COMPUTER GENERATED CONTENT

By: Aidan Curley

TABLE OF CONTENTS

01 Problem Statement

02 ContentGen

03 PersonGen & BlogGen

04 Ethical Concerns

05 Conclusions & Future Steps

06 Q&A

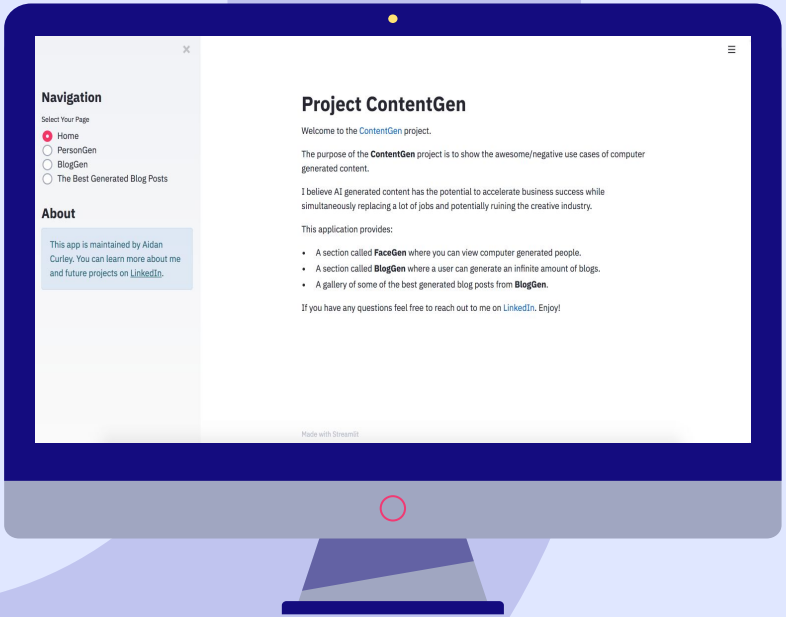
01 Problem Statement

According to HubSpot, companies spend 46% of their budget on content creation (HubSpot, 2017) and 24% of marketers plan on increasing their investment in content marketing in 2020 (HubSpot, 2020). Content creation is obviously a very important aspect of the overall marketing strategy for a company. There are usually a lot of moving pieces that go into creating an effective content marketing plan such as photographers, editors, videographers, models, writers, etc.

01 Problem Statement

Using machine learning can we streamline and automate the content generation process and is it ethical to do so?

Introducing ContentGen



Application: ContentGen

02 ContentGen

01

PersonGen

Face generation

02

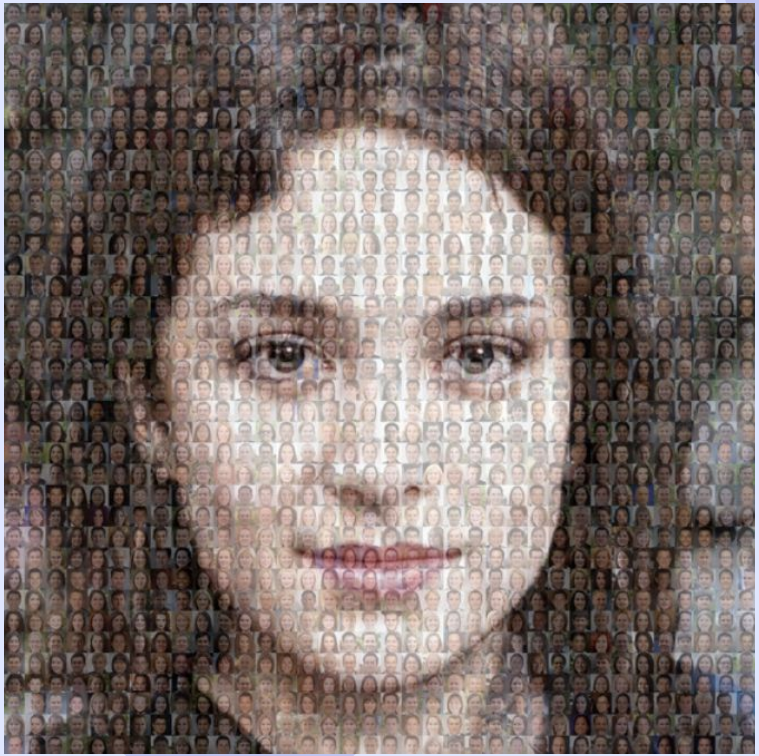
BlogGen

Blog post generator that can generate an infinite amount of blogs.

01 PersonGen

Using only 263 images I trained StyleGan2 for 19 hours and I was able to generate photorealistic images like the one on the right.

PersonGen



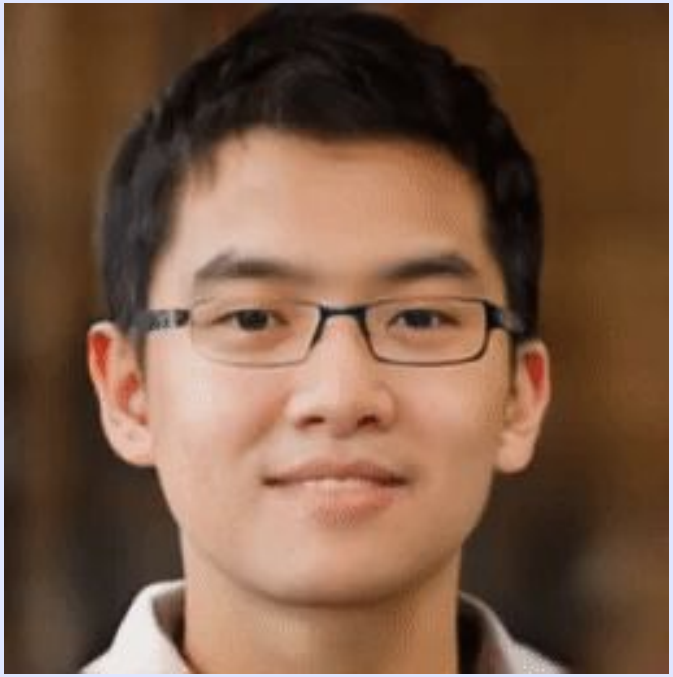
In under 3 hours I was able to generate 15,000 computer generated images.

Latent Walking

Exploring the latent space of a GAN can allow us to edit the features of the image such as glasses or no glasses, female or male, long hair or bangs, etc.

Talking GANs

Talking GANs



Influencer Generation

This video currently has 472 million views on TikTok. Can we replicate this with one of our fake “influencers?”

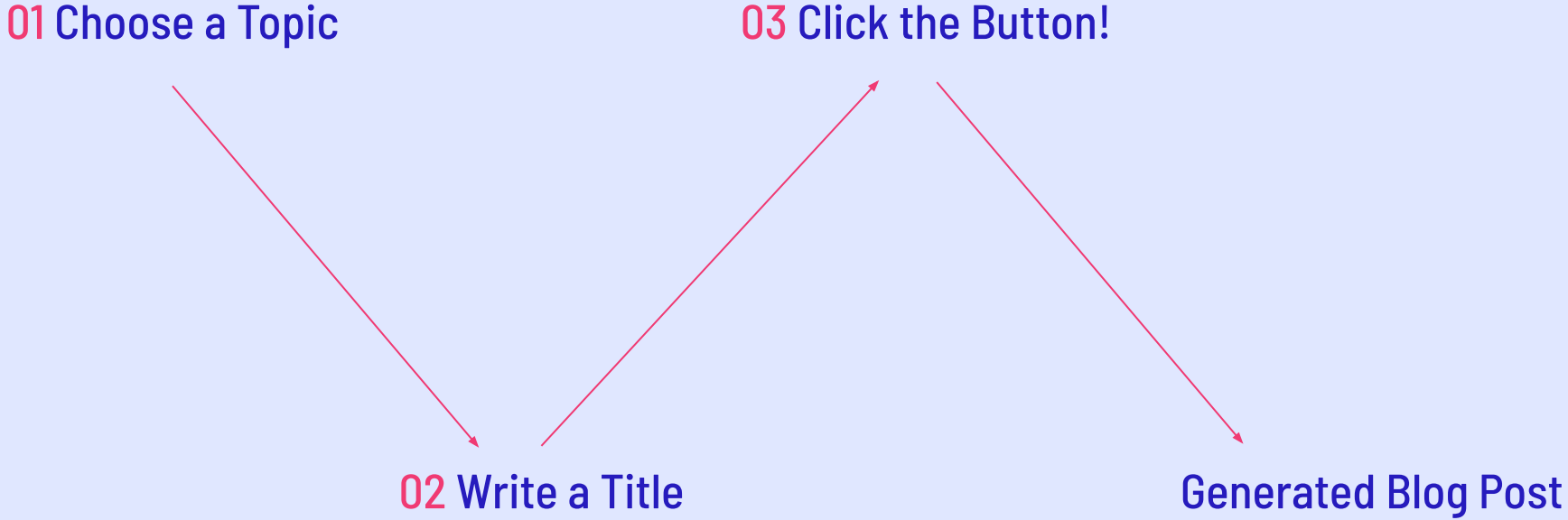
Influencer Generation

Of course we can!

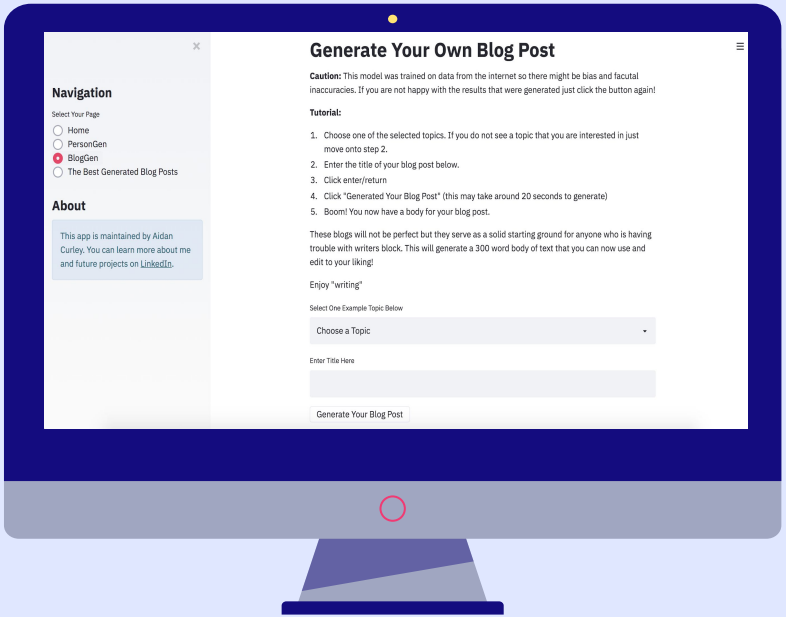
02 BlogGen

According to Hubspot, "About 64% of marketers actively invest time in search engine optimization (SEO)."

BlogGen Process



BlogGen Demo



[Start Generating!]

BlogGen

BlogGen was created because from personal experience it is difficult to overcome writer's block. BlogGen can help solve that issue. If writer’s can overcome writer’s block with this tool and publish content quicker, I label this as a success.

Concerns & Ethics

01 PersonGen

- Impersentation.
- Job loss (photographers, videographers, editors, models, etc.)
- Deception.
- False testimonials.
- Inauthentic branding.

02 BlogGen

- Job loss (writer's).
- Lower quality content
- Inaccurate information

Future Steps

BodyGen

GAN generated bodies.

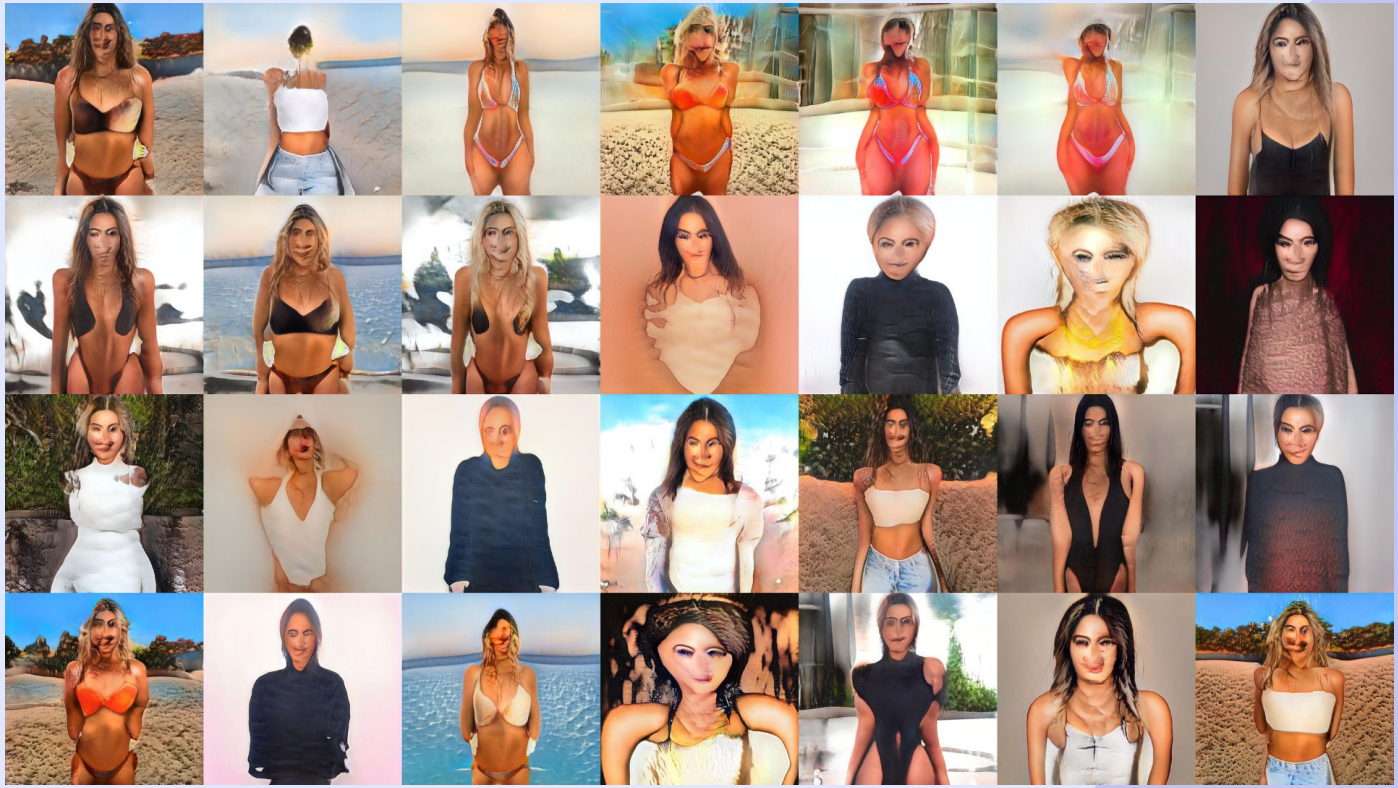
GPT-3

GPT-3 blog post generator

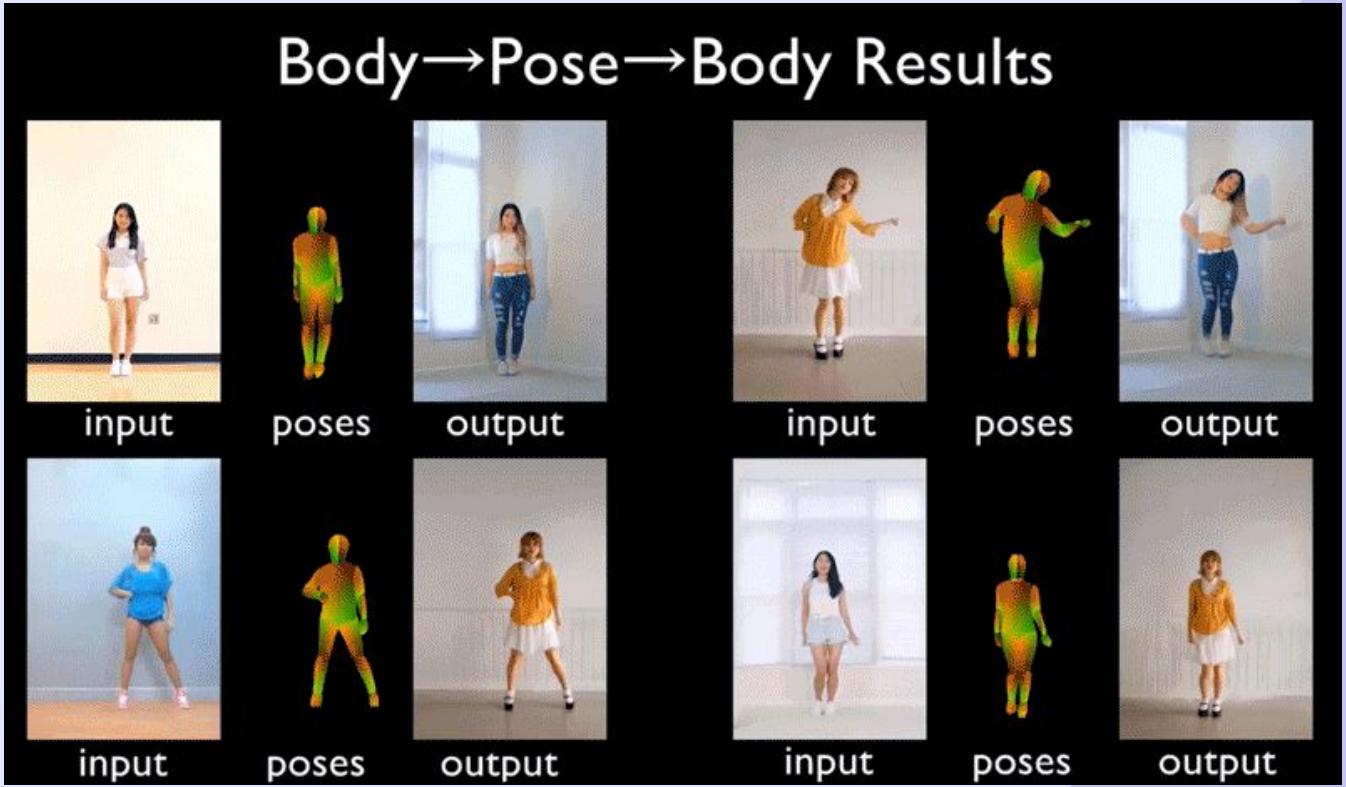
Scaling

Scaling application

BodyGen



BodyGen & TikTok



https://github.com/NVIDIA/vid2vid

GPT-3

GPT-3 is apparently trained on 175 billion parameters and the version of GPT-2 I am using is only trained on 124 million parameters

Scaling

Due to computing and financial constraints I believe the project is currently only at around 5% of its capabilities

Conclusions

- Machine learning can streamline and automate the process of content generation.
- The application of computer generated content has a few ethical concerns that companies need to be aware of before using this technology.

Conclusions

Do you think computer generated content is ethical?

Questions?