
Csc466 Assignment: AI and Generative Art

This assignment is one of the enrichment activities intended, along with the AI Text Mining activities, to collectively constitute a modest subsymbolic complement to the symbolic research project component of the course.

Please do each of the following tasks, in sequence.

The Reading Part

Read the following two short articles, in order to situate your thinking for the tasks to come:

1. AI can now create images out of thin air. See how it works. ((The Washington Post))
<https://apple.news/AOb9g1wysR3CQ1WQNJmXaJw>
2. “It’s the opposite of art”: why illustrators are furious about AI. ((The Guardian))
<https://apple.news/AxAYFfWT8Q1Wa2qHZb3we9g>

The Generative Art Part

Using one, or two, of the “AI image generator” programs that produce an image from a phrase, please generate two images, one image subject to a constraint that I will impose, and one “wild card” image that you are free to help conjure by means of whatever phrase you like.

First Image Generation Task

I am incorporating following BNF grammar for a little language that I am calling “Little English Language” (LEL) into one of my programming languages lectures this semester:

1. $\langle S \rangle ::= \langle NP \rangle \langle V \rangle \langle NP \rangle$
2. $\langle NP \rangle ::= \langle A \rangle \langle N \rangle$
3. $\langle NP \rangle ::= \langle A \rangle \langle Q \rangle \langle N \rangle$
4. $\langle V \rangle ::= \text{KISSED} \mid \text{HUGGED} \mid \text{CHASED} \mid \text{PROTECTED} \mid \text{HORNSWOGGLED}$
5. $\langle N \rangle ::= \text{ROBOT} \mid \text{BABY} \mid \text{TODDLER} \mid \text{HAT} \mid \text{DOG}$
6. $\langle Q \rangle ::= \text{HOWLING} \mid \text{TALKING} \mid \text{DANCING} \mid \text{BARKING} \mid \text{HAPPY} \mid \text{LAUGHING}$

7. $\langle A \rangle ::= A \mid \text{THE}$

Please select one sentence in the language defined by this grammar, and use it to generate an image with one of the AI image generating programs.

For the part of your solution document that represents this task:

1. Write down the sentence in LEL that you determine to present to some AI image generator.
2. Incorporate the image that the AI image generator produced from the given sentence.
3. Include a short paragraph that (1) identifies the AI image generation system that you used, (2) articulates the steps that you engaged in with the system to get it to generate the image, and (3) presents a short “critique” of the image that it generated. For this last part, do your best to provide an authentic **reaction** to the image that the system generated based on the phrase that you gave it, with at least some elaboration.

Second Image Generation Task

Think up a phrase that you think might make for some fun if presented to an AI image generator. Then, present your sentence to an AI image generator!

For the part of your solution document that represents this task:

1. Write down the sentence that you presented to some AI image generator.
2. Incorporate the image that the AI image generator produced from the given sentence.
3. Include a short paragraph that (1) identifies the AI image generation system that you used, (2) articulates the steps that you engaged in with the system to get it to generate the image, and (3) presents a short “critique” of the image that it generated. For this last part, do your best to provide an authentic **reaction** to the image that the system generated based on the phrase that you gave it, with at least some elaboration.

The Reflection Part

Write a short two paragraph text about AI image generation in which you say something positive about AI image generation in the first paragraph, and something negative about AI image generation in the second paragraph. Do your best, in each paragraph, to say something meaningful from a cognitive, or cultural, or a computational perspective.

The Document Creation/Posting Part

Create one PDF document containing:

1. A title
2. An abstract
3. The part (with three subparts) for the first image
4. The part (with three subparts) for the second image
5. The “big picture” reflection on AI image generation (the positive and the negative)

Post your work to your web work site by Thursday, February 16, 2023.