

An Introduction to AI Generated Videos

This article is about 1000 words, making it about a 5 minute read, plus 17 mins of video to watch.

Introduction

This paper provides an introduction to one of the most impactful examples of AI -at least so far as we, the general public, are concerned - and that is AI generated video. The main reason why it is so impactful is simply the emotional weight of moving images. Think Schindler's List and The Boy in the Striped Pyjamas.

And just like social media has given billions of people a voice. AI generated videos will reduce the cost of producing educational or entertainment videos so that everyone can produce them. We can argue if this is good or bad but it is reality.

AI generated videos are being used today in many industries including the Advertising, Film, Education and Marketing industries and it is also widely used in Music and the Arts. AI tools for generating video from text for the general public are not as advanced as Text to Image, or Image to Text tools but even today there are web sites that will produce for you a 5 min video just given a text description of what you want. I have 'directed' a five minute video on "An introduction to Art Movements of the 19th and 20th Century."

This video won't win any awards but from thinking of the idea to having the video took me 10mins and cost me nothing. You can see it here. https://youtu.be/rPfXR_v4LE8
The text used to create the video is in the video description beneath the video. If you want to be your own movie director you can try the software out for free here <https://invideo.io/>

Examples of AI for video Production

Here are some examples of how Text to Video is being used today – together with some web links so you can experience these AI created videos. It is worth noting that creating these videos is itself a creative process and typically will take many iterations of developing the text description and adjusting the desired style in order that we, the humans, get the video we want.

Avatars

Anywhere where you have a person talking to camera that person can be replaced by AI. News readers reading from text prompts is an obvious example.

Here is a CNN clip of an AI News Reader followed by a discussion on the topic by two CNN news readers. The clip lasts 1.5mins <https://edition.cnn.com/videos/world/2023/07/27/exp-ai-news-anchor-amanpour-intw-072701pseg2-cnni-world.cnn>

The discussion highlights how AI could be used to make a reporter's job more fulfilling but it also highlights that news could be delivered without any reporters.

Educational Content

Given the readiness of school children to adopt new technology, Education is a huge user of AI – both by teachers and students.

Primary and Secondary education is often delivered as a public service and educators are always looking to create engaging material at low cost. One use of AI is the automatic generation of educational videos from textbooks or lecture notes. It is low cost to produce and some educationists argue that this format better engages children in the way they want to learn.

One of the companies that is doing this is startup 'Prof Jim'. They have a number of different products, one of which is called reelbooks which takes a text book and creates a video. Youngsters in particular prefer to learn this way. For an example, go to <https://www.profjim.com/reelbooks> and scroll down and watch the video of Aristotle narrating Plato's 'Allegory of the Cave' as a learning lesson on 'Understanding Irony'.

It also won't win any Oscars but it is produced completely by AI. Unless you are interested in the lesson itself the first minute will give you a flavour of the concept. They have sexier demos but you need to register and request a demo.

The same technology can bring Wikipedia to life see <https://vimeo.com/771206347> What is interesting about this video is you can compare it to the Wikipedia article. Like me you probably prefer just reading the article. But we are a slowly disappearing breed.

If you would like to know more about how teachers are using such tools, another Text to Video AI tool vendor, Pictory, has this 9 min interview with a UK School teacher. Try the first 2.5 mins: <https://pictory.ai/case-studies/pippa-teacher-helps-students>

For many years now I have been using Khan Academy <https://www.khanacademy.org/> courses as a source of education. They are a not for profit organisation that provides free world-class education for everyone. The lessons I have taken have been high quality.

Khan Academy were one of the earliest education providers to recognise how AI could be used to enhance education as well as one of the first to provide education on AI. You could check out their AI for Education modules here <https://www.khanacademy.org/college-careers-more/ai-for-education>

Advertising and Marketing

Companies like Coca-Cola, Toyota and McDonalds are today, creating video adverts that are personalised to the viewer based on the viewers interests as gleaned from our browsing habits. The advertising video is then modified in real time by AI to link to your personal interests.

As an example of the creativity AI provides, this 2 min Coca Cola ad was completely created using AI. If you like art I think you will enjoy it.

<https://www.youtube.com/watch?v=2NYXwetrQtc>

And of course you can create your own spoof adverts. –

This person wrote the script and AI created this 30 second video of Trump selling orange juice. He could have got AI to write the script as well but would it have contained such great lines as ‘Making breakfast great again’? <https://www.youtube.com/watch?v=CQLb9yjiHFg>

For an 11 minute read on AI generated video adverts try:

<https://aicontentfy.com/en/blog/ai-generated-video-ads-revolutionizing-advertising>

Creative Arts

In this paper we are primarily looking at how AI can create images from text but creatives (human artists) are combining their artistic skills together with AI’s ability to create novel images to create new works of art and novel film scenes.

One of the most exciting top AI Artists is Refik Anadol who also has a passion for saving the environmental. Check out his art documentary ‘Glacier Dreams’ (6min 45secs) here

<https://vimeo.com/refo>

Scroll down to the video ‘Glacier Dreams’ to see how he uses AI to transform huge amounts of data into an art work – or is it a documentary film?

Producing more short form video but showing the power of imagination and AI is Kelly Boesch. Check out her beautiful work on Instagram or TikTok. Start with colourful birds:

https://www.instagram.com/kelly_boesch_ai_art/reel/C2VzS7hve-u/ or Dandelions:

https://www.tiktok.com/@kelly_boesch_ai_art/video/7331887896493919530

Conclusion

Video content created by AI is maturing fast and is being widely adopted from the big corporations to secondary school teachers and to bloggers and social media video creators.

Unlike the video I created at the start of this paper, real users are keeping control of the whole AI process – they edit the script, they review and edit videos and they get AI to create real or surreal content. Done well a person takes the role of director, editor and reviewer whilst the AI does all the technical ‘create the video’ stuff as well as offering creative ideas. If you are someone who thinks of themselves as being non technical AI lets you unleash your creative skills without having to battle with technology.

Many of these examples prompt ethical concerns such as authorship and ownership, plagiarism, copyright, truthfulness and conforming to societies decency norms. We must hope that responsible members of society will take these concerns on board.

This is transforming society, whether for good or bad is up to us, technology is always neutral.