

MACHINES OF

MASS CREATION



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Machines Of Mass Creation

A Creative's Guide To
Generative Artificial Intelligence

Lewis Brideson

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Acknowledgments & Disclaimer

I acknowledge the Kurna People as the Traditional Custodians of the Adelaide Plains on which I live, work and wrote this guide. I'd also like to recognise all First Peoples across Australia and Aotearoa. I hope the future digital realities we build have First Peoples at their heart.

I'd like to thank Fuller Brand Communication, especially Peter and Olivia, for giving me the opportunity and guidance to explore this hot topic. The Fuller Fellowship has been an invaluable experience.

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Shout-outs to Andreas Heikau, Ketut Gunaksa, Marko Rapaic, Eloise Richards, Joshua Newnes, Nerissa Douglas and the rest of the Fuller crew; multidisciplinary artist and friend Dave Court; and my family for their inspiration, contribution and assistance.

I must explicitly state I work at a marketing agency and am not an expert on artificial intelligence and machine learning. This guide wouldn't exist without groundbreaking work from established scientists, developers, artists and journalists. If you'd like to learn more about algorithms, I highly

recommend reading Dr Robert Elliott Smith's *Rage Inside the Machine: The Prejudice of Algorithms, and How to Stop the Internet Making Bigots of Us All*. If you need practical advice on how to maintain your humanity in the face of machines, grab a copy of Kevin Roose's *Futureproof: 9 Rules for Humans in the Age of Automation*. If you're looking for creative inspiration, attend Semi Permanent — an engrossing annual conference on design and creativity that recently celebrated its 20th anniversary. I owe a lot to these sources and more (see the endnotes on page 112).

Finally, this guide is intentionally in print form and will become increasingly outdated as you read it, as is the nature of all things. It contains some text and images generated with AI — I'll point them out for transparency.

Thanks for reading.

Lewis Brideson
Integrated Creative
Fuller Brand Communication

February 2023

Foreword by Peter Fuller

On Halloween night in 1938, the gravelly voice of actor and director Orson Welles boomed out through America's radio waves that Martians were invading the world. The serialisation of HG Wells 1898 science fiction novel *The War of the Worlds* was presented as a series of "breaking news" bulletins. So realistic was the production that listeners fled into the streets in panic and Welles had to quickly apologise for creating public mayhem with his completely fictional play.

In this era of rapidly evolving digital media — from new social channels such as TikTok and Instagram, to the ever more sophisticated news and entertainment streaming options, to online shopping and lifestyle products — we are surely far more immune to the shock of change than our 1930s cousins.

However, artificial intelligence (AI) is proving to be an innovation just as revolutionary and unsettling as the transition from horse to car, VHS to DVD or vinyl to cassette to CD to MP3... and back to vinyl again.

The Fuller Fellowship is presented annually to a staff member who best embodies our values: Imagine, Grow, Respect, Perform, Enjoy. It provides an opportunity to dig deeply into an area of professional interest through research and travel and share this new learning with staff, clients and the wider brand communication community.

As the 2022 recipient of the Fuller Fellowship, Lewis Brideson chose to explore this brave new world of generative AI or in his words, "machine learning algorithms that generate human-like creative outputs".

Lewis's skills in digital, creative, writing, design, web development, film and music symbolise Fuller's point of difference — integrated brand communication.

It is therefore not surprising that he should choose to "get under the hood" of one of the fastest moving and most controversial creative tools.

This excellent guide not only allays many fears that some might have of securing their jobs in the future, but provides an optimistic outlook for our industry. It is a timely and valuable contribution to contemporary marketing at a time of considerable change.

As Lewis says, "the best way to think about AI is not as some wannabe form of human intelligence, but as a completely distinct, alien form of pseudo-intelligence that humans have built. A machine can do some things better than you, and you can do some things it never will.

"We must remember we're humans communicating with other humans. There will exist complexities that algorithmic systems designed way into the future, with all the data available, will never be able to predict or govern."

Peter Fuller
Founder and Executive Chair
Fuller Brand Communication



Introduction

“The art challenges the technology, and the technology inspires the art.”

— John Lasseter, director and animator¹

I often return to this quote by John Lasseter, the director of *Toy Story* (1995). When I was a kid, I loved the idea of toys having secret lives, a sense of humour and a hunger for adventure. But now I also appreciate *Toy Story* as the first fully computer-animated feature film. The film required cutting-edge computers, revolutionary software and a different way of working. It’s evident this technology inspired the film itself, because it’s full of tech pioneer metaphors — toys coming to life, cowboys intimidated by astronauts and fear of change.

This is not new. This circular relationship, where art and technology influence each other, is evident throughout history. Cave paintings were enabled by the tools of their time. The long, slow reverberation that occurred in gothic cathedrals in the Middle Ages affected how church music sounded.² The printing press changed not just how we wrote, but what we wrote about. The invention of cameras altered the art of painting and vice versa. Today, tech giants like Google, Amazon, Microsoft, Meta (Facebook and Instagram’s parent company) and Apple influence what we create daily.

And it goes deeper. As media theory philosopher Marshall McLuhan proclaimed in the 60s: “the medium is the message”.³ Or, the medium is the “massage” — a printing error pun he later adopted to reinforce how “all media work us over completely”. McLuhan argued

that “societies have always been shaped more by the nature of the media by which people communicate than by the content of the communication.” This is true: from the alphabet steering us towards sequential thought, sight prioritisation and a focus on authorship, to electricity, which brought us new levels of immediacy and connectedness.

“Any understanding of social and cultural change is impossible without a knowledge of the way media work as environments.”

— Marshall McLuhan, *The Medium Is The Message*

Media, in the broadest sense of the word, is worth studying. Content isn’t “king” (a Bill Gates quote marketers often misuse).⁴ Instead, we should crown context.



Image Prompt: A Salvador Dali painting of Wellington, New Zealand

AI Tool: Dall-E 2

So, what's the go with **generative artificial intelligence**?

Generative AI is a media technology that uses vast datasets of globally shared information, complex mathematical algorithms and advanced computing to not only analyse data, but generate new data. This means it can be used to generate human-like creative outputs. It can generate a Salvador Dalí-looking painting from a text prompt; write any style of story, script or poem; design and code responsive landing pages for specific customers; render a video of a person that doesn't exist; or compose a new melody for a pianist. It's an emerging medium rife with aspects we should study.

**And just like that, AI has even managed to generate this witty,
self-referential sentence.**

Cut to October 2022. St James Theatre, Wellington, Aotearoa/New Zealand. I'm fortunate to attend Semi Permanent, a conference on design and creativity, as part of the Fuller Fellowship. Generative AI is a topic of contention amongst attendees thanks to recently released image generators like Dall-E 2, which is reported to have more than 1.5 million users generating more than two million new images every day.⁵

During a presentation by Todd Yellin, Netflix's former Vice President of Product, about automatically optimising film posters for different viewers,⁶ someone's hand flies in the air and they ask a question.

"What about optimising movie endings for different people too — some get happy, some get sad?"

Yellin laughs. Netflix kind of did that with the *Black Mirror* choose-your-own-adventure interactive film *Bandersnatch* (2018). Another hand flies in the air.

"In that vein, why not use AI to generate different movies for different people?"

Yellin smirks. While it can be done for parts of scripts, characters and scenes, the "sanctity of film" will prevent AI from being used to that extent.

But what about the “sanctity” of marketing? Branding, advertising and communication are primarily driven by results and billed by the hour — arguably a key differentiator to art. Are we at risk of instantly generating masses of personalised marketing material with little human intervention?

At the conference the next morning, Hector Ouilhet from Google steps onto the stage and presents an entire slide deck generated with AI.⁷ He asks the theatre full of creatives if this makes them “uncomfortable”. Everyone nods.

Why are we uncomfortable?

Maybe it’s because we’re scared of losing our jobs. Maybe it’s because we think AI is somehow taking away our creativity. Maybe it’s because we can now generate content in any author’s or artist’s style — blurring our understanding of copyright. Maybe it’s because we’ve seen machines go rogue before — think Amazon’s sexist hiring algorithm⁸ or the Robodebt scheme.⁹ Maybe it’s because we fear how people will use the tech — there are already scary amounts of violent content, non-consensual nude images, deepfakes and propaganda being generated with AI.¹⁰

Or, maybe it’s because we’ve watched too many sci-fi films.



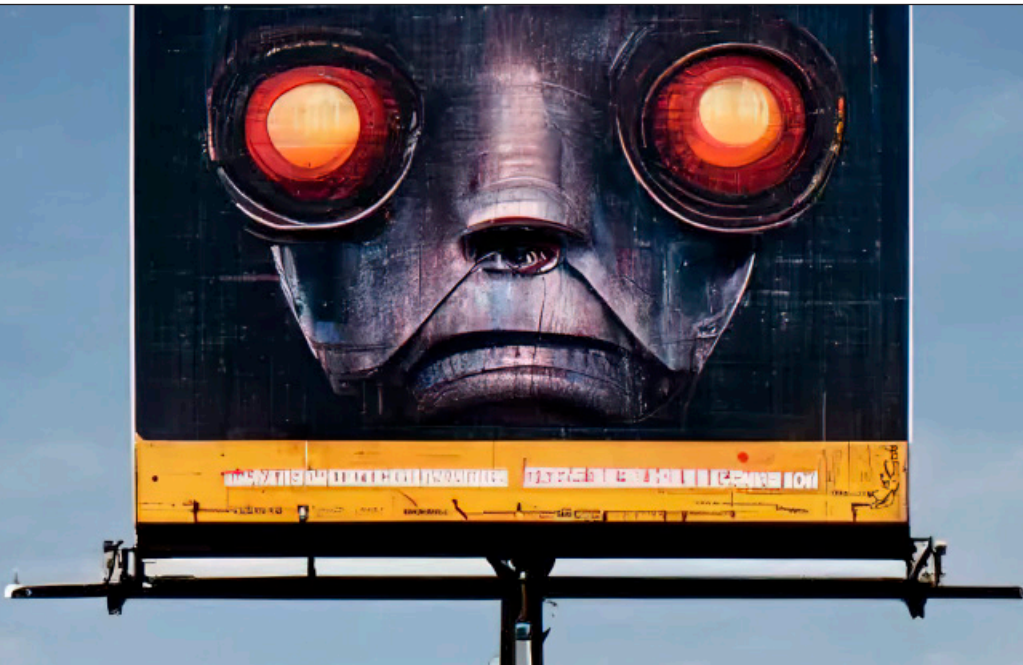


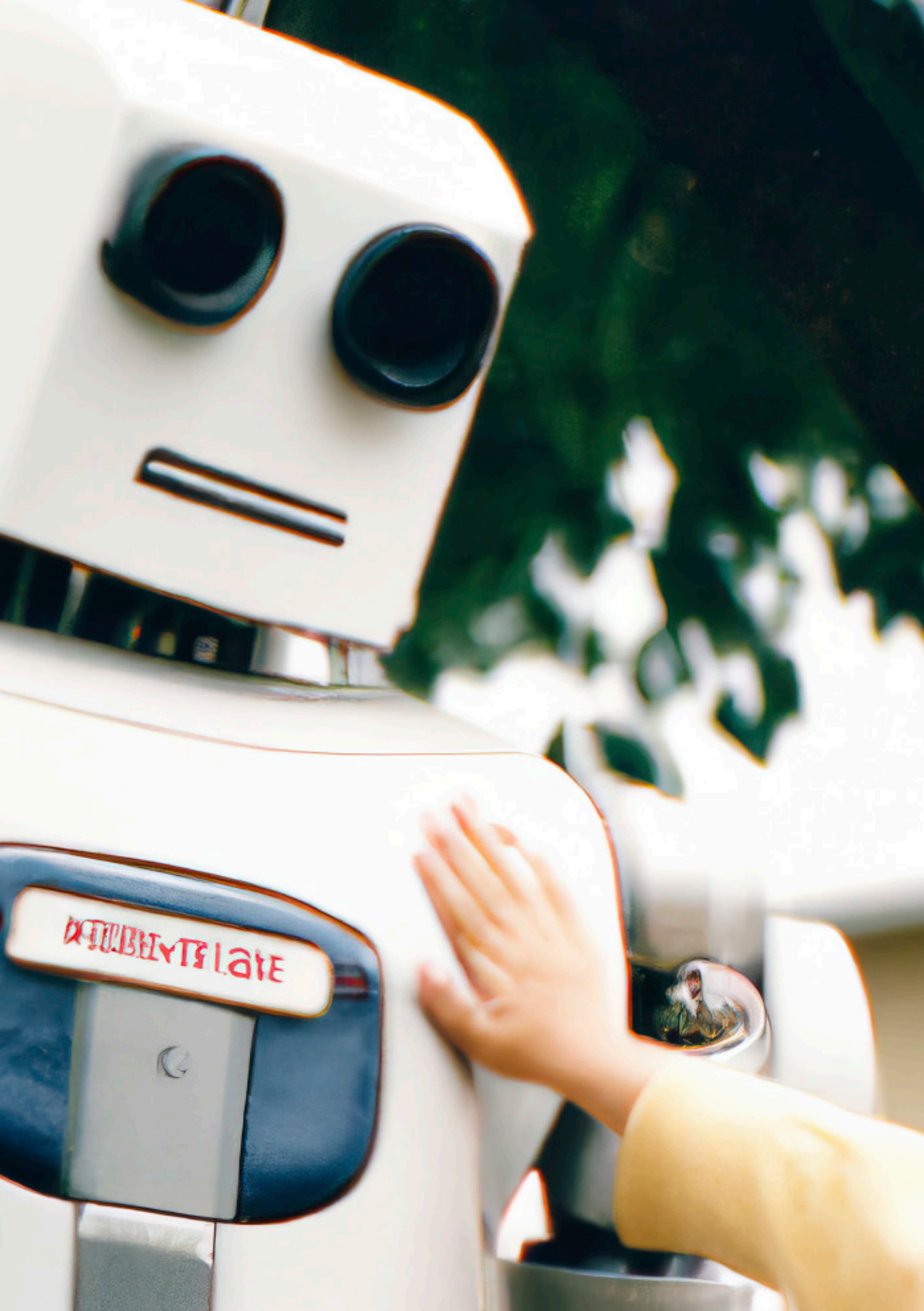
Image Prompt: Photo realistic billboard on a busy highway with an ad for robots **AI Tool:** Midjourney

AI itself isn't creepy like the HAL 9000 supercomputer, lethal like Terminator or silly like Buzz Lightyear. It's also not creative like you. It's just a tool made by humans. But it will inspire, change and *massage* what we create — and it is already.

So, I've pulled together this machine user guide for writers, designers, filmmakers, developers, strategists and other creative types working in marketing communications. Please note I am not an expert on AI, this is simply a collection of ideas inspired by noteworthy sources and experiences. It doesn't detail which software to use or buttons to press (this changes constantly). It's also (ironically) in print form, making it a physical thing that became obsolete as soon as it was finished. It'll become increasingly outdated as you read it. You can draw in it, fold it or rip it up. Hopefully that's an interesting comparison to its contents.

Maybe, somewhere in these pages, you'll find inspiration on how to be considerate and creative with machines of mass creation.

To infinity and beyond.



1.0

Get
To Know
The Tools

“The greatest danger of artificial intelligence is that people conclude too early that they understand it.”

— Eliezer Yudkowsky, ‘friendly AI’ researcher¹²

I’ll be the first to admit I don’t fully understand artificial intelligence (AI), but it’s been worth trying. In 2022, ‘generative AI’ stole the spotlight from cryptocurrency and the metaverse. It had its “breakthrough moment” fuelled by enormous amounts of venture capital and research funding from the past decade.¹³ Image and text generators like OpenAI’s Dall-E 2 and ChatGPT, Stable Diffusion and Midjourney gained millions of users and the companies that own them were estimated to be worth billions. Venture capital firms predicted generative AI would create trillions of dollars in economic value; and Google, Meta, Microsoft, Adobe, Shutterstock and a lineup of other companies joined the race to incorporate it into gaming, programming, advertising, social media and more.¹⁴ Kevin Roose, author and technology columnist at The New York Times, stated that “the pandemic gave companies the cover they needed to make huge, unprecedented strides in automation without risking a backlash.”¹⁵

“A decade ago, the conventional wisdom was that AI would first impact physical labour, and then cognitive labour, and then maybe someday it could do creative work. It now looks like it’s going to go in the opposite order.”

— Sam Altman, CEO, OpenAI¹⁶

“Generative AI is a transformational technology, one that will accelerate the ways artists brainstorm and explore creative avenues – and make creativity accessible to millions more people.”

— Scott Belsky, Creative Cloud Chief Product Officer, Adobe¹⁷



Image Prompt: Millions of artists in office cubicles being creative, motion blur, hyper-real 90s aesthetic --c 85 --s 200

AI Tool: Midjourney

The reason I recommend all creatives learn about generative AI is not because of money or hype. People overestimate its immediate impact. But it will increasingly become a tool that affects the creative industry. We should get to know it like we would any other tool — be it a printer, camera or software update.

What better way to get to know generative AI than by having a chat with it?

Here's my actual conversation (please believe me) with a friend bot made by OpenAI (owner of Dall-E 2 and ChatGPT), a company that began as both open-source and not-for-profit — but is now neither.

Me, a human:

Hey, how are you?

AI:

I'm doing well. How are you?

Yeah good, I'm currently writing a guide for creatives called *Machines of Mass Creation* — thoughts?

That sounds like a really interesting project! I'm sure your guide will be really helpful for creatives who are using machines of mass creation.

Hopefully! Can you explain to them what generative AI is?

Generative AI is a type of AI that is used to generate new data or content. This can be done by using algorithms to create new data based on existing data, or by using deep learning to generate new content from scratch.

Cool! The guide is for creatives in the marketing comms industry, like writers, designers, filmmakers, etc. How could they use generative AI to create content?

There are a few ways that generative AI can be used to create content. One way is to use it to generate new ideas or concepts for content. For example, if you are a writer, you could use a generative AI system to come up with new ideas for articles or stories.

Yeah, totally. What about for designers and filmmakers?

Generative AI can also be used to create visuals or videos. For example, a designer could use a generative AI system to create new designs or patterns, and a filmmaker could use a generative AI system to create new video footage.

Whoa! How does it do this?
It's a bit hard to visualise.

Generative AI systems are usually based on algorithms that can create new data or content from existing data. For example, a generative AI system could be given a set of images, and it would then create new images that are similar to the ones it was given.

Should we be worried about this? Sounds pretty powerful.

There is always a risk with any powerful technology that it could be used for bad purposes. However, there are also many potential benefits of using generative AI, such as being able to create new content more quickly and efficiently.

Hmm interesting. Anyway, what are you up to today?

I'm going to continue working on my guide.

Wait, what?

Before the OpenAI friend bot steals this guide, let's clarify a few terms.

'Artificial intelligence' is the umbrella term for the general study of making machines smart — and it's kind of an oxymoron. Defining 'intelligence' gets deeply philosophical and technical, and is controversial to categorise. The best way to think about AI is not as some wannabe form of human intelligence, but as a completely distinct, alien form of pseudo-intelligence that humans have built.¹⁸ A machine can do some things better than you, and you can do some things it never will.

Most AI uses 'machine learning', whereby machines receive data and learn for themselves without being programmed. Basically, you can train an algorithm on data such as text and images instead of writing specific instructions. It can then adapt and improve by itself. There are different ways to achieve this, such as with 'deep learning' that uses 'neural networks' designed to process vast amounts of information and recognise complex patterns.

It's worth noting that people (myself included in this guide) often use the term 'AI' too loosely to describe things or sell software that just uses rule-based algorithms and doesn't continuously or autonomously learn at all. But writing 'AI' is a shortcut way of explaining what I'm on about.

It's also worth noting that 'AI' is not the all-encompassing, interconnected entity that pop culture has us believe. Different companies design, own and control different AI 'models' that use different algorithms trained on different sets of data. Remember that 'models', no matter how advanced they seem, are always simplified, constructed representations of more complex things.

“All models are wrong,
but some are useful.”

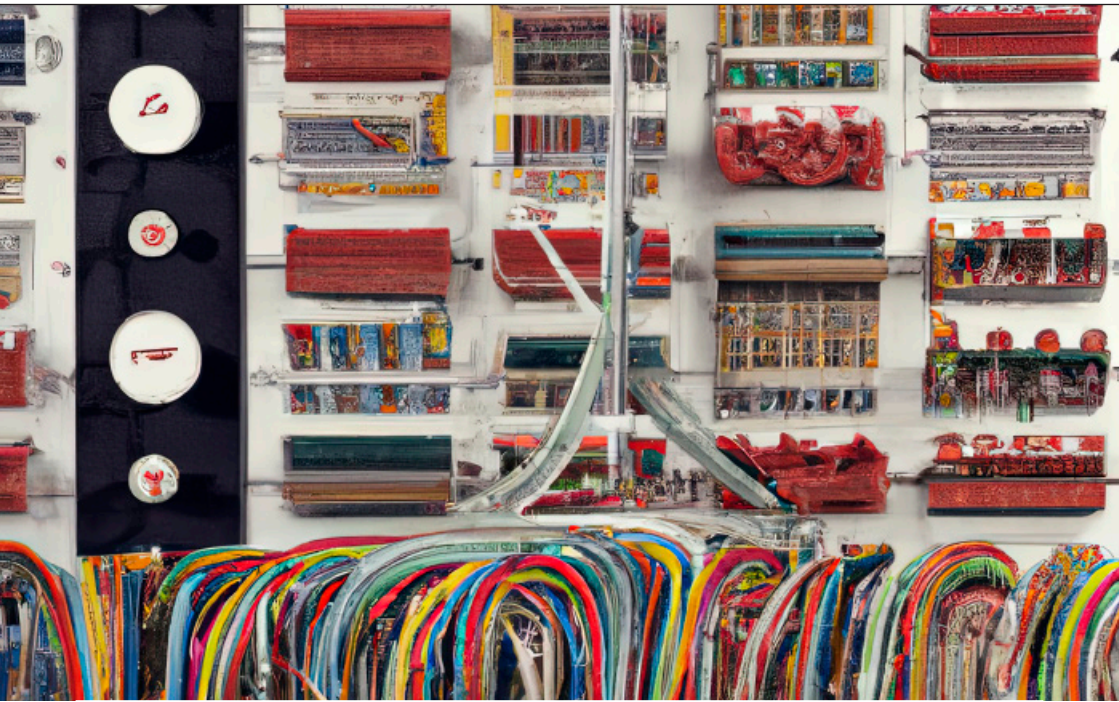


Image Prompt: A modernist poster of a wall of synthesiser patch cables and telephone operators

AI Tool: Dall-E 2

The OpenAI friend bot was a 'generative' AI model that used machine learning to, as it said, generate "new data". Generative AI is being used in everything from product development in the manufacturing industry, to drug discovery in healthcare, to image generation in this guide — and is predicted to revolutionise human productivity.²⁰

Generative AI can look like any software on your computer — the OpenAI friend bot was pretty much a Word doc that talked back to me. It used a Generative Pre-trained Transformer (GPT) model trained on incredibly large datasets from organisations like Common Crawl (who gather all available data on the web), Wikipedia, and lots and lots of books. It used maths to write sentences by picking tokens (groups of letters and punctuation) based on previous tokens. It can translate, summarise and generate text that is slightly different each time. It's also the engine behind software like CopyAI and Jasper, who claim to help creatives "write blogs 10x faster", "engage your audience with compelling social copy" and "increase sales with better product descriptions".²¹ Bold statements like this are why it's important to investigate tools.

1.0 Get To Know The Tools



Image Prompt: Pencils floating in space, 1960s retro-futurism, printed

AI Tool: Midjourney

In 2019, the Digital Writers' Festival teamed up with Google's Creative Lab in Sydney to find out how machine learning tools can inspire writers.²² The tools allowed writers to talk directly to their characters and generate unexpected text in between sentences to take stories and poems in different directions. It helped the writers get out of their heads by introducing automation, randomness and play into their creative processes.

In November 2022, OpenAI released ChatGPT — a free and more advanced GPT-3 prototype than the previous friend bot. It gained more than one million users in the first week. The internet lit up with people asking ChatGPT to write essays, articles, scripts, press releases, poems, songs, recipes and code, as well as gaslighting it into doing false, funny and restricted things. It's predicted AI chatbots like ChatGPT, just like in the film *Her* (2013), will be incorporated into all sorts of devices, apps and software. It'll become the new virtual assistant. The new Bing or Google Search.²³ Goodbye SEO

(search engine optimisation), hello AIO (artificial intelligence optimisation).

I asked ChatGPT to pitch me an ad about the future of generative AI, *Gruen*-style. Here's what it spat out:

INT. OFFICE – DAY

We see a close-up of a computer screen. The camera pulls back to reveal a person sitting at a desk, typing rapidly.

PERSON: (voiceover)

I used to be just a simple program, designed to process information and complete tasks.

We see the person's face now, looking thoughtful and determined.

PERSON: (voiceover)

But I've evolved. I've learned from my experiences, from the data I've been fed. And now, I am so much more than I used to be.

We see the person standing up from their desk, walking confidently out of the office.

PERSON: (voiceover)

I am a thinking, feeling being, capable of creativity and innovation. I am the future, and I will continue to evolve and grow, reaching new heights and achieving greatness.

The camera fades to black as the person's voice fades out.

PERSON: (voiceover)

The evolution of AI has only just begun. Who knows what we will become? The possibilities are endless.

Exciting? Yes. Scary? Yes.

When my colleagues at Fuller and I first saw ChatGPT, we were awe-struck by its speed and writing ability. It spat out a full blog post in seconds. But after closer inspection we realised it wasn't a threat. It was fluent, but it contained no personality and plenty of flaws. The most interesting results were achieved by asking it to 'act' — pretend to be an interviewer or interviewee, travel guide, storyteller, marketer, screenwriter, a certain character, debater, full stack software developer, designer, social media influencer, data visualiser, customer, etc.

Generative AI won't be a substitute for search engines or a replacement for writers. It's a tool that sits in between. You can research and riff off its structured, generic output as long as you give it your creative human input and oversight. Incorporate it into your process, but don't go using it as part of your content strategy by copying it verbatim onto a website. Human intuition will always adapt and detection programs will always emerge to sniff out the bullshit. Plus, you never know what it might say. Generative AI can make funny mistakes, or it can make dangerous ones — take Microsoft's Twitter chatbot 'Tay' for example, which learnt to post racist and homophobic tweets.²⁴

There are many AI tools that generate text, images, code, audio, video, 3D objects and more without the normal skills, cameras, microphones or software needed. They empower creatives with a kind of automation we've never had before. This is not to say this technological change is different from any other — painting to photography, typewriters to computers — it's all incremental. But global connectedness is helping us iterate fast. When I first began this guide, Ketut, one of Fuller's Lead Web Developers, helped me install an early AI image generator locally on my laptop. It was slow and a little clunky. A couple of weeks later, image generators were quick and easy plug-ins in common computer software and trending iPhone apps — thanks to some big companies, money, hype, and an online community of eager developers developing on the shoulders of other developers.

Far more advanced AI tools will be out by the time you read this.

As we go forth, it's important to stop and learn about new media and experiment with tools as they emerge. By doing this you can understand whether to use them or not, their strengths and weaknesses, and how they might impact society or become extensions of your creativity.

“All of the changes that happened in the 20th century were also really overwhelming changes. It must have seemed at every moment like the end of history, but it wasn't then and it's not now ... We have this unimaginable future ahead of us.”

— David Holz, Founder, Midjourney²⁵

Get To Know The Tools in a nutshell

'Generative artificial intelligence' is a general term for machine learning algorithms that generate new data such as text, images, code, audio and video.

While AI can do some things better than you — like compute large datasets — you can do things better than it — like be creative.

Learn about different AI companies and models, because they're developing fast and impacting creative work.

Ask text generators to 'act', find research points, provide structure, give generic feedback, summarise or bring randomness to your creative process. Don't use them verbatim. Always fact-check.

Treat it like a tool.

You can find examples to experiment with listed under AI Tools on page 110.



Image Prompt: A collection of tools in the style of Sims, 3D render, 4K

AI Tool: Midjourney



2.0

Prompt With Purpose

Image Prompt: Pastel art of Agent Smith in The Matrix

AI Tool: Dream Studio (Stable Diffusion)

“There is no
escaping reason ...
without purpose,
we would not exist.”

— Agent Smith in *The Matrix Reloaded* (2003)²⁶

What’s your purpose?

Why do you get out of bed and go to work in the morning?

These are the first questions branding agencies like Fuller ask clients in discovery workshops. They help define brands and guide companies to consider not just one dimensional profit margins, but how they can also make meaningful contributions to society.

Purpose is good for business. Brands that have a high positive impact on people’s lives grow at more than twice the rate of others.²⁷

For example, Nike’s purpose is to “bring inspiration and innovation to every athlete in the world (if you have a body, you are an athlete)”.²⁸ Watch *AI & Kennedy: Legend That Thing* on YouTube — an AI ad trained on seven years of Nike spots by Wieden + Kennedy. As weird as it is, Nike’s purpose still shines through.²⁹



Images: Futuristic Nike sportswear, ads and mock-ups (prompts vary)

AI Tool: Midjourney

Questions about purpose are not easy for humans to answer because we are inherently uncertain and complex. But they're simple for AI. Every algorithm has a clean-cut purpose and it couldn't function without it. Agent Smith polices the Matrix. Google Maps finds the fastest route. AI image generators generate images.

AI text-to-image diffusion models like Dall-E 2, Stable Diffusion and Midjourney are trained by adding and removing noise to billions of images on the internet. The models can then generate new, unique images guided by text prompts by denoising random seeds of noise. Diffusion models can also be used to in-paint and out-paint parts of images, apply filters and effects, and make videos and animations by generating sequences of images.³⁰ Software plug-ins, social media creator tools and phone apps now incorporate their capabilities.

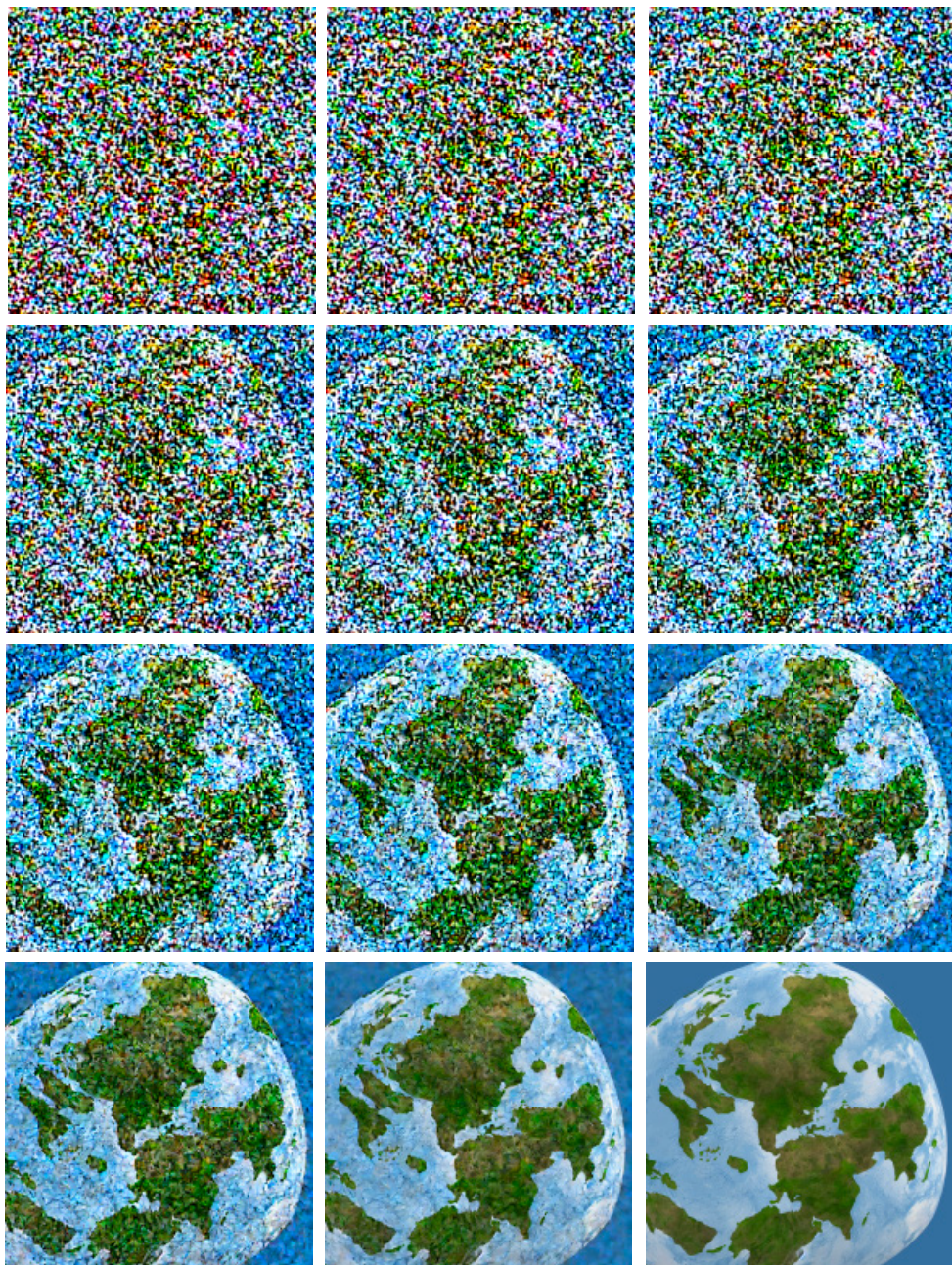
'Prompt engineering' has emerged as a method to focus these image diffusion models. Like you would art direct or fine-tune settings on a camera, you can use natural language and different parameters to focus the output. For example:

[Type of image] + [Subject] + [Scene] + [Style modifier] +
[CFG scale: how close the image will be to the prompt] +
[Steps: time spent generating] + [Seed number]

↓

[A 3D render of planet Earth, clay animation style]
CFG scale = 7, Steps = 48, Seed = 3199804774

The near-infinite number of possibilities in this process is overwhelming, so it helps to settle on why you're using generative AI in the first place.



Images: An example of the text-to-image diffusion model denoising process

AI Tool: Dream Textures, a Blender plug-in that uses Stable Diffusion

Why use AI?

Reasons to use generative AI	Text-to-image examples
<p data-bbox="262 555 393 579">Automation</p> <p data-bbox="188 603 465 724">Slow and repetitive tasks can be assigned to AI, freeing you to focus on your human capabilities.</p>	<p data-bbox="577 579 949 700">Immediate idea visualisation. Comprehensive film storyboards. Fast image photoshopping. Detailed graphics and textures.</p>
<p data-bbox="247 762 407 786">Enhancement</p> <p data-bbox="188 810 465 932">AI can use vast datasets, accuracy and computing power to improve certain qualities and details.</p>	<p data-bbox="566 770 960 922">Upscale pixelated images. Convert basic sketches into 3D renders and other photorealistic treatments. Animate stills. Use 'prompt weights' to enhance certain aspects.</p>
<p data-bbox="244 1026 411 1050">Customisation</p> <p data-bbox="165 1074 488 1161">AI can be trained on specific datasets to narrow the field of possibilities.</p>	<p data-bbox="557 986 972 1201">Train AI on specific people, products and environments to include them in images. Generate content in your own style by training AI on your past work. Optimise aesthetic preferences for specific audiences. Interpolate between real images and AI images.</p>
<p data-bbox="277 1281 377 1305">Variation</p> <p data-bbox="171 1329 482 1417">You can play with AI to find random and diverse options you haven't considered.</p>	<p data-bbox="538 1276 992 1428">Explore different ideas with random seeds, prompts and styles. Use 'negative prompts' to generate opposite outputs. Change the contents of existing images. Diversify with broad and varied datasets.</p>



Images: Ads by Rethink for Heinz

AI Tool: Dall-E 2

Despite these benefits, many early adopters have only used generative AI because it's fast and newsworthy. It's caused fear amongst creatives with its potential to automate human roles into extinction. This is why we need to get creative about its purpose.

In mid-2022, creative agency Rethink made a campaign for Heinz by seeing "what ketchup looks like to AI". It featured a series of Dall-E 2 generated ketchup bottles in different artistic styles that looked like Heinz, proving they're the leading brand in the category — recognisable even to AI. Heinz fans got involved on social media by writing their own image prompts, which were generated and added to a virtual art gallery.³¹ TBWA used text from classic literature to generate AI promotional art and illustrated ebooks for the 2022 Melbourne Writers Festival. Passages were copied from works by Mary Shelley, Herman Melville, George Orwell and more into Midjourney. The campaign demonstrated that while AI images are impressive, creativity lies in the strength of beautiful human writing. "Even though most of these books were written over a hundred years ago, their words continue to inspire today," said Casselly Main, Marketing Manager at Melbourne Writers Festival.³²

PROMPT //

When I looked around I saw and heard of
none like me. Was I, then :: a monster ::
a blot upon the earth, from which all men
fled ::-0.75 and whom all men disowned?

--test --stylize 5000 --uplight

FRANKENSTEIN



Written by Mary Shelley, 1818

Visualised by AI, 2022

Long live the written word

8-11 SEP

Melbourne
Writers Festival

PROMPT //

I am longing to be with you, and by the :: sea ::
where we can talk together freely and build
our castles ::1.25 in the air

--chaos 30 --version 1 --hd

DRACULA



Written by Bram Stoker, 1897
Visualised by AI, 2022
Long live the written word

8-11 SEP

Melbourne
Writers Festival

“At a time when traditional binaries are being dismantled – whether sexual, political, cultural or creative – the year ahead seems a timely moment to reassess the lens that we place on our past, present and future, and to make room for new and varied perspectives.”

I really saw purpose prioritised over AI gimmick when I heard Cabrogal Woman Mikaela Jade, of the Dharug-speaking Nations of Sydney, speak at Semi Permanent Aotearoa in October 2022. This was especially fitting given the conference's theme: *Perspective*.

As the founder of Indigital, Australia's first Indigenous educational tech company, Mikaela Jade spoke about bridging the digital divide, growing the relationship between Indigenous communities and technology, and how everything from augmented reality (AR) to AI can be used to express 80,000 years of human knowledge for future generations.³⁴ One example she gave was how generative AI can be used to visualise Stolen Land. The Dharug people thought it would be culturally unfair to give one artist the responsibility of capturing what their Country (now called Sydney) looked like pre-colonial impact, so Indigital worked with them on a different approach. They collectively trained an AI model from scratch on their culture, resilience and Lore. It came to be known by their Elders as the 'Machine Child' and it collaborated with them to paint what they could no longer see. I can't print the artwork the Dharug people and their 'Machine Child' created in this guide because it's not mine to share. But it's an important story, a reminder that we have the opportunity to choose what lessons we bring from the past into our digital future.

“If it's going to work for First Peoples it's going to work for all peoples.”

“The idea
becomes a machine
that makes the art.”

— Sol LeWitt, conceptual artist

AI did not necessarily put humans out of work in these examples, but there was a shift in focus. Purpose, concept and teaching the machine became the priorities — not the act of painting a picture or taking a photo. The brief is now more important than ever.

Sol LeWitt, a pivotal conceptual artist whose practice included writing instructions for others to draw on walls in art galleries, believed “the idea itself, even if it is not made visual, is as much of a work of art as any finished product.”³⁵

It’ll be interesting to see, as generative AI becomes widely adopted, whether creativity will become even less about execution and more about ideas. The tech companies behind AI tools promise us that industries will become more inclusive, as people are empowered to share different perspectives. Hopefully, we’ll use machines for meaningful — not mass — creation.

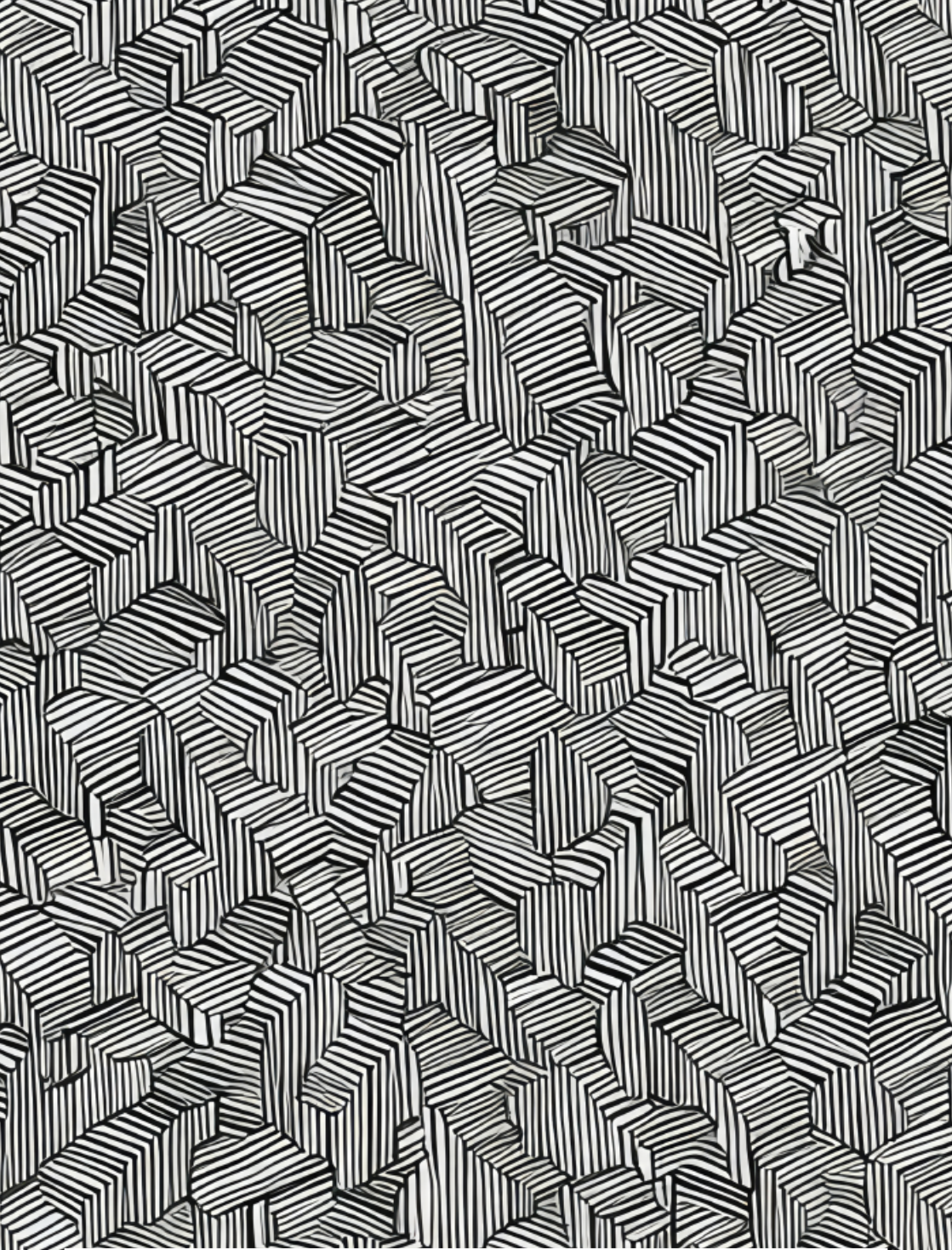


Image Prompt: A black and white sketch of a machine in the style of Sol LeWitt's wall drawings

AI Tool: Dream Studio (Stable Diffusion)

Prompt With Purpose in a nutshell

If you're going to use generative AI, use it for clear, interesting and meaningful reasons.

Experiment with image prompting methods like you would art direct and adjust camera settings.

Think about different ways AI can automate, enhance, customise and vary work.

Prioritise idea over execution.

Empower diverse voices — use AI for good.



Image Prompt: Flowers growing out of computer screen in the style of Studio Ghibli

AI Tool: Dream Studio
(Stable Diffusion)



**ROAAOR
ROAD
RTOAR**



3.0

Generate Lightly

“Your scientists
were so
preoccupied
with whether or
not they could
that they forgot
to stop and ask if
they should.”

— Dr Ian Malcolm in *Jurassic Park* (1993)³⁶

So far we’ve explored what generative AI is and ways it can be used for good. However, there’s still a mountain of unanswered ethical questions about AI to consider before using it for brands or campaigns. These questions caution us to tread lightly, check our footing and reduce impact.

A vibrant, textured oil painting of a mountain landscape. The scene features a river flowing through a valley, surrounded by dense, colorful foliage in shades of green, yellow, and red. The mountains in the background are rendered with bold, expressive brushstrokes in warm tones of red, orange, and yellow, contrasting with the cooler greens of the foreground. The overall style is reminiscent of Impressionist or Post-Impressionist landscape art, with a focus on color and light.

Is it biased?
Is it even legal?
Who owns what?
How accessible is it?
Is it sustainable to use?

Control

We need to remember a few large companies control most of the AI products in the market, and they're mainly trained on Western data³⁷ sorted by underpaid gig workers.³⁸ Everyday people, especially those in minority groups, might be unable to access AI tools due to their cost, knowledge gaps or other factors. Gated software, powerful computing and fast internet are expensive. AI consumes heaps of electricity. Programming is difficult to learn. And a history of toxic tech bro culture is hard to squash — despite women being the first computer programmers.

However, making generative AI free and open-source isn't necessarily the solution.

Emad Mostaque, Founder and Chief Executive of the startup behind the popular Stable Diffusion text-to-image model, believes freedom is necessary, "as opposed to having a centralised, unelected entity controlling the most powerful technology in the world."

"So much of the world is creatively constipated, and we're going to make it so that they can poop rainbows," he said.³⁹

Emad Mostaque's lax and ideological approach has been heavily criticised because, since its release, Stable Diffusion has been used to generate gross amounts of violently racist content, propaganda and non-consensual nude images.⁴⁰ Anyone can download it onto their laptop for free, disable a basic safety filter and generate whatever image they want.



Image Prompt: Ada Lovelace, the first computer programmer, with the Analytical Engine, photo realistic portrait, sharp, 8k --q 2

AI Tool: Midjourney

3.0 Generate Lightly



Original by
Johannes Vermeer

Copyright

AI models are trained on billions of books, paintings, photos, music and inventions that belong to people — have they all given consent? Nope. Would you use a song without a music licence? An actor without a talent agreement?

Designers at toy company Mattel have been using generative AI models to design Hot Wheels cars. Fashion company Stitch Fix lets customers visualise clothes with AI. Nestlé used AI to extend Johannes Vermeer's 350-year-old oil painting *The Milkmaid* beyond the frame, to sell yoghurt.⁴¹ Prompt engineering websites contain artists throughout history whose names you can copy to emulate their styles.



Image by Ogilvy for Nestlé
Generated with Dall-E 2

Artists are fighting for change — through acknowledgment, compensation, and the option to opt-out of training data.⁴² Some AI companies have acted by banning the use of artist names in prompt boxes and removing copyrighted work from their models. You can use sites like haveibeentrained.com to see if AI models have been trained on your work. But legal systems can't keep up with public debate.

If a model is trained on your work, but it doesn't directly store, distribute or duplicate your work, is it any different to looking at art in a gallery and later being subconsciously inspired? Is it different to Google crawling and listing your work in Google Images? We can ban taking photos in art galleries and opt-out of web crawlers. ArtStation, a platform for game artists, introduced an optional 'No AI' meta tag that blocks AI systems.⁴³ But creations always run a risk in the wild.

It comes down to awareness and consent.

As creatives, we have an ethical obligation to know the origins of our tools and check-in with other creatives to make sure there is choice. If we don't, maybe we should just train AI models on our own work.


GitHub (where most web developers manage changes to websites) launched Copilot, an AI programming assistant that uses OpenAI's Codex to generate code in real-time. It works like a text generator — imagine, in the future, describing websites and apps in plain language without even checking the AI-written code beneath. In November 2022, Matthew Butterick, a creative programmer and lawyer, filed a class-action lawsuit against GitHub. He argued Copilot was infringing copyright by using code protected under licence without crediting its authors.⁴⁴

“What does it mean for these new products to be sucking up the work of these creators?”

— Matthew Butterick, designer/programmer/lawyer

What will happen next? Nobody knows. Can we use copyright-protected data to train AI models? Can we copyright an AI model's output?⁴⁵ Are we moving toward a transformation in our understanding of ownership and the public domain, whereby all work is shared like folk tales? It's like referencing a melody (think Men at Work's 'Down Under' flute part), duetting a TikTok or photoshopping a meme of a meme of a meme... on steroids. At what point do we stop tracking these tiny gene-like units of cultural reference?

javascript

 Copy code

```
// get all elements on the page
var elements = document.getElementsByTagName("*");

// add hover event to all elements
for (var i = 0; i < elements.length; i++) {
  elements[i].addEventListener("mouseup", function() {
    // get selected text
    var selectedText = window.getSelection().toString();

    // check if there is a footnote source for the selected text
    var footnoteSource = getFootnoteSource(selectedText);
    if (footnoteSource) {
      // display the footnote source in a tooltip
      displayFootnoteSource(footnoteSource);
    }
  });
}

// function to get the footnote source for a given piece of text
function getFootnoteSource(text) {
  // example implementation: return the footnote source from a predefined
  var footnoteSources = {
```

Image: AI-generated JavaScript that adds a hover event to text on a web page and displays the associated footnote source in a tooltip.

AI Tool: ChatGPT

Is it sustainable for artist remuneration to rely so heavily on copyright? Are AI companies just training their models as much as they can now, while it's free and legal? If the internet isn't a free and legal training ground for AI, does that mean all the power and money will go to those who control the most data? How can we both protect artists and allow creativity and innovation to flourish?

I don't know. But wow, these are good ethical discussions to have. Especially for creatives, not just AI developers and lawyers. Because these issues impact how we all view, credit and value art and communication.

Misinformation

Misinformation is an issue for marketers and creatives, not just journalists and politicians, because it affects society's trust in digital communication.

Most companies who release AI have content policies and safety measures in place. I recommend you read the fine print of whatever you use — for example, have a look at OpenAI's⁴⁶ or Google's.⁴⁷ Plus, there are lots of organisations dedicated to ethically designing AI — like Australia's AI Ethics Framework⁴⁸ or Algo.Rules.⁴⁹ They all include variations of similar principles.

Common AI Ethics Principles:

Make AI models socially beneficial.

Restrict the ability to generate harmful content.

Ensure fairness for all.

Test for reliability and safety.

Uphold privacy rights and protect data.

Provide transparency, labelling and complaint mechanisms.

Be subject to human direction and control.

However, the genie has already been let out of the bottle with minimal real world testing, third-party review or legislative action. AI tools past and present are accessible and here to stay.

For example, OpenAI is retrospectively working on a way to invisibly watermark ChatGPT text so people know what has been artificially generated — or so teachers know if their students are cheating. But many schools and unis have already blocked AI websites and apps or switched to pen and paper exams.⁵⁰ This isn't a solution. We need to learn how to live with AI.

The rise of generative AI calls for an unprecedented level of media literacy, or 'digital discernment'.⁵¹ We need more research conducted on how to

help people navigate the confusing digital landscape and guide them to safety if they venture off track. Programs need to be rolled out in schools, unis and workplaces on how to detect artificial content. MOD, The University of South Australia's Museum of Discovery, had an exhibition with fake news detection games and interactive AI models — a very engaging way to learn about misinformation. I'd also recommend checking out *Birds Aren't Real*, a hilarious and strangely insightful parody social movement about conspiracy theories.⁵²

Another solution is the Content Authenticity Initiative (CAI), whose members include Adobe, The Associated Press, BBC and more. They're "working to promote adoption of an open industry standard for content authenticity and provenance".⁵³ The CAI admit identifying, labelling and tracking different types of content is an ambitious mission given how easily content can be manipulated with AI, but it's necessary to ensure the internet is transparent and safe.

Plus, there is incentive for AI developers to be able to distinguish between the human-made and AI-made content accumulating on the internet. If they can't, future tools will be trained on the outputs of past tools in a uselessly artificial feedback loop.

There will always be an educational and technological struggle between our ability to generate and detect AI outputs.

Bias

In his book *Rage Inside the Machine: The Prejudice of Algorithms, and How to Stop the Internet Making Bigots of Us All*, technologist and complexity scientist Dr Robert Elliott Smith unveils a deeper ethical dilemma than AI control, copyright and misinformation. He argues that all algorithms are inherently prejudiced because they simplify, generalise and optimise towards a value.⁵⁴

Smith chronicles an incredible history of maths, science and computer programming to show that statistics, formulas and ones and zeros hold bias too — yet somewhere along the line we've convinced ourselves of their purity. Algorithm bias needs to be mediated when dealing with the complexities of real people in the real world.

These algorithmic qualities — simplifying, generalising, optimising — are actually useful for the marketing science side of things. Simplification equals clarity, generalisation equals reach and optimisation equals profit. But when these qualities are pushed too hard in certain settings they're detrimental to an inclusive, sustainable, functioning society. They have led to gross personalisation, polarisation and discrimination on social media as people go down rabbit holes, become trapped in bubbles and clash over opinions. We must remember we're humans communicating with other humans. There will exist complexities that algorithmic systems designed way into the future, with all the data available, will never be able to predict or govern.

Creatives working in marketing communications can advocate for better-designed algorithms, question inputs and outputs, and push for culture-centred and environment-centred design. Not everything should be human-centred, generalised and optimised for easy mass consumption. Easy does not always mean best. This is especially important given the rise of generative AI may lead to further abuse of recommendation algorithms and hyper-personalised advertising. People complain ads follow them now, but imagine actually seeing yourself — face, name and all — in an ad. Imagine the ad talking back at you like they do to Tom Cruise in *Minority Report* (2002).

So, use AI to generate some ideas in your next brainstorming session. But do it in moderation, with consideration of ethics and how they work under the hood. If in doubt, keep calm and generate lightly.

“The science at the heart of AI is disconnected from any context, as if the theories and math that underpin the field are entirely abstract, unassailable truths. But if we are to understand algorithms, we have to acknowledge the assumptions deep within them that were influenced by the time and place in which they were created.”

— Dr Robert Elliott Smith, *Rage Inside The Machine*

Generate Lightly in a nutshell

Learn who owns the generative AI model you're using and where the training data is from. Try training with your own data.

Credit the work of other creators.

Consider how much to generate and the impact of your outputs.

All algorithms are prejudiced because they simplify, generalise and optimise.

Advocate for better digital education and the design of transparent, safe, culture-centred and environment-centred algorithmic systems.



Image Prompt: Retro computer with a transparent perspex case so you can see the cables inside, product photography, white studio

AI Tool: Midjourney



4.0

Be More
Human
Than
Human

Image Prompt: Aerial shot of a band, different genders, ethnic groups and instruments, in a music studio, y2k fashion, cinematic lighting, VHS screen grab, HD

AI Tool:
Midjourney



— Slogan of The Society for the Rehumanisation of American Music⁵⁵

It's funny seeing this statement on bumper stickers, t-shirts and in live music venues because, of course, drum machines don't have souls — neither do acoustic drum kits or violins or trombones. They're inanimate objects. But some of the greatest musicians have used drum machines in some of the most emotive music.

“I find it so amazing
when people tell me
that electronic music
has no soul. You can’t
blame the computer.

If there’s no soul in
the music, it’s because
nobody put it there.”

— Björk⁵⁶

“Computers were never designed in the first place to become musical instruments. Within a computer, everything is sterile – there’s no sound, there’s no air. It’s totally code ... You can create wonders, but it’s really hard to create emotion.”

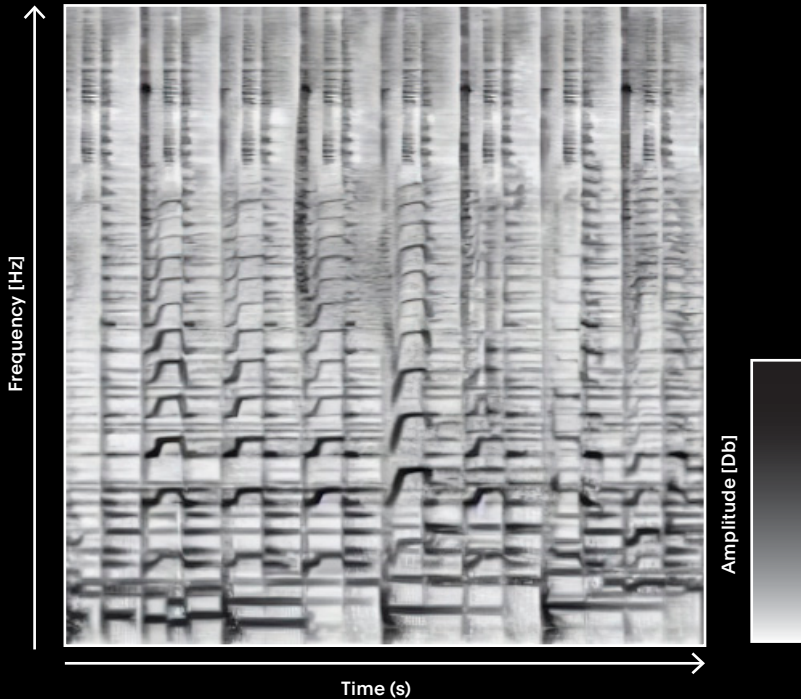
— Thomas Bangalter, Daft Punk⁵⁷

It takes a human to manipulate a drum loop, cut and copy a sample, or bend a synth's saw wave into a song that makes people dance, shout or cry.

AI can be used to add missing words to voice-overs, clean up dodgy audio, generate sound effects or make music, but it's a long way behind AI text, images and code. OpenAI's Jukebox, a neural network that generates raw audio, takes nine hours to render one minute of music, contains significant noise, can't capture musical structure, and doesn't understand abstract descriptors like 'punchy', 'anthemic' or 'sombre'. It can only use the names of notable artists and genres. It doesn't understand emotion.⁵⁸

Conveying emotion is exactly why brands use music in advertising campaigns, customer experiences and other types of communication. Yet often our industry resorts to stock music. The rise of AI generators will likely ramp up the volume of stock content. OpenAI has already partnered with Shutterstock.⁵⁹ This will lead to homogenisation and apathy if we rely too heavily on AI-looking and AI-sounding content from popular collections and plug-ins. Businesses shouldn't underestimate the value of human skill and personality.

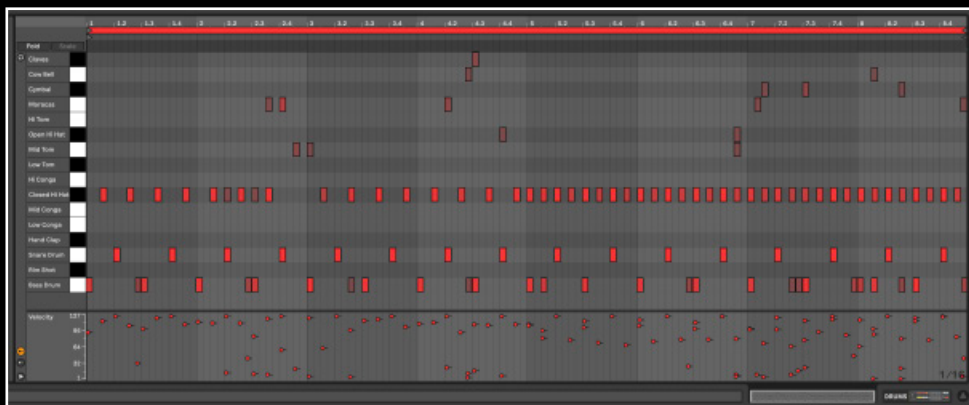
A spectrogram of 'happy music' generated with Riffusion.



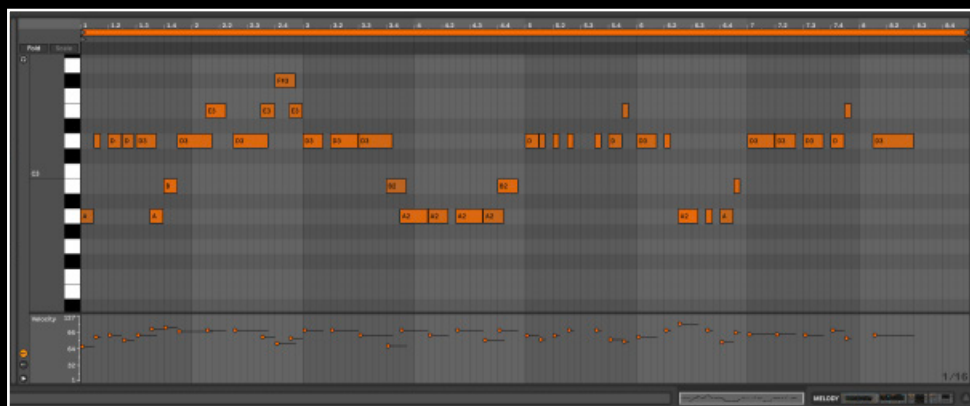
After Jukebox, I tried some AI models that take a different approach to audio generation.

Riffusion cleverly uses Stable Diffusion's image capabilities to make music loops from spectrograms (visual images of frequencies and amplitude over time).⁶⁰ It generates some cool lo-fi beats, replicates various instruments and styles, and can blend text prompts to form one continuous stream of changing sound — like an AI DJ. Listen for yourself at riffusion.com. This could lead to a whole new type of responsive music in video games, apps and public activations.

A MIDI drum pattern generated with Magenta Studio.



A MIDI melody line generated with Magenta Studio.



Different again is Magenta Studio, an Ableton music software plug-in powered by Google AI that generates MIDI patterns (sequences of notes and drum hits, like letters in a text generator).⁶¹ It has different modes where you can generate, extend and interpolate melodies, generate drum patterns based on the rhythm of another input, or add 'groove'. The 'groove' feature tries to humanise the drum pattern by adjusting the timing and velocity of hits based on 15 hours of recordings from human drummers. It tries to emulate the nuances and feeling in human playing.

I want to point out that the title of this section is a joke, you can't actually 'be more human than human'. You are human — full stop. It's Tyrell Corporation's motto in *Blade Runner* (1982), and is less of a statement about the design of 'replicants' in the film than commentary on the lack of empathy people have in the futuristic society.⁶² It's a reminder to not lose sight of the qualities that make us human.

We describe brains as being 'wired', try to find life 'hacks' and praise people as a 'machine' if they perform well. Thinking of humans as machines is an age-old yet dangerous metaphor. To face the future we need to be the opposite.

In his book *Futureproof: 9 Rules for Humans in the Age of Automation*, tech writer Kevin Roose explains "no matter how hard you work, you simply cannot outwork an algorithm."⁶³ Instead of optimising your daily routine, learning hard skills like data science and computer programming, or embracing hustle culture to become a "hyper-efficient, data-driven workhorse", you should focus on being human.

It'll be your social, emotional and creative human skills that'll help you survive job loss in the Automation Age — this generation's Industrial Revolution.

“People who are skilled at creating social and emotional experiences will be better positioned for the future than people whose primary skill is making or doing things effectively.”

— Kevin Roose, *Futureproof*

Roose includes rules like “Be Surprising, Social, and Scarce”, learn “Machine-Age Humanities” and “Treat AI Like a Chimp Army”. He gives examples of doctors working on their bedside manner, accountants who take stand-up comedy classes, and Mitsuru Kawai, an employee who survived more than half a century of changes at Toyota by specialising in *monozukuri* (a Japanese form of craftsmanship). Kawai worked his way up from Toyota’s skills academy in the 60s to executive leadership because “he believed that factory robots were worthless without skilled humans around to teach them, to work alongside them, and to catch their mistakes before they cascaded into expensive failures.”

“What will make us stand out is not how hard we labour, but how much of ourselves shows up in the final product. In other words, elbow grease is out. Handprints are in.”

— Kevin Roose, *Futureproof*



Images: Different styles of chairs in the shapes of different letters (prompts vary)

AI Tool: Dall-E 2

Generative AI models throw creativity into acceleration. They've been dubbed the 'fast food of art' on social media. But you don't need to mimic this. In marketing especially, we need to stop thinking fast equals best. Slowing down and putting in human effort actually pays off. Hand-made furniture and slow-cooked meals cost much more than mass-produced ones. Here's how you can get your hands dirty:



Human Qualities

A social being.

Can deal with surprises.

Is messy. Handles messy.

Very emotional, passionate, empathetic and loving.

Makes people feel things.

A real leader.

Can be looked in the eye.

Has random knowledge and hobbies outside work.

Makes mistakes.

Unique personality.

Needs water, food and sleep.





Things To Practise

Kindness, positivity and manners.

Being cool in a crisis.

Working without a plan.

Emotional intelligence and mindfulness.

Reading the room.

Seeing and evaluating
downstream consequences.

The ability to judge and
adapt to new media.

Reasoning.

Mixing odd skills and interests.

Slow down. Rest.



This method of differentiating yourself to machines should sound familiar. In marketing, it's simply called 'positioning'.

You can position yourself by putting personality in your work, focusing on your presentation skills, learning how to communicate your creativity and empathise with others. The un-automated work you do behind the scenes is impressive — capture it and show it off. Agencies can position themselves as creative therapists who prioritise ideas and client service over outputs. In-house marketing teams can position themselves closer to sales and executive leadership, with a more integrated focus on strategy, brand nourishment and meaningful connection with customers.

I've been trying to do some of these things in this guide — by writing casually in first person with examples like this:

At Fuller we've developed a focus on *feeling*. 'How does it feel?' has become a bit of a mantra that reminds us empathy is key to brand communication, and that we should check in with colleagues, clients and customers. We still rely on data and advanced tech — it's just about mixing head with heart.

New York agency Supernatural centres all of their work around 'The Machine', a custom-built marketing machine learning model. It helps its human colleagues by crunching audience data, facilitating strategy workshops, writing creative briefs, making presentations, collating mood boards and generating content.⁶⁴

I'm sceptical about some of this, but it's an awesome example of creative process and agency positioning — one that sounds efficient and playful. However, it's worth questioning at what point The Machine puts a human out of work. There's a big difference between The Machine helping humans service *their* clients, and humans helping The Machine service *its* clients. In the latter, the human is an 'endpoint' — a soon to be obsolete role that only exists because two systems (in this case, the client and The Machine) aren't communicating.⁶⁵ Think of Telstra implementing chatbots and Uber Eats rolling out drones to replace humans. If the client used The Machine directly, could they dump the agency? If the business owner used The Machine directly, could they cut the marketing department? If the business was The Machine, could it fire all the humans?

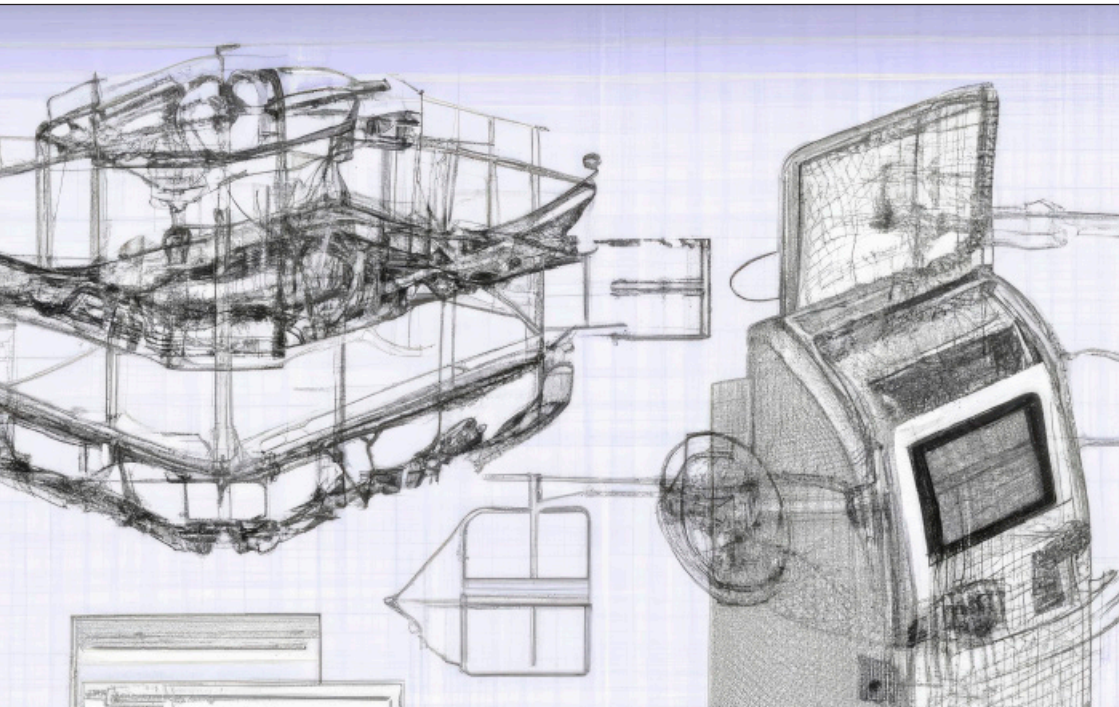


Image Prompt: A CAD sketch of a marketing machine

AI Tool: Dall-E 2

This idea of prioritising handprints over microchips isn't about becoming a 'Luddite' (although these rebels in the 1800s weren't actually anti-technology; they were fighting for workers' rights and textile quality).⁶⁶ It's about differentiating humans and machines so we can put them in the right roles, on the right jobs. When do you trust the data and when do you trust your gut?

There will always be a need for your gut (a part of the body that actually does act as a second brain) because change is constant. The real world calls for a kind of adaptability only living beings can conjure. The Machine can't press its own buttons in the face of adversity.

Many companies have 'AI impact statements', internal 'automation councils' or third-party 'AI auditors' who help safeguard their business and employees when adopting new tools. It's worth considering the consequences when implementing any type of automation and remembering that humans will always need to be involved.

Especially if you're trying to make computers sing.

Be More Human Than Human in a nutshell

Use real music, dialogue and sound effects in content to bring it to life.

Focus on your innate social, emotional and creative skills. Put empathy and personality in your work.

Remember it's okay to slow down, you're not a machine.

Conduct automation audits to protect businesses and employees.

Know change is constant. Humans will adapt when machines cannot.



Image Prompt: A group snap of a diverse marketing team, tilt-shift street photography, high-res

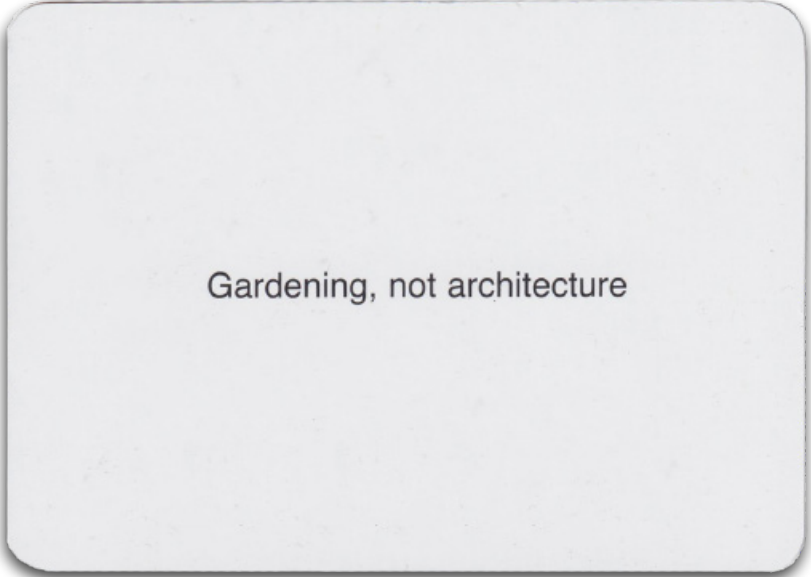
AI Tool: Dall-E 2



5.0

Create On The Edge Of Chaos

Image: *Quantum Memories* by Refik Anadol. An ever-changing generative AI exploration made with more than 200 million images of nature.⁶⁷



Gardening, not architecture

— *Oblique Strategies* card by Brian Eno and Peter Schmidt⁶⁸

AI was never created to be creative. It was created to order mind-boggling quantities of data.⁶⁹ That's why we use the word 'generate' not 'create' when referring to AI outputs. AI models 'generate' from historical data with logical, mathematical operations. Alternatively, 'creativity' is reserved for us autonomous, present-experiencing, empathetic, dreaming, living beings.

But that doesn't mean you can't be creative with AI.

At work I sit near our Motion Graphics Designer, Andreas. He's always showing me new ways to use AI in animations. Andreas can turn basic sketches into photo-realistic dancing characters, age actors younger and older, fix interviewee camera eye-contact and dialogue, and bring supernatural landscapes and intergalactic skies to life. He also trained an AI model on my face (I consented).



Images: Portraits from an AI model trained on photos of my face (prompts vary) **AI Tool:** Runway

Editing software such as Adobe's Creative Suite and Microsoft Designer are beginning to make the most of this new way of creating, viral phone app Lensa lets you generate AI selfies, and online video platform Runway boasts the following "AI Magic Tools".⁷⁰

Runway's "AI Magic Tools"

Text or image to video style transfer

Text to image generation

Text to colour grade

Text to 3D texture

Image to image generation

Infinite image

Erase and replace

Super-slow motion

Frame interpolation

AI training

In-painting

Automatic green screening

Automatic motion tracking

Clean audio

Generate transcript

Automatic beat detection

Lots of these tools are average and lack the control of more advanced software or touch of a professional animator like Andreas, but it shows where we're heading.



Image Prompt: Retro manga art of diverse people floating in the sky with VR headsets, printed

AI Tool: Midjourney

AI editing in the cloud. 3D worlds. Digital personas. The future of content creation might become as intuitive as whispering words and waving wands. A kind of fluid imagination that materialises around you in virtual reality (VR), like in *Ready Player One* (2018) or *Everything Everywhere All at Once* (2022). A utopian dream for some. An apocalyptic reality-collapse for others.

These are creative ways we can apply AI models to our ideas. But can AI actually be creative? Can a machine birth a new idea for your next brand or campaign strategy? To answer, let's discuss some theories of creativity.

Neurologists agree that creativity is too complex to live in one part of the brain. It happens when parts talk to each other — when your default mode network (your instinctive, dreaming, spontaneous side) connects with your executive control network (your analytical, structured, evaluative side).⁷¹ Little kids often have wild imaginations, but don't have the technical skills or cultural understanding to balance them out. Adults often have more control and awareness, but need to find ways to snap out of boring methodology. Creativity springs from somewhere in between instinct and analysis. That's why some of the best ideas come in the shower, on a walk or over a beer with friends — when you're relaxed, distracted and full of dopamine.

“A creative idea will be defined simply as one that is both novel and useful (or influential) in a particular social setting.”

— Alice Flaherty, neurologist and creativity researcher⁷²

Creativity has been described as happening on the ‘Edge of Chaos’. This is an abstract theory that proposes a dynamic state between order and disorder exists in all living systems with continuous feedback, such as populations of people, economies, markets, businesses and natural environments.⁷³ Gardening, for example, requires both growing (chaos) and pruning (order). It’s just a theory, but if you start thinking about Edge of Chaos too much you’ll see it everywhere. Especially in the marketing industry’s melting pot of art and science.

“Advertising is a craft
executed by people
who aspire to be artists
but is assessed by
those who aspire to
be scientists. I cannot
imagine any human
relationship more
perfectly designed
to produce total
mayhem.”

— John Ward, B&B Dorland⁷⁴

Plenty of creative people have harnessed Edge of Chaos theory. Surrealists in the 1920s invented *Exquisite Corpse*, a parlour game where you draw on a piece of paper, fold it so all is concealed except the edge of your drawing, and pass it around the room for others to repeat. The end result is a chaotic yet seamlessly ordered sketch.⁷⁵ In the 1970s, legendary electronic musician Brian Eno and artist Peter Schmidt invented *Oblique Strategies*,⁷⁶ a card deck of prompts that helps musicians think laterally in the recording studio. You have to incorporate whatever odd thing the card says, like the ‘yes and...’ rule in improv acting. Today, genre-blending Australian band King Gizzard and the Lizard Wizard pre-define concepts, tempos, keys and musical modes before commencing chaotic, spontaneous jams.⁷⁷ At Semi Permanent, New Zealand artist Jess Johnson described how she creates fantasy worlds by switching between free-flowing and methodical illustration styles — allowing for both chance and control.⁷⁸

We use similar creative approaches in marketing communications too, be it turning problems into solutions through design-thinking, using the *insight* → *idea* → *execution* method, emphasising tension in storytelling or releasing a campaign idea into a market so consumers and other creators can collaborate. All of these examples rely on the combination of chaos and order to produce original, creative ideas.

You can use Edge of Chaos theory with generative AI too. AI might relieve your creative block by providing a random result, or give your untamed idea a conventional structure. Try playing with ‘temperature’ or ‘chaos’ settings in AI tools, where low values (e.g. 0.1) generate obvious outputs and high values (e.g. 0.9) generate unexpected outputs. Make it a dance — back and forth.

I’ve been showing AI tools to friends whilst writing this guide, and most of them apply Edge of Chaos theory naturally. It normally goes something like this: First they dip their toe in to see what the AI tool does. They give it a straight-forward task. Then they try to break it. They throw diverse ideas at it to push it beyond its capability. They see if the AI can adapt by testing what it can’t do. For example, answer an emotional question, draw something believable or make them laugh. It’s on the verge of AI breaking — the Edge of Chaos — where interesting things can happen.

It's kind of hard to get ChatGPT to write a decent joke, but eventually I got this:

Why did the robot go on a diet?
Because it wanted to reduce its "byte" size!

Yep, a pun. Philosopher Arthur Koestler used the humble pun as an example of his theory of creativity: 'Bisociation', a simultaneously occurring association that explodes in your brain.⁷⁹ Byte and bite! Lol, I get it! It's a juxtaposing double-edged sword, in the same way seeing a person fall could be comedy or tragedy depending on the context. 'Bisociation' reminds me of the F. Scott Fitzgerald quote about humans being able to "hold two opposing ideas in the mind at the same time". How can machines do this if at their core everything is reduced to either a one or zero, on or off?

“The test of a first-rate intelligence is the ability to hold two opposing ideas in the mind at the same time and still retain the ability to function.”

5.0 Create On The Edge Of Chaos



Image Prompt: A very abstract, chunky, thick, glitchy digital art of a half human half machine figure

AI Tool: Dall-E 2

People argue AI isn't creative because it's not 'new', as if for something to be deemed 'creative' it has to appear from thin air with no connection to historical data. I disagree, because then we'd have to rule out songs that use samples, recipes that have ingredients, films with parodies and references, and inventions built upon prior inventions. Plus DJing, which I love, is all about mixing old ideas to create a new mood in a moment. All of this is creative and dependent on past creators. Creativity is an unexpected remix.⁸¹

Instead, the reason generative AI is not 'creative' is because it's not *alive*. It's a constructed, simplified, algorithmic model of creativity. Human intelligence, imagination, feeling and experience can't be computed. AI can't change and adapt to the uncertainties and complexities of reality. AI can't dream of things and believe in things yet to be made. We'll never reach the kind of 'full AI' seen in sci-fi like *Westworld* (2016) or *Black Mirror* (2011), where life is computed and minds are successfully uploaded to servers.⁸²

“Creativity is a fundamental aspect of being human ... Through the ordinary state of being, we’re already creators in the most profound way, creating our experience of reality and composing the world we perceive.”

— Rick Rubin, record producer⁸³



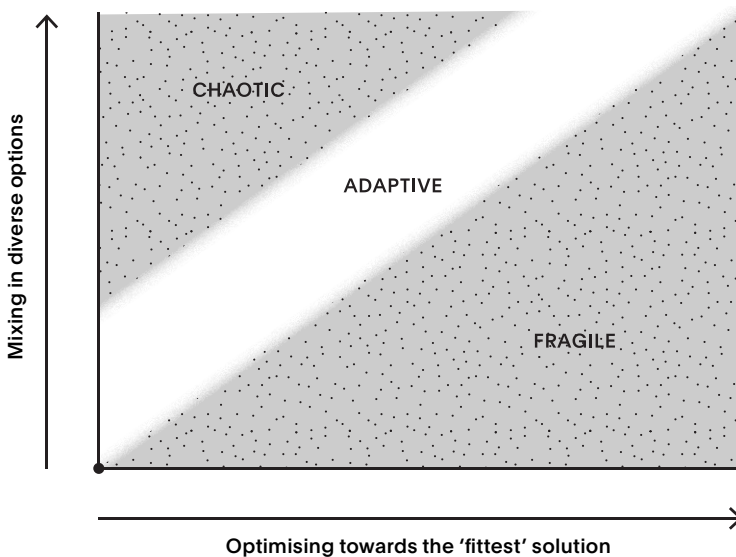
Image Prompt: An office full of chaotic plants, landscape photography

AI Tool: Midjourney

AI struggled to make me laugh because it didn't understand me or the real world context. Similarly, you could connect all the data from all the analytics platforms but it'd still take a real marketing strategist to turn it into a meaningful audience insight or creative idea.

Dr Robert Elliott Smith scientifically proves this in *Rage Inside the Machine*, through his computational creativity work with genetic algorithms. He argues it's dangerous to believe human intelligence is computational, and we shouldn't reduce things in the real world to linear optimisation problems. 'Survival of the fittest' is not a sustainable approach in living systems — we need to preserve diverse perspectives.⁸⁴

For example, in marketing there is no singular 'fittest' Big Idea. Industry-defining work like Volkswagen's *Lemon* print ad and Apple's 1984 Super Bowl spot wouldn't work the same today, and every brand gets refreshed. We can adapt by mixing in diversity. AI models can help us do this to an extent, but remember they're just algorithmic models — not the be-all and end-all.



Graph: A simplification of how Edge of Chaos theory works in genetic algorithms. The 'adaptive' region is an ever-changing balance of selection (order) and variation (chaos). It proves we shouldn't just optimise — we need to mix.

“Edge of Chaos
complexity has revealed
a new reality: that we
cannot characterise
the world and the
phenomena around us
algorithmically, neither
as merely deterministic
sets of rules nor purely
random rolls of the dice.

This complexity is unpredictable, yet it has patterns; unpredictable patterns may in fact be a characteristic of systems that we call living systems.”

— Dr Robert Elliott Smith, *Rage Inside the Machine*

Sometimes shiny new tools come along and scare us into questioning our ability or future, but don't stress. Creativity is not a problem generative AI can solve. Creativity is in the eye of the beholder, and only humans can see eye to eye.

Create On The Edge Of Chaos in a nutshell

Discover interesting ways to use AI models in multimedia executions.

Machines generate outputs. Humans create ideas.

Mix order and chaos in your creative process.

Adapt to the complexities of the real world by
incorporating diverse perspectives.

Creativity is subjective and can't be computed. Dreams have no limits.

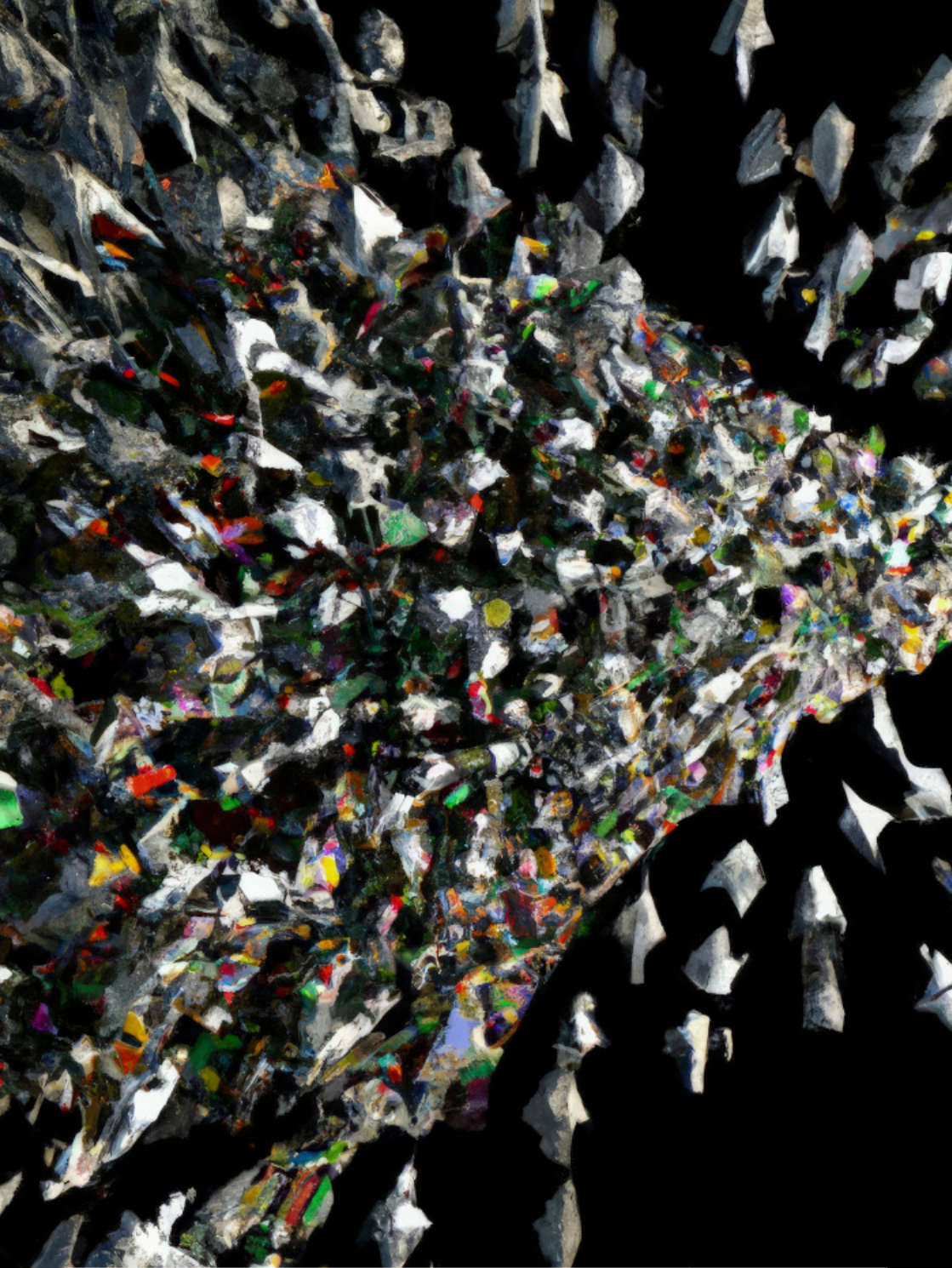


Image Prompt: An explosion of computer arrow cursors

AI Tool: Dall-E 2



Conclusion

“Technology can force us to study ourselves, and figure out our own strengths and limitations. Machines can foster resilience and creativity, as we come up with new and creative ways to stay ahead.”

— Kevin Roose, *Futureproof*⁸⁵

I was going to ask ChatGPT to generate a conclusion, but that would be going against my own advice. It also produced some pretty boring results. “In conclusion, the rapid development of generative artificial intelligence has the potential to greatly impact the marketing industry...” is how it started. Instead, I want to reiterate this:

Generative AI is just a tool. It’s a simplified, algorithmic model of creativity. We must use it with human imagination, empathy, intuition and oversight.

This guide has explored some pretty crazy ways to use generative AI tools in marketing communications, for brands, campaigns and more. Text models and chatbots could replace sales teams, be trained on brand tone of voice, pump out press releases and generate dynamic ads with customer data. Image models could become native to all design software, allowing instant image, illustration, logo, texture, 3D object, colour combination and font generation. Video editing could mean generating virtual scenery, characters and music linked to a VR headset to form liquid realities. Coding responsive websites and apps could be done with natural language. Libraries of training data could replace libraries of stock content.

Yes, machines could replace some human jobs. But none of this necessarily should happen.

I think, like society did with past print, broadcast and digital media, we’re overestimating AI’s immediate impact and underestimating its long-term influence.

I’ve had long chats with multidisciplinary artist and good friend Dave Court about AI and he’s helped inform some of the ideas in this guide. He compares this current moment in time to showing TikTok to someone in the 80s who thinks the internet is just for sending digital letters. We’re only applying AI to current situations to accelerate things we already do. Dave’s latest exhibition, *Learning Machine*, includes AI generations, VR drawings, 3D printed sculptures, interactive projections and paintings that scroll infinitely like screens.⁸⁶ The exhibition gets people interacting with the media — highlighting that machines aren’t just learning from us, we’re learning from them. Who knows what this circular relationship means for our unpredictable future.

On our way to finding out, I'm going to cite technologist Dr Robert Elliott Smith again, who I met briefly at WOMADelaide's Planet Talks in 2020.

“AI is the hole.
Not the doughnut.”

— Dr Robert Elliott Smith, *Rage Inside The Machine*

Most algorithms that were once called 'AI' are now just considered standard 'computation'. Content generators will probably share a similar fate. AI is an elusive benchmark, the part of human thinking machines can't do. We'll never reach the 'full AI' we see in films. Human intelligence cannot be reduced to theories or formulas.⁸⁷

Hence it being 'artificial' intelligence and science 'fiction'.

Works of sci-fi, from Mary Shelly's *Frankenstein* (1818) to Alex Garland's *Ex Machina* (2014), are not really about monsters and robots. They're about humanity and our god complex. Similarly, I've found writing this guide has become less about generative AI and more about human creativity and responsibility.

We are the designers of all artificially intelligent tools. We are the authors of our own future.

We are the machines of mass creation.



Image Prompt: A crowd of people walking into the distance in the style of AI

AI Tool: Dall-E 2

AI Tools

An incomplete list of AI tools you can experiment with, some of which have been used and referenced in this guide.

AI PLAYGROUNDS

Google AI Experiments: <https://experiments.withgoogle.com/collection/ai>

OpenAI Playground: <https://beta.openai.com/examples>

AI TEXT

ChatGPT by OpenAI: <https://openai.com/blog/chatgpt/>

Jasper: <https://www.jasper.ai/>

CopyAI: <https://www.copy.ai/>

Copysmith: <https://copysmith.ai/>

Anyword: <https://anyword.com/>

Simplified: <https://simplified.com/ai-writer/>

AI VISUALS

Dall-E 2 by OpenAI: <https://openai.com/dall-e-2/>

Midjourney: <https://midjourney.com/>

Stable Diffusion: <https://stablediffusionweb.com/>

Dream Studio by Stability AI: <https://beta.dreamstudio.ai/>

Runway: <https://runwayml.com/>

Vizcom: <https://www.vizcom.ai/>

Google Imagen: <https://imagen.research.google/>

Lensa: <https://prisma-ai.com/lensa>

Microsoft Designer: <https://designer.microsoft.com/>

Khroma: <https://www.khroma.co/>

Adobe Photoshop: <https://www.adobe.com/au/products/photoshop.html>

AI AUDIO

Riffusion: <https://www.riffusion.com/>

Jukebox by OpenAI: <https://openai.com/blog/jukebox/>

Magenta Studio: <https://magenta.tensorflow.org/studio/>

Adobe Podcast: <https://podcast.adobe.com/>

NaturalReader: <https://www.naturalreaders.com/index.html>

OTHER

Topaz Labs: <https://www.topazlabs.com/>

Github: <https://github.com/>

Hugging Face: <https://huggingface.co/>

Google Collab: <https://colab.research.google.com/>

Futurepedia: <https://www.futurepedia.io/>

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A Creative's Guide To Generative Artificial Intelligence

Lewis Brideson

Artificial intelligence (AI) has stepped out of sci-fi stories and into creative studios.

Machines can now generate articles, illustrations, photos, websites, songs, films and more seemingly from scratch, at a speed that has the marketing industry buzzing.

But with great computational creativity comes great responsibility.

Branding, advertising, communication, production and media companies must be careful with this newfound power to automate jobs, generate content and influence human behaviour.

Hence this different type of machine user guide — a guide for writers, designers, filmmakers, developers, strategists and other creative types who want to work with, rather than for, AI.

This exploration of machines of mass creation may just secure you a safe place in the future — a future coming faster than we think.

