LEARNING MADE EASY

Microsoft® Copilot®

for dummies®

A Wiley Brand

Generate top-notch results from prompts

Integrate Copilot functions with Office apps

Customize the AI to meet your needs

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Microsoft® Copilot®

by Chris Minnick

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Microsoft® Copilot® For Dummies®

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Contents at a Glance

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Introduction

Since the emergence of artificial intelligence (AI) chatbots that can generate convincing natural language and images, the race has been on to find new ways to reliably and responsibly harness this power to enhance personal and business productivity.

Words and ideas such as *Generative AI* (GenAI) and *Large Language Models* (LLMs) that were once confined to the world of AI researchers have flooded into mainstream news and culture. Other new words, such as *hallucination* and *deepfake* have been created or adopted to describe the output of GenAI systems.

AI chatbots are now widely available and widely used, and seemingly every software company is racing to introduce AI components into their products. Perhaps no company has been more aggressive exploring and pushing the limits of what can be done by integrating AI into its products than Microsoft.

Microsoft was instrumental in creating OpenAI's breakthrough GPT-3 LLM and then in launching the GitHub Copilot software coding assistant. Now that Microsoft Copilot is available and has been integrated into Microsoft's suite of business and productivity tools, AI is poised to do for everyday office work what GitHub Copilot is doing for coding. It has the potential to make any work involving a computer easier and faster. It could also lead to a lot more bad art and bad writing.

It remains to be seen whether the net effect of having AI assistants will be positive or negative, but now's the time for everyone to become educated on the capabilities and limitations of GenAI technology.

Unfortunately, no one fully knows what GenAI tools are capable of. For that reason, and because new applications are being rolled out daily, products such as Copilot come with very little written documentation or help in the form that users of traditional software are used to. In fact, if you're using a tool such as Microsoft Copilot, it's fully possible that you'll figure out a new way to use it that not even Microsoft has anticipated.

This book aims to educate (and sometimes entertain) you with my experimentations into what Copilot can do and what it can't do. You'll learn how to use Copilot to help you as you do everyday tasks like emailing, having meetings, reading and researching, and creating business reports. Along the way, you learn tips and best practices for getting the highest quality results from AI assistants in general, not just Copilot.

I hope you enjoy reading this book and that you find it useful. If you have any questions or comments, please reach out to me at `chris@minnick.com`.

About This Book

Whether you're a writer, a data geek, a speaker, a manager, or any other type of creative person, this book will teach you what you need to know to benefit from the new tools that are rapidly becoming available.

Topics you'll learn about in this book include:

- Understanding what Microsoft Copilot is
- Accessing Copilot
- Using Copilot responsibly
- Interacting with Copilot via speaking
- Crafting effective prompts
- Translating with Copilot
- Using Copilot in Microsoft Edge
- Using Copilot on iOS or Android
- Exploring Copilot+ PC
- Using Copilot in Microsoft Office and in Microsoft 365
- Writing with Copilot
- Working with data using Copilot
- Improving PowerPoint presentations with Copilot
- Emailing with Copilot

- Getting help with Microsoft Teams meetings
- Project management with Copilot
- Creating images with Copilot
- And much more!

As you read this book, keep the following in mind:

- **The book can be read from beginning to end, but feel free to skip around if you like.** If a topic interests you, start there. You can always return to the previous chapters, if necessary.
- **At some point, you will get stuck, and something you try will not work as intended.** Do not fear! There are many resources to help you, including support forums, others on the Internet, and me! You can contact me via email at `chris@minnick.com`. Additionally, you can sign up for my Substack (`https://chrisminnick.substack.com`) to receive occasional updates from me about AI, programming, and learning.

Foolish Assumptions

I do not make many assumptions about you, the reader, but I do make a few.

- **I assume you have a computer with an Internet connection.** Also, while much of the functionality of Microsoft Copilot is available to anyone for free, some features I discuss in this book require a paid subscription to Microsoft Copilot Pro, Microsoft 365, or Microsoft 365 Copilot.
- **The only other assumption I make is that you're curious about Microsoft Copilot and want to learn how to get the most out of it.** You wouldn't be here if that wasn't true!

Icons Used in This Book

Here are the icons used in the book to flag text that should be given extra attention or that can be skipped.

TIP

This icon flags useful information or explains a shortcut to help you understand a concept.

TECHNICAL STUFF

This icon explains technical details about the concept being explained. The details might be informative or interesting, but are not essential to your understanding of the concept at this stage.

REMEMBER

Try not to forget the material marked with this icon. It signals an important concept or process that you should keep in mind.

WARNING

Watch out! This icon flags common mistakes and problems that can be avoided if you heed the warning.

Beyond the Book

A lot of extra content that you won't find in this book is available at `www.dummies.com`. Go online to find the following:

- **Online content.** In addition to the material in the print or e-book you're reading right now, this product also comes with some online-only content on the web. Check out the free cheat sheet by visiting `www.dummies.com` and searching for *Copilot for Dummies* cheat sheet. You'll see a table showing all the different programs in Microsoft 365 where you can use Copilot.
- **Updates.** AI is changing rapidly, and I don't expect it to stop doing so after this book is published, so the commands and techniques that work today may not work tomorrow. You can find any updates or corrections by visiting `www.dummies.com/go/CopilotforDummies`.

Where to Go from Here

As you embark on a journey to explore and discover the many ways Microsoft Copilot can be used, remember to keep an open and patient mind. As you'll learn very quickly, Copilot can do seemingly impossible tasks, but it can also stumble on

the most basic tasks. Always remember that you're the boss and Copilot is your intelligent but inexperienced assistant. You'll learn plenty of ways to help your AI assistant do better, but you'll also find out that there are still many tasks that are beyond the abilities of Copilot.

If you want to find out what Copilot is and see what it's capable of, go directly to Chapter 1. To find out how best to talk to Copilot, go to Chapter 2. If you want to learn about using Copilot at work, head over to Chapters 6 through 12. To learn about some of the more advanced ways to use and customize Copilot, check out Part 3, starting with Chapter 13.

Congratulations on taking your first step toward making full use of Microsoft Copilot, and thank you for trusting me as your guide.

1 Meeting Your AI Assistant

IN THIS PART . . .

Exploring the fundamentals of using Copilot

Learning to talk to Copilot

Flying through the web with your Copilot assistant

Using Copilot on your smartphone

Discovering the future of computers with a Copilot+ PC

IN THIS CHAPTER

- Seeing how Copilot works
- Learning about Copilot's capabilities
- Accessing Copilot
- Experimenting with basic commands
- Using Copilot responsibly

Chapter 1

Getting Started with Microsoft Copilot

Microsoft Copilot is an umbrella brand name for all of Microsoft's AI-powered chatbots. Chatbots such as Copilot and similar products from OpenAI, Google, Apple, and many others have the potential to change the way people get work done. At their best, AI chatbots can enhance productivity, learning, and creativity. At their worst, they can produce low-quality text and images, confidently answer questions with fabricated data, and displace human jobs.

In this chapter, you learn some of the ways that you can access Microsoft Copilot, you get an overview of its capabilities and limitations, and you learn about using AI responsibly and ethically.

Defining Copilot

In 2019, Microsoft invested in the then-tiny AI startup called OpenAI. Microsoft provided billions of dollars, and OpenAI ran its systems on Microsoft's computers. In 2021, Microsoft exclusively licensed OpenAI's GPT-3 model, which was used to

create OpenAI Codex. OpenAI Codex was subsequently used by GitHub — a subsidiary of Microsoft that provides tools and hosting for computer programmers — to create a computer programming assistant called GitHub Copilot, shown in Figure 1-1.

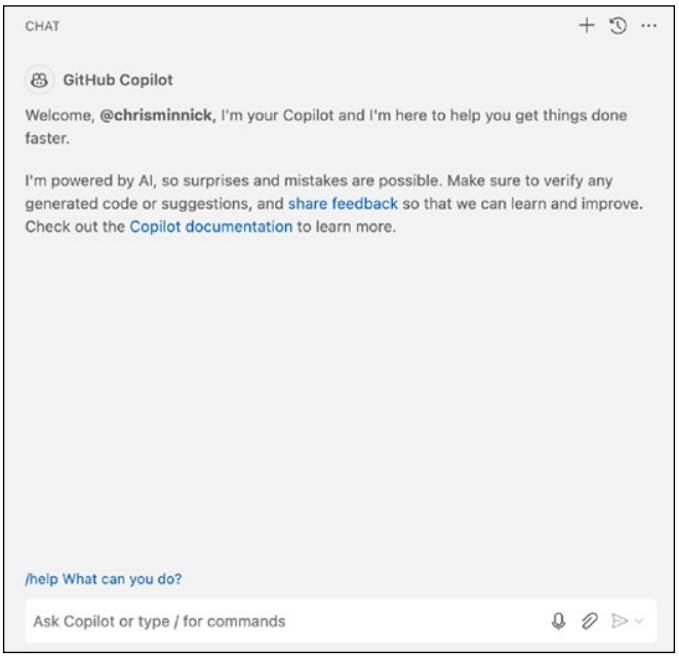

FIGURE 1-1: GitHub Copilot.

REMEMBER

Although GitHub Copilot and Microsoft Copilot are similar, in that they both use OpenAI's technology for understanding and generating language, they're two different products. GitHub Copilot is optimized for helping with the writing of programming code and Microsoft Copilot is optimized for chatting with people and generating written words in human languages.

Several months after GitHub Copilot was rolled out as a plugin for Microsoft's Visual Studio Code Editor, OpenAI released the first version of ChatGPT for use by the public. ChatGPT became the fastest-growing consumer Internet app of all time — gaining 100 million monthly users in just two months.

With its unprecedented ability to respond to user queries with human-like text, ChatGPT became a cultural sensation and possibly even a threat to the traditional search engines created by Google and Microsoft.

Microsoft responded to ChatGPT by redesigning its Bing search engine. *Bing Chat*, as it was called, was rolled out starting in February 2023 and gained its first 100 million active users within months. The early version of Bing Chat had a tendency to produce false data (also known as *hallucinations*) and troubling responses during chats, including, as reported by Kevin Roose in a *The New York Times* article, acting like a "moody, manic-depressive teenager who has been trapped, against its will, inside a second-rate search engine."

TIP

Hallucinations, in AI lingo, are defined as incorrect or misleading information generated by AI. They're caused by a variety of factors, including insufficient training, incorrect assumptions, and biases in the data used to train the AI model.

Microsoft clamped down on much of Bing Chat's tendency to go off the rails and rebranded it as Microsoft Copilot. The current homepage for Microsoft Copilot (`https://copilot.microsoft.com`) is shown in Figure 1-2.

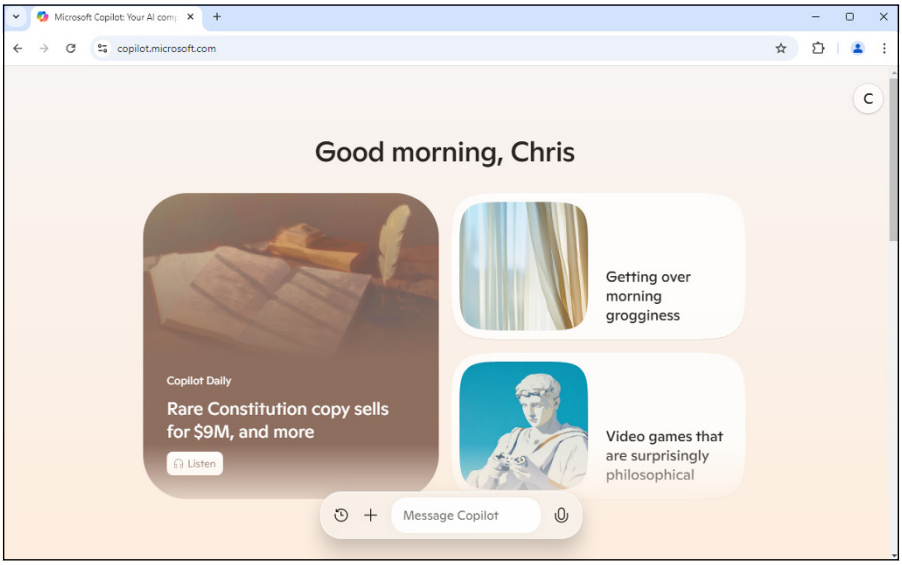

FIGURE 1-2: Microsoft Copilot on the web.

Overview of Microsoft Copilot

Copilot has been integrated into many of Microsoft's products and can be helpful with a wide variety of tasks. In fact, there are so many possible ways to use Copilot that the possibilities can sometimes seem overwhelming. AI chatbots are a fundamentally different way of interacting with computers than most people are used to, so it can be helpful to look at them as if they were traditional computer software and start by talking about the features and what makes Microsoft Copilot different from its competition.

Core functionalities and benefits

The most basic function of any chatbot, whether it's powered by artificial intelligence or not, is to respond to human speech or writing (which is also known as "natural language") with easy-to-understand text or speech. The quality of a chatbot can be measured by how human-like its responses are.

The current crop of AI chatbots can all generate highly convincing natural language responses to people's questions and requests.

The voice or text input a user of a chatbot gives to the chatbot, whether it's a question ("How tall is Mount Everest?") or an instruction ("Summarize this email.") is called a *prompt*. The primary way for people to interact with chatbots is through *prompting*.

Beyond its core ability to respond to prompts in natural language, Microsoft Copilot has exciting additional capabilities that make it stand out in usefulness, especially when it's integrated into other Microsoft products.

Some of the features of Copilot include:

- Performs web searches using Bing.
- Integrates with other AI tools to create original images and music.
- Writes original text or rewrites existing text.
- Cites the sources of the text it generates.
- Personalizes its interactions with you based on previous interactions and documents you work on.
- Translates text between different languages.
- Supports plugins that expand Copilot's capabilities.
- Supports user-created chatbots.

Key differentiators from other AI assistants

The main thing that makes Microsoft Copilot more useful than other AI assistants is that it is integrated into Microsoft Windows and other Microsoft programs. This integration gives Copilot the ability to not only generate text and images, but also to control certain aspects of the software it's integrated into. For example, using a non-integrated chatbot, such as ChatGPT, you can ask for text for a PowerPoint slide that you then need to copy into PowerPoint and format manually. With Microsoft 365 Copilot, you can ask for PowerPoint slides or an entire presentation,

and the Copilot assistant will create the new slides, format them for you, and insert them directly into your presentation. Even better, Copilot can access and use other documents you've created while creating the new slides.

Another key factor that distinguishes Copilot from many other chatbots is that Copilot has access to the data in Microsoft Bing. By augmenting the data it was originally trained on with search results from Bing, Copilot can answer questions about the latest news and other developments, whereas other models have a "cut-off date" beyond which they can only speculate (or hallucinate).

Understanding how Copilot works

Chatbots like Microsoft Copilot and ChatGPT are far superior to their predecessors, such as Office Assistant, also known as "Clippy" (shown in Figure 1-3). Microsoft integrated Clippy into Microsoft Office applications from version 97 to 2003 and it proved to be more annoying than helpful in most cases.

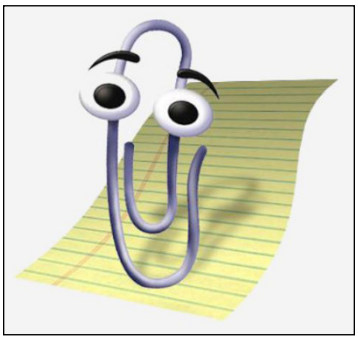

FIGURE 1-3: Original Office Assistant, also known as "Clippy."

The reasons for Clippy's failure have been studied exhaustively, but the crux of it is that Clippy was intrusive and would appear whenever it detected that you were doing something (such as writing a letter) that it was supposed to be able to help with. But then, when you agreed to let Clippy help you, all it could do was reference official Microsoft Office documentation, which wasn't helpful for much of anything.

The two most important factors that contributed to making the latest generation of AI so much better than Clippy (and all subsequent AI assistants) are:

- Vastly more data (and computing power) was used to train them.
- They take advantage of new AI techniques that allow them to consider context when generating responses.

Learning from all the data

The AI model behind Microsoft Copilot is named *Prometheus*. Prometheus is OpenAI's technology combined with Bing's search index. The result is that Copilot has learned from and has access to a tremendous amount of data.

Although the relationship between training data size and a model's performance isn't simple, in general, larger models are able to gain a better picture of whatever they're designed to simulate (such as communicating using natural language, in the case of a chatbot).

Context is key

Even more important than simply throwing more data at an AI system is a technique known as *attention* that was invented by Google in 2017. In short, what attention techniques do is allow AI models to look at different parts of your input and their own output while figuring out what to say. For example, consider the following sentence:

"The bank can guarantee deposits will be safe because it has invested in secure vaults."

An AI model that uses attention mechanisms will know that "bank" refers to a financial institution rather than the bank of a river because of the other words in the sentence, such as "guarantee," "deposits," "safe," and "vaults." A model with attention also understands that the word "it" in this sentence refers back to "bank."

Because large language models can take context into account, providing sufficient context to the model in your prompts has become the single best way to improve the quality of responses you get to your prompts.

You learn how to use Copilot's chat mode in Chapter 2.

Using large language models (LLMs)

When you use Microsoft Copilot, you're using a large language model (LLM). But what is an LLM? Simply put, a large language model is a model of, or simulation of, language. It's described as a "large" language model because of its size.

Imagine that you're a train enthusiast. Perhaps when you were younger, you had a small train model. A small train model is okay for reproducing some things about trains. But, as your interest in accurately reproducing what you love about

trains grows, you buy larger and larger trains and model railways — complete with scenery, bridges, and maybe even tiny little passengers in the dining car.

Of course, if you had the time, money, and space, you could have an actual-size train and railroad of your own. But that's impractical. So, you settle for the largest train model you can afford and that your basement can accommodate.

Large language models work the same way. A small language model may be able to engage in rudimentary simulations of conversations. A large language model can more accurately simulate an actual human speaker of a language (or a programmer, or a translator, and so forth) without being a human.

The inner workings of LLMs and machine learning are fascinating, but you don't need to be an artificial intelligence (AI) engineer, or even know anything about AI, to use Copilot. If you're interested in digging into more of the details, check out the book, *Artificial Intelligence for Dummies.*

Integration with Microsoft 365 apps

Microsoft 365 is the family of products and services that includes the productivity programs formerly known as Microsoft Office, as well as the OneDrive cloud storage service, the Microsoft Teams collaboration and conferencing program, the Outlook email and calendar program, and others. Microsoft 365 Copilot is available as an additional subscription.

Subscribing to Microsoft 365 Copilot activates the Copilot chatbot in each application and enables Copilot's built-in actions, which can perform different tasks depending on the application. Some of the features that Microsoft 365 Copilot enables include:

- In Word, Copilot can suggest different writing styles and formats, rewrite sentences or paragraphs, translate text into other languages, and convert text into tables.
- In Excel, Copilot can analyze data to discover trends and insights you might have missed, create charts and graphs, and suggest formulas.
- In PowerPoint, Copilot can suggest design ideas, create individual slides, convert Word documents into presentations, add animations, and even write speaker notes.
- In Teams, Copilot can take meeting notes, transcribe recordings, summarize discussions, and suggest action items.

» In Outlook, Copilot can summarize emails, assist you with writing emails, schedule meetings, and create reminders based on the content of your emails.


TIP

For a more comprehensive table of Microsoft 365 Copilot's capabilities in each Microsoft product, check out the online Cheat Sheet at `www.dummies.com` (search for *Copilot for Dummies* cheat sheet).

If you don't seek out Copilot's help while you're using Microsoft 365, it will remain quietly in the background. This is a welcome change from the overly eager assistant days of Clippy, but it also makes it important for users to educate themselves about what Copilot is capable of helping with.

In Part 2 of this book (Chapters 6 - 12), you experiment with Copilot's integration with Microsoft 365 and start to see its amazing capabilities as well as its sometimes frustrating limitations.

Connection with Microsoft Graph and your data

Copilot can access your data and use what it finds to personalize its suggestions. While this is extremely useful, it also creates potential security concerns. By default, when you use Copilot, it can access your emails, documents, chats, meetings, and any other data you create and store in Microsoft 365.

You learn what this means for Copilot's capabilities in Part 2.

Signing Up for Copilot

Signing up to use Copilot couldn't be easier. I mean that literally, because you don't need any kind of account to try it out. All you need to do is open any web browser and go to `https://copilot.microsoft.com`. The free and logged-out version of Copilot Chat, shown in Figure 1-4, is limited compared to the version you get when you log in with a Microsoft account or buy a subscription to Copilot Pro.

In this section, you learn how to access Copilot, how to sign in to Copilot, and whether you should subscribe to Copilot Pro.