

EQUITY, DIVERSITY & INCLUSION (EDI) PANEL

SUPERCOMPUTING ASIA 2024

Dr Ethel Villafranca | Dr Claudia Sandberg | Dr Mitch Goodwin

#SCA24EDI | Sydney Convention Centre | February 21, 2024





Q

HOW CAN AN ENGAGEMENT WITH
ARTS AND POPULAR CULTURE HELP
TO OVERCOME A LACK OF DIVERSITY
IN THE INDUSTRY?



DR MITCH GOODWIN

Artist | Academic | Arts Teaching Innovation
Faculty of Arts, University of Melbourne

EDI, AI & the Arts
In Practice and into the Future

THE SLOW DOWN TIME ARCHIVE

*A network collaboration
that iterates fidelity
from the noise within*

<http://slowdowntime.com/>



Early test image, 'A rose is a rose is a rose' by Midjourney & Goodwin (2022-07-26).



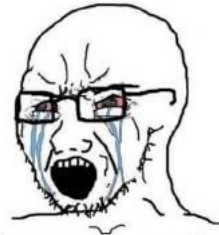
It's just red.



No, you don't understand it!



Look at this cool art my computer made.



No, art requires imagination & creativity!

PROJECT SCOPE

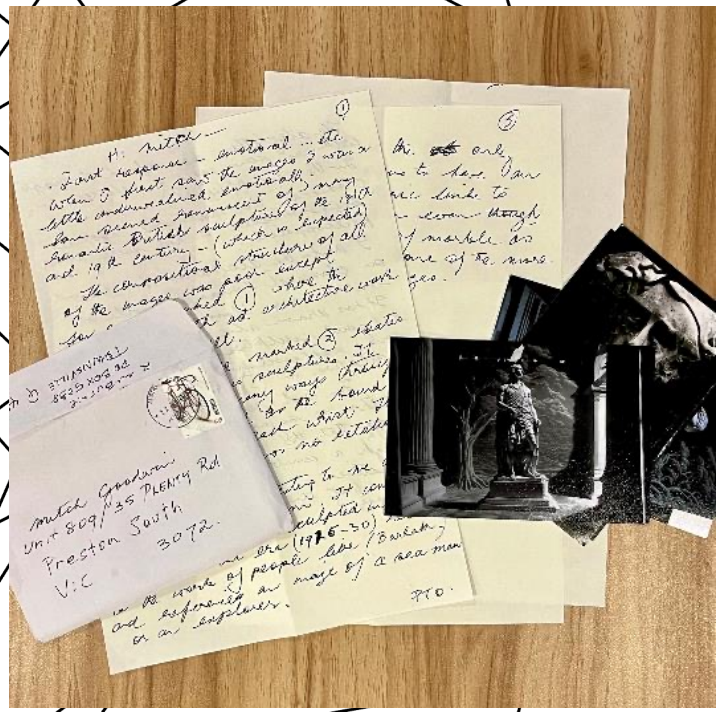
Midjourney text-to-image service (V.3 – V.5.1)
Curatorial process commenced July 2022

- 23 authors
- 11 cities
- 35 prompts
- 990 generated parent grids (approx.)
- 3,300 generated images (approx.)
- 266 curated image editions
- 350.43 MJ server hours
- 25.26 GB of project data*



* Image count as @ 28.08.23. ♀ Incidental characters used in this presentation are edited samples from the the series, "[Emoji Dreams](#)", which emerged from Geert Lovink's submitted prompt: "What did you dream? It's alright, we told you what to dream." The prompt itself is a pinch from Pink Floyd's '[Welcome to the Machine](#)' from the 1975 album *Wish You Were Here*.

SLOW A.I. ART



The transformation of lo-fi gen-AI image files into tactile media objects / writing letters to authors / mailing prints... and their slow return.



The faming and exhibition of selected works from the *Slow Down Time* project at the Workshop in Melbourne.



SLOW A.I. ART



SLOW A.I. ART



CONFERENCE AND SYMPOSIA

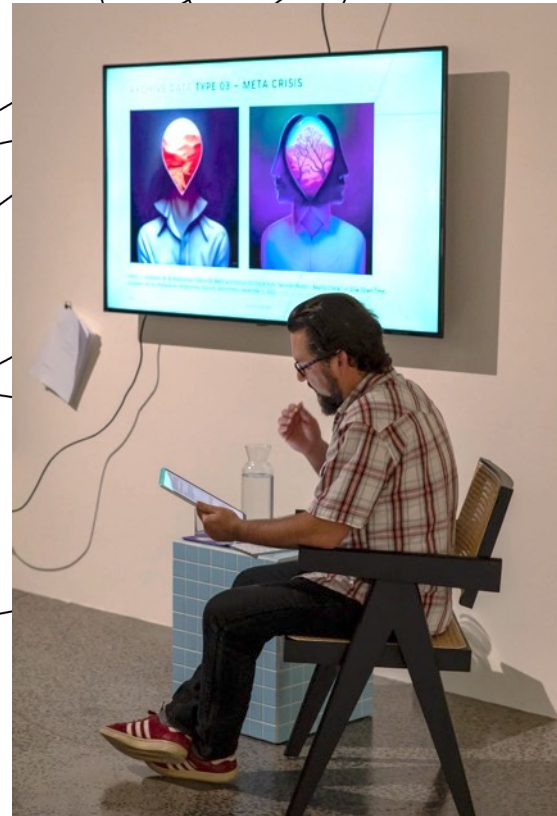
- [Project Archive](#),
Melbourne, Australia
- [Synthetic City](#),
Dublin, Ireland
- [Electronic Visualisation and the Arts \(EVA\)](#),
Berlin, Germany
- [Art Association of Australia and New Zealand \(AAANZ\)](#),
Gold Coast, Australia
- [The International Symposium on Electronic Art \(ISEA\)](#),
Sydney, Australia (June 2024)

Image Credit – Unknown, Facebook, 2023.

SLOW A.I. ART



Socialising the *Slow Down Time* archive at Project 8 in Melbourne and Synthetic Cities, at Dublin University, Ireland.





CONTEMPLATION

Do **contemplative** and **tactile** practices make the opaque operations of LLMs more relatable?

DECONSTRUCTION

How does adopting **literary devices** and **cultural frameworks** impact production, output and reception of text-to-image generative AI?

DOCUMENTATION

What is being preserved by curating **human-machine dialogues** within a finite period of a technology's rapid development?

PRESENTATION

Important questions emerge around **creative authorship**, **cultural inclusion**, **data integrity** and the means of (media) **production** in the age of AI.

CURATORIAL **CONSIDERATIONS**

Q Prophecy?

Can art be prophetic in the sense that it predicts scientific and technological revolutions that have not yet happened?

Daniel Birnbaum, *More Than Real: Art in the Digital Age*, 2018, pp25



Haslem, W., Goodwin, M. & Midjourney, "[*For Patti*](#)," in *Slow Down Time*, Goodwin, M. Ed. Melbourne: Word Press, December 1, 2022

Q Magic?

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.

Tessa Parks *And Those Who Were Seen Dancing*, [Bandcamp](#), May 20, 2022

Any sufficiently advanced technology is indistinguishable from magic.

Arthur C. Clarke, *Profiles of the Future: An Inquiry into the Limits of the Possible*, 1962



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

Q Truth?

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, quoted in Mary Ann Caws, *Pablo Picasso* (Reaktion Books, London, 2005)



Edition 10-A4CD from the "[El Agua](#)," series by Raul Posse
Midjourney Job ID # 62ddee07-ef3a-48bb-b6db-3a46d1ee8663

Q Poetic?

A single boat floats

Blue ripples surround the oars

Loneliness can be so still

Prompt by **Sean Redmond** from his *Loneliness Room* series

See: <http://slowdowntime.com/sean-redmond-2/>



Redmond, S., Goodwin, M. & Midjourney, "Sean Redmond – The Loneliness Room," in *Slow Down Time*, Goodwin, M. Ed. Melbourne: Word Press, December 1, 2022, <http://slowdowntime.com/sean-redmond-2/>

BUILDING THE SLOW DOWN TIME ARCHIVE

Authorship
Prompt development
Cultural awareness
Technical parameters
Content accessibility
Links and attribution
Archive integrity

Openness + Inclusion + Traceability



Edition 35C-A3 from the "The Net" series by Geert Lovink Midjourney Job ID # 7e78732e-4109-447b-8dcb-9d55298b734b

Sarah Mace-Dennis (London) / James Carey (Melbourne) Geert Lovink (Amsterdam) / Jennifer Perkin (Melbourne) / Raul Posse (Bogota) / Lev Manovich (New York) / Adam Brown (London) / Sean Redmond (Melbourne) / Ron McBurnie (Townsville) / Ingo Petzke (Würzburg) / Tyne Daile Sumner (Melbourne) / Wendy Haslem (Melbourne) / Jen Webb (Canberra) / Sean Lowry (Melbourne) / Jack Latimore (Melbourne) / Ruth Gardner (Brisbane) / Carly Sheil (Townsville) /



Edition: 09-B2B

Future Imperfect

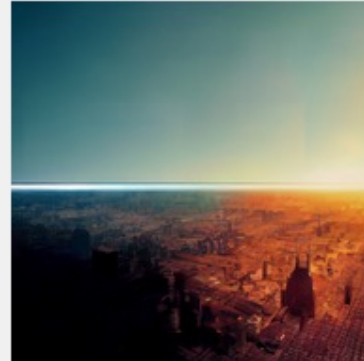
Text prompt

The future of architecture

Parameters

-ar 2:3 -v 4 (beta)

Photo prompt



Parent grid



Midjourney Job ID #

a178ed72-5e38-445a-97f4-
b89225ecd613

Prompt Author

Adam Brown

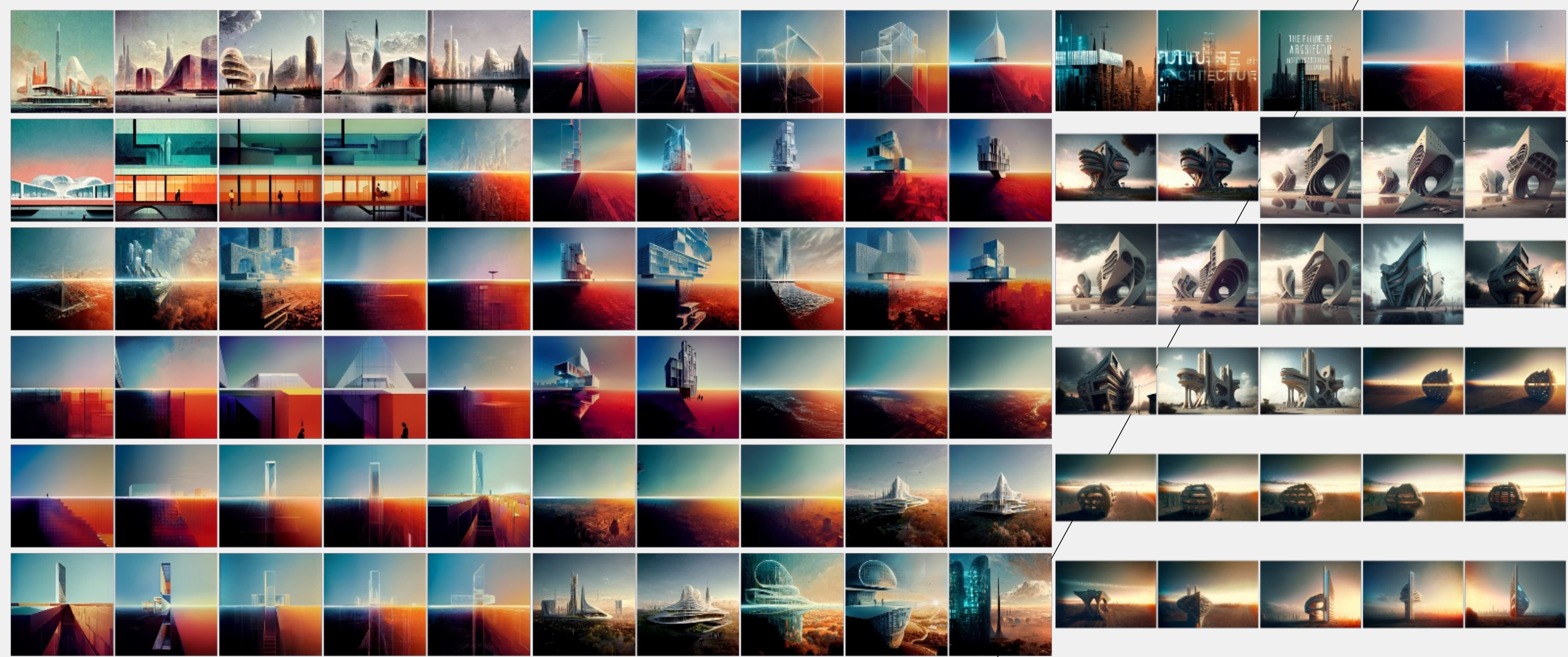
Discord Message Link

<https://discord.com/channels/1026653306170376273/1026653307118301349/1050222285811884103>

Date Commenced

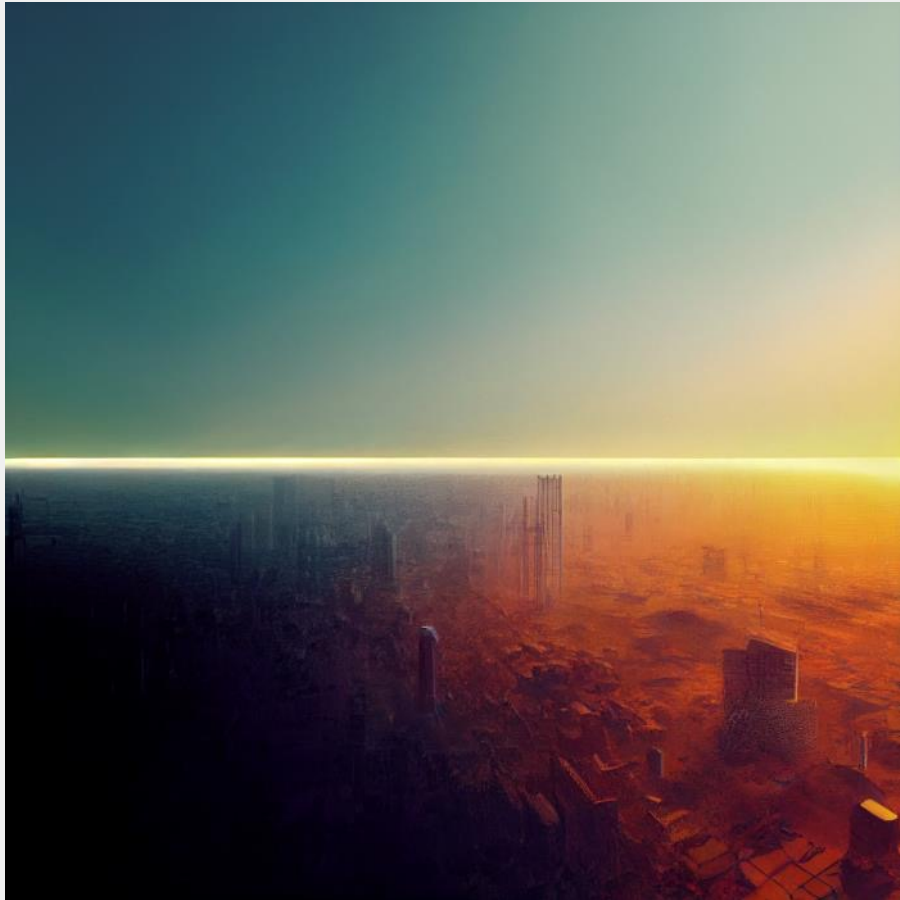
22.09.22

Brown, A., Goodwin, M. & Midjourney, Edition 09-B2B from “Adam Brown – Future Imperfect,” in *Slow Down Time*, Goodwin, M. Ed. Melbourne: Midjourney, Discord & Word Press, December 6, 2022, <http://slowdowntime.com/adam-brown/>



Brown, A., Goodwin, M. & Midjourney, "Adam Brown – Future Imperfect," in *Slow Down Time*, Goodwin, M. Ed. Melbourne: Midjourney, Discord & Word Press, December 6, 2022, <http://slowdowntime.com/adam-brown/>

ARCHIVE DATA TYPE 01 – CLIMATE CRISIS



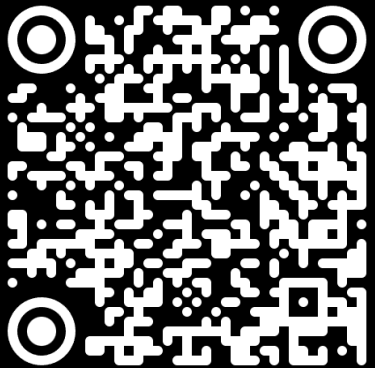
Brown, A., Goodwin, M. & Midjourney, Edition **04-D2C** and Edition **09-B2B** from “Adam Brown – Future Imperfect,” in *Slow Down Time*, Goodwin, M. Ed. Melbourne: Midjourney, Discord & Word Press, December 6, 2022, <http://slowdowntime.com/adam-brown/>

ARCHIVE DATA

TYPE 01 – CLIMATE CRISIS

PROMPT

The future of architecture



Brown, A., Goodwin, M. & Midjourney, Edition **09-B2B** from “Adam Brown – Future Imperfect,” in *Slow Down Time*, Goodwin, M. Ed. Melbourne: Midjourney, Discord & Word Press, December 6, 2022, <http://slowdowntime.com/adam-brown/>

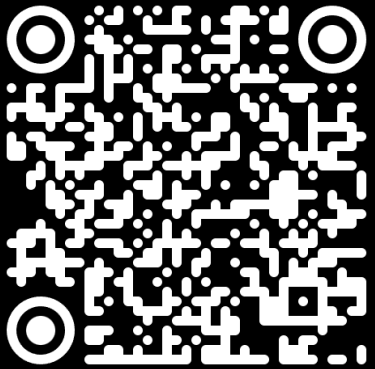


ARCHIVE DATA

TYPE 02 – IDENTITY CRISIS

PROMPT

Sad by design



Lovink, G., Goodwin, M. & Midjourney, "Geert Lovink – Sad by Design," in Slow Down Time, Goodwin, M. Ed. Melbourne: Word Press, April 17, 2023, <http://slowdowntime.com/geert-lovink/z>

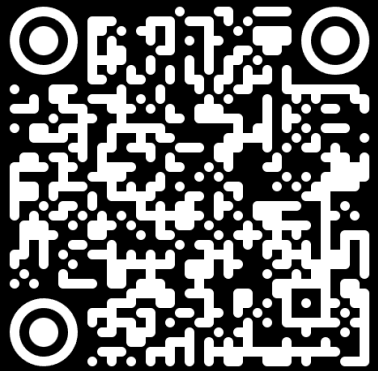


ARCHIVE DATA

TYPE 03 – META CRISIS

PROMPT

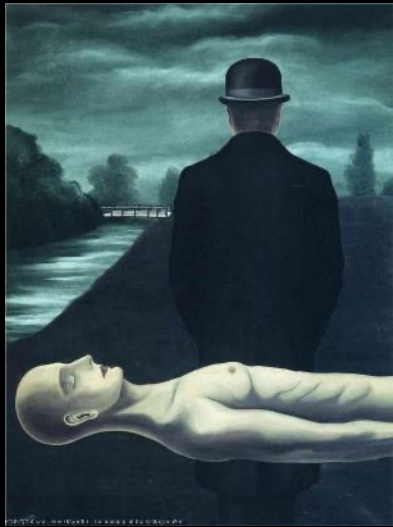
How do I know if this is real?



Perkin, J., Goodwin, M. & Midjourney, Edition 01-D2CE
from “Jennifer Perkin – Reality Check,” in *Slow Down Time*, Goodwin, M. Ed.
Melbourne: Midjourney, Discord, Word Press, December 2, 2022,
<http://slowdowntime.com/jennifer-perkin-2/>



WHERE DOES THE MELANCHOLIA COME FROM?



The Musings of a Solitary Walker

Magritte - 1926



The Weeping Woman

Picasso - 1937



“The Helmet”

Beksiński - 1985



Darth Vader

Lucasfilm - 2015



The Last Selfie on Earth

Scott Detweiler - 2022

THE LAST SELFIE ON EARTH

Scott Detweiler, 2022



THE RETRO-FUTURE DOOM SCENE



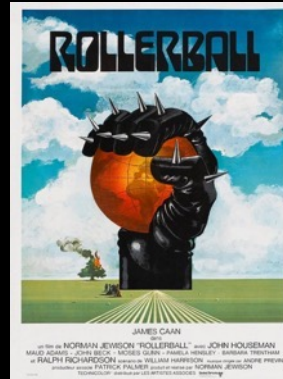
2001: A Space Odyssey

1968 → 2001



Soylent Green

1973 → NYC, 2022



Rollerball

1975 → Houston, 2018



Escape from New York

1981 → NYC, 1997



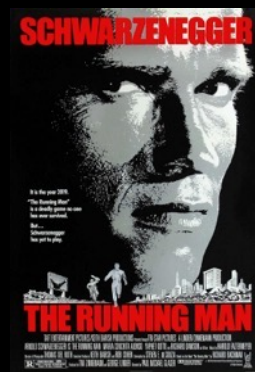
Escape from New York

1999 → Machine City, 2199



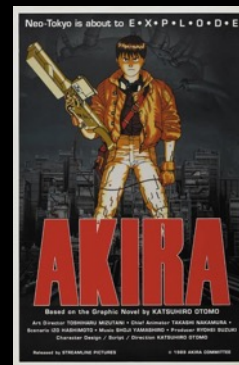
Blade Runner

1982 → Los Angeles, 2019



The Running Man

1987 → USA, 2017



Akira

1988 → Tokyo, 2019



Back to the Future II

1989 → California, 2015



A.I. Artificial Intelligence

2001 → NYC, 2100

THE ATMOSPHERICS OF GEN-A.I. ART

The cyberpunk rhetoric is coming to a head as we create and legislate for the foundational AIs – the AIs that will make other AIs. Now is a critical moment to consider the priorities we program in, rather than fearfully assume the worst because it's the only idea we're aware of.

Freyja Sewell, *If everyone believes the future is dystopian, could that cause us to make it dystopian?*, Dezeen, June 21, 2023



Edition 15-A3 from the "Bots" series by Ruth Gardner
Midjourney Job ID #b02d5a83-e06d-47da-a4c5-30c6acf76fcc



EMBEDDED BIAS

Embedded **inequality** and **prejudices** within training data and the generative output – such as the depiction of racial, gender and cultural stereotypes

WORKER SAFETY

The **psychological cost** of moderating training data and the filtering of 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 and in the output of **generative processes** (including concept, style and technique)

ENVIRONMENTAL

The **server energy** required to perform algorithmic calculations / the mining of **rare minerals** to construct chips and components ...

AT WHAT COST GEN-AI?

DESIGNING REPETITION



Nick St. Pierre
@nickfloats

Subscribe ...

An extreme close-up of an gray-haired man with a beard in his 60s, he is deep in thought pondering the history of the universe as he sits at a cafe in Paris, his eyes focus on people offscreen as they walk as he sits mostly motionless, he is dressed in a wool coat suit coat...



Sora Midjourney comparison by Nick St. Pierre o X:
<https://x.com/nickfloats/status/1758497031696621793>

Median Human

Karen Hao from *The Atlantic*, previously *Wall Street Journal* uses the phrase “median human” to describe the drive towards homogeneity in visual design in text-to-image models.

In this case tagging a thread by Nick St. Pierre ([@nickfloats](https://x.com/nickfloats)) remarking that it is “interesting how similar” videos produced in Sora can be replicated in rival service Midjourney.

See original thread here:

<https://x.com/nickfloats/status/1758496957591695821>

DESIGNING SPACE

 **Kyle Chayka**
@chaykak

airspace [sprudge.com/kickapoo-coffe...](https://sprudge.com/kickapoo-coffee-12325.html) | theverge.com/2016/8/3/12325



2:06 PM · Aug 10, 2016

 2  2  4  

Twitter post promoting the article “Welcome to AirSpace: How Silicon Valley helps spread the same sterile aesthetic across the world” by Kyle Chayka, [The Verge](https://www.theverge.com/2016/8/3/12325), August 3, 2016. Twitter post: <https://x.com/chaykak/status/763224973230088192>

AirSpace + Mono Aesthetics

“The strangely frictionless geography created by digital platforms, in which you could move between places without straying beyond the boundaries of an app or leaving the bubble of the generic aesthetic.”

When whiteness and wealth are posed as the norm, a kind of force field of aesthetics and ideology keeps out anyone who does not fit the template.”

Kyle Chayka, *The tyranny of the algorithm: why every coffee shop looks the same*, [The Guardian](https://www.theguardian.com/technology/2024/jan/16/the-tyranny-of-the-algorithm), January 16, 2024

DESIGNING IDENTITY

Phono-sapiens + Storysellers

The degeneration of storytelling, narrative and myth by performative **mono-culture**.

The synthetic manufacturing of a fictitious life in Modernity that subscribes to a templated aesthetic.

“This smart form of domination constantly asks us to communicate our opinions, needs and preferences, to tell our lives, to post, share and like messages”.

Byung-Chul Han *The Crisis of Narration*, Polity, 2024) Reviewed in [The Guardian](#), February 19, 2024



Edition 18-A4C from the series “*Fashion 2100*”, by Sarah-Mace Dennis Midjourney Job ID #be439eb3-ffee-4a76-8bca-d1f9a7073fc8

ARTS + DATA



[Image Credit](#) - *Machine Hallucinations — Space: Metaverse* by Refik Anadol, [Hong Kong Digital Art Fair](#), NFT Collection, 2021 (Reproduced from *Arts Discovery New Futures* catalogue, University of Melbourne, 2022)

The efficacy of data provenance and algorithmic processes are becoming core concerns for the Humanities, Arts and Social Sciences (HASS):

- the design and delivery of arts education
- the cataloguing and presentation of cultural artefacts
- the contextual reading and interpretation of texts

HASS disciplines have a history of unpacking complex assemblages of knowledge and **humanist philosophical reasoning** otherwise masked by history and dogma.

Q *How do we socialize and narrate culture in augmented, simulated and datafied systems?*

Cultural production and curatorial practices bring into the light and give voice to “the other”:

Access

History

Platform

Identity

Context

Geography

Reception

Language

Literacy

Audience



*How do we align AI models so that they can adapt to the multitude of socio-political dimensions to civic **discourse**, public **debate** and life-long **learning**?*



Edition 04-A2 from the “*Bucker & Buxel!*” series by Tyne Daile Sumner
Midjourney Job ID #4bea23d4-c9ba-454e-af02-40c97fbc505c

ARTISTIC RESEARCH



Image Credit – Edition 23-A2E from the “*Smart Plants*” series by Wajeehah Ayesah Midjourney Job ID #97a3c65c-7725-4a3a-bcc8-0eb031c179e1

Makes the relationship between art and society permeable and cultures and people visible. Rather than bracketed in the private realm of the lone artist or the network of autonomous art institutions, artistic research opens up its practice to the public domain.

Artistic research methods become part of collective process of exploration and re-imagining.

- The impact matrix of research methods
- The ethical dimensions of artistic research
- The research environment and culture



How do these methods address the urgencies of a world in dire need of new perspectives?

From [Society for Artistic Research](#) - *What Methods Do – International Symposium on Artistic Research Methods*, [Fontys Academy of the Arts](#) in Tilburg, The Netherlands, April 10-11, 2024

CONTESTED TERRITORY



Joanna Zylinska



Tristan Harris



danah boyd



Edward Snowden



Virginia Eubanks



Shoshana Zuboff



Trevor Paglen



Joy Buolamwini

THE POSSIBILITIES OF INCLUSIVITY @ SCALE

Slow A.I.
Multi-nodal artefacts
Interdisciplinary practice
Exa-Identity (mind & body)
Geographic diversity
Equality of access & literacy
Moral identity
Ethical extraction & deployment
Inclusive simulacra
Planet A

#PostNoTreatyFirst

SupercomputingAsia 2024

Exascale readiness in AI, HPC, and Quantum
International Convention Centre Sydney, Australia
19–22 February 2024



EQUITY, DIVERSITY, & INCLUSION

SUPERCOMPUTING ASIA 2024



DR ETHEL VILAFRANCA

Science Gallery Melbourne
Faculty of Education, University of Melbourne



DR CLAUDIA SANDBERG

Faculty of Engineering and IT, University of Melbourne



DR MITCH GOODWIN

Faculty of Arts, University of Melbourne