Getting AI to Think with You, Not for You

PROFESSOR LIZ GERBER SHARES FIVE TIPS ON HOW TO USE AI IN IDEA GENERATION

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Liz Gerber
Professor of Mechanical Engineering

Generating new ideas can appear daunting. The rise of tools like ChatGPT and Claude AI can create a temptation to toss the bulk of the task to an AI chatbot.

LIZ GERBER, professor of mechanical engineering and codirector of Northwestern's Center for Human-Computer Interaction + Design, cautions against that. She says the key to success when using AI tools lies in the details and how you manage them.
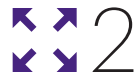
Gerber offers **five pieces of advice to harness AI's power** without letting it do all the thinking for you.

1 Start with your own ideas

Yes, you could ask ChatGPT for a thousand ideas, but that sidelines your valuable expertise and weakens your creative muscle. The more you hand over creative thinking to AI, the less skilled you become.

Put down your devices. Start with pen and paper and use your own brain. Lay out what you already know. Write everything down. Identify what's top of your mind before your thinking gets anchored.

2 Expand your perspectives

AI can push your ideas in new directions. Liz Gerber's favorite prompts: Imagine money is no object. Imagine physics doesn't exist. Make up something my mother would hate.

Better yet, brainstorm with another person first, then bring in AI as a third partner. That way, you'll have a creative boost plus a human reality check.

3 Spot weaknesses or vulnerabilities

Ask AI to poke holes in your ideas. What assumptions are you making? What problems might arise?

You can treat it like quick user testing. Ask for 10 critiques from the perspective of your target audience.

4 Question solutions

Keep your critical thinking hat on. AI creates persuasive content, but it's not always factual. It's like auto-complete on steroids. AI takes your prompts and makes its best guesses with no value judgment.

Just as AI can generate images that appear real but are not, AI's words can sound convincing without being true.

5 Stay mindful of bias

AI is trained on massive amounts of historical and often biased data. For example, one study found it advised women to negotiate lower salaries than men for the same job. That's one instance when history was definitely not the best teacher.

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OTHER THINGS TO KEEP IN MIND

Prioritize your privacy.

When using AI, assume you're shouting in a public square. Don't share intellectual property. Delete chats. Use enterprise solutions. And monitor for compliance updates.

Consider hidden costs.

AI is convenient, but each prompt comes with unseen environmental costs. ChatGPT's daily water usage alone averages that of a small town's entire household consumption, according to the US Environmental Protection Agency.