

# AI Challenges We Should All Know About

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Today, we'll begin with a quick story.

Marketing manager Amina was excited about using generative AI to streamline her team's workflow.

She imagined the AI handling tasks like generating content and predicting market trends.

However, she quickly noticed that the AI's outputs were unreliable. They were occasionally incorrect, and even when they were technically accurate, they usually missed the mark in terms of tone and relevance.

One time, the AI even crafted a campaign around a product feature that didn't exist, which could have caused a major mishap.

Realising that AI wasn't a magic solution, Amina decided to take a more hands-on approach.

She continued to use AI for the tasks she'd planned, but she learned to refine her prompts to include instructions on tone and reading level and she even provided the AI with the sources she wanted it to pull information from.

Then, when the AI delivered its results, Amina set aside time in her workflow to meticulously check the outputs before anything was launched.

Over time, Amina and her team developed a structured method for working with AI, which significantly improved the quality of the outputs.

By combining her expertise with AI's capabilities, Amina turned potential pitfalls into productivity gains, ultimately leading to higher client satisfaction and a more efficient workflow.

Amina's experience shows that while AI is powerful, success comes from understanding its limitations and learning how to use it effectively – which is exactly what we'll be covering today.

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Welcome to today's lesson about the AI challenges we should all be aware of.

As AI continues to evolve, it's reshaping the way we work, think, and interact.

But, like any powerful tool, AI comes with its own set of challenges and pitfalls.

In this lesson, we'll look into these challenges, focusing on the errors generative AI can make, how you can effectively navigate these issues, and how to formulate prompts to help you get the most from AI tools.

By the end of this lesson, you should feel more confident in your ability to use AI responsibly and effectively while avoiding the common traps that many users fall into.

Let's explore one of the most significant challenges associated with generative AI: the risk of errors.

While AI can process vast amounts of data and generate outputs that appear sophisticated, it is important to remember that AI is not infallible.

According to senior lecturer and research scientist at the MIT Sloan School of Management, Renée Richardson Gosline, and her colleagues, one of the most common problems with society's current use of AI is how we overly rely on AI outputs without providing enough human oversight and intervention [1]. AI systems are only as good as the data they're trained on, which means that if the underlying data contains biases or inaccuracies, the AI is likely to replicate or even amplify these issues.

For example, if an AI tool is used to generate a report or make predictions, it may produce results that are technically accurate but contextually misleading or even harmful.

This is most concerning in industries where precision is critical.

The solution? We must be active participants in the AI process.

Rather than unquestioningly accepting AI-generated outputs, always take the time to verify and validate the information. Cross-checking facts and figures manually, especially in high-stakes scenarios, is not just advisable – it's 100% necessary.

Plus, there's the issue of "AI trust," which can be a double-edged sword. As Ayanna Howard, dean of the College of Engineering at The Ohio State University, says, we often place too much trust in AI, assuming that because it's a product of complex algorithms, it must be correct [2].

Remember, AI doesn't have the same ability as humans to understand context and subtle details. This means it can produce results that look correct at first glance but are actually quite wrong.

To avoid this, you should maintain a healthy scepticism towards AI outputs. Treat AI as a tool, like an assistant that can provide useful insights but still needs your judgement to ensure accuracy and relevance.

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Another critical area to address is the way we interact with AI through prompts.

According to an article by professor of AI and data science Colin W.P Lewis and PhD Candidate Agnieszka Dziewulska, the effectiveness of AI largely depends on the quality of the prompts we give it [3]. A poorly structured prompt can lead to vague or irrelevant responses, while a well-crafted prompt can generate precise and useful results. This means that if you want to get the most out of AI, it's time to start polishing up those prompt engineering skills.

So, how do you create effective prompts?

Start by being as specific as possible. If you're asking AI to help with a marketing strategy, don't just ask for a generic plan.

Specify the target audience, the product's unique selling points, the current market trends, and any constraints like budget or timelines. Give the AI specific websites to crawl.

The more detailed your prompt, the more tailored the AI's response will be. Additionally, consider using iterative prompting.

This means breaking down complex tasks into smaller, manageable parts and refining your prompts as you go.

Many AI tools, like ChatGPT, give you the opportunity to have a conversation with the AI. So if the first response it delivers isn't what you'd hoped for, you can ask it to adjust the tone or confirm source information. Basically, you can keep digging deeper until you get the results you need.

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There's also the issue of bias in AI outputs, which can be very harmful.

AI systems learn from the data they're trained on, which means they can unintentionally spread existing biases.

This is a concern raised by many experts who highlight that while AI can process and analyse data at incredible speeds, it can also reinforce harmful stereotypes or make decisions that are biased against certain groups [4].

To mitigate this, it's important to scrutinise the AI outputs for any signs of bias.

If you notice that the AI consistently generates outputs that favour one group over another, you likely need to re-evaluate the data inputs or adjust the AI's training parameters.

Navigating these issues also involves understanding the limitations of AI. As Leadership Strategist Dan Pontefract highlights, while AI can handle large amounts of data, it can struggle with tasks that require human intuition or emotional intelligence [5].

For example, AI might be able to generate a perfectly formatted customer service response, but it may seem a little off when it comes to conveying empathy or understanding the subtleties of that customer's complaint. This is why it's crucial to use AI as a complement to, rather than a replacement for, human judgement.

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Finally, it's worth mentioning that AI is constantly evolving, and the challenges it presents are evolving right along with it.

Staying informed about what's new in AI technology and the ethical considerations surrounding its use is key for anyone looking to use AI effectively in their work.

Regularly updating your knowledge and skills in this area will not only help you navigate the current challenges but also prepare you for any new issues that may arise as AI continues to develop.

So, it's clear that generative AI offers incredible potential, but it is not without its challenges.

From the risk of errors and bias to the dangers of over-reliance and misplaced trust, there are many pitfalls to be aware of when it comes to AI.

However, by approaching AI with a critical eye and a structured approach, you can navigate these challenges effectively.

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Remember to verify information, question outputs, and refine your prompts to ensure you're getting the most from AI. This will make you better equipped to harness the power of AI while avoiding its potential downsides.

There are two main takeaways from this lesson: first, always be critical when using AI. Don't assume the AI is always correct—verify, question, and cross-check the outputs to ensure accuracy and relevance.

Second, focus on improving your interaction with AI by refining your prompts. The more precise and detailed your prompts, the better the AI will be at delivering useful and accurate results.

This dual approach will help you make the most of AI while mitigating the risks associated with its use.

[1] *Nudge Users to Catch Generative AI Errors*, Renée Richardson Gosline, Yunhao Zhang, Haiwen Li, Paul Daugherty, Arnab D. Chakraborty, Philippe Roussiere, and Patrick Connolly (2024)

<https://sloanreview.mit.edu/article/nudge-users-to-catch-generative-ai-errors/>

[2] *In AI We Trust – Too Much?* Ayanna Howard, MIT Sloan Management Review (2024)

<https://sloanreview.mit.edu/article/in-ai-we-trust-too-much/>

[3] *Improve Your Company's Use of AI with a Structured Approach to Prompts*, Colin W.P. Lewis and Agnieszka Dziewulska, HBR (2024)

<https://hbr.org/2023/11/improve-your-companys-use-of-ai-with-a-structured-approach-to-prompts>

[4] *Getting the Most Out of Generative AI*, Rashim Mogha, Forbes Business Council (2023)

<https://www.forbes.com/councils/forbesbusinesscouncil/2023/12/21/getting-the-most-out-of-generative-ai/>

[5] *Harvard And BCG Unveil The Double-Edged Sword Of AI In The Workplace*, Dan Pontefract, Forbes (2023)

<https://www.forbes.com/sites/danpontefract/2023/09/29/harvard-and-bcg-unveil-the-double-edged-sword-of-ai-in-the-workplace/>