

Top Text

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Abstract

This is the abstract.

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1 Introduction

During the year of 2022 there has been a massive increase in the popularity of text-to-image generators, an artificial intelligence technique that translates human text into a computer-generated image. This has led to many different generators being made, which on the one hand has given artist, a person that uses a text-to-image generator to create an image with text, many more options but has also made the landscape difficult to navigate. These new options are great for the field as a whole, however it also means that artists who are not experienced may struggle to find the generator which suits their needs. This paper makes an effort to try and alleviate this problem by picking four of the most used text-to-image generators and comparing them based on their accuracy so we can help give some perspective on which text-to-image generator is best for them.

A research paper was published on the nineteenth of February 2020 called: "A survey and taxonomy of adversarial neural networks for text-to-image synthesis" that makes use of surveys to compare models for text-to-image generations. This paper aimed to show which text-to-image technique yielded the most realistic results in a wide variety of categories. One issue with this paper was that it was written before the explosion of consumer text-to-image generators happened, which is why we will instead focus on modern consumer-grade generators which are available today.

Our goal during the course of this research paper is to find out what is the best text-to-image generator, out of the four we chose, for artists who are experienced as well as artists who are not experienced in artificial art generation.

The best text-to-image generator out of the four we chose will be stable diffusion. This is due to the fact that stable diffusion offers its users more tools and techniques like inpainting (allows you to regenerate a specific area of an image without regenerating the whole image) which allows the user more freedom to fine-tune their result. Given enough time this will yield a more accurate result.

2 Methods

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3 Results

4 Discussion