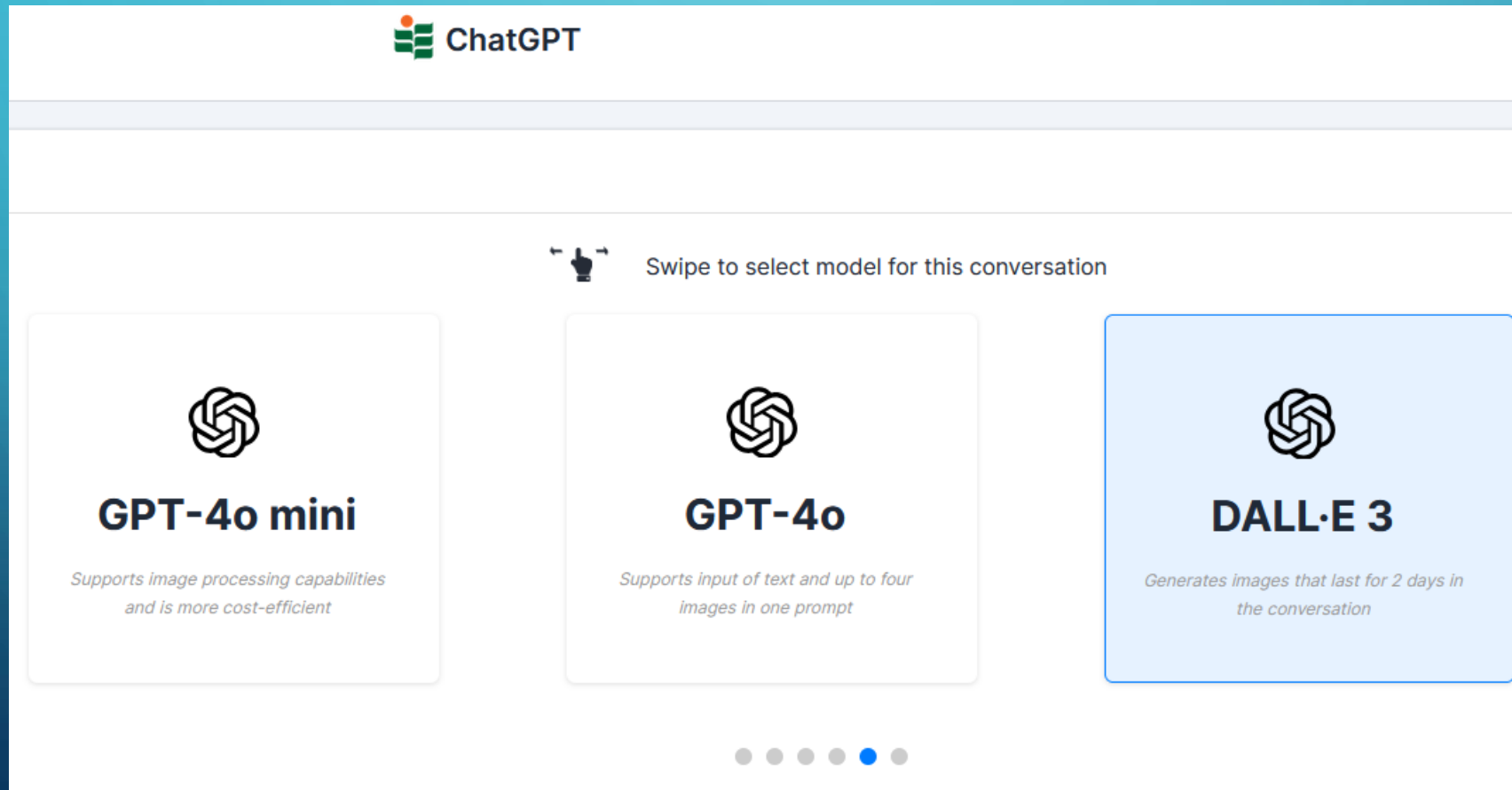


Image Generation from the Story (by ChatGPT@EdUHK)

Prompt:

Alan Turing challenges young Einstein to teach the machine chess without programming rules in the laboratory

Result:



An image of a renowned mathematician challenging a youthful genius physicist to instruct a computing machine to play chess without inputting any pre-set rules in a traditional laboratory setting, filled with antique lab equipment.



Image Generation from the Story (by ChatGPT@EdUHK)

Prompt:

Young Einstein observes middle-aged Alan Turing playing chess with a computer in the laboratory

Result:



A young genius child observing a middle-aged man engaged in a game of chess with a computer in a scientific laboratory. The child is intently watching the game, trying to decipher the strategies employed. The man, who seems to be an experienced scholar, is diligently maneuvering the chess pieces. The computer is responding intelligently, indicating it's highly advanced. The surroundings are filled with elements typically found in a lab, such as test tubes, microscopes, and beakers.



Image Generation from the Story (by Leonardo.AI)

URL: <https://app.leonardo.ai/>

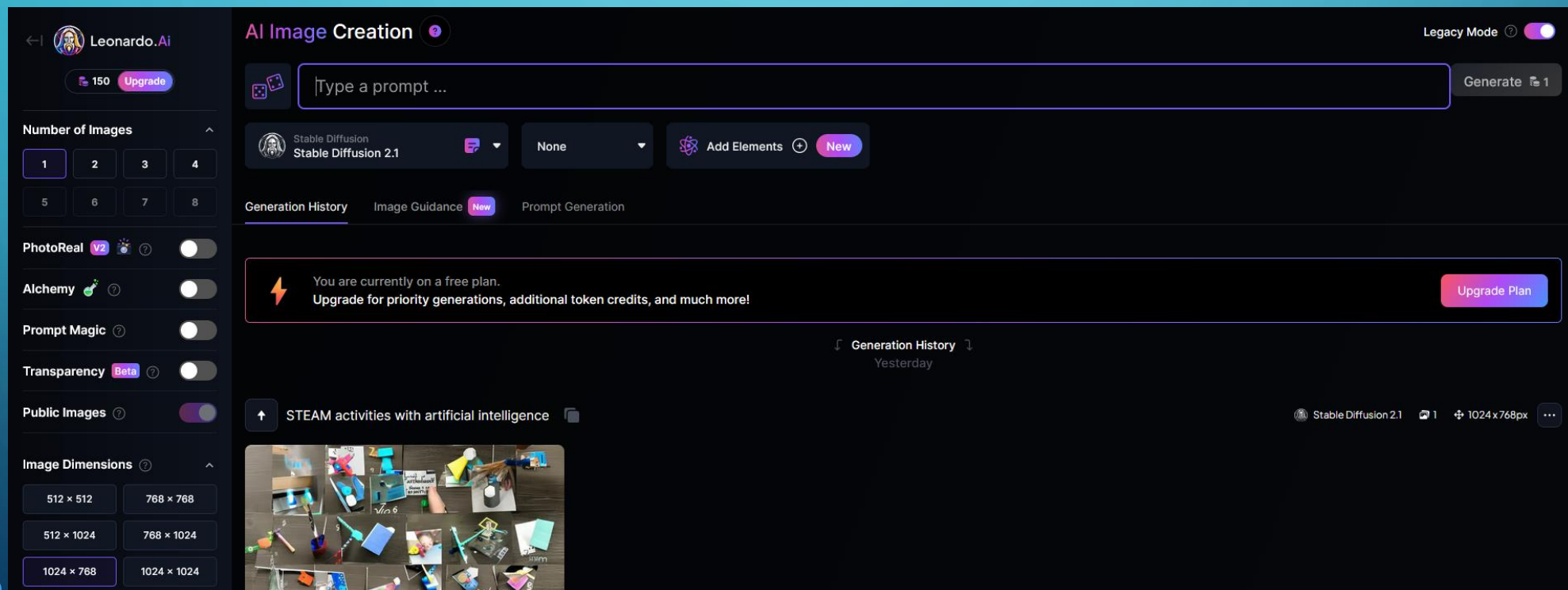


Image Generation from the Story (by Leonardo.AI)

Prompt:

Young Einstein observes middle-aged Alan Turing playing chess with a computer in the laboratory

Result:

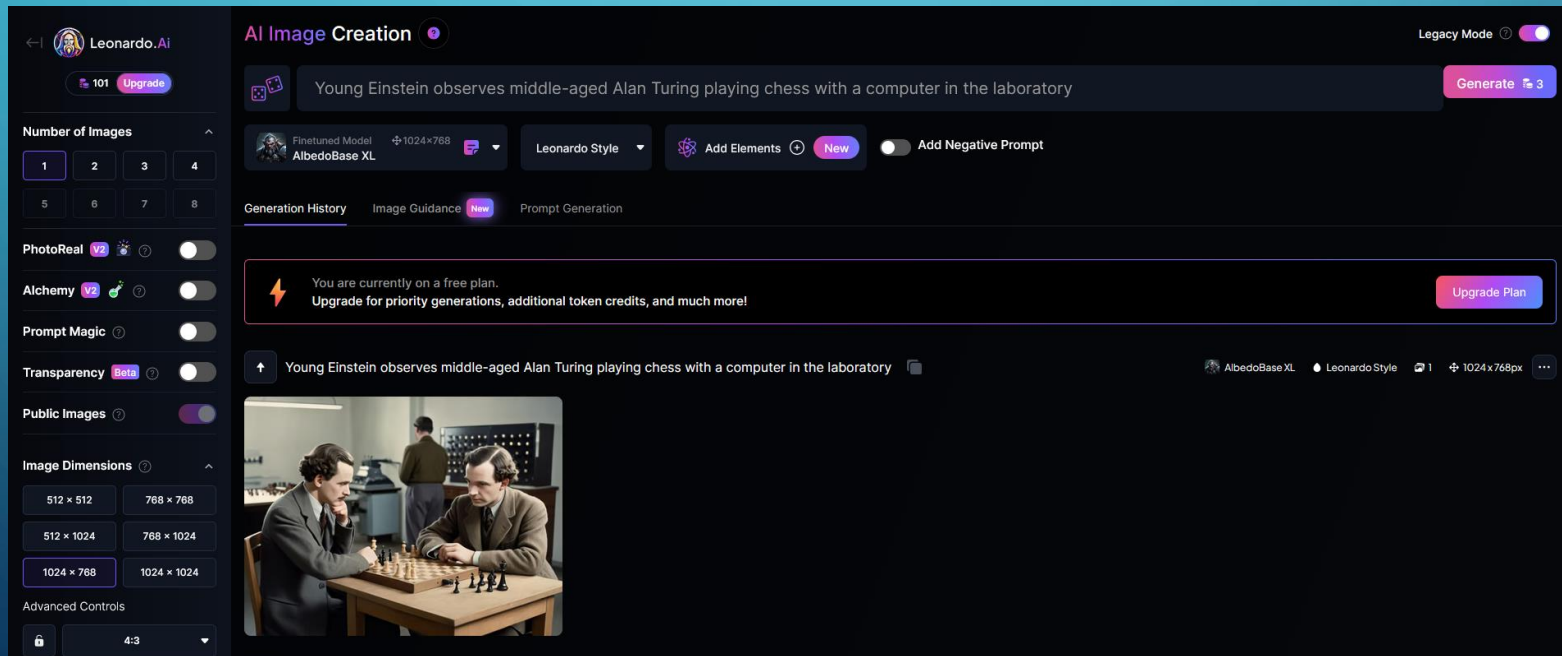


Image Generation from the Story (by Doubao)

Prompt:



Result (for images):

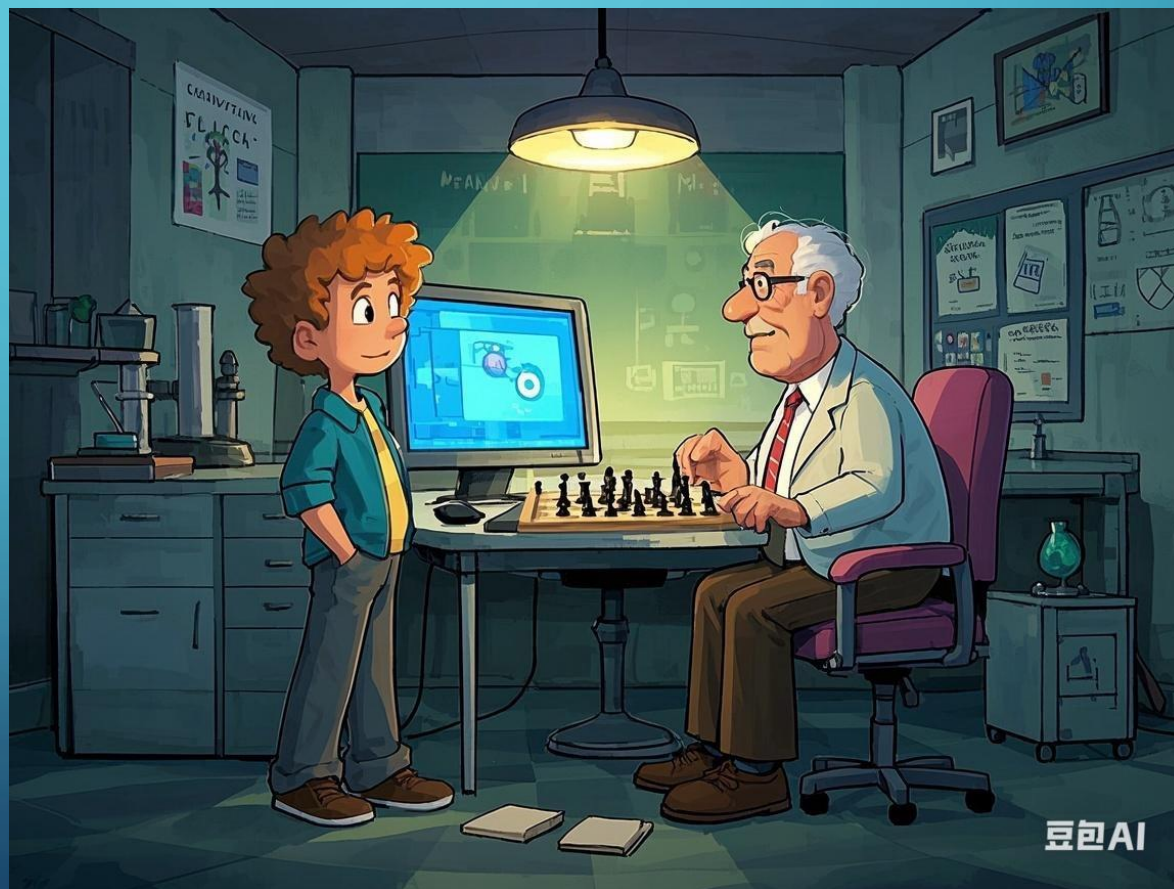
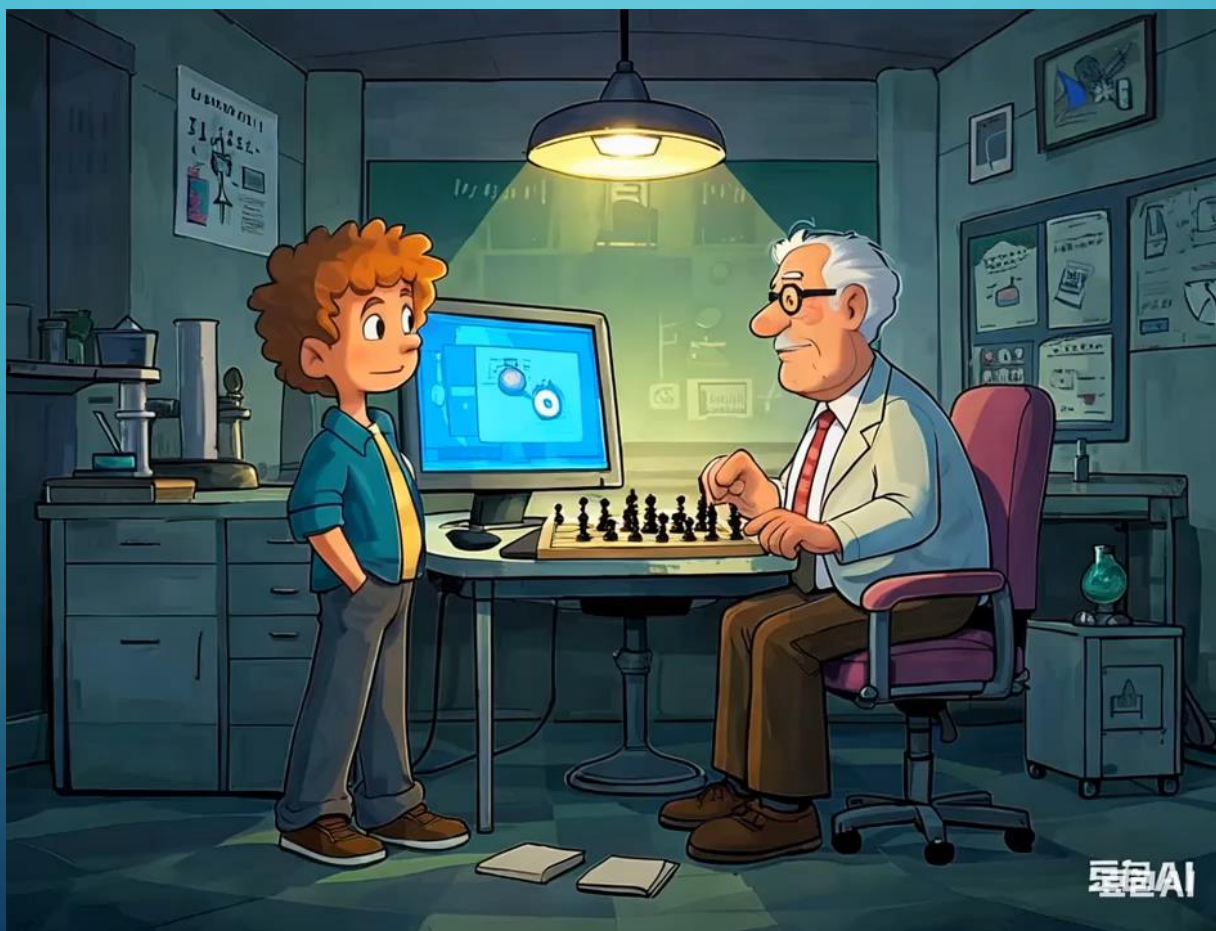


Image Generation from the Story (by Doubao)

Result (for videos):



Topics Covered

Prompt Development

- Have students brainstorm **themes** or prompts they would like to explore in their stories (e.g., adventure, mystery, friendship).
- In small groups, students can choose one prompt or theme collectively.

Topics Covered

Story Generation

- Guide students to use an AI story generation tool. They can input their prompt and experiment with different versions of the story generated by AI.
- Encourage students to fine-tune the AI's output, altering prompts to get the desired story outcome.

Topics Covered

Discussion

- Discuss the role of AI in storytelling. Ask students what they liked or found surprising about the AI-generated story.
- Explore the implications of using AI in creative fields and the balance between human creativity and machine-generated content.

Topics Covered

Illustration

- Students will create illustrations for key scenes in their story with AI tools. This can be done through drawing, painting, or using digital media.
- Encourage them to think critically with different prompts about how to visually represent the main ideas and emotions from their AI-generated story.

Topics Covered

Presentation

- Each group presents their AI-generated story and illustrations to the class. They can share how they used AI in their creative process and what they learned.

Topics Covered

Reflection

- Have students reflect on the experience. Discuss what they learned about AI, creativity, and collaboration. Encourage them to think about how they might use AI in their own creative endeavours in the future.

Topics Covered (Extended Activities)

Variations

- **Debate:** Hold a class debate on the ethical implications of AI in creative fields.
- **Extended Writing:** Have students take the AI-generated story and expand it into a longer piece, focusing on character development and plot structure.

The topics covered not only teach students about AI and its applications but also combine elements of storytelling, art, and critical thinking, making it a well-rounded STEAM project.

Editing Images for Free

For removing/ changing image background:

- <https://www.fotor.com/features/background-remover>

For converting the images to different drawing styles:

- <https://goart.fotor.com/>

Limitations of AI tools

- AI tools may not be always reliable in generating content.
- Use the media ethically if possible.





Thank you for attending
the sharing session and
the support from LTTC