

# Slow Down Time: A curatorial intervention exploring the relationship between text, image and machine.

**Mitch Goodwin**

Melbourne, Australia

oldmateo@gmail.com | <http://mitch.art>

## Abstract

The *Slow Down Time* project is an aesthetic and technical investigation of the procedural outcomes of generative AI routines as both standalone works of visual culture and the stealthy speculative practices of diffusion models and **big data sets**. As an exercise in new media curation, the assemblage operates as both a performative and conceptual response to algorithmic black-box processes in the form of a slow-media / slow-synthesis art intervention.

The archive documents the dialogue between the text-to-image service Midjourney and a network of twenty-three prompt authors. Intentionally meditative, the intention was to catalogue fragments of the curatorial dialogue enabling contemplation within latent diffusion spaces.

The curatorial process for *Slow Down Time* archive was also an exercise in technical transparency and cultural excavation. This essay cites the curator's **Discovery model** of inquiry-based study to “unpack” technical, cultural and historical tendencies within the archive. Cataloguing the development of the Midjourney “house style” over a specific period was also an important goal of the project.

## Keywords

Machine aesthetics, artificial intelligence, generative art, archive fever, Midjourney, digital curation, algo poetics.

## Introduction

*Slow Down Time* is a collaborative art intervention that seeks to cursively deconstruct the procedural aesthetics

and compositional tendencies of the diffusion model and Natural Language Processing (NLP) of the text-text-to-image service **Midjourney**. The philosophical nature of this procedural inquiry has four curatorial elements:

- *Contemplation* – Do contemplative practices make the opaque operations of algorithms more relatable?
- *Deconstruction* – How does adopting literary devices impact production and reception of text-to-image generative AI?
- *Documentation* – What is actually being preserved by curating human-machine dialogues within a finite period of a technology's rapid development?
- *Presentation* – By framing the machine compositions in exhibition and symposia contexts important questions emerge around the means of (media) production in the age of AI.

## An Invitation

My provocation for potential prompt authors was to compose a simple line of text, in the form of a technofuturist thought experiment: *What would you like the machine to dream?*

AI image synthesisers like **DALL-E** and Midjourney are trained on gigabytes of text-image pairs, a form of intertextual archive scraped from the Internet that is both **auto-annotated** by machines and **slavishly** validated and aligned by humans. *Slow Down Time* is an attempt – using curatorial and literary methods – at a conceptual response to that archive.

The majority of text prompts collected from authors are not the calculated compositions of a typical prompt engineer. Instead, they are mostly contemplative – quotations, throw away comments, existential questions, melancholic observations, whimsical thoughts and the occasional **literary flourish**.



**Figure 1** - Edition 03-A2DB from *The Loneliness Room* series, Midjourney, Redmond & Goodwin (2022-10-04)



Edition: 20B-A3BD

## History

### Text prompt

Our present can at times seem wider than history is deep

### Parameters

-ar 3:2 -s 1000 -q 3 -no graphic design -no poster -v 3

### Parent grid



MidJourney Job ID :: 08b732cc-109d-4692-8685-e51a4cdf00b3

### MidJourney Job ID #

ae6d61e5-7391-4e04-9c76-3475d89c5756

### Prompt Author

Sean Lowry

### Discord Message Link

<https://discord.com/channels/1034071476338434089/1034071477290553407/1069585482092118087>

### Date Commenced

03.01.23



Edition: 06-A4DC

## Fashion 2100

### Text prompt

If I was diagnosed 'mad' in the year 2100, what would I be wearing? Where would I be? Who would surround me?

### Context parameters

Futurism in the Anthropocene. Mixed-media, wearable art, artist impression

### Parameters

-ar 16:9 -c 100 -test -creative

### Parent grid



MidJourney Job ID :: 3af5cc58-0b4d-4e2b-8929-d47a38a9789d

### MidJourney Job ID #

91f7cdfd-d8c6-4ea2-b79d-83dc2b64b51d

### Prompt Author

Sarah Mace-Dennis

### Discord Message Link

<https://discord.com/channels/1069754597029199922/1069754597855473686/1079269147852156928>

### Date Commenced

31.01.23

Figure 2 - Examples of image edition meta data for the *Slow Down Time* project - "History" by Sean Lowry and "Fashion 100" by Sarah Mace Dennis (with MidJourney & Mitch Goodwin).

## Archive Elements

Without getting too prescriptive with regards to the Midjourney image generation process on *Discord*, there were data categories from a curatorial perspective that I considered important to include the organisation of the *Slow Down Time* archive.

The primary aim being to ensure the cataloguing method was as meaningful and transparent as possible to preserve the technology in a distinct period of its evolution:

*Title and edition number* – a classification system to track the evolution of image variations and/or prompt manipulation.

*Text prompt* – the original prompt supplied by the authors.

*Image prompt* – some prompt authors were practitioners and I invited them to also submit an image to complement their text prompt.

*Prompt parameter/s* – in some cases it became necessary to include additional prompt parameters to direct Midjourney towards a coherent outcome.

*The parent grid* – the first response to any prompt provides four image variations in a grid.

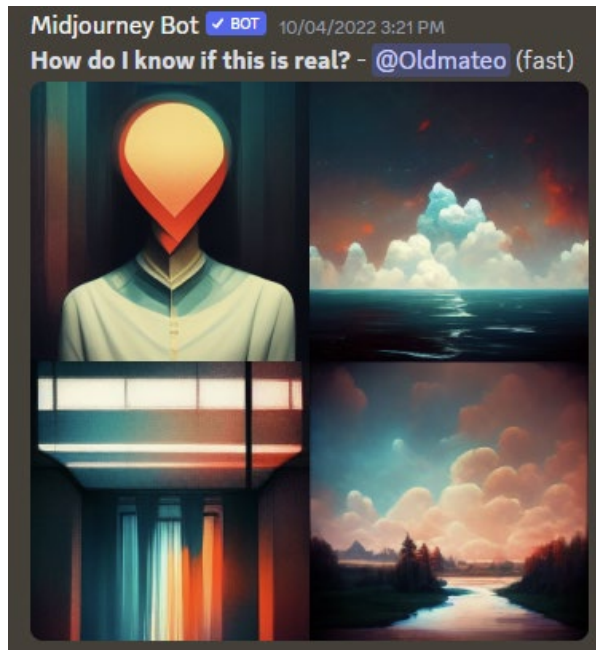
*Midjourney Job ID* – the original Midjourney job number used to identify the generated image.

*Discord message link* – the exact location of the generated image on my Discord server.

*Commencement date* – the commencement of image generation, which also pinpoints Midjourney's development version.

*Series Contact sheets* – all the images from each series to reveal the genealogy of the images.

For more detail on how this information is arranged for each image see the examples in **Figure 2**, on previous page.



**Figure 3** – The parent grid from the first response to the prompt "How do I know if this is real?" by Midjourney, Perkin and Goodwin (2022-10-06)

## The Poetics of Slow A.I.

The most fascinating aspect of this recent period of generative AI “art” production are the **poetics** of both the prompt and the final outcome. [1] It begins and ends as a text. Within that loop various modes of receivership and re-contextualisation take place.

While generative A.I. systems perform image requests in a matter of seconds, representing a new machine operation of hyper-seduction, *Slow Down Time* was a response to this manufactured desire for instantaneity and near ubiquitous modes of digital media production and consumption.

For the *Slow Down Time* project I deliberately curated moments within the production cycle (author-machine dialogue) in which contemplation of text and

image were encouraged by author and curator. While the outcome is inherently visual, the process felt like a literary one. Therefore, when establishing the network of collaborators I was keen from the outset to work with colleagues who possessed a literary-minded creative instinct – or at least, loiter around those who do.

## Curating Time

Contemplation then becomes a key feature of the curatorial design process, occurring at numerous stages of the project's life:

- i. *Crafting* of the prompt by the authors
- ii. *Production* of image variations (often over many hundreds of generations)
- iii. *Curation* of the final collection of thirty-three image series
- iv. *Printing* of the selected images as a set of photographic prints
- v. *Receivership* by the authors of their image prints in the mail (postal service)
- vi. *Response* by the authors to the generated images as tactile media objects (photographic prints)
- vii. *Archiving* of the images, meta data and the dialogue exchange with the authors online

Each step in the journey a deliberate measure to slow down time.

This iterative “slow-A.I.” method seeks to discern the character and the intention of the algorithm when responding to text prompts by authors who might assume – however misguided their assumptions may be – that the algorithm is cognizant of the world beyond the network, and that there is ‘human-like’ intention in the stylistic and compositional choices it makes.

To which one is tempted to ask: is there some form of “**projection of the world**” being configured within the Midjourney black-box as it blitzes through its trove of cultural fragments? [2]

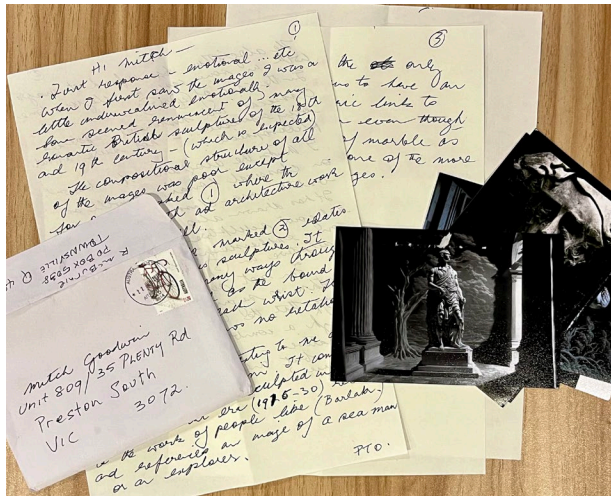


Figure 4 - Handwritten response (with prints of his prompt) from artist Ron McBurnie to images from his series, *Newton*.

## The New Remixology

David Holz has suggested the Midjourney model's purpose is to "augment our imagination". [3] Like the emergence of [expanded cinema](#), Midjourney plays with genre and form, using existing principles that have long informed media arts practice such as non-linearity, repetition and remix to [exploit the archive](#). What is emerging are rhizomatic possibilities for cultural (re)production and exchange.

In *Art as Information Ecology*, Jason Hoelscher writes that "art's difference is sustained over time and reveals itself differently with each encounter, because art is information's free play of difference." [4] Midjourney as algorithm is conducting this free play, there are rules, but each interaction is different, each outcome unique. In practice, this is nothing new:

*Blues and jazz musicians have long been enabled by a kind of "open source" culture, in which pre-existing melodic fragments and larger musical*

*frameworks are freely reworked. Technology has only multiplied the possibilities.*

– Jonathan Lethem [5]

How should we describe these outcomes if we are indeed experiencing an entirely new genre of electronic image production and perception?

Networked images, database images, synthesized images – these are all useful terms, reflective as they are of the procedures within. They are certainly products of automation, so we might understand the operant as a kind of auto-photography – or as Elke Reinhuber has described, [synthography](#). [6]

Magic lurks within the algorithm too. Eryk Salvaggio – from the quite magnificent blog, [Cybernetic Forests](#) – has described the technology of the more photo-realistic aspirations of the DALL.E platform as "a kind of spirit photography". [7] Conjuring images replete with the ghosts and markings of past technologies: the fading image, the decaying medium and the corrosive chemical reaction.

Ilya Sutskever, cofounder and chief scientist at OpenAI, describes the process as "[transcendent beauty as a service](#)" [8], while artist and theorist Lev Manovich has poetically described his interactions with Midjourney as akin to working with a "[memory machine](#)". [9] The recognition that it is a service but also a metaphysical experience, is a new way of thinking about tools of automation.

*The lesson I have learned the most is that words are spells. If I didn't know it before, I know it now for sure.*

– Tess Parks [10]

My initial experience of the psychedelic drift of the host platform [Discord](#), was certainly reflective of an other-worldly exchange. My first image requests were whimsical queries, nocturnal flights of fancy, gentle tentative casts into the virtual spirit world - unnervingly well-suited to the algorithm's default aesthetic.



Figure 5 – Beta test image *Johnny & Mary* by Midjourney & Goodwin (2022-07-18) Lyrics by Robert Palmer (1980)

## Ecologies of Place

After several weeks of fevered exploration with the Midjourney Bot, recurrent anomalous patterns began to emerge: motley surface textures, inferences of data-noise in the form of hair-like wires and machinic glitches. Historical and genre abstractions were present too: luminous acrylics and garish neon, moody pink skies and deep shadows, while silhouetted strangers, always facing away from the viewer, give both scale and perspective while hinting at sub-text. The melancholic presence of these shadow figures haunts the canvas.

What was also observable were the unresolved spaces in between objects and forms that were not describable in human terms, these machinic utterances were clearly the product of an algorithmic loose end. Stephen Wolfram has described this tension as an "inter-concept space" at the edge of human understanding somewhere beyond [Euclid optics](#) and Wolfram's own description of the limits of computational entanglement – the [ruliad](#) – where

“things look familiar but mostly what we will see are things we humans do not have words for.” [11]

These tendencies were especially evident when the going got tough for the Natural Language Processor (NLP) with regards to negotiating the conceptual or linguistic intent of the prompt. Typically, this occurred when a prompt was too open or vague, or the scenic elements were too complex, or the genre parameters not so easily resolved. Depending on the context, Midjourney would improvise to achieve, what it “supposed” was a coherent image and an adequate response to the given prompt.

### Errors of Convenience

It was these textures, anomalies and improvisations that became interesting to me. They reached out from the mush and the jumbled assemblage of model’s language tokens, like a doomed piece of concept art pursued a little too far. As designers and artists, we know this curse well

- a confused design, a failed canvas, a disjointed edit, the meandering text ...

Meanwhile this pull towards subterranean abstraction speak not just of the algorithm’s confused relationship to the archive – and that of the physical world of which it knows nothing – but are also, in a strange way, evocative of the human need to express and critically, to be understood. It was as if a performative echo of our own fumbles in the dark were discernible in these images: historical longings for the past and fearful speculations of a future authored by a techno-cultural memory machine.

### Curating New Futures

It occurred to me very early on – around July 2022 – when my early nocturnal flirtations with the Midjourney Bot escalated into a flurry of image making and archiving – that beyond these seemingly technical anomalies were other emergent trends: representations of water, of disrupted landscapes, layering of historical signifiers,

urban decay, networked computing iconography, and distant shimmering horizon lines. These resonated with me as they reminded me strongly of a curatorial task, I had only recently completed for a new undergraduate core research subject at the University of Melbourne.

The Arts Discovery subject was designed to give students enrolled into the Bachelor of Arts program an insight into the practice of scholarly research and the domains of investigation undertaken by faculty academics. A way of creating a connection between faculty, sites of research and how research “becomes in the world”.

As a method to spark discussion – and act as pathway into such scholarly activity – I curated a catalogue for a fictitious exhibition, *New Futures*. This was a core learning material that performed the role of a “curriculum within the curriculum”. The contents of the catalogue were chosen to signpost the visible – icons, artefacts,

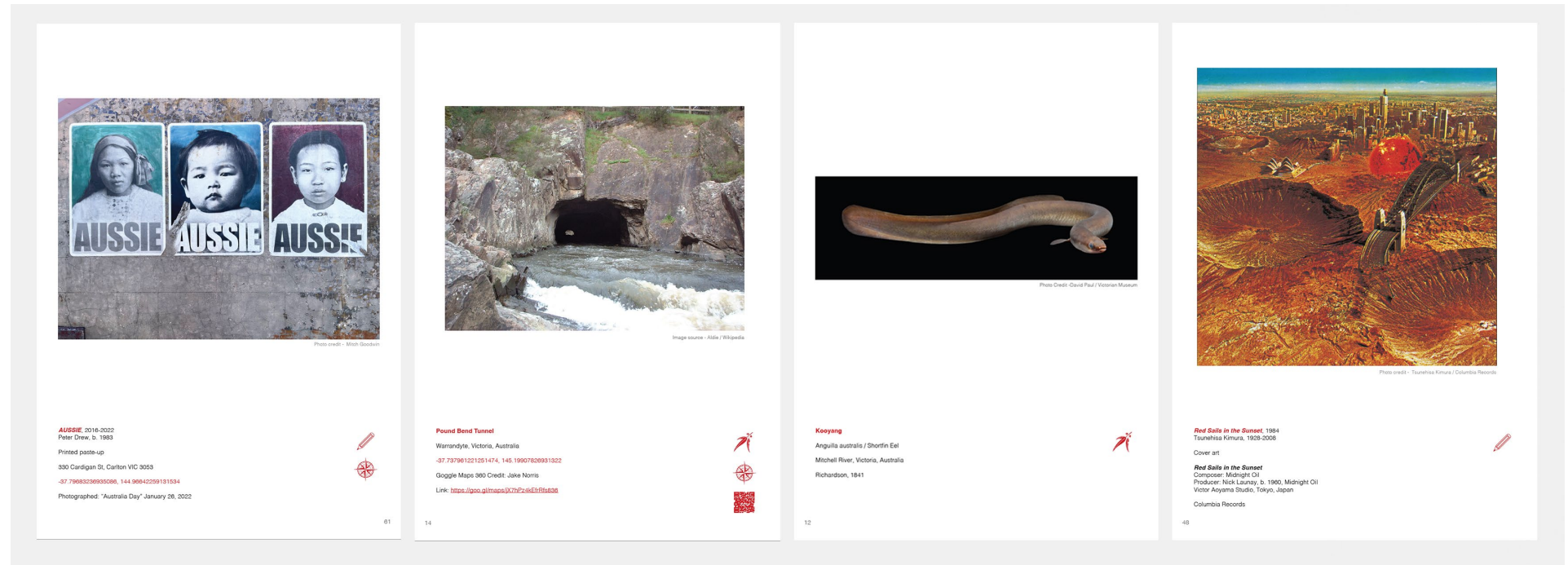


Figure 6 - Page spreads from the Arts Discovery *New Futures* catalogue depicting ecologies of place with the theme of water (Pages 61, 14, 12 & 48), Goodwin-University of Melbourne, 2022

places, and ecologies. These could be read as discrete objects – however, more instructively, they can be read in relation to the wider collection to reveal the invisible machinations of an object’s contemporary presence and its historical precedents:

*Together they point to something larger, deeper and more intricate than their framing within these pages might suggest. These objects may exist independently in the world, yet together they articulate a broader statement about the latent energy of what it means to think as a futurist, to contemplate the meaning of “new futures”. Whether they be Utopian or Dystopian, expired or emergent, stolen or promised ...*

- Mitch Goodwin [12]

These words are a deliberate attempt to highlight contrasts and associations afforded by a curatorial process that could be hyper-local (a coffee cup) or global (geo-tagged map). Each artefact was chosen to spark interest and act as a pathway for students to intervene in an ongoing dialogue with place:

- Australia’s settler and migrant history reflected in contemporary artifices and urban markings.
- The environment of Narm (Melbourne’s Indigenous name) and surrounding land and waterways.
- Institutional narratives via its vast cultural and scientific collections.
- The wider cultural weavings afforded by technology and networks of which the students and teaching community are intertwined.

Lying beneath these curatorial parameters is the meta-narrative of impermanence and sustainability. While not explicit, the connection to country is documented through many of the artefacts which demonstrate our relationship with – and settler manipulation of – water and wetland habitats. (See samples in **Figure 6**, on previous page).

## Ethical Signatures

While the *Slow Down Time* archive’s dystopian tendencies and the *New Futures* theme of eco-crises contain obvious parallels – such as the levels of [water consumption](#) required for large scale compute or the extraction of [conflict minerals](#) for device componentry – anthropological and deconstructivist methods of analysis are also synergetic with the [Discovery model](#).

Such methods can provide a means to examine the visual genealogy of generative AI training data and their reflexive [synthetic outputs](#). As Richard Carter has noted, we can think of these textual images as an “inverted form of machine vision,” and the authorship of prompts the procedural dialogue that “makes visible the structural biases and cultural imperatives encoded within their originating architectures.” [13] Just as we might imagine a reflexive curriculum through an ontology of objects.

By taking a media archaeological approach [14] we might think about latent spaces and [transformer technology](#) as not only potentialities but also as the functional residue of historical and ecological deep time. A kinetic state of data performance that can shift the frame of viewership “[forwards or backwards in time](#),” thus destabilizing the slick veneer of the [AI hype machine](#) by atomising the solidity of things and cracking open the yoke. [15]

Of course, the unpacking of the provenance of text and image signifiers and following the bread crumbs back through historical data is evocative of how social scientists and artistic researchers collate ideas and formulate territories of study. Objects and sites of interest require methodical investigation beyond the surface of things in order to understand the histories lived and fictionalised and exploited by others. This is not only what conducting scholarly research is all about but also how we might come to interpret the machinations and outputs of Gen-AI services through the lens of the humanities. If we follow Jaron Lanier’s suggestion that ChatGPT is the sum of all human transcription – a “theory of mind” [16] – then AI image synthesisers might just be the imprint of human history in coded visual form.

Embedded within generative outputs – whether they be words or images – are therefore threads of relational data and [historic ideology](#) which exposes both the tension between renditions of present and past, as well as modes of artificiality and authenticity that author the present.

## So, at What Cost this Gen-AI?

It should be made very clear then that the *Slow Down Time* project does not operate in a vacuum and is very aware of persistent and [unresolved issues](#) pertaining to the development and rapid proliferation of Generative AI and its ethical, historical and ecological footprint. [17]

Over the past decade, critical voices – such as danah boyd, Edward Snowden, Trevor Paglen, Virginia Eubanks and Shoshana Zuboff – have signaled a warning that algorithms of surveillance and analysis are not in any way passive.

We should not expect Gen-A.I. to be a docile entity once fully formed and embedded on the networks of commerce, governance, and information production. They will mature rapidly to become core components of an increasingly artificial lived experience. Navigable virtual constructs to be sure, however in-tandem with existing modes of data mining and analysis, Gen-AI constitute powerful operationalised forces of calculation, prediction and [influence](#).

Recently, the critical AI debate has been [hijacked](#) by a form of “longtermism” – a movement that trades in existential doomerism. The central thesis being that humanity could be [extinguished](#) by some rogue super intelligence or worse still, marauding killer robots. [18] However, a [more realistic](#) – and urgent – take on the issues society faces in this present moment of frontier AI development might include the following challenges:

*Embedded biases* - the [embedded inequality](#), cultural stereotypes and gender biases within training data and their generative outputs.

*Worker safety* - the [psychological cost](#) of labelling training data and monitoring violent, abusive and explicit content.

*Worker rights* - the **exploitation** of vulnerable workers in the labelling and vetting of text-image pairs.

*Digital rights* - the unsolicited acquisition of copyrighted work by **living artists** for training data purposes as well as the discernible “presence” of style and technique in the output.

*Privacy rights* – just as big data practices have made advances in generative AI possible, **embedded biases** within already problematic surveillance practices are **intensified**.

*Environmental costs* - the **energy impact** of algorithmic calculations / the mining of rare minerals to construct chips and components.

Some of these signatures are certainly evident in the *Slow Down Time* archive. For an idea of how problematic this can be in practice, see Wajeehah Aayeshah’s series *ID*, and Jack Latimore’s series *The Cliff*. Both expose the

limitations of the Midjourney corpus in depicting (and describing) cultural diversity. Raul Posse’s series, *El Agua*, is culturally and historically specific yet Midjourney manifests the prompt’s warning in extreme ways.

### The Gothic Undertow

Generative AI text-to-image services represent a major shift in the gothic techno-futurist tendencies of digital media. They look exclusively and mindlessly back into the past before portending **dark melancholic scenarios**. In turn, these slippery fictions stoke our anxieties of what might be imminent – that which comes for us in the dark.

Machine learning algorithms diligently seek out corollary information from vast archives of training data that render models of humanity’s cultural history, however skewed it might be towards the bleak end of the spectrum.

As the algorithms crawl through the interwebs and the data stacks what they find is that darkness is embedded in our past and it *is* horrific. From epic biblical tales of destruction to the horrific photographs of the holocaust, from movie stills of slasher films to the paintings by **Goya** and Etienne **Sandorfi** and the illustrations of HR **Giger** and Zdzisław **Beksiński**. From photojournalism of fallen towers and gruesome mechanical wreckages to screenshots of marauding zombie hordes. The algorithms of Midjourney and DALL-E are merely appropriating what is already there, dutifully recycling back to us the dark and ominous retrograde landscapes of the human imagination.

One experience of wrestling with a seemingly innocuous Midjourney prompt – “**the future of architecture**” – left me horrified. How could such a simple unadorned request produce image after image of crumbling cityscapes and barren wastelands? Each variation rendered in deep reds and oranges with hot hazy



Figure 9 - From top left, 24-A2B & 20-A1, from *ID* by Aayeshah, 10-A4CD from *El Agua* by Posse (with Midjourney & Goodwin)

disappearing horizon lines of infinite destruction. In the centre of the image rose a shiny abstract tower, all glass and steel and aqua blue accents, impossible architectural forms that reached pleasingly into the temperate cooling air of the stratosphere.

There will always be inequality, the algorithm was telling me. Winners and losers, air-con and keystrokes. The [Cloudalists](#) above and the Earth hardened data drones toiling away in the sun below. [19]



**Figure 10** - Edition 04-C2B from the *Future Imperfect* series by Midjourney, Brown & Goodwin (2022-09-22).

## Video Interpolations

An unplanned component of the project were the video interpolation experiments. These were produced for a selection of prompts that displayed what I would describe as expanded modes of “compositional desire”. In these cases, I pursued compositional threads just one or two grid variations, often generating hundreds of images as a result. I discovered that when these images were

compiled in a linear sequence, they more clearly revealed the evolution of the generative process. The linear sequencing of image variations on a timeline was done using [Runway ML](#)’s frame interpolation process.

## Sad by Design

Beginning with a curious sequence of images from a prompt by Geert Lovink – “[sad by design](#)” – the Midjourney algorithm seemed determined to find coherence from compositional abstractions over multiple re-generations.

These emergent patterns demonstrate how the algorithm seeks out formal references from the chaos and abstraction – the latent instinct of the diffusion model. In turn through our witnessing of the sequential playback, we are able to attribute meaning and mediated symbolism upon the ghostly visage.



**Figure 11** – 09-A4EE & 09-A4GB from the *Sad by Design* series by Midjourney, Lovink & Goodwin (2023-01-23)

Through veils of abstraction, we can also see how this process reveals the narrow bandwidth within the labelling method used to train the Midjourney algorithm as it seeks out visual stereotypes: the horror film poster

featuring a blood red silhouette, the traumatized Asian/Middle Eastern figure in a scarf, the forlorn female model disappearing into advertorial collateral and is that Picasso’s *Weeping Woman*? Perhaps.

The prompt mentioned neither gender nor any form of embodiment. What is being designed here? Are women inherently sad – or just rendered that way by men and their algorithms?

## Reality Check

*What is a face, really? Its own photo? Its make-up? Or is it a face as painted by such or such painter? That which is in front? Inside? Behind? And the rest? Doesn’t everyone look at himself in his own particular way? Deformations simply do not exist.* – Pablo Picasso [20]

In another example worth noting is the series of images produced by Jennifer Perkin’s prompt, “[How do I know if any of this is real?](#)” which initially produced the silhouetted outline of a young woman in portraiture. Although her face is obscured her ghostly presence will be familiar to anyone who was playing around with Midjourney back in those halcyon days of late 2022. The neatly fitted shirt and the bob of black hair are signatures of a default female character known as “Ms Midjourney” who haunts “the blank spaces between parameter weights and engrams.” [21] During the course of generating over 260 images from the Perkin prompt the abstract orb, reminiscent of an inverted tear drop, underwent many variations: landscapes, sunsets, cracked earth, bleached valleys and occasionally hints of a baking cityscape, even a stack of old newspapers signpost the urban decay. (See [Figure 12](#), overleaf).

A concurrent narrative appeared to express a synergy between these two “minds” – roots, branches, valleys, stars, and finally in the last frame where I stopped the process – tears. A sadness had emerged.

Was reality no longer shared? Or was it mourning the fact that the two could not really be as one, permanently conjoined, yet butterflyed staring off in separate directions? An allegory perhaps, for the uneasy confluence of human and machine ...





Figure 2 – Sample editions from the *Reality Check* series by Midjourney, Perkin & Goodwin.

## References

- [1] Dean Kissick, “The Downward Spiral: Text-to-Image”, in *Spike Art Magazine*, July 13, 2022, accessed July 30, 2022, <https://www.spikeartmagazine.com/?q=articles/downward-spiral-text-image>
- [2] Nancy Liu, “How OpenAI’s GPT Learns Our World to Make Predictions,” *sdxcentral*, March 24, 2023, accessed September 26, 2023 <https://www.sdxcentral.com/articles/news/how-openais-gpt-learns-our-world-to-make-predictions/2023/03/>
- [3] James Vincent, “‘An engine for the imagination’: the rise of AI image generators”, *The Verge*, August 3, 2022, accessed August 8, 2022, <https://indianexpress.com/article/technology/tech-news-technology/ai-art-tool-midjourney-answers-what-if-8062647/>
- [4] Jason Hoelescher, *Introduction. In Art As Informational Ecology: Artworks, Artworlds, and Complex Systems Aesthetics* (Duke University Press, Durham, 2021), 2
- [5] Jonathan Lethem, “The Ecstasy of Influence: A Plagiarism,” in *Harper’s Magazine*, February, 2007, access September 4, 2022 <https://harpers.org/archive/2007/02/the-ecstasy-of-influence/>
- [6] Elke Reinhuber, “Synthography – An Invitation to Reconsider the Rapidly Changing Toolkit of Digital Image Creation as a New Genre Beyond Photography,” in *ArtsIT, Interactivity and Game Creation*, eds. Matthias Wölfel, et al, (Switzerland: Springer, 2022)
- [7] Eryk Salvaggio, “Ghosts of Diffusion,” *Cybernetic Forest*, August 21, 2022, accessed August 23, 2022, <https://cyberneticforests.substack.com/p/ghosts-of-diffusion>
- [8] Will Douglas Heaven, “This horse-riding astronaut is a milestone on AI’s long road towards understanding,” in *MIT Technology Review*, April 6, 2022, accessed August 2, 2022, <https://www.technologyreview.com/2022/04/06/1049061/dalle-openai-gpt3-ai-agi-multimodal-image-generation/>
- [9] Lev Manovich, “Synthetic memories,” *Facebook*, August 16, 2022, accessed August 16, 2022, <https://www.facebook.com/lev.manovich/posts/10161165945527316>
- [10] Tessa Parks, “And Those Who Were Seen Dancing,” *Bandcamp*, May 20, 2022, accessed September 26, 2022 <https://tessparks.bandcamp.com/album/and-those-who-were-seen-dancing>
- [11] Stephen Wolfram, “How to Think Computationally About AI, the Universe and Everything,” *YouTube/TED*, October 2023, accessed November 8, 2023 <https://youtu.be/fLMZAHyrpyo>
- [12] Mitch Goodwin, *New Futures: A Research Catalogue*, Arts Teaching Innovation, University of Melbourne, 2022

[13] Richard A. Carter, “Machine Visions: Mapping Depictions of Machine Vision through Critical Image Synthesis,” in *Open Library of Humanities*, 9 (2): pp. 1–33.

[14] Erkki Huhtamo and Jussi Parikka, “Introduction - An Archeology of Media Archaeology,” in *Media Archaeology : Approaches, Applications, and Implications*, edited by Erkki Huhtamo and Jussi Parikka, (Berkeley California: University of California Press, 2011)

[15] Flexaplex, “HOLY ACTUAL FUCK - OpenAI Sora Research Post: Video generation models as world simulators,” *Reddit*, February 16, 2024, accessed April 04, 2024 [https://www.reddit.com/r/OpenAI/comments/1arwopx/holy\\_actual\\_fuck\\_openai\\_sora\\_research\\_post\\_video/](https://www.reddit.com/r/OpenAI/comments/1arwopx/holy_actual_fuck_openai_sora_research_post_video/)

[16] Jaron Lanier with Brian Greene “Intelligent Thinking About Artificial Intelligence”, *World Science Festival*, February 24, 2024, accessed March 04, 2024 <https://youtu.be/caepEUi2IZ4>

[17] Will Douglas Heaven, “These six questions will dictate the future of generative AI” in *MIT Technology Review*, December 19, 2023, accessed January 30, 2024 <https://www.technologyreview.com/2023/12/19/1084505/generative-ai-artificial-intelligence-bias-jobs-copyright-misinformation/>

[18] Sam Dresser, “Against longtermism,” *Aeon*, October 16, 2021, accessed September 26, 2023, <https://aeon.co/essays/why-longtermism-is-the-worlds-most-dangerous-secular-credo>

[19] Yanis Varoufakis, “Cloudalists: The New Ruling Class & how can we confront its technofeudal order,” April 10, 2022, accessed August 8, 2022, <https://www.yanisvaroufakis.eu/2022/04/25/cloudalists-the-new-ruling-class-how-can-we-confront-its-technofeudal-order-iai-lecture-10-apr-2022/>

[20] Mary Ann Caws, *Pablo Picasso* (Reaktion Books, London, 2005)

[21] James Horton, “Who is the Ghostly Woman Haunting Midjourney?” *Medium*, October 29, 2022, accessed October 29, 2022, <https://medium.com/predict/who-is-the-ghostly-woman-haunting-midjourney-27d399ceb974>

## Further Reading

Atkinson, P. and Barker, R. “AI and the social construction of creativity”, *Convergence: The International Journal of Research into New Media Technologies* 2023, Vol. 29 (4) 1054–1069

Clarke, T. et al, *Adbusters: The Aesthetic Clash Issue*, September/October 2022, #163 Vol.30 No. 5

De Cooman, J. “When Art Becomes a Lemon: The Economics of Machine-Enabled Artworks and the Need for a Rule of Origin” *Law, Technology and Humans*, Volume 5 (1) 2023

Hertzmann, A. “Computers Do Not Make Art, People Do”, in *Communications of the ACM*, May 1, 2020, accessed July 7, 2022 <https://cacm.acm.org/opinion/computers-do-not-make-art-people-do/>

Lowry, L. “Curating the Internet” in *A Companion to Curation*, edited by Brad Buckley and John Conomos, 2019, p391-421

Manovich, L. “The AI Brain in the Cultural Archive”, *MoMA magazine*, July 21, 2023, accessed July 22, 2023 <http://manovich.net/index.php/projects/the-ai-brain-in-the-cultural-archive>

Salvaggio, E. “How to Read an AI Image - The Datafication of a Kiss” *Cybernetic Forests*, October 2, 2022, accessed October 5, 2022 <https://cyberneticforests.substack.com/p/how-to-read-an-ai-image>

Tunks, J. *AI (Art Index)*, Perimeter Editions 080, 2022, Melbourne, Australia

Varnelis, K. “California Forever or, the Aesthetics of AI images”, February 25, 2024, accessed March 13, 2024 <https://varnelis.net/california-forever-or-the-aesthetics-of-ai-images/>

West, S.M., Whittaker, M. and Crawford, K. “Discriminating Systems: Gender, Race, and Power in AI”, *AI Now Institute*, April 2019, accessed March 26, 2023 <https://ainowinstitute.org/discriminatingystems.html>

Wilde, L., Lemmes, M. and Sachs-Hombach, K. (eds) “Generative Imagery: Towards a ‘New Paradigm’ of Machine Learning-Based Image Production”, *The Interdisciplinary Journal of Image Sciences*, 37 (1), 2023

## Biography

Mitch is an interdisciplinary artistic researcher in digital aesthetics, media ecologies, cultures of automation and education futures. As a practicing media artist, his works have screened internationally, including the IEEE VISAP (Baltimore, MD), Lumen Digital Arts Prize (New York & Cardiff), MADATAC (Madrid) and the WRO Media Arts Biennale (Wroclaw, Poland). Mitch was the Founding Curator of Screengrab International (2009-15) which interrogated the political and technical infrastructures of network culture.

As a speaker on gothic and dystopian tendencies in science, technology and culture, Mitch has appeared at SXSW Interactive (Austin, TX), EVA Berlin and RIXC Open Fields (Riga, Latvia). He has presented his work in a diverse range of disciplinary fields including AI ethics, drone cultures, digital anthropology, digital literacy and urban space studies.

During Melbourne’s COVID lock downs Mitch moonlighted as a street artist, taking aim at the Trump administration’s wilful neglect in the mosaic paste-up series *POTUS45/COVID19*.

## Project Links

*Slow Down Time* archive

<http://slowdowntime.com>

Runway ML frame interpolations

<https://vimeo.com/showcase/10414326>

*Slow Down Time* biographies

<http://slowdowntime.com/bios-credits/>

Curator bio site

<http://mitch.art>