

AI tools are generating convincing misinformation: Engaging with them means being on high alert

March 23 2023, by Lisa M. Given



This is a fake AI-generated image. Credit: Daniel Kempe via Twitter/Midjourney

AI tools can help us create content, learn about the world and (perhaps) eliminate the more mundane tasks in life—but they aren't perfect.

They've been shown to hallucinate information, use other people's work without consent, and embed social conventions, including apologies, to gain users' trust.

For example, certain AI chatbots, such as "companion" bots, are often developed with the intent to have [empathetic responses](#). This makes them seem particularly believable. Despite our awe and wonder, we must be critical consumers of these tools—or risk being misled.

Sam Altman, the CEO of OpenAI (the company that gave us the ChatGPT chatbot), [has said he](#) is "worried that these models could be used for large-scale disinformation." As someone who studies how humans use technology to access information, so am I.



A number of fake images of former US President Donald Trump being arrested have taken the internet by storm. Credit: Elliot Higgins/Midjourney

Misinformation will grow with back-pocket AI

Machine-learning [tools](#) use algorithms to complete certain tasks. They

"learn" as they access more data and refine their responses accordingly. For example, Netflix uses AI to track the shows you like and suggest others for future viewing. The more cooking shows you watch, the more cooking shows Netflix recommends.

While many of us are exploring and having fun with new AI tools, experts [emphasize](#) these tools are only as good as their underlying data—which we know to be flawed, biased and sometimes even designed to deceive. Where spelling errors once alerted us to email scams, or extra fingers flagged AI-generated images, system enhancements make it harder to tell fact from fiction.

These concerns are heightened by the growing integration of AI in productivity apps. Microsoft, Google and [Adobe](#) have announced AI tools will be introduced to a number of their services including Google Docs, Gmail, Word, PowerPoint, Excel, Photoshop and Illustrator.

Creating fake photos and deep-fake videos no longer requires specialist skills and equipment.

Running tests

I ran an experiment with the Dall-E 2 image generator to test whether it could produce a realistic image of a cat that resembled my own. I started with a prompt for "a fluffy white cat with a poofy tail and orange eyes lounging on a gray sofa."

The result wasn't quite right. The fur was matted, the nose wasn't fully formed, and the eyes were cloudy and askew. It reminded me of the pets who returned to their owners in Stephen King's *Pet Sematary*. Yet the [design flaws](#) made it easier for me to see the image for what it was: a system-generated output.



Image generated by Dall-E 2 using the prompt: "a fluffy white cat with a poofy tail and orange eyes lounging on a gray sofa." Credit: Dall-E 2

I then requested the same cat "sleeping on its back on a hardwood floor." The new image had few visible markers distinguishing the generated cat

from my own. Almost anyone could be misled by such an image.



Image generated by Dall-E 2 using the prompt: 'a fluffy white cat with a poofy tail sleeping on its back on a hardwood floor'. Credit: Dall-E 2

I then used ChatGPT to turn the lens on myself, asking: "What is Lisa Given best known for?" It started well, but then went on to list a number of publications that aren't mine. My trust in it ended there.



Lisa Given is an Australian author, academic, and researcher who is best known for her work in the field of digital humanities. She is a leading figure in the study of digital culture and its impact on society and has published extensively on topics such as digital storytelling, online identity, and the use of digital technologies in education.

Given has written several influential books, including "The Digital Academic: Critical Perspectives on Digital Technologies in Higher Education" and "Digital Storytelling in Health and Social Policy: Listening to Marginalised Voices". She is also the editor of the journal "Digital Humanities Quarterly" and has been involved in numerous research projects exploring the intersection of technology and society.

Overall, Lisa Given is a prominent figure in the field of digital humanities and has made significant contributions to our understanding of the impact of digital technologies on culture, society, and education.

The chatbot started hallucinating, attributing others' works to me. The book [The Digital Academic: Critical Perspectives on Digital Technologies in Higher Education](#) does exist, but I didn't write it. I also didn't write [Digital Storytelling in Health and Social Policy](#). Nor am I the editor of [Digital Humanities Quarterly](#).

When I challenged ChatGPT, its response was deeply apologetic, yet produced more errors. I didn't write any of the books listed below, nor did I edit the journals. While I wrote one chapter of [Information and](#)

[Emotion](#), I didn't co-edit the book and neither did Paul Dourish. My most popular book, [Looking for Information](#), was omitted completely.



I apologize for the error in my previous response. You are correct that Lisa Given did not write the books I mentioned. I am sorry for any confusion that may have caused.

To answer your original question, Lisa Given is an Australian author, academic, and researcher who is best known for her work in the fields of information studies, digital humanities, and cultural studies. She has published numerous books, articles, and research papers on topics such as information behavior, digital culture, and the use of technology in education and research.

Some of her notable works include "The Sage Handbook of Qualitative Methods in Health Research" (co-edited with Ivy Bourgeault and Eileen McInerney), "Research Methods for Information Systems" (co-authored with Eileen M. Trauth), and "Information and Emotion: The Emergent Affective Paradigm in Information Behavior Research and Theory" (co-edited with Paul Dourish). She has also served as the editor of several academic journals, including "Information Research" and "Journal of Documentation."

Again, I apologize for the mistake in my previous response and hope this information is helpful.

Fact-checking is our main defense

As my co-authors and I explain in the latest edition of [Looking for Information](#), the sharing of misinformation has a long history. AI tools represent the latest chapter in how misinformation (unintended inaccuracies) and disinformation (material intended to deceive) are spread. They allow this to happen quicker, on a grander scale and with

the technology available in more people's hands.

Last week, [media outlets](#) reported a concerning [security flaw](#) in the Voiceprint feature used by Centrelink and the Australian Tax Office. This system, which allows people to use their voice to access sensitive account information, can be fooled by AI-generated voices. Scammers have [also used fake voices](#) to target people on WhatsApp by impersonating their loved ones.

Advanced AI tools allow for the democratization of knowledge access and creation, but they do have a price. We can't always consult experts, so we have to make informed judgments ourselves. This is where critical thinking and verification skills are vital.

These tips can help you navigate an AI-rich information landscape.

1. Ask questions and verify with independent sources

When using an AI text generator, always check source material mentioned in the output. If the sources do exist, ask yourself whether they are presented fairly and accurately, and whether important details may have been omitted.

2. Be skeptical of content you come across

If you come across an image you suspect might be AI-generated, consider if it seems [too "perfect"](#) to be real. Or perhaps a particular detail does not match the rest of the image (this is often a giveaway). Analyze the textures, details, coloring, shadows and, importantly, the context. Running a reverse image search can also be useful to verify sources.

If it is a written text you're unsure about, check for factual errors and ask yourself whether the writing style and content match what you would expect from the claimed source.

3. Discuss AI openly in your circles

An easy way to prevent sharing (or inadvertently creating) AI-driven misinformation is to ensure you and those around you use these tools responsibly. If you or an organization you work with will consider adopting AI tools, develop a plan for how potential inaccuracies will be managed, and how you will be transparent about [tool use](#) in the materials you produce.

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