## Using Generative AI Tools

Welcome to the tutorial on free generative AI tools! In this guide, we'll explore a variety of tools that allow you to generate text, music, images, and videos for free. These tools are perfect for students and enthusiasts who want to experiment with generative AI without breaking the bank.

1. **Video Generation: Pictory.ai**


Pictory.ai.docx

**Description:** Pictory.ai is an innovative platform that uses AI technology to generate engaging video content. It offers a range of features, including video editing tools, visual effects, and automated video creation based on user input.

**How to Use:**

1. Sign up for a free account on the Pictory.ai website.
2. Choose the type of video you want to create, such as promotional videos, social media content, or animated presentations.
3. Input your preferences, including video style, duration, and content.
4. Pictory.ai will generate a customized video based on your input, using AI to optimize visual elements and transitions.
5. Preview the generated video and make any necessary edits using the built-in editing tools.
6. Once you're satisfied with the final result, you can download the video for sharing or further distribution.

2. **Image Generation: DALL-E**


DALL-E.docx

**Description:** DALL-E is an advanced AI model developed by OpenAI that generates high-quality images from textual descriptions. It can create images of objects, scenes, and concepts that don't exist in the real world based on the input provided by the user.

**How to Use:**

1. Access the DALL-E interface through the OpenAI website or API.
2. Input a textual description of the image you want to generate, including details such as objects, colors, and compositions.
3. DALL-E will analyze the input and generate a corresponding image that matches the description.
4. Review the generated image and provide feedback or make adjustments as needed.
5. Once you're satisfied with the result, you can download the image for use in your projects or share it with others.

3. **Text Generation:**

- **ChatGPT:**


ChatGPT.docx

**Description:** ChatGPT is an AI-powered text generation model that can produce human-like text based on user input. It uses the GPT (Generative Pre-trained Transformer) architecture to understand and generate text in a conversational manner.

**How to Use:**

1. Visit the ChatGPT website or access the platform through the provided link.
2. You will be presented with a text input box where you can type your prompt or question.
3. Once you've entered your prompt, press the "Generate Response" button or hit enter.
4. ChatGPT will analyze your input and generate a human-like response based on the context provided.
5. Review the generated response and continue the conversation by entering additional prompts or questions.

- **Bing**:


Bing AI.docx

**Description:** Bing is a search engine developed by Microsoft that provides users with access to a vast array of web content, including websites, images, videos, news articles, and more. It utilizes advanced algorithms to deliver relevant search results based on user queries.

**How to Use:**

1. Open your web browser and navigate to the Bing search engine website or use the provided link.
2. You will encounter a search bar where you can enter your query or keywords.
3. Type your search query into the search bar and press Enter or click on the search icon.
4. Bing will process your query and display a list of search results related to your topic, including web pages, images, videos, news articles, and more.
5. Explore the search results by clicking on the links or media thumbnails to access relevant content.
6. Refine your search using filters or advanced search options available on the Bing search engine interface to narrow down results based on specific criteria.
7. Utilize additional features such as image and video search, news aggregation, maps, weather forecasts, and more, accessible through the various tabs or sections provided on the Bing homepage.

- **Gemini**:

Google Gemini.docx

**Description**: Google Gemini is a feature within the Google Search engine that provides users with suggestions and prompts to refine their search queries and discover new information. It uses natural language processing and machine learning algorithms to understand user intent and offer contextually relevant suggestions.

**How to Use:**

1. Open your web browser and navigate to the Google Search engine website or use the provided link.
2. You will encounter a search bar where you can enter your query or keywords.
3. Begin typing your search query into the search bar.
4. As you type, Google Gemini will display autocomplete suggestions and related search queries based on popular trends and user behavior.
5. Review the autocomplete suggestions and select one that closely matches your intended search query by clicking on it or pressing Enter to view the search results.
6. Alternatively, continue typing your search query to refine it further and receive more specific autocomplete suggestions from Google Gemini.
7. Explore the search results provided by Google based on your refined query to find relevant information, websites, images, videos, and more.
8. Use additional features such as filters, advanced search operators, and search settings available on the Google Search interface to customize and refine your search experience further.

4. Claude.ai:

Claude.ai.docx

Claude is an AI assistant created by Anthropic to be helpful, harmless, and honest. You can ask Claude questions and have conversations to get information or advice.

Go to anthropic.com and click on "Try Claude" to access the chatbot. You can use Claude directly in your web browser without needing to create an account.

The Claude interface has a chat window where you can type messages to interact with Claude. Start by saying "Hello" and Claude will introduce itself.

You can have a natural conversation by asking questions or making statements, such as:

- What's the weather today?
- What are some good exercises for back pain?

- Claude, please explain machine learning.

Claude will try to understand your messages and respond helpfully with the information you asked for or continue the conversation.

Since Claude is an AI assistant, it learns and improves from feedback. If the responses are not relevant or accurate, you can click the thumbs down icon. For good responses, give a thumbs up. You can also expand on what exactly you liked or didn't like about the response - this will further train Claude's language capabilities.

Feel free to explore various topics and question types to see Claude's capabilities. For example, ask for advice, explanations of concepts, calculations, recommendations, and more. **Note any areas or questions that seem too difficult for the current abilities and capture them in your writeup.**

These free generative AI tools provide exciting opportunities for creativity and experimentation across various domains. Note that new generative AI tools are emerging daily. Explore these tools using your preferred search engine, or with a generative tool!

### Getting Started with Creative Activities

As you are learning how to use these generative AI tools, try some fun, easy activities to familiarize yourself with generating text, images and music without being overwhelmed. Build up your skills incrementally:

Text Generation Activities:

Text Generation Activities.docx

- "Write a silly poem" - For text generators like ChatGPT, prompt them to create a silly nonsensical poem with 4 lines and words that rhyme. Enjoy the bizarre word combinations!
- "Imagine a fairy tale character" - Describe a fanciful fairy tale character including details like their name, what magical power they have, what they wear, etc. Generate a paragraph summarizing your imagined character.

Image Generation Activities:

Image Generation Activities.docx

- "Visualize a cute monster" - Use a tool like DALL-E to generate an image of an endearing, friendly looking monster. Try creating monsters based on different colors, textures, environments.

- "Design a fairy house" - Prompt the AI to create illustrations of a cozy fairy house, perhaps made out of a mushroom or in a flower.

Audio Generation Activities:


- "Create upbeat background music" - Use Riffusion to generate a 60 second upbeat, energetic background music track for something like a YouTube video. Experiment with different instruments and tempos.
- "Generate sound effects" - Prompt Riffusion to produce fun cartoon-like sound effects you could use when editing a silly video. Explore different sounds.

Video Generation Activities:


- "Produce a 10 second animated logo intro" - Use a tool like Pictory to create a flashy 10 second animated video clip introducing your company, brand or product.
- "Make a talking animal video" - Try generating a short 5 second video of a talking animal like a dog or cat. Amuse yourself with the wacky animated footage!

Rate the tools:

**Text Generation Activities:**

1. **"Write a silly poem"**
    - Ease of use: [Insert Rating from 1 to 5]
    - Creativity of generated text: [Insert Rating from 1 to 5]
    - Ability to customize output: [Insert Rating from 1 to 5]
2. **"Imagine a fairy tale character"**
    - Accuracy in understanding prompts: [Insert Rating from 1 to 5]
    - Variation in generated characters: [Insert Rating from 1 to 5]
    - Overall quality of generated text: [Insert Rating from 1 to 5]

**Image Generation Activities:**

3. **"Visualize a cute monster"**
    - Diversity in generated images: [Insert Rating from 1 to 5]
    - Quality of generated images: [Insert Rating from 1 to 5]

- Ability to specify image attributes: [Insert Rating from 1 to 5]

4. **"Design a fairy house"**
    - Customization options available: [Insert Rating from 1 to 5]
    - Realism of generated illustrations: [Insert Rating from 1 to 5]
    - Flexibility in design choices: [Insert Rating from 1 to 5]

**Audio Generation Activities:**

5. **"Create upbeat background music"**
    - Variety in music styles available: [Insert Rating from 1 to 5]
    - Ease of adjusting parameters: [Insert Rating from 1 to 5]
    - Quality of generated music: [Insert Rating from 1 to 5]
6. **"Generate sound effects"**
    - Range of available sound effects: [Insert Rating from 1 to 5]
    - Customization options for sound effects: [Insert Rating from 1 to 5]
    - Realism and suitability of sound effects: [Insert Rating from 1 to 5]

**Video Generation Activities:**

7. **"Produce a 10-second animated logo intro"**
    - Templates and customization options available: [Insert Rating from 1 to 5]
    - Quality of animations: [Insert Rating from 1 to 5]
    - Rendering speed and efficiency: [Insert Rating from 1 to 5]
8. **"Make a talking animal video"**
    - Ease of generating animated videos: [Insert Rating from 1 to 5]
    - Quality of animation and lip-syncing: [Insert Rating from 1 to 5]
    - Variety in available characters and scenes: [Insert Rating from 1 to 5]

## Working with Text Formatting

When using text generating tools like ChatGPT, the responses you get may contain special formatting like bold, italics, lists, etc. However this formatting can be lost when you copy the text outside the app.

Markdown Formatting Activity.c

This happens because the text is often formatted using "markup" languages like Markdown or HTML, which use special syntax to denote formatting. For example **bold text** or **bold text**.

Before pasting generated text into other applications like Word or Google Docs, you may want to preserve the formatting. To do this, use a free online markdown editor tool first:

- Dillinger.io
- Markdown Live Preview

These tools allow you to copy-paste your generated text, preview how the formatting looks, and then export it into a format like Word that retains the styling.

For example, in Dillinger you can paste the ChatGPT text, then export it as a Word .docx file. Opening this file in Word will show the bold, lists, and other formatting intact.

Spending this extra minute preserves the special formatting applied by the text generator, allowing you to maximize utility of the AI-generated content.

## Activity: Self-Paced Exploration - Retaining Text Formatting

1. Introduction:
    - Read the provided information about retaining text formatting when using text generating tools like ChatGPT.
2. Exploration:
    - Explore the provided free online Markdown editors: Dillinger.io and Markdown Live Preview.
    - Copy-paste text generated by ChatGPT into the Markdown editor of your choice.
3. Practice:
    - Experiment with applying and previewing different formatting options using Markdown syntax.
    - Try applying elements such as **bold**, *italics*, lists, and any other formatting features you encounter in the generated text.
4. Export and Review:
    - Export the formatted text from the Markdown editor into a format like Word or PDF.

- Open the exported file in Word or another application to review how the formatting has been preserved.
- Note any differences or challenges encountered during the export process.

5. Reflection:
    - Reflect on the experience and the effectiveness of using Markdown editors to retain text formatting.
    - Consider how this skill can be beneficial when working with AI-generated content in real-world scenarios.
6. Extension (Optional):
    - Challenge yourself to explore more advanced Markdown syntax, such as tables, code blocks, or headers.
    - Research and experiment with additional features offered by Markdown editors, such as collaborative editing or version control.
7. Conclusion:
    - Summarize your findings and insights from the self-paced exploration activity.
    - Consider sharing your experiences with peers or seeking feedback from instructors if desired.

Note: This activity is designed for self-paced exploration, allowing you to learn and practice at your own pace. Take your time to experiment with different formatting options and familiarize yourself with Markdown editors.

### Learning to Code with AI

Python Coding Practice.docx

As a beginning coder, you can use generative AI to help write basic code and build your programming skills. Let's try a fun exercise:

1. Go to a site like ChatGPT, Claude, or Anthropic.
2. Prompt the AI assistant to "generate code to print 'Hello World' in Python"
3. The AI will provide Python code similar to:

```python
print("Hello World")
```

4. Copy this starter code and paste it into an online Python code editor like Repl.it
5. Run the code and see "Hello World" outputted!

Now try customizing your program:

"Generate code to print a random name and age in Python"

The AI may provide:

```python
import random

name = ["Alice", "Bob", "Charlie"]
age = random.randint(18, 25)

print(random.choice(name) + " is " + str(age) + " years old")
```

Edit and run the code to see it print randomized outputs.

By prompting AI to generate code examples around simple goals, students like yourself can easily obtain workable starter code to then modify. This allows you to build coding knowledge with less frustration.

So, use your new AI coding assistant to continue practicing foundational programming skills!

## Using AI Responsibly and Creatively (as discussed in class)

Using AI Responsibly and Cre

1. Ethics and Responsible Usage
   - Generative AI has risks around bias, misinformation, and plagiarism. Be cautious of limitations.
   - Follow safety best practices - avoid offensive content, fact check quality, cite sources.

- Learn more about AI ethics from resources like the Institute for Ethical AI.

2. Understanding Content Authenticity
    - Look for logical flaws, odd phrasings to identify if text may be AI-generated.
    - Double check accuracy of content through reliable sources.
    - Properly credit AI systems used to create media and ask permission before publishing.
3. Using AI Creatively
    - Craft thoughtful prompts with helpful details, but leave room for novelty.
    - Combine AI content with your own writing, art and music for innovative co-creation.
    - Apply generators inventively for business, art, music etc.
4. Customizing and Improving Tools
    - Fine-tune settings on systems you use regularly for better relevancy.
    - Supplement training data to adapt models to a niche field.
    - Upvote useful responses in AI apps so they improve over time.
5. Interacting Safely
    - Avoid explicit, dangerous, illegal or offensive media generation.
    - Report policy violations to ensure safe responsible ecosystem.
    - Practice healthy usage habits to mitigate overuse risks.

Covering ethical, creative, and safety practices makes for well-rounded learning - unlocking AI potential while conscientiously assessing impacts on society.

## Instructions for Students

Utilize these prompts to guide your exploration and interaction with the AI tool. Feel free to expand upon the prompts with additional questions or seek further clarification based on the AI's responses. Record the AI's responses, your observations, and any supplementary questions or insights that arise during your exploration. This record will form the basis of your reflective essay. Engage critically with the material, comparing the AI-generated responses with scholarly sources, and noting discrepancies or new perspectives that emerge.

### Principles for Responsible AI Integration:

1. Transparency in AI Use:

- It's important for you to transparently document the use of any AI tools in your coursework. This means providing detailed descriptions of the AI processes you've used, the sources of data these tools relied on, and how much the AI contributed to your work.

2. Critical Analysis:
    - Before including any information generated by AI tools in your submissions, it's crucial to critically analyze and evaluate it. Don't accept AI-generated content as fact without questioning its accuracy or relevance. Make sure to integrate it with your own analysis and insights.

3. Limitations on AI Role:
    - Remember that the role of AI in your coursework should be limited to auxiliary aspects. Clearly define where and how you've used AI, ensuring that the core ideas, critical thinking, and conceptual developments in your work are your own original contributions.

4. Student Reflection:
    - As part of your assignments, provide a reflective account of how you've ethically utilized AI to enhance your educational experience. Focus on how AI has complemented your efforts and learning, rather than replacing them entirely.