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100+ Ways to Use Artificial Intelligence

to Make Your Life Easier, More Productive... and More Fun!

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Dedication

For Neil

Introduction

Ever since OpenAI's explosive launch of ChatGPT, it seems we cannot go a day without hearing some mention of AI and how it is changing the world around us. While the transformative promise of AI is exciting, it can also feel overwhelming. And all that jargon? No, thank you. How do these AI tools work anyway? And how would an everyday person even use AI?

That's where this book comes in. While much of the chatter around AI is in the realm of business, this collection will focus instead on the wide variety of ways generative AI can make your personal life easier, more productive, and even more fun. With it, you'll learn to outsource the tedious tasks of your day-to-day life to an expertly efficient and collaborative partner—AI! By learning to harness the power of AI, you can focus even more of your energy on your hobbies, social life, and...well, living!

You'll first learn some background information on the strengths and limitations of AI, an overview of popular free tools to start with (including ChatGPT), and easy-to-follow guidance on how to write effective prompts that will get AI working for you. Then we'll dive into the good stuff: the dozens of specific ways you can use AI, spanning a wide array of categories such as health and wellness, career development and the workplace, personal finance, relationships and social skills, and travel. For example, you'll learn how to use AI to:

- Plan a vacation itinerary
- Suggest recipes based on ingredients you have on hand
- Optimize your budget
- Customize resumes and cover letters
- Learn and practice a foreign language

- Tell your kids customized bedtime stories
- And so much more!

Each two-page entry features information on exactly how AI can help you complete each task, sample prompts to start with (which you can test by simply reading aloud to your favorite free AI app), and suggestions for how to make the prompts your own for even better results. On top of that, you'll find dozens of quick suggestions for each category, from finding ingredient substitutions to preparing a packing list. Most importantly, as you read, you'll naturally begin to imagine even more new and inventive ways to use AI!

AI is here to stay—so you might as well learn how to make it work for you. *AI for Life* equips you with the knowledge and confidence to create your own powerful, personalized prompts and make generative AI your hardworking assistant. Start harnessing AI to help you streamline tasks, take chores and tasks off your plate, spark your creativity, and give you the gift of more free time!

🛏 PART 1 ⊸

Understanding AI

Ready for a crash course on generative AI? Don't be intimidated—you won't be buried in jargon or drowning in technical theory. In Part 1, I've distilled the most critical details into a single approachable chapter. You'll learn what you, as the *user* of AI, most need to know to effectively engage with it, including understanding the strengths and weaknesses of generative AI.

You'll also get oriented with the basic AI terms, discover how these tools work, and meet some popular (and free!) generative AI programs that you can use in conjunction with the use cases in Part 2. We'll even cover the varied capabilities of these tools, from voice communication to AI image generation and more. Finally, you'll learn how to engage with AI through effective prompt-writing techniques, shortcuts, and tips.

This part will set you up with a strong foundation for all of your future AI interactions, both simple and more complex. Let's dive in!

CHAPTER 1

Getting Started with Generative Al

 $\mathbf{A}I$ is far more than a buzzword—it is a rapidly evolving technology that is still in its early phases of adoption. Before you know it, however, these tools will be as commonplace as the Internet is today.

Whether you are entirely new to generative AI tools like ChatGPT or you have played around with these tools but weren't quite sure how best to use them, understanding the fundamentals of how they work (and how to work with them) is essential to getting the most out of them. Before we dive into the various ways you can leverage AI to enhance your daily life, this chapter will unpack everything you need to know to "work smart" with generative AI, from how it works to how to interact with it to get what you want. My goal in this chapter is to teach you how AI works and how to work with AI effectively so that you can harness its power both now and in the future as AI technology continues to evolve.

Artificial Intelligence Is Not New

Whether you realize it or not, you have likely been benefiting from artificial intelligence programs for a while now. For years, search engines like Google and Yahoo! have been powered by sophisticated AI techniques, as have the speech-recognition functionalities within Apple's Siri or Amazon's Alexa. Whenever your smartphone suggests a word or spelling correction, you have AI to thank. Similarly, those custom-tailored recommendations in streaming platforms? AI. And this is just a sampling of the many ways we have all been leveraging AI in our lives.

Yet *AI* and *artificial intelligence* have only recently become huge buzzwords in daily conversations. And all this recent "AI this" and "AI that" chatter in the public space can

be traced back to the record-shattering public launch of OpenAI's ChatGPT on November 30, 2022. According to a *UBS* report, the launch attracted one million users in its first week and over one hundred million within its first two months. Thanks in part to its accessibility; ease of use; and, of course, the "Wow" factor, suddenly everyone had at least heard of the term *AI*, and not in the context of science fiction. With all the buzz circulating about this previously little-known company, OpenAI, the big guys (Google, Microsoft, and Meta) and others started to enter the market with generative AI tools of their own.

What Is Generative AI?

To start, *artificial intelligence* is a blanket term used to describe when a machine is programmed to simulate human intelligence, learning, or problem-solving. *Generative AI* refers to a class of artificial intelligence tools that can "generate" new content based on requests (inputs or "prompts") they receive.

The Basics of Large Language Models

ChatGPT and other tools we'll discuss in Part 1 are generative AI applications powered by "large language models." An LLM is a type of AI model that is built to process, respond to, and interact with human language. These tools can therefore respond to your inputs in natural language. There are also many generative AI tools that leverage LLM technology to perform tasks like generating images, music, and even video, based on the human language requests given to them.

How do LLMs work? In simple terms, when you put a new text-based request into tools like ChatGPT, the LLM calls upon its "training" (which consists of a *massive* amount of data) to predict what word, and each subsequent word, would best answer the initial request. It's basically like a very, *very* advanced auto-complete. But instead of generating a single word or short phrase at a time, it can generate hundreds of words in a tidily structured format, customized to whatever your initial request was. Put yet another way, these tools are just really good at mimicking human language patterns.

A Human-Machine Partnership

If analogies are more your thing, imagine if you would, that a large language model is like a human writer. This writer is an expert on the writing styles of thousands of authors. They studied writing extensively and have developed an incredible skill of mimicking the particular styles of great writers. So if you hire this person to write a short story in the style of, say, Charles Dickens, they can provide something that sounds very much like something Dickens might have written! But let's say you aren't thrilled about a particular plot twist, so you give some feedback to your writer friend and ask them to change the storyline a bit. When they do, the second draft is even better, thanks to their expertise and your feedback.

Because of an LLM's ability to recognize and mimic human language patterns, working with generative AI tools is much like this interaction. You make a request, and the tool's model draws upon its "knowledge" and creates something based upon your request. If you subsequently ask for the tool to adjust its outcome, it will oblige and deliver something new according to that feedback.

Conversational Power

Why are LLMs able to respond to feedback in this way? This ability to adjust to feedback is largely thanks to the "context window" of the large language model. A context window is effectively the amount of "memory" an LLM has for your conversation in a given chat. Context windows are measured in "tokens." For simplicity's sake, think of a "token" as your average 5-letter word. An 8,000-token context window, the lowest context window limit you'll encounter among the free tools mentioned in this book, would therefore be the equivalent of about 27 pages of text in an average book. That's still a pretty lengthy conversation! Meanwhile, other LLMs offer even larger windows, like GPT-40 (128k), Claude 3.5 Sonnet (200k), or even more than one million tokens with Gemini's 1.5 Pro model, available with the paid version of Gemini.

The LLM acquires more and more "context" the longer you chat within it. Everything you input into the chat (including attachments) and everything your AI tool generates back in response contribute to the context memory, which it references with each subsequent response to you. Kind of like "temporary training data" layered on top of the existing model, which it can only maintain within the bounds of its context window.

If you chat too long and reach the limit of your context window (or if you attach large files in your chats), however, you might notice that your tool starts to become a little "confused" if you reference something said in the same chat too long ago, and it may need to be reminded of the context it has lost. This is not totally unlike a human interaction—after all, a detail mentioned to a coworker in a meeting yesterday is often more easily remembered than a detail from a month ago!

The Strengths of Generative AI

This book will focus primarily on the many ways you can use generative AI tools like ChatGPT, which primarily provide text-based responses to your inputs, though we will touch on AI-generated images as well. If you want to create or learn about something that can be accomplished or communicated with written text, ChatGPT (and other AI tools like it) can do it. Generative AI tools leveraging LLMs are particularly strong at all of the following:

- Leveraging a vast knowledge base: LLMs just "know" a lot of stuff. Imagine being able to understand all of the knowledge within all of the books in a massive library—that's basically what ChatGPT allows you to do. Similar to search engines, generative AI can unlock access to vast amounts of information in record time, helping you learn, create, and even think faster.
- Comprehending your requests: LLMs have a great depth of understanding for human requests. Based on the words we use in our "chats" with these tools, LLMs can predict what answers and structure of output will best fit our needs. They can even do this if your requests are long and rambling. (Although the best results do come from well-structured and clear prompts, which you will learn more about in this book!)

- Having a "memory" and ability to understand context: Generative AI tools can recall your conversation within a chat so that you can continually build upon your initial request. Basically, you can have a conversation within an AI application, and it will not "forget" what was said moments after you said it—just like you would with a human expert on a subject you are hoping to learn more about. There *is* a limit to the amount of "memory" these tools have for a given chat (as mentioned earlier), but for the most part, the conversational nature of these tools makes them very easy to work with.
- **Collaborating creatively:** Because of their vast knowledge base and skill at recognizing patterns in data, LLMs are adept at idea generation and problem-solving while also being excellent collaborators. Similarly, their database and training recognition allows them to easily adapt to new requests and styles, effortlessly "role-playing" as any type of persona you'd ask for an answer to a given query.
- Conversing in many languages: Because their training data also includes materials in a variety of languages, generative AI tools are also strong translators, especially for popular world languages. ChatGPT, for example, can understand, translate, and respond to requests in more than eighty languages.
- Affordability and accessibility: Accessibility is the final major strength of these tools. While there are "paid" subscriptions for most popular AI tools to access even more advanced features, most popular generative AI applications provide some level of free access to anyone with access to the Internet.

The Limitations of Generative AI

Like a Swiss Army knife, we've established that generative AI is good at a lot of things. But also, just like if you misuse a Swiss Army knife, if you use generative AI the wrong way or you don't fully understand the proper way to leverage it, things won't go well. While these tools are capable of performing a huge number of helpful tasks and have access to a huge wealth of knowledge, they are not perfect. Let's briefly review some common misconceptions about generative AI and unpack its weaker areas so that you know these ahead of time and can work around these limitations.

AI "Hallucination"

When working with these tools for the first time, it can be easy to fall for a common misconception: that because they have access to so much knowledge, because their answers are generated so quickly and confidently, and because so much of what they say is correct, these tools are *always* correct. This just isn't the case. While these models are adeptly trained and usually produce factual results, it's important to always remember that these tools are capable of what's called "hallucination," or generating incorrect or perhaps even nonsensical information. After all, these are predictive models, and what prediction is correct 100% of the time?

Generative AI's answers tend to be most factual when the topic covers subjects that have been well documented or topics that have a wealth of publicly available information. But the model is more likely to hallucinate when asked about highly specialized or niche topics (for example, brand-new scientific studies or specific court cases) or when asked about recent events that happened after the particular model's training data cut off.

Furthermore, if you ask ChatGPT to generate a bibliography of sources for what you have discussed in your chat, it will happily oblige with something that looks like a typical bibliography. But when you fact-check with a short Google search, you may be shocked to find that some of the research papers or articles referenced simply don't exist!

SOLUTION

Because of AI hallucinations, when engaging with generative AI tools—especially when using them as a jumping-off point for research or workplace scenarios—it's important to fact-check information in your outputs against a secondary source to be certain the information you received is accurate. It all comes down to the model's training and the quality of the data.

Even if the AI has web-browsing features, you should always click through to the source to determine both the source's credibility on the topic and the degree of accuracy in the AI summary of the source's contents.

Mathematics

The predictive nature of generative AI is also the reason why the popular tools in this book may be able to help with basic math questions (like 4 + 10 = 14) but may struggle when asked to do more complex calculations ($4,229 \times 2,099,032$). These tools are not calculators. They are just predicting—based on the data and patterns their sophisticated algorithms have been trained on—what character or word is most likely to follow the previous one. Generally speaking, when approaching math problems, you may be able to leverage AI to teach you *the method* for doing the math, but not for calculating the thing itself.

SOLUTION

If you really need help with a math calculation, ChatGPT has a data analysis feature that can be accessed through ChatGPT Plus (and also through free ChatGPT, up to a certain limit). This feature within ChatGPT has been specifically trained to be able to perform more advanced calculations by running a Python script when answering mathematical queries.

Human Logic and Humor

When working with these generative AI tools, you'll likely quickly discover they just aren't very funny, even when you ask them to be. Their jokes can be a bit nonsensical, and their puns often don't make much sense, especially when bridging two topics that aren't regularly connected. The absurdity of their answers when asked to be funny is probably one of the (unintentionally) funniest things about them. While these tools seem to comprehend and understand the common structure of jokes or riddles, the punchlines just fall flat. The same can be true for human logic—those things that we inherently know or can use logic to figure out. One example? When I asked ChatGPT's older GPT-3.5 model the question "If I started with 5 sticks, then I cut each stick in half, how many stick ends do I have now?" As humans, we can see in our mind's eye the 5 sticks being cut in half, each turning into two separate sticks with 2 separate ends. So *we* know the answer must be 20. But GPT-3.5 very confidently said that the answer was 10. I've found that GPT-4, a more advanced model, gets this answer right more often, but it still misses the mark regularly.

This lack of logic can be spotted in AI image and video generation as well, where images generated by AI may feature some nonsensical visual elements like an extra finger on a person in the photo, a piece of furniture that is unrealistically proportioned, or a moving image that does not quite accurately reflect the laws of gravity. Such details, while becoming harder and harder to spot as these tools get better, can be helpful tells for spotting AI images in the wild.

So why is generative AI not great at humor or logic? In short, both often involve nuance and an understanding of human experience that AI does not have (save for whatever is available in its training data). While it can mimic some logic, humor, and empathy, it is not truly capable of a human level of understanding that we get from lived experiences.

SOLUTION

Be mindful of ChatGPT's limitations when it comes to humor and logic. If you really need help with a joke or a pun, asking it to brainstorm 5 or 10 different attempts will make it more likely that at least one of these jokes "lands." Similarly, if its logic seems off, you can always provide it feedback to get it back on track. Still be wary however—these tools aim to please, and they can still be confidently illogical in certain scenarios, even after giving such feedback.

Data Privacy

It is important to understand that generative AI tools "read" and process the text inputs you give them to generate their responses. This entered data may then be stored in some way, as oftentimes these inputs are used to help improve the performance of the model and build future versions of the model that have even better responses and depth of natural language understanding. Beyond that, as with most companies that store data, there's always a risk of a potential data breach.

SOLUTION

As you use generative AI, you should avoid including any deeply personal or sensitive information in your text prompts (think: your full legal name, social security numbers, banking information, etc.). Also, never upload copyrighted material. In work scenarios, you should also understand your company's perspective on the use of these tools by talking with your data privacy team. As a rule of thumb, it would be unwise to upload any private customer data, company financial statements, or proprietary information into these models.

Al and the Ethics of Plagiarism

It's also important to think about the ethical considerations you should keep in mind when leveraging generative AI. Perhaps the most important thing is that even though AI *can* create complete stories, guides, blog posts, essays, and any other piece of writing for you, publishing that work as your writing without creating significant edits and disclosing the use of generative AI could be considered plagiarism and ethically wrong.

Presenting unedited AI-generated text as your own may not only violate academic integrity and impact your credibility as a professional, but it can (perhaps inadvertently) also lead to the spread of misinformation if you did not check the text for AI hallucination.

Furthermore, while generative AI tools are designed to produce original responses, there is a risk that what they generate could mimic existing materials a bit too closely, putting you at risk for plagiarism if you decide to publish these outputs as your own work.

SOLUTION

While at the time of this writing, there are not yet any strict laws or regulations about the proposed use of AI-generated content, there are expected to be laws passed on the subject in the not-too-distant future, as government bills and state-level legislation have started to be introduced. Therefore, when using AI to create content that you intend to publish, it is best to be transparent and disclose to what extent the content was AI-generated or what was AI-generated then vetted for accuracy or more deeply edited.

Inherited Bias

Another important consideration to keep in mind when using generative AI is that these tools will be as biased as the materials they were trained upon. For example, if its training data is not diverse or balanced across cultures, genders, and ethnicities, the content it generates might disproportionately favor or reflect the experiences of certain groups over others, or it might offer perspectives that align more with certain viewpoints. Inadvertently, this could lead to responses that perpetuate stereotypes or neglect certain perspectives.

While inherited bias certainly also exists in AI's textual responses, it is most easily illustrated with the image generation capabilities of these tools. When, for example, I asked ChatGPT Plus to create an image of "Four distinct and diverse pictures of a professional," even though I emphasized "diverse" in my prompt, it generated four pictures of a white man wearing uniforms for different kinds of professions. (In my experience thus far, if you want results showing women or people of different ethnic backgrounds, you must state that explicitly in your prompt.) As another example, ask to create an image of a "French person," and you'll most often get a deeply stereotypical image of a white man in a beret and black-and-white striped shirt, carrying a baguette and cheese, in front of the Eiffel Tower.

SOLUTION

Understanding the presence of bias in the training data of generative AI tools can empower you to use these tools more responsibly and ethically. It's your responsibility to actively look for and address any potential bias issues, whether in text, images, or any other output.

Popular AI Tools

In the past few years, countless generative AI products have entered the marketplace, providing free access to the public to use. Businesses have adapted as well, integrating generative AI into their internal processes or even their products. As of this book's writing, ChatGPT remains the most popular and most recognized AI tool among the general public. The free version of ChatGPT is great at a variety of tasks, but it has certain limitations that the free versions of other tools (or ChatGPT Plus, the paid version) can accomplish.

In this section, you'll learn some of the most popular free AI tools, how to sign up for them, and the variety of features available that can be leveraged for use cases in Part 2.

Generative AI Tools Mentioned in This Book

CHATGPT (FREE) AND CHATGPT PLUS (PAID)

- What?: A generative AI chatbot launched by OpenAI. "GPT" stands for "Generative Pre-Trained Transformer." Yes! It is a mouthful.
- How?: Sign up with an email address at https://chatgpt.com or download the official ChatGPT app by OpenAI from your smartphone's app store (available for iOS and Android). The official app is called "ChatGPT," and the description will say it is "The official app by OpenAI."
- Models used: GPT models: GPT-40 mini (Free), GPT-4 (Plus), GPT-40 (Free —Limited and Plus), and o1-Preview (Plus), their latest model boasting more advanced logic and reasoning skills in exchange for a slower response time.

MICROSOFT COPILOT (FREE) AND COPILOT PRO (PAID)

- What?: A generative AI chatbot developed by Microsoft and released originally as "Bing Chat."
- How?: Sign up with an email address on your desktop or your mobile browser at <u>https://copilot.microsoft.com</u>, or in mobile app form for iOS and Android in the app store.
- **Models used:** GPT models: GPT-4, and GPT-40

GOOGLE GEMINI (FREE) AND GEMINI ADVANCED (PAID)

- What?: A generative AI chatbot developed by Google and released originally as "Google Bard."
- How?: Sign up with an email address at https://gemini.google.com. You can also access Google Gemini in the iOS or Android app store by downloading the "Google" mobile app.
- Models used: Gemini models

CLAUDE BY ANTHROPIC (FREE) AND CLAUDE PRO (PAID)

- What?: Claude is a family of LLMs and generative AI chatbot developed by AI startup company Anthropic.
- **How?:** Sign up with an email address at <u>https://claude.ai</u>. The "Claude by Anthropic" app is also available for download in the iOS or Android app stores.
- Models used: Claude models: Haiku, Sonnet (Free), Opus (Paid)

PERPLEXITY AI (FREE) AND PERPLEXITY PRO (PAID)

- What?: A conversational AI-powered search engine launched by a privately held software company of the same name. Gives users the ability to focus and refine AI-summarized search results to only reference certain types of sources like academic papers, Reddit threads, video, and more, depending on preference.
- **How?:** Sign up with an email address at <u>https://perplexity.ai</u> or via the iOS or Android app of the same name.
- Models used: Combination of GPT and Claude models (more recent and premium models on paid version)

META AI (FREE)

- What?: An AI chatbot within Meta's Facebook, Instagram, and WhatsApp applications, as well as via a dedicated website.
- How?: Visit <u>https://meta.ai</u> on your web browser and log in with your Instagram or Facebook account. Alternatively, access via your messaging tools and search bars within your Facebook, Instagram, or WhatsApp applications. Its icon looks a bit like a glowing blue and purple donut!
- **Models used:** Llama models developed by Meta

Keep in mind this is by no means an extensive list and that the offerings across free and paid tool versions (as well as their price points) tend to change as the companies behind these tools develop more capabilities and even more powerful models. Now and in the years to come, you'll likely encounter specialized "chatbots" on other websites, in phone applications (and in your smartphones themselves!), and more. The good news is, no matter which tool you use, the theory behind how you use and prompt them remains the same!