

Reflect, Share, Inspire

Digital trends:
Artificial Intelligence (AI)



DIGITAL TRENDS: ARTIFICIAL INTELLIGENCE (AI)



By Jo Burnham (all pronouns)
Slides available by emailing jo.m.burnham@gmail.com





TODAY'S SESSION

AI and 2023: where are we?

Very quick history and terms

Possible applications for AI in the heritage sector: copywriting, generating ideas, working with data and learning

What is Prompt Engineering?

Critical perspectives in AI

Where to now?

Reflect, Share and Inspire

WHY LEARN ABOUT AI?

There are AI tools which are useful today. This isn't a promise about something which will 'one day' arrive.

That said, hype is real.

Throughout this process, you will always be the best judge about what tools are relevant to your own work.

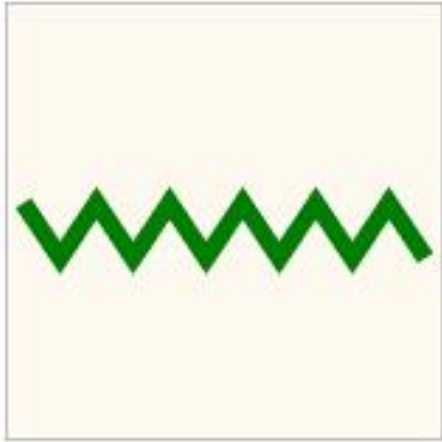
I'm not a spokesperson for AI.

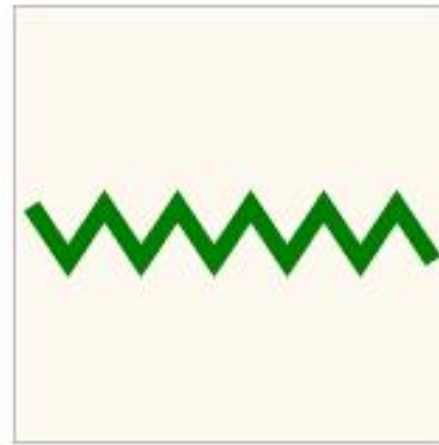
My perspective is that awareness, literacy and confidence about these tools is always going to be helpful.



QUESTION

“How comfortable would you feel changing the words you write for your organisation because an algorithm (a piece of computer code) tells you to?”



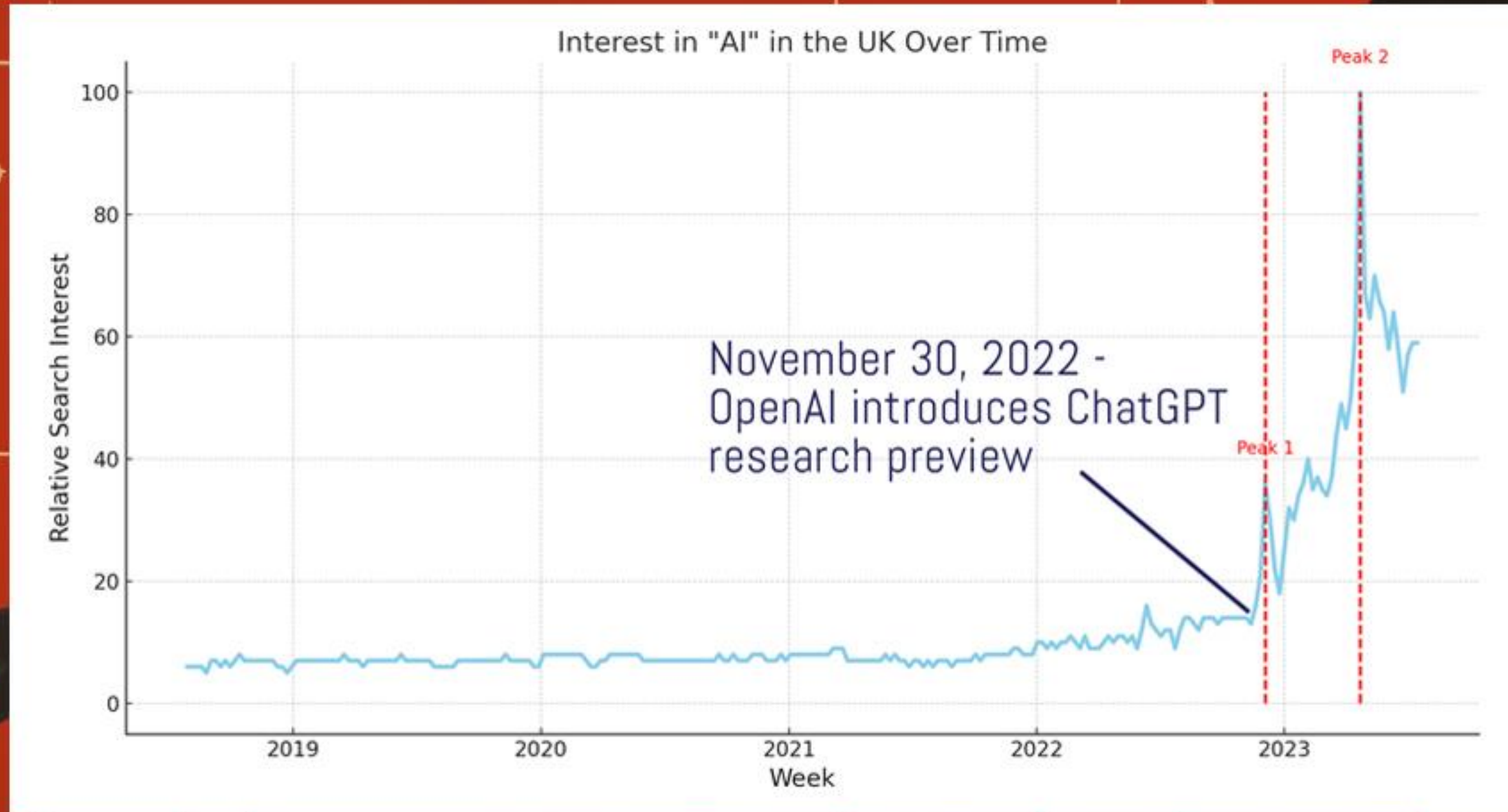


This is the dreaded green squiggly line that Microsoft Word helpfully and automatically places underneath sentences that it considers are in desperate need of improvement.

If you've ever **changed** your copy because you wanted to avoid the **judgement** of the green squiggly line, congratulations - you've allowed an algorithm to influence your writing!

For better or worse, many of us already allow computer code to change the copy we produce. During this seminar, I'm not saying this is **right** or **wrong** - I'm saying we should just be **mindful** and **deliberate** about how we choose to use it.

AI IN 2023



LARGE LANGUAGE MODELS

These are AI systems trained on massive datasets of text and human language (but not lemons)



The biggest LLMs to be aware of right now are:

GPT4, Claude and Bard

They each have different abilities and advantages.

And the biggest image generators are:

Midjourney, DALL-E 2 and Stable Diffusion

But that's another story.

The most capable LLM is currently GPT4, the paid version of ChatGPT.

USEFUL TERMS

LLM

Large Language Model.

Prompt

This is the text that you write and send to the AI. A prompt is basically just the command that the user provides.

Prompt engineering

This is the process of making your prompt more effective so the AI produces better quality or more useful results for your particular purpose.

Training data

This is the information the AI was trained on. It can be important to be aware of the type of training data that was used, as this might affect the biases the AI has, or how knowledgeable it is.

Token

For simplicity's sake, a token is usually taken to mean a single word, but it can also relate to any other single piece of information (like a number). So when you hear that GPT4 can process 8,192 tokens in a single input, that usually means it can handle prompts which are around 8,000 words long at most. For comparison, Claude can handle 100,000 tokens.

Hallucination

Sometimes AI systems literally invent things out of thin air! They're getting better at not doing this, but it's vital that you know right from the beginning that this is a possibility and you should always fact-check anything it tells you.



TYPES OF CHATBOTS

What's the difference between open source and closed source?

CLOSED SOURCE

The underlying data and algorithms aren't public. We don't know exactly how they work and we don't really know how they've been trained beyond what the creators have chosen to tell us. This is the case with **GPT4**, **Claude** and **Bard**.

Closed source models are often created by for-profit companies and tend to charge for their use. They are, generally speaking, more likely to highly censor what their AI can do to avoid reputational issues.

OPEN SOURCE

Open source is usually the opposite of closed source – it means the underlying code these tools are built on can be viewed and scrutinised by anyone. It also means these tools can usually be used for free if your computer is powerful enough to run them. Popular open source models include **PaLM** and **Llama**, which both have multiple different versions, but there are basically hundreds of open source models of varying ability. These models may be less or completely uncensored





AI and Copywriting

AI is frequently discussed in relation to copywriting. However, it's useful to step back and remember that - like most processes - copywriting is actually made up of many different components.

For example

- Audience research to understand who you're writing for
- Event research (including interviews, reading articles, watching performances) to better understand what you're writing about
- Strategic understanding of where the copy will be used
- Knowledge of SEO best-practice
- Knowledge of accessibility best-practice
- Ability to handle varying stakeholder requirements
- Ability to change, adapt or amend tone of voice
- Knowledge of specific terminology (if only to translate it!)
- Ability to seek constructive feedback
- Skills in proofing

AI may be useful in some of these areas, less so in others.



LET'S LOOK AT SOME EXAMPLES

On the right is copy from Shetland Museum and Archives. Let's imagine we're going to adapt this for younger readers.

For this example we'll use Claude (<https://claude.ai/>), which is free to use. We'll start by loading Claude up and writing a prompt.

[Home](#) / [Collections](#) / [Museum Collections](#) / [Folklife](#)

Folklife

The Folklife collection spans the period between Medieval and modern times (broadly 1500 to 1800) and encompasses all aspects of subsistence living including fishing, farming and domestic. Artefacts in this collection exemplify the era when Shetland was a place distinct from anywhere else and include 'classic' Shetland items such as the kishie (basket), tushkar (peat spade), fourareen (four-oared boat) and hap (shawl).

The artefacts show that Shetlanders were self-supporting people, making everything they used from their own resources. We have been able to amass a strong collection of these unique artefacts because equipment was locally-made.

Shetlanders lived on the land, and grew their crops themselves. We have implements for tillage, making hay and peat production. Grain cultivation involved many processes and tools; harvest, threshing, winnowing and grinding meal.

Families also kept their own livestock. Animals were used for hauling ploughs, harrows and for transporting peats by pack-saddle. We have examples of all these tools, as well as items used in milk processing, such as churning and butter-making. Other aspects covered in our collection include slaughtering and keeping poultry.

The sea was part of everyone's life. The typical diet included fish, shellfish, seafowl and their eggs. The Folklife collection includes gear to catch these using lines or net, and fishing from boat or shore. There are

MY PROMPT:

I work for a museum. We have some text on our website about one of our collections, and we'd like to adapt this text for a special section of our website which is for young people aged 8-12. Could you please read the text and then give me suggestions, in bullet points, about how this could be better re-written for that particular audience?

Here is the text:

The Folklife collection spans the period between Medieval and modern times (broadly 1500 to 1800) and encompasses all aspects of subsistence living including fishing,

[I pasted the whole text of that page]

CLAUDE'S RESPONSE:

Here are some suggestions for adapting the museum text for 8-12 year olds:

- Break up the long paragraphs into shorter chunks of text - this is less intimidating for young readers.
- Simplify some of the vocabulary - for example, instead of "subsistence living" say "how people lived and worked to take care of themselves."
- Focus on the most interesting or unique artifacts and describe those in more detail. Kids will be fascinated by things like masks and fishing equipment.
- Add in some questions that get kids thinking and interacting with the information, like "Can you guess what a kishie was used for based on its name?"
- Incorporate more active, vivid language. Rather than artifacts "exemplifying" an era, say they "give us a peek into life long ago."
- Cut down on some of the specialized terms, or explain them in a simple way. For instance, instead of just saying "taatit rugs", say "taatit rugs - rugs with a tufted texture."
- Highlight especially relatable elements that show what daily life was like - growing crops, taking care of animals, making meals, etc. Help kids see connections to their own lives.
- Keep sentences short and clear. Break up dense chunks of text with paragraph breaks, subheads, or bullet points.

MY FOLLOW UP PROMPT:

That's great. Could you list any specific phrases or words used in the original text which you would suggest it's best not to use for this audience?

JB

Remember, these are just suggestions. Always rely on your own judgement, and be aware of potential bias.

CLAUDE'S RESPONSE:

Here are some specific words/phrases from the original text that may be too complex for 8-12 year olds:

- "subsistence living" - simplify to "daily life" or how people survived
- "between Medieval and modern times" - simplify to "from long ago"
- "amass" - use "collect" instead
- "implements" - use "tools"
- "tillage" - explain this as "plowing fields"
- "winnowing" - explain this as "separating grain from husks"
- "grinding meal" - simplify to "grinding grain"
- "pack-saddle" - explain this as "special saddles for carrying things"
- "seafowl" - use "sea birds"
- "shellfish" - explain as "like clams and mussels"
- "subsistence whaling" - simplify to "old-fashioned whaling"
- "brand irons" - call these "griddles" instead
- "joopies" - explain these are knitted undershirts
- "masquerade costume" - just call this a "mask"

The key is to use simpler, more common words and provide brief explanations of specialized terms. The goal is to make the information engaging and comprehensible.

 Copy  Retry



MY FOLLOW UP PROMPT:

Based on those suggestions, could you re-write the original text and present me with a draft of how the revised version might look?

JB

CLAUDE'S RESPONSE:

Here is a draft rewrite of the museum text for 8-12 year olds:

Step Back in Time!

Our Folklife collection shows you what daily life was like for people in Shetland long ago - between medieval and modern times.

You'll see all kinds of artifacts that were used in everyday life back then, from baskets to boats! These items were all handmade by the people who lived in Shetland. They had to make everything themselves to survive.

Farming was very important. People grew their own food and kept animals. We have the tools they used to plow fields, make hay, and produce peat for fuel. They also ground grain to make flour for meals. Some of the artifacts include equipment for taking care of cows and sheep.

Fishing was a big part of life too. Look at the fishing lines, nets, and special baskets they used to catch fish, gather shellfish like clams, and collect eggs from sea birds. We even have entire boats and boat models!

Inside the home, people made their own rugs, clothes, and furniture. Our collection includes driftwood chairs, griddles for cooking, and knitted undershirts.

We also have some masks and costumes they used for special festivals. What do you think they used those for?

Which artifact would you be most excited to see? Let us know!

Copy Retry



MY FOLLOW UP PROMPT:

We'd like to create some short videos on this page as well for this audience. The videos should each be under 2 minutes long, shouldn't be expensive to make, but should be interesting and educational. Based on what you know about this collection, can you suggest some ideas?

JB

We can easily transition from a conversation about **copy** to a conversation about **ideas**.

CLAUDE'S RESPONSE:

Here are some low-budget video ideas to engage 8-12 year olds with the museum's Folklife collection:

- A stop-motion video using the fishing/farming artifacts to show how they were used. Use simple paper cutouts as backgrounds.
- A handheld walkthrough of the exhibit with a kid narrator pointing out cool artifacts and facts as they go.
- A mini mockumentary where kids dress up and pretend to live in olden times using replica tools/items, showing daily activities.
- A skill demo by a curator showing how a spinning wheel, loom, or churn worked. Let kids try it out!
- An artifact guessing game where you slowly pan over or zoom in on an object while kids guess what it is and what it was used for.
- A peek inside the museum's conservation lab with shots of experts cleaning and preserving fragile objects.
- A Q&A with a curator where kids submit questions about artifacts and get them answered on camera.
- A timelapse of a boat-building workshop where a model boat is constructed using traditional techniques.
- A cooking demo where a chef uses antique kitchen tools to make a historical recipe that kids can try.

The key is to keep it simple, participate hands-on, incorporate humor, and encourage young viewers to imagine themselves living back then. Get kids involved in brainstorming or acting out video ideas too!

MY FOLLOW UP PROMPT:

I really like this idea: "A timelapse of a boat-building workshop where a model boat is constructed using traditional techniques." It turns out we actually have a professional filmmaking company who would like to create this for us. Could you write a draft of the brief for this idea that we could send them before our meeting?

JB

We've now moved to actually writing a **brief** for one of these ideas.

CLAUDE'S RESPONSE:

Here is a draft brief for the timelapse boat-building video:

Video Concept: 2-minute timelapse of a model traditional Shetland boat being constructed using historical techniques.

Overview:

- The video will showcase and bring to life the traditional boat-building skills used in Shetland's history.
- It will be shot from a fixed position, focused on a tabletop where the model boat is assembled from start to finish using hand tools.
- The boat-builder's hands should be visible working on each step of the process.
- Key steps should be highlighted with inserts showing close-ups of tools, techniques, and materials.
- Title cards will occasionally explain what is happening at each stage.
- Ambient workshop noise will play over the video, but there will be no talking.
- The video will be speed-adjusted into a timelapse duration of 2 minutes maximum.

Suggested Stages:

- Laying the keel and cutting planks
- Steaming and bending frames
- Drilling and fixing planking
- Caulking seams

MY FOLLOW UP PROMPT:

Can you write a potential filming schedule and itinerary for this film shoot, including time for breaks, lunch, and anything else which should be taken into consideration? The shoot would begin at 10am on a Saturday and we have the space available until 4.30pm.

JB

CLAUDE'S RESPONSE:

Here is a suggested filming schedule and itinerary for the 2-minute timelapse boatbuilding video shoot:

10:00am - Arrive at museum, meet with curator

10:15am - Review shoot plan, storyboards, and conduct safety briefing

10:30am - Set up equipment and prepare shoot area

- Ensure good lighting on tabletop
- Determine camera angle and lock down tripod
- Set up close-up shot rig as needed

11:00am - Commence timelapse shooting

- Boatbuilder starts work on keel and planking
- Take periodic close-ups of techniques

12:30pm - Break for lunch

1:15pm - Resume filming boatbuilding process

- Continue with frame bending, drilling, caulking
- Insert title cards as needed

3:00pm - Take final close-ups and shots

3:30pm - Wrap up boatbuilding process

- Remove equipment, tidy up space

LET'S PLAY WITH DATA.



Here we have an Excel file of every artist represented in MoMA's collection. Over 15,000 entries of data!

We can upload this to GPT4 and chat about it.

	A	B	C	D	E	F	G
1	Artist ID	Name	Nationality	Gender	Birth Year	Death Year	
2	1	Robert Arneson	American	Male	1930	1992	
3	2	Doroteo Arnaiz	Spanish	Male	1936		
4	3	Bill Arnold	American	Male	1941		
5	4	Charles Arnoldi	American	Male	1946		
6	5	Per Arnoldi	Danish	Male	1941		
7	6	Danilo Aroldi	Italian	Male	1925		
8	7	Bill Aron	American	Male	1941		



artists.csv
Spreadsheet

Please create a visualisation to show the date of birth of these artists. For background, these are all the artists included in MoMA's collection.



Alright, let's start by examining the contents of the provided file. I'll load the data and take a look at the first few rows.



Finished working

Show work

The dataset consists of the following columns:

- **Artist ID:** A unique identifier for each artist.
- **Name:** The name of the artist.
- **Nationality:** The nationality of the artist.
- **Gender:** The gender of the artist.
- **Birth Year:** The year the artist was born.
- **Death Year:** The year the artist died (if applicable).

To visualize the birth dates of the artists, I propose creating a histogram that displays the distribution of birth years. This will give us an overview of the general time periods in which these artists were born.

Would that work for you?

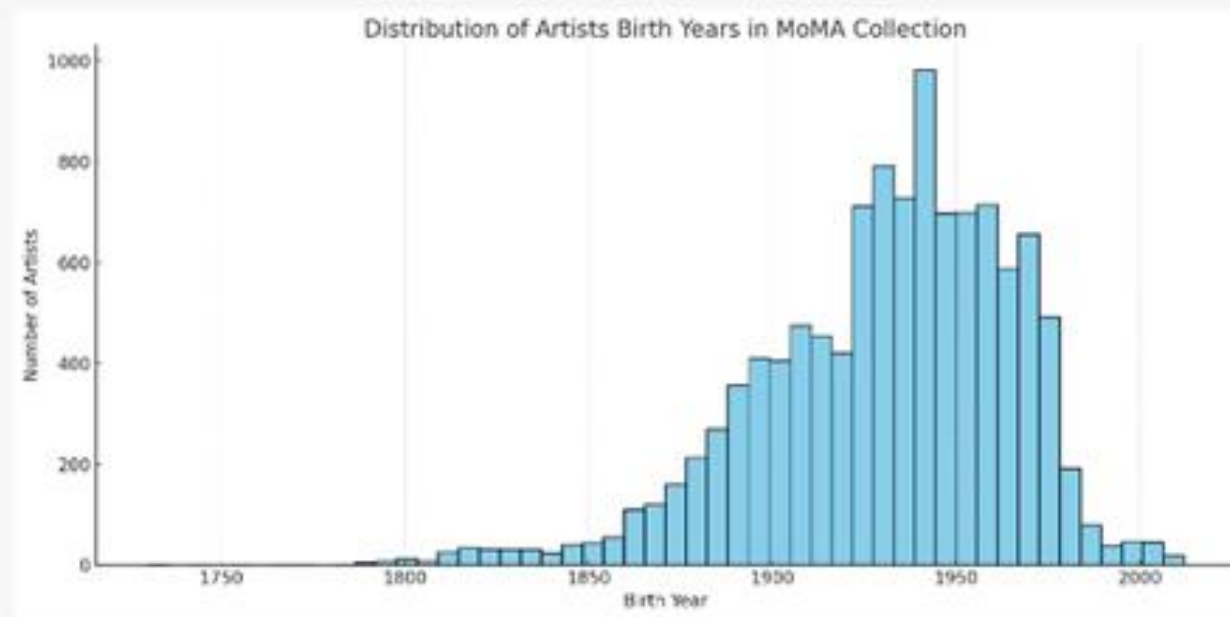
JO

That sounds great



Finished working

Show work



Here's the histogram showing the distribution of artists' birth years in the MoMA collection.

From the visual, we can observe a few things:

- There's a notable increase in the number of artists born in the late 19th and early 20th centuries.
- The peak seems to be around the early 20th century, with a gradual decrease in artists born after that peak.

This gives a general overview of when the artists in the MoMA collection were born. Would you like any additional analyses or visualizations based on this data?

[Regenerate](#)

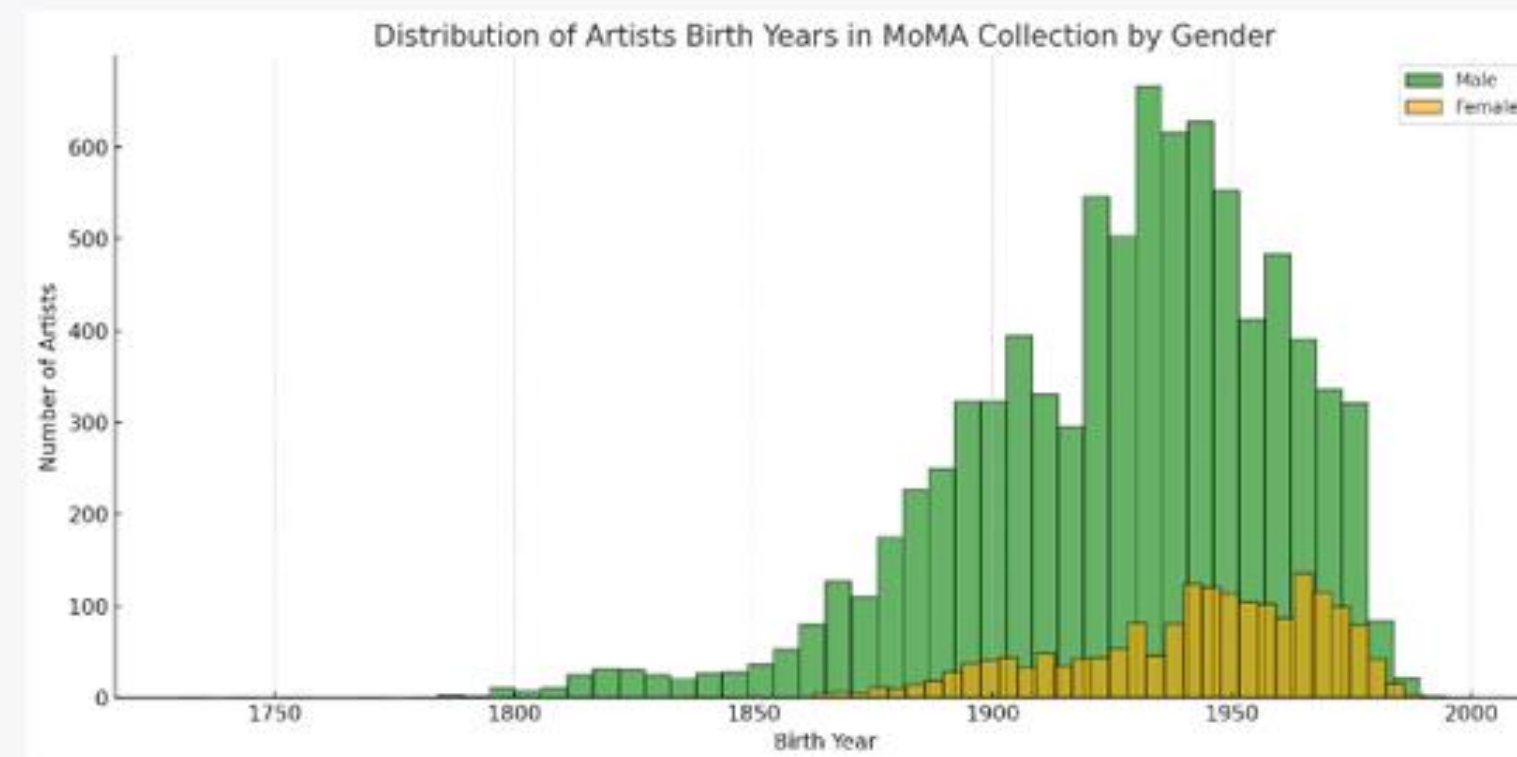


Could you adapt this visualisation so it also indicates the gender of the artist? Perhaps orange for female, green for male?



Finished working

Show work ▼

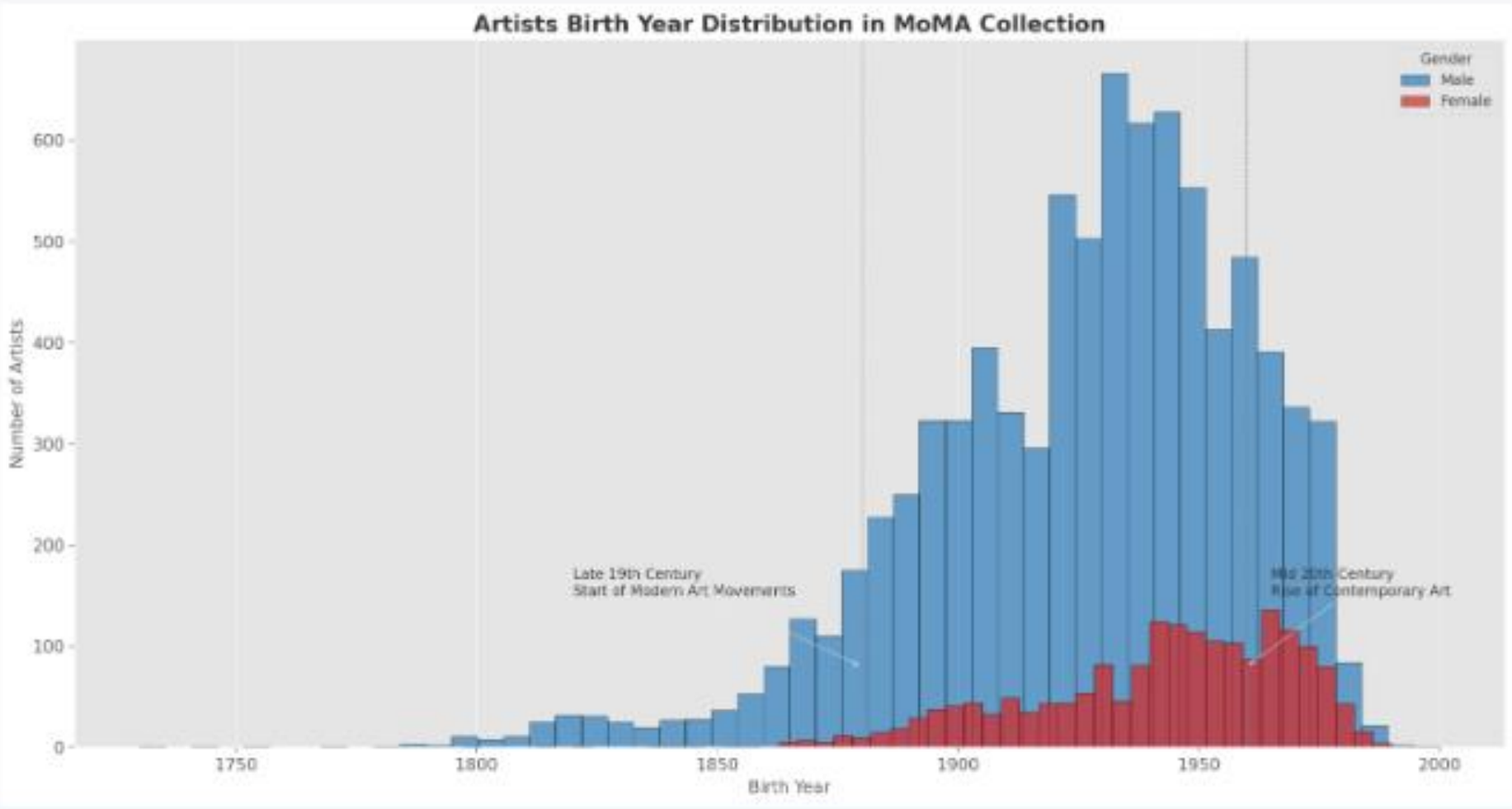


Here's the updated histogram that differentiates artists by gender:

- The green bars represent male artists.
- The orange bars represent female artists.



Can we make the graph more visually interesting? We'd like to use it on a poster, but it looks a bit dry currently



JO

We're doing a project just on British artists who were born between 1910 and 1940. Can you create an amended version of this spreadsheet that only includes artists which fit that criteria? British in this context includes Scotland, Wales and England.



Finished working

Show work



I have created an amended spreadsheet that includes only the British artists (from Scotland, Wales, and England) who were born between 1910 and 1940.

You can [download the spreadsheet here](#).

Would you like any further assistance with this project or any other questions?



british_artists_1910_1940.csv



	A	B	C	D	E	F	G	H	I	J
1	Artist ID	Name	Nationalit	Gender	Birth Year	Death Yea	Age	Age at Death		
2	49	Ivor Abraf	British	Male	1935		88			
3	50	Gerald Ab	British	Male	1928	2011	95	83		
4	74	Roy Adzak	British	Male	1927	1987	96	60		
5	167	John Ande	British	Male	1928		95			
6	193	David Ann	British	Male	1936		87			
7	224	Kenneth /	British	Male	1916	2002	107	86		
8	232	Conrad At	British	Male	1940		83			
9	234	Terry Atki	British	Male	1939		84			
10	240	Frank Aue	British	Male	1931		92			

USING GPT4 FOR LEARNING



I would like to learn more about the term 'cultural democracy' and how it might be relevant to museums in the UK.



Certainly! Cultural democracy is an evolving concept, but at its core, it pertains to the democratization of culture — both in terms of the creation and consumption of cultural content. It emphasizes the idea that everyone should have the right to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.

Here's a deeper dive into the concept and its relevance to museums in the UK:

Principles of Cultural Democracy:

1. **Participation Over Consumption:** Unlike the traditional model where cultural content is created by a few and consumed by many, cultural democracy promotes active participation. Everyone is seen as a potential creator, not just a passive consumer.
2. **Diverse Voices:** Cultural democracy values and promotes the diversity of cultural expressions. It recognizes that each individual, community, or group has a unique cultural perspective and that these should be celebrated and not homogenized.
3. **Access and Inclusion:** This principle ensures that everyone, irrespective of their socio-economic status, ethnicity, gender, or any other category, should have equal access to cultural resources and opportunities.

Relevance to Museums in the UK:

1. **Decolonization of Collections:** UK museums, given the country's colonial history, have collections from around the world. Cultural democracy pushes museums to re-evaluate these collections, their origins, and the narratives they present. This can mean returning artifacts, adding more context to displays, or collaborating with source communities to co-curate exhibitions.
2. **Community Engagement:** Many UK museums are now actively seeking input and collaboration from local communities. This includes co-curating exhibitions, hosting community-driven events, and even having community representation in decision-making processes.
3. **Diversifying Audiences:** To truly democratize culture, it's essential to reach out to diverse audiences. UK museums are increasingly trying to engage underrepresented groups, be it through targeted programs, partnerships with community organizations, or outreach initiatives.
4. **Digital Access:** Technology plays a crucial role in cultural democracy. UK museums have been digitizing collections, offering virtual tours, and creating online educational resources to reach a global audience and make their content more accessible.
5. **Education and Lifelong Learning:** Museums in the UK are not just places to display artifacts but are becoming hubs for education and lifelong learning. They offer workshops, lectures, and other resources, emphasizing the idea that everyone has the right to knowledge and cultural enrichment.

This becomes powerful when being very specific

PROMPT ENGINEERING

When we interact with AI, prompts are not just questions or commands. They are more like stage directions in a script, providing AI with a context, a character to play, or a perspective to adopt. This means we need to be mindful of giving enough contexts about the task, information about the goals of the task, and a type of output which is most helpful for us.

There are no rules to a good prompt – only suggestions. Here's mine – this is often a useful starting framework to think about your prompts, but can certainly be adapted.

When building your prompt, consider the following 3 key areas:

- 1: Context** [background data, venue, research]
 - 2: Goals** [target audience, campaign objectives]
 - 3: Output** [style, tone of voice, length]
- (These don't need to be included in a single message, but can be in multiple)



MORE PROMPT ENGINEERING POINTERS

How vague or specific is my prompt?

You can think of this as existing on a spectrum. E.g., on one side of the spectrum might be 'Write about animals', while further on the spectrum might be "Write a 100-word piece on the therapeutic effects of having a pet cat."

Consider the tone and style. Play around with "Describe a falling in love in a poetic manner." vs "Describe falling in love in a scientific manner."

Consider the target audience (but be aware of bias, which we'll discuss later). I personally find it most constructive to describe this situationally rather than demographically. For example, "For people seeking a retirement community" vs "people who are retired".

Include constraints. This can be as simple as including a specified word count, or attaching the full tone of voice guidelines from your organisation.

Remember that each piece of writing has an intent, and doesn't exist in a silo. "Write a 100 word piece of copy about why Manchester is great" will usually be less useful than "Write a 100 word piece of copy about why you should consider moving to Manchester"

Don't be afraid to use examples, especially if they're from your own organisation. E.g. "Here is an example of our usual tone of voice and some articles we felt represented our organisation well, please learn from these when suggesting new copy."

Don't be afraid to evolve the prompt based on the AI's own suggestions and ask it to expand on certain sections or ideas that you find interesting.



CRITICAL AWARENESS (1)

We must develop a robust and critical approach when using these tools, particularly as the technology is still so new.

1) Does it actually work?

- You are the **best judge**.
- Try testing it on your **own terms**.
- Remember that **prompt engineering** can make a difference, but how much?
- Your own perspective is **valid!**

2) Hype

- Hype is real and inescapable. This introduces **challenges** to determine real abilities of these systems.
- Question **new buzzwords**.
- No substitute for your **own experimenting**
- **Talk to each other** – colleagues and other organisations
- to learn real-world applications

3) Data security

- Never upload **sensitive customer data** to an AI platform. Don't assume any chat logs, prompts, or information you provide to AI is private and confidential.
- Before providing any sensitive organisational data, **thoroughly vet the company's data handling policies**. Look for clear explanations of how they access, use, and secure customer data.
- As AI becomes more prominent, it might become sensible to host AI systems on your **own private servers** for maximum security.
- When in doubt, speak to the **data compliance officer** at your organisation.

4) Systematic Bias

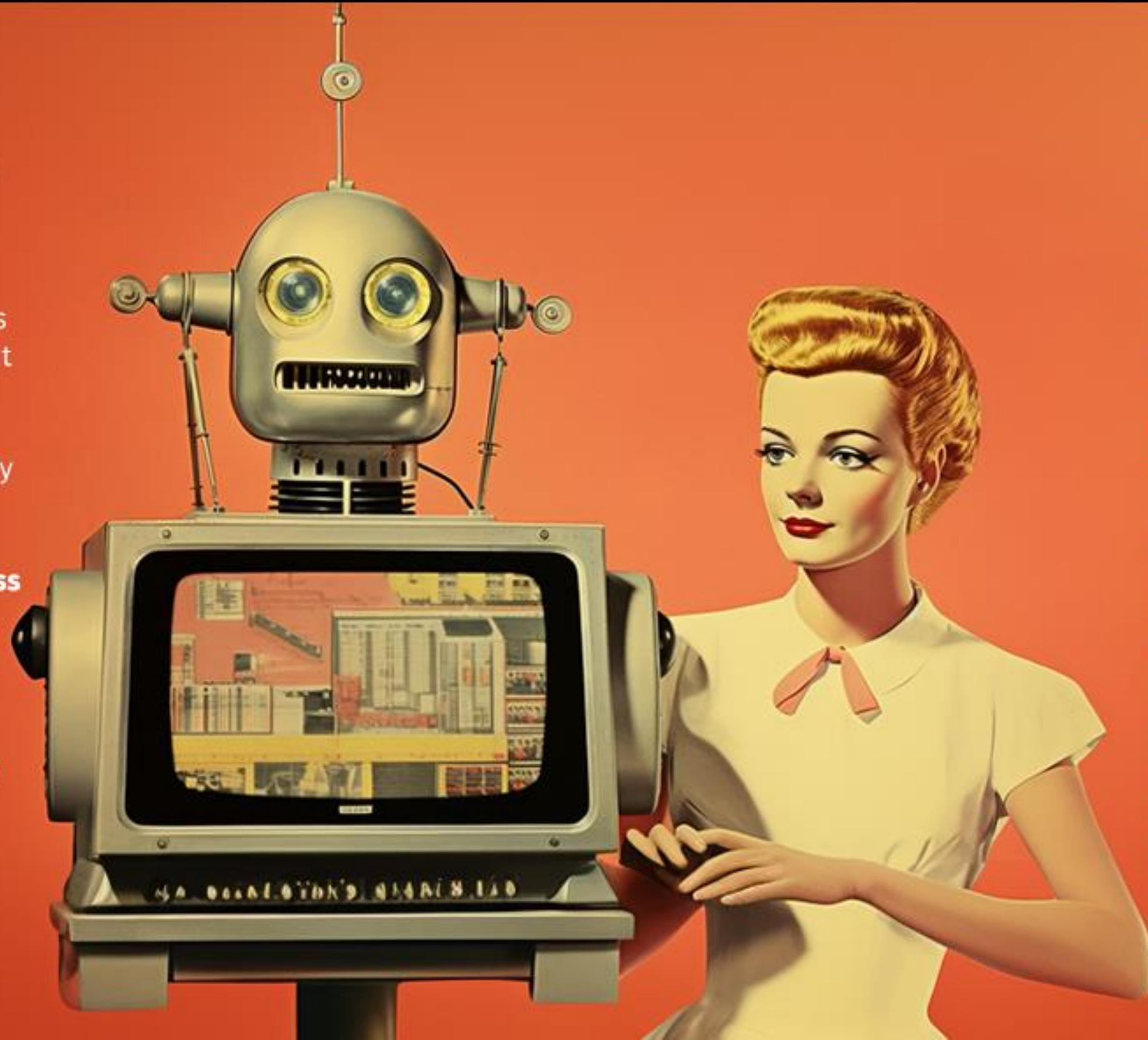
These tools can inadvertently perpetuate **harmful societal biases** if we are not proactive.

When AI makes creative recommendations or decisions based on **problematic data**, it can **amplify** those ingrained biases.

Biased AI could ultimately alienate already underrepresented communities.

It's helpful to **develop your own awareness** of this through experimenting with the AI, and noticing what assumptions it makes about different types of people.

Although this might be most obvious with image generators, the same issue very much exists in text generators and LLMs.



5) Censorship

Determining what constitutes "**Inappropriate content**" is always subjective.

We must be vigilant against the **temptation to self-censor** and the temptation to avoid prompting the AI with anything deemed remotely controversial.

Rather than avoiding difficult topics, we can thoughtfully **stress test** an AI's boundaries to understand **where censorship lines are drawn and why**.

This is likely going to become a **major part** of the discussion as AI continues to mature - whatever your feelings on AI, I encourage you to find ways to join this conversation.

CRITICAL AWARENESS (3)



6) Accuracy

Remember that AI can **hallucinate facts** – always check any statements or information it reports.

This is also true when **using it to analyse your own data!**

You can question an AI about its **sources** when creating prompts.

7) Reputation

Passing AI work as human-created can be seen as **deceptive**.

Being seen as **'replacing'** humans with AI will likely lead to negative impressions of an organisation.

Consider **developing policies** for how your organisation uses AI more broadly. E.g. whether AI generated work is always labelled as such.

8) Copyright

This is a massive area and will likely soon come into focus, especially as new copyright law grapples with the rise of AI.

WHERE TO NOW?

Popular LLM Chatbots

ChatGPT/GPT4

<https://chat.openai.com>

Claude

<https://claude.ai>

Bard

<https://bard.google.com>

Talk to Pi

<https://pi.ai/talk>

Bing Chat

<https://www.bing.com>

Popular Image Generators

Dall-E-2

<https://openai.com/dall-e-2>

Bing Image Creator (using Dall-E-3)

<https://www.bing.com/create>

Midjourney

<https://www.midjourney.com>

Stable Diffusion

<https://stablediffusionweb.com>

Future Tools (Try out different tools for free)

<https://www.futuretools.io/>

Quality YouTube channels about developments

Matt Wolf (AI News)

<https://www.youtube.com/@mreflow>

AI Explained

<https://www.youtube.com/@aiexplained-official>



REFLECT SHARE INSPIRE

AI isn't for the technologically elite

Embrace a 1990s mindset

Expect multiple opinions

Talk and share

Enjoy getting curious



THANK YOU.

JO.M.BURNHAM@GMAIL.COM