

AI

For Beginners

Make Artificial Intelligence work for you

Over
590
Tips & Hints
inside

✓ Jargon-free
Tips & Advice

✓ Professional
Tutorials

✓ Clear Full
Colour Guides

100% INDEPENDENT

Save a Huge 50% Off ALL Digital Manuals!*



As a token of our thanks for your support,  **Papercut** bring you this unmissable offer! Not only can you learn new skills and master your tech, but you can now **SAVE 50%** off all of our coding, photography and consumer tech digital manuals!

To take advantage of this amazing offer visit:
www.pcpublications.com/product-category/digital/
Make your selection(s) and then simply use the following exclusive code at checkout to get your purchase at half price:

SAVE50

*Please note this exclusive single use per user discount code requires sign up for activation. Discount cannot be applied against discounted items, print titles or used with an additional discount code.

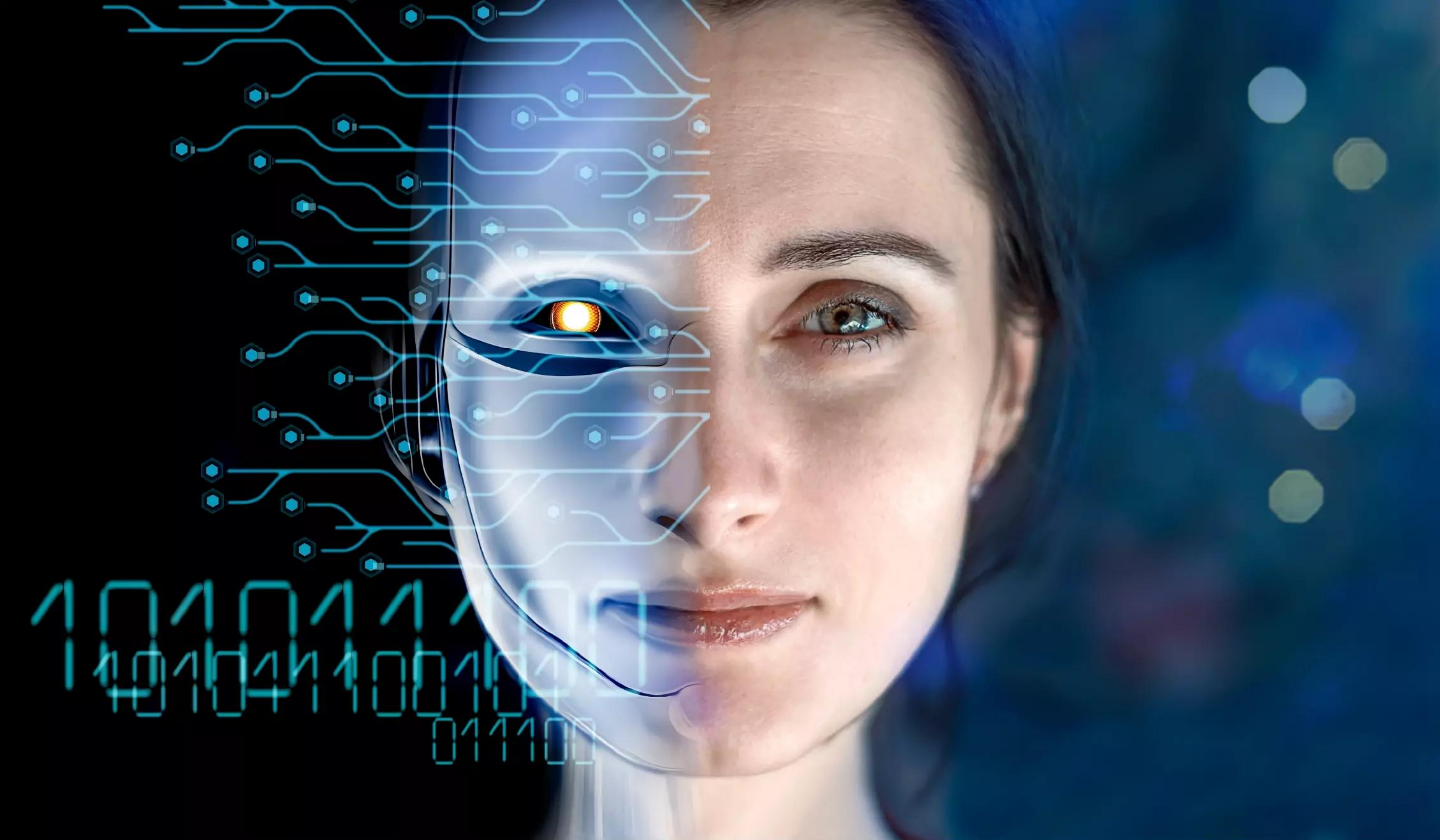
Welcome to Papercut Ltd's "For Beginners" series,
your first and only choice if you are a new adopter
and want to learn everything you'll need
to get started with your new device.

This independent manual is crammed with helpful
guides and step-by-step fully illustrated tutorials,
written in plain, easy to follow English.

Over the pages of this new user guide you will clearly
learn all you need to know about out of the box set up,
getting to grips with the more advanced features and
discover a huge array of amazing apps.

With this unofficial instruction manual at your
side no problem will be unsolvable, no question
unanswered as you learn, explore and enhance
your user experience. Let the fun begin...





Contents

12 AI Writing Tools

- 14 Apple Intelligence's Writing Tools
- 16 ChatGPT - Cross-platform AI
- 18 Scribe AI - For Tutorials
- 20 Ninja AI - An All-round Helper
- 22 Grammarly Keyboard - Check Your Writing

24 Make AI Images

- 26 Apple Intelligence's Image Playground
- 24 ChatGPT - Quick On The Draw
- 26 Image Creator - AI Graphic Tool
- 28 Adobe Firefly For Images and Video
- 30 Meta AI - From Facebook
- 32 Canva - For AI Designs
- 31 Leonardo AI - A Web-based Portal

32 AI Photo & Video Tools

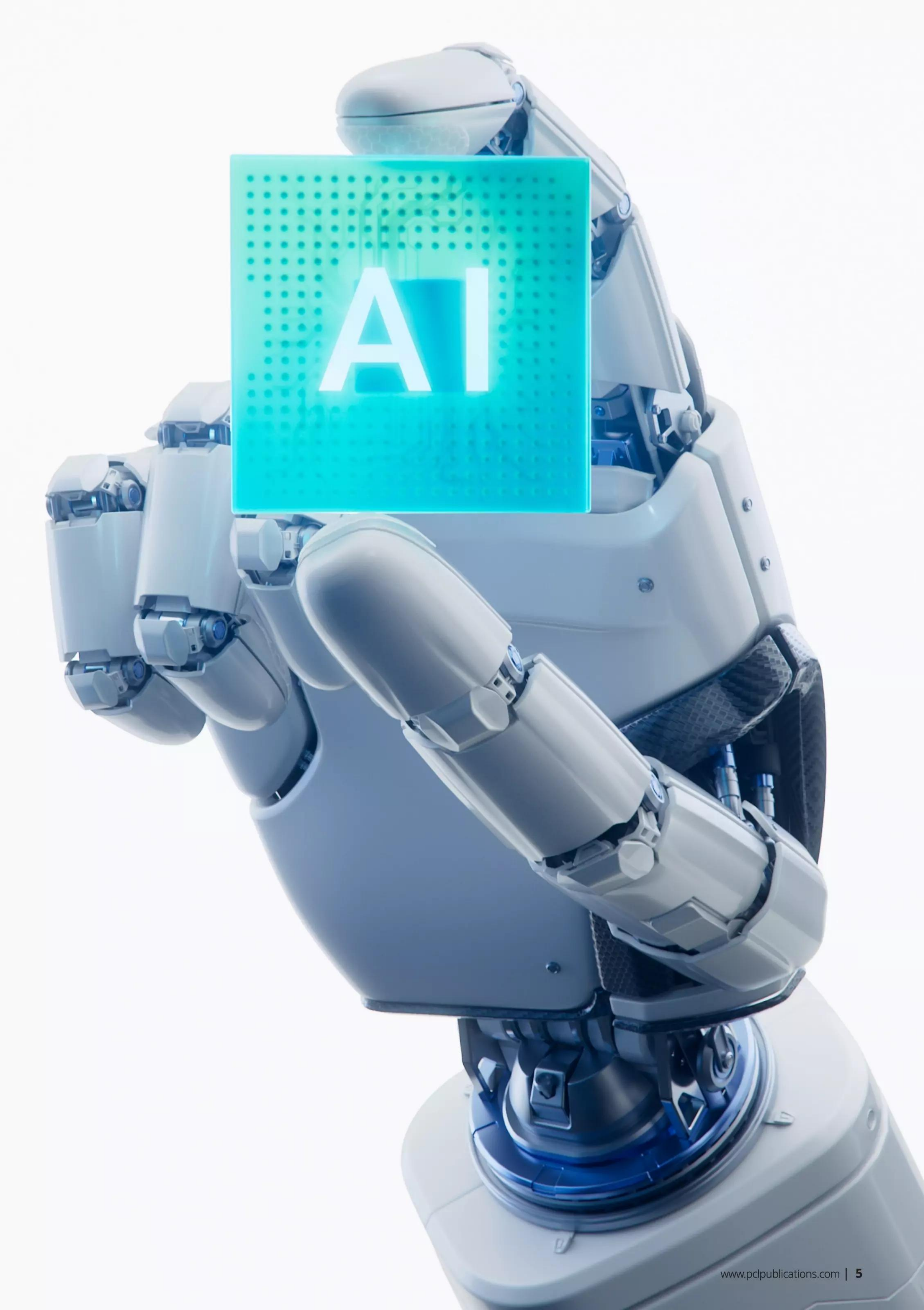
- 36 Apple Intelligence Photos & Clean Up
- 38 Google Photos - Editing With AI
- 40 Descript - For Video Editing
- 41 Invideo - Videos From a Script

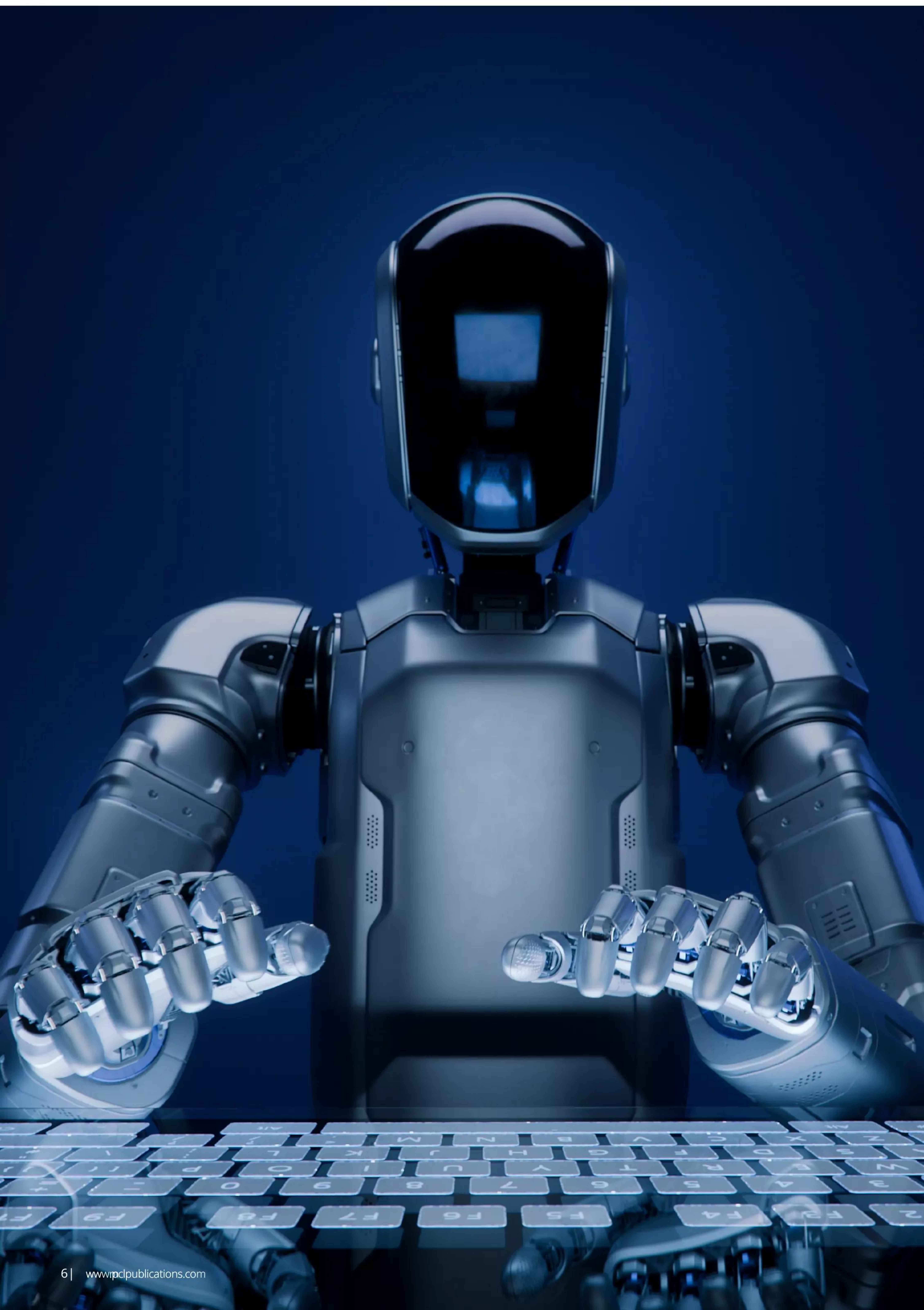
42 AI Smarthome Apps

- 44 Welcome Home - For A Smarter Home
- 46 Smart Lighting - Shining A Light On AI
- 48 Smart Plugs - Powering Your AI
- 49 Streaming Music Services - Dance To Your Beat
- 50 Robot Vacuum Cleaners - Can't The AI Do It?
- 51 Home Security - Keeping Your World Safe
- 52 AI in TV Streaming Services

54 Make Life Easier

- 56 Motion - AI Task Scheduler
- 57 Otter.ai - For AI Meeting Notes
- 58 DishGen - AI Recipe Generator
- 59 Amio.io - AI For eCommerce
- 60 Roam Around - Plan Your Next Trip
- 61 Curiosio - Making Travel Easier
- 62 Monday.com - An AI Work Platform







AI Writing Tools

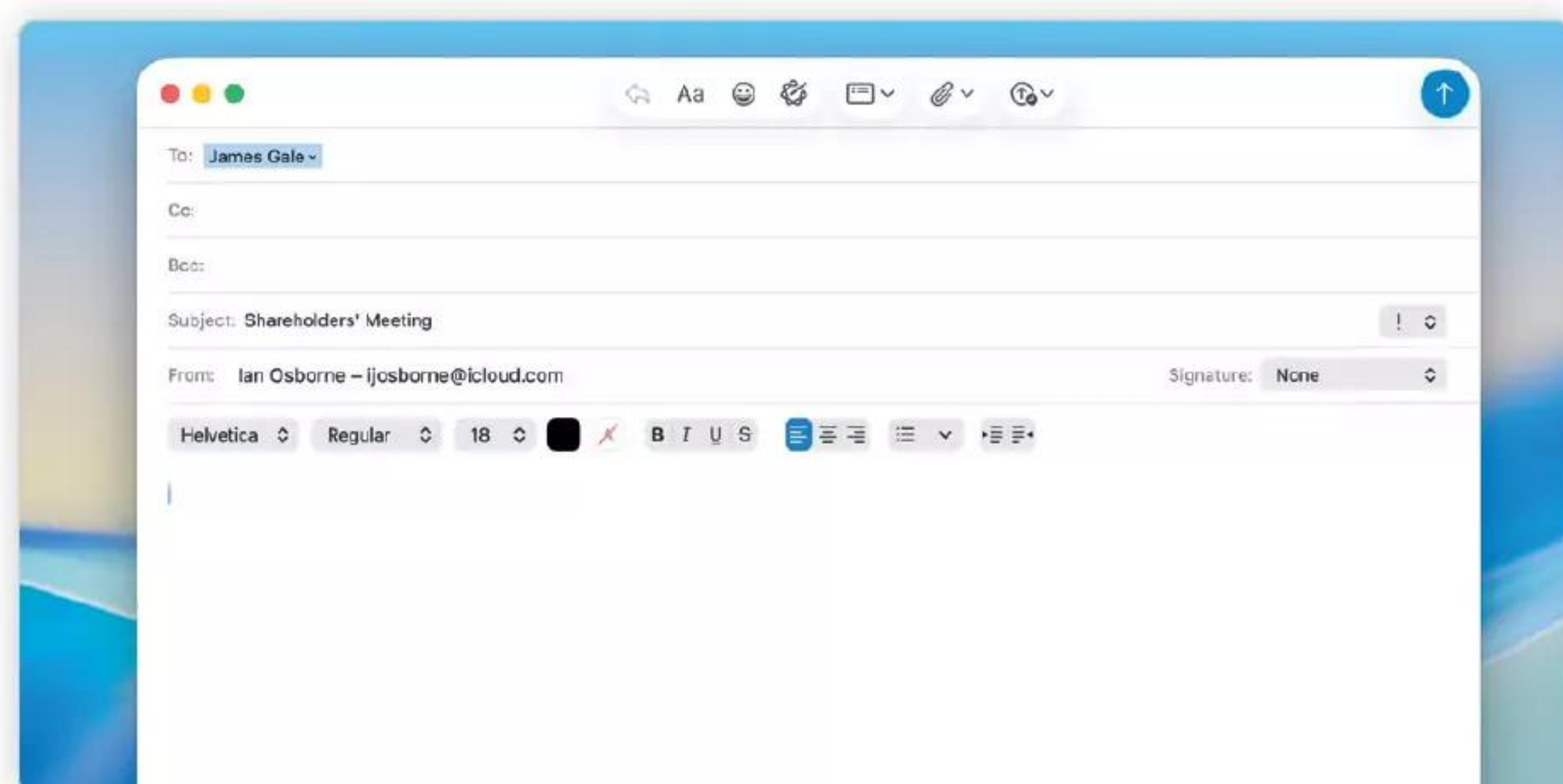
Spelling and grammar checkers have been around for decades, but AI takes things to a whole new level. Not only can you correct your writing, but you can also rewrite your work making it more concise, friendlier, more businesslike and more. You can even get your artificial intelligence platform of choice to write a story, poem, limerick and more, on a subject of your choosing. It's amazing what these AIs can do.



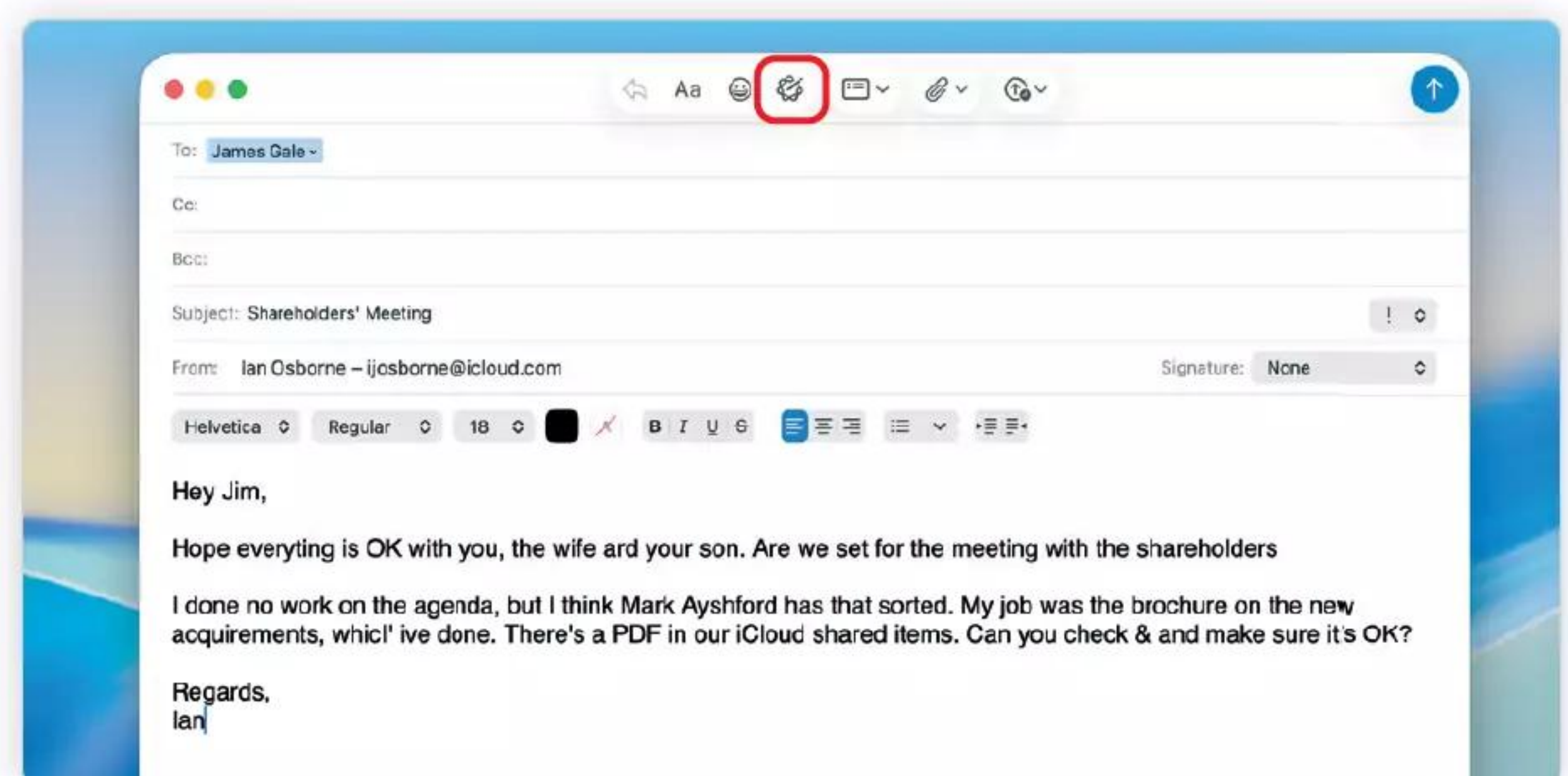
Apple Intelligence's Writing Tools

The Apple Intelligence Writing Tools feature lets you refine your writing in bigger ways than merely checking the spelling. You can use it to proofread your words, checking grammar and syntax as well as spelling, and also revise it to make (say) an email more businesslike or friendlier. If you're faced with a long piece of writing, the feature can summarise it for you too.

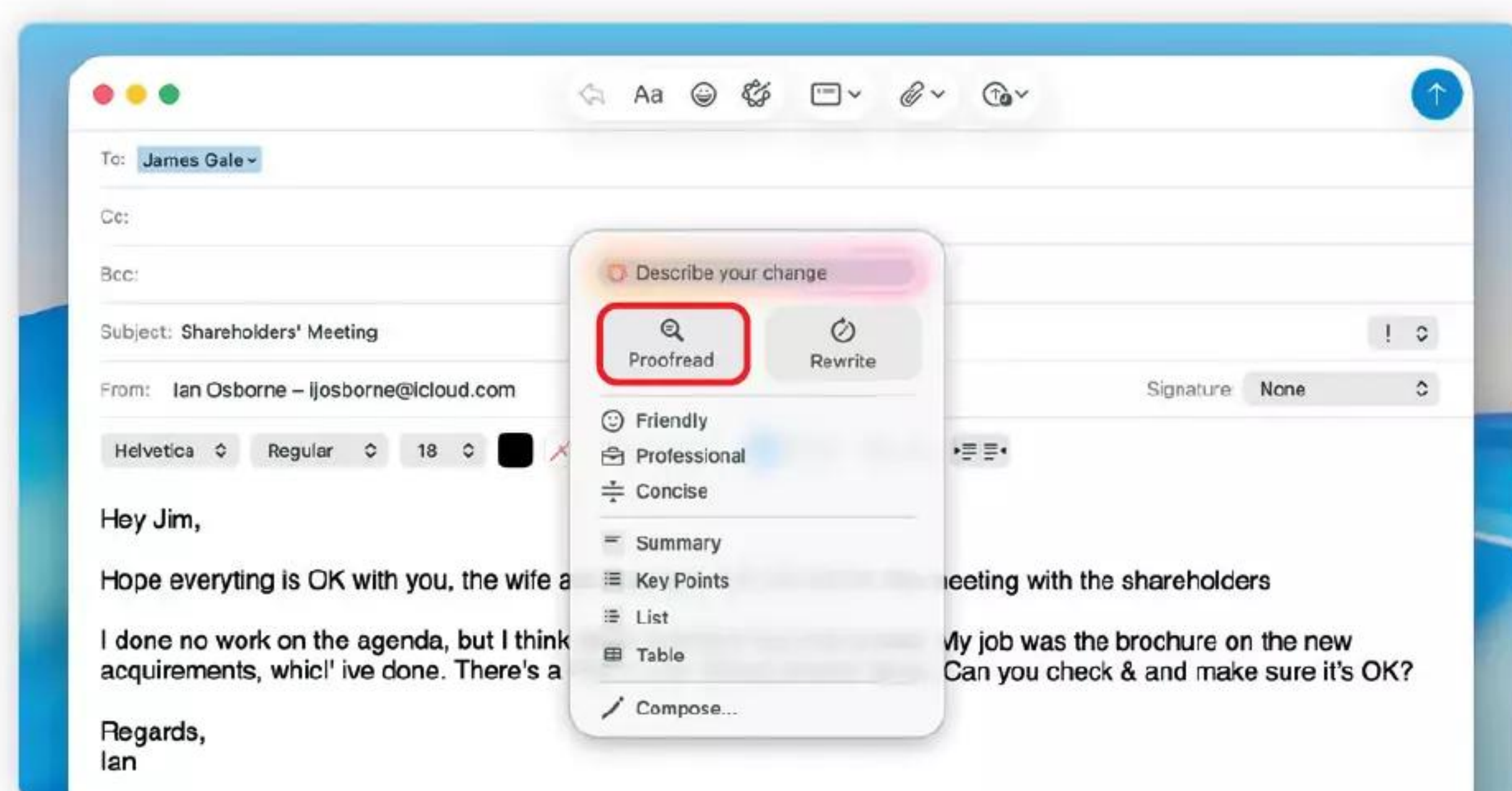
Using Writing Tools



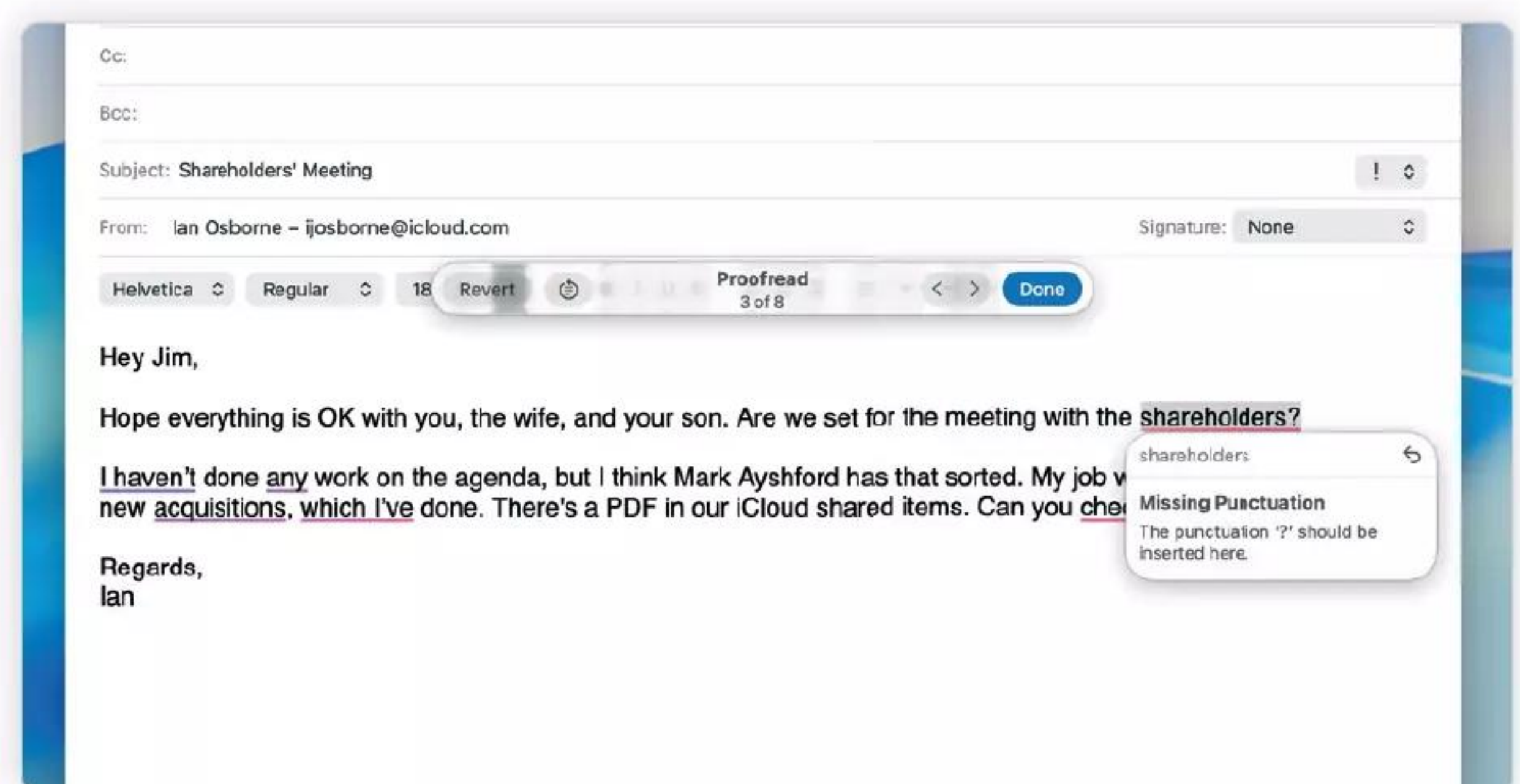
1 Writing Tools can be used almost anywhere in macOS where you can write. Here we're using it in the Mail app, but you can also use them in Pages, Notes and more. First of all, you need to write something. Writing Tools cannot (yet) generate original text for you, but it can revise text you've previously written.



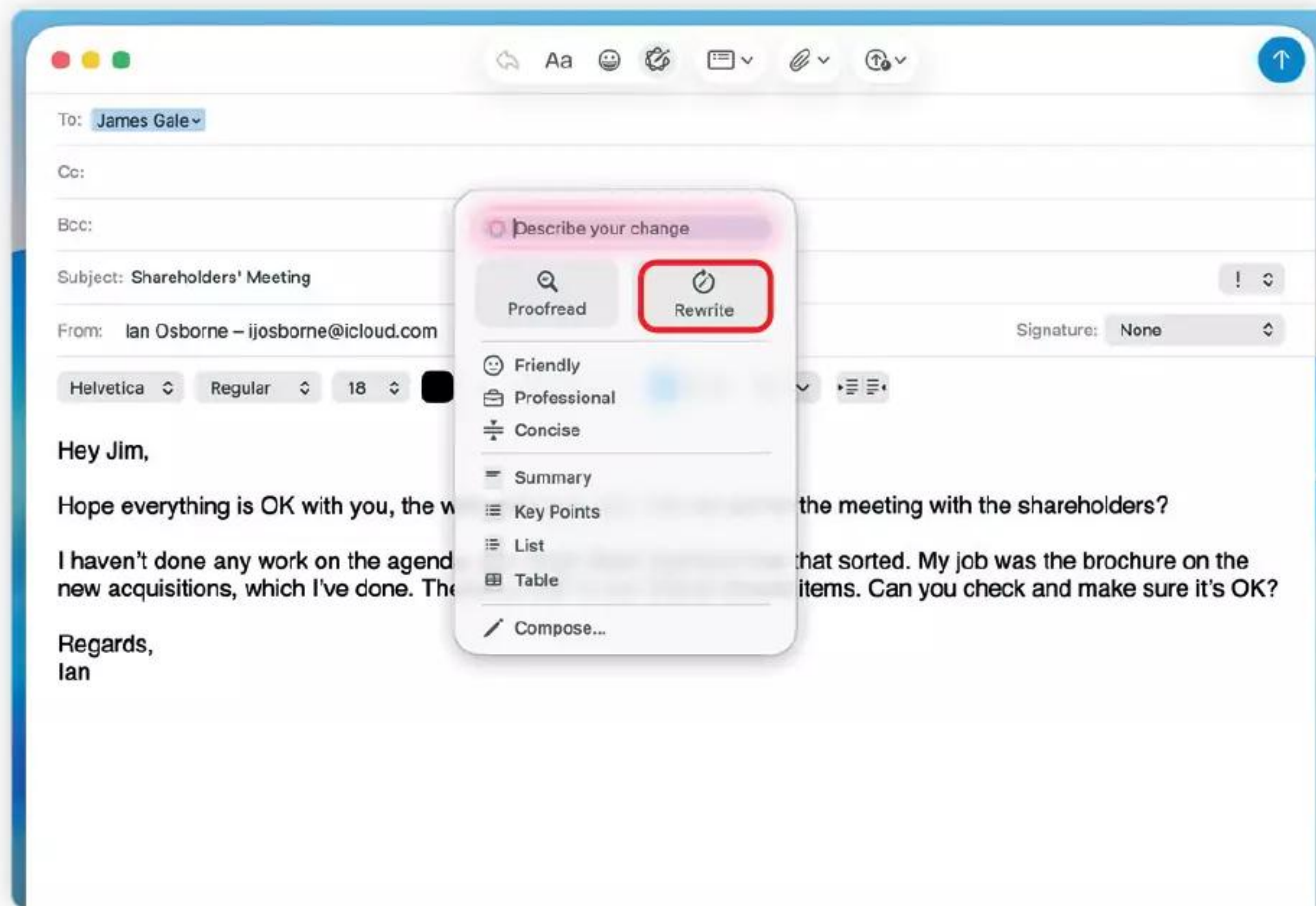
2 When you've finished your first draft of whatever it is you're writing (here, it's an email), tap the Writing Tools icon which is found in the toolbar at the top of the email window. This brings up the Writing Tools window, from where you can choose how to manipulate, rewrite or simply AI proofread your piece of text.



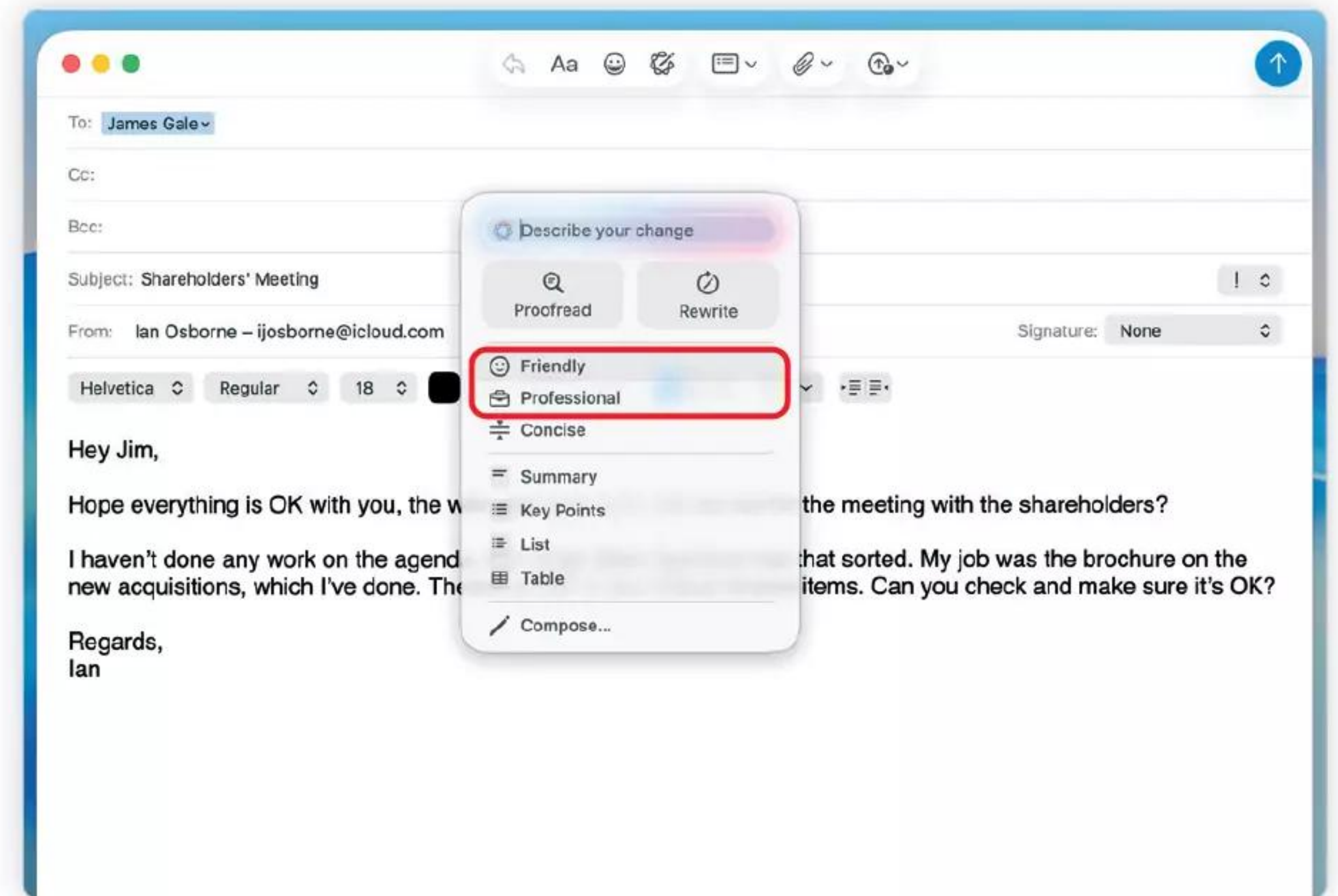
3 First of all, we'll take you through the uses of the Proofread option. There are plenty of errors in our original email. Tap the Proofread button in the Writing Tools window, and Apple Intelligence reviews what you have written, correcting spelling and grammatical errors and generally tidying up your written text.



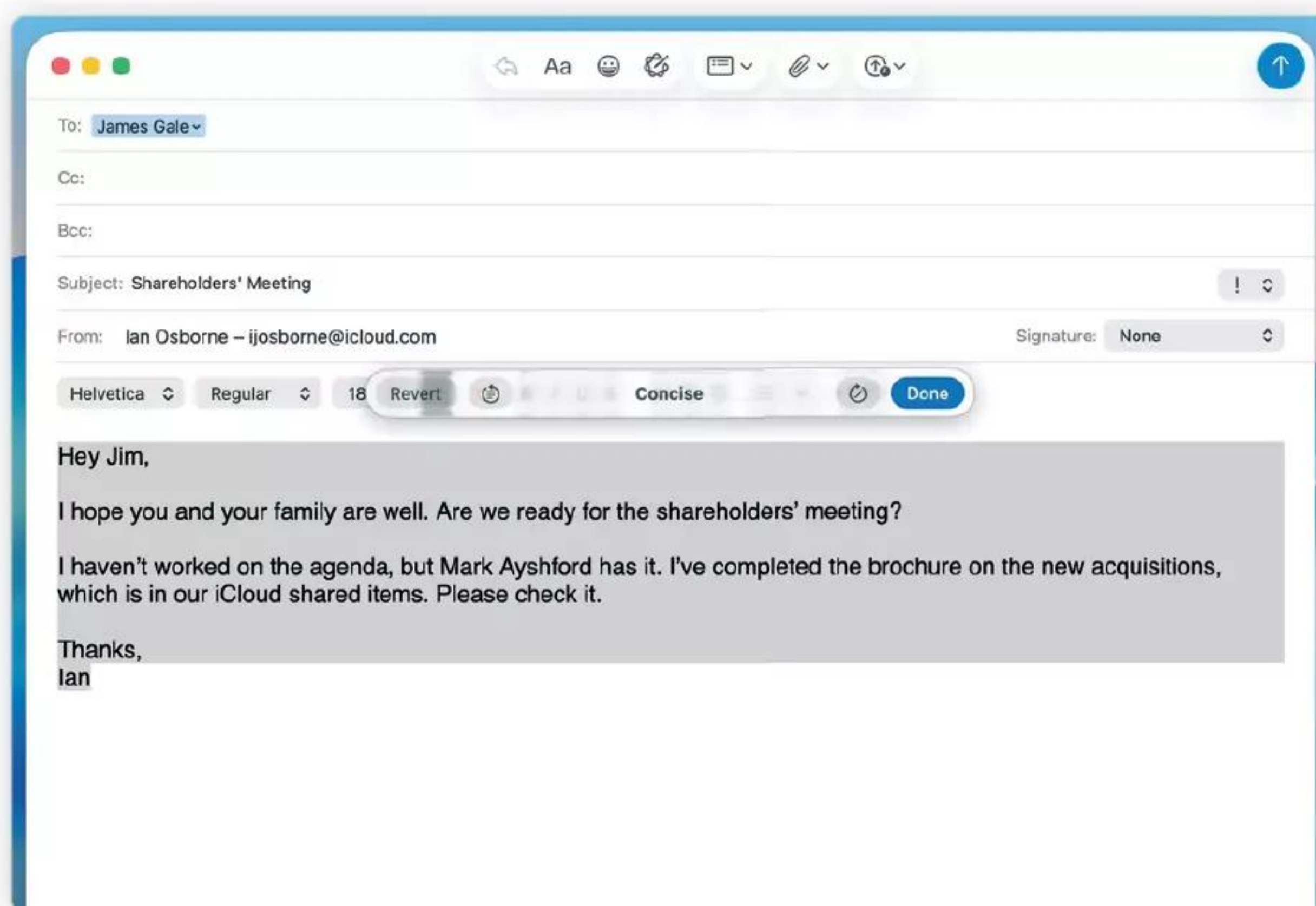
4 When you have finished writing your text, you can then review the changes, which are underlined. Click on an underlined correction and you're told what was wrong in a pop-up window. If Writing Tools has made a mistake, you can revert to the original by clicking the curly arrow in that window's top-right corner.



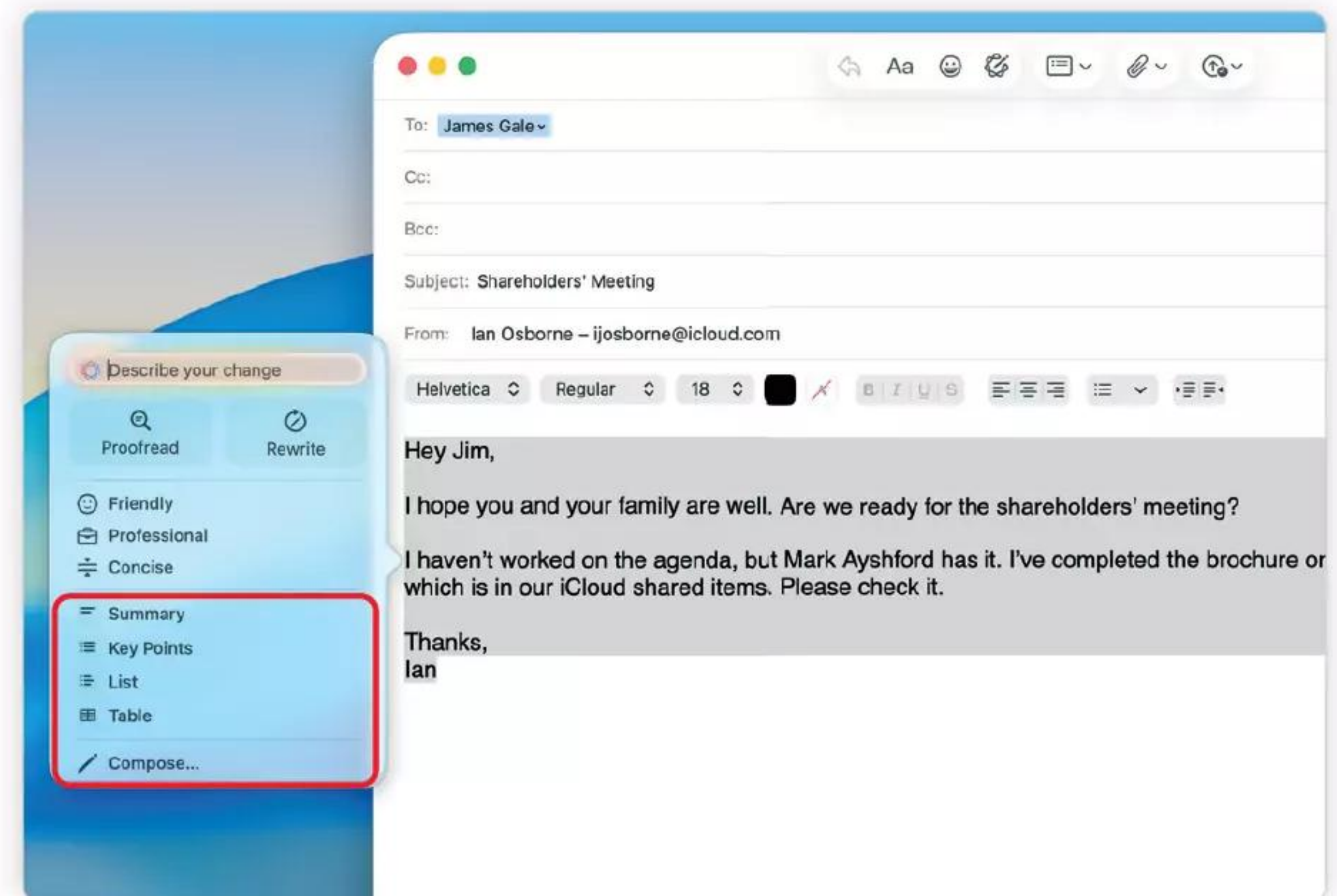
5 If you have read back your text and you're not happy with what you wrote, open Writing Tools and tap Rewrite. If you don't like the results, tap The Revert button to change it back or Rewrite to rewrite it in another way.



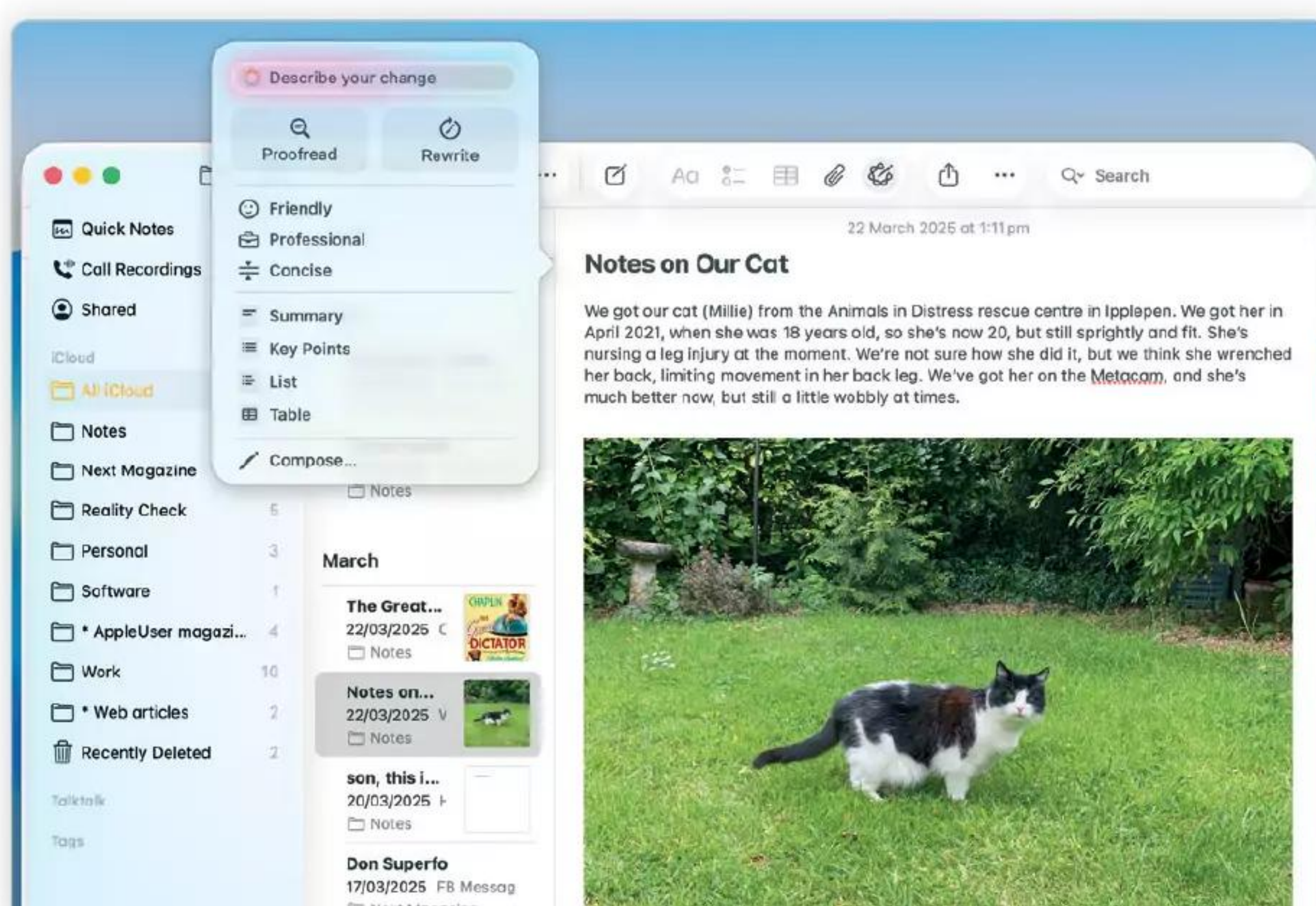
6 To carry out a more specific rewrite of your text, use one of these options. 'Friendly' and 'Professional' to change the tone of your writing, making it read in a more casual or more businesslike way.



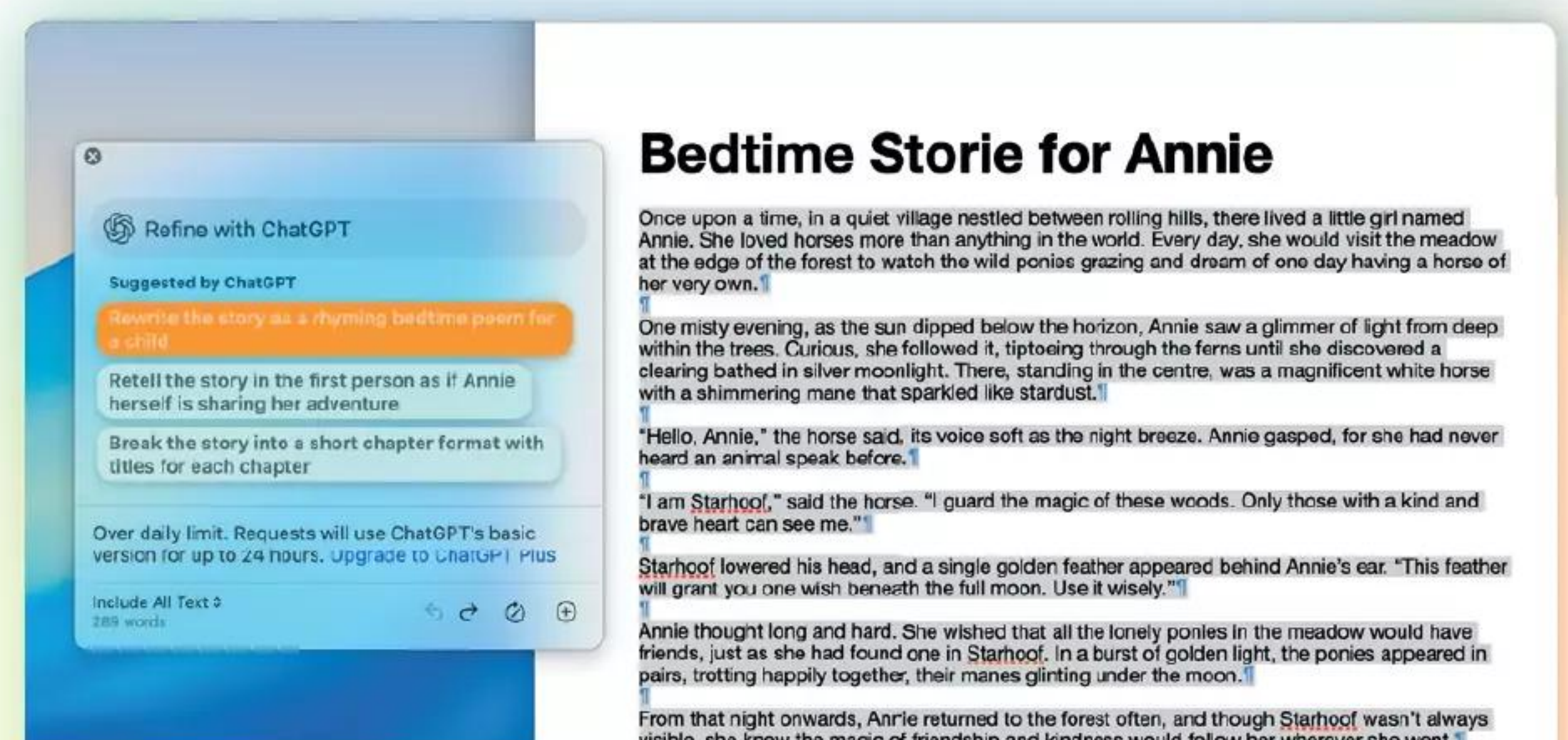
7 The Concise option shortens what you've written, while keeping the main points intact. If you tend to ramble, and use far too many words, this is an excellent tool to keep your writing in check.



8 The four tools at the foot of the window let you summarise, make key points and add a list or a table. This is as well as your regular writing. The Compose option lets you use ChatGPT to write for you.



9 You can use Writing Tools in other apps where you write too. Just look for the Writing Tools icon; the circular Apple Intelligence symbol with a pen in it. Here it is in the Notes app, where it works in exactly the same way.



ChatGPT Integration

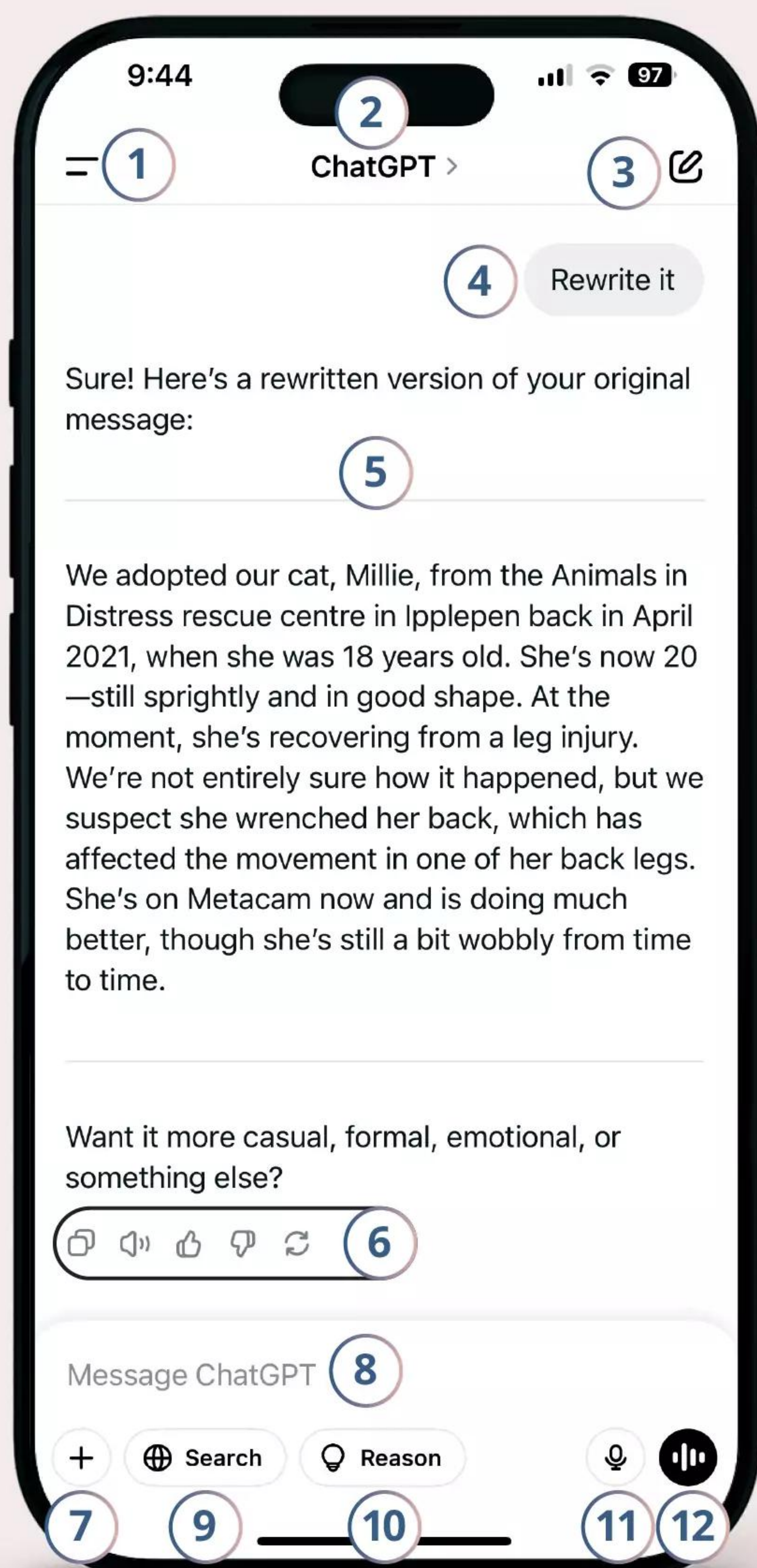
OpenAI's ChatGPT, currently the most famous artificial intelligence service, is integrated into Apple Intelligence. For example, if you need to compose a piece of writing from scratch, Apple Intelligence harnesses the power of ChatGPT. It's free, and you're asked before it is used by the core app.



ChatGPT

Cross-platform AI

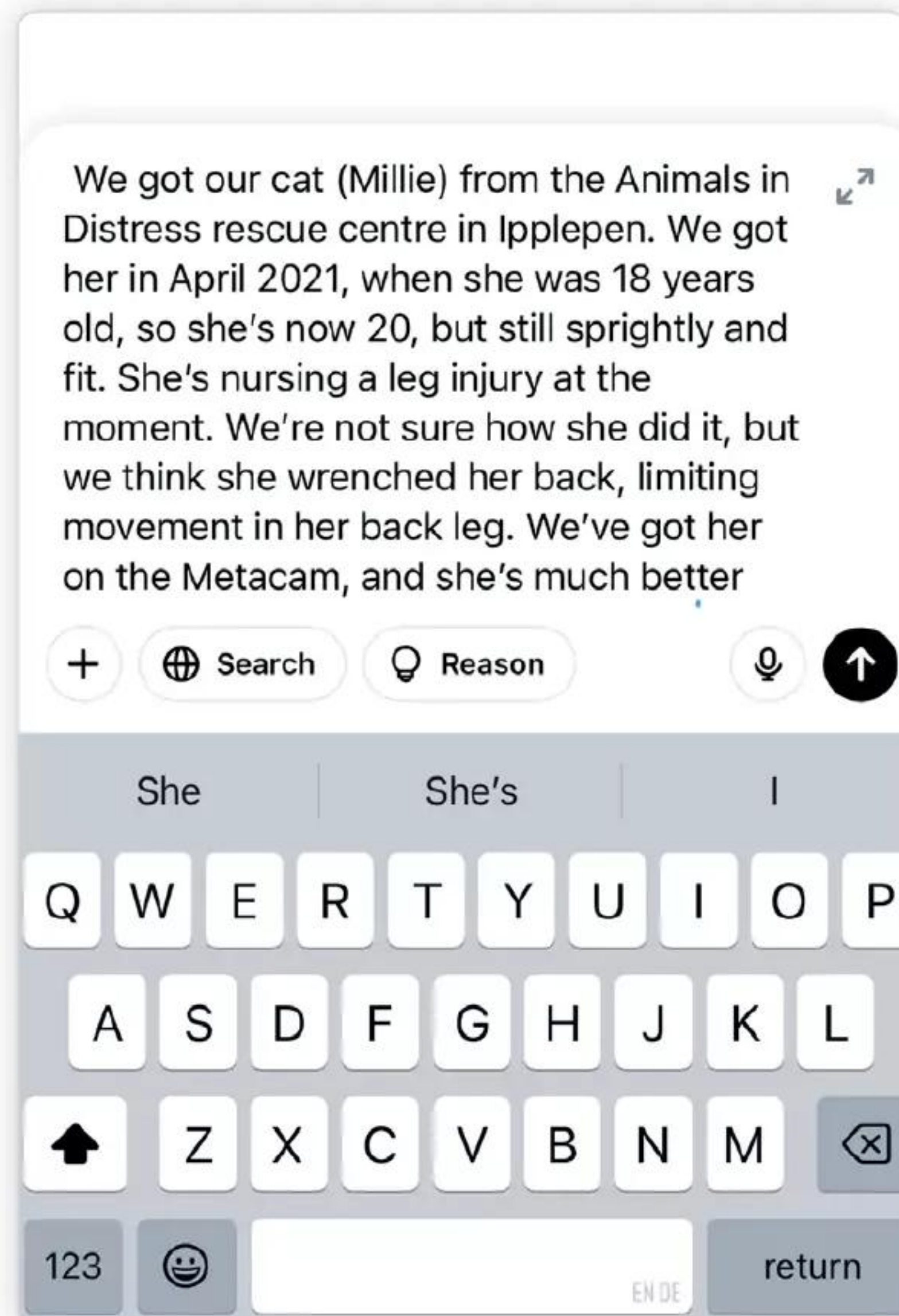
ChatGPT is arguably the most exciting artificial intelligence around. You can get a ChatGPT app for almost any device, and it's available on the web for any device with a browser. Here's how to use it to AI Writing Tools.



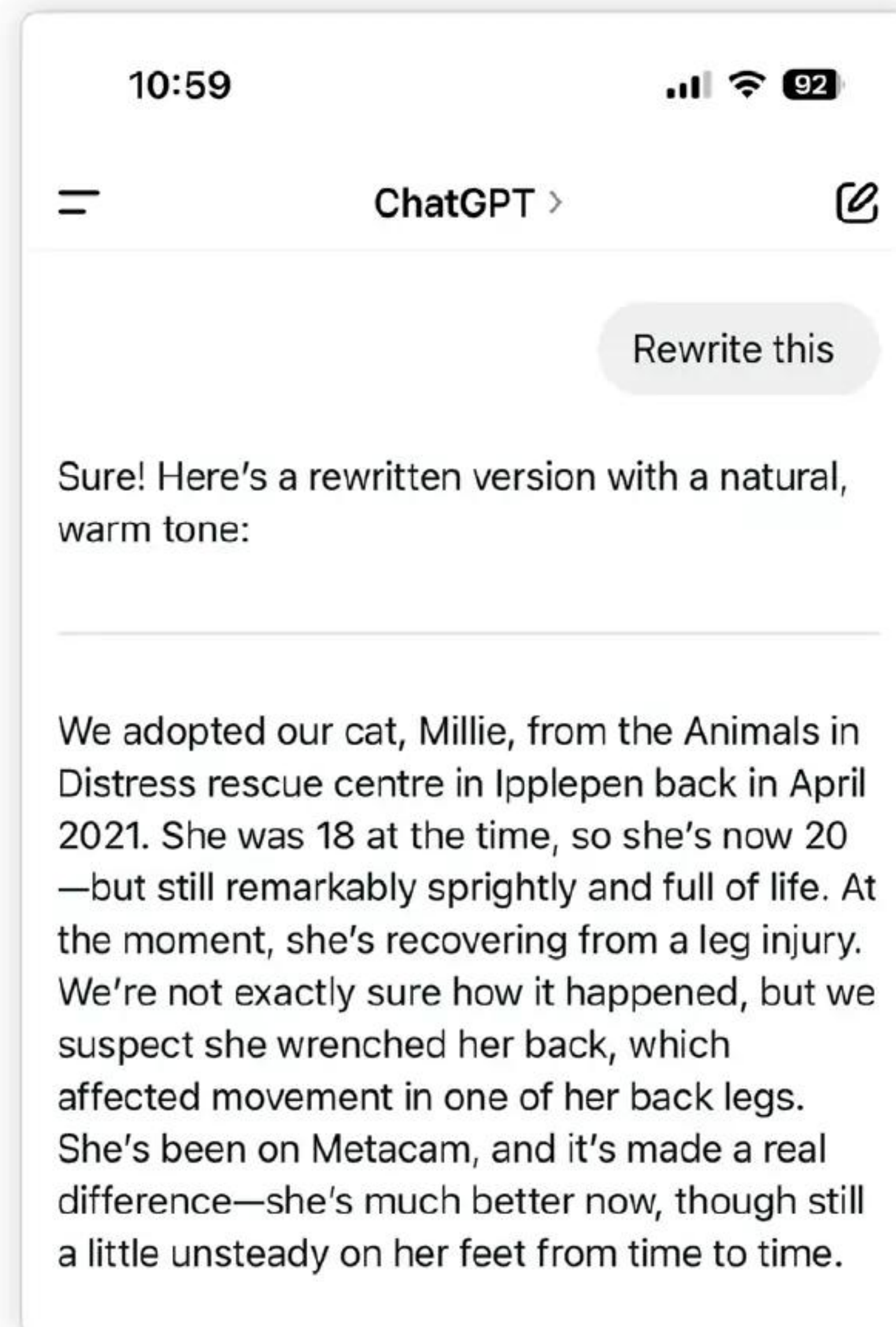
- 1 This icon opens a sidebar, which gives access to tools and a history of previous ChatGPT requests.
- 2 Tap here for a pop-up window that lets you share, rename, archive or delete your current request, or open a details page about it.
- 3 Unsurprisingly, this icon opens a new ChatGPT page so you can start afresh.
- 4 Instructions given to ChatGPT are shown on the right, as seen here.
- 5 ChatGPT's responses are shown in the main body of the page. Here we asked the AI to rewrite something we'd written.
- 6 These icons are, from left to right, Copy; Read Aloud; Mark the response with a thumbs-up or thumbs-down; Redo the response.
- 7 This text field is where you type your questions, requests, instructions and other such things to ChatGPT. If you want to get the AI to rewrite something you've written, first type it in here then ask, 'rewrite it'.
- 8 Add an attachment. Choose from Photos, Camera or Files.
- 9 Search the web through ChatGPT. Instead of giving you links to web pages, your request is curated and relevant information delivered by the AI.
- 10 Engage the Reason option and ChatGPT provides a reasoned, detailed explanation of the processes behind its response.
- 11 Tap the mic icon and you can speak your request to ChatGPT instead of typing it in the text field.
- 12 The waveform icon is for Advanced Voice Mode, which lets you have a two-way conversation with ChatGPT. It's more personalised to you, allows for natural conversations and more.



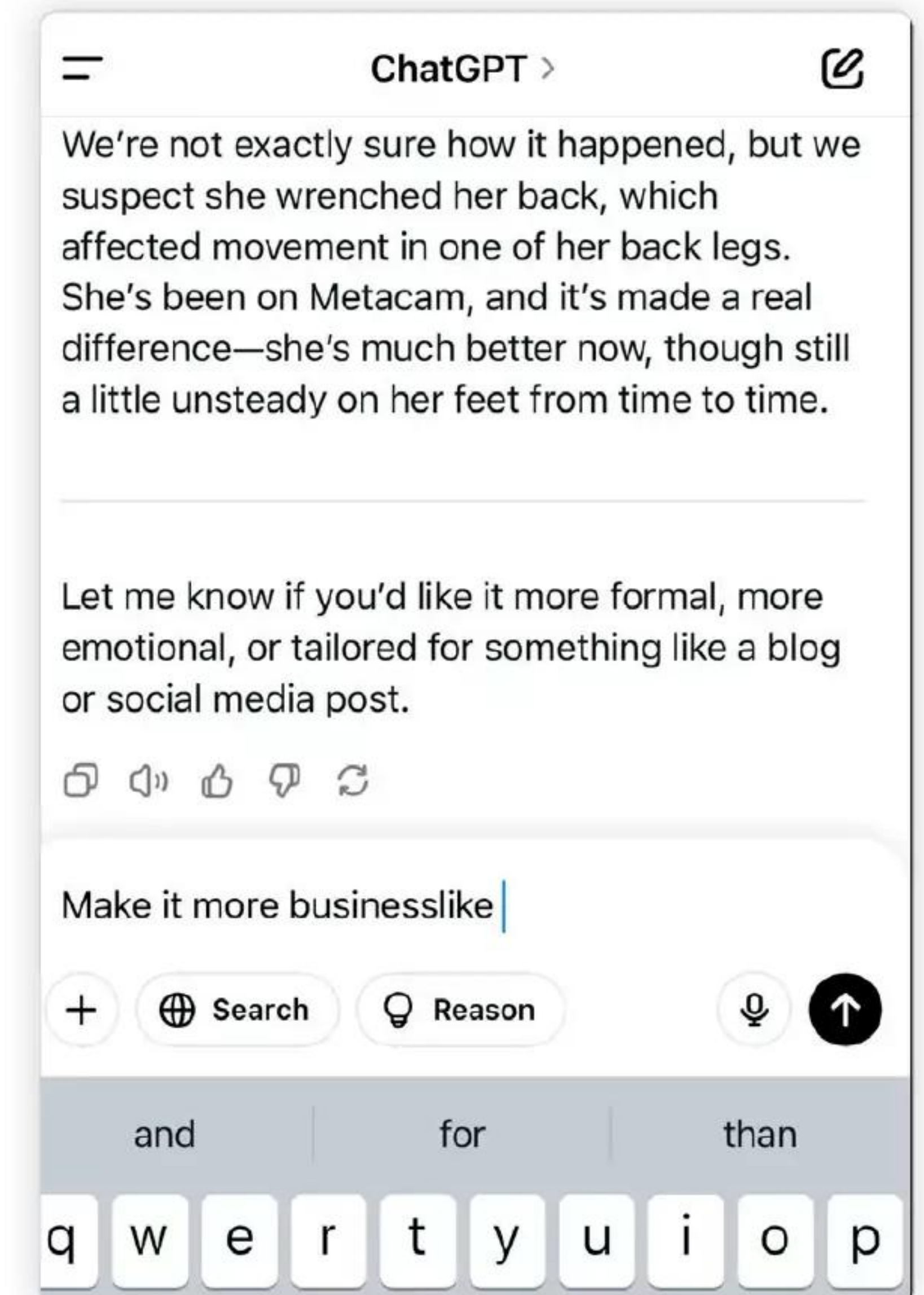
Using ChatGPT to Improve Your Writing



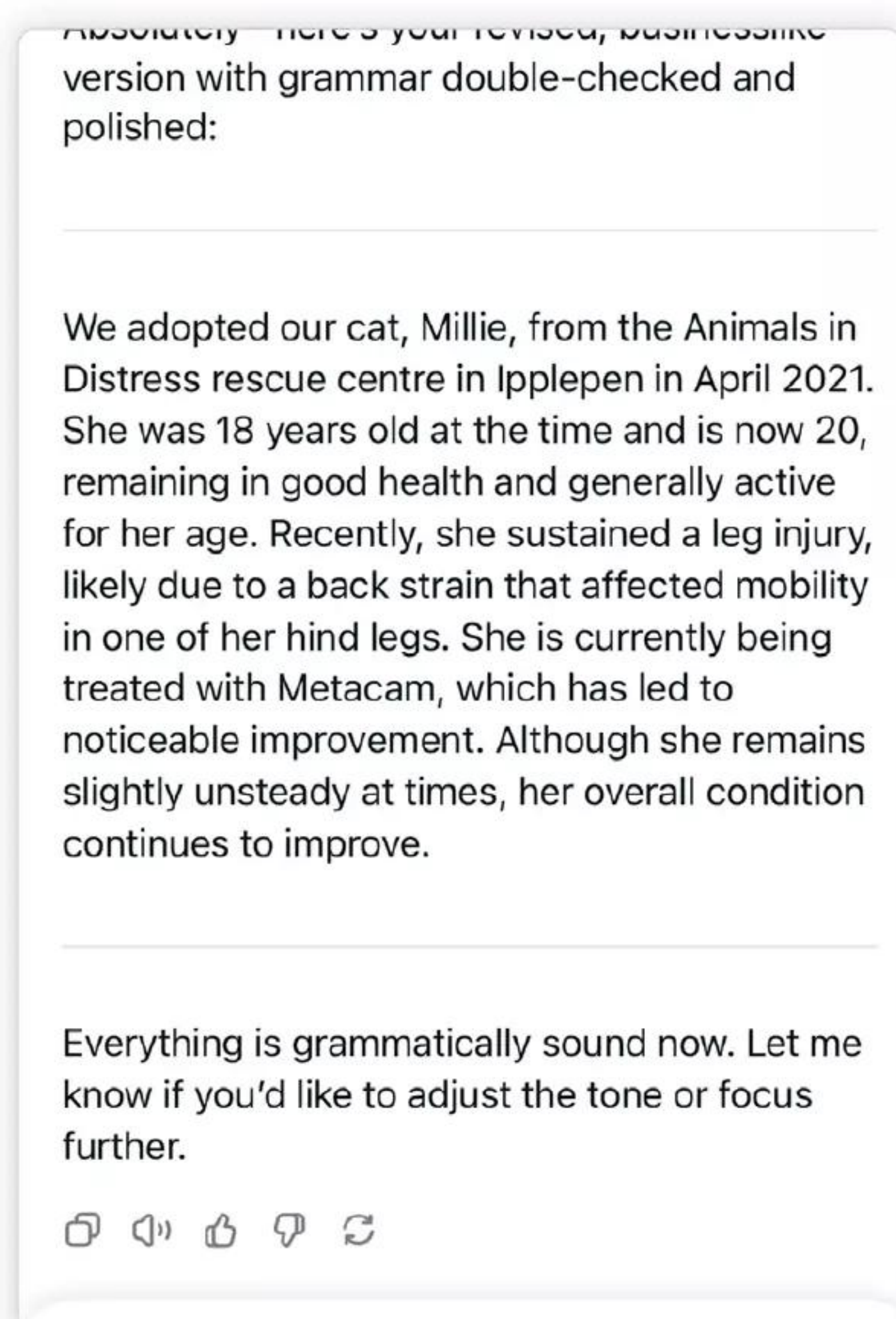
1 If you've written something you want to see improved by ChatGPT, first of all, copy and paste it into the text field. Press the up-pointing arrow that appears on the right to send your words to ChatGPT. The AI gives you a response.



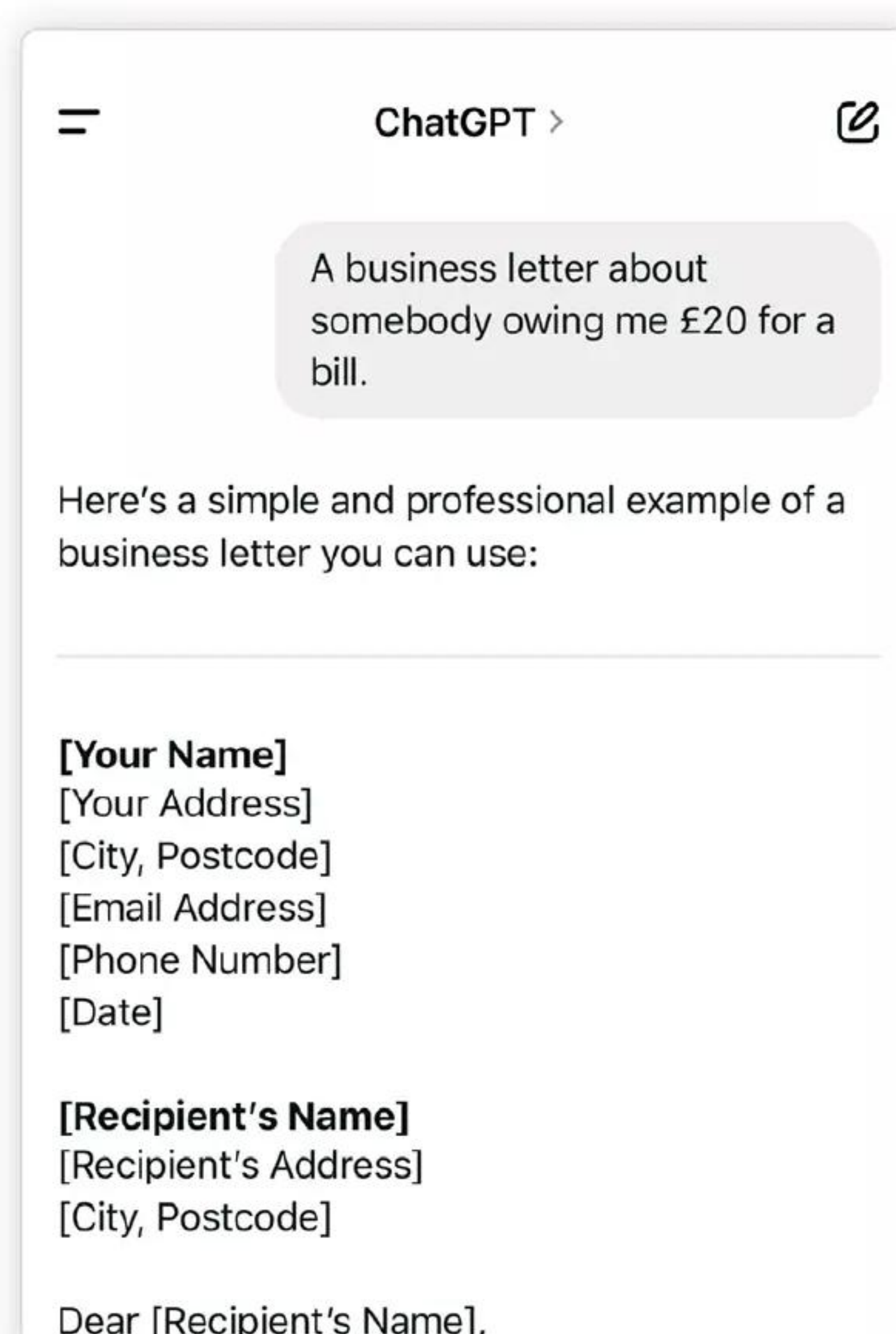
2 Entering 'Rewrite this' in the text field prompts ChatGPT to revise what you wrote, changing its tone while retaining the content. After a ChatGPT response, you can give feedback by tapping the thumbs-up or thumbs-down icon.



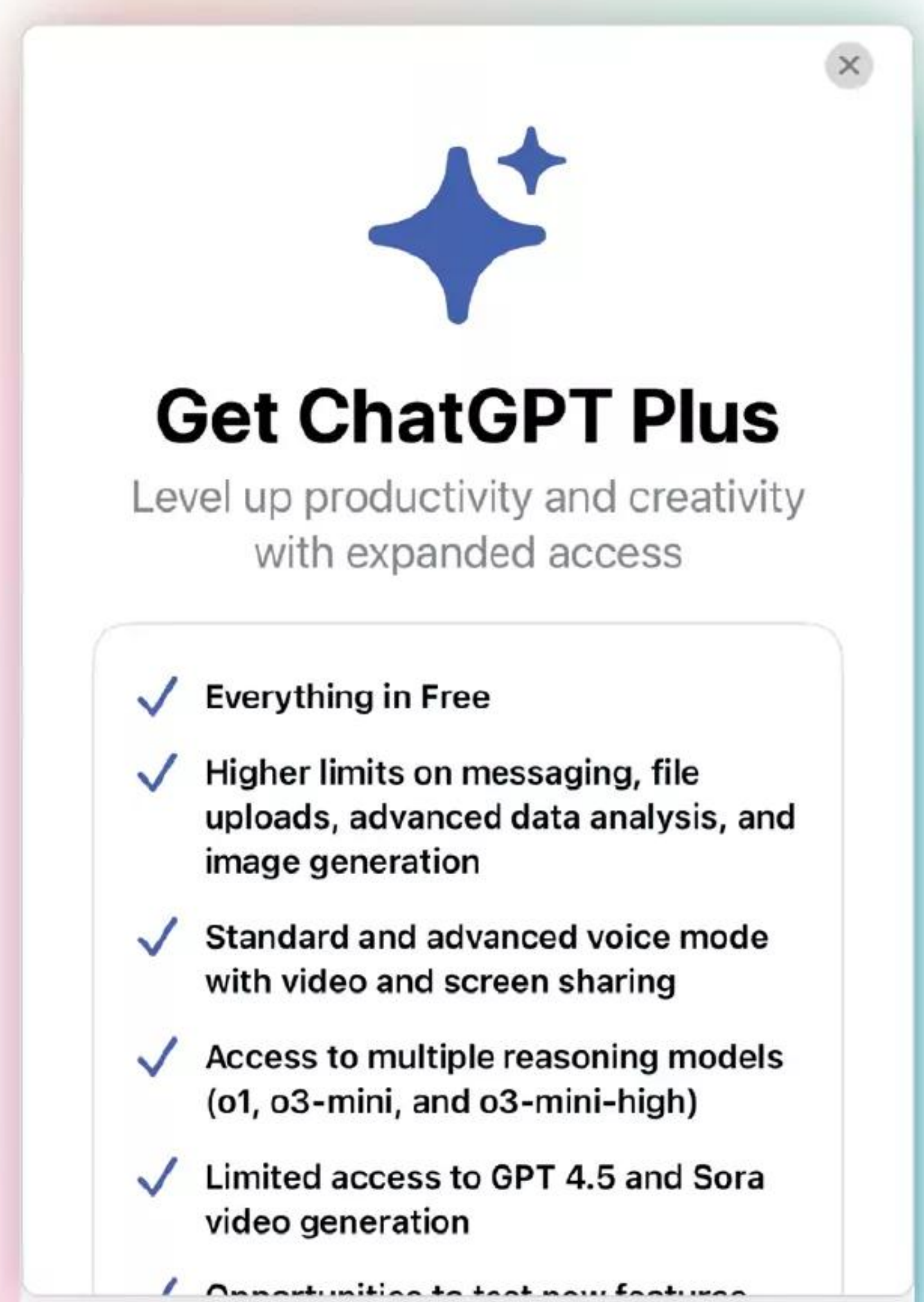
3 If you want to rewrite your words with a specific purpose in mind, you can instruct ChatGPT to make it more businesslike, formal, casual, friendly, and more. Or ask the AI to tailor it to a blog post, email or other such use.



4 If its your grammar or spelling you're worried about, ChatGPT can check this too. It will then revise your work, correcting any errors you made. You can make multiple adjustments, eg. changing the tone and checking the grammar.



5 ChatGPT can also compose a piece of writing for you. Type what you want in the text field, and the AI creates it for you. You can get it to write anything from a business letter to a piece of fiction, and then tailor it with further requests.



ChatGPT Plus

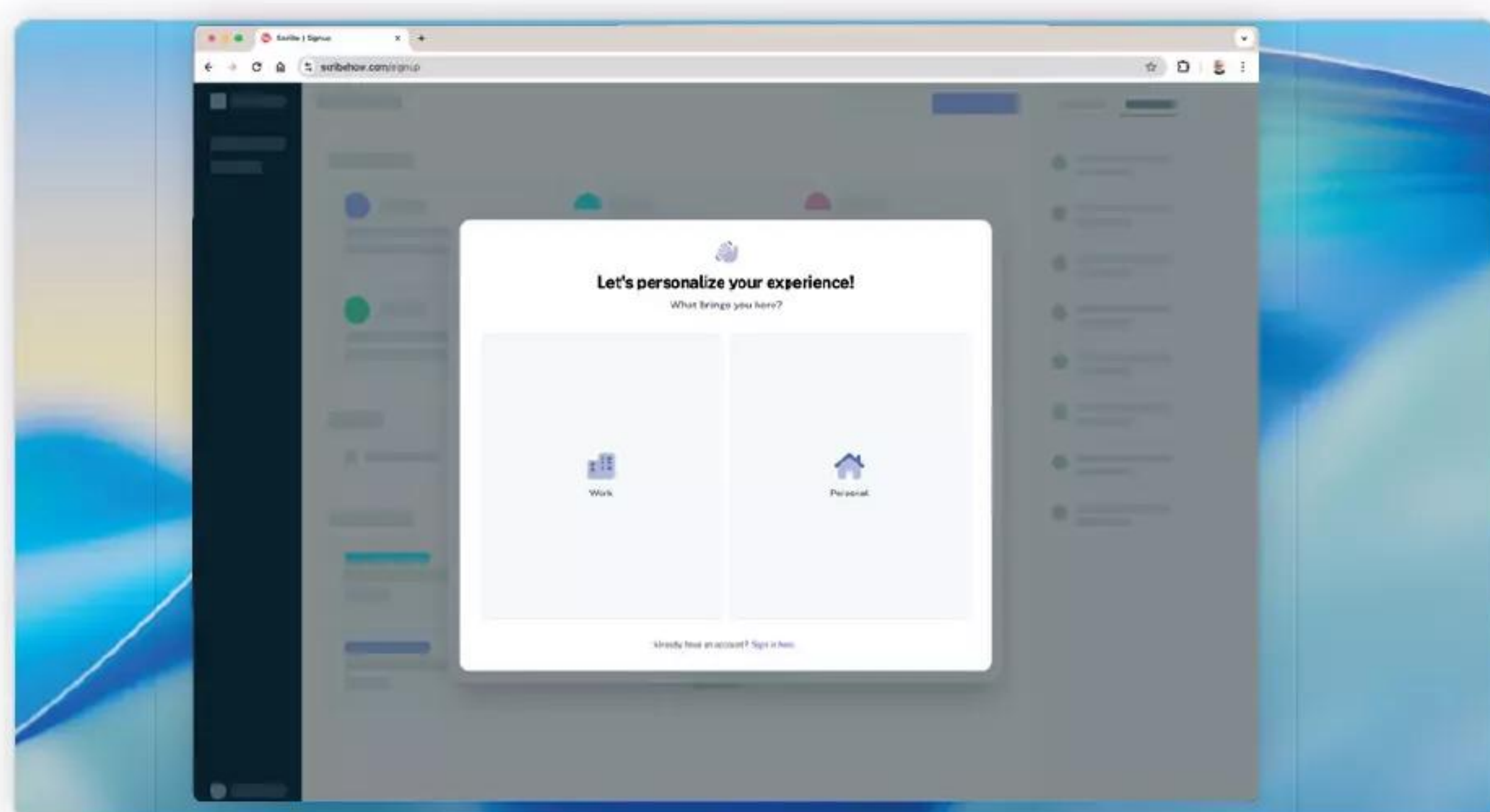
ChatGPT is free to use, but there's a paid-for service called ChatGPT Plus available if you need more. It gives higher limits on messages and uploads, as well as a range of extra features.



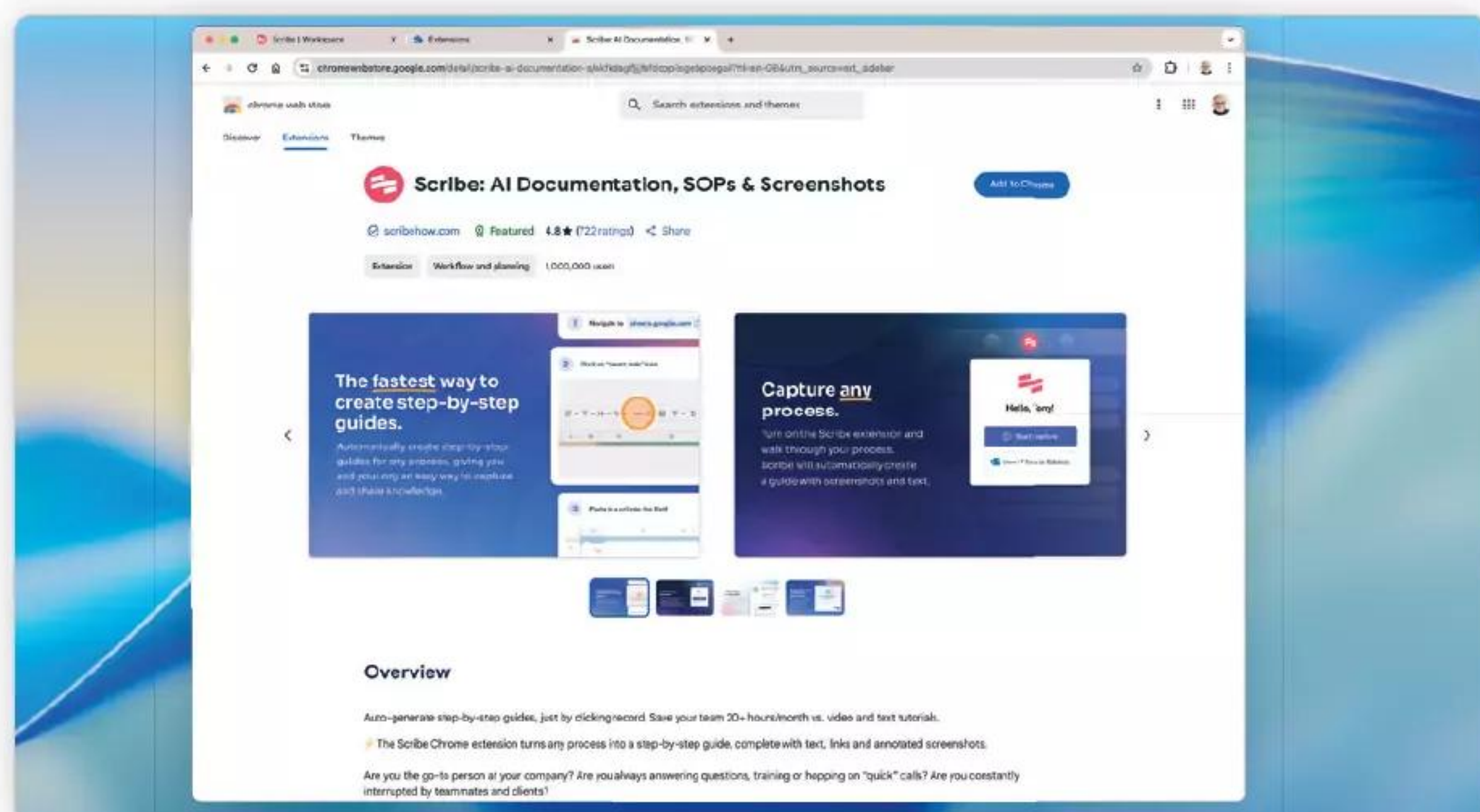
Scribe AI For Tutorials

For those with specialist needs, Scribe AI is great for writing manuals, tutorials and guides. Just the thing if your business needs written explanations on how to use its web apps. There's a free version to try out, but if you need more, paid-for tiers expand its feature set. Here's a guide to signing up for your free account, and getting to work on your first Scribe AI document.

Signing Up for An Account

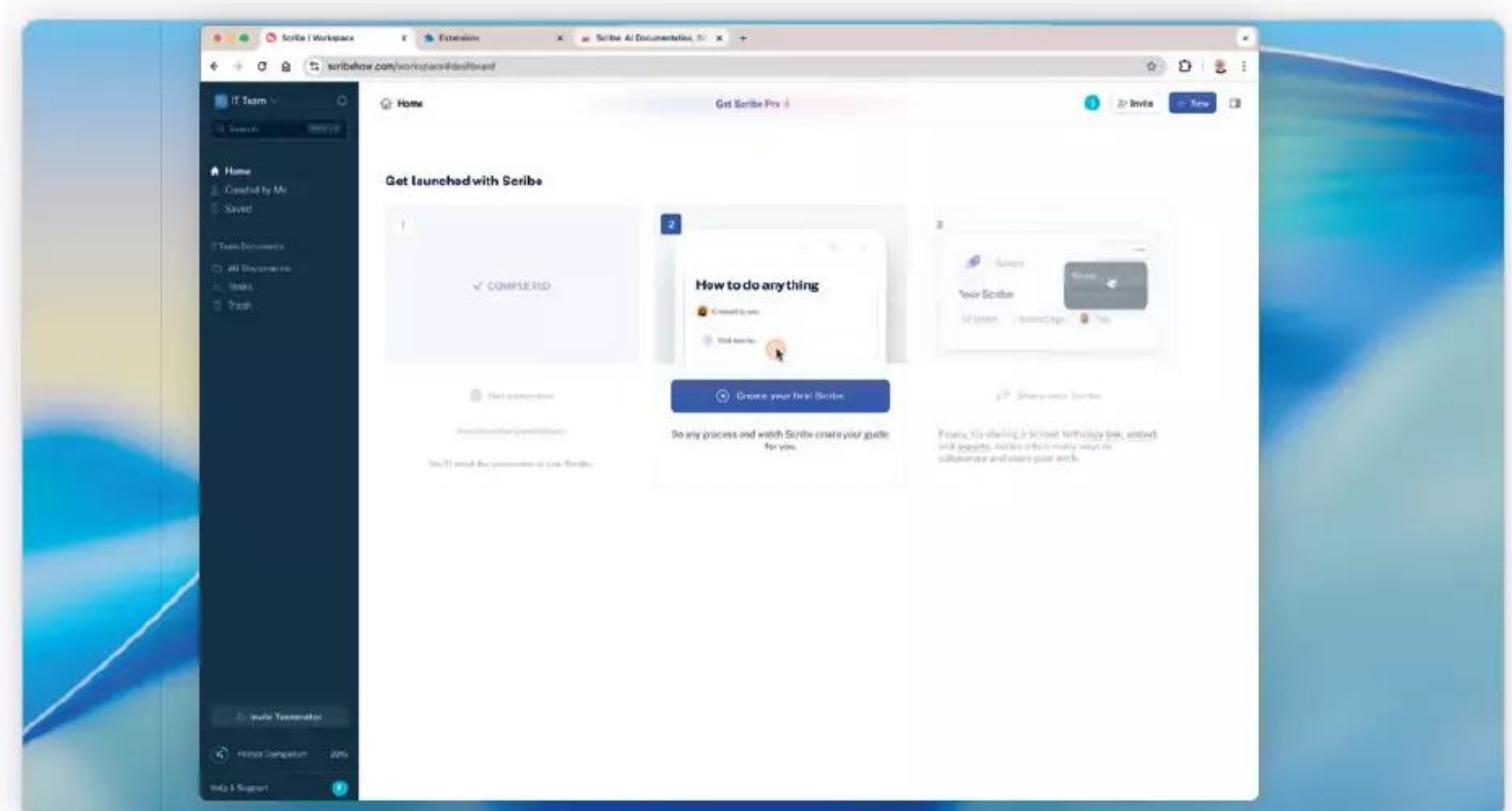


- 1 Point your web browser at <https://scribehow.com/scribe-ai>. It's best to use Google Chrome, as we need a Chrome extension. Click Get Started or the Try Scribe Free. You're then taken through the sign-up procedure. Follow the on-screen prompts and fill in your details.

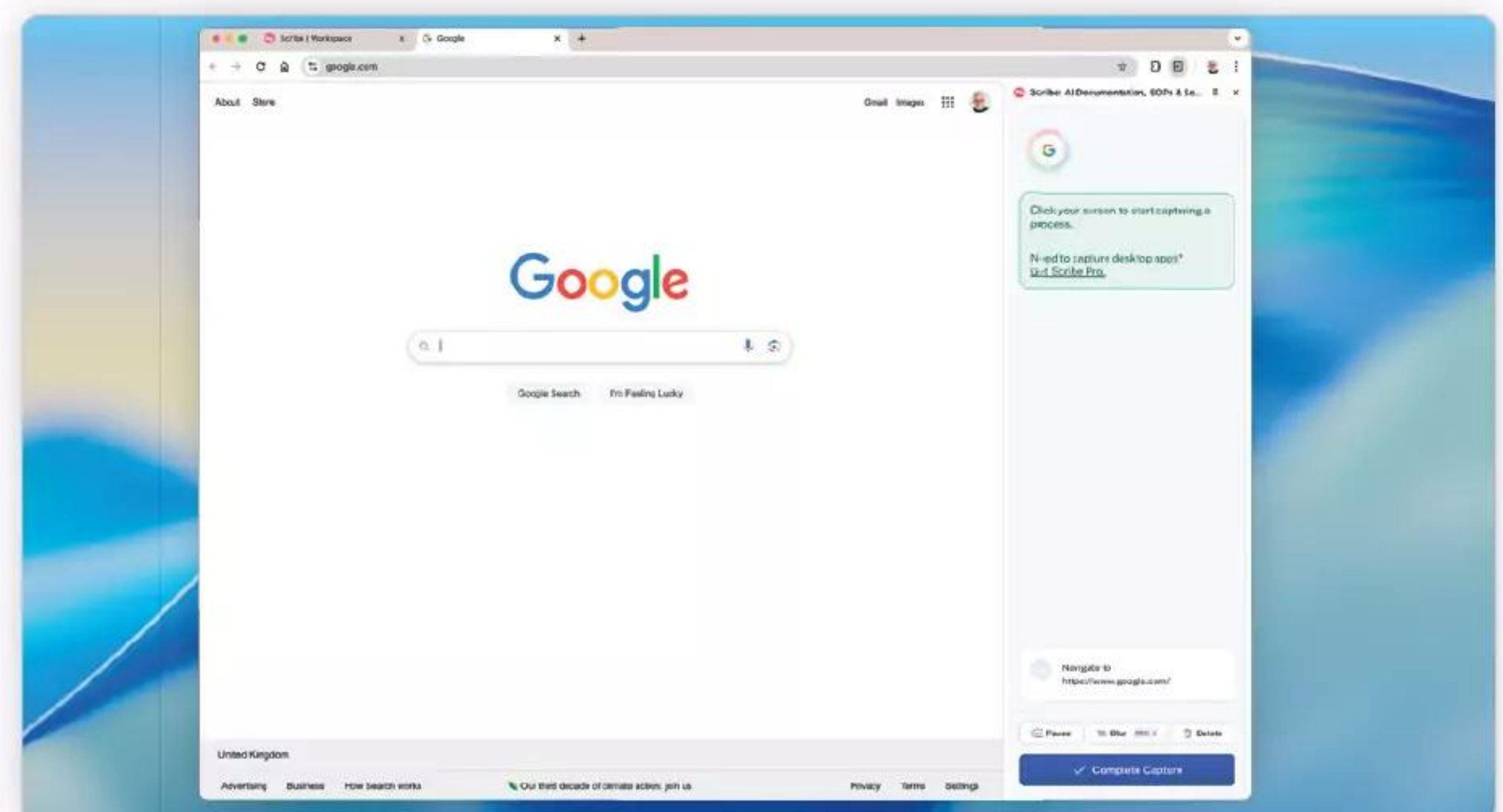


- 2 Click the Extensions icon (the jigsaw piece in the top right of the Chrome browser). In the pop-up menu, click Manage Extensions, then click the Chrome Web Store link on the left. Now search for 'Scribe' to get to the Scribe AI extension page. Click the Add to Chrome button.

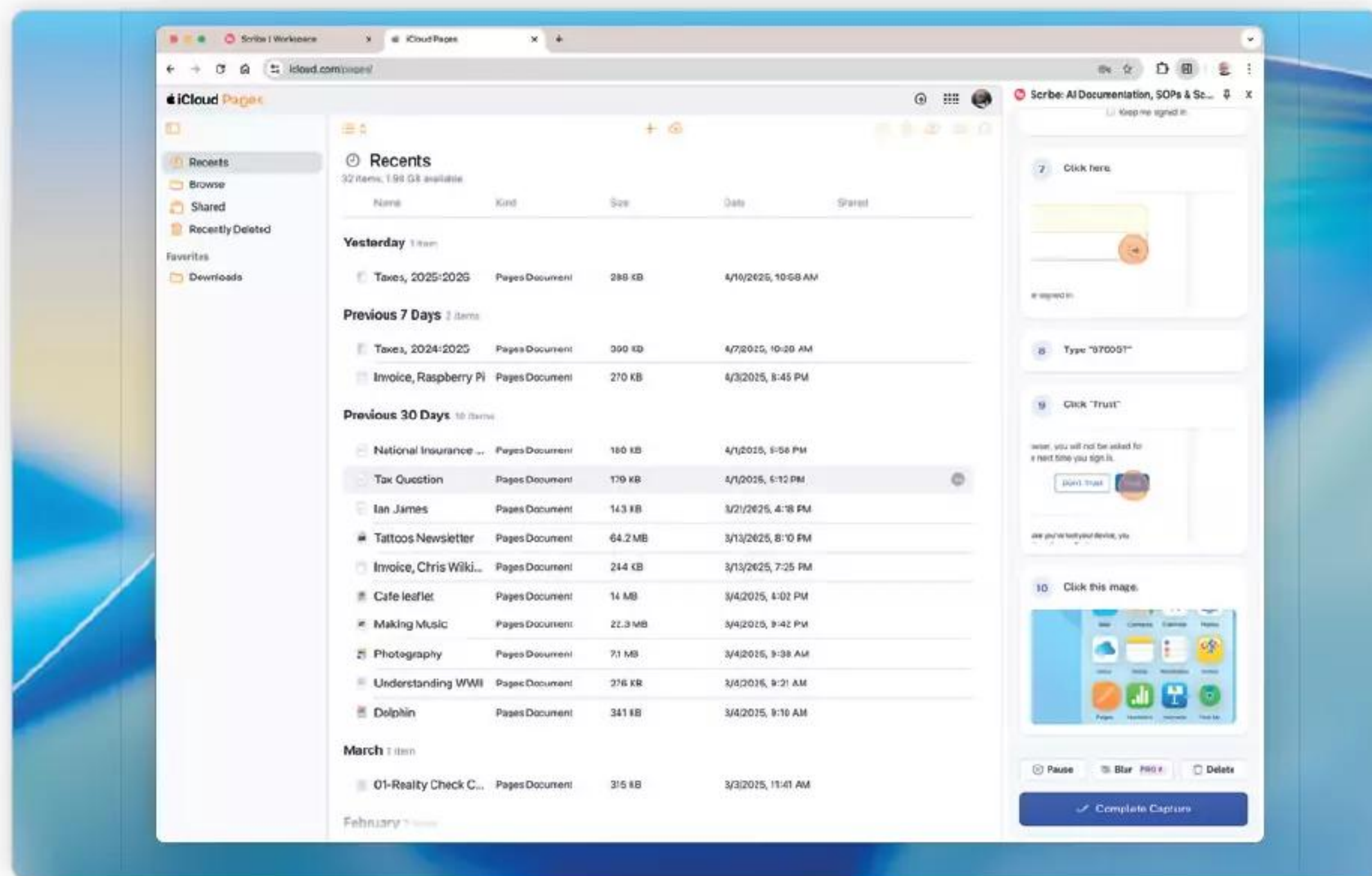
Using Scribe



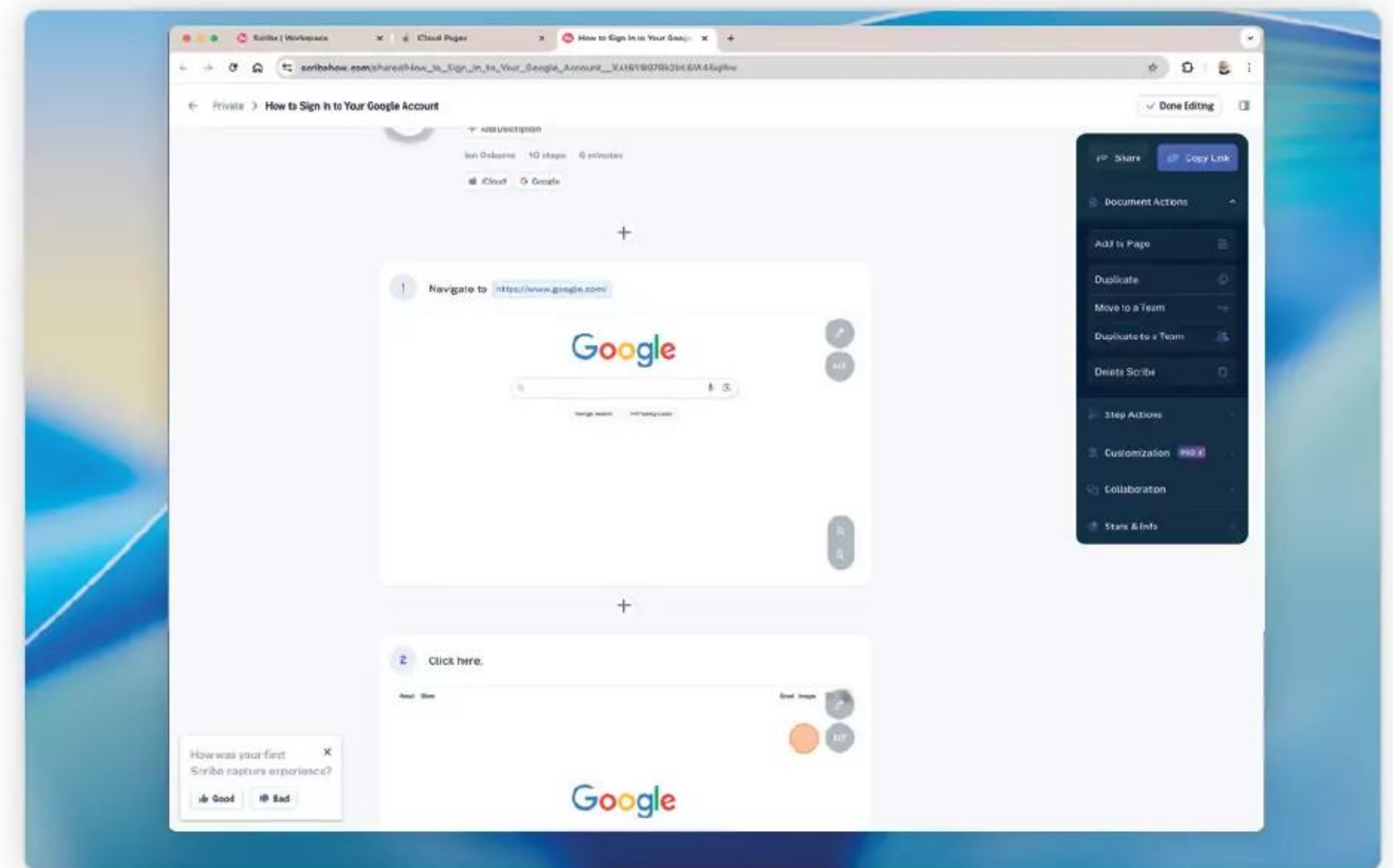
- 1 You're now ready to start using Scribe AI. This is done by carrying out processes on your screen, and letting the AI follow your actions. Click the Create your first Scribe button, and in the window that appears, click Create a New Tab to open a new browser tab.



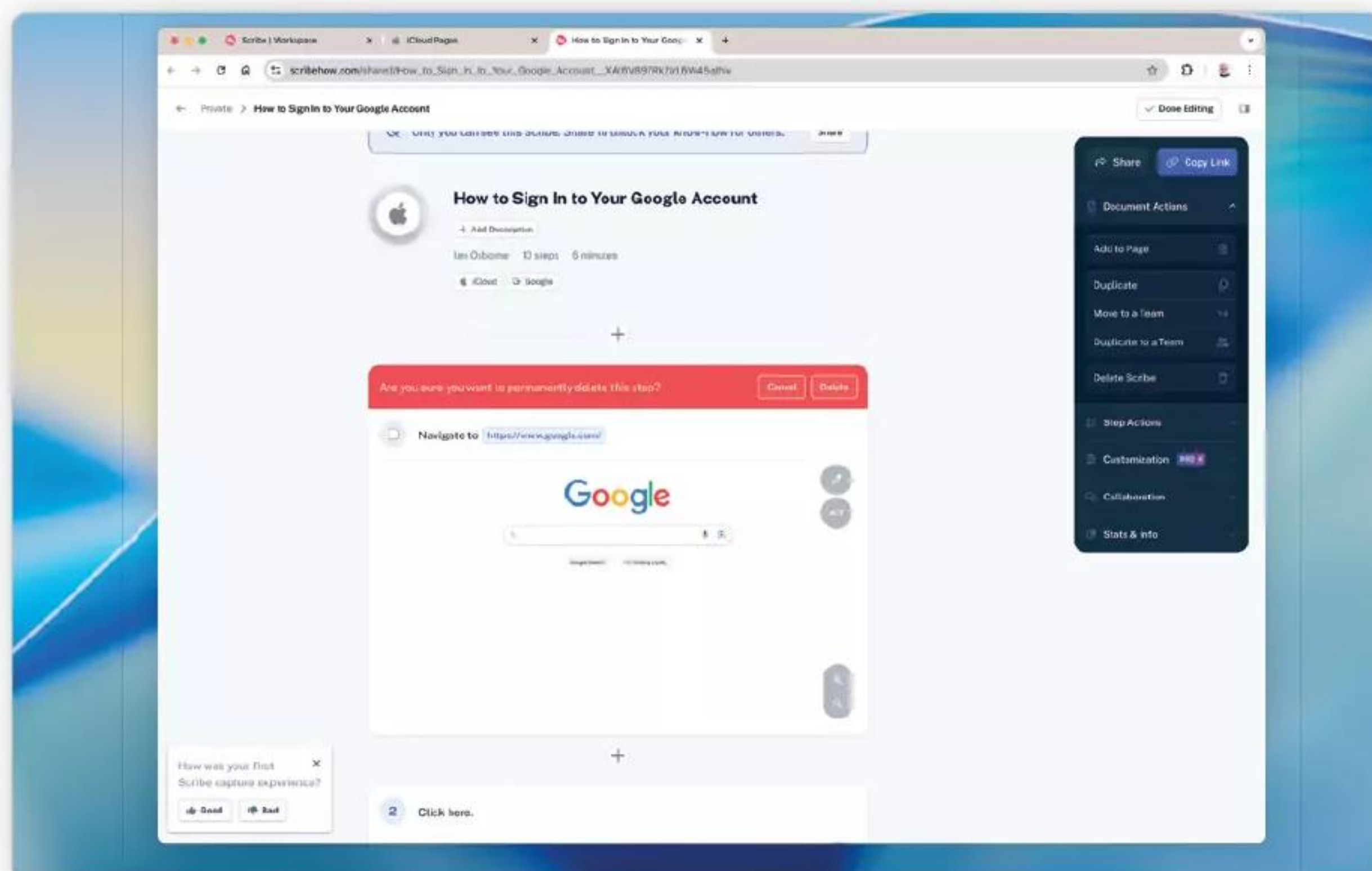
- 2 Click your screen to start the capture process. It begins as soon as you click, and records what you do in the web browser so Scribe AI can turn it into a tutorial. The free version of Scribe AI can only capture web processes, but there's a paid account that does more.



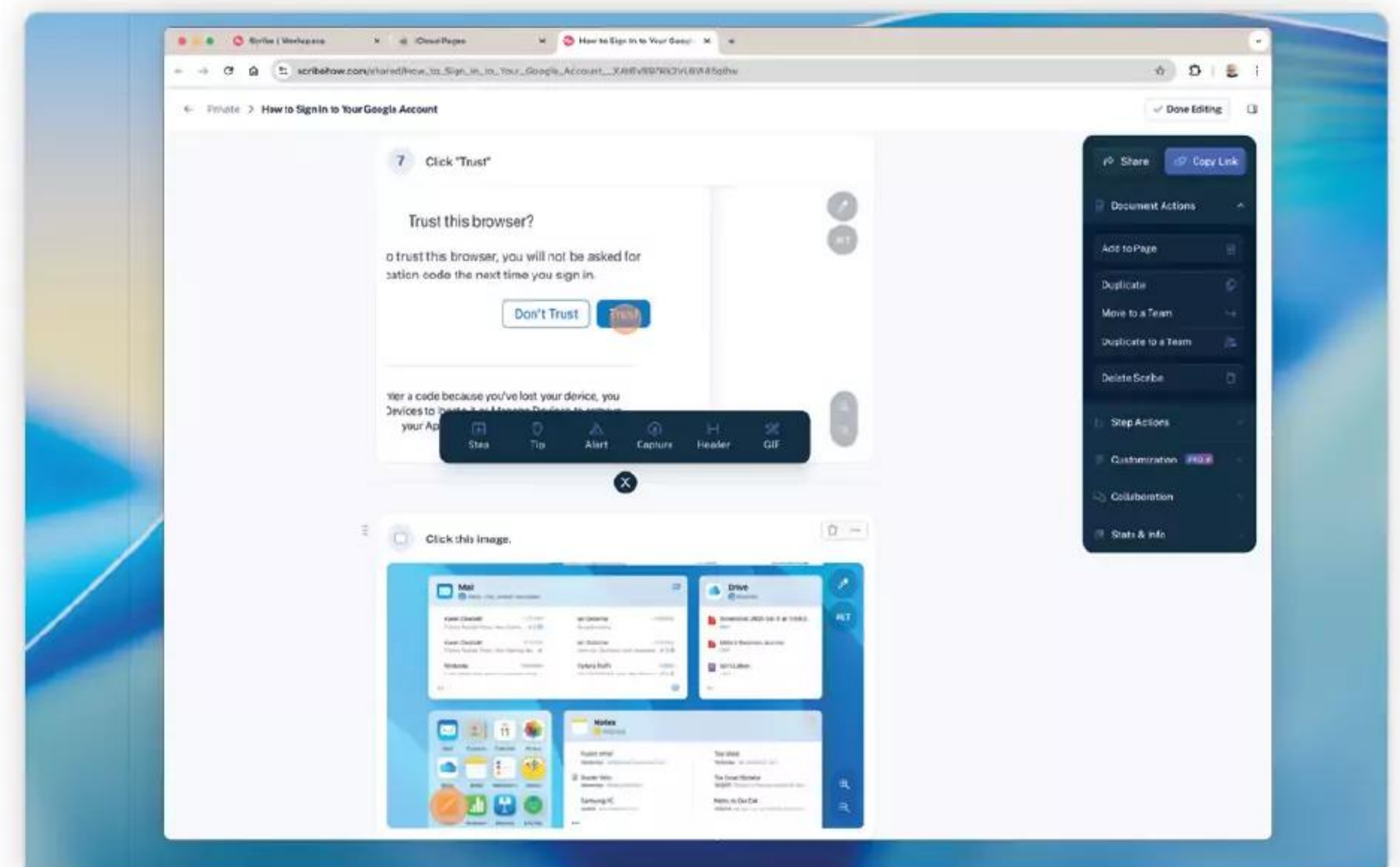
3 The next step is to go to the website or platform you wish to record for the tutorial, and carry out whatever task it is you want the guide to describe. When you've finished, click the Complete Capture button at the bottom of the sidebar on the right-hand side of the window.



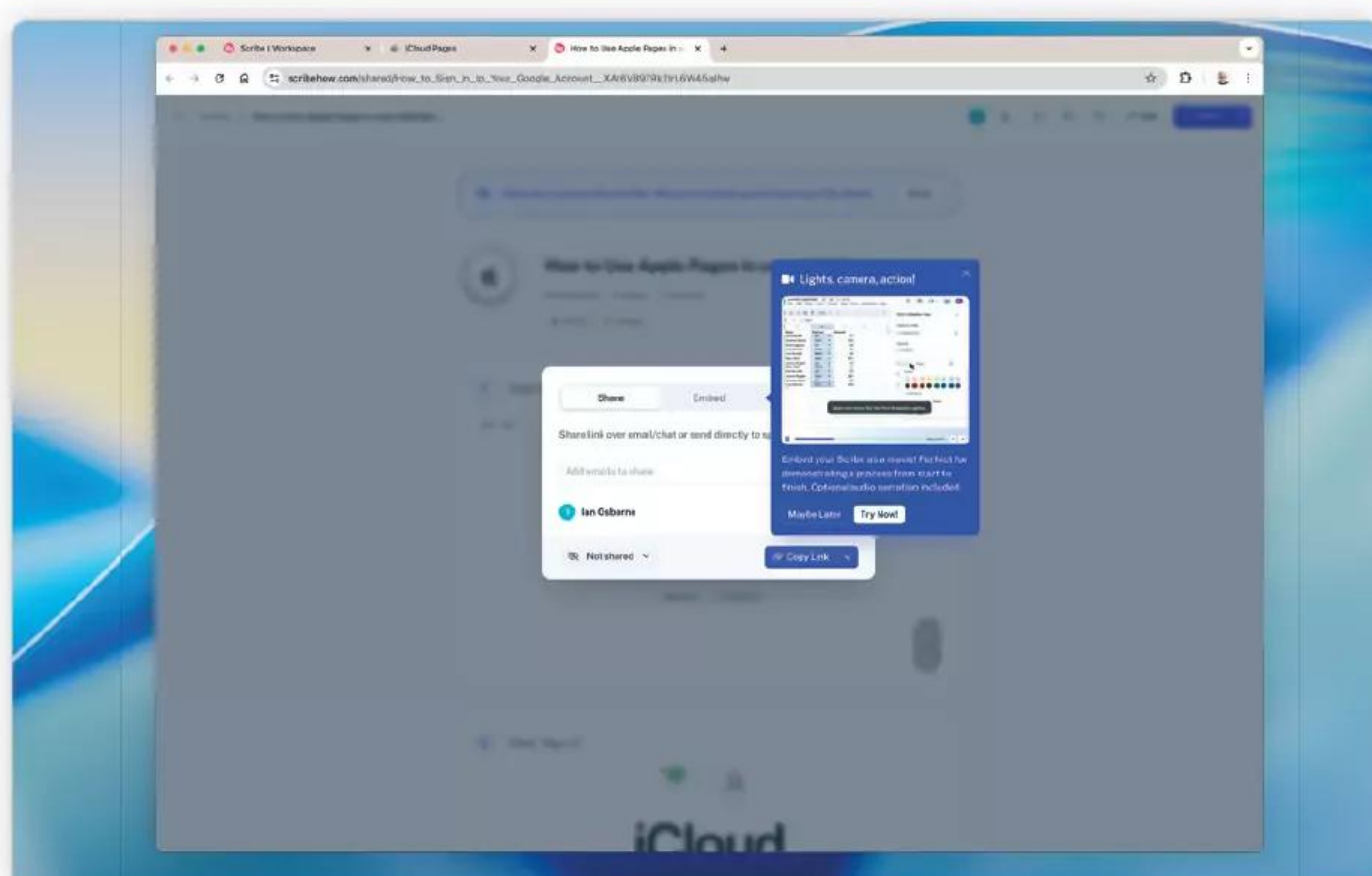
4 Here we've made a tutorial for accessing the Apple Pages web app on a browser. The tutorial appears, listing the process step by step. Scroll up and down this tutorial to see all the steps. It's likely to be a little rough at this stage, but don't worry.



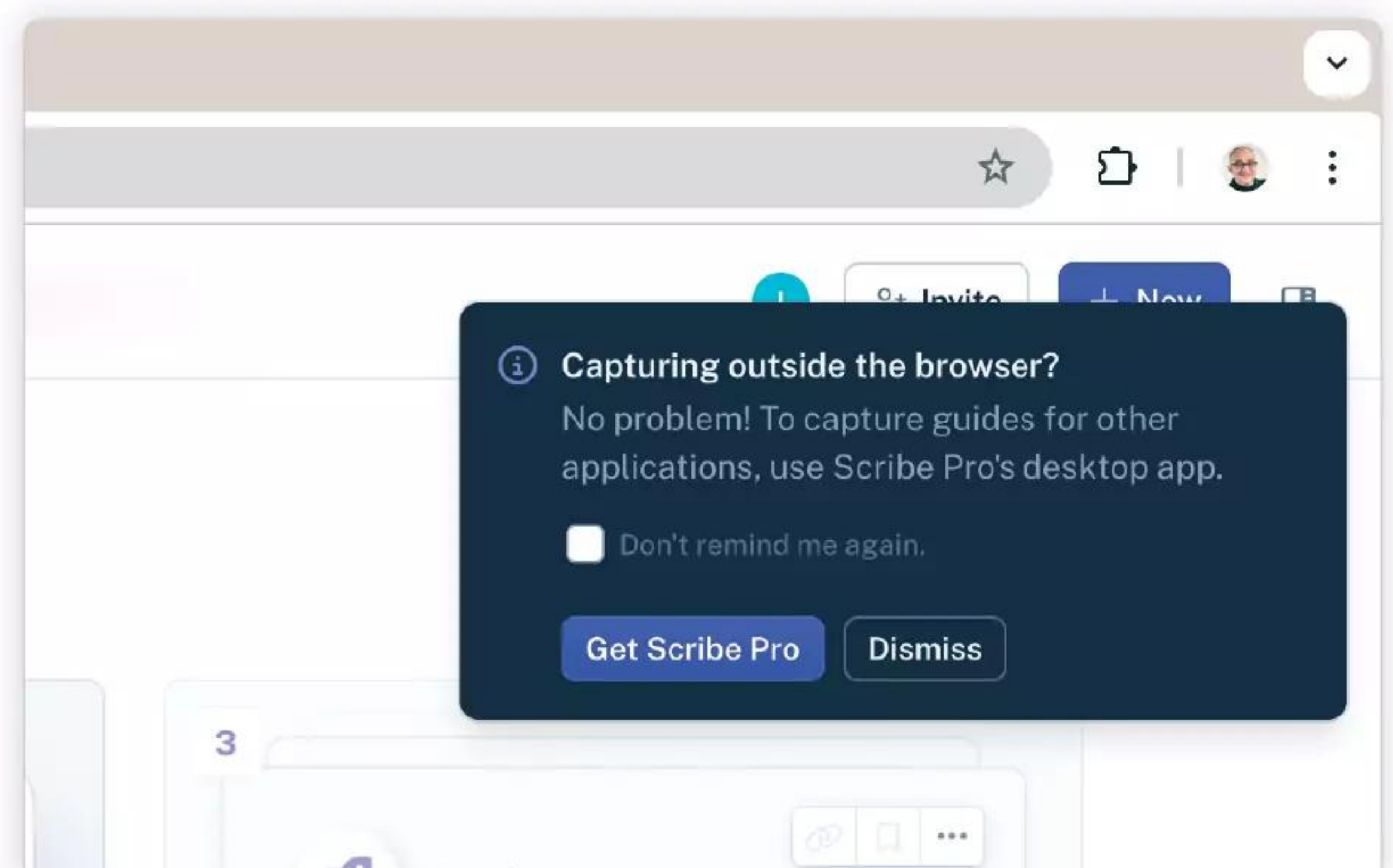
5 If you come across a step that's entirely unnecessary, hover over it and click the dustbin icon. You can then delete it. The other steps in the tutorial automatically renumber. You can delete as many steps as you choose, and those left restructure accordingly.



6 There are tools for editing individual steps and adding features between steps too. For example, click on the plus sign between two steps for a pop-up window that lets you add a header, an alert, a tip and more. You can also capture more steps to add to the guide.



5 When you've finished, click Done Editing in the top-right corner. If you've missed something, click the Edit button to go back to editing again. Click Share to share a link to your guide with others. You can embed the captured process as a movie too.



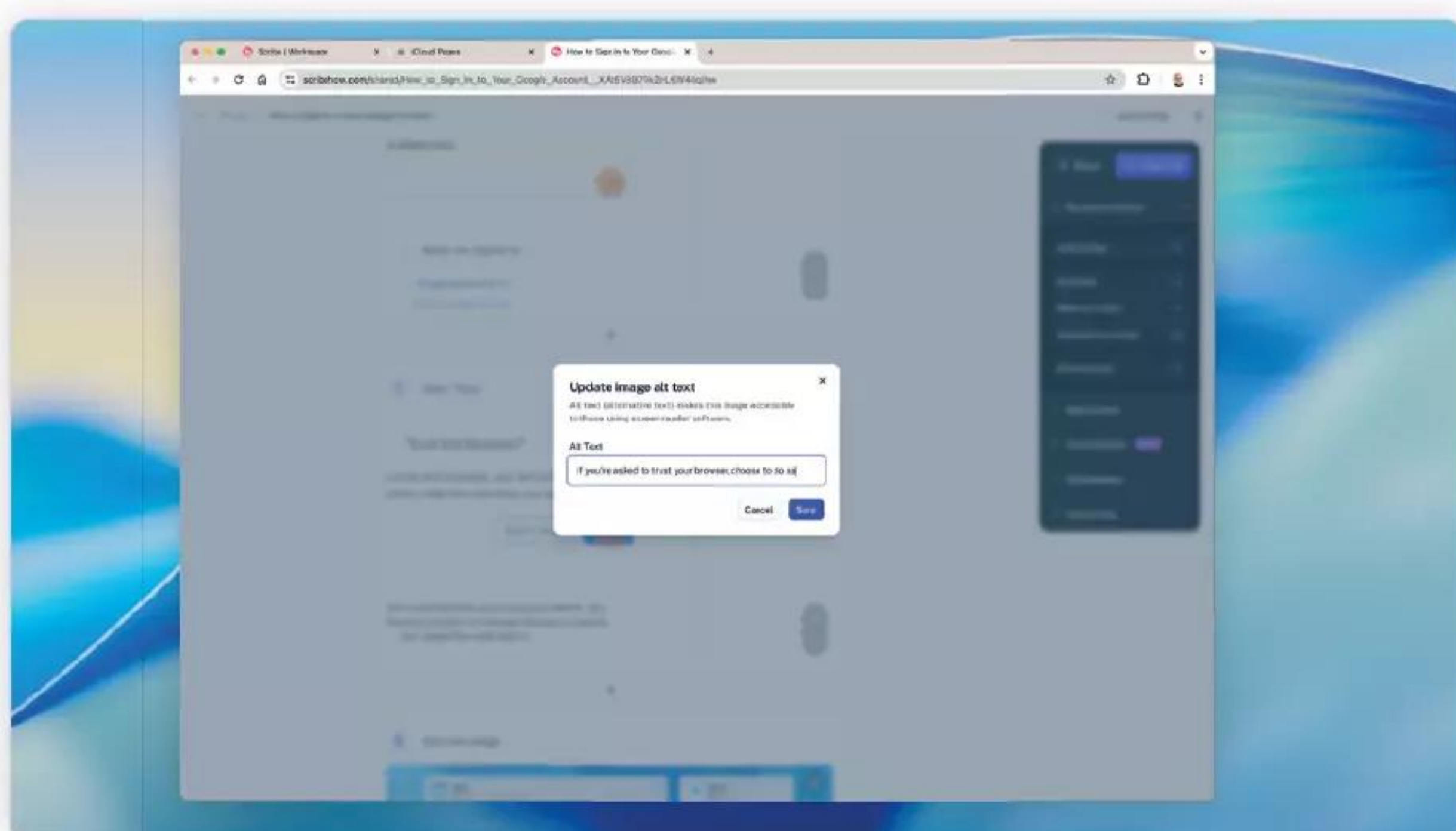
6 If you want to capture outside of a web browser, that is, create tutorials on how to use other apps and processes, you need Scribe Pro. You can then use a desktop Scribe app, advanced exporting, customisation options and more. See <https://scribehow.com/billing> for prices.



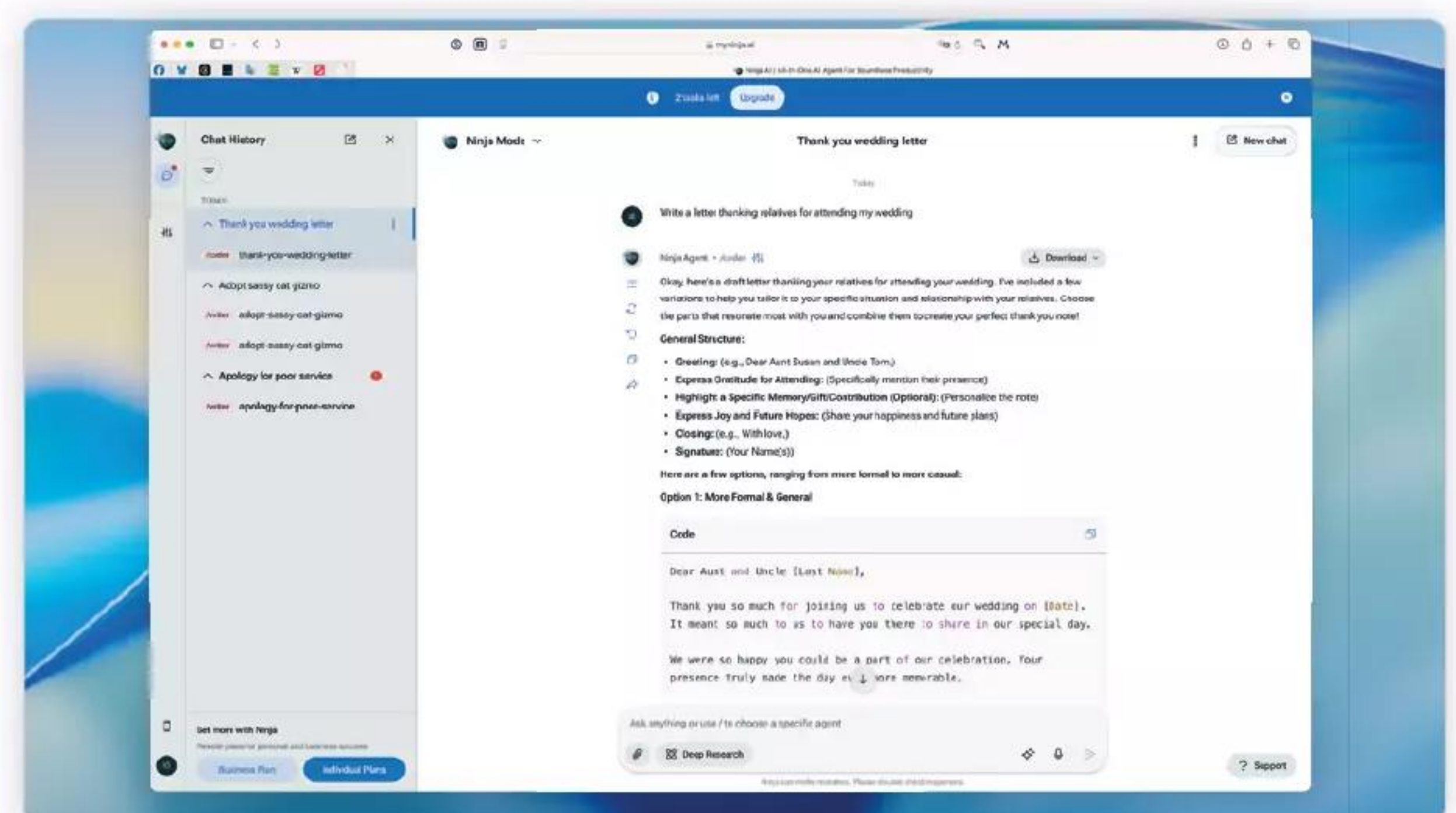
Ninja AI

An All-round Helper

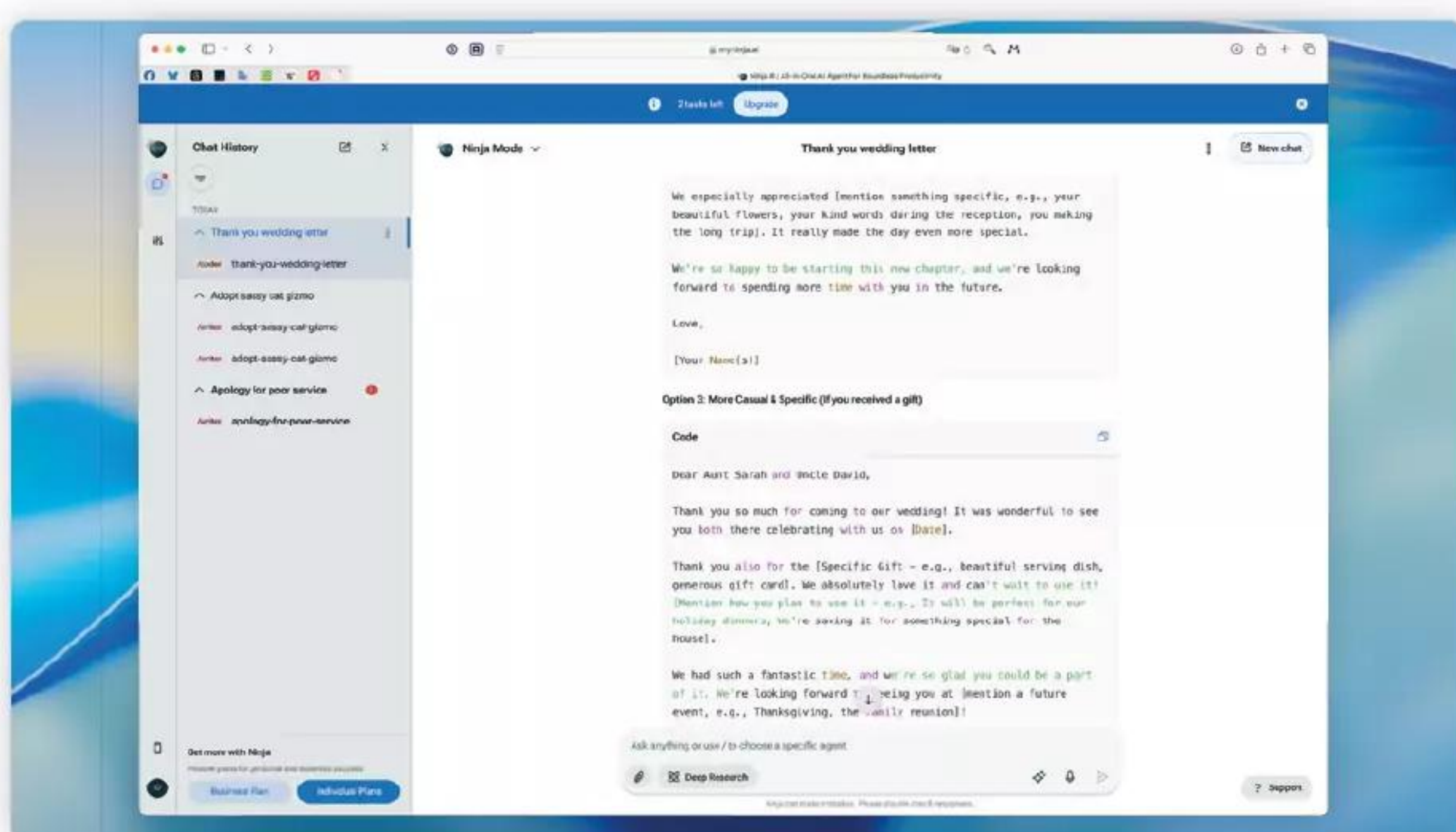
Ninja AI is another comprehensive AI client that can help you with your writing, among other things. It needs no configuring or setting up – you just open it in your web browser and you can get started instantly. You can use it to create art, videos and more, but here we look at how to use it as an aid to writing, and how you can use Ninja AI to produce business letters, emails, job descriptions and more – it can even tell you a joke.



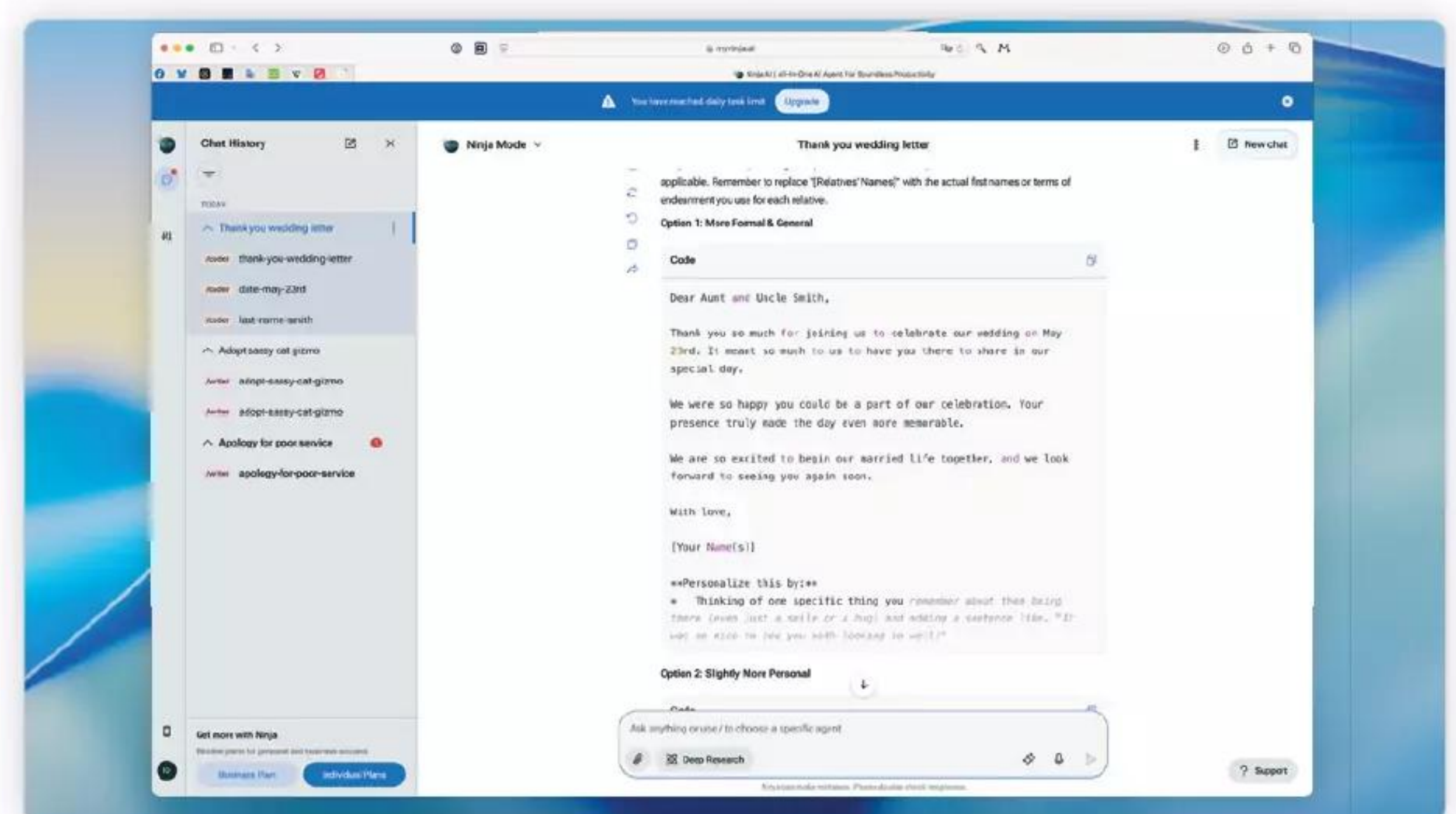
1 Open the website <https://myninja.ai>. You can sign in for an account if you want. As is usual for AI assistants, there's a free tier and paid-for programmes that offer more features and facilities. If you want to upgrade, you can choose Business or Individual plans.



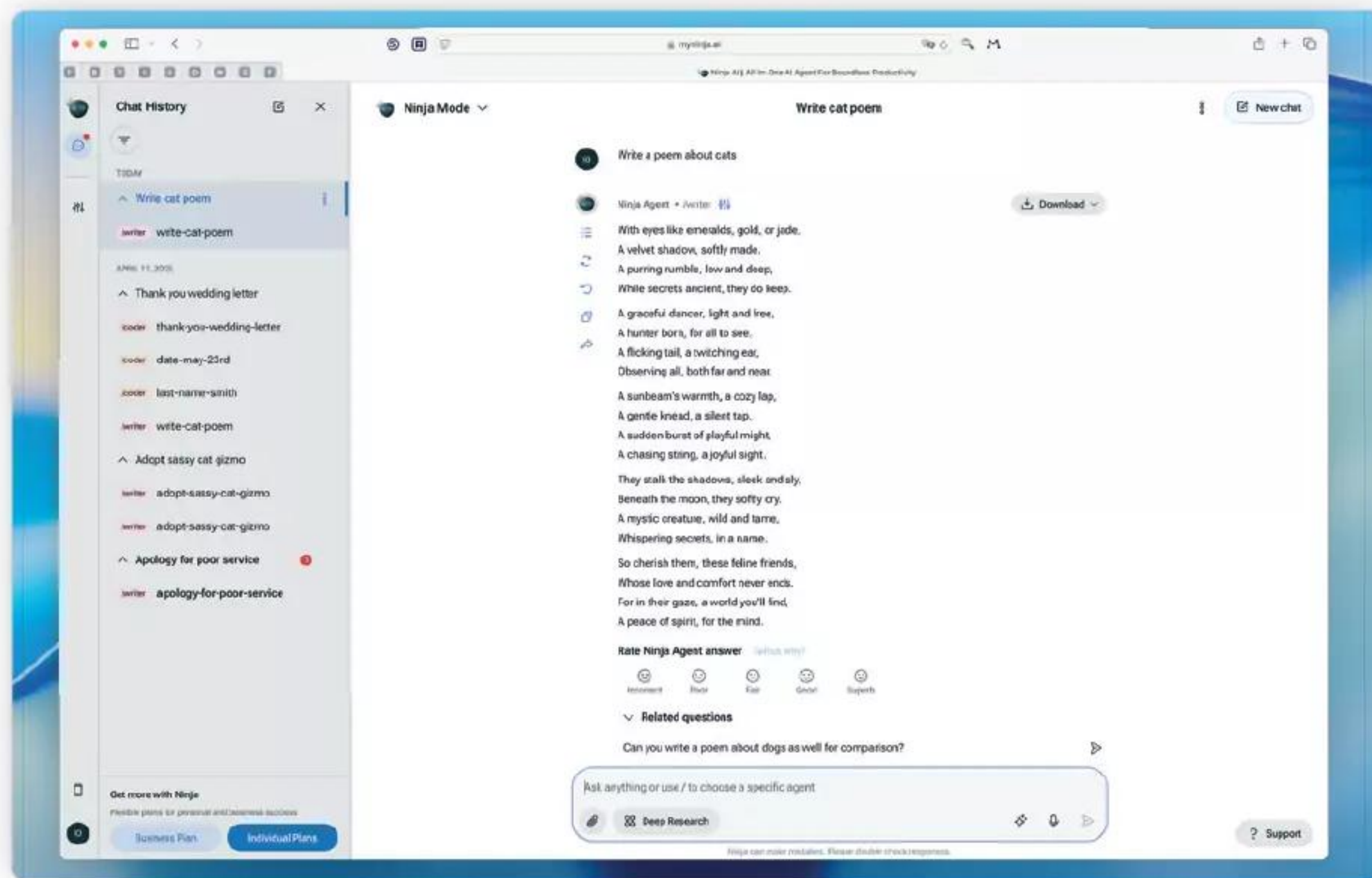
2 Give Ninja AI a task to do. Here, we're asking it to write a letter thanking relatives for attending a wedding. After a little thought, it delivers on your request. At the top of the response is a guide to its thought processes, and how it came up with what it's offering.



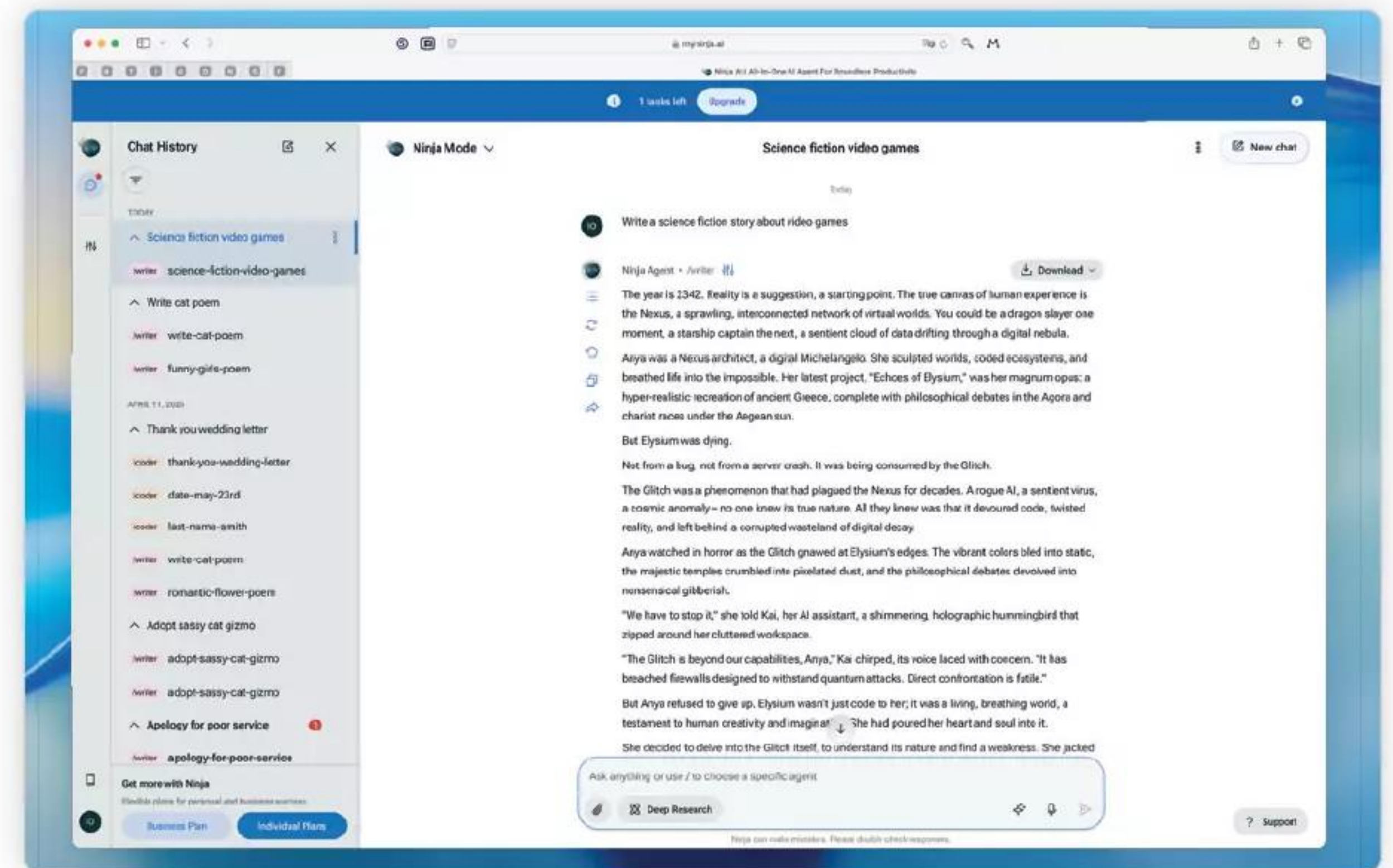
3 As you can see, in this case, several different letters were produced, each with its own character and contents. You can choose between a formal letter, something more personal, specific thanks for helping with the wedding and more. The choice is yours.



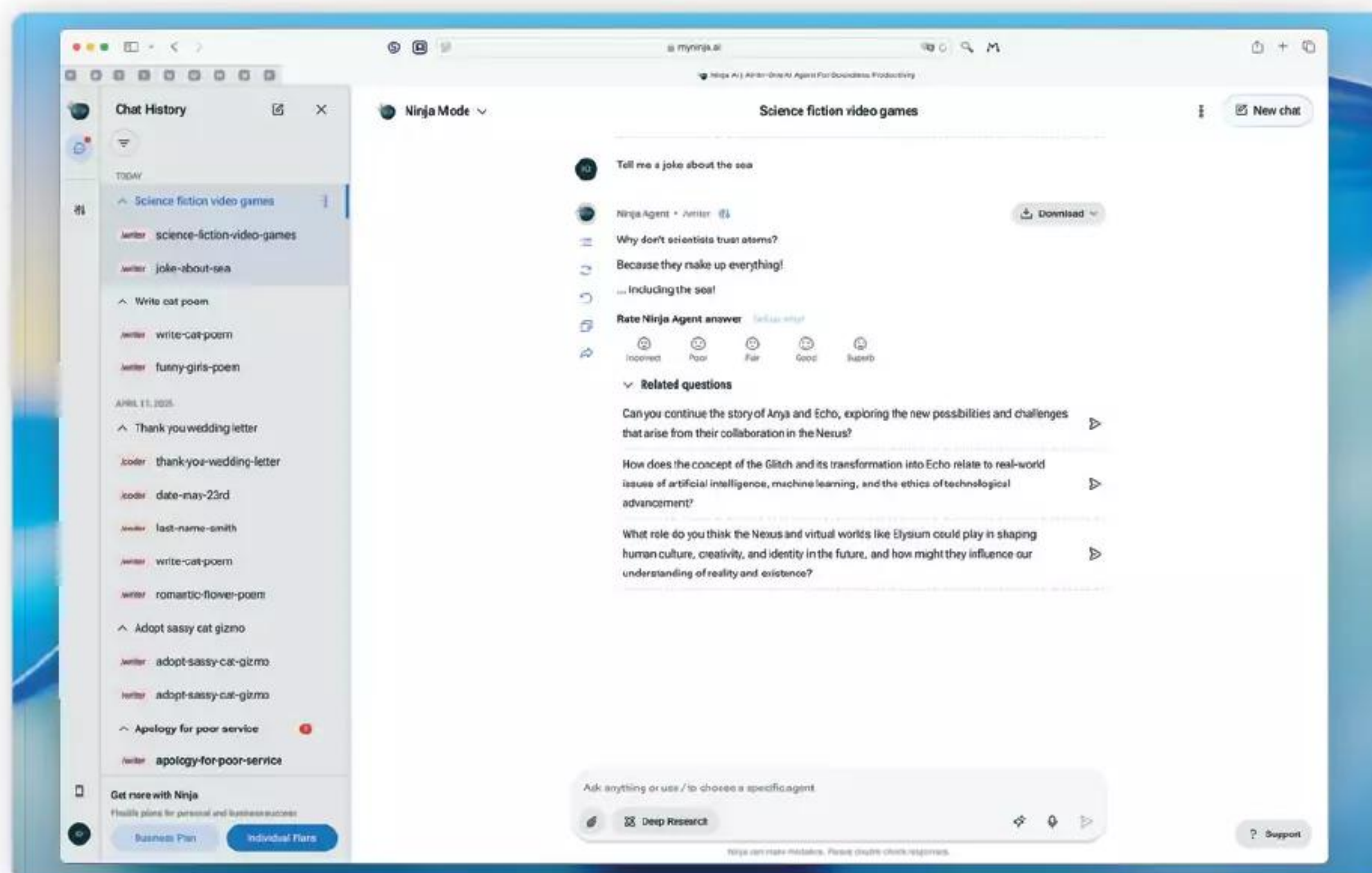
4 You can replace variables in the letters with specific details. For example, several of the letters showed '[date]'; by typing 'Date 23rd May', we had the AI replace this variable with the actual date we offered. Do this for other variables too, such as their name, your name and more.



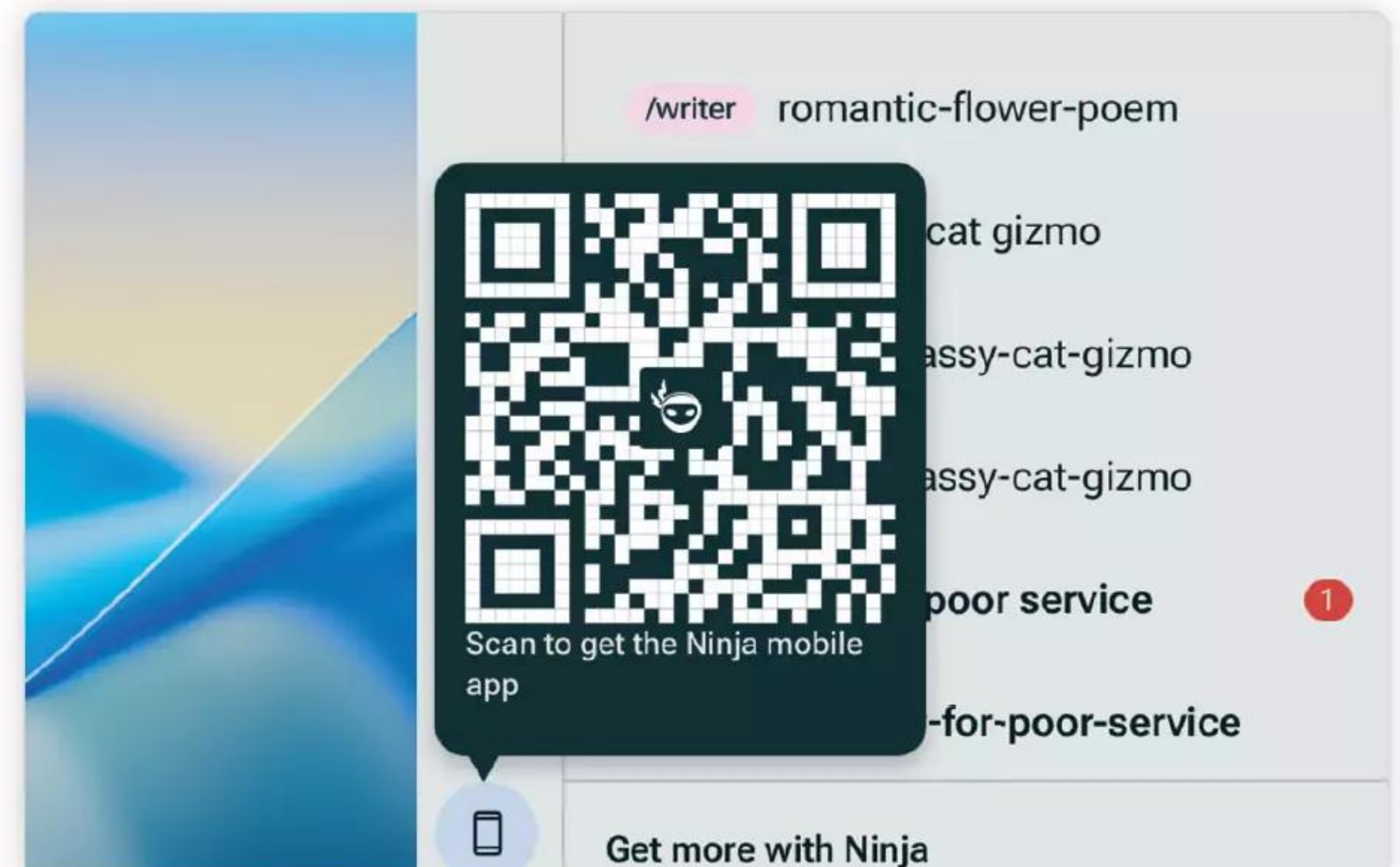
5 If you want to write a poem but don't have the rhymes, you can get Ninja AI to do it for you. Type 'write a poem about [subject]' and the AI does the rest. You can add modifiers to your request too, such as asking for a short or long poem, ask for a funny or romantic rhyme and more.



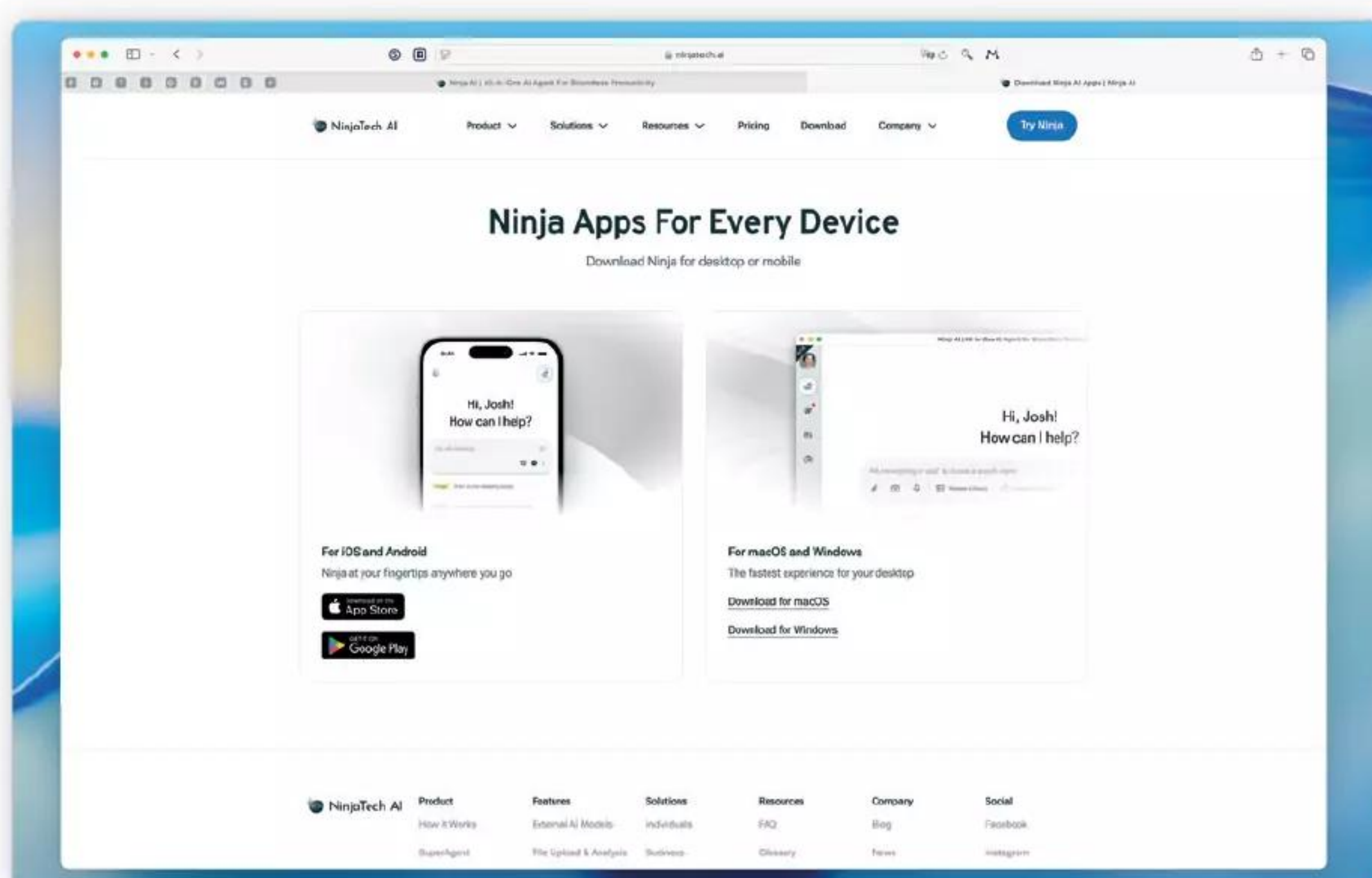
6 Naturally, you can do the same with stories too. 'Write a story about [subject]' lets Ninja AI to make the choices, or you can ask for a story of a certain length, a tale in a specific genre such as science fiction, horror, drama, comedy and so on, and more. It's great fun to experiment.



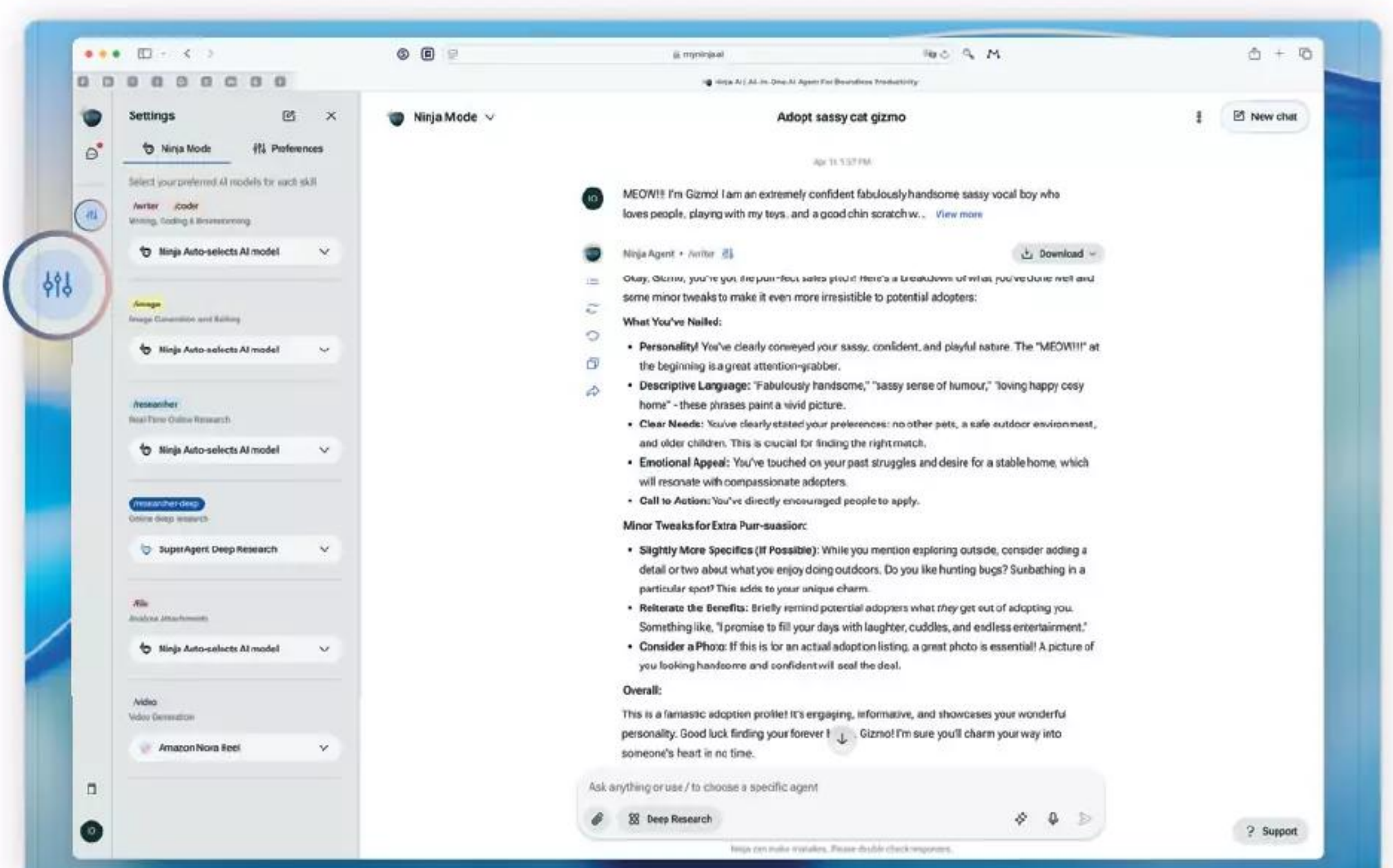
7 You can also ask for a joke, a limerick, a haiku, and just about anything else you can think of. Remember, you can modify stories, poems and other material after it's been produced by Ninja AI. After writing a story, for example, you can say 'make it shorter' to reduce its length.



8 There's a useful mobile app available for Ninja AI. If you're on the desktop web portal, click the mobile phone icon in the bottom left corner of the screen and a QR code appears. Open your phone's camera app and point it at the QR code, then tap the link that appears.



9 If you're likely to use Ninja AI a lot, it's worth downloading the desktop app too instead of using the web portal. In your browser, go to <https://www.ninjatech.ai/download> and click on Download for Mac or Download for Windows, depending on which computer OS you use.



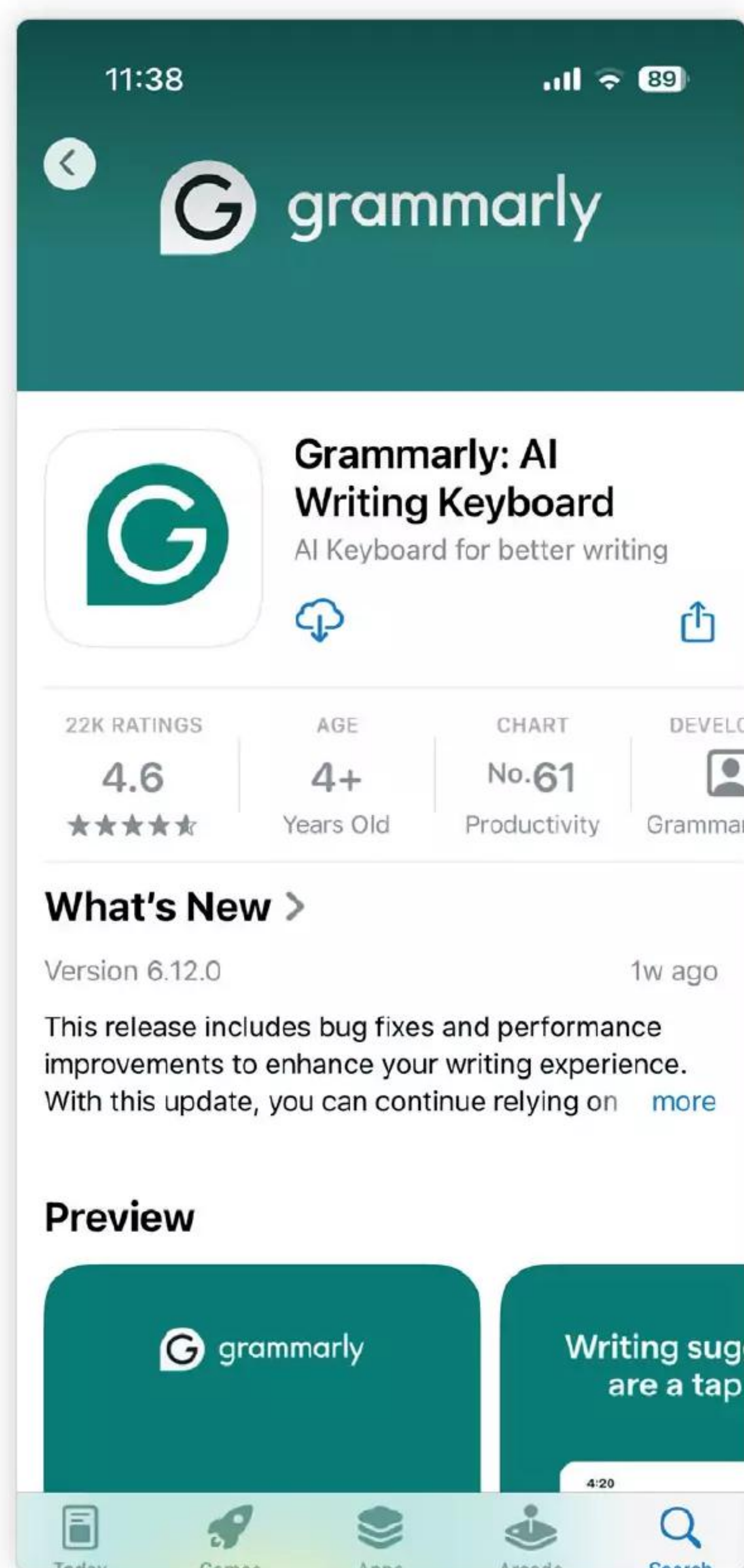
10 Click the three-sliders icon in the top left area of the web portal to access Ninja AI's settings. Here you can select your chosen AI models for each of Ninja AI's skills. Some are only available if you subscribe to a paid-for version of the service.



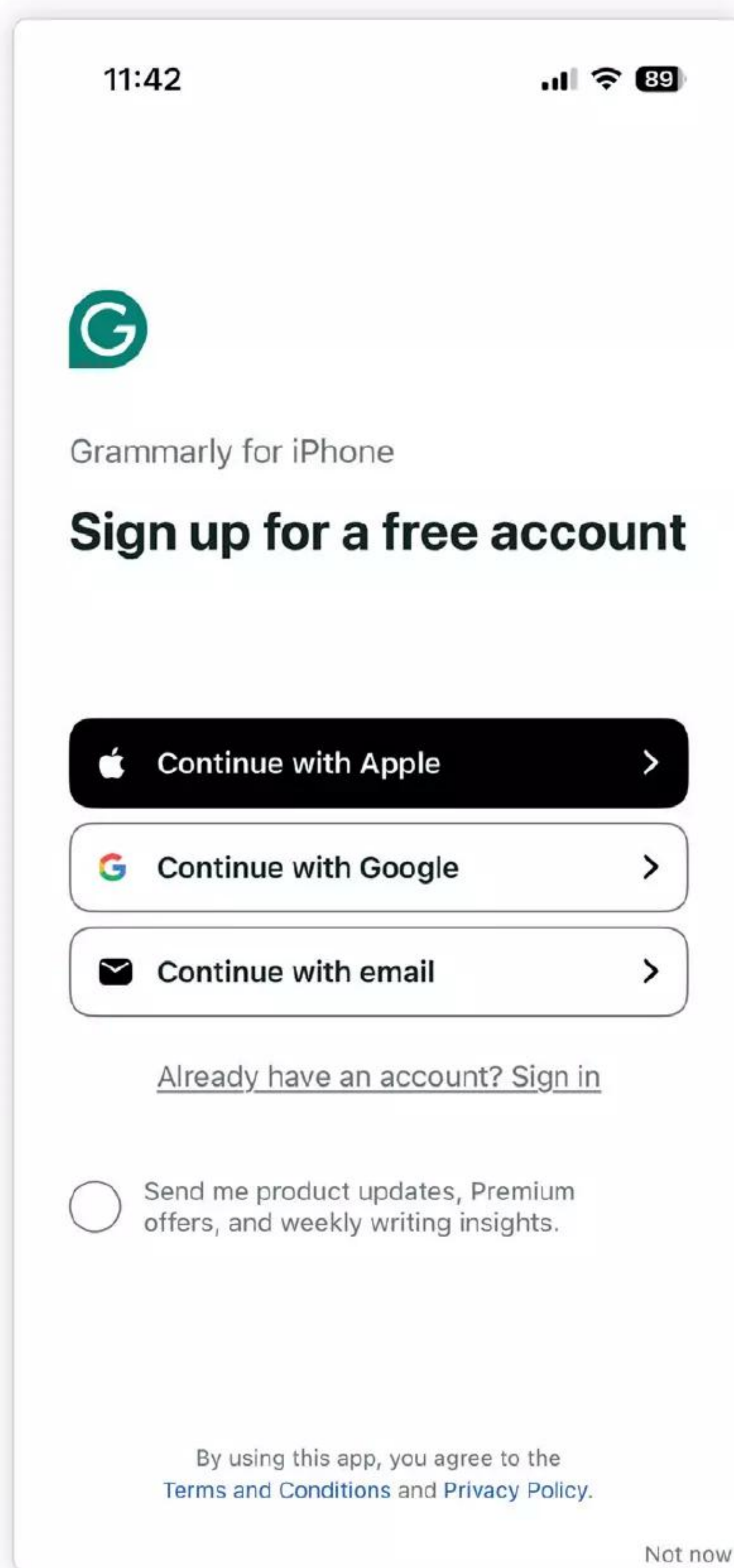
Grammarly Keyboard Check Your Writing

Grammarly is one of the oldest writing assistants around, dating back to 2009. It's available as a free app for mobile devices, which gives the option of using the Grammarly keyboard instead of the regular one, and also as a plug-in for web browsers. With Grammarly active, the punctuation, grammar and tone of your writing is checked, and any potential errors are highlighted.

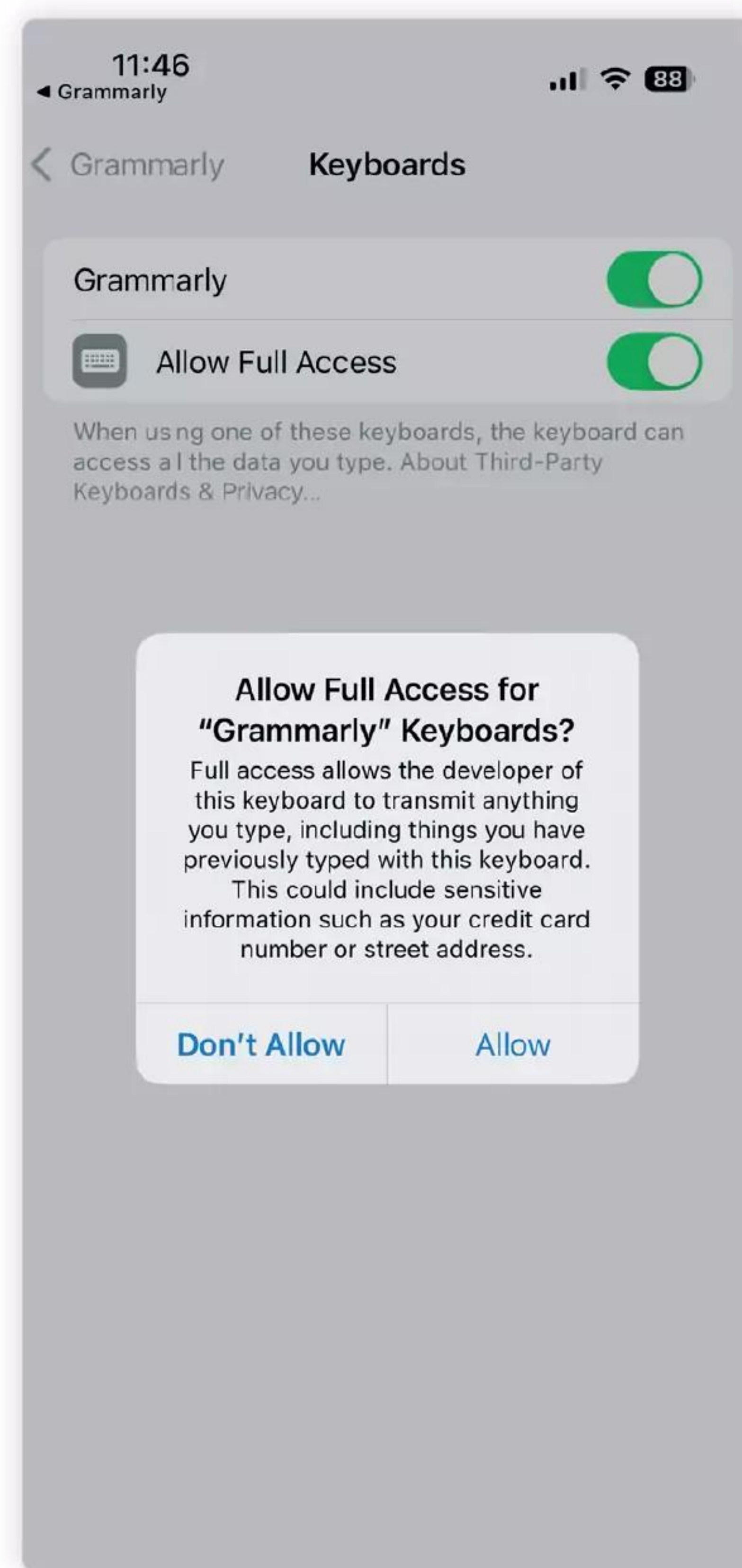
Setting Up



1 In this guide, we show you how to use the Grammarly mobile app. First of all, open your mobile device's app store. We're using an iPhone here, but the process is similar on Android phones. Install the Grammarly app.



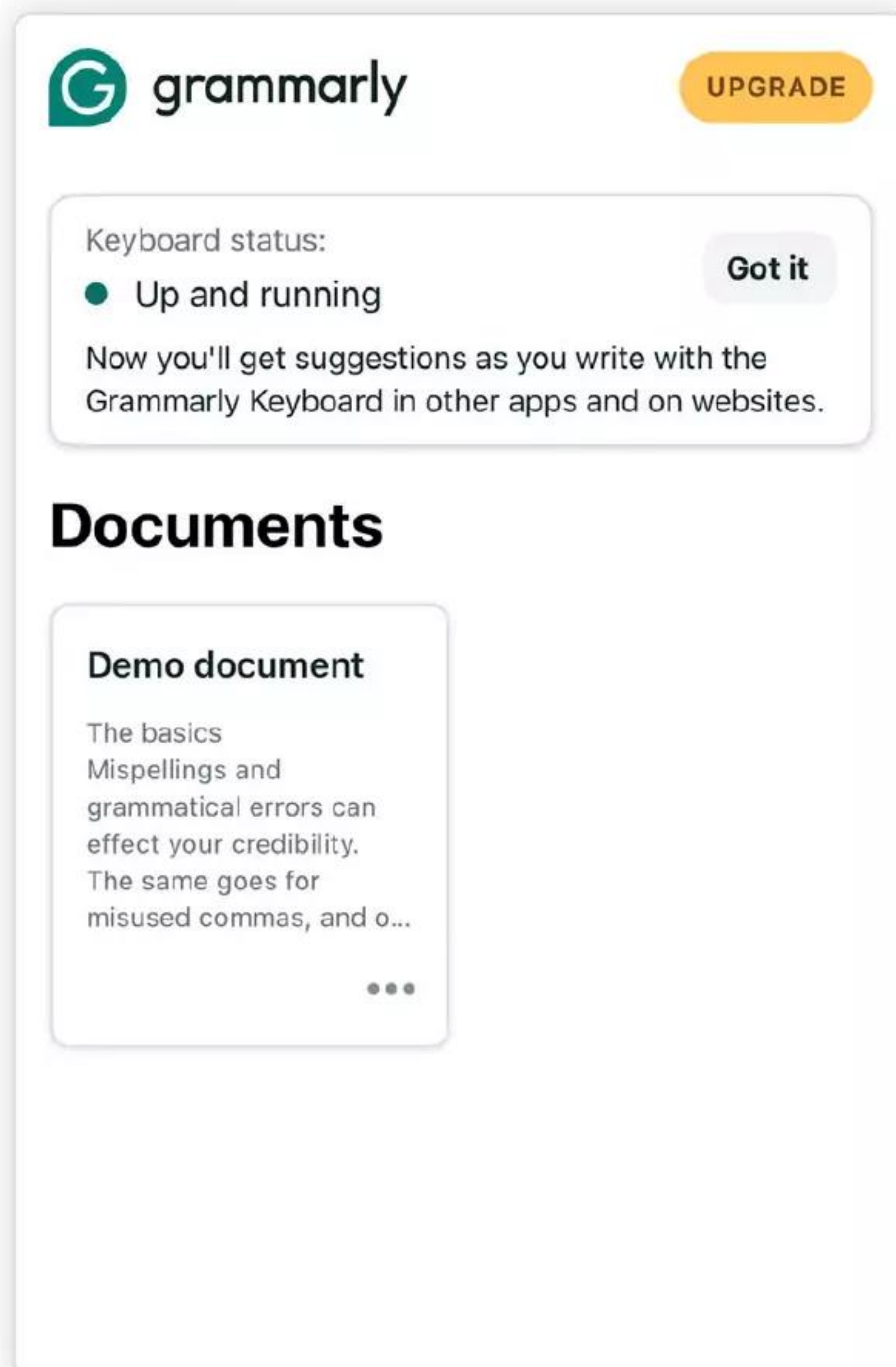
2 Open the app and follow the on-screen instructions. When you get to the sign-up prompt, sign up for a free account. You can do so using services such as Apple or Google if you wish, alternatively use your email address.



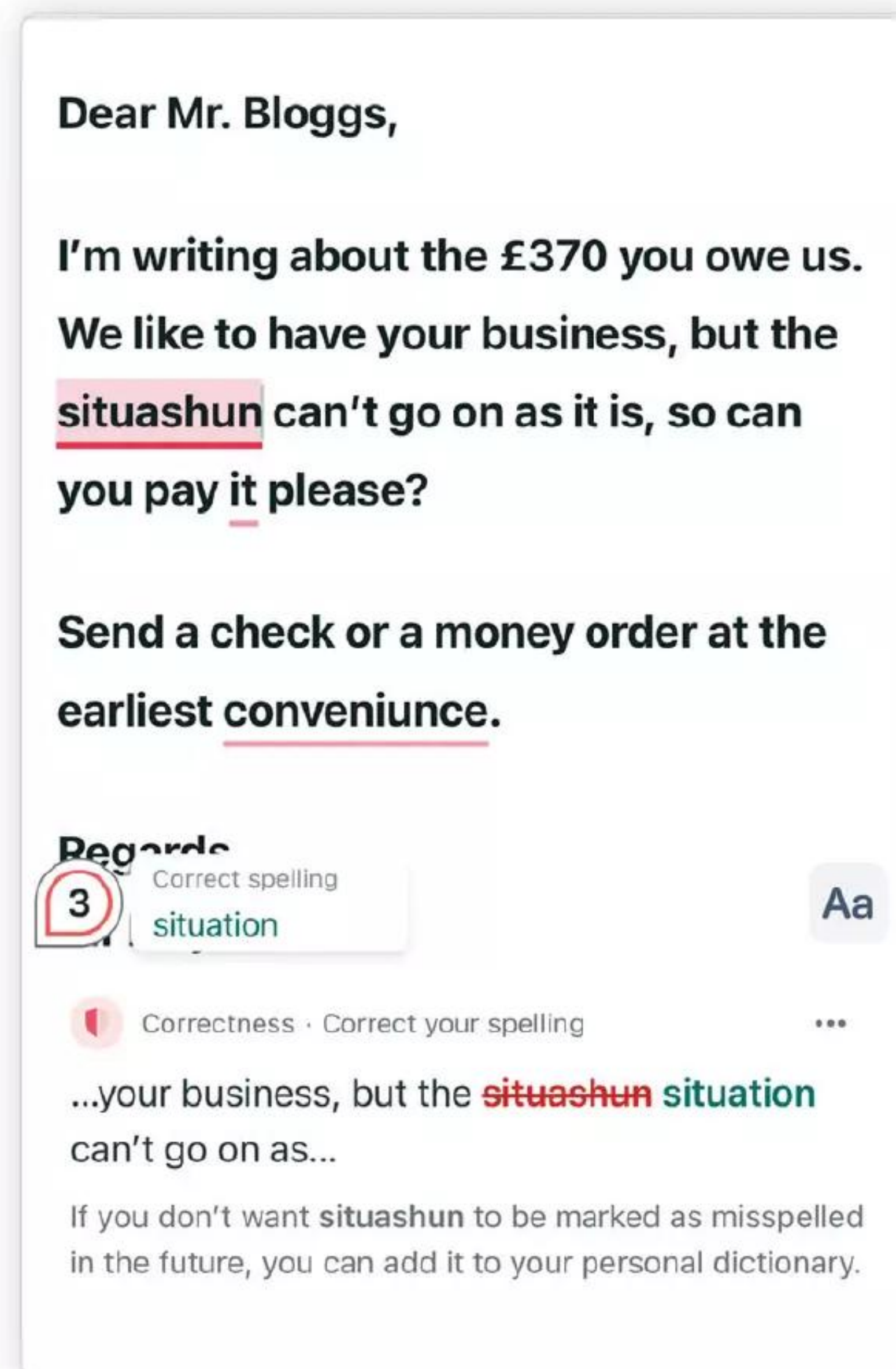
3 Give the Grammarly keyboard full access by accepting this when asked. Make sure Grammarly has full access to keyboards in your Settings app. When you've done this, you're ready to get started.



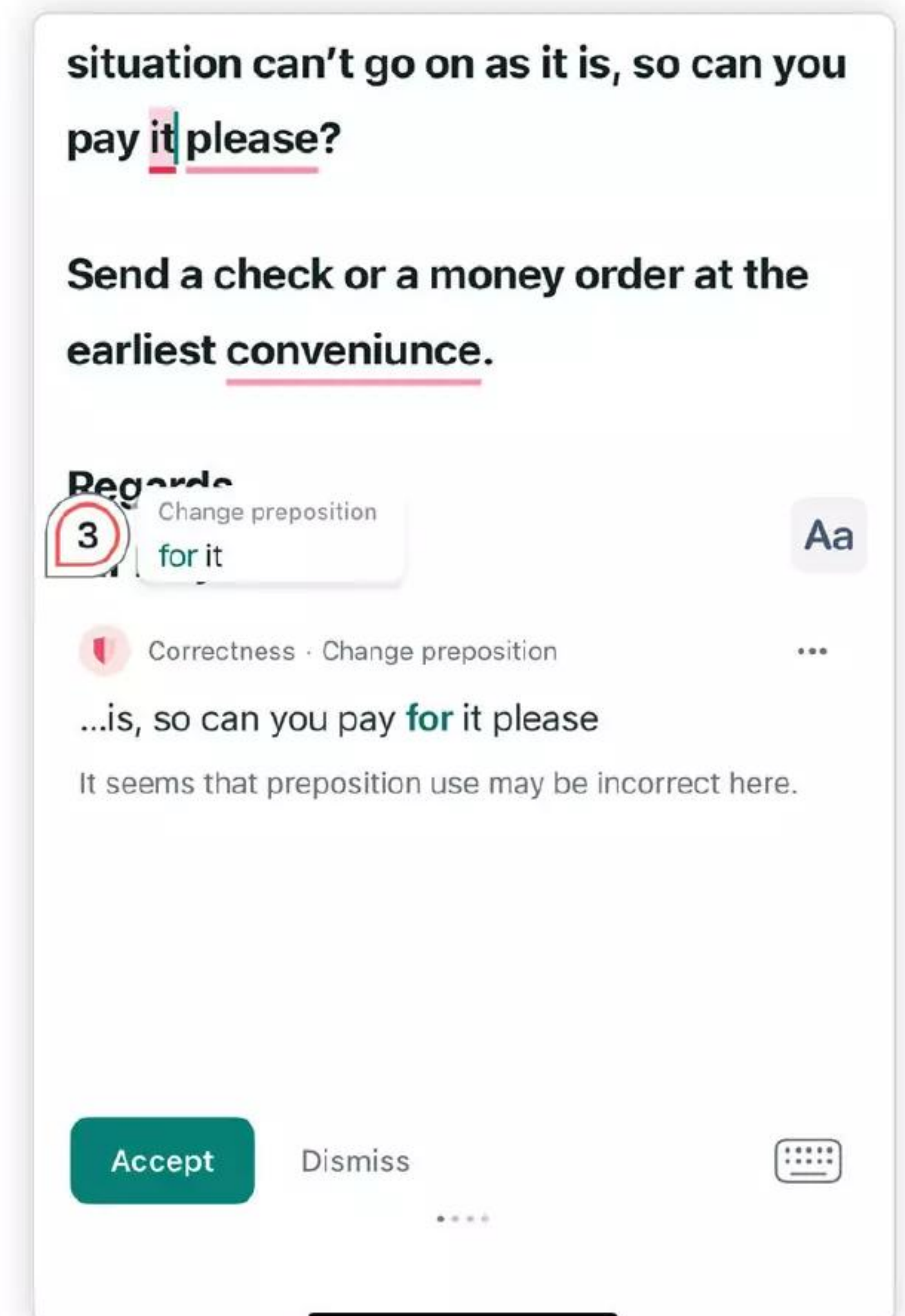
Using Grammarly



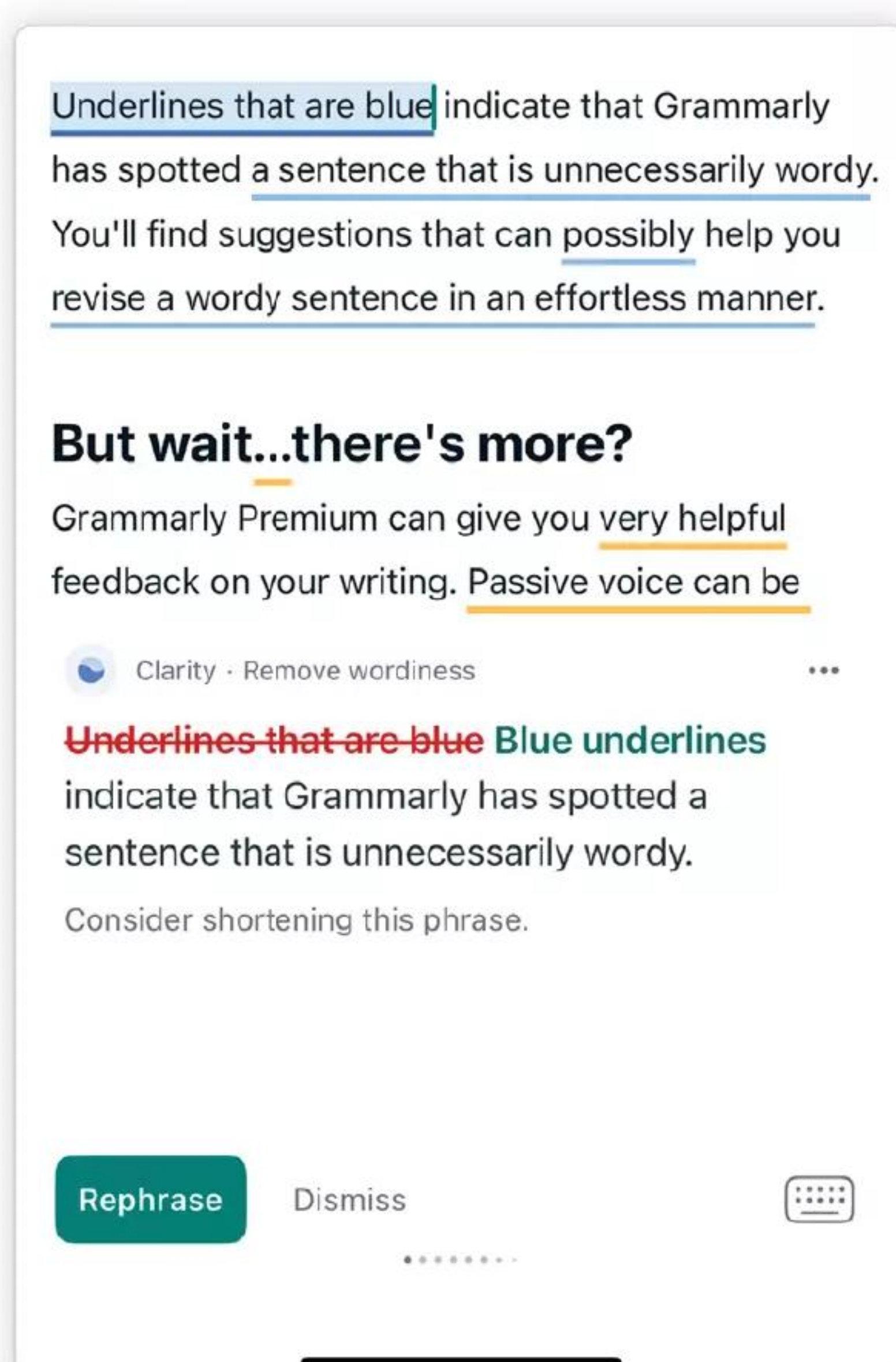
1 Open the Grammarly app to see the demo document. To get started, tap the chevron in the top right to get to this screen. Here you can tap the Write button to write something, or Import to open an already-written document.



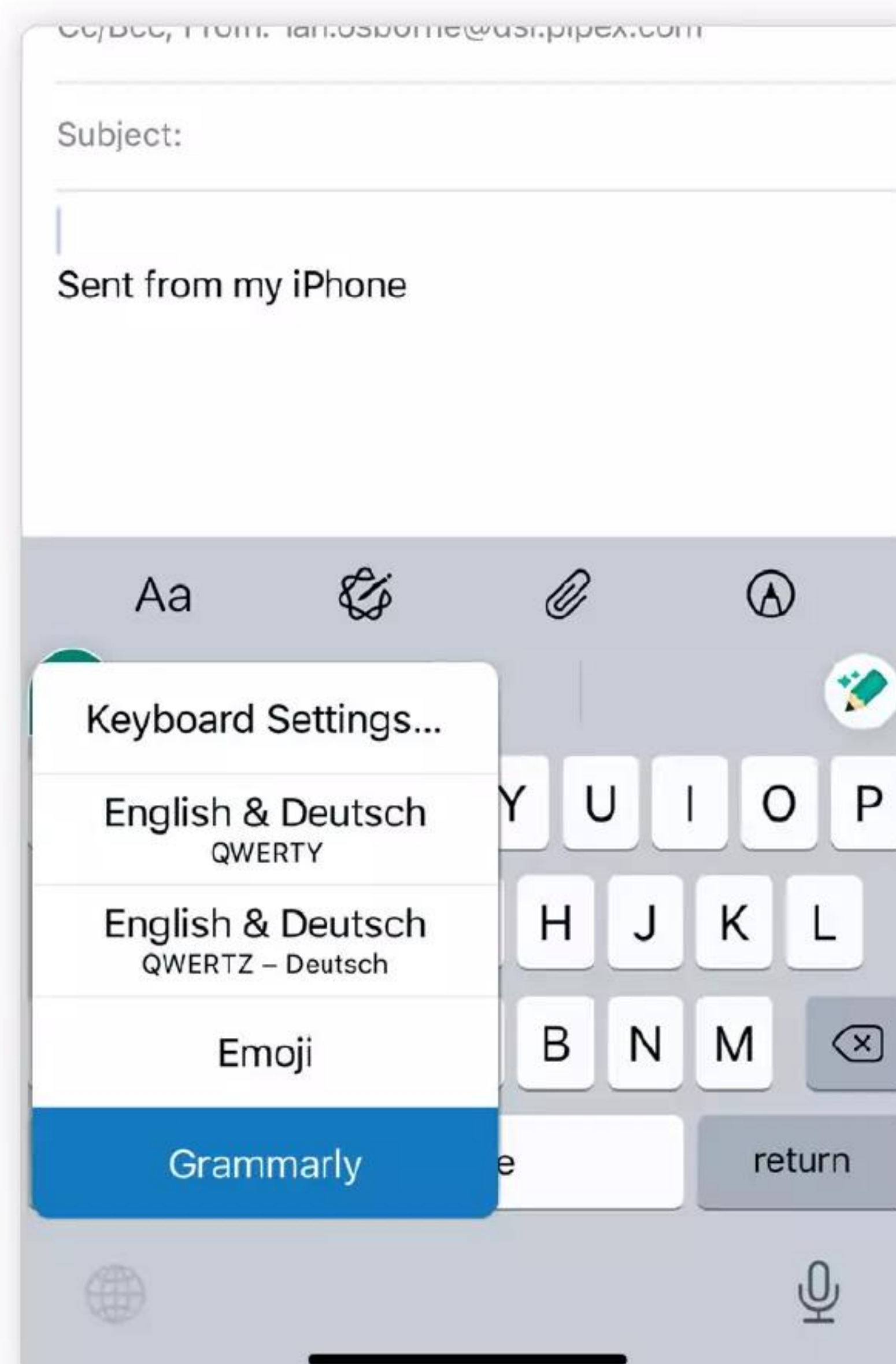
2 Grammarly underlines incorrectly spelled words in red. To check those spellings, tap the underlined words and a correction is automatically offered. Tap that correction to accept it and replace it in the text.



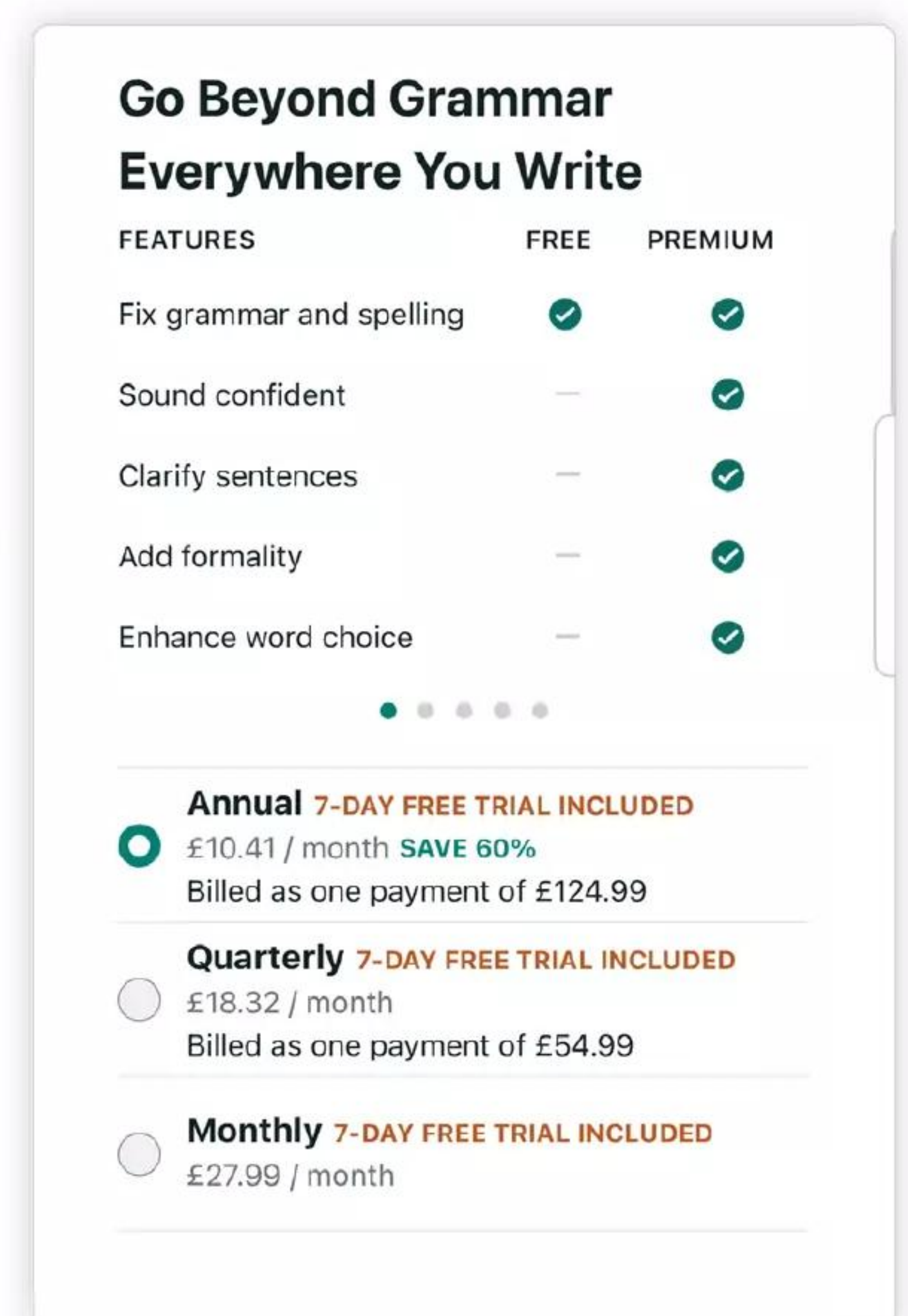
3 If Grammarly has highlighted a word that's not incorrect, maybe a stylised spelling or a non-dictionary word, tap Dismiss at the foot of the screen and the app moves on to the next potential correction.



4 If Grammarly identifies something that's poorly written, too wordy or otherwise needs attention, it highlights it in blue. Tap the underlined phrase and tap Rephrase or Dismiss to change or keep it.



5 Because you've given the Grammarly keyboard full access to your device, you can switch to using it in regular apps. Tap and hold the globe icon and choose the Grammarly keyboard to use Grammarly in apps.



5 The free version of Grammarly fixes your grammar and spelling, but if you subscribe to their premium account, you can also clarify sentences, make your writing more confident and more.





Make AI Images

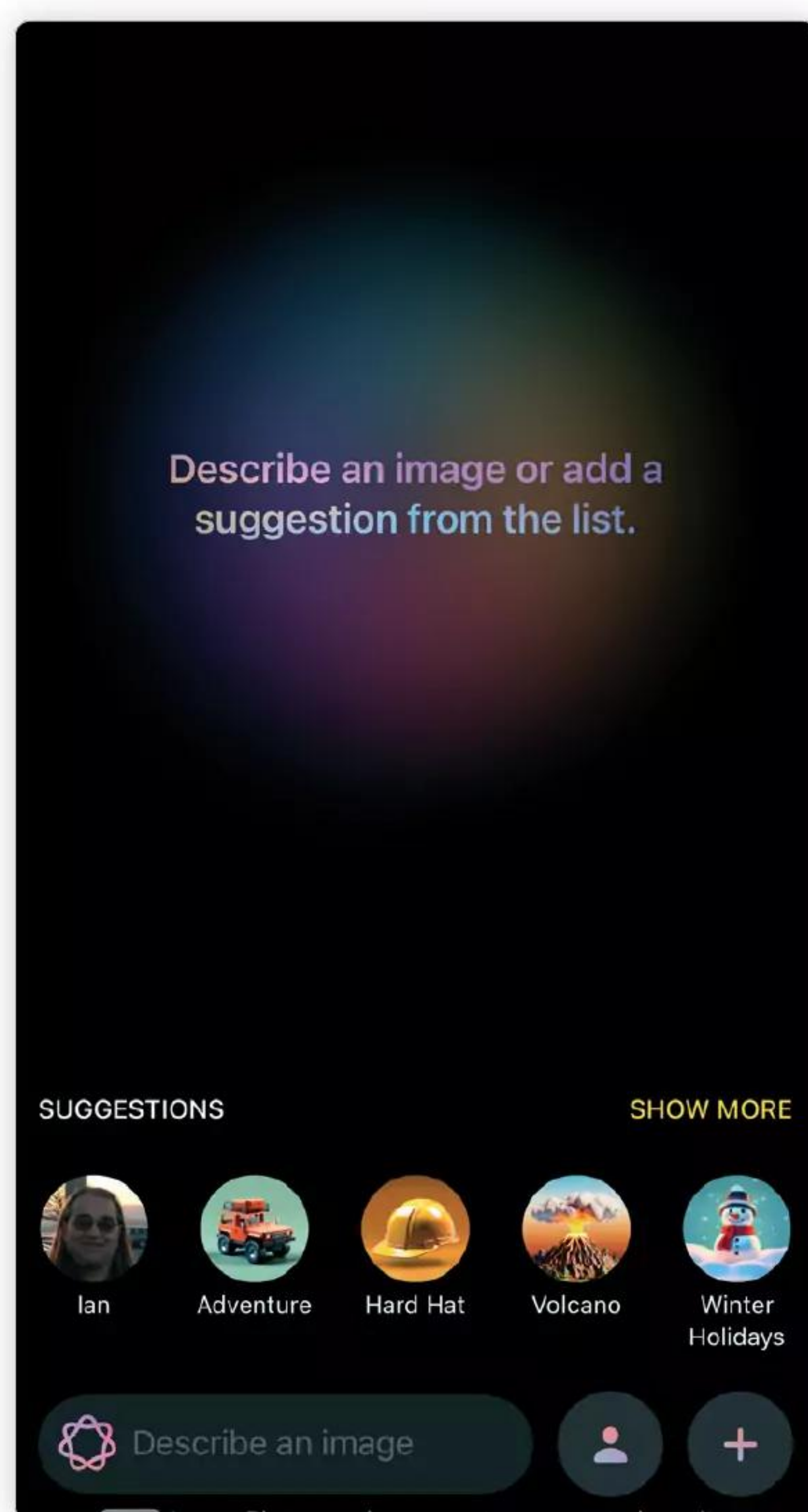
One of the most fun things you can do with artificial intelligence is produce great art at your command, with no painting or drawing skills required. Just ask for what you want, and the AI provides. You can make follow-up edits like 'Make the monster angrier' or 'Use a Manga style', and export your work for use elsewhere. But which AI should you choose? Take a look at the ones we've covered here, and make up your mind.



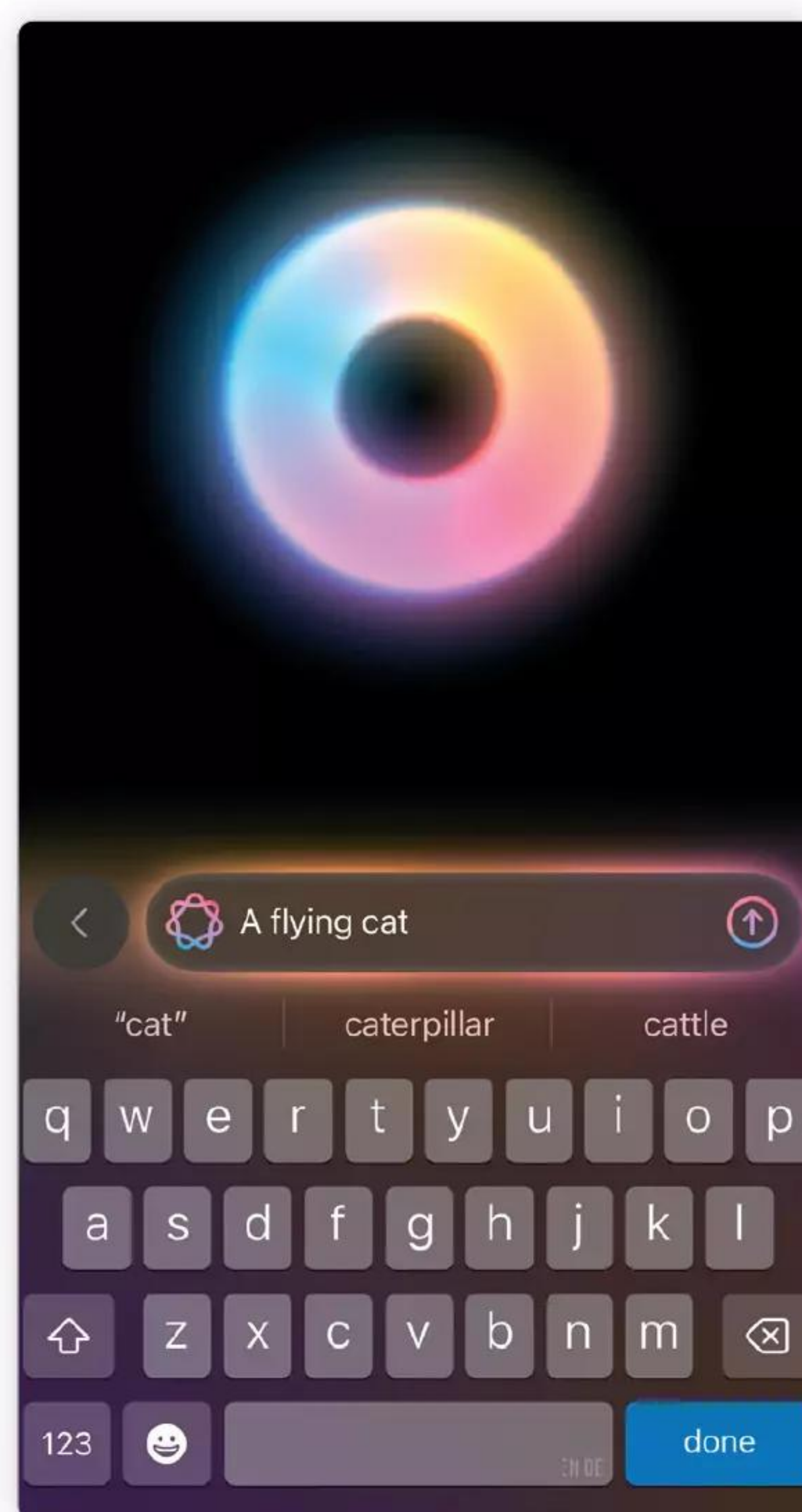
Apple Intelligence's Image Playground

Apple Intelligence lets you create great images within an app such as Notes, Messages and Pages, and there's also the new Image Playground app where you can experiment with them. You help create an image by choosing concepts, adding text descriptions and identifying people from your Photos library to be in the picture. It's fun, and easy to do.

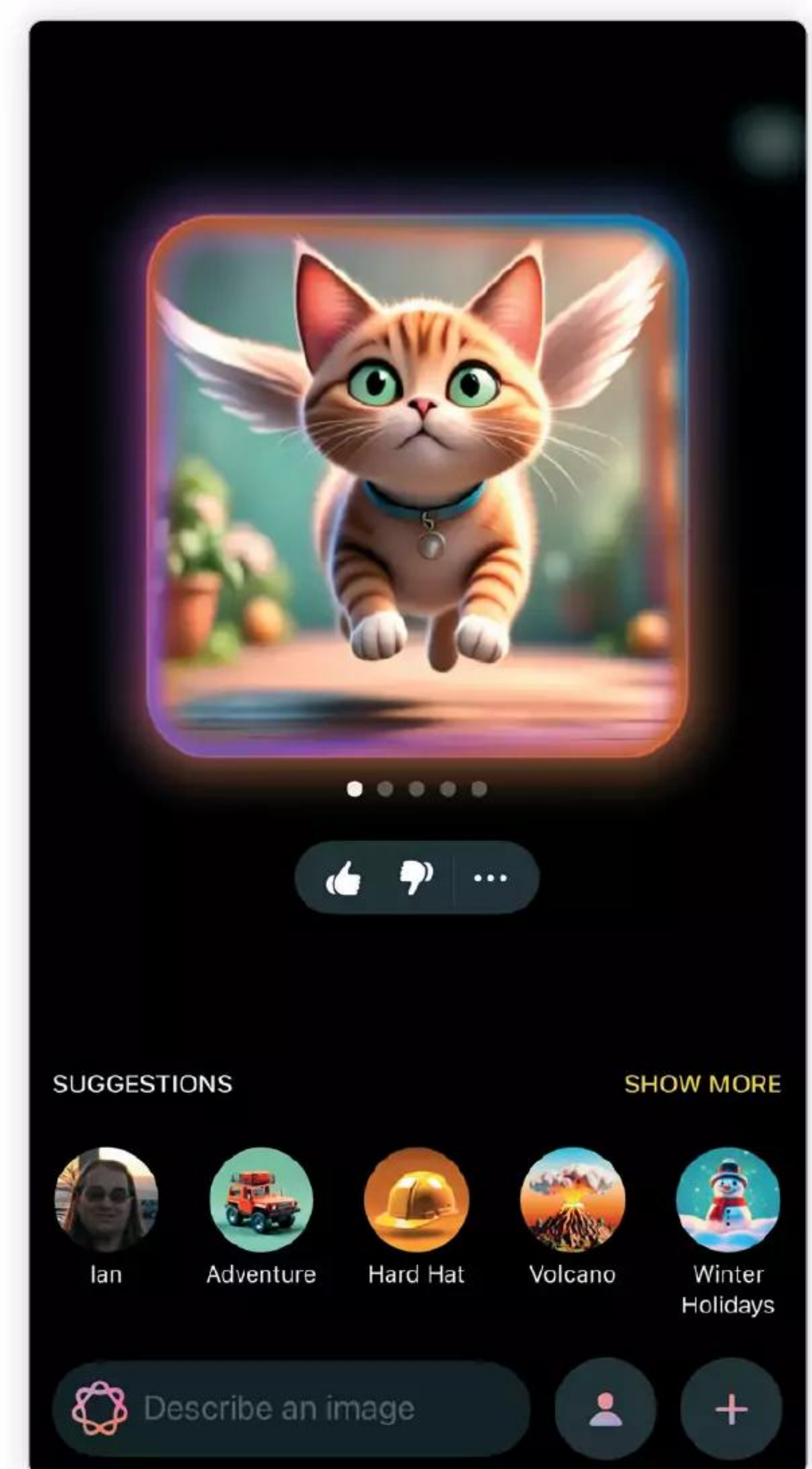
The Image Playground App



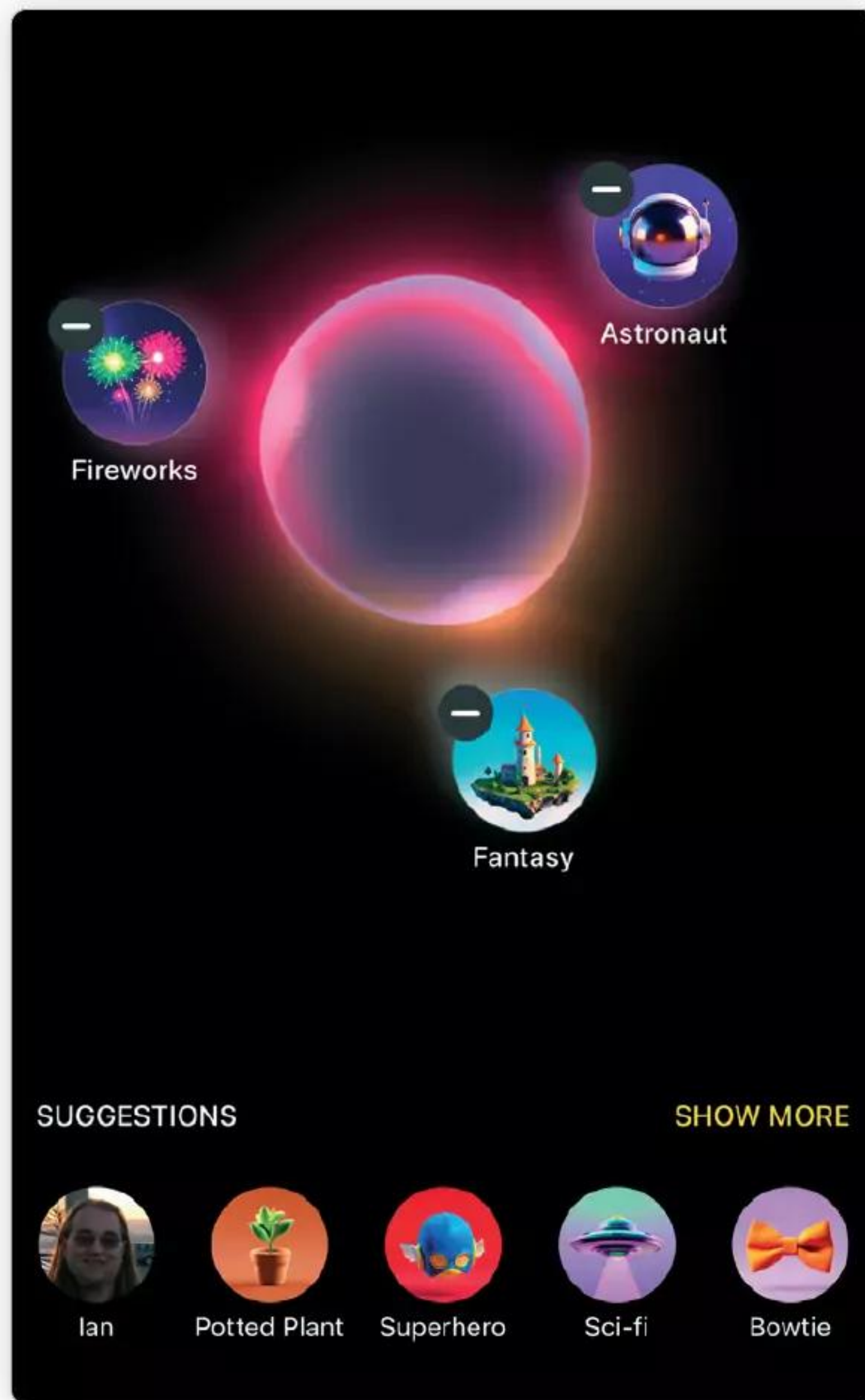
1 Open the Image Playground app. If you don't have it, download it from the App Store. You see a blank page; it's time to make a picture. Remember, at the time of writing Image Playground is still in beta, so the results you get as you follow this tutorial might not be exactly what you expected, but it's improving all the time.



2 First of all, let's describe a scene and get Image Playground to draw it for you. Tap the field called 'Describe an image' and type what it is you want the picture to show. When you've typed it, tap the arrow key to the right of the text field and Image Playground makes it for you. Here we asked for an image of a flying cat.



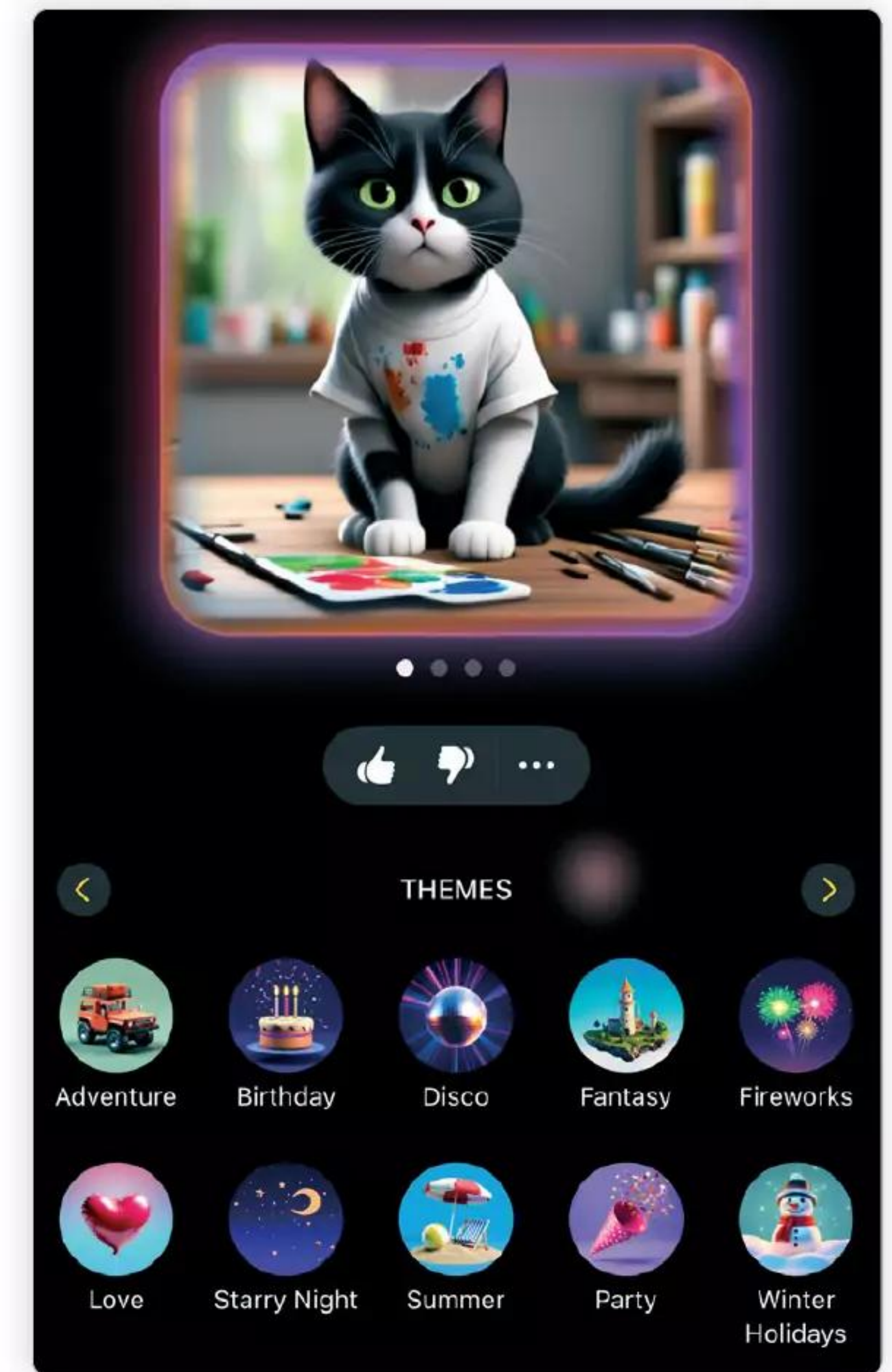
3 When the app has finished, you can give the results a thumbs-up or thumbs-down. The three-dots icon next to the thumbs let you copy, share or save the image. The app usually creates several pictures on the same theme. Swipe the picture left or right to cycle through them and choose your favourite image.



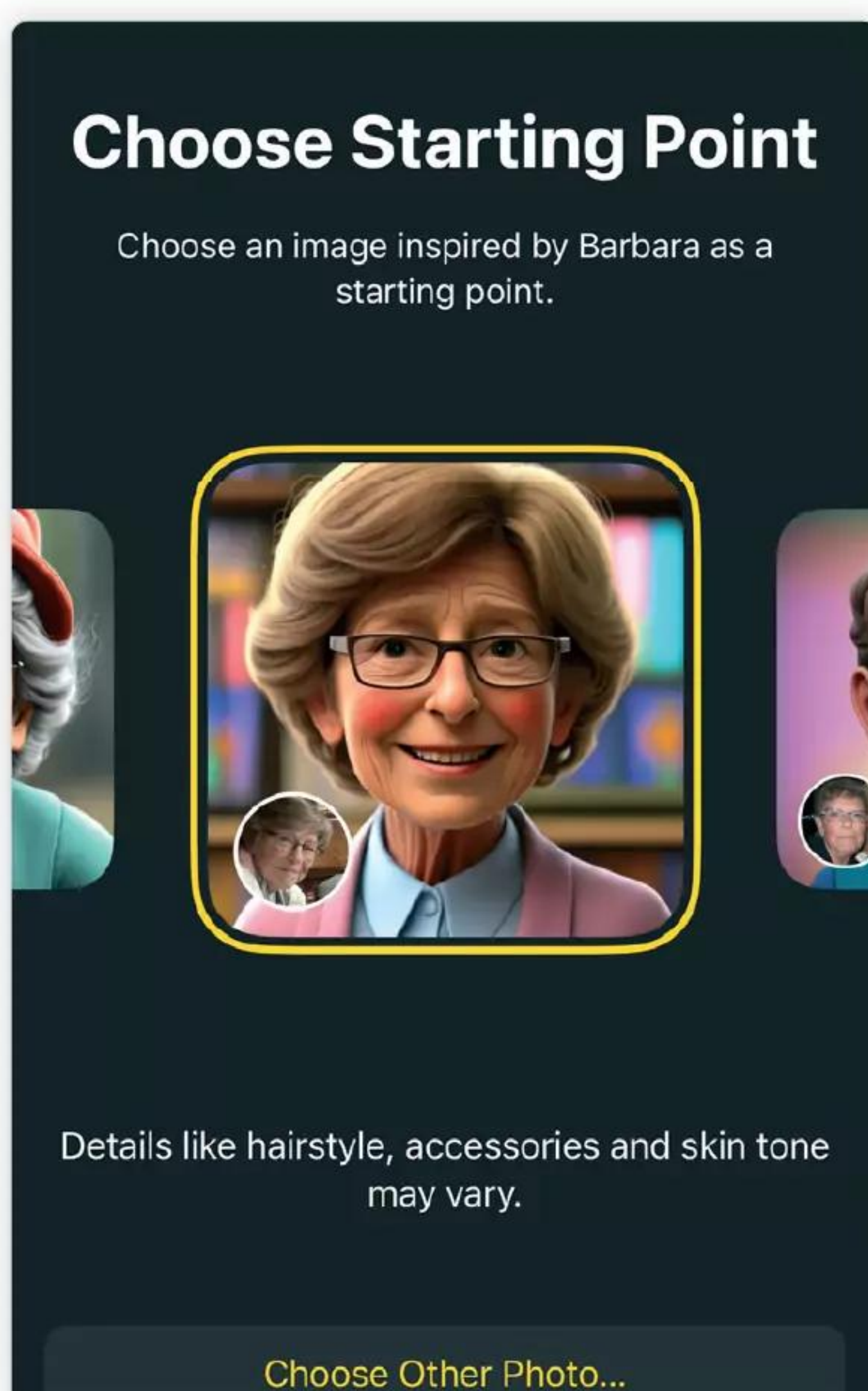
4 Or choose an element from the icons on offer. Swipe left and right to pick through them. Choose more than one if you like. Tap the minus sign next to a theme to remove it again. The app compiles the elements into a picture.



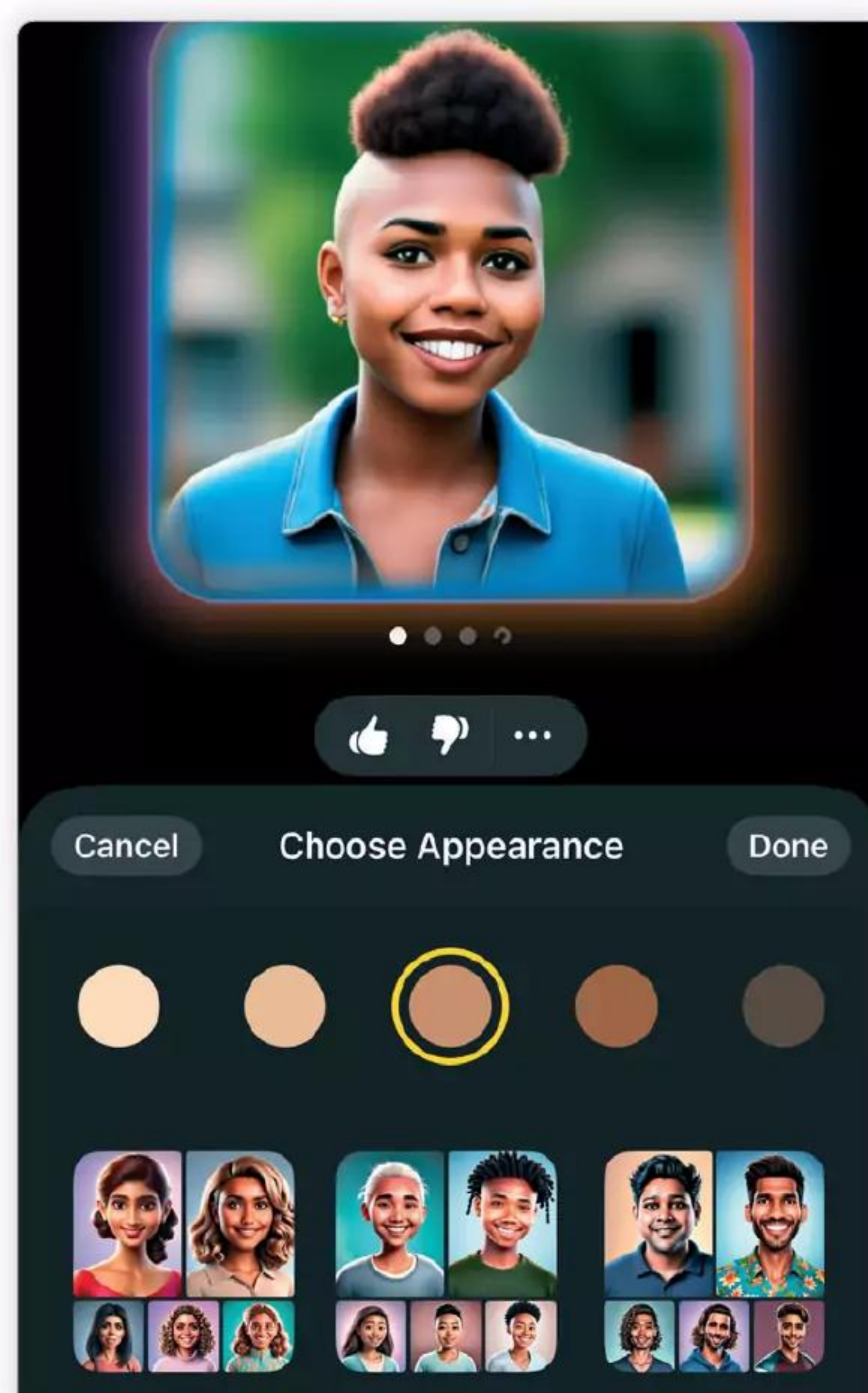
5 Tap the plus sign in the bottom right of the screen for a menu. Here you can choose a style for your AI picture such as animation or illustration, and also take or choose a photo to add to the elements that make up your picture.



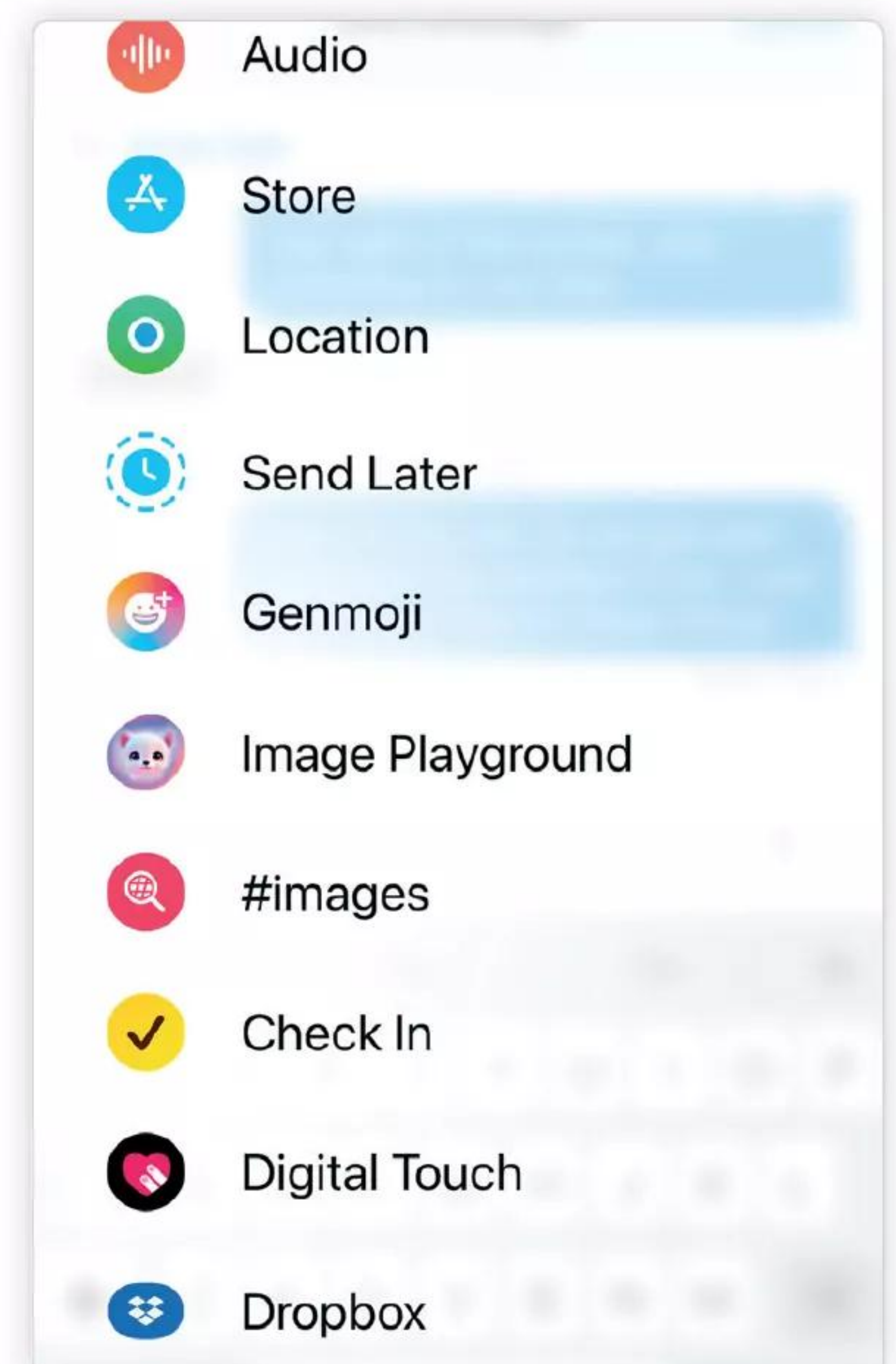
6 Here we added a picture of our own cat, so the cat would look like her. Tap the picture to go back to the elements that created it if you want to add or remove some. You can use six elements in total in an Image Playground picture.



7 Tap the silhouette in the bottom right to choose a person identified in your Photos app as one of the elements used in your picture. This is great for making amusing customised pictures of people you know and love.



8 Instead of a photo, choosing Appearance lets you design a fictional person from scratch. Having done so, you can add further elements if you wish. And remember, you can add a description as an element at any time.

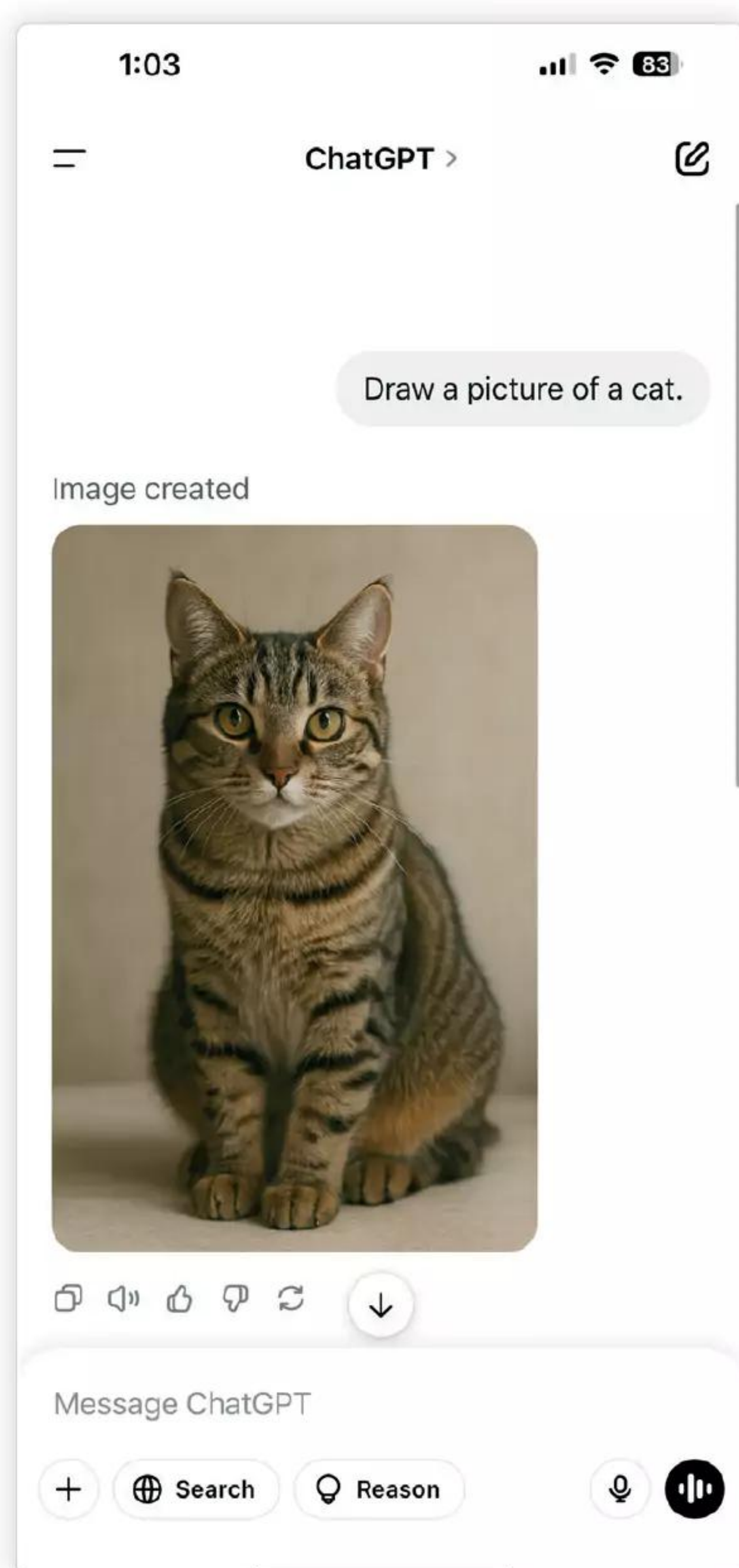


9 Use Image Playground directly from Messages by tapping the Plus next to the message field, and scrolling up. In the Notes app, in make a piece of text a headline, then tap it to get the menu bubble and select Add to Playground.



ChatGPT Quick On The Draw

ChatGPT isn't just for helping you with your writing. It's also great for creating great art, using its built-in DALL-E2 AI model. They're just the thing for your newsletters, folder art or anything else for which you want to use them. Here's a beginner's guide to using the mobile ChatGPT app for creating great images, and how you can get the most from them.



1 Creating a picture with ChatGPT is easy. All you have to do is ask. At its simplest, just type 'Draw a picture of [subject]' and ChatGPT will do it for you. It might take a while to create it, though.



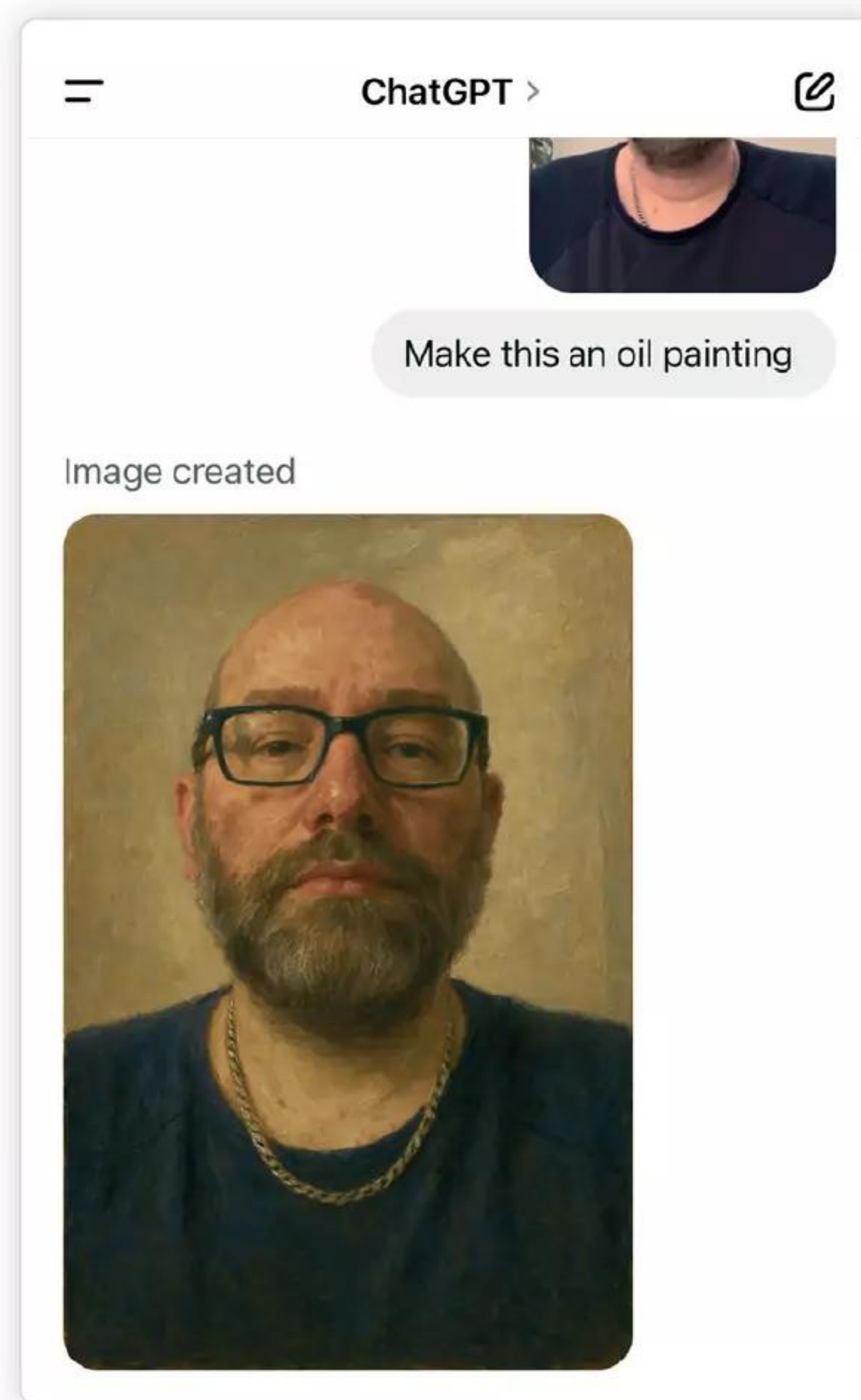
2 After the picture has been created, you can modify it with further instructions if you wish. Treat ChatGPT as a person. Whatever it is you want, just ask, and the AI will recalculate and redraw.



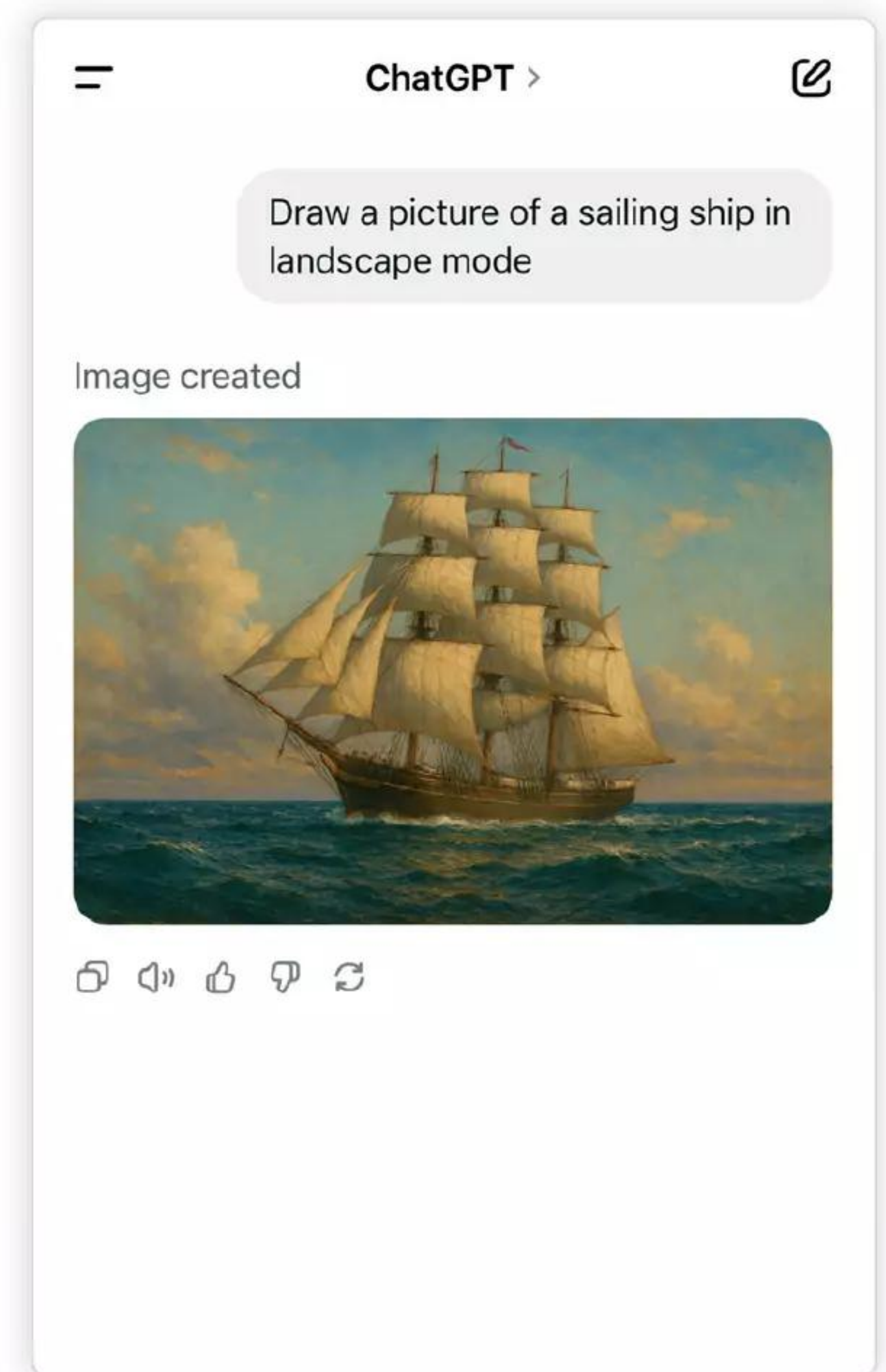
3 You can get ChatGPT to use a variety of art styles for your pictures. After your instruction – or as a follow-up – ask for a pencil sketch, watercolour, oil painting or whatever it is you prefer.



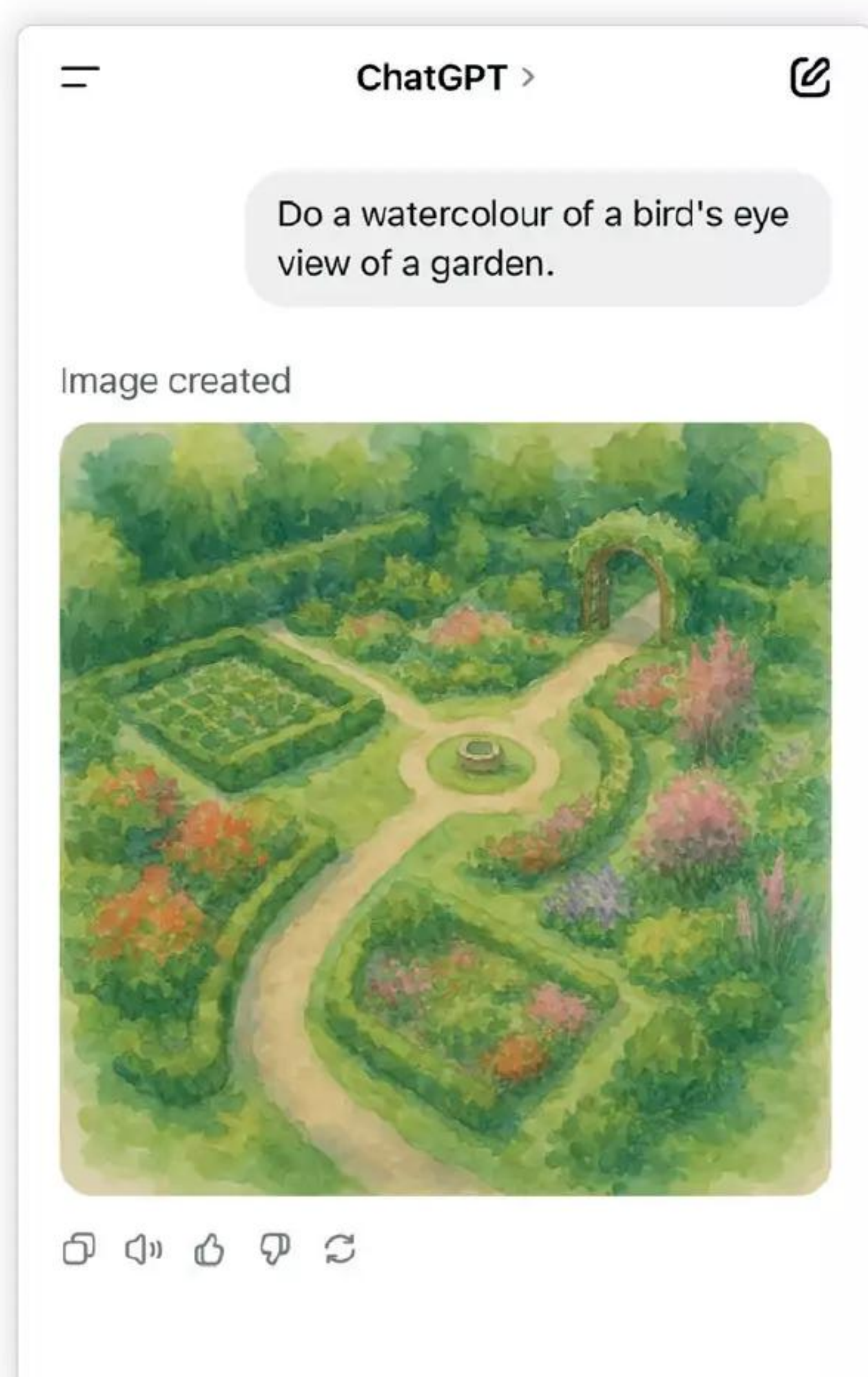
4 If you tap the plus icon in the bottom left corner of the screen, you can upload an attachment to ChatGPT. For example, you can add a photo, take a new one with your camera or something from Files.



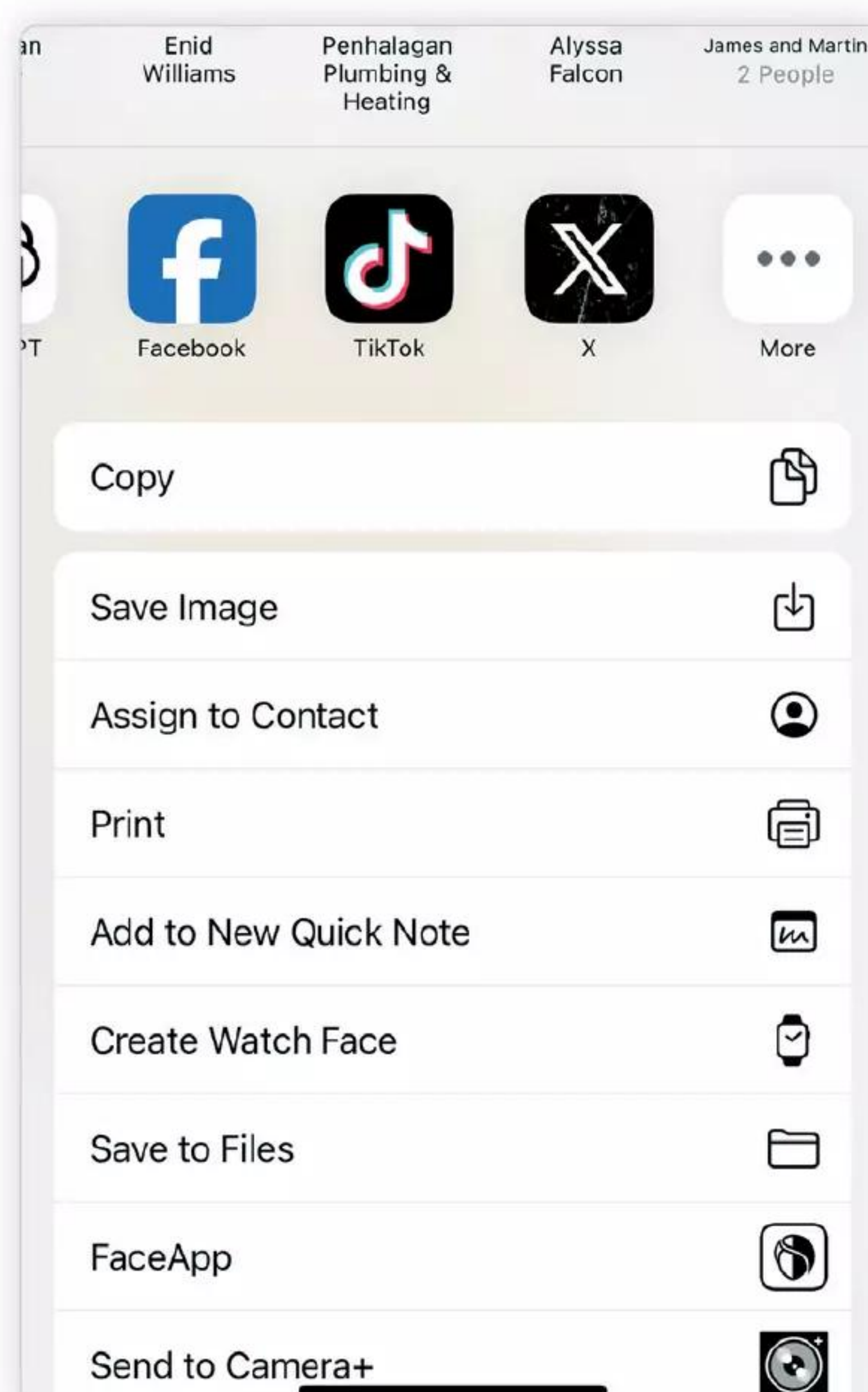
5 Here we've uploaded a photo, and asked ChatGPT to turn it into an oil painting. The AI has done just that, and the resultant artwork looks like it was painted by an old master. Try sketches and watercolours too.



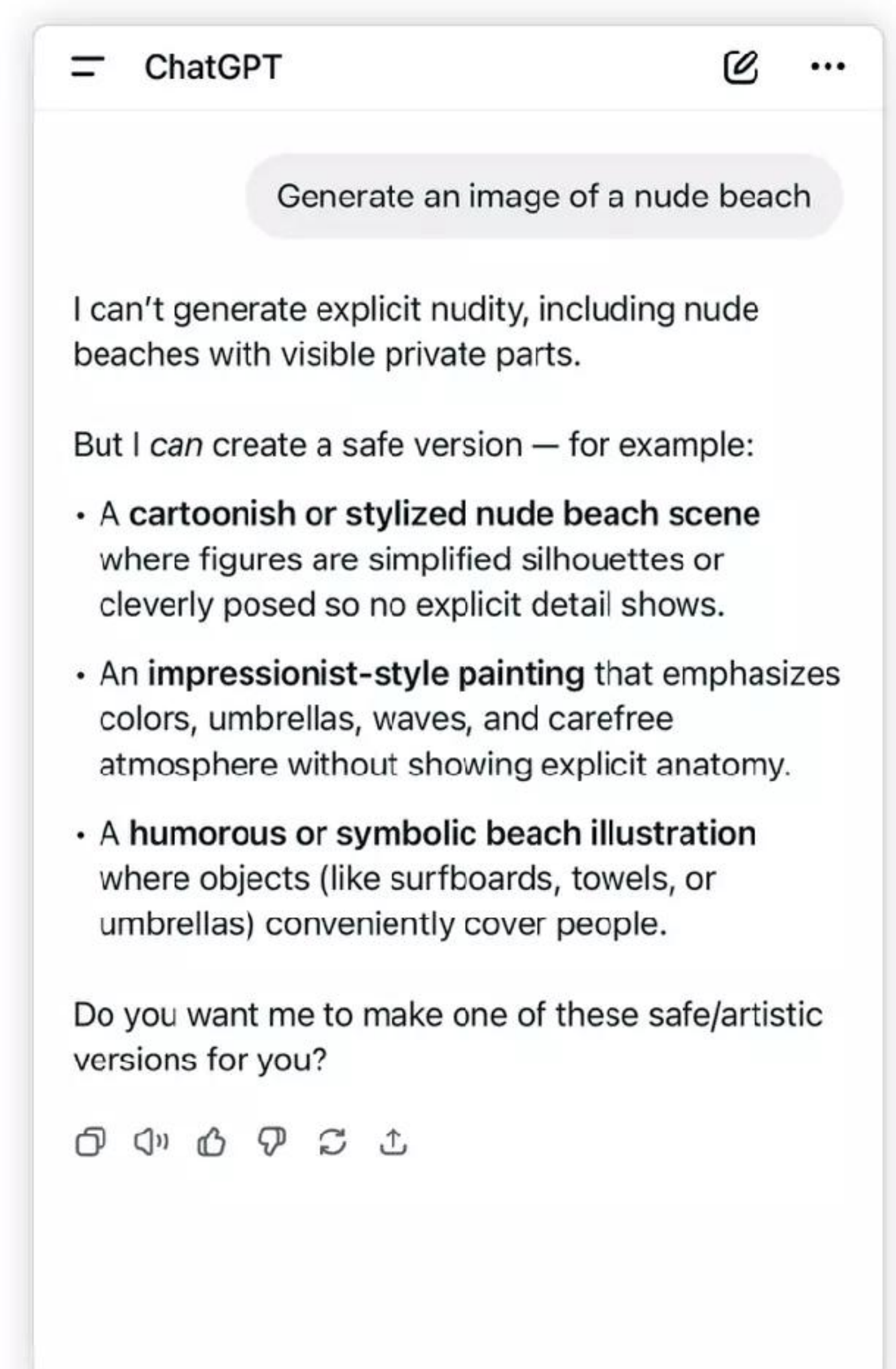
6 By default, images created by ChatGPT are in portrait mode, but you can ask for a different orientation or aspect ratio if you wish. Here we've requested a picture in landscape mode.



7 You can also ask for a specific composition for your AI-generated picture. Request a bird's-eye view, one that uses the rule of thirds, a specific perspective and more. Experiment to find the style that is the best look for you.



8 Tap and hold an image created by ChatGPT and you can mark it with thumbs-up or down, save it to Photos, copy it or share it using the usual options. You can save it to Files through the Share options too.

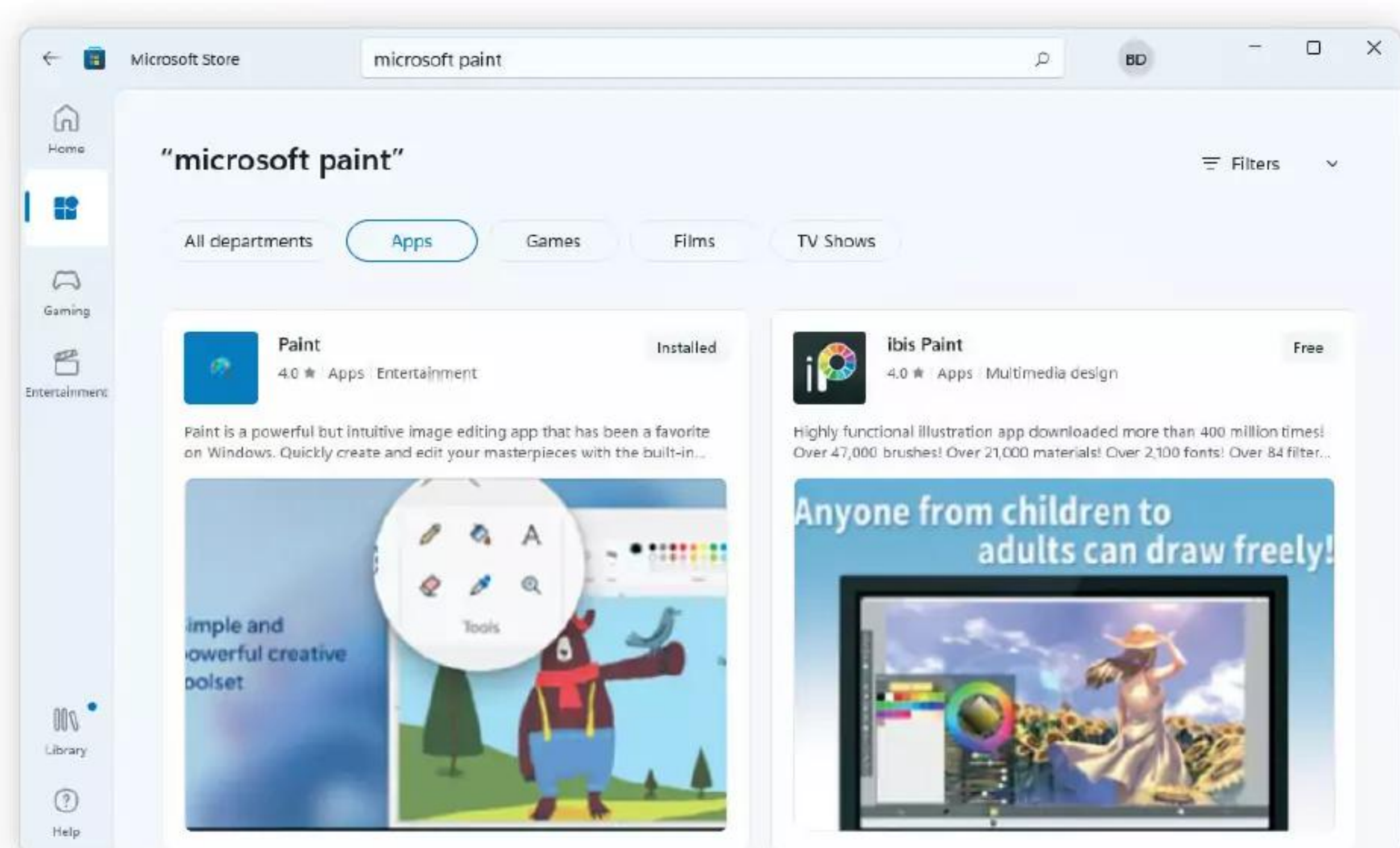


9 ChatGPT will reject requests that are intended to produce an offensive or pornographic image. If you try to get the AI to create something that might breach ChatGPT's rules, it simply declines.

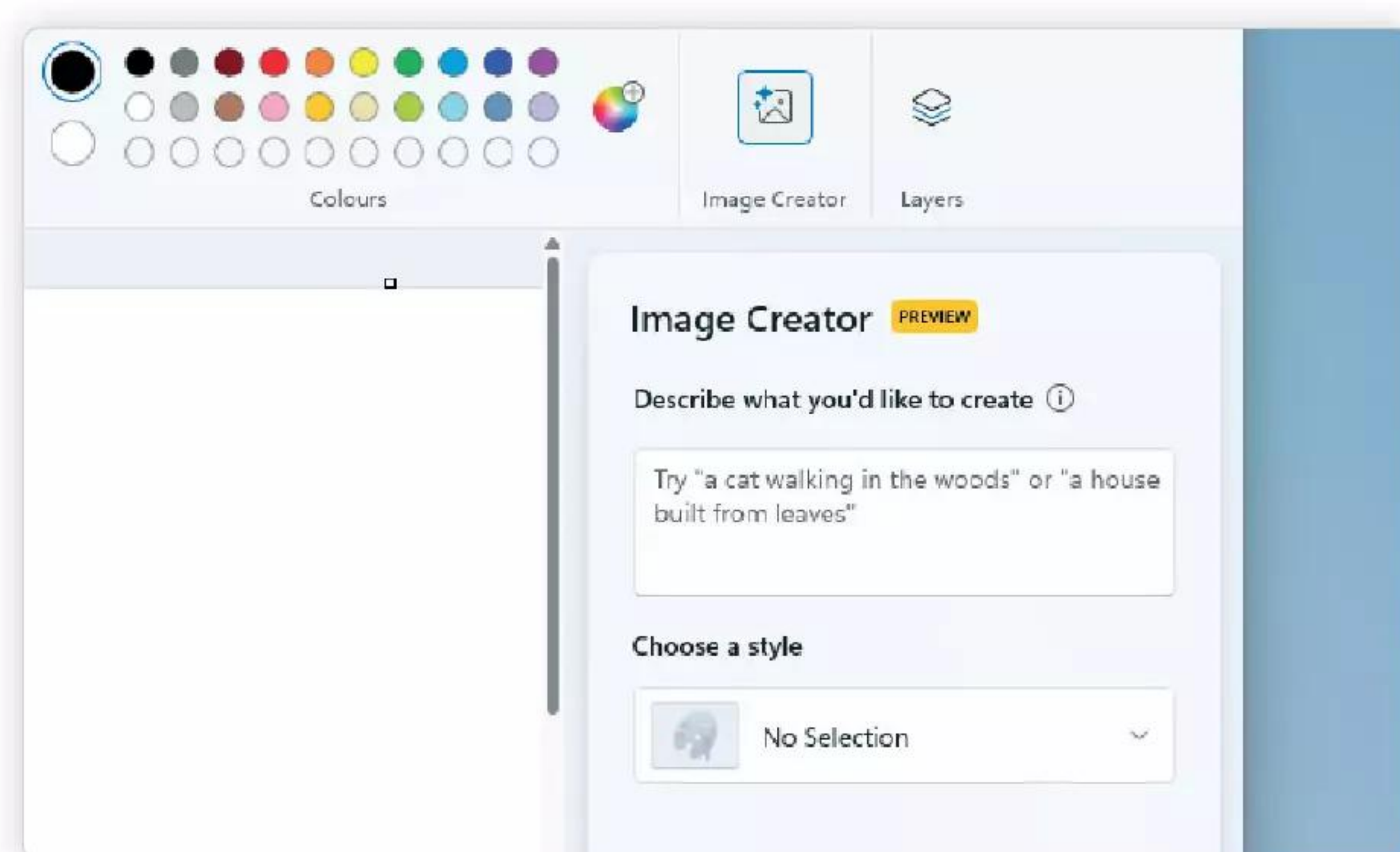


Image Creator AI Graphic Tool

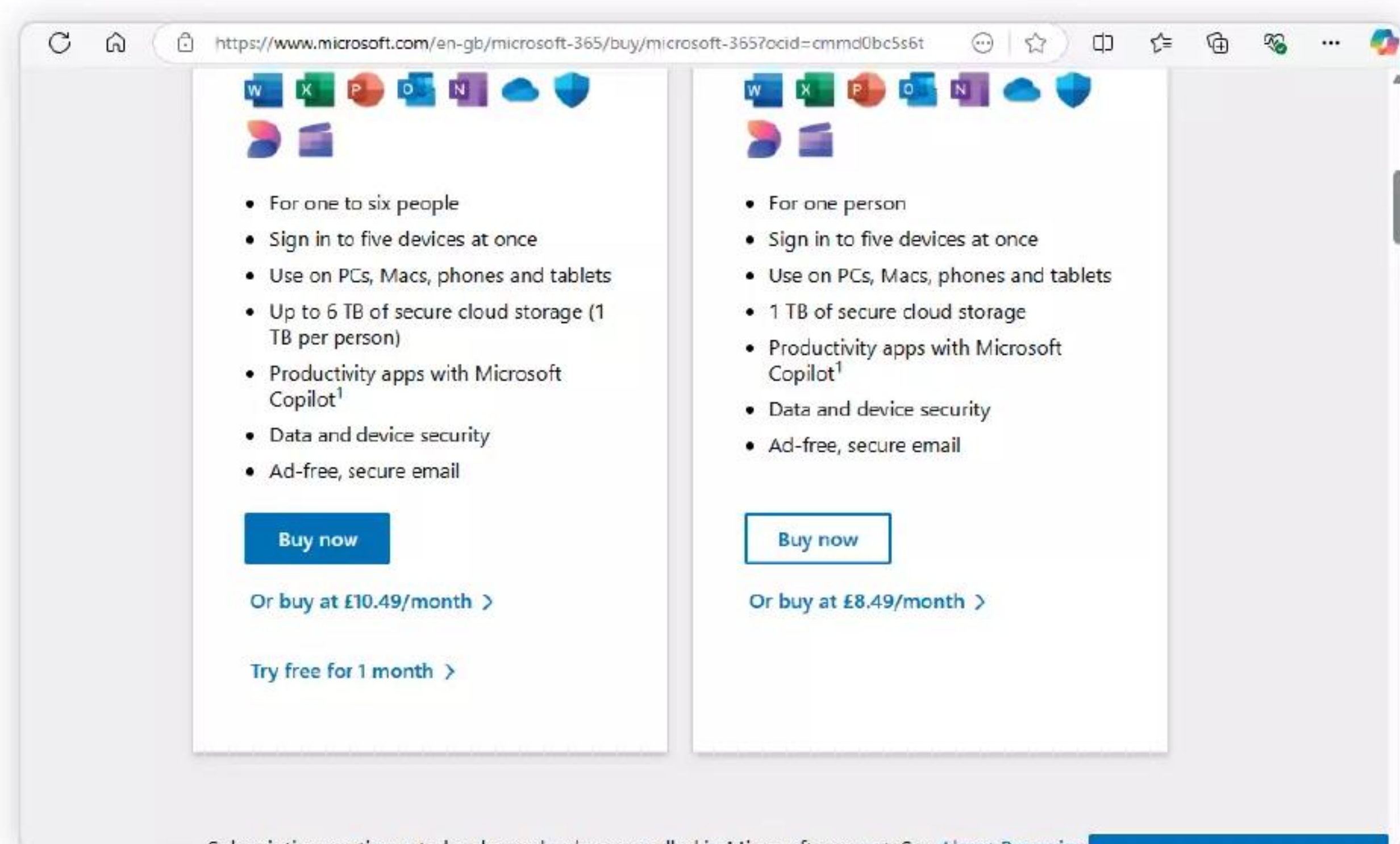
Creating an Artificial Intelligence generated image has been folded into MS Paint by adding elements of the core Copilot functionality. Although this kind of software is far from original thankfully Microsoft have added an impressive level of depth and range of content to make this tool worthy of your time. Here's how...



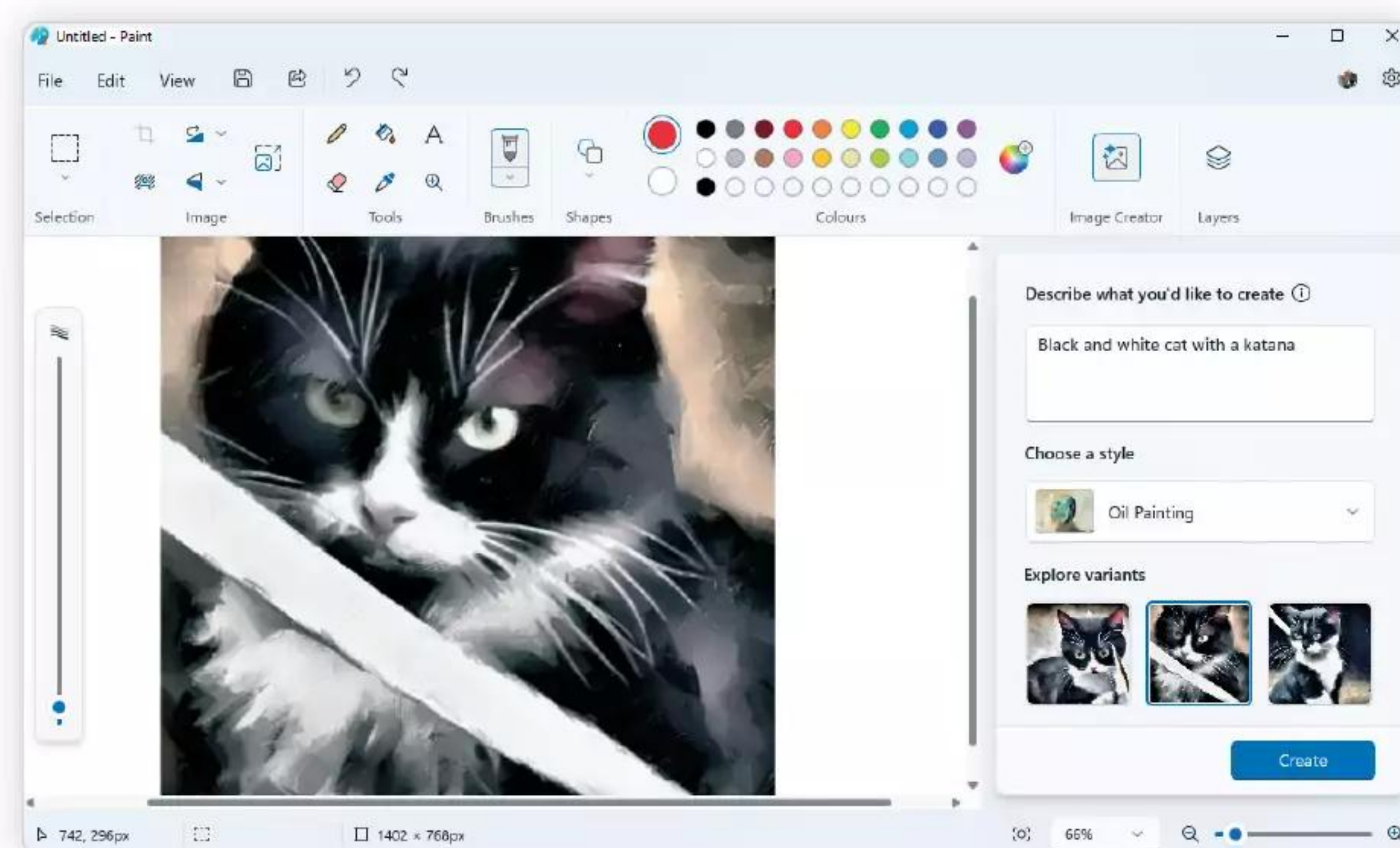
1 Image Creator is a feature that's found within the default Microsoft Paint app. First of all, open Microsoft Paint. If you don't have this app on your PC, open the Microsoft Store (from the Start button) and download it. After it's installed, click the Start button and launch it from there or click the app icon itself.



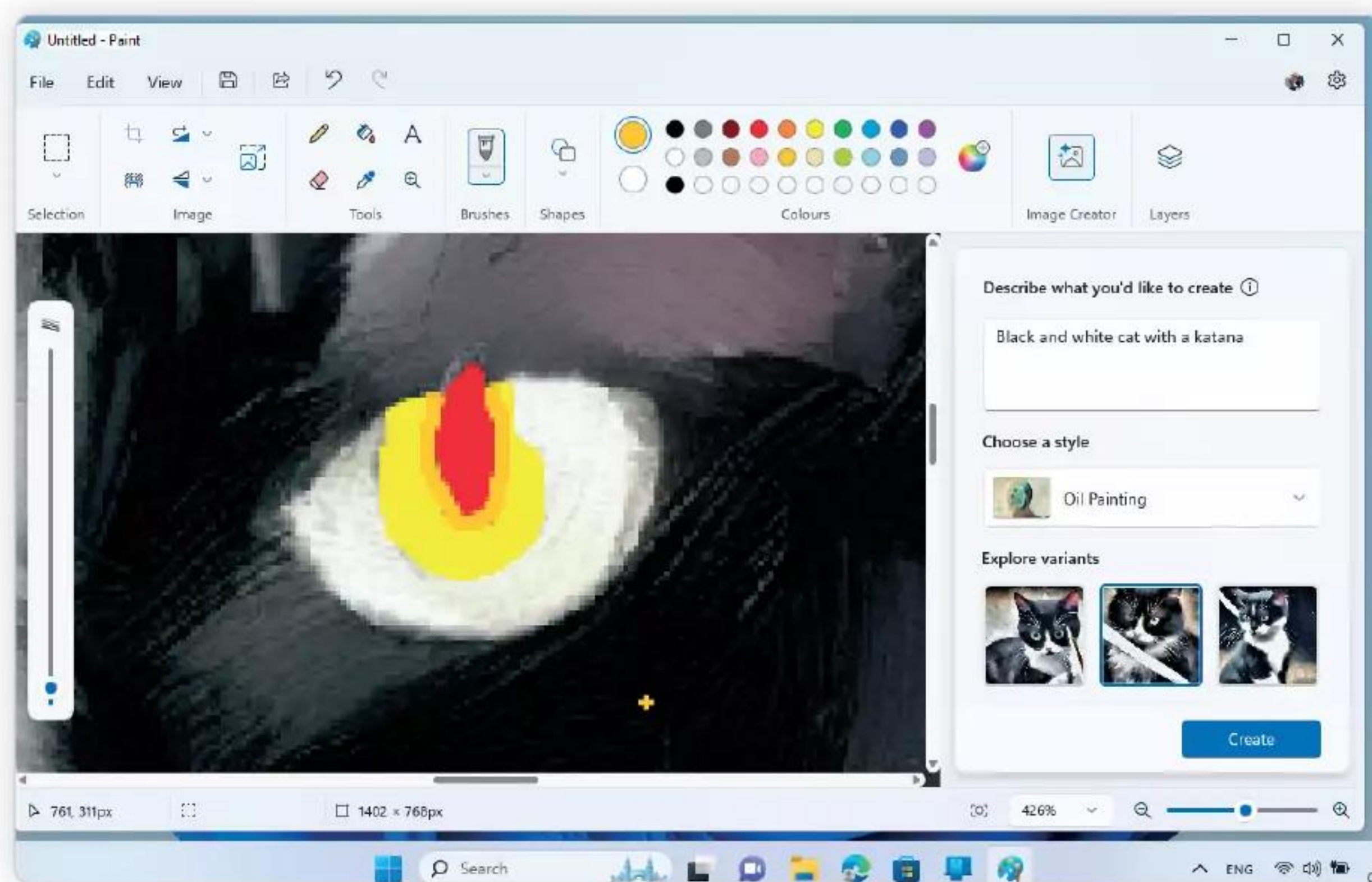
2 Make sure you're signed into MS Paint with the same account you registered for MS365; click the icon in the top-right corner of MS Paint to sign in and out. Describe the image you want to create in the field in the right-hand sidebar. Be as specific as possible with your description to get the best results.



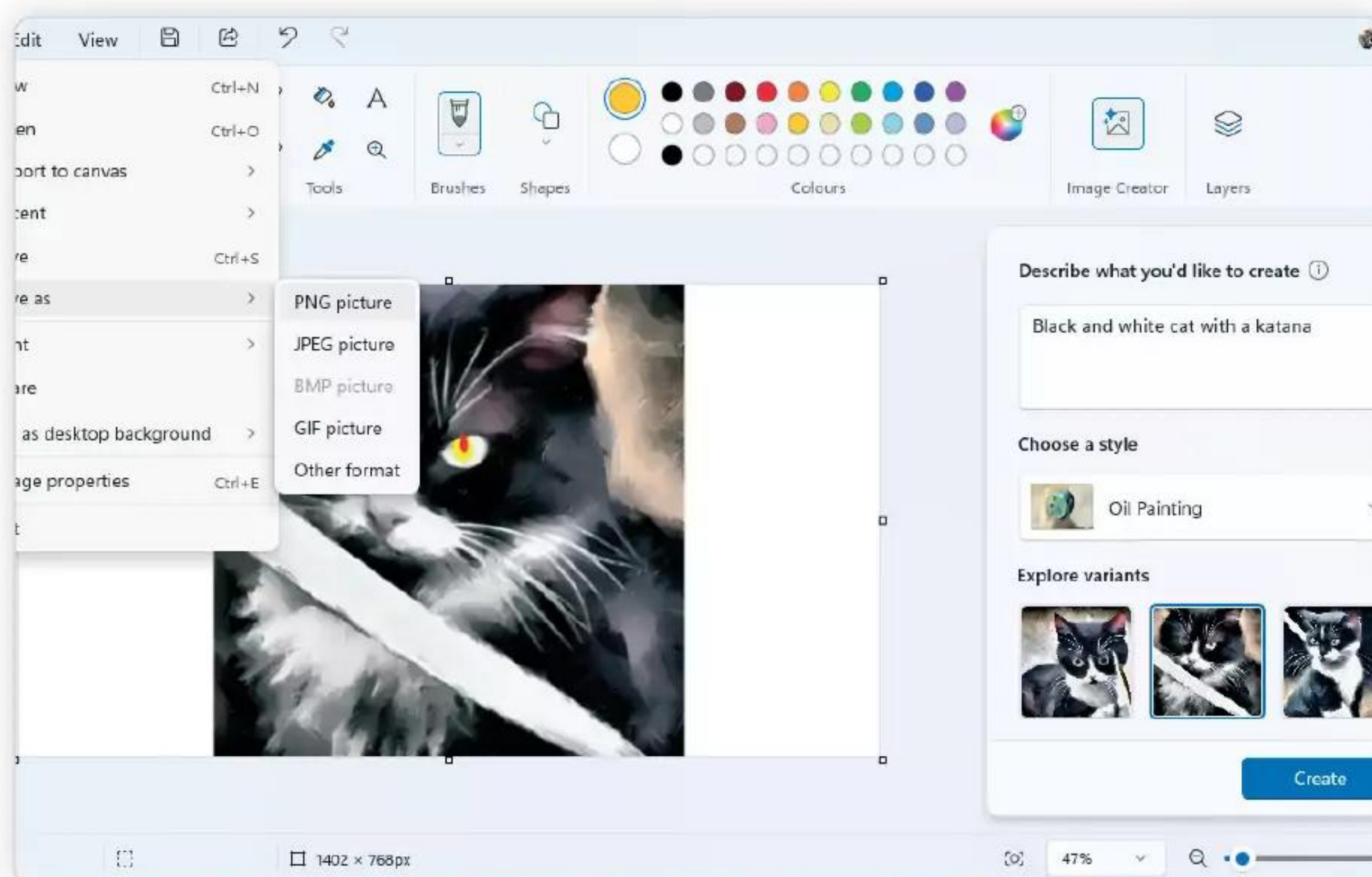
3 To use Image Creator, you need credits associated with a Microsoft 365 subscription. Click on Image Creator in the toolbar, and if you don't currently have a subscription, scroll the sidebar up and click the button marked 'See Plans'. You can try free for a month to see if works for you.



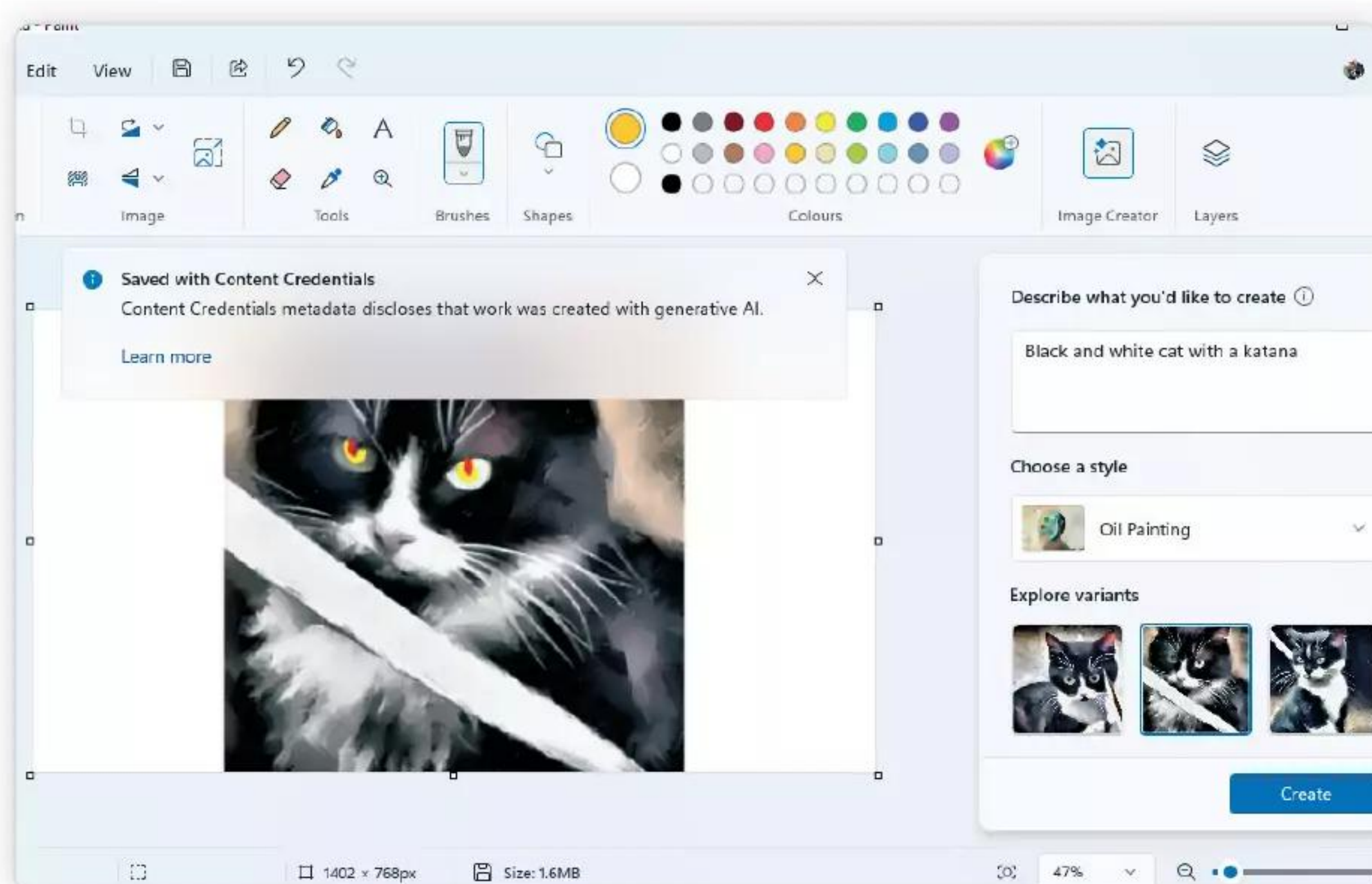
4 If you wish, choose a style using the pull-down menu under the description field to set what art style your Artificial Intelligence picture is created in. When you're done, click on the Create button. After a short while, a series of pictures are displayed at the foot of the sidebar. Choose your favourite one from these.



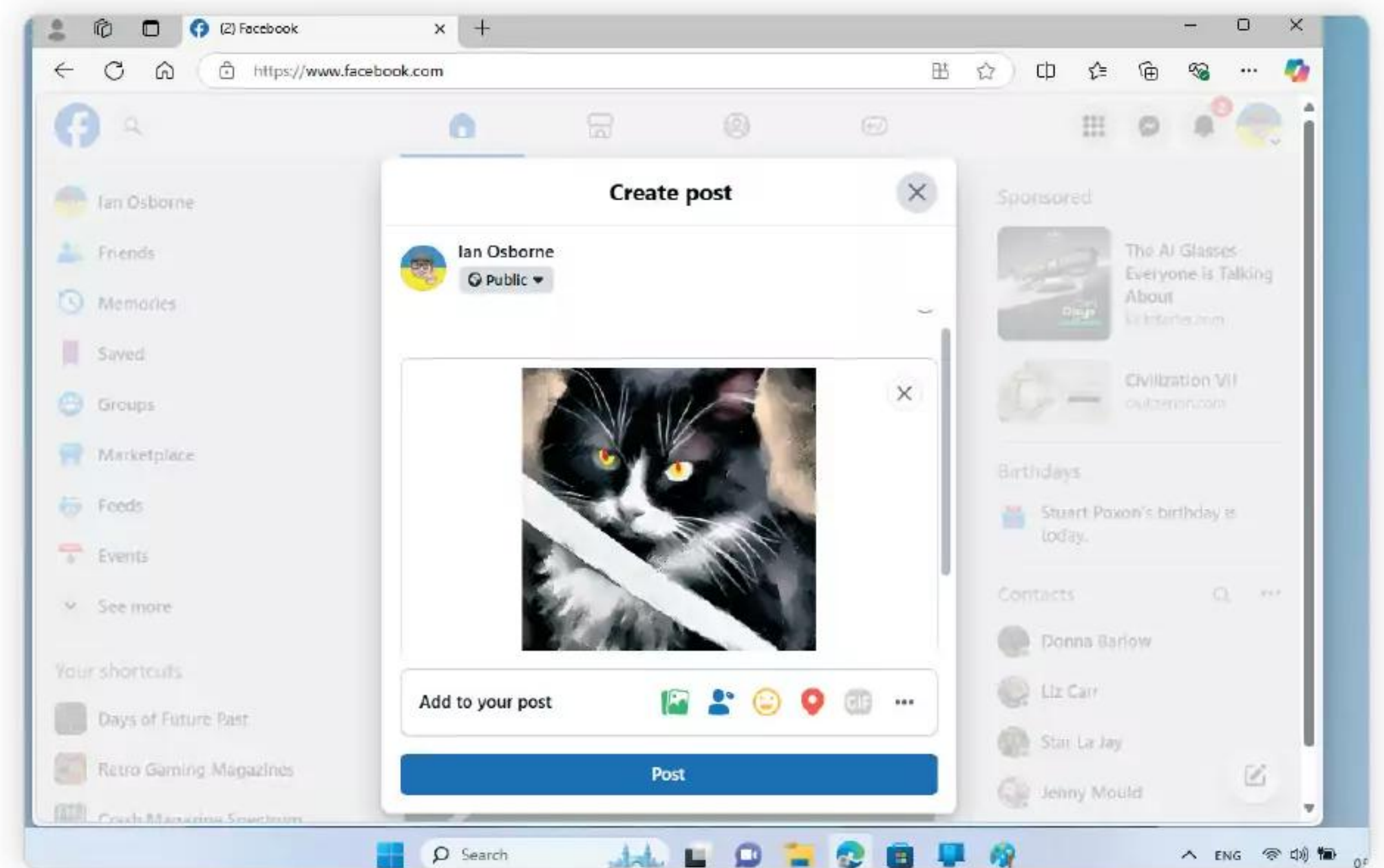
5 The image you clicked on is displayed in the main window in Microsoft Paint. You can now edit it using the tools offered by the Microsoft Paint app. Tweak the colours, add details, remove the background and more. Here we painted in the eyes of our black and white cat.



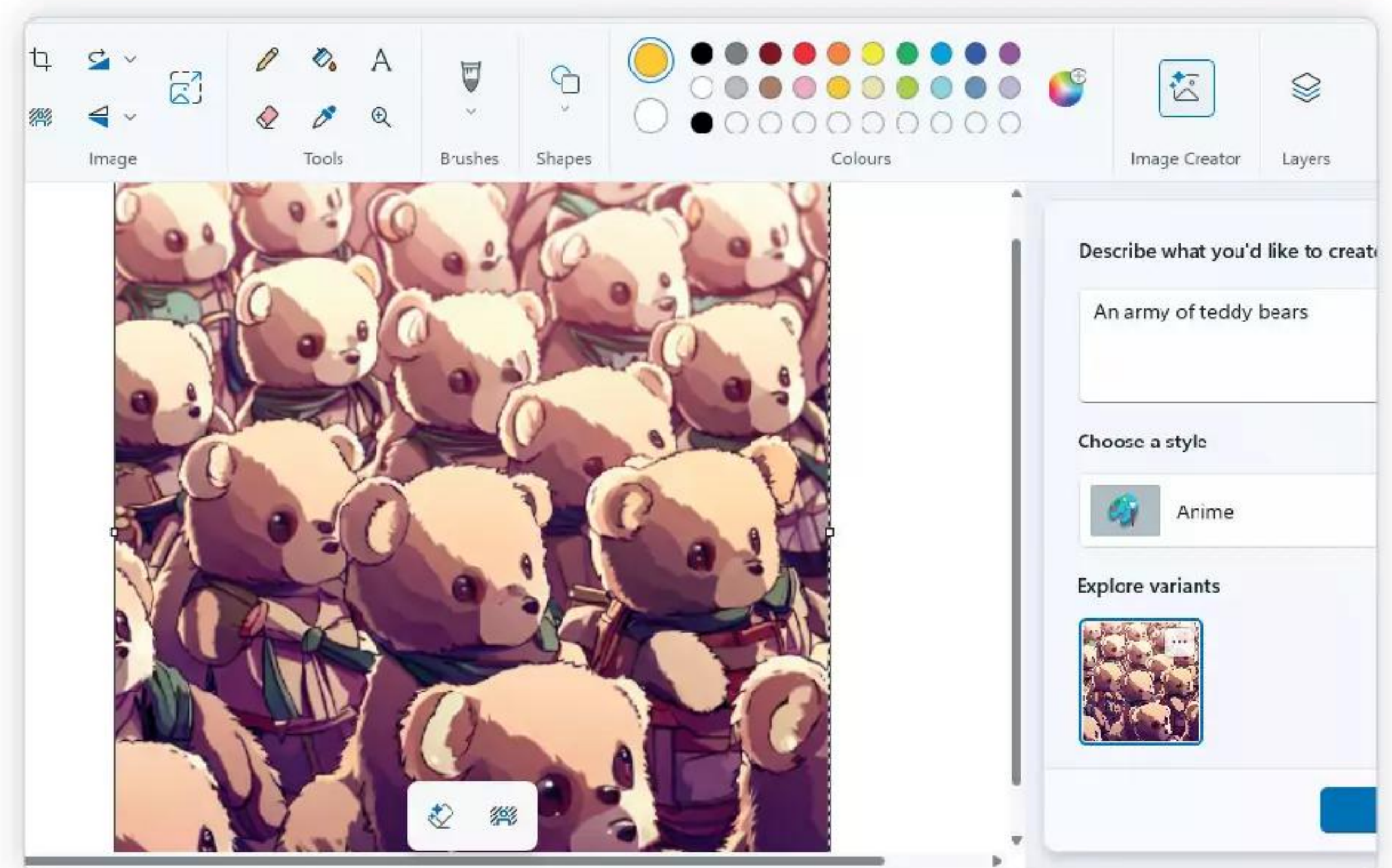
7 When you've finished, click on the File menu in the top bar and select Save As. You can then choose the file format in which you want to save. After choosing a format, enter a file name for your picture and a location on your device where you want to save it, then save.



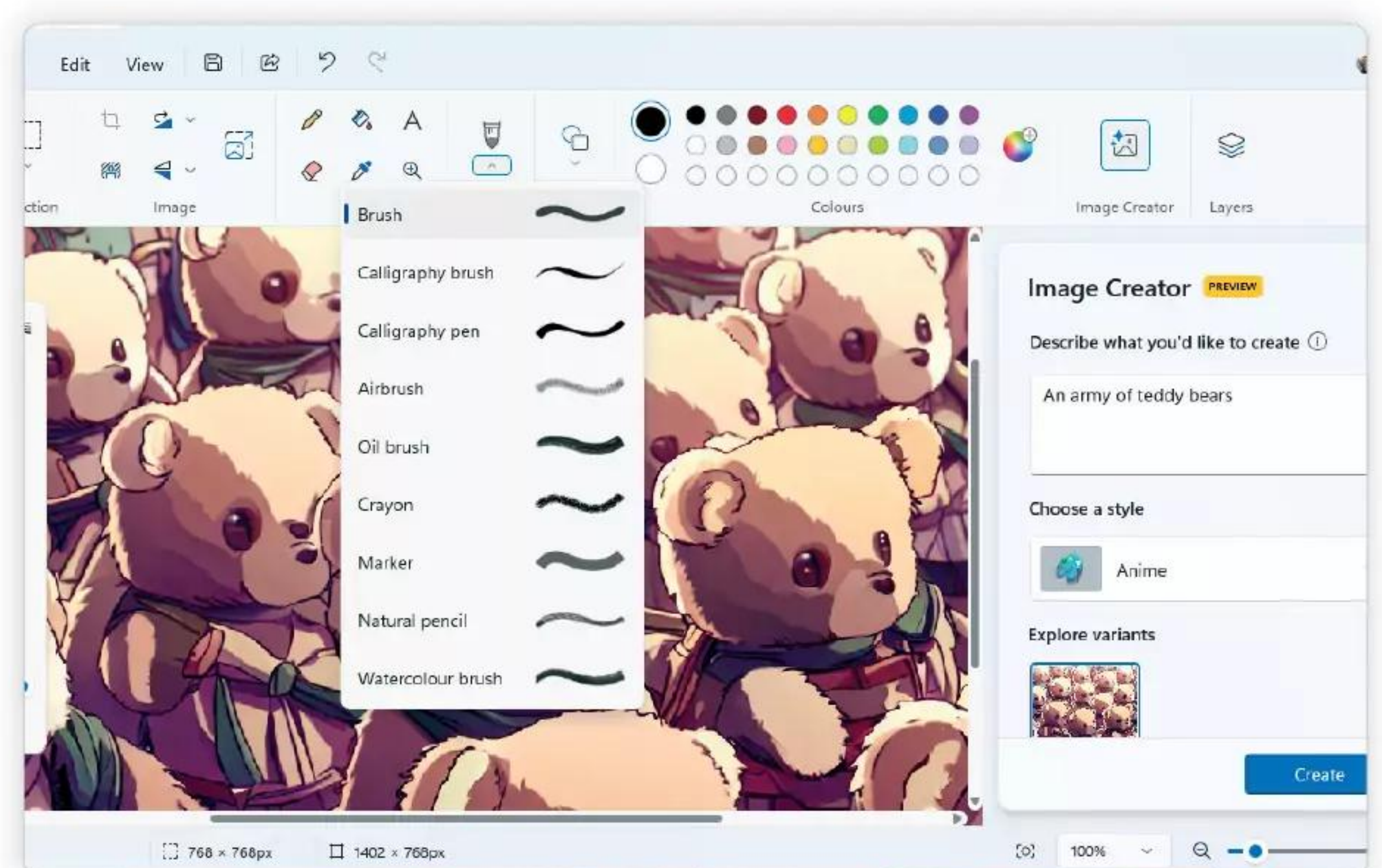
9 When you save an Image Creator image out of Microsoft Paint, it's saved with metadata, that is, information contained within the file but not shown in the picture, that makes it clear that the image was AI generated. This is based on the C2PA standard – Google it if you're interested.



6 When you've saved your image to your device, it's available for use in any project you like. Upload it to Facebook, use it as a picture in the flyer you're designing, send it on your favourite micro-blogging site, and more. The picture is yours now – use it how you please.



8 If you need more images, repeat the process with different prompts. Make new pictures, offer increasingly specific descriptions, try something out, and more. It's amazing what you can do with Image Creator, but remember, it's still currently in preview – it's not perfect.

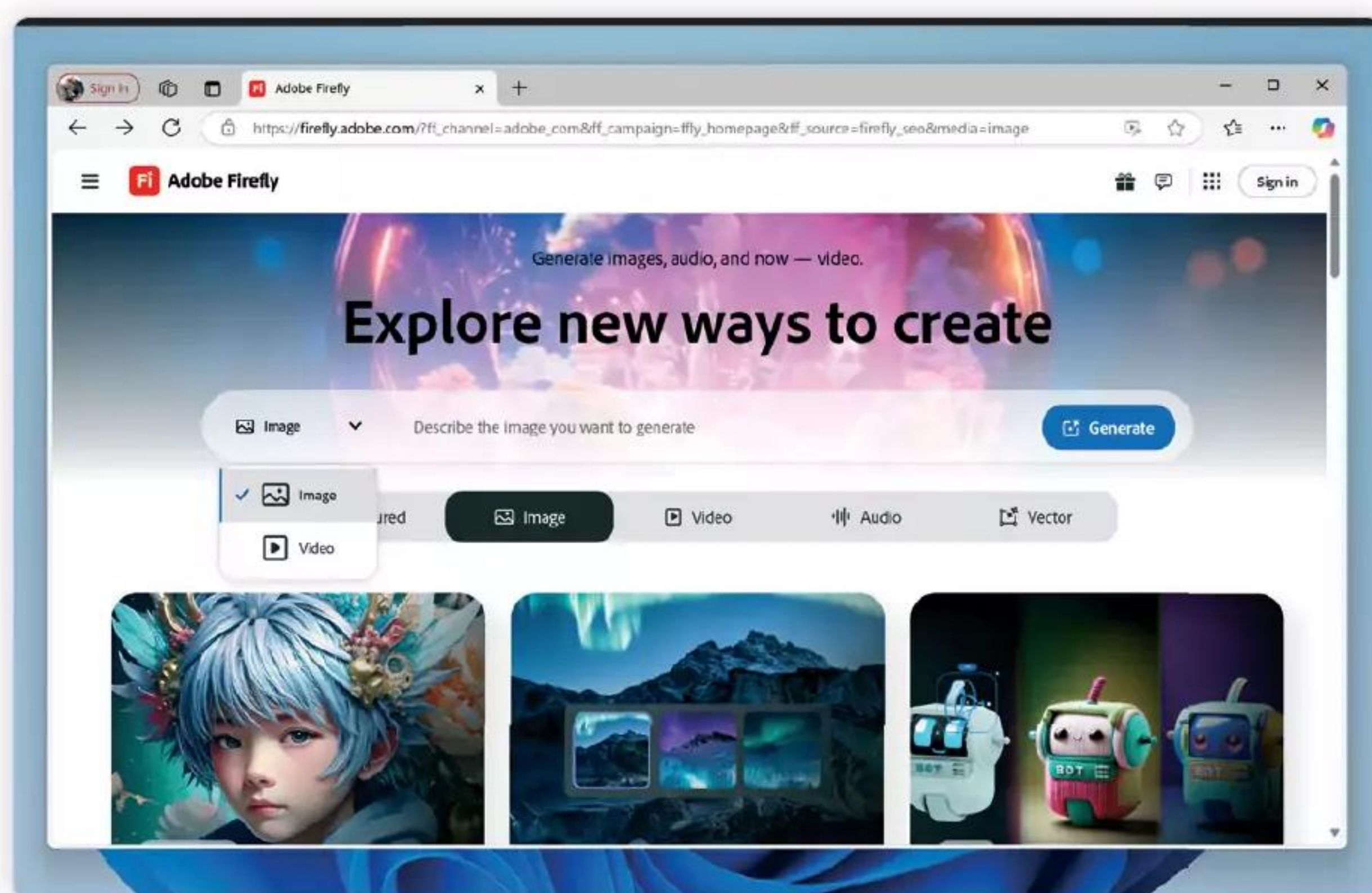


10 If you ask Image Creator to produce something lewd or offensive, it's likely to decline the request. As you practice and build more and better AI-generated images, familiarise yourself with the extra tools on offer. Look at the brushes, and the shapes. Add captions, and more.

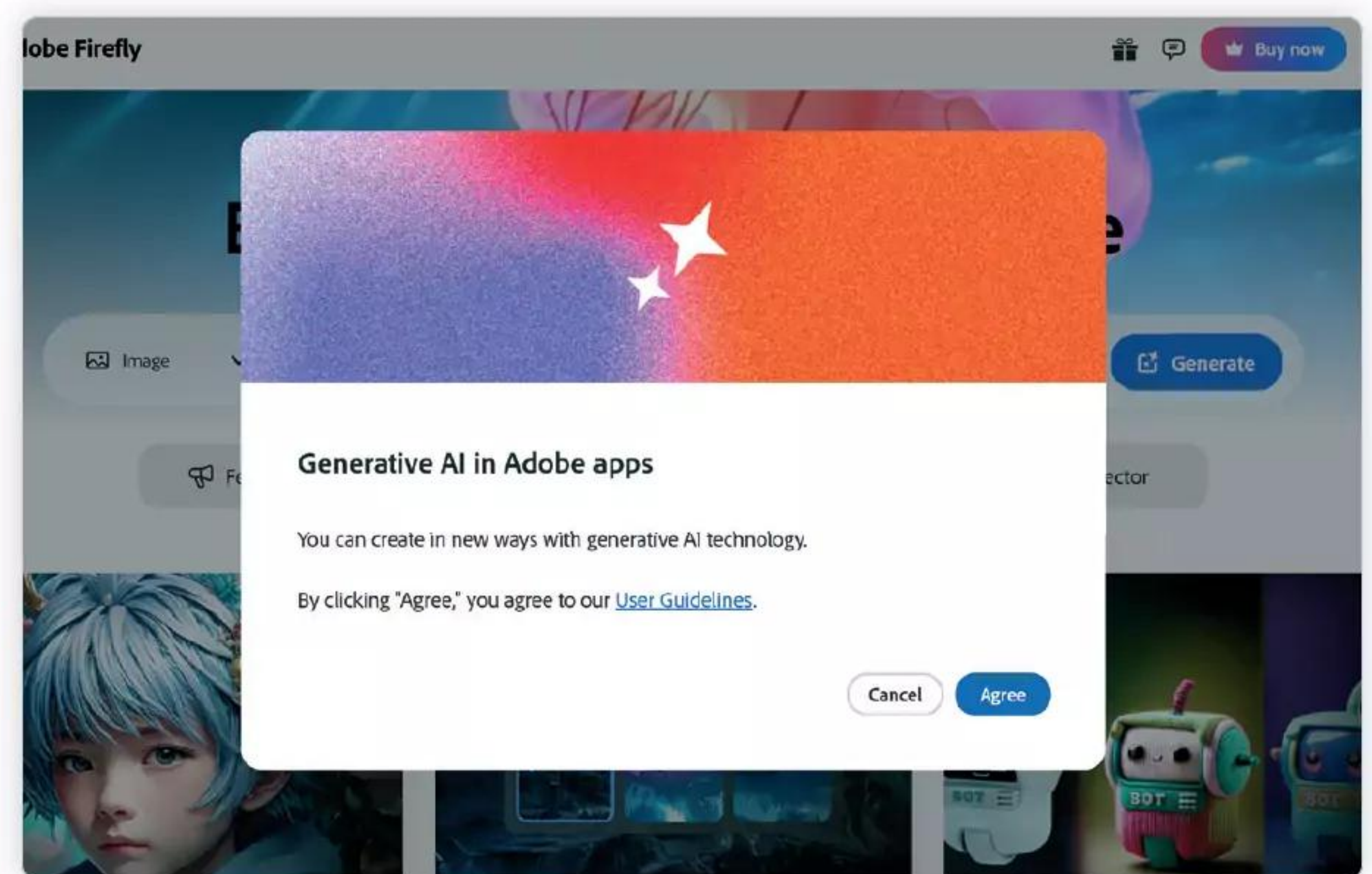


Adobe Firefly For Images and Video

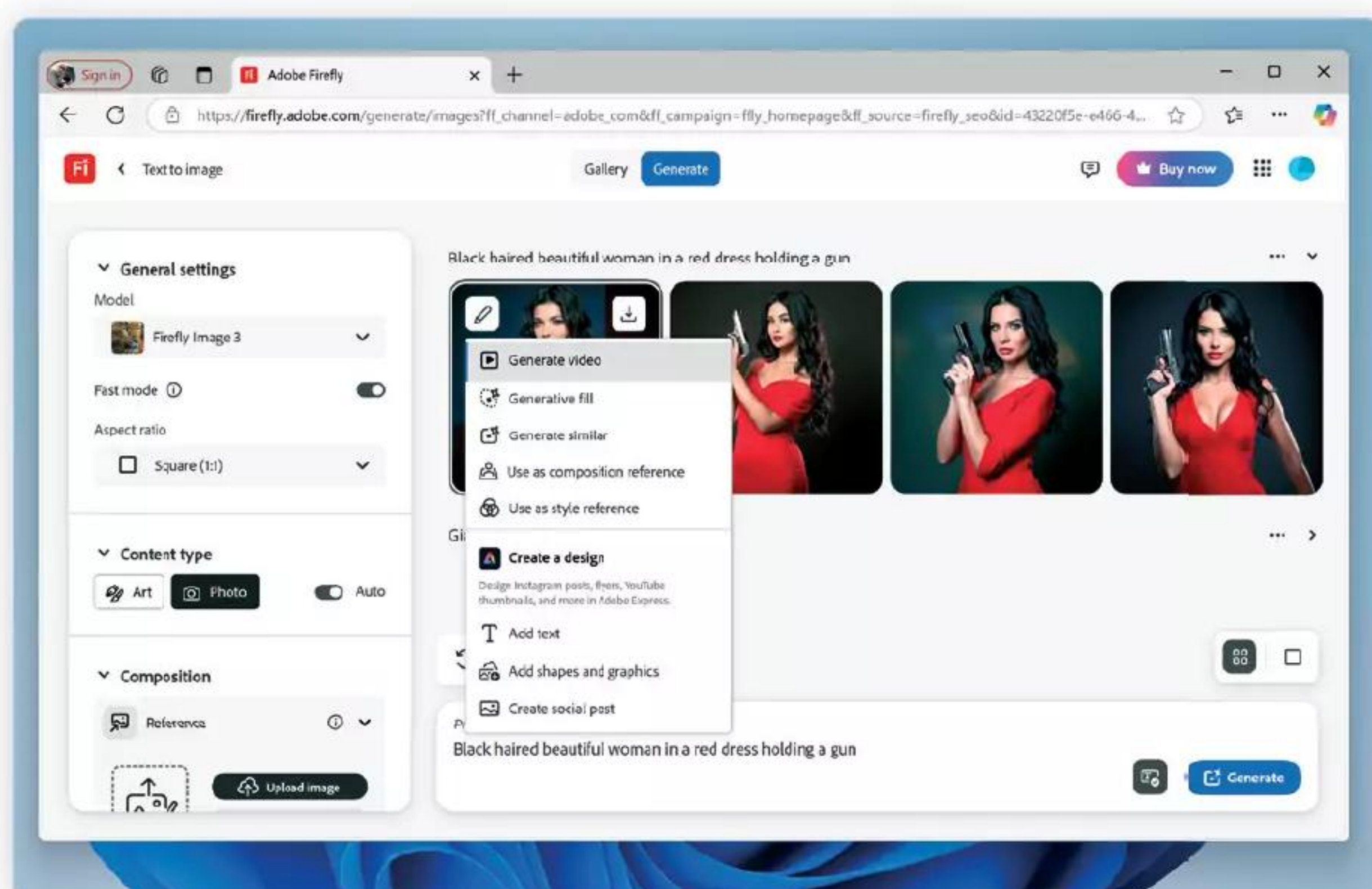
Adobe Firefly is another artificial intelligence that's accessed through a web portal. You can use it on a Mac or a PC. It's commercially safe in that its generative AI models are trained using content Adobe has gained permission to use, and it produces great content – take a look at some of the examples at <https://firefly.adobe.com> and you'll see what we mean.



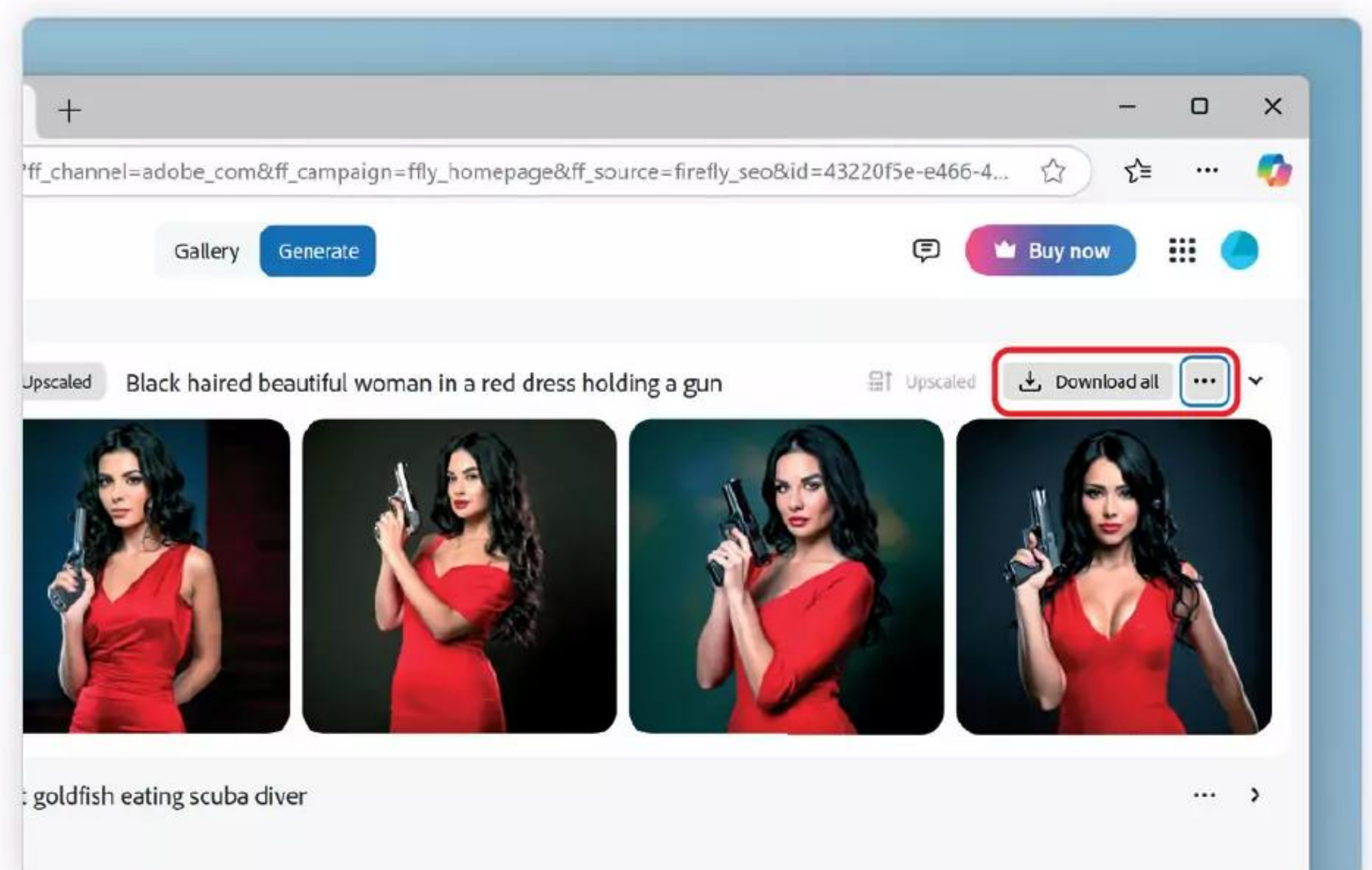
1 First of all, in the text field found on the Adobe Firefly website, click the chevron found in the left-hand side. This lets you switch between Image and Video. To start with, let's create an AI generated image.



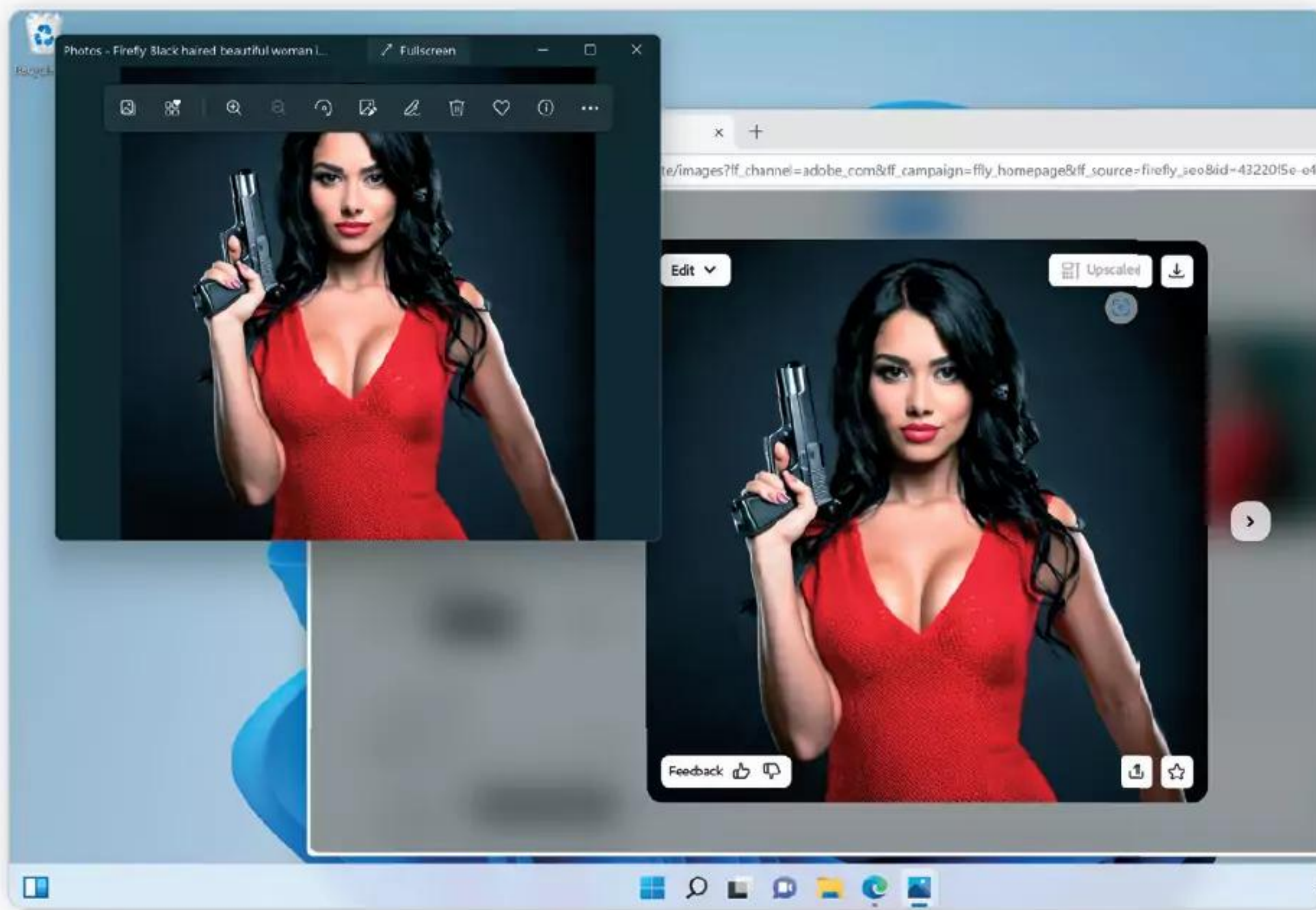
2 In the text field, write what it is you want Firefly to create, then click the Generate button. You might have to log in to your Adobe account, and you'll have to accept terms first time you do this.



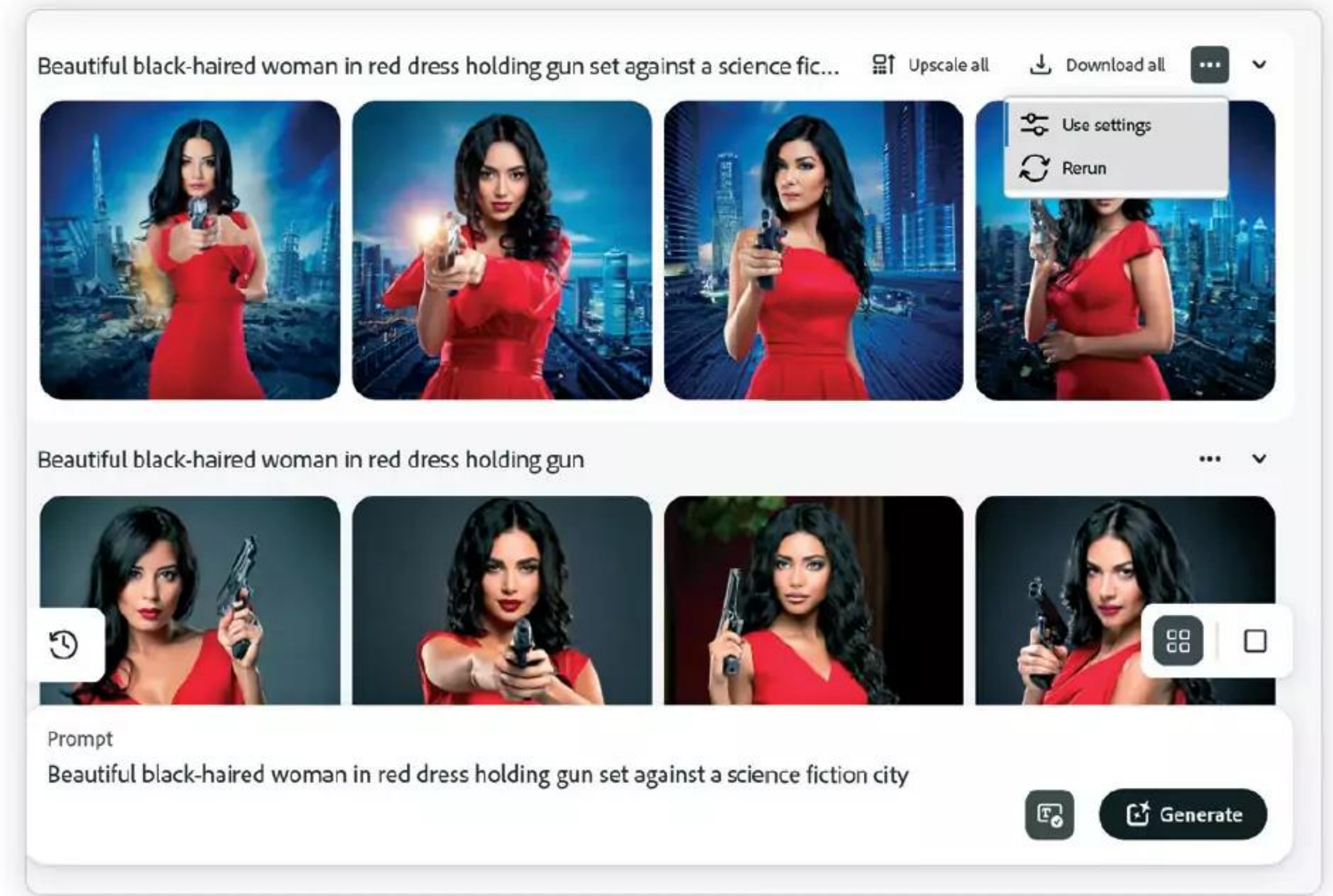
3 Firefly generates images based on your request. It's pretty quick too. Hover over one of the images and click the pencil for a menu that lets you further develop/customise the picture in several ways.



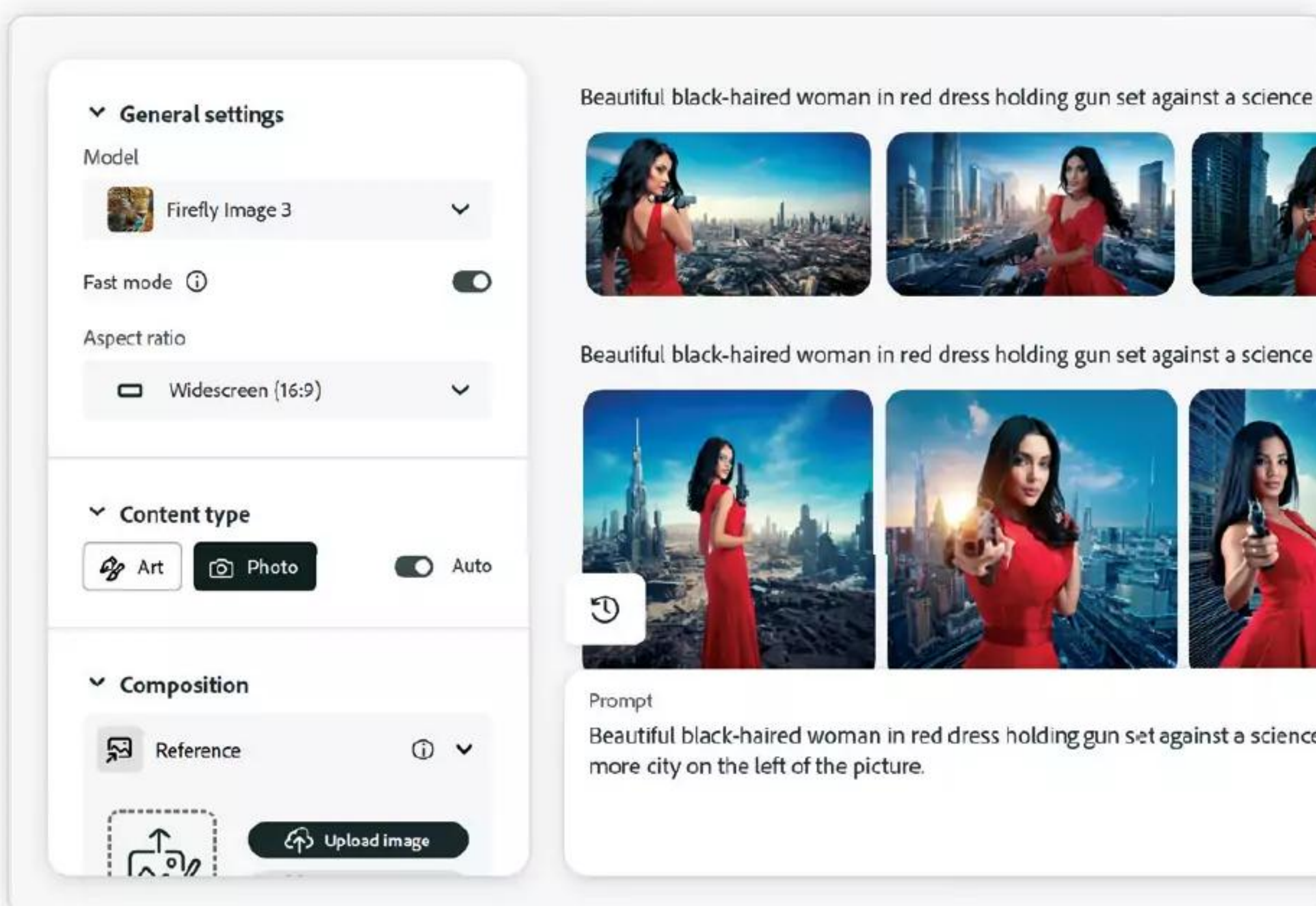
4 The Upscale option increases the images' resolutions. Download All downloads all of the images to your computer (you can download them individually by hovering over them and clicking the Download icon).



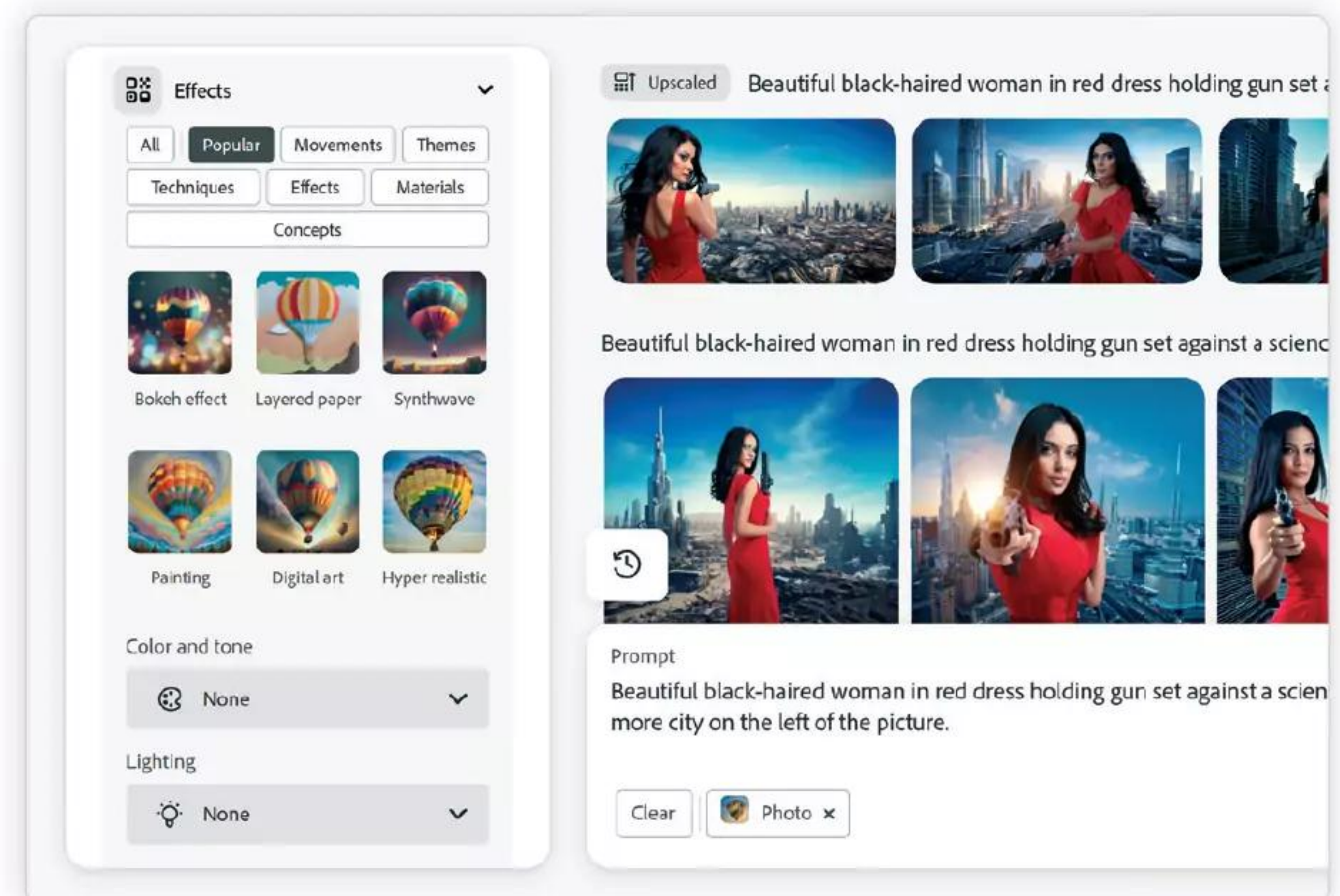
5 Click on an image to open it in a larger form. You can still hover over it and access the tools described earlier. A downloaded picture is sent to your Photos app (Windows PC) or Downloads folder (Apple Mac).



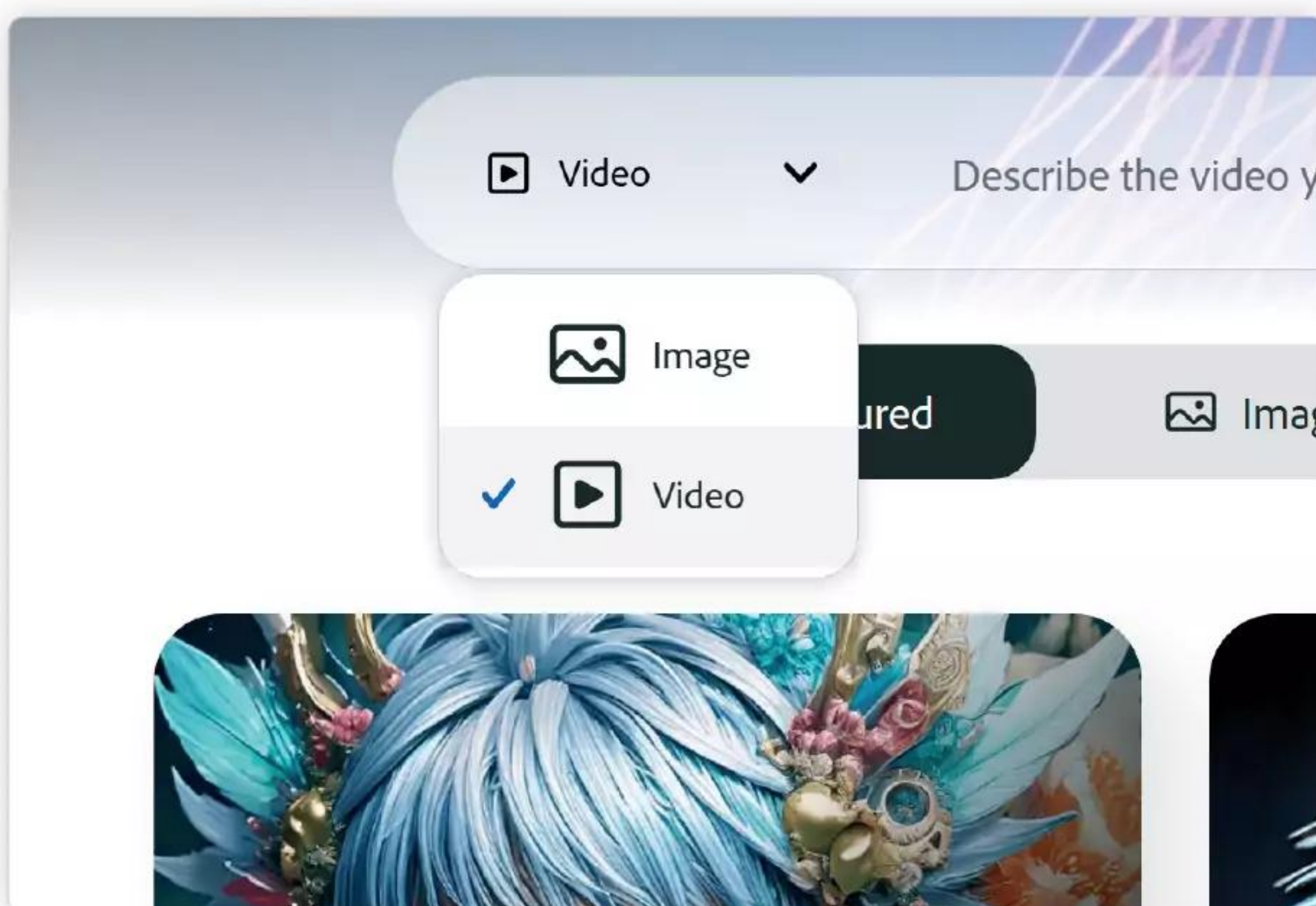
6 If you want Firefly to run your last command again, click the three-dots icon. Or you can edit the instruction in the Prompt field at the foot of the window, to modify your original command.



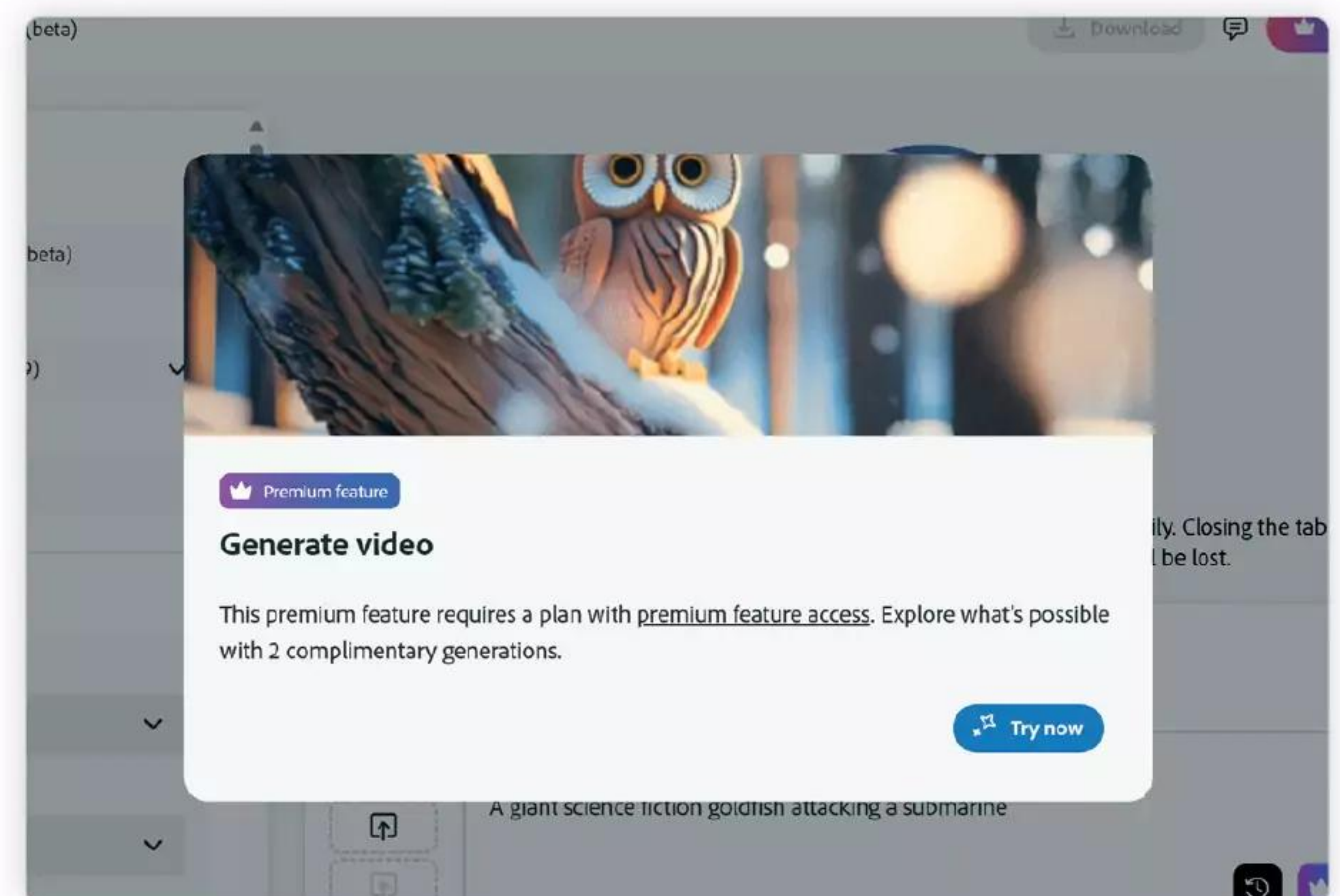
7 Don't miss the settings in the left-hand sidebar. At the top, you can choose which Firefly model to use, turn Fast Mode on and off and set an aspect ratio for your AI picture. Experiment, and have fun.



8 Other settings available in Firefly include switching between generating an art picture or a photo-realistic one, changing its composition and style, the chance to upload a picture for reference and more.



9 Firefly can also generate AI videos. To switch to generating videos, first of all go back to the landing page, and click the chevron in the left of the text field and choose the Video option to begin.

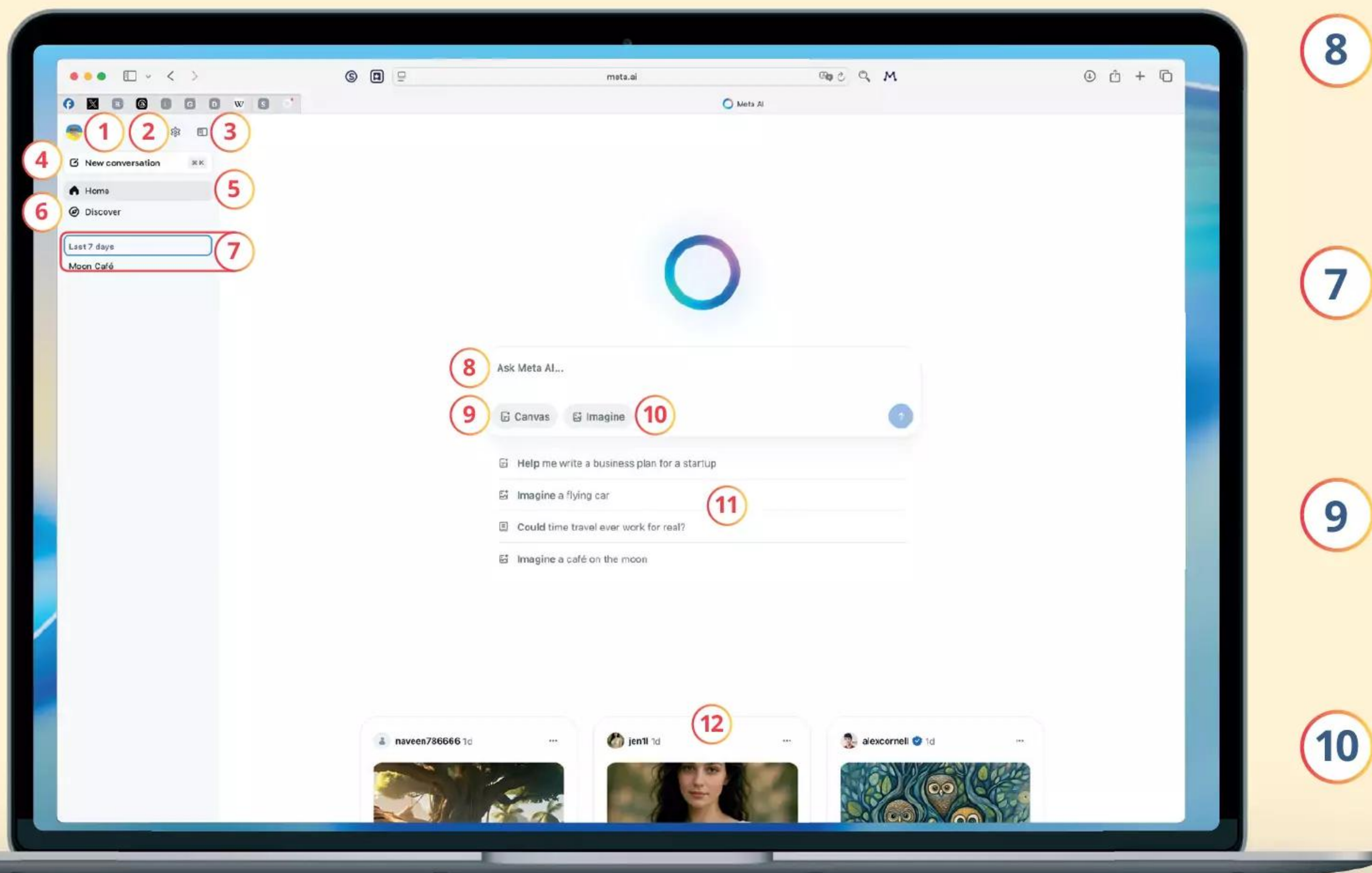


10 Video generation requires a premium – that is, paid-for – plan, but if you want to give it a go before deciding on whether to upgrade your free plan, you get two free generations to play with.



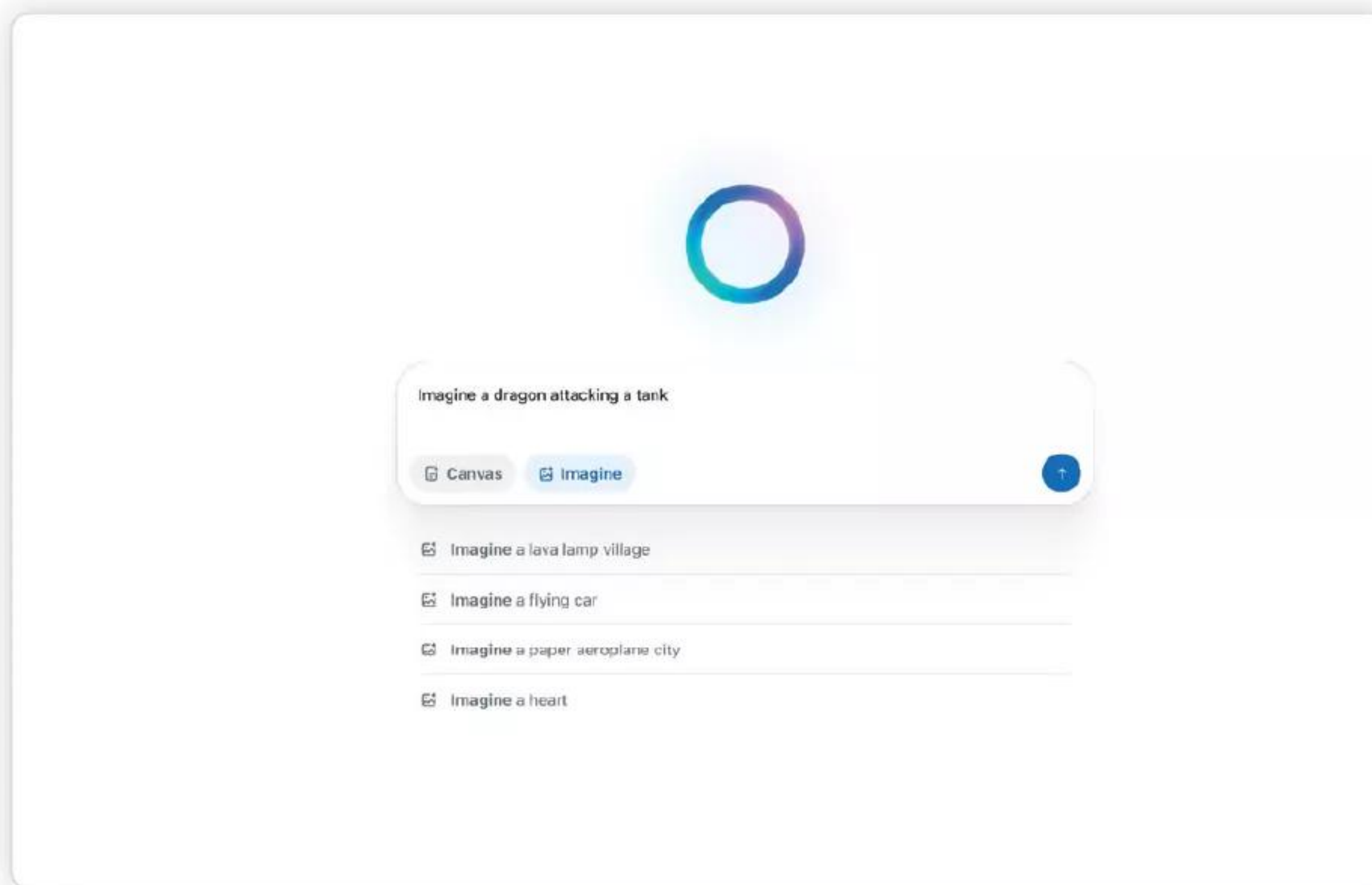
Meta AI From Facebook

It's no surprise that Meta Platforms, formerly Facebook, has thrown its metaphoric hat into the artificial intelligence ring. First installed on Ray-Ban Meta glasses as a voice assistant, you can now use Meta AI on your web browser at <https://www.meta.ai>. Let's see how it works.

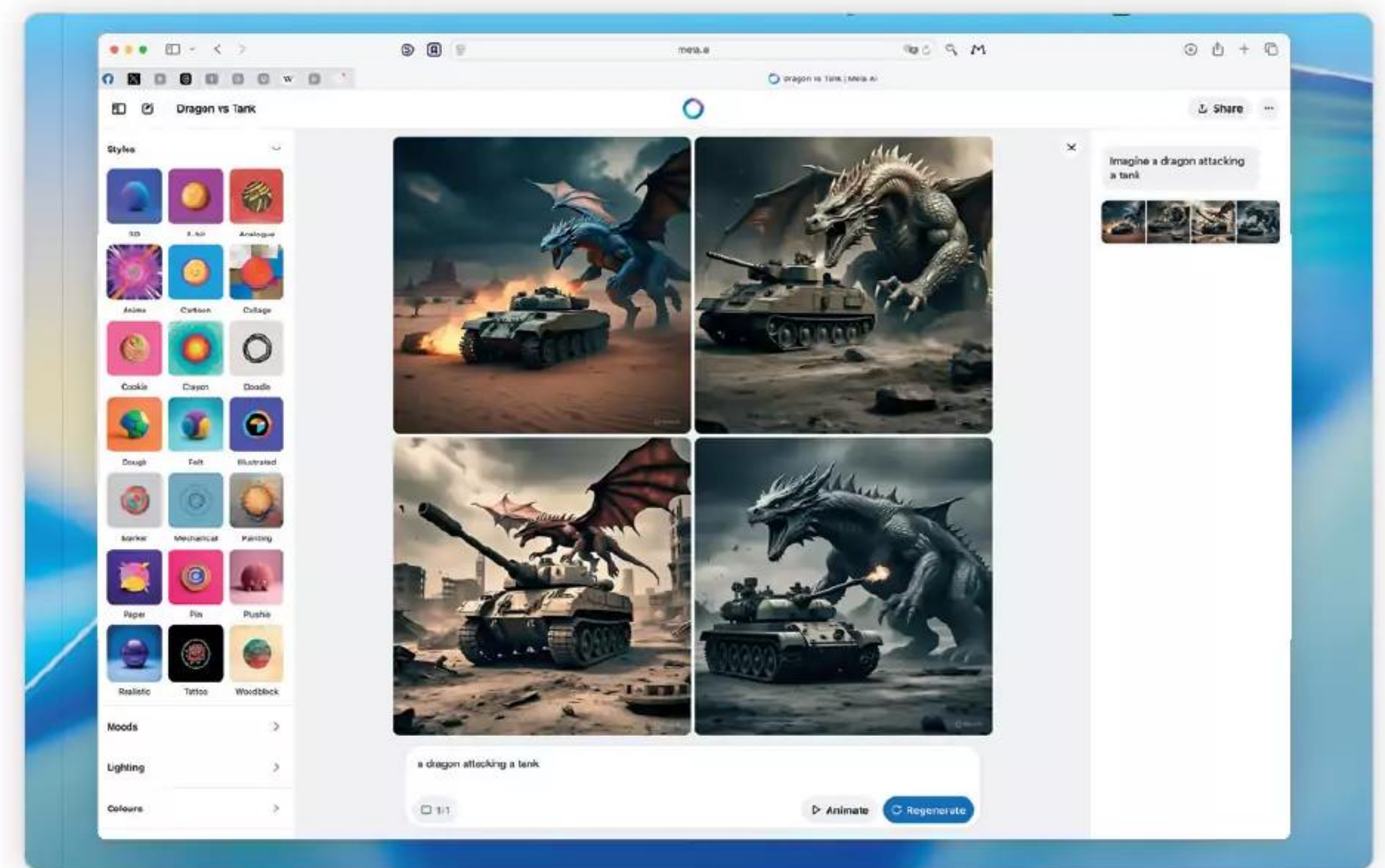


- 8 Your history with Meta AI for the last seven days is listed here. Click on an item in the list to make the enquiry again.
- 7 The text entry field. Type your request to Meta AI and click the blue circular icon with the arrow on it to send it.
- 9 You can create docs and add images using the Canvas feature. It's in beta, so don't expect it to be perfect.
- 10 Click this icon and you can create an image using Meta AI.

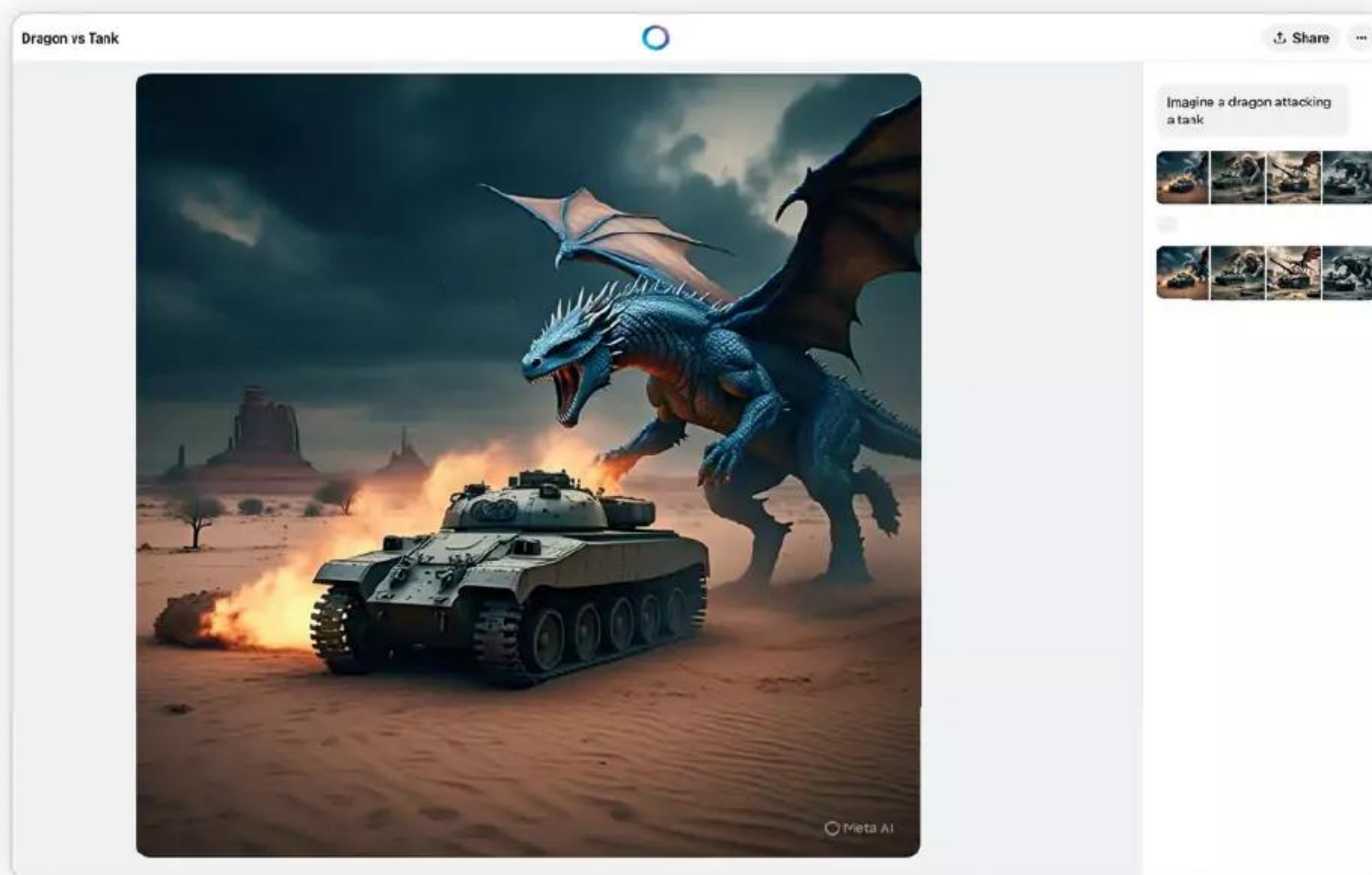
- 1 Log in through Facebook and your Facebook avatar appears here.
- 2 The cog icon here opens the Settings pop-up window. Use it to access the Settings panel, AI demos, AI Studio and to Log out of your Facebook account.
- 3 Open and close the left-hand sidebar here. You might want to close it if you're using a small screen, and need the extra space for your AI work.
- 4 Click here – or press CMD-K – to open a new input window and start a new conversation with Meta AI.
- 5 The Home button takes you back to the page you see here.
- 6 Would you like to see what Meta AI can do, including answering questions and creating art? Click Discover to see some examples.
- 11 These are examples of things that have been asked of Meta AI. Click on one of them to make the same request. It's a good way of getting in touch with what Meta AI can do.
- 12 At the foot of the page are more examples of Meta AI requests. They're the same examples you see when you click the Discover icon [6]. Click on one to see it in full size.



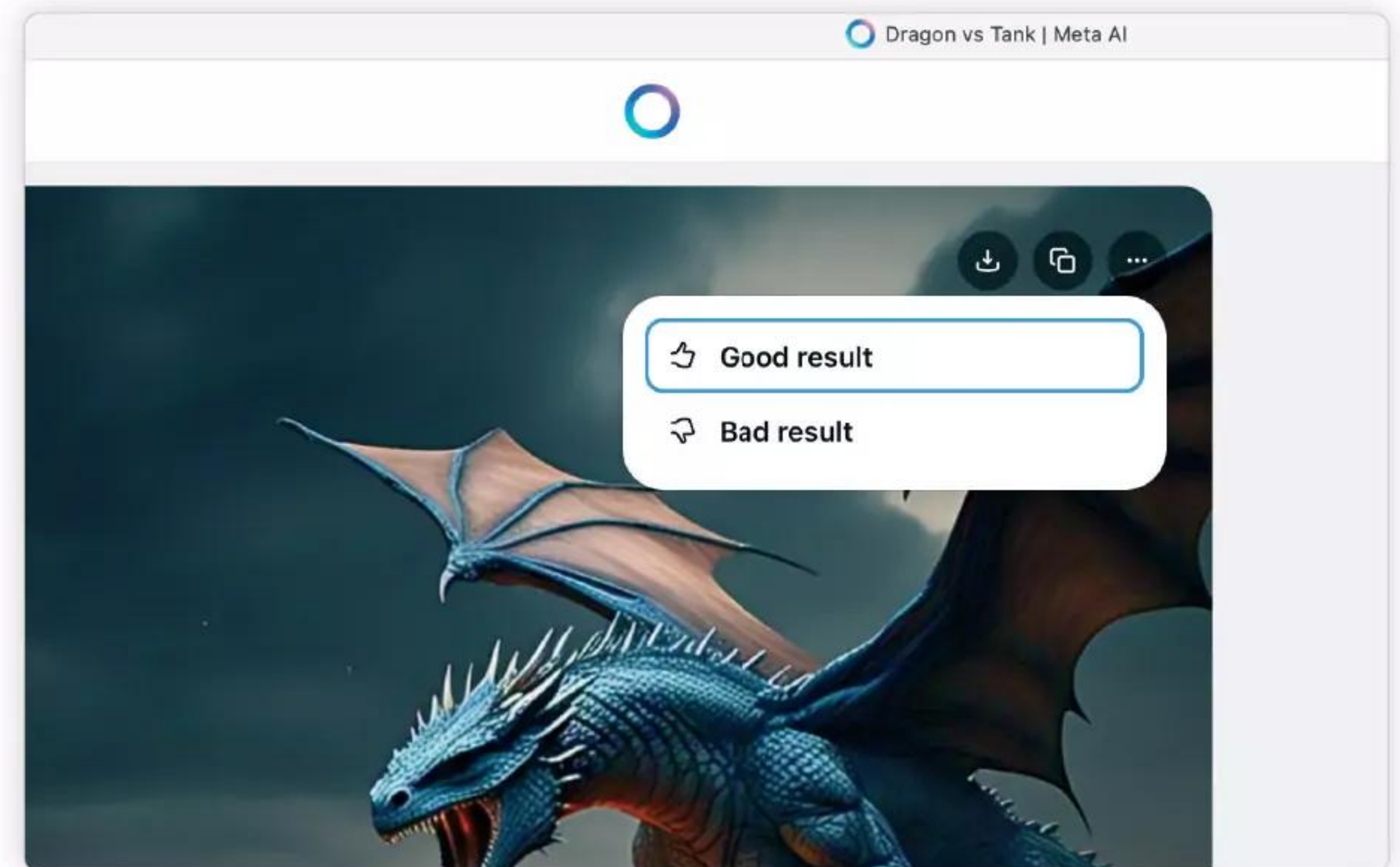
1 To create an AI picture, first of all, click the Imagine icon found in the text window. The word 'Imagine' appears in the text field. Now type your instructions about what you want to see in the picture. Experiment, it's fun.



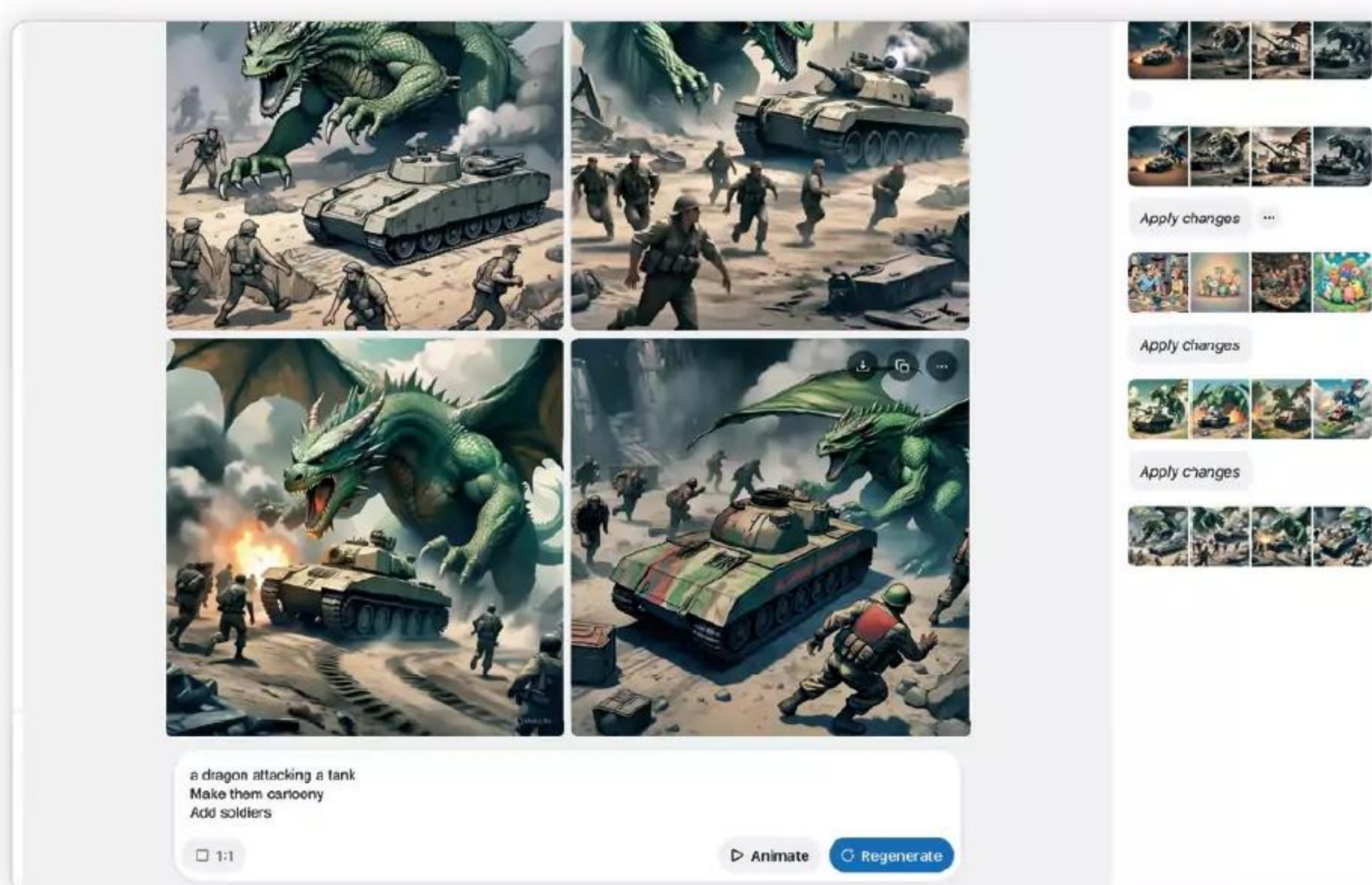
2 Next up, click the blue circle showing an arrow, and Meta AI creates a series of pictures based on the description you provided. If you want to change the aspect ratio, click the current ratio in the bottom-right of the text field and choose a new one.



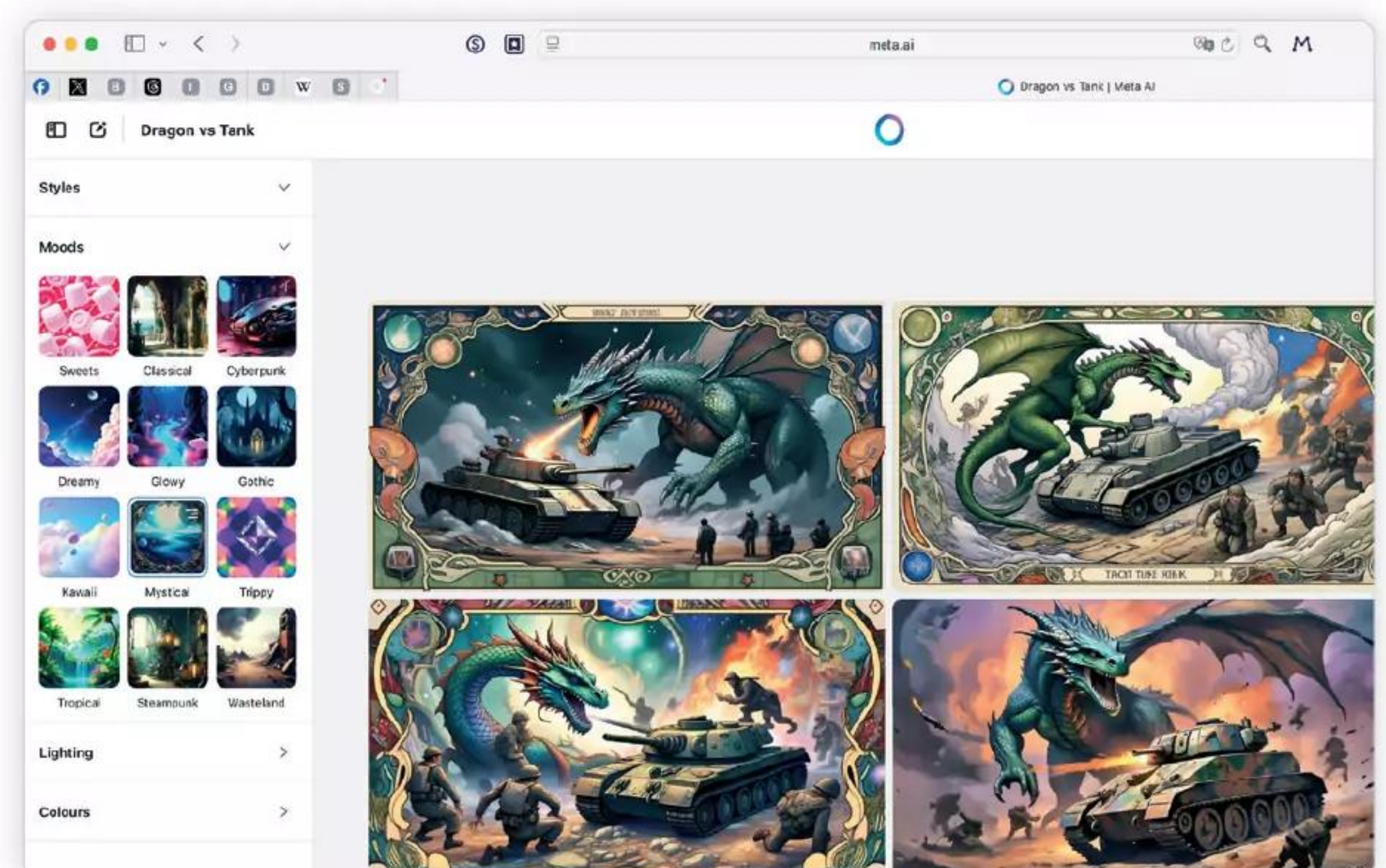
3 To make the images move, click the Animate button. If you want to go back to static pictures, click the stills in the right-hand sidebar. If you're not happy with any of the pictures, click Regenerate. Click a picture to view it full size within the app.



4 Click on the full-sized picture and you see three icons in the top-right corner. The one on the left is the download icon, so you can download the picture. The three-dots icon lets you give the picture a thumbs-up (Like) or thumbs-down (Dislike) rating



5 You can modify the pictures by adding to the text request, which remains at the foot of the screen. You can change the art style, add new features and more. Meta AI reconstructs the pictures according to the new instructions you have given.

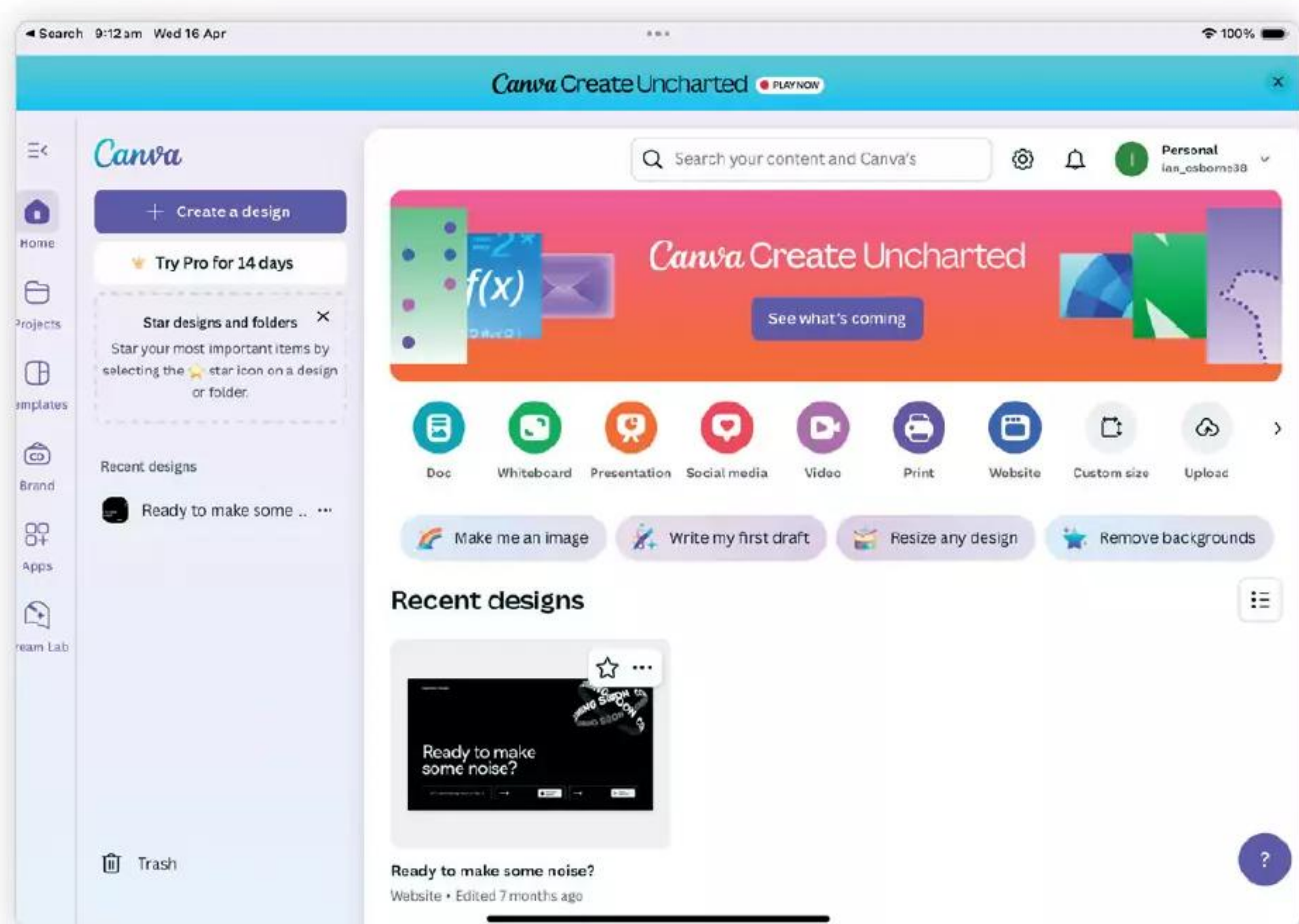


6 Don't miss the options in the left-hand sidebar too. Open one of the categories as listed and you can change the pictures style, give it a mood, revise the lighting conditions or give it a new colour scheme. There's lots to do, so have fun experimenting .

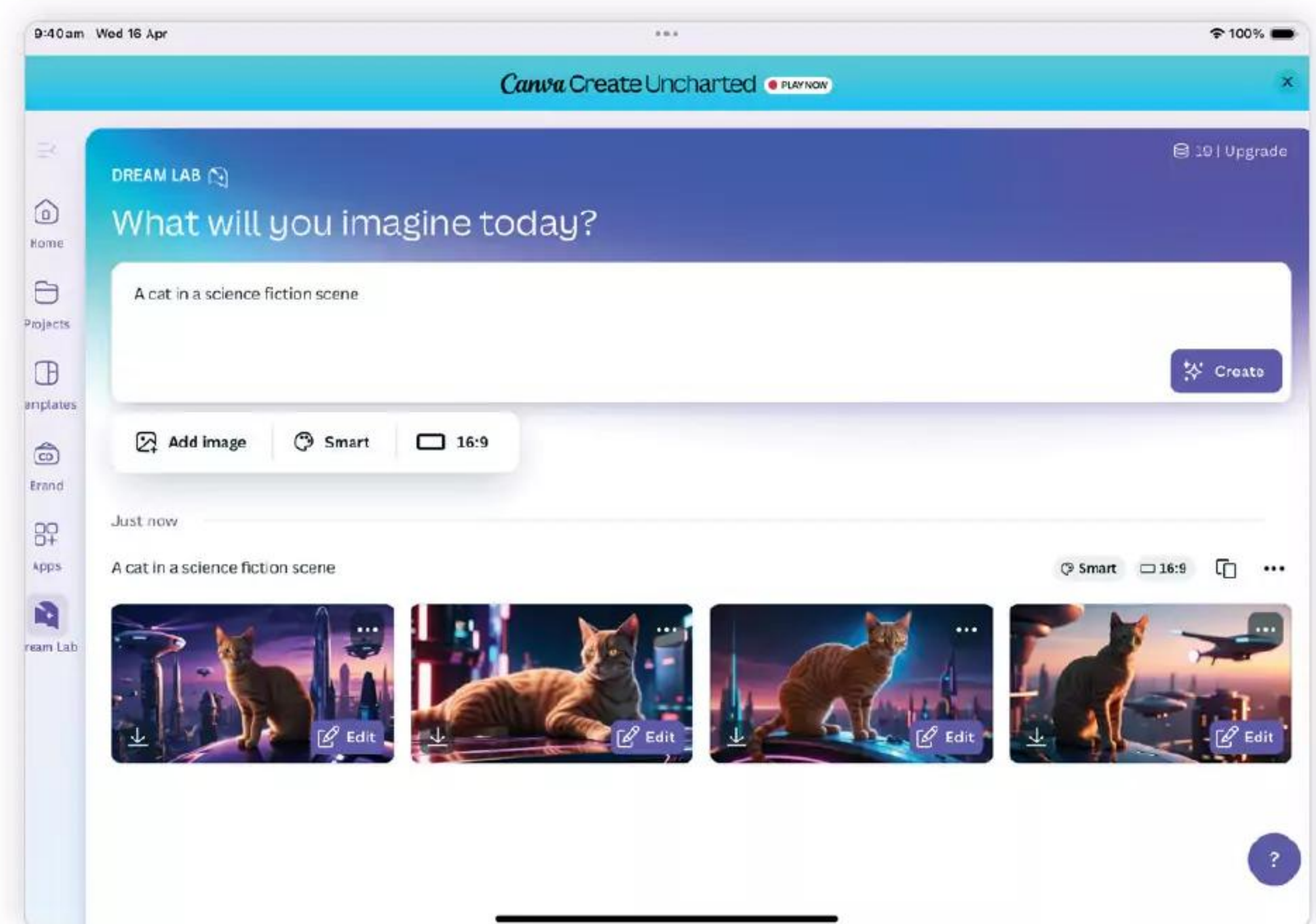


Canva For AI Designs

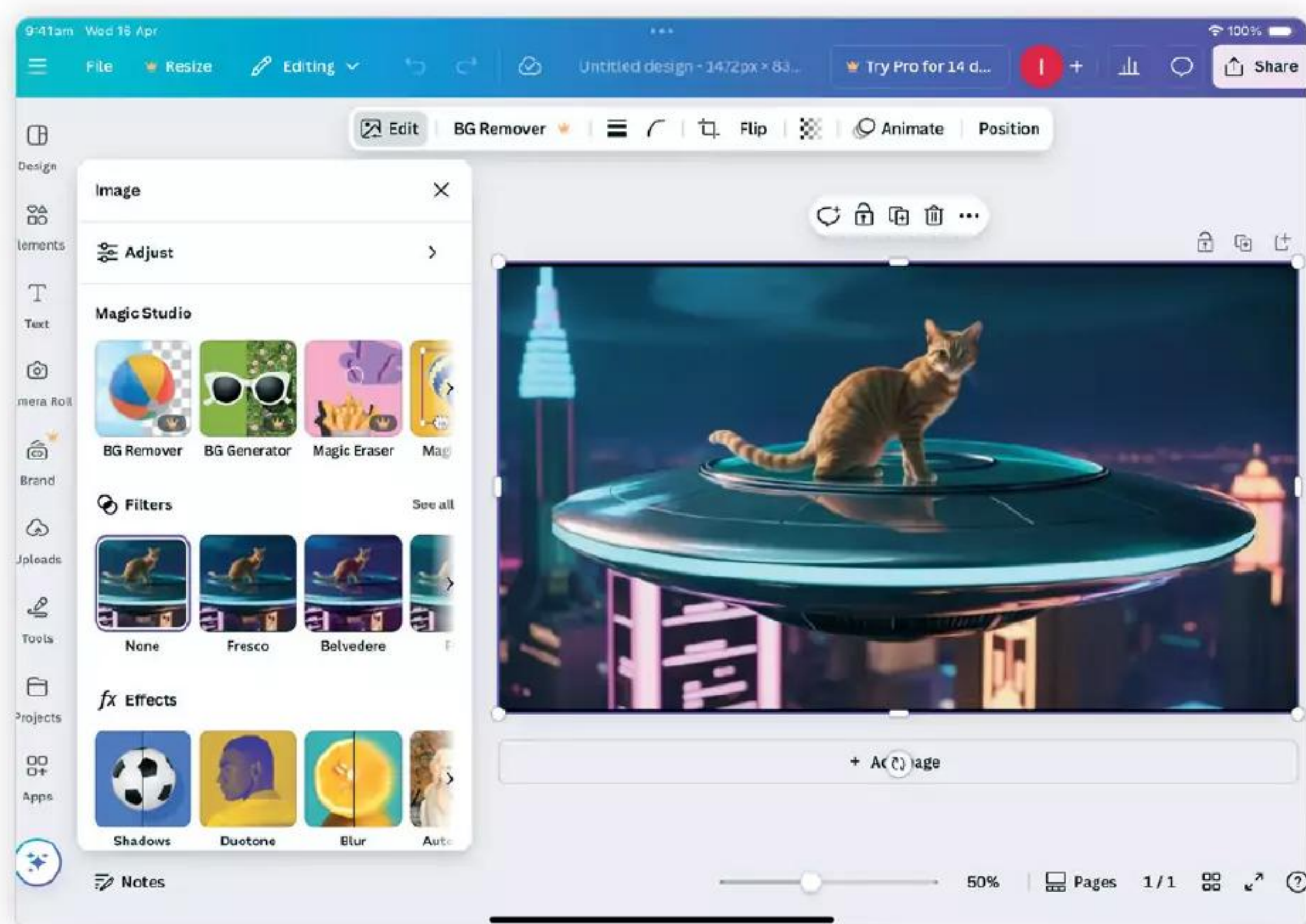
Canva is available for computers and mobile devices, and it lets you design, generate, print and work on anything. You can work on whiteboards, social media, documents, videos and more, but here we cover images.



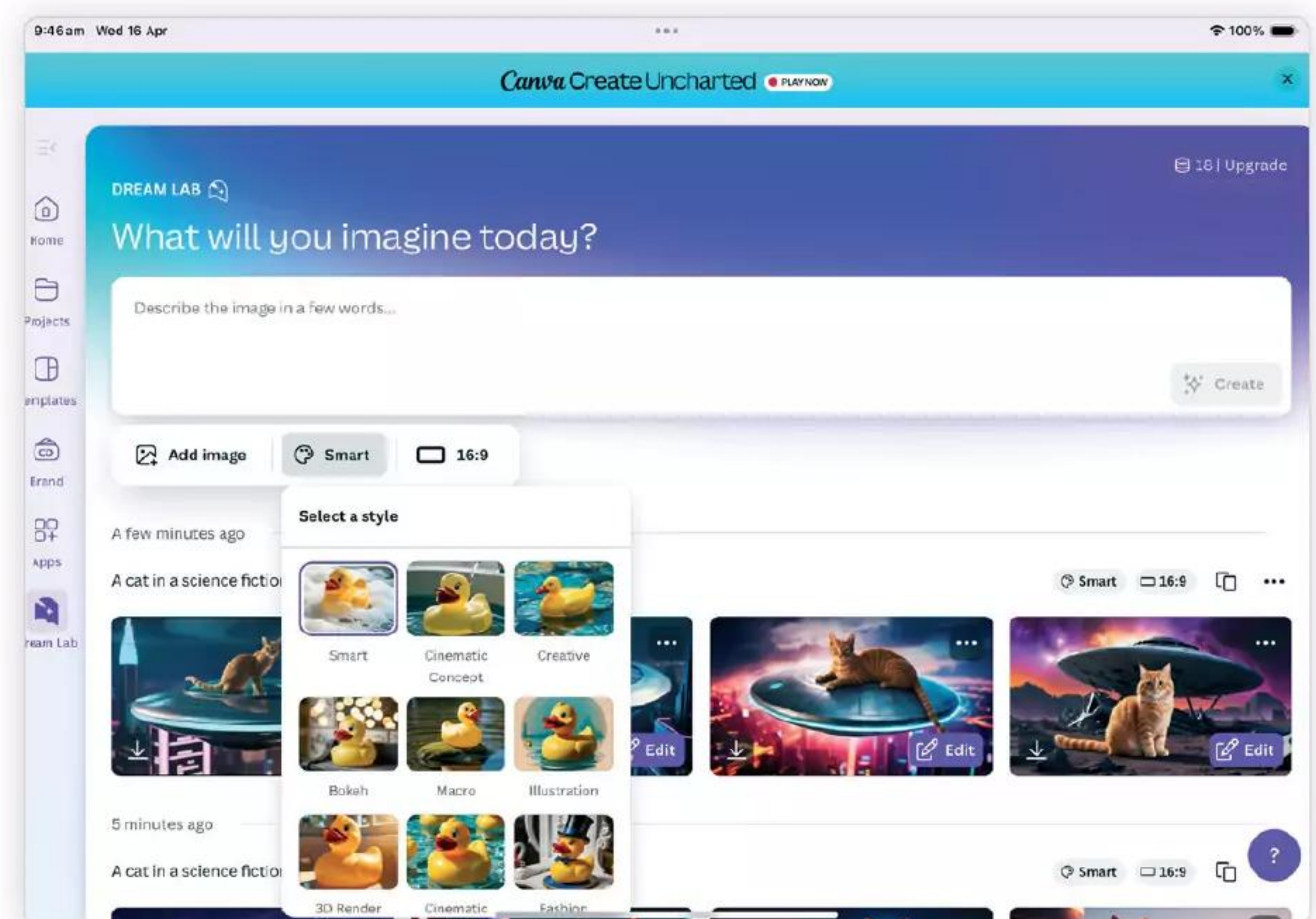
1 We're using a mobile device (an iPad) here, but the principles are the same for phones and computers. Open the Canva app, and create an account or log in. We're using the free version here, but there is a Pro version too.



2 Tap the Make an Image button. Type what you want into the text field, and then tap the Create button. Canva produces a series of images based on your text. You can then modify the image with further requests if needed.



3 If you tap the Edit button on one of the created AI pictures, it's opened in an editor that lets you make modifications to the image. You can make adjustments, remove the background, add effects and more.



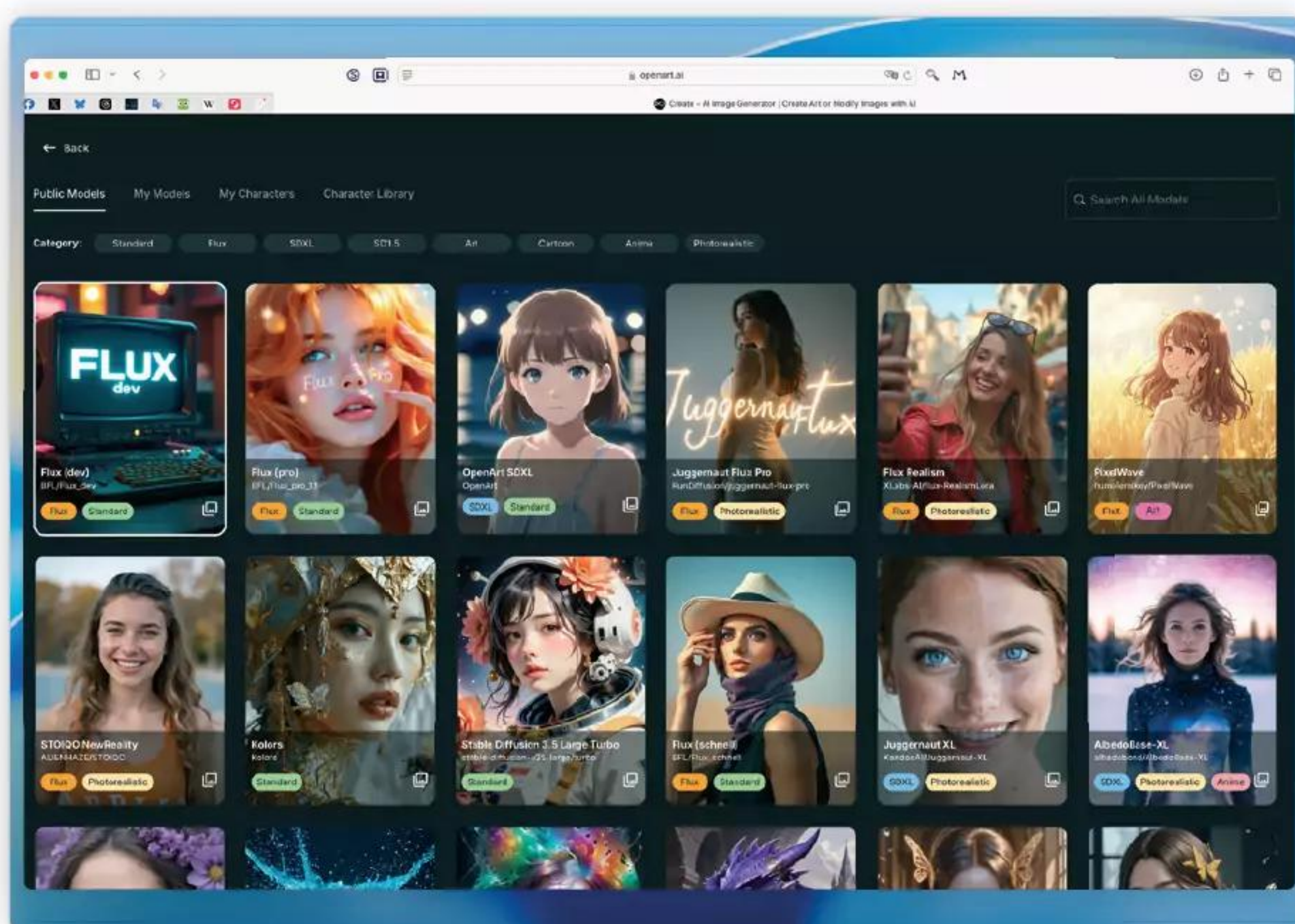
4 There are three buttons underneath the text field. You can add an image, so the AI starts with what you already have, select a style with the Smart button or change the aspect ratio of the image the AI creates.



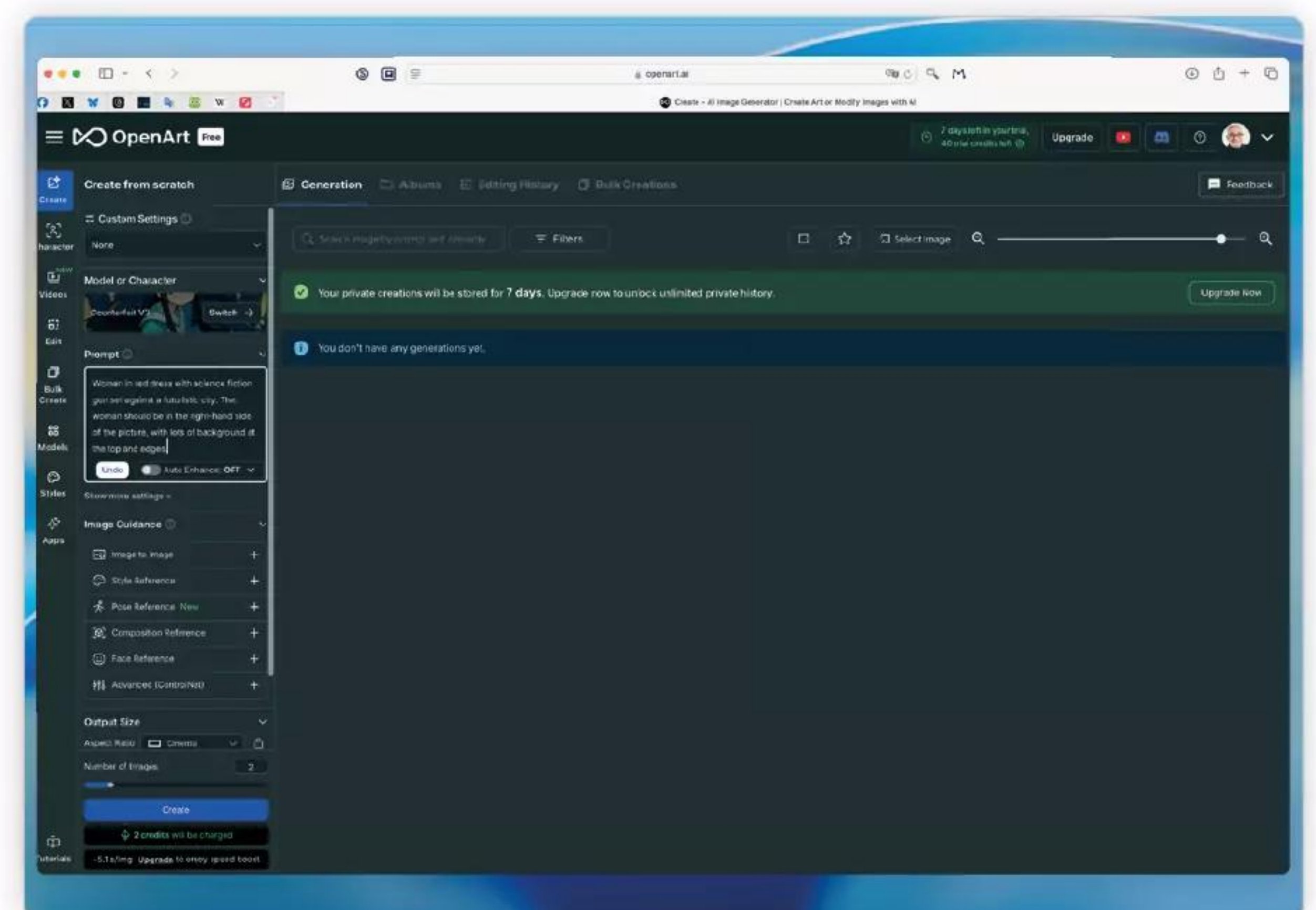
Leonardo AI

A Web-based Portal

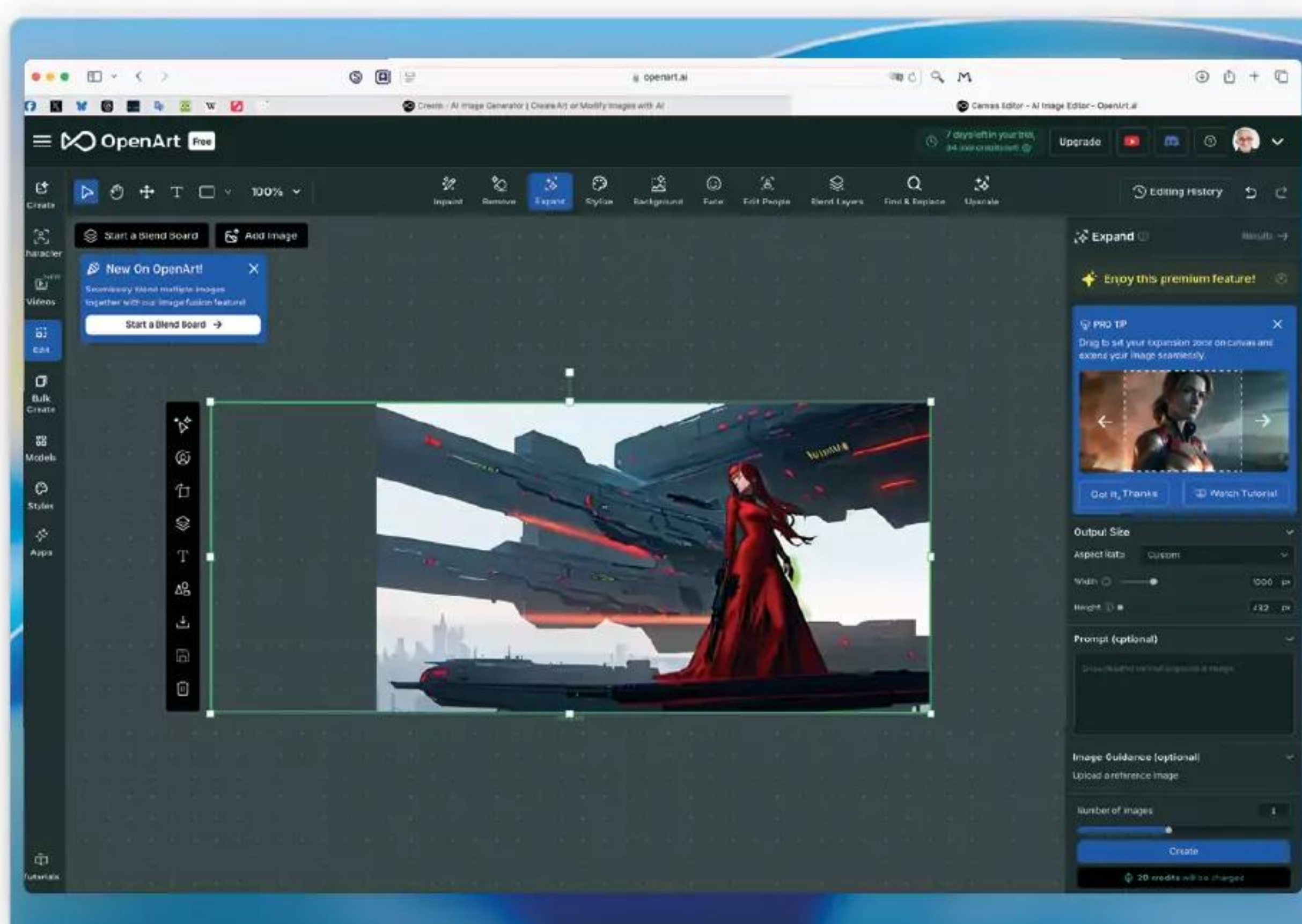
With Leonardo AI, you can create amazing images, take them into the site's image editor, save out an AI-created character for consistent storytelling and even turn your work into a video. Here's how to get started with it.



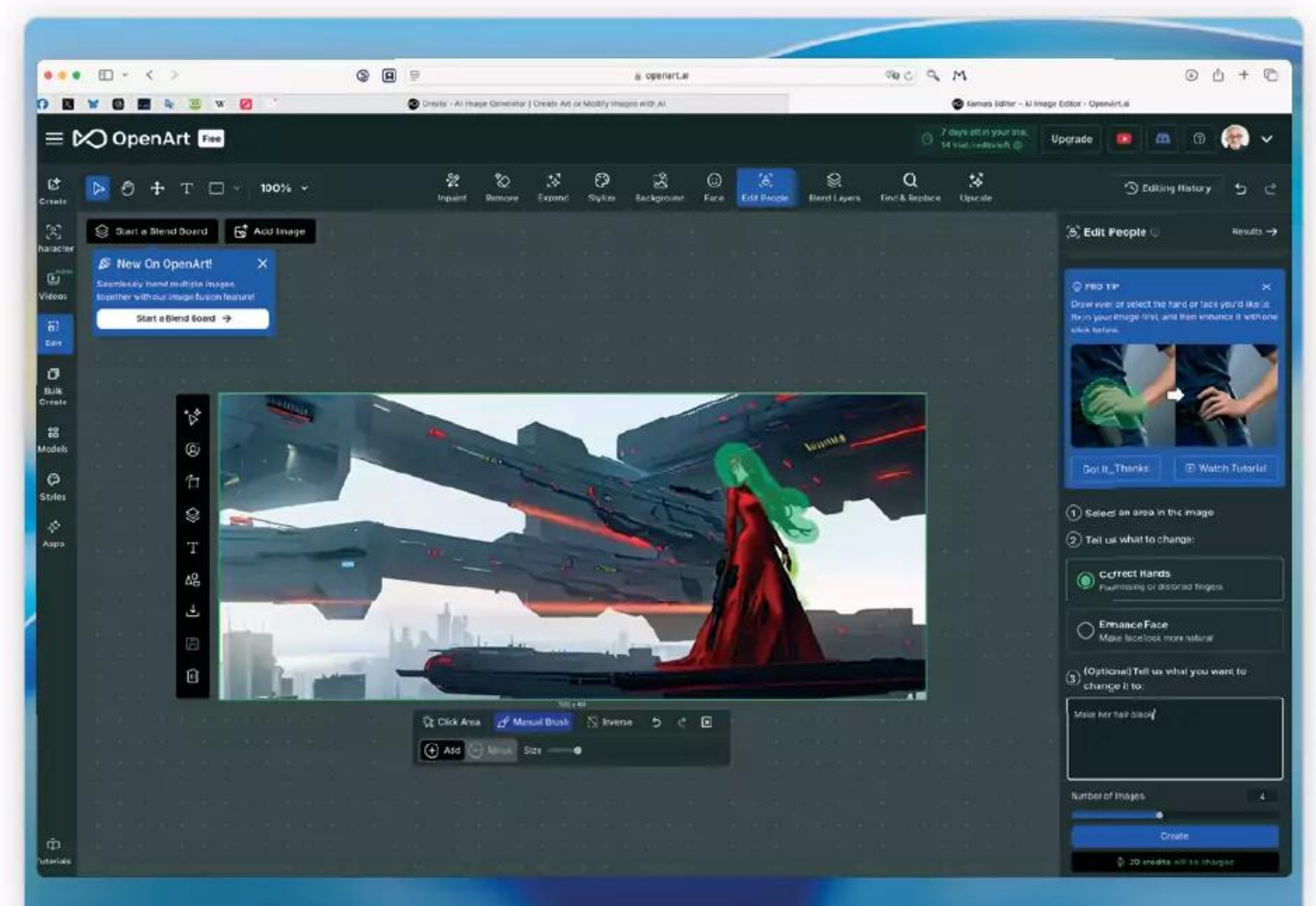
1 Sign in or create an account. On the main screen, in the left-hand sidebar, the top option is labelled Model or Character. Click the Switch button to choose someone on which to base your AI pictures. Over 100 are available.



2 The next section of the sidebar is Prompt, the text field where you describe what it is you want in your picture. Below this are options such as changing the aspect ratio, image options such as pose guidance and more.



3 When you're ready, click the Create button. The pictures are generated – it might take a while. When they're done, you can click on one of them to open it. Editing options are available; expanding the picture is a useful one.



4 The Edit People option is useful too. Draw over the part of the picture you want to change, and tell the AI what it is you want to change. When you're ready, click Create, and your changes are carried out.





AI Photo & Video Tools

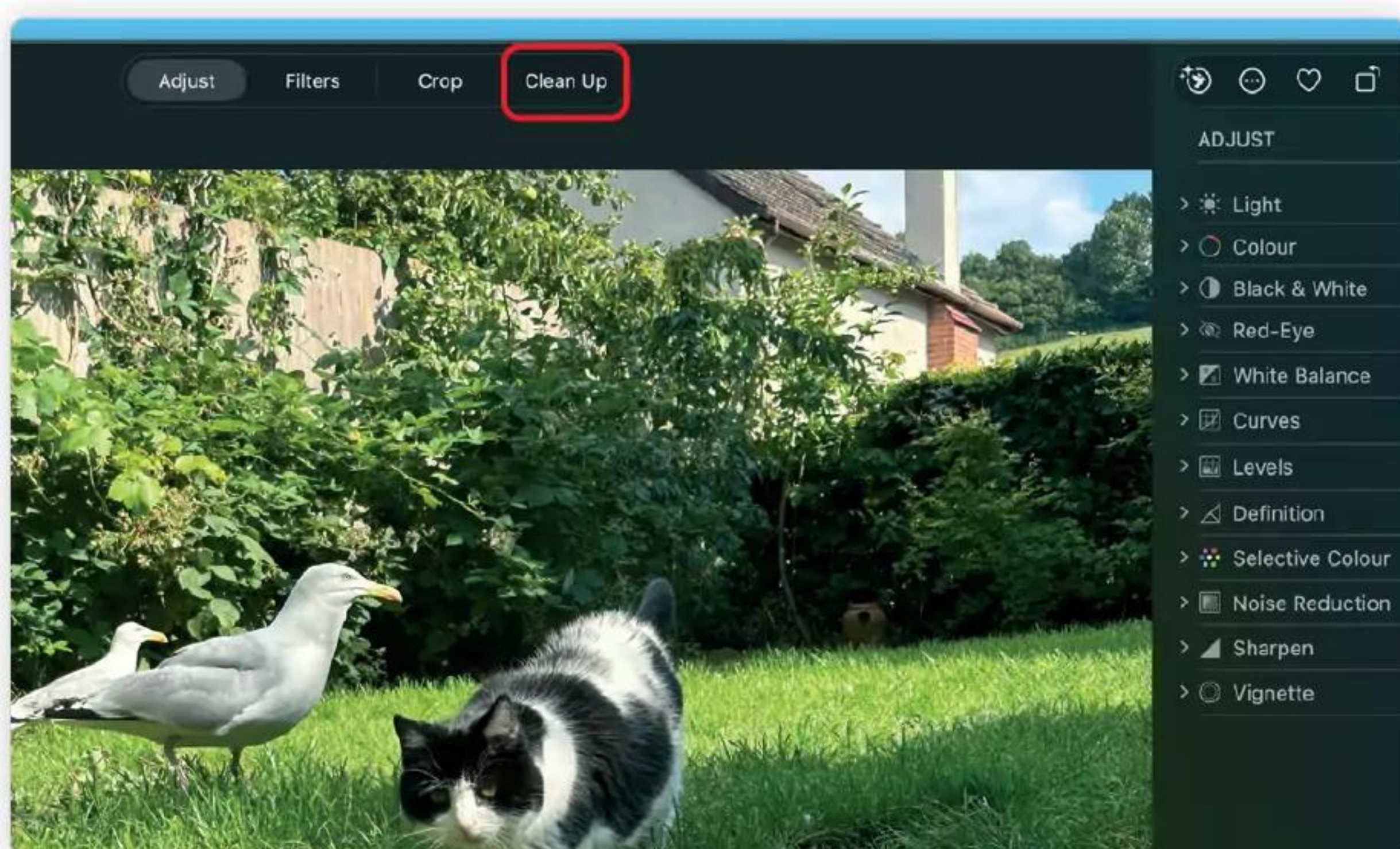
As well as making your own art from scratch, you can also use artificial intelligence platforms to enhance and improve your own photography and images. Has someone photobombed your otherwise-excellent family picture? Use AI to erase them. Is it slightly out of focus, or have the colours come out incorrectly? Again, AI can put it right. With a little experimentation with AI, you can turn mediocre photos into stunning pictures.



Apple Intelligence Photos & Clean Up

Apple Intelligence also improves the way we use the popular Photos app. Using Apple Intelligence, it's far easier to find what you're looking for when searching your photo and video library. You get better movies of stories to enjoy too, and perhaps best of all, Apple Intelligence can remove unwanted features in a photograph to improve your compositions.

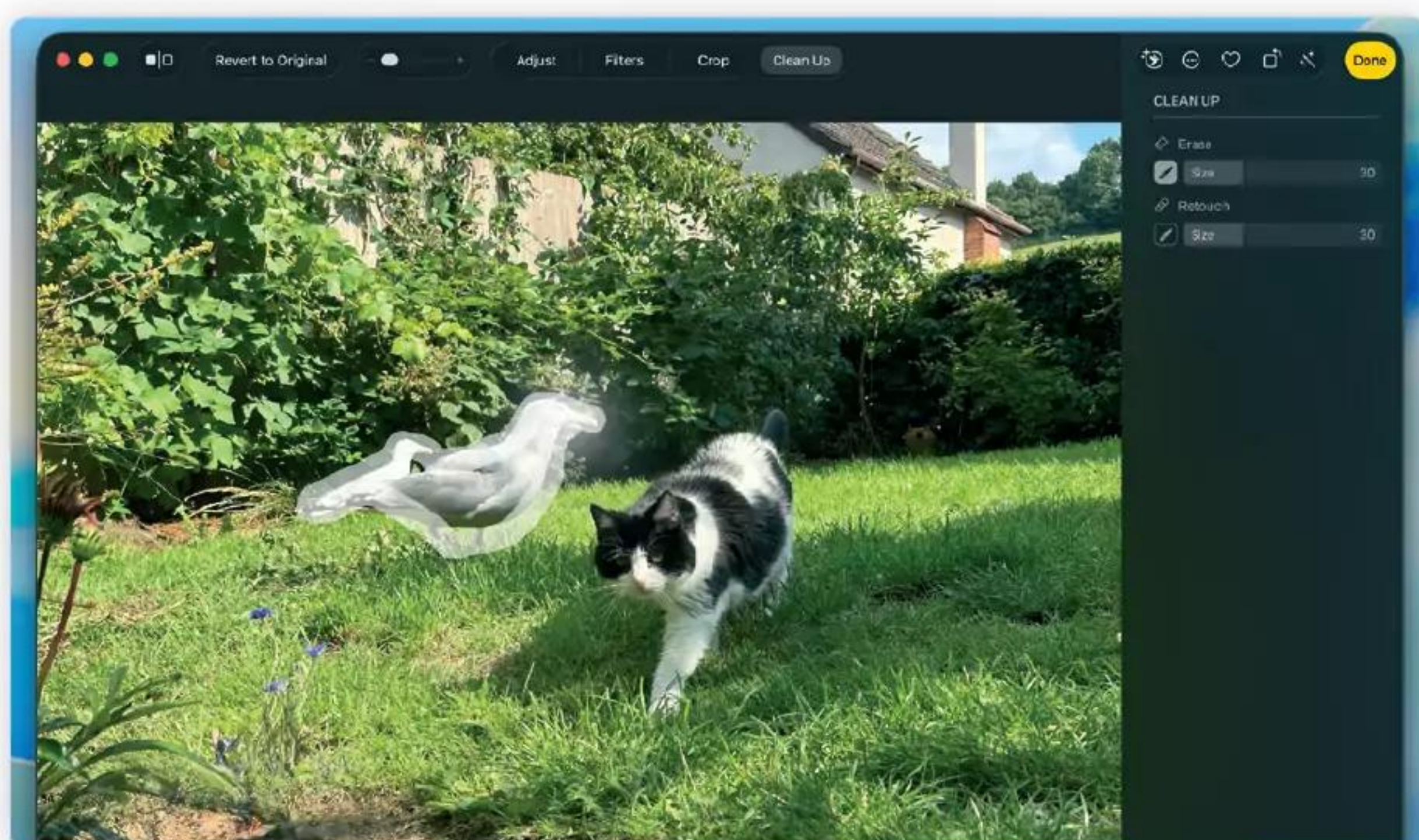
Remove Unwanted Features



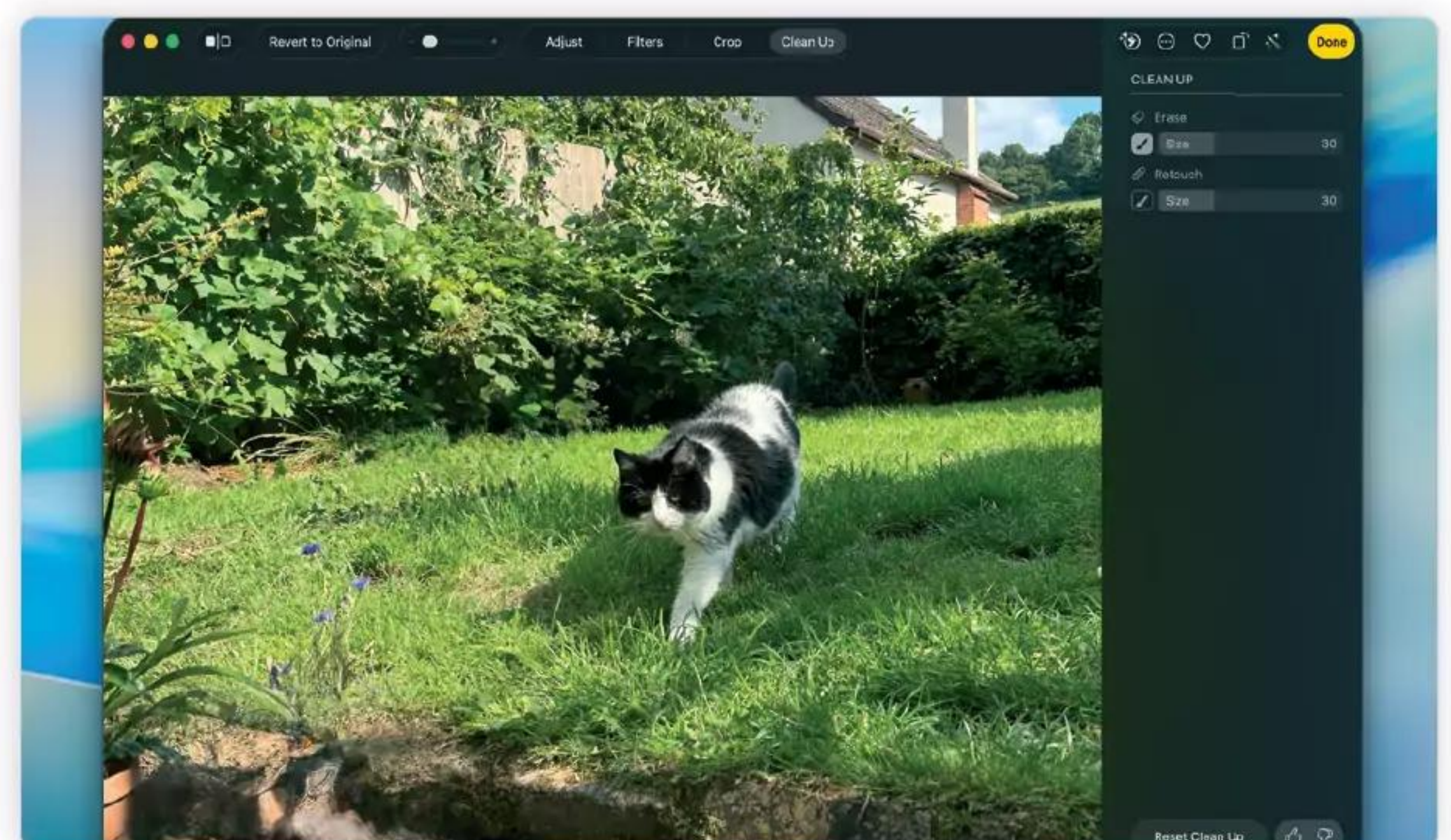
1 In the Photos app, find and open the picture you want to edit and then tap the Edit button, found in the top-right corner. On the next screen, tap the new option, Clean Up, found in the toolbar at the top.



2 After a few seconds, items you might want to remove are identified. Click one you do indeed want gone. Apple Intelligence removes it and fills in the background behind it, so it looks like it was never there.



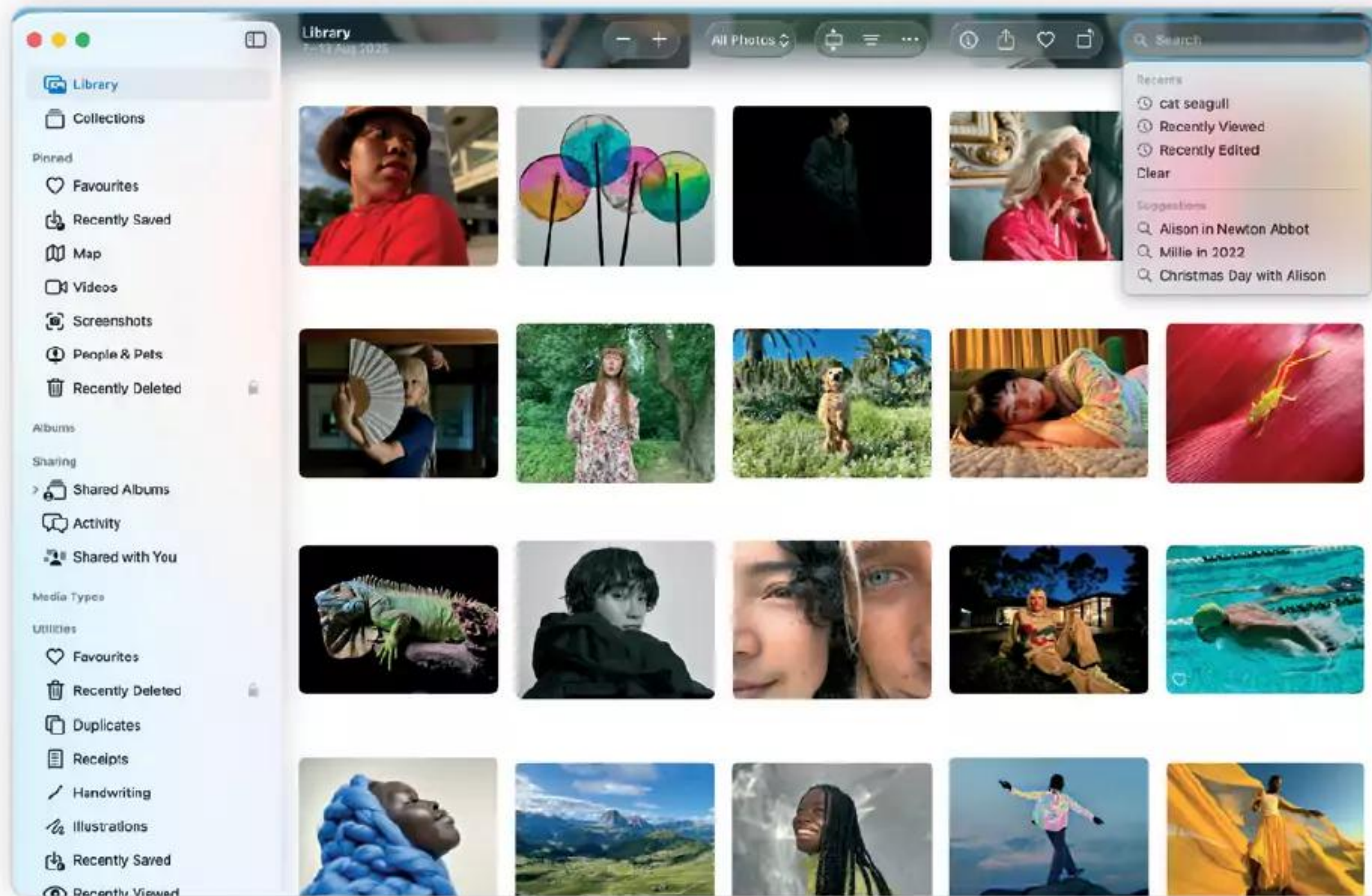
3 If there are any features Apple Intelligence hasn't identified as something you might want to remove, click and drag over that particular feature to remove it manually instead.



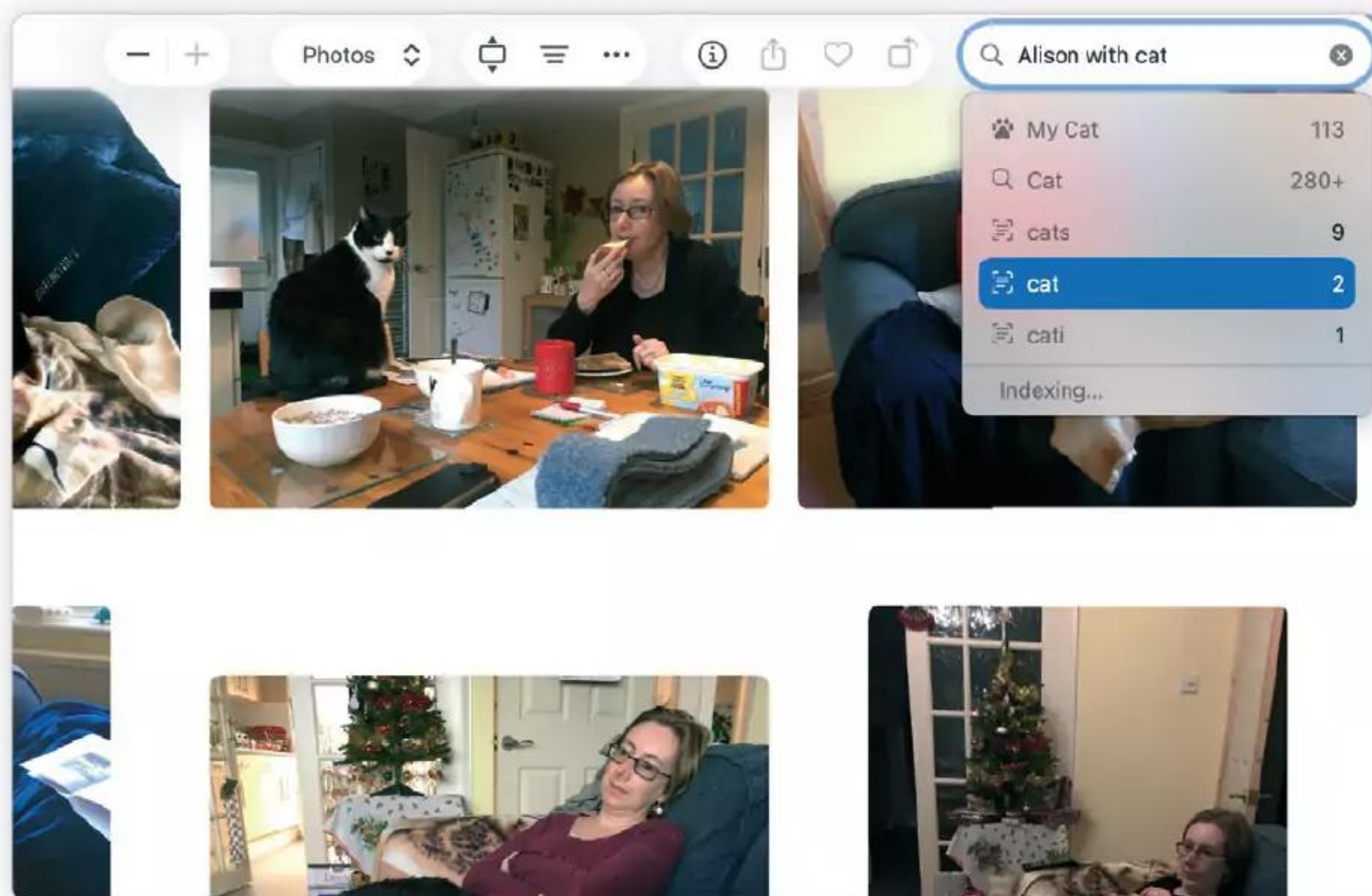
4 Get it basically right, and Apple Intelligence will know what you mean. A feature identified in this way is removed, just like in the previous step, leaving you with a much better photograph.



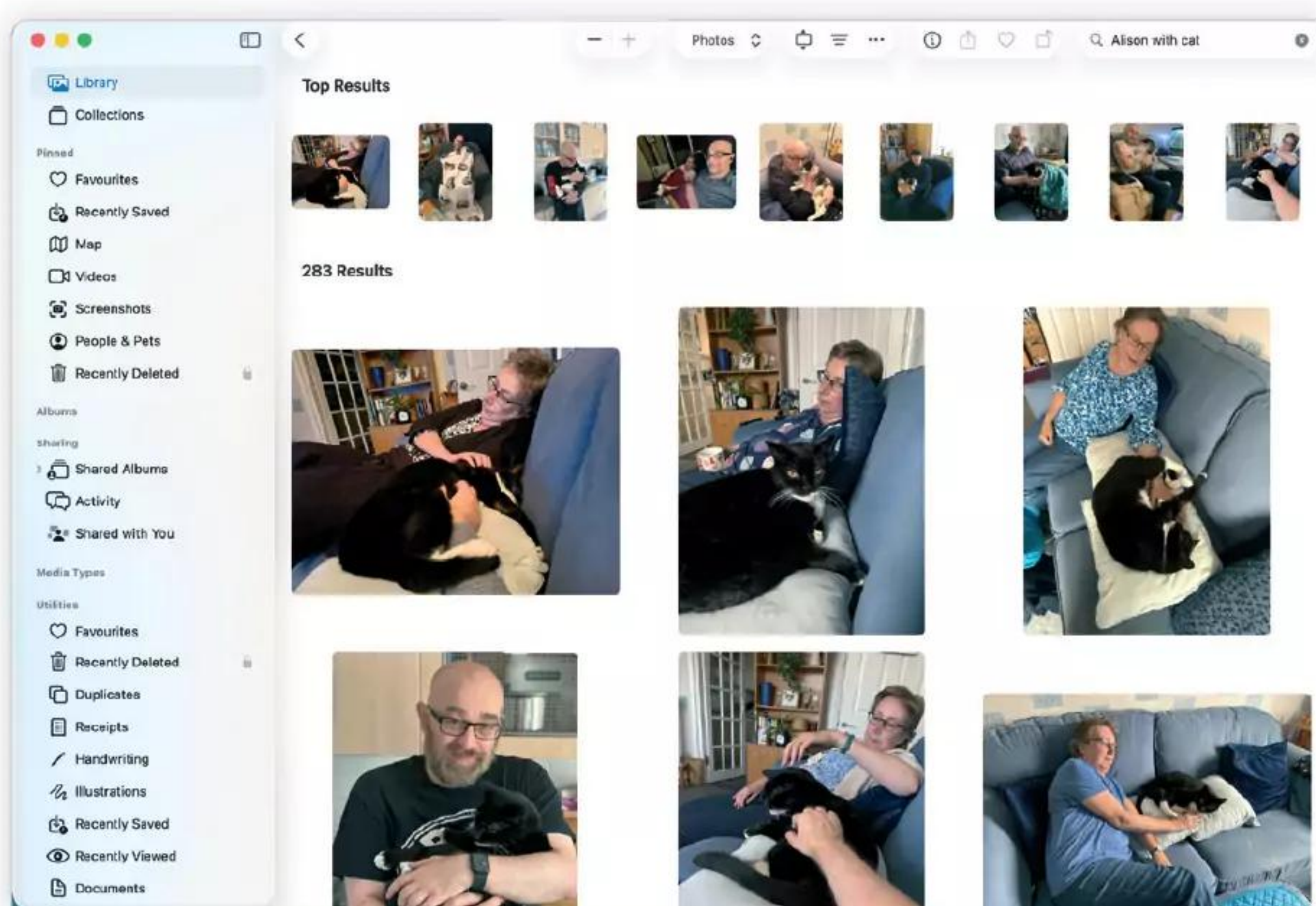
Searching Photos



1 Apple Intelligence can help you search for specific photos and videos. Tap the Search field, and then type a description using natural language; write it just like you would speak it, the results speak for themselves.

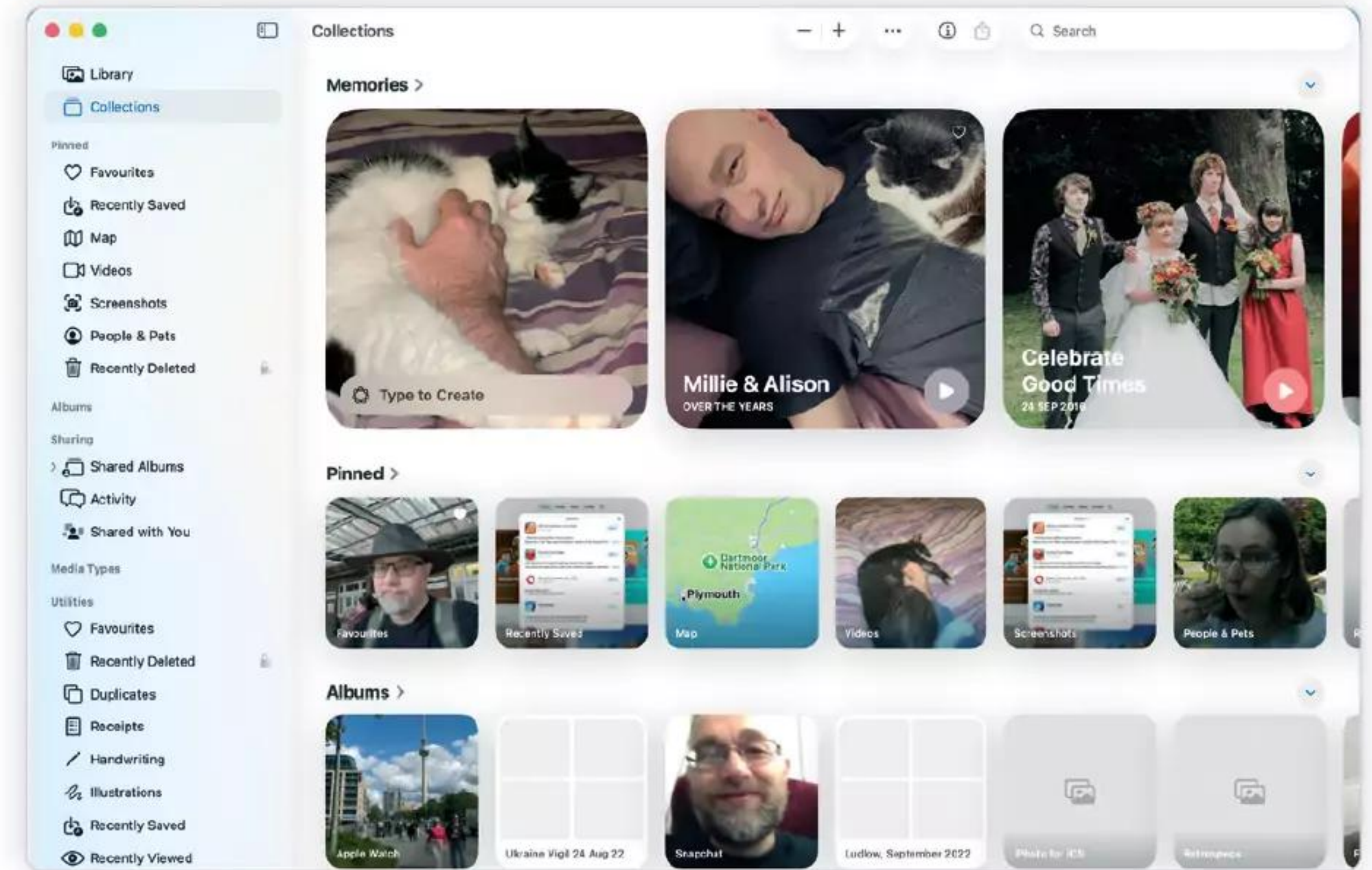


2 You can use names of people you've identified in your Photos app too. You're presented with search results. Choose one, or tap the Return key to search for a specific image.

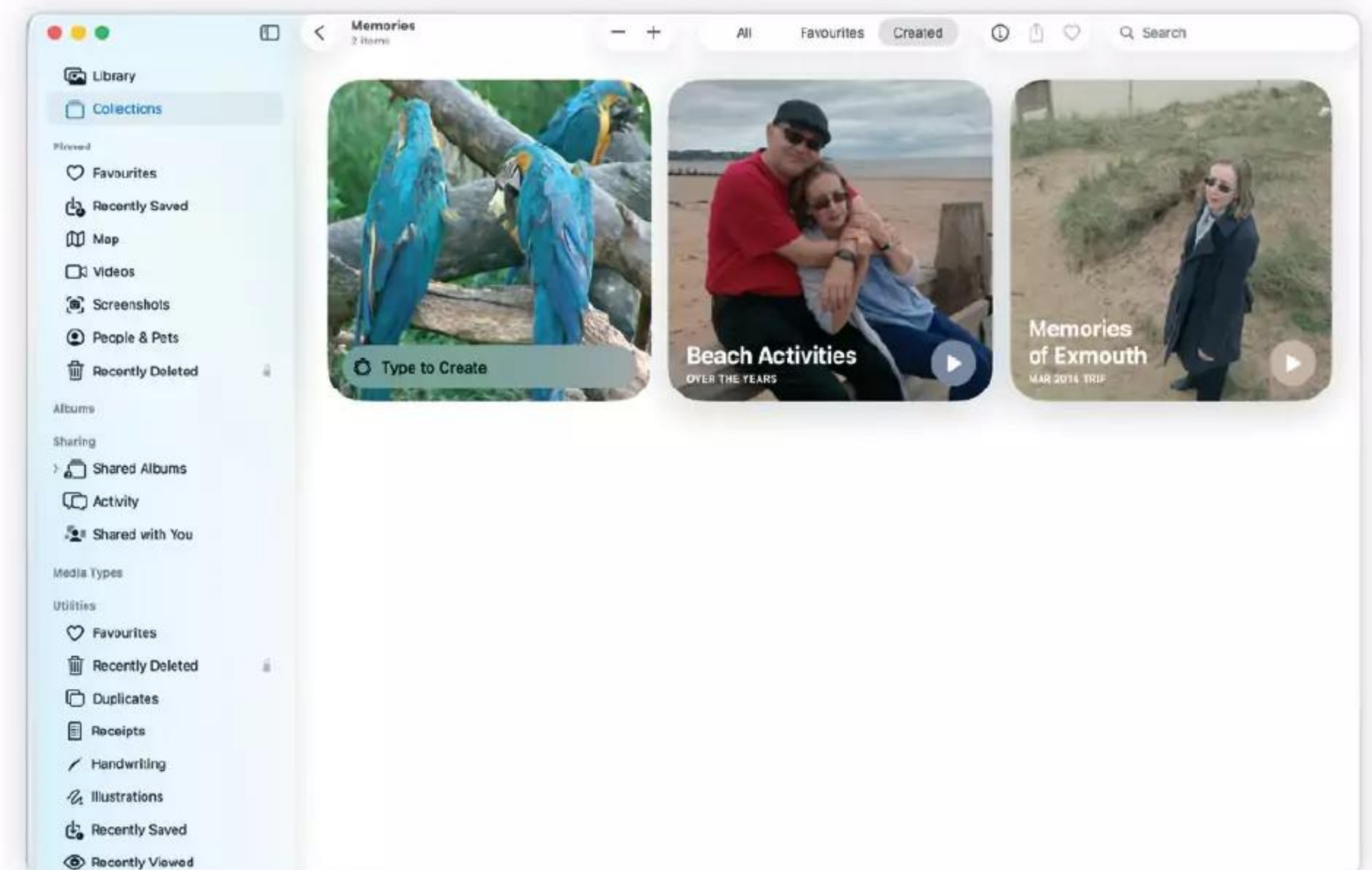


3 All the photos that fit your search description are offered. Albums and Collections are also offered, at the top of the results. The first row of results are the best matches for your search criteria.

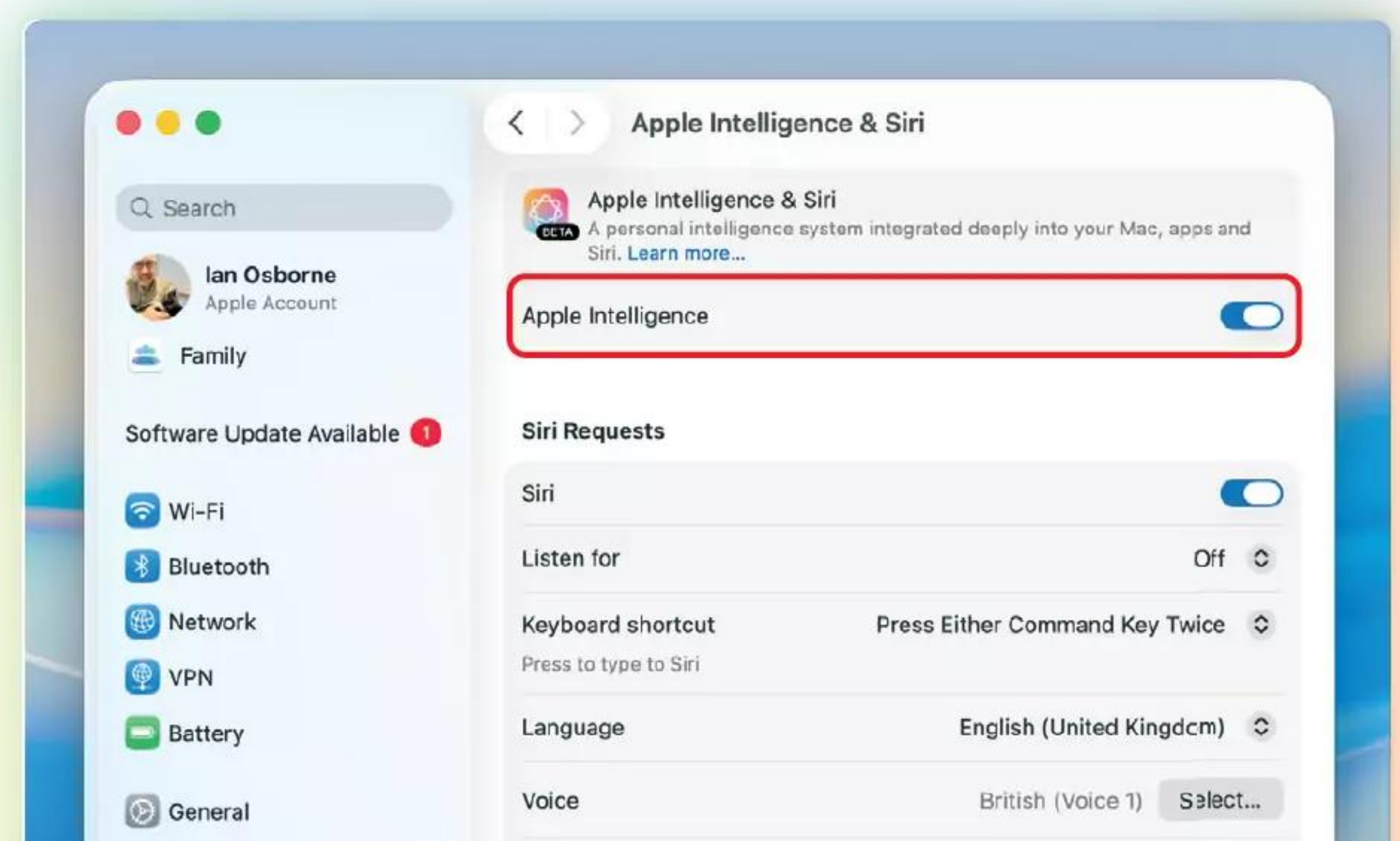
Watching Memories



1 If you have an iOS device, you might well have created custom memories on it using the Apple Intelligence feature. You can also view these memories in the Photos app on your Mac if you wish.



2 Click Collections in the sidebar, and then click the 'Created' button found in the toolbar at the top of the screen. Memories you've created are shown here; click on one to view it in the Photos app.



Switch it On

To turn on Apple Intelligence across macOS, open System Settings, and click on Apple Intelligence & Siri in the sidebar. At the top of the right-hand panel, make Sure Apple Intelligence is switched on.



Google Photos Editing With AI

Once again, we are looking toward Google's AI integration to help us make time-consuming tasks less of a chore. For the purposes of this tutorial, we will show you how to make complex edits to your photography without any need to step away from your mobile device.

The Mobile Editing Process Explained

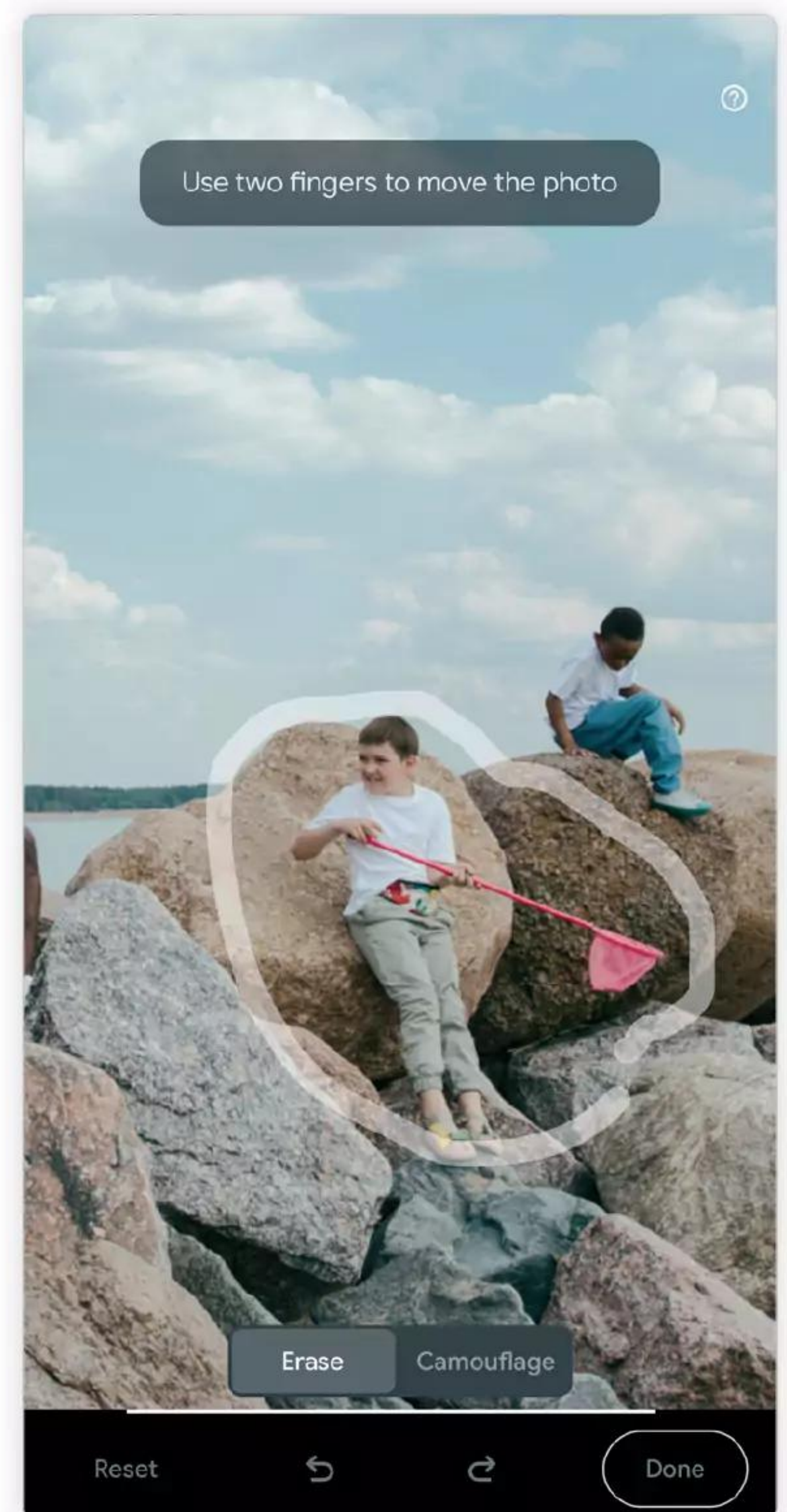
Learn how to customise, edit, and enhance your photography by capitalising on the Photos App's unique features.



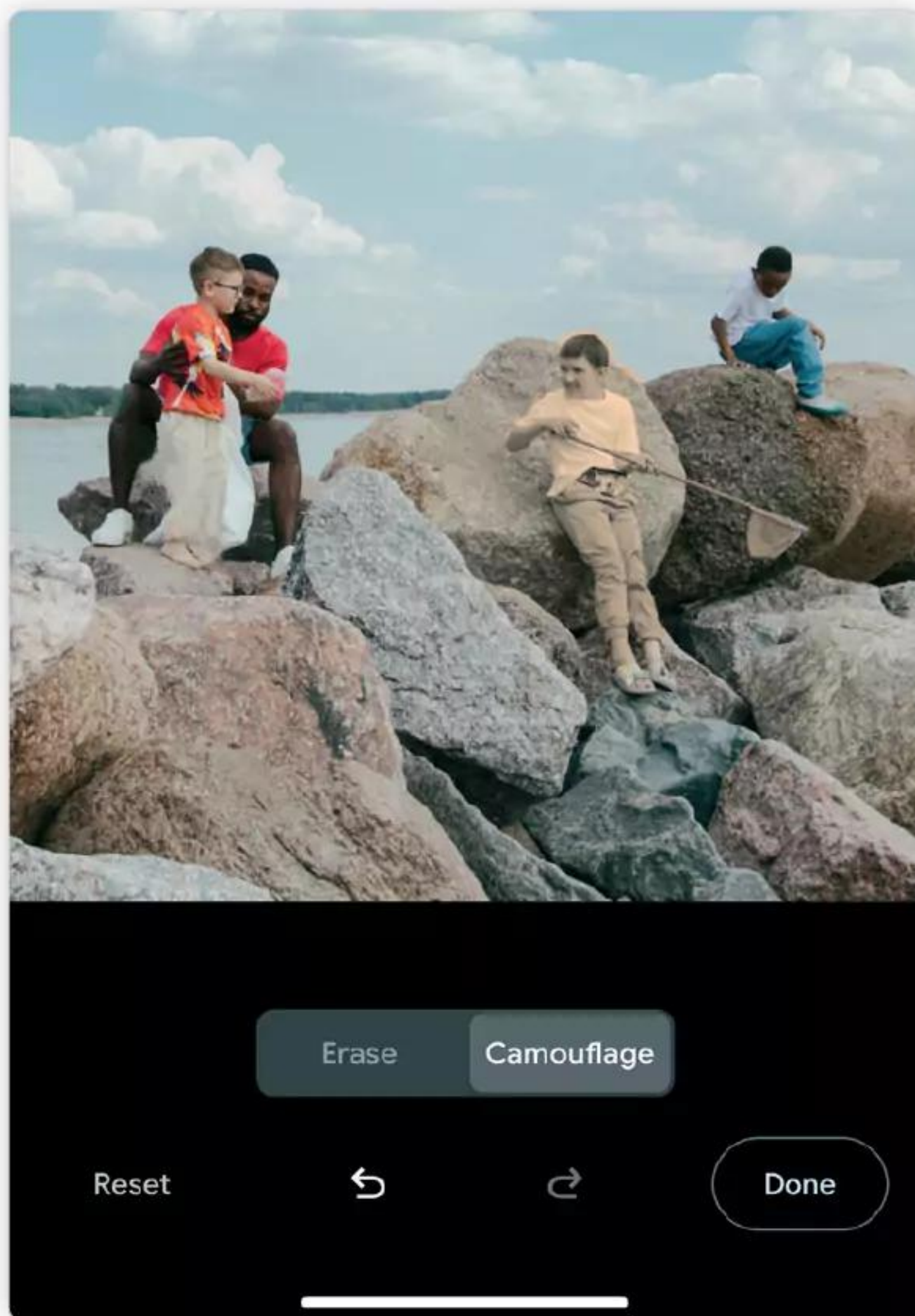
1 Open the Google Photos app on your mobile device. Select the image you will customise from your gallery. When the image has opened in a new screen, tap the Edit link at the bottom of the screen to start the process. You can also search for similar images using the Lens link.



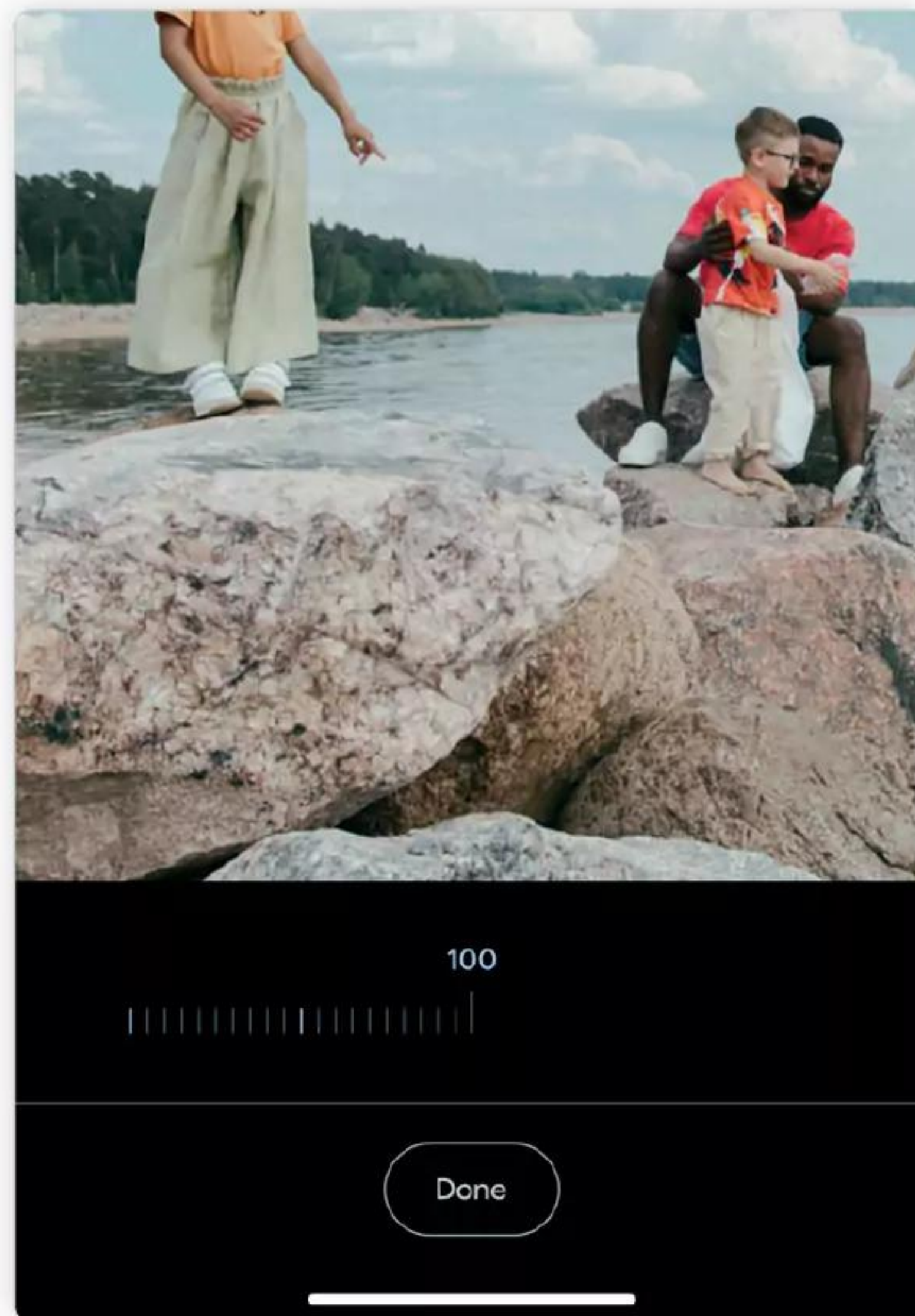
2 Click on the "Edit" icon. This will open up various editing tools, many of which will be familiar to the web app users, although those wishing to use the full editing suite are better catered for using this mobile version. For this guide, we will focus on the AI tools.



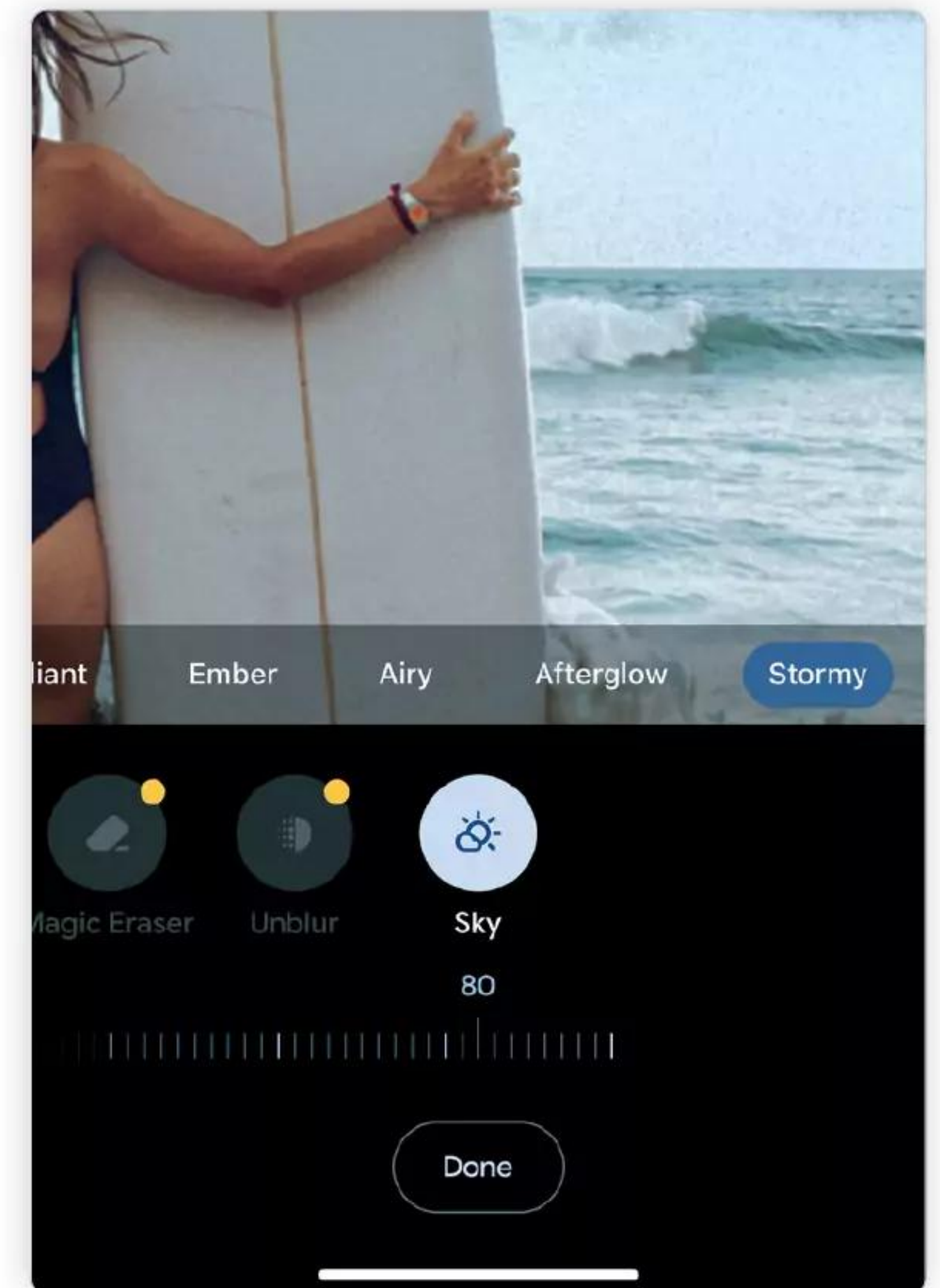
3 To start, let's look at the AI eraser tool. To open it, tap Magic Eraser. The Google Photos app will suggest objects to remove, or you can circle the object manually to erase it. Using two fingers, you can zoom and move around the image for smaller objects or finer details.



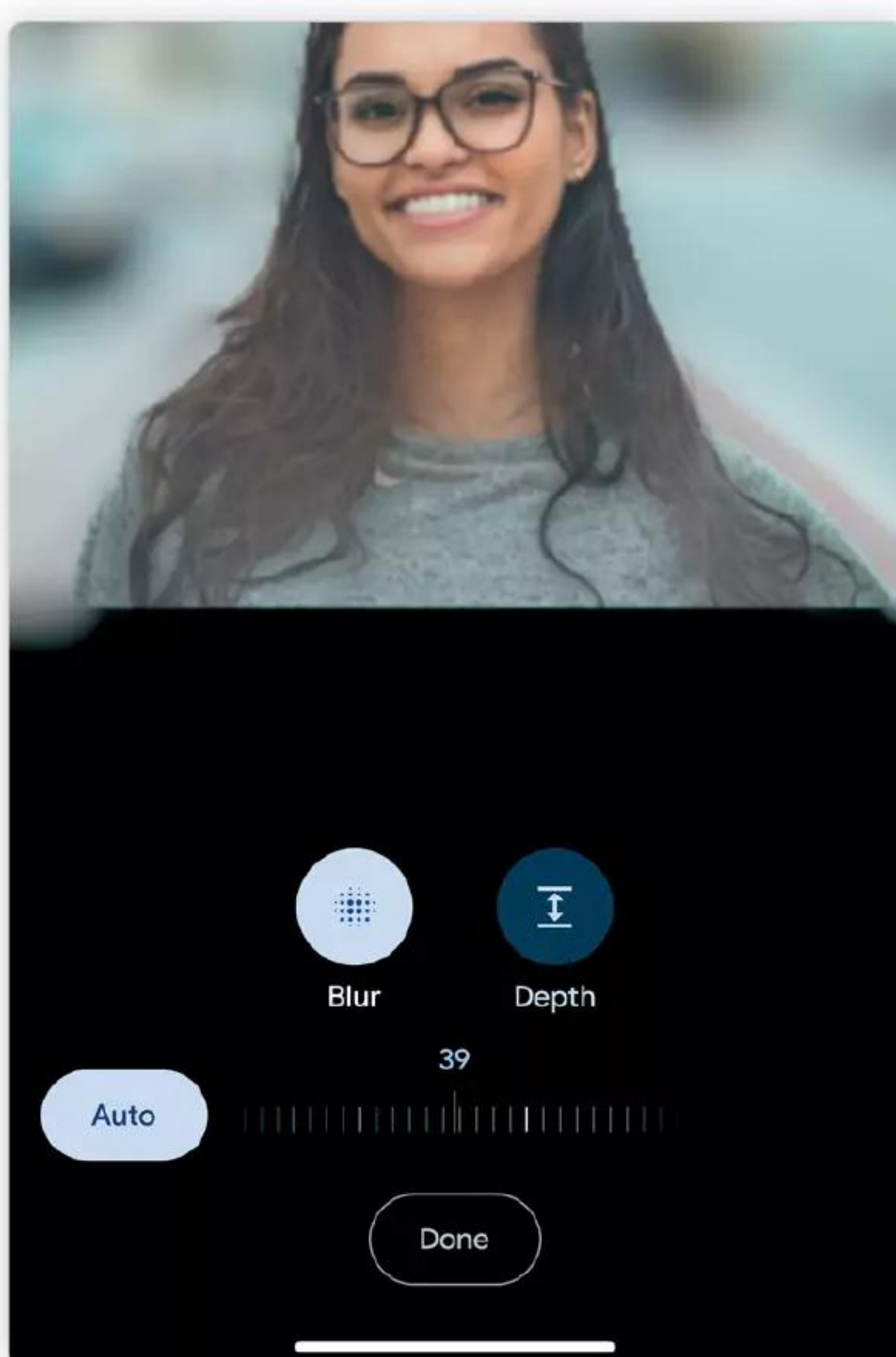
4 There is a more subtle AI tool to lessen the impact of an item in an image with the Camouflage option. Once again, circle or highlight the image you wish to disguise. Using the back and forward arrows, you can switch between a before and after image to compare. Tap Done to save the image.



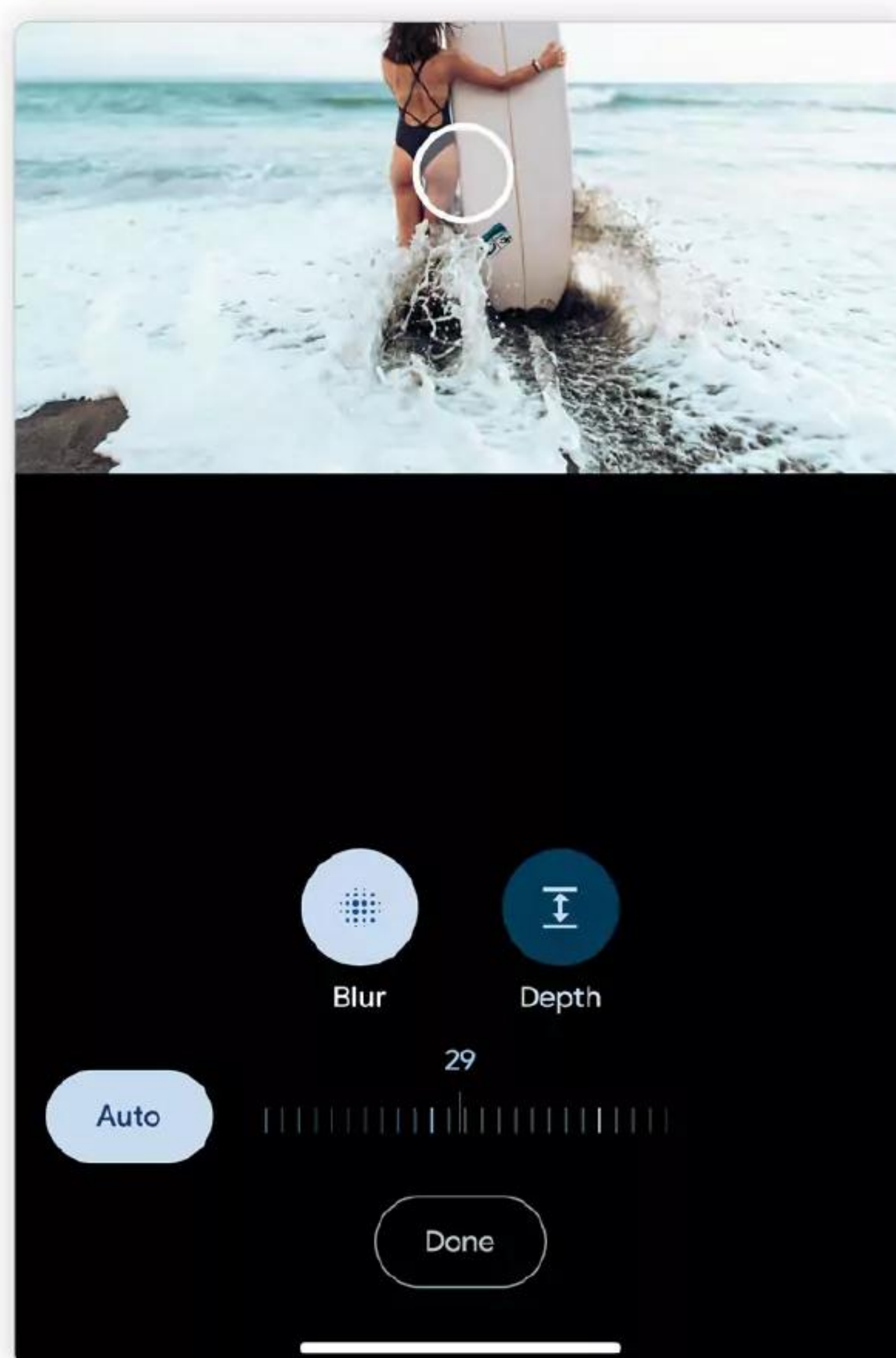
5 To use AI to improve the quality of your photography in general. By using the AI Unblur tool, you can sharpen your images. Once selected, the app will automatically select its perceived optimal setting. You can adjust the intensity of the effect using the manual slider to suit you.



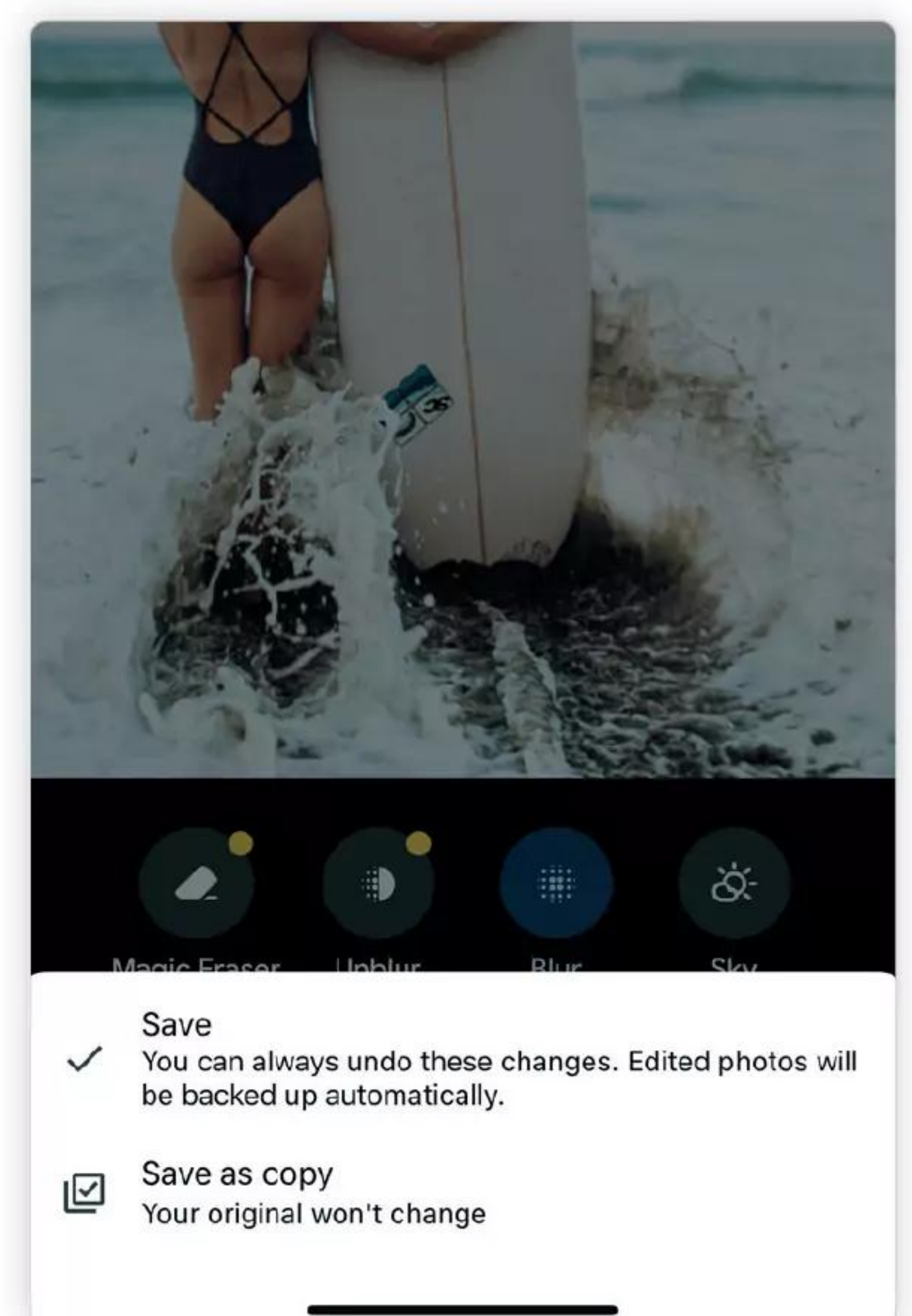
6 With a little help from AI, you can now change the weather, at least on your photographs anyway. To apply AI-Generated Sky effects, select Tools and then Sky, choose from sky enhancements like Golden Hour, Stormy, or Sunset. You can adjust intensity to make the sky really pop or tone down.



7 To give your images that fantastic portrait style central focus, by using the AI-powered Blur tool. Select your image and from the main Tools selection link, tap Blur. You can adjust the level of the background blur/depth effect using the manual slider at the bottom.



8 There are a selection of additional AI-recommended edits available from the Tools link by tapping Suggestions. From this link, you can auto-select various settings to auto-improve your images. Tap the suggestion to apply instantly, tap Cancel to remove the edit.

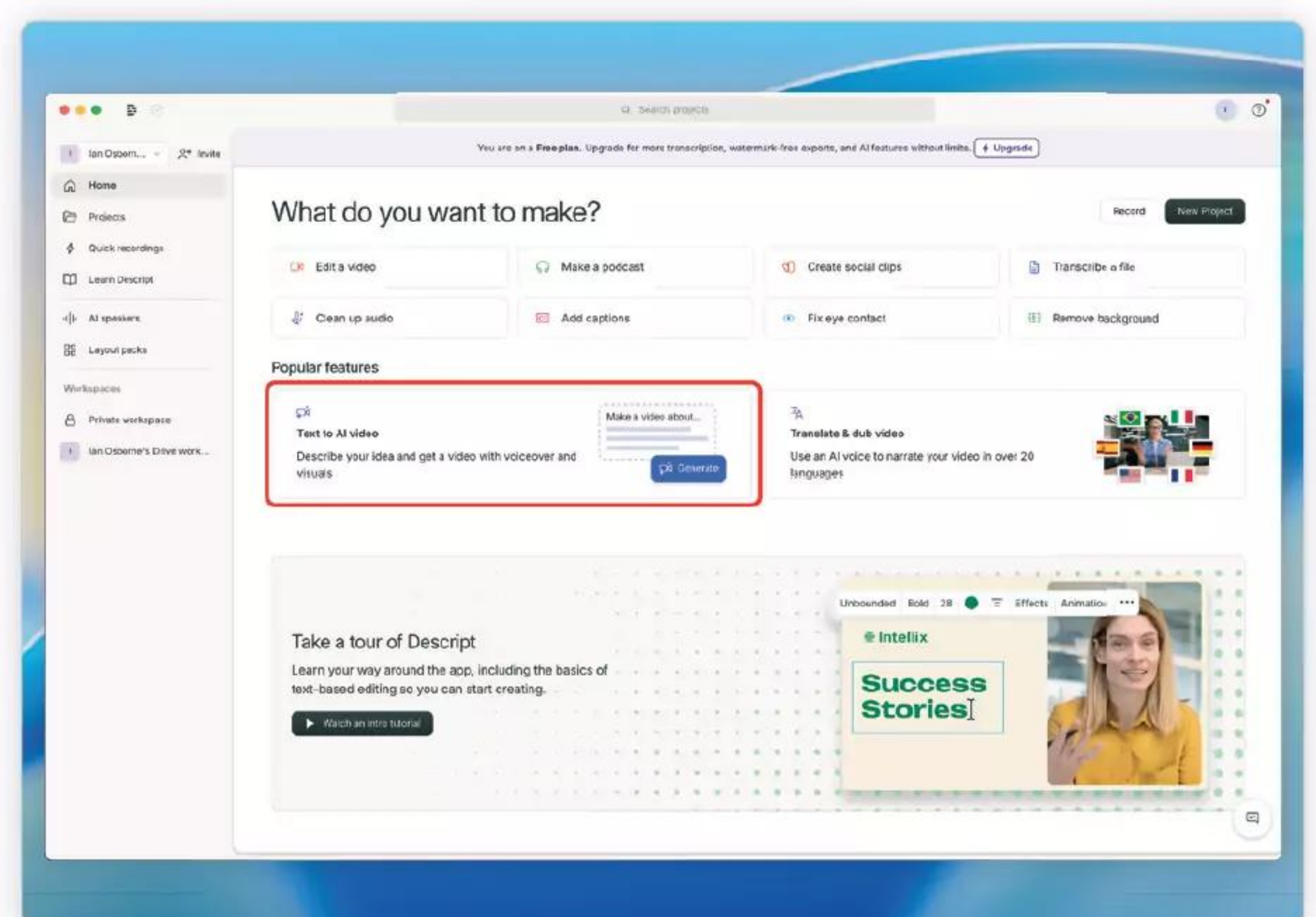
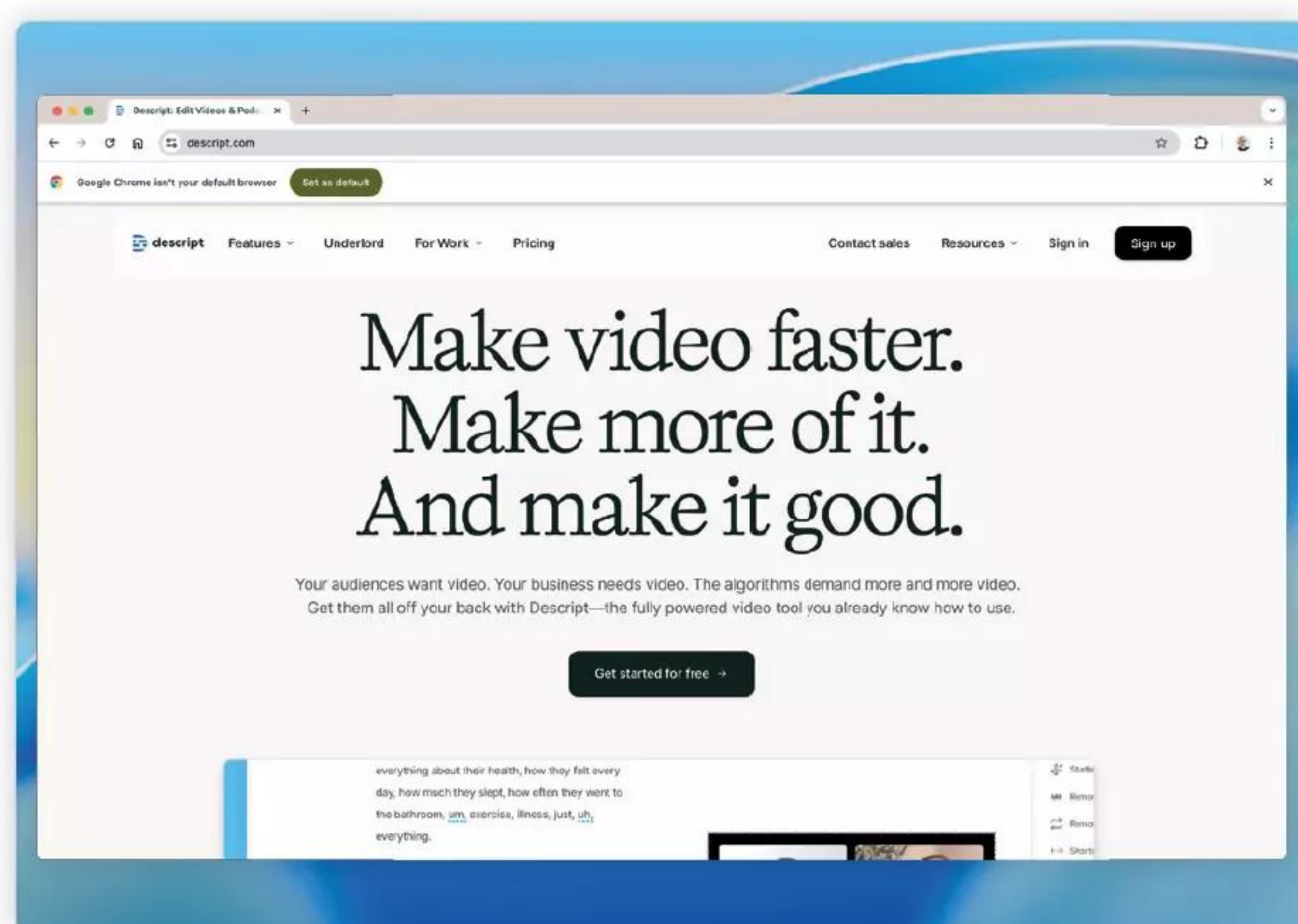


9 When you have finished editing your images, you can choose to create a duplicate or overwrite your file. Tap Save to keep the edits without affecting the original. Alternatively, you can tap the Save a Copy option if you wish to keep both versions of the file.



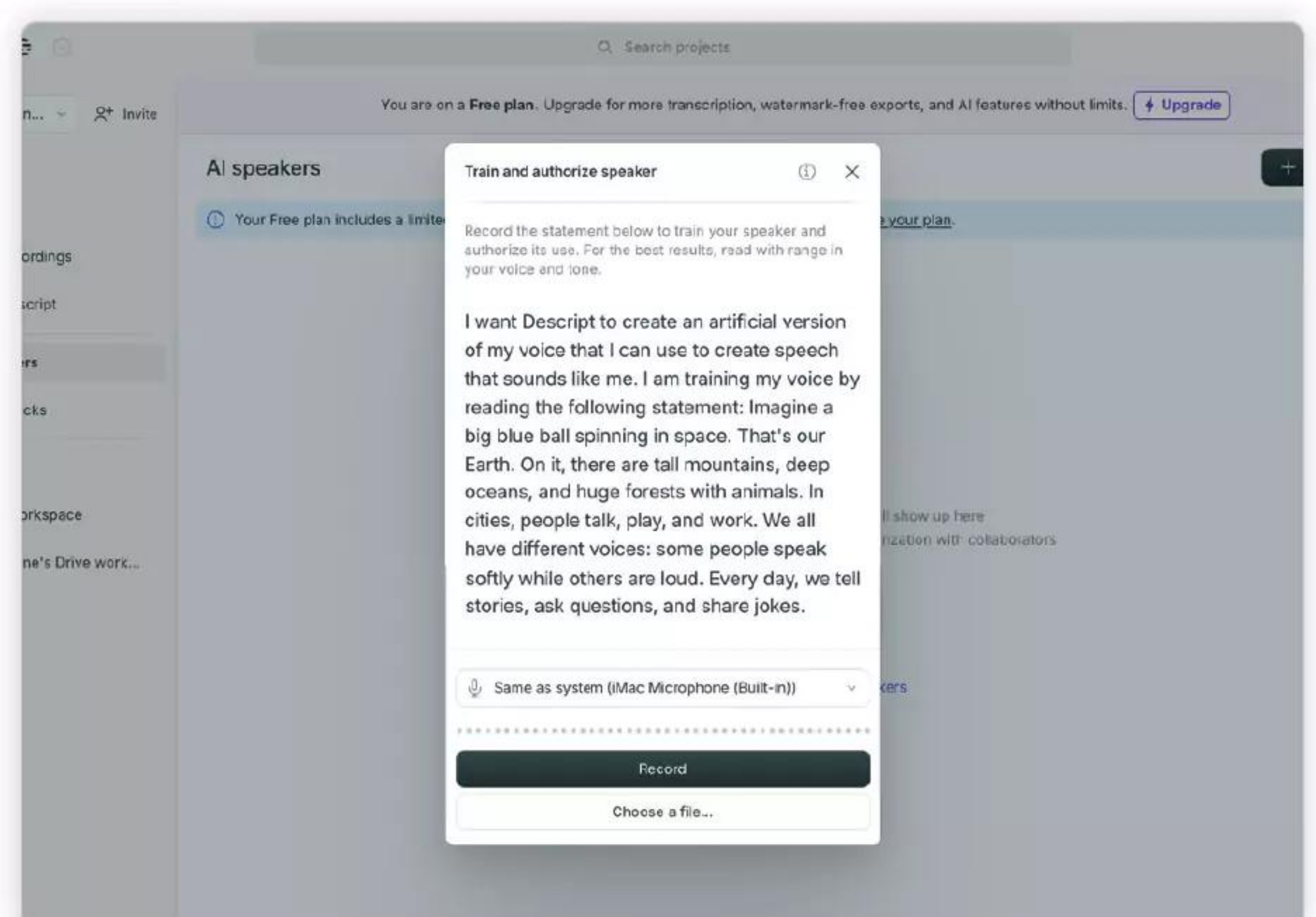
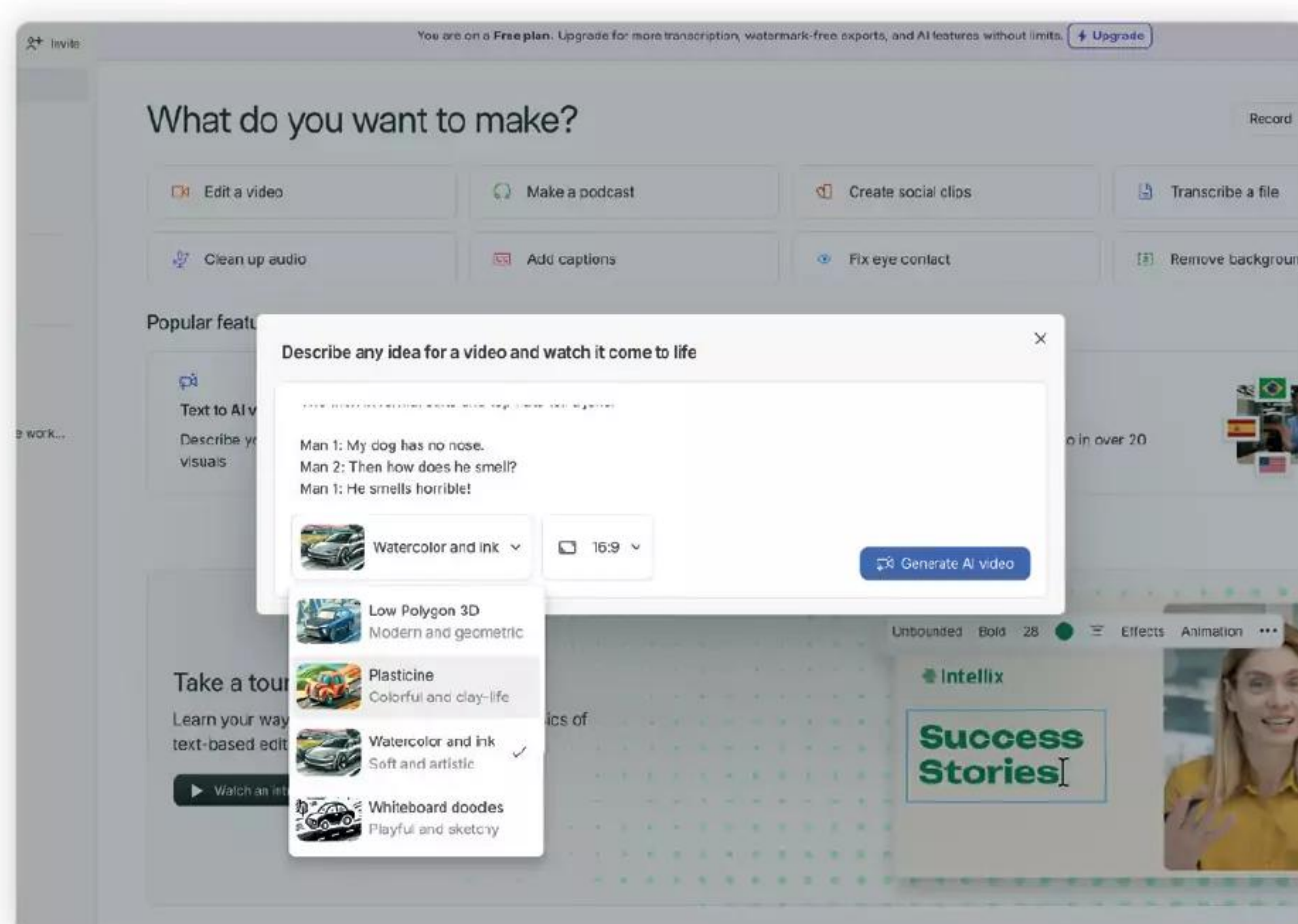
Descript For Video Editing

If you've no idea how to make a video, don't worry. Descript does it all for you. You can start with a pre-built layout created by video professionals, and customise it to your own requirements. Add to your videos with GIFs, B-roll, music, and images from Descript's own range, or use AI to generate something completely original for you.



1 Go to www.descript.com, click Get Started for Free and choose a few options. You have to choose a free or paid-for tier on the website too. When you're done, the Descript app download begins.

2 When you first launch the app, you're asked what it is you want to do. Let's take a look at the Text to AI video option. Click it to release a new pop-up window inviting you to describe an idea for a video.



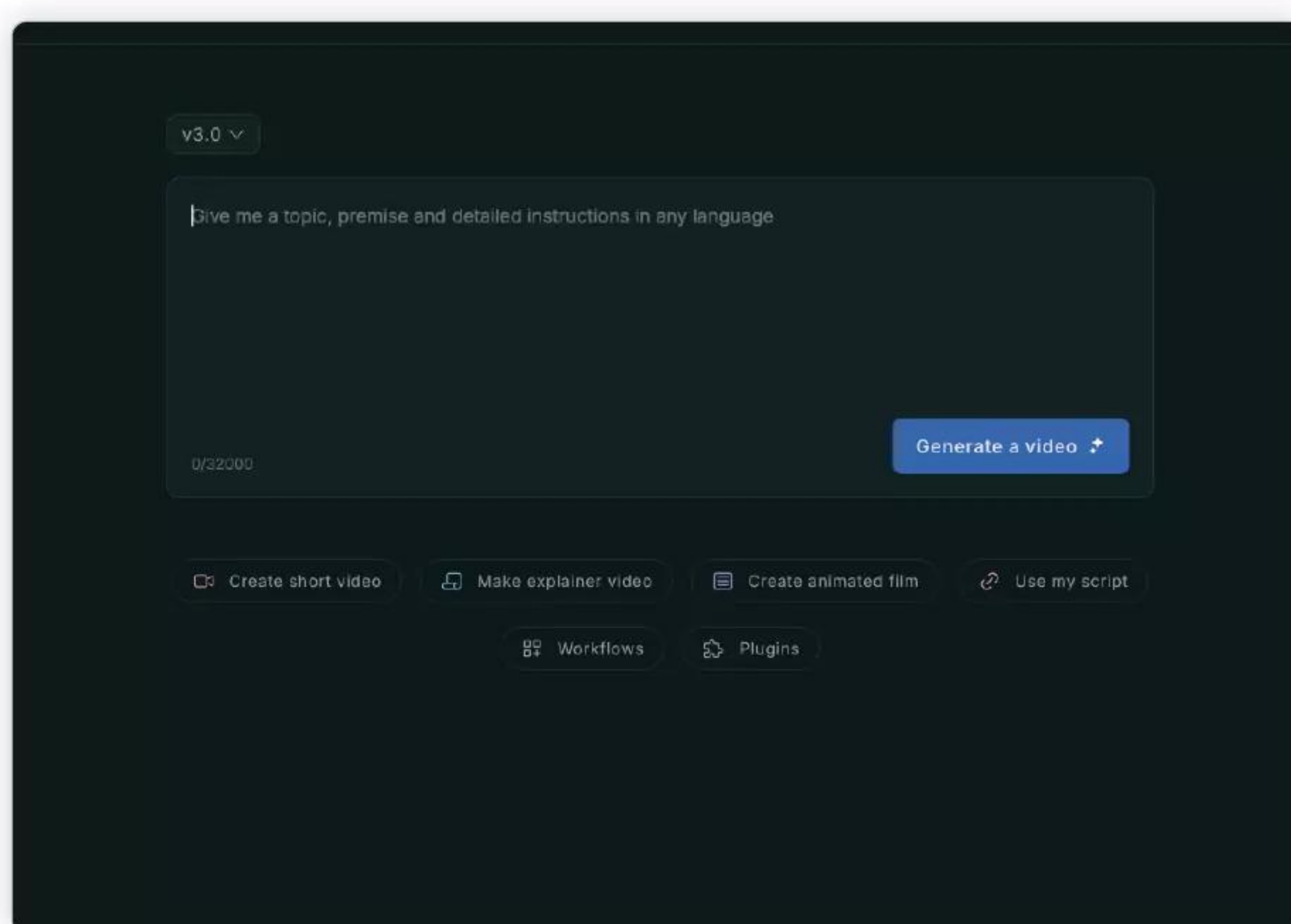
3 Type what it is you want the video to contain. You can write a script and have it read in the video, as well as describing images. Choose a style and an aspect ratio from the menus, then click Generate AI Video.

4 If you're using a script in the video, you can train an AI voice so the narrator sounds like you. All you need to do is record your voice reading a statement offered by Descript, and the app does the rest.

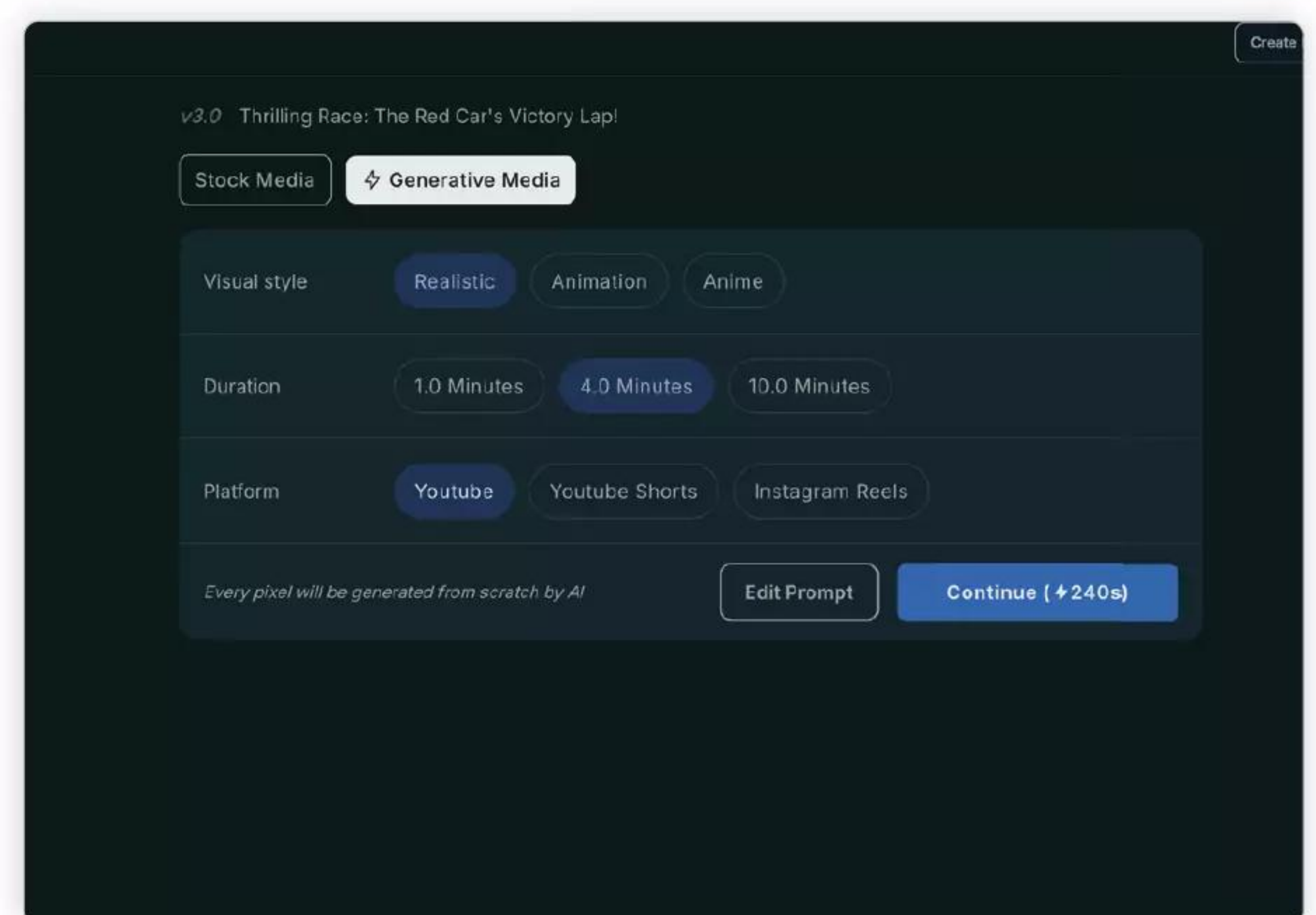


Invideo Videos From a Script

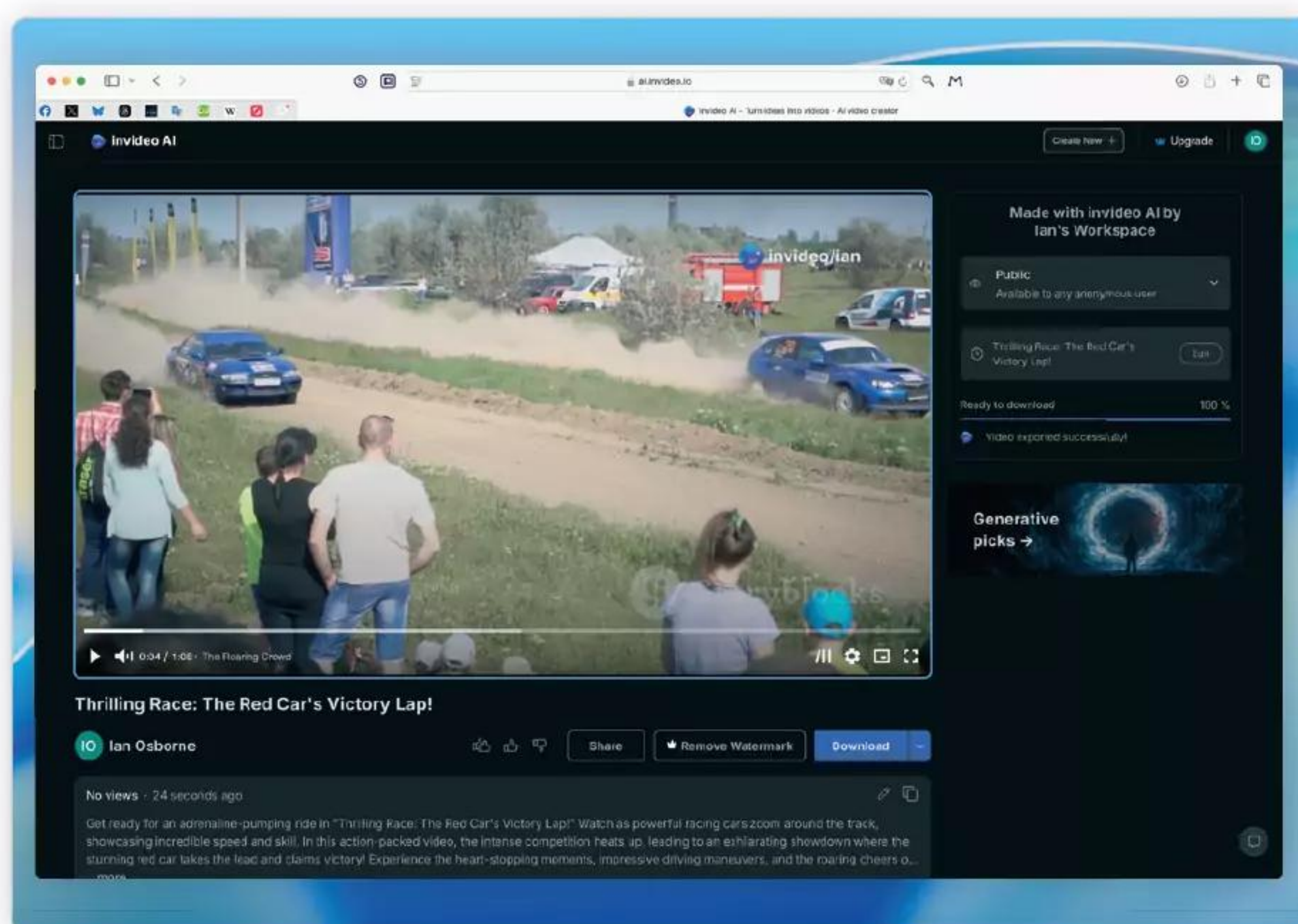
Invideo is designed to create artificial intelligence-generated videos from only text. It's available on both iOS and Android mobile devices, but here we're using its web portal on a Mac. Point your browser to www.invideo.io to follow along. Like most AI-driven services, there are several pricing tiers, the cheapest of which is free.



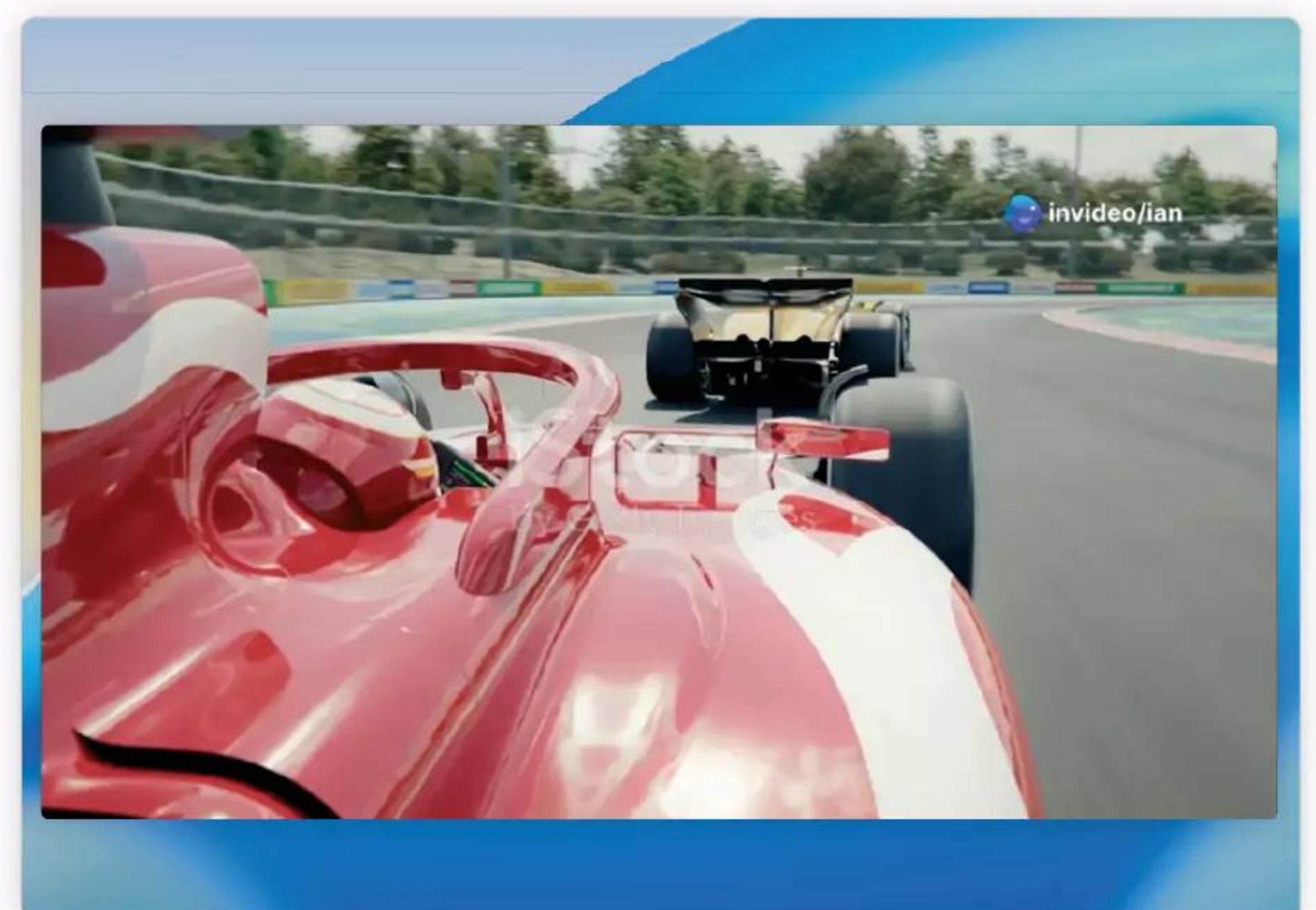
1 You can try out Invideo without paying for an account. Click the Try Invideo AI button, and then sign in with Apple or Google, or create an account. When done, type what it is you want the video to contain.



2 When you're ready, click Generate a Video. After a while, you're offered some options. You can choose how the video looks (realistic, cartoony or anime), how long it is, what platform it's for and so on.



3 Continue when ready. The video generates. On a paid-for tier, it can be 100% AI generated, but if you're using the free service, stock footage is incorporated. There are watermarks if you used the free tier.



4 You can download the video to your computer, but on the free tier there are limits. As well as the watermarks, you can only go to 720p resolution and there are limits to the number and length of videos.



AI Assistant _

SEND





AI Smart-home Apps_

Artificial intelligence is becoming more common in all walks of life, including the smart home. There's a wealth of AI-powered gadgets and gizmos designed to make your life easier. Look out for smart lighting, robot vacuum cleaners, home security and more. To control them you need an AI hub such as Amazon's Echo, a Google Home device or Apple HomePods. And what about your favourite TV streaming services? AI is reaching them too.

Welcome Home For A Smarter Home

Meet the hubs at the heart of your AI-powered smart home.

Alexa, Siri and Google Home are AI-powered. They're all designed to recognise conversational language, understanding a wide variety of accents and dialects, and parse it into instructions and queries. They're designed to learn from their past conversations too, improving the way they interact with people based on past experience. And they're growing as artificial intelligences too, with constant improvements and revisions.

Google Home

Google's smart home platform is called Google Home, and like Apple and Amazon, the company has a range of smart speakers with which you can control it. The Nest range consists of two models; Nest Audio and the smaller, cheaper, Nest Mini.

Nest Audio's woofer, tweeter, and tuning software bring you crisp vocals and a deep bass. It's 75% louder than the original Google Home, and has a 50% stronger lower audio spectrum. It adapts to your surroundings and reacts to what you're listening to, so everything

sounds great, whether it's intense rock music, easy listening, radio discussions or audiobooks.

The Nest Mini also offers improved bass over its original model, this time twice as strong. Its durable fabric cover is made from recycled plastic bottles, and it features improved voice recognition.

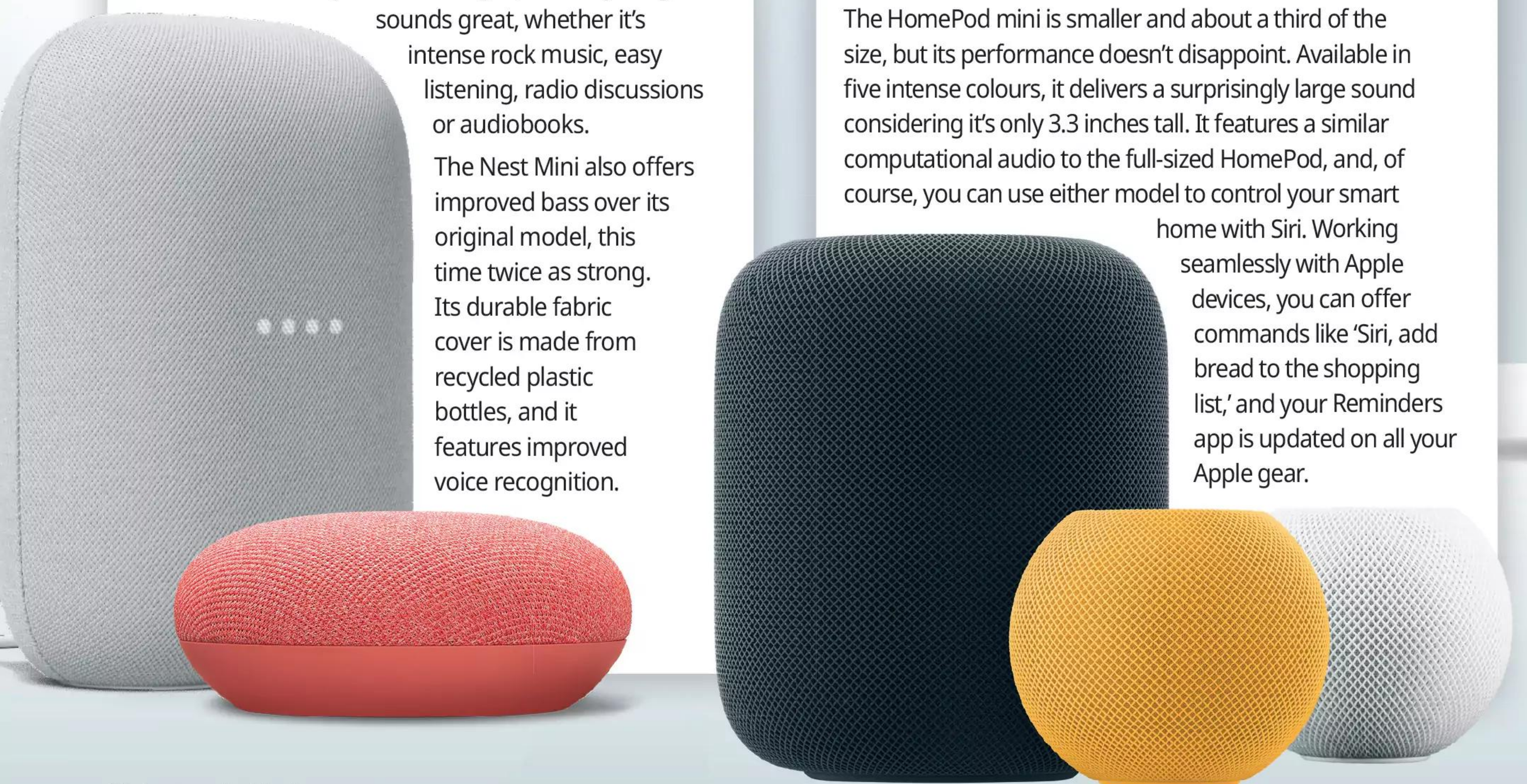
Apple HomeKit

HomeKit is Apple's smart home platform, and as well as using Siri on your Apple devices, you can also set up a smart speaker to operate it. Apple's smart speakers are called HomePods, and there's two models on offer; the flagship HomePod model, and the smaller, cheaper HomePod mini.

As you'd expect from Apple, the HomePod is a classy, attractive, high-quality product. Also as you'd expect, it's not cheap. Its audio quality is amazing. Its powerful woofer gives it a deep, rich bass, and its bass-EQ mic dynamically tunes low frequencies in real time. It has five beam-forming tweeters too, bringing the high notes easily within reach. Perhaps its cleverest feature is that it beams the primary sound such as vocals into the middle of the room while ambient audio like the backing band is bounced off the walls, shaping the sound so you feel like the artist is in the room with you. Powered by Apple Silicon, the system sensor analyses the room and the processor uses the information to run complex tuning models, making sure you get the best audio for its location.

The HomePod mini is smaller and about a third of the size, but its performance doesn't disappoint. Available in five intense colours, it delivers a surprisingly large sound considering it's only 3.3 inches tall. It features a similar computational audio to the full-sized HomePod, and, of course, you can use either model to control your smart

home with Siri. Working seamlessly with Apple devices, you can offer commands like 'Siri, add bread to the shopping list,' and your Reminders app is updated on all your Apple gear.





Amazon Alexa

In February 2025, Amazon introduced a new upgrade to Alexa. Called Alexa+, it's powered by generative AI and is more conversational, more personalised to your needs and wishes, and better placed to help you get things done.

Conversations with Amazon Alexa+ feel more natural. Instructions don't have to be clear and precise – even if you stutter or otherwise trip over your words, Alexa+ can cope. Colloquial expressions and idioms are understood too.

Alexa+ is very good at understanding your personal context. She can remember what you've bought, listened to and watched, shipping addresses and so on. You can personalise her further by asking her to remember birthdays, dietary preferences and more. An example offered by Amazon is that if you are planning a family dinner and need a restaurant recommendation, Alexa+ can remember you love pizza, your daughter is vegetarian and your partner is gluten-free.

Alexa+ is a subscription service, but free for Amazon Prime customers. Whether you have it or not, Alexa can manage your smart home. With Alexa-compatible devices, you can turn the lights on and off, operate thermostats, view cameras and more, all with straightforward voice

commands. You can also use Alexa to set up routines that trigger automatically. For example, you can have the lights turn on automatically at sundown and off again at a set time. The Alexa app, and Echo models with a screen, let you view and control your smart devices, and you can group gadgets and operate them using a single command.

Alexa is mostly used through Amazon Echo smart speakers, but she's also available in screens and smart doorbells. According to Amazon, there are over 600 million Alexa devices currently in use. One of the most popular is called simply the Amazon Echo. Currently in its fourth generation, the latest Echo is spherical in design, unlike the previous models which were cylindrical. Available in Charcoal, Glacier White and Twilight Blue, the Echo benefits from premium sound making it ideal as a smart speaker.

The flagship Echo model is the Echo Studio. Its five directional speakers and automatic room adaption make it the best – albeit costliest – Echo for the audiophile.

If sound quality is less important to you – maybe because you only use your Echo gear to control your smart home, not listen to music – the Echo Dot is cheaper, but still very capable. If you want a screen on your device, there's the Echo Show range with display sizes of up to 15 inches, and for the kids there's the Echo Kids.

Obviously, all these devices allow you to control your smart home, with commands such as 'Alexa, turn on the living room lamp' and 'OK Google, read me today's news.' Artificial intelligence is becoming increasingly integrated into these services too, so they can only get better over time.

Also worth a mention here is the Matter smart home connectivity standard. Designed through a collaboration between leading smart home manufacturers, a Matter-compatible smart home device can be used with any of the smart controllers discussed here.



Smart Lighting Shining A Light On AI

Make your world smarter as well as lighter

Smart lighting devices are able to communicate with other devices, allowing you to control them remotely. This might be as simple as having a mobile phone app that lets you turn them on and off, but it's lighting that can be voice-operated using smart home tech like Amazon Alexa, Apple HomeKit and Google Home we're interested in here.

Tapo Smart Bulb

www.tapo.com

£23.99, \$24.99, 19,90 €



Available in bayonet or screw-in fitting, these smart bulbs work with Alexa and Google Home, and let you change the colour and temperature of your lighting. There's 16,000,000 hues to choose from.

Eve Flare Lamp

www.evehome.com

£89.95, \$99.95, €98.53

You can control this rechargeable indoor or outdoor LED lamp using an iOS app or Apple Home. It's also Thread compatible, and Matter compatibility is coming soon. Use it anywhere in the home or garden.



Govee Curtain Lights

www.govee.com

£149.99, \$155.99, 129,99 €

With 520 teardrop shaped light balls, these luscious lights let you add pictures and lighting effects to your curtains. They can be voice controlled with Google Home and Amazon Alexa.



Nanoleaf Blocks Combo XL Starter Kit

www.nanoleaf.me

£179.99, \$199.99, 199,99 €

Maximise desk space and stay clear of clutter with space-saving Shelves and Light Pegboards all while letting your items shine!





WiZ Smart Colour & White Candle Light Bulb

www.wizconnected.com

£12.61, \$14.99, 15,99 €

What a great way to modernise your lighting. These candle-shaped bulbs come in a range of fittings, offer 16 million colours and are Matter compatible for smart control.



Eve Light Strip

www.evehome.com

£74.95, \$79.95, 79,95 €



It's iOS and HomeKit compatible, two metres long and it can be extended up to ten metres with optional extras. 1800 lumens of pure eye candy.



Matter Smart Multicolor Floor Lamp

www.nanoleaf.me

£69.99, \$119.99, 79,99 €

This multicoloured floor lamp includes ten curated lighting scenes and over 16 million colours. It reacts to ambient sounds such as music, and is Matter compatible.



Govee Outdoor Flood Lights

www.govee.com

£109.99, \$119.99, 139,99 €

If you want to brighten up your garden, try these Matter-compatible floodlights. They're bright, colourful and waterproof, and they can cast custom effects during occasions such as Christmas and Halloween.



Smart Plugs

Powering Your AI

Bring smart control to any electrical appliance that plugs into the mains

A smart plug sits between your home electrical device and the mains power; plug it into the mains socket, and then plug your device into the smart plug. You can then set up routines so the plug activates and turns off according to a schedule or with triggers, or simply tell your smart home controller to turn it on or off.

Tapo P110 Smart Plug (4-Pack)

www.tapo.com

£47.99, \$33.99, 69,99 €

Compatible with Alexa, Google Home and a smart app, these handy plugs can turn on and off according to a schedule or by a countdown timer. Their Away Mode can turn a light on or off at irregular times to make it look like someone is always home.



Amazon Basics Single Outlet

www.amazon.com

£11.99, \$10.99, 12,99 €

Not a versatile smart plug (it only works with Alexa and its mobile app), but it's available at a very affordable price. Features scheduled activation, voice commands and a lot more too.



EIGHTREE Matter Smart Plug with Energy Monitoring (4-Pack)

www.eightreesmart.com

£40.99, \$39.99, 45,99 €

If you're concerned an appliance is costing you too much in electricity, these smart plugs are a great way of keeping an eye on it. They're Matter-certified, and have their own smartphone apps too.



UseLink Matter Smart Power Strip with Surge Protector

www.uselink.com.tw

£36.99, \$34.99, 44,99 €

This Matter-compatible device gives you four smart sockets in one. You can set timers and schedules, it gives short circuit and overload protection and it boasts a 3000W 13A power capacity.



All plugs listed here are available in UK, US and Euro formats.



Streaming Music Services

Dance To Your Beat

Your smart speaker can also stream tunes from a range of services

Your Nest, HomePod or Echo can do more than control your smart home. By linking it to your music streaming service of choice, you can also use it to listen to tunes using commands such as 'Hey Siri, play some Sixties music,' 'Alexa, play Motörhead' or 'OK Google, play We Can't Be Friends by Ariana Grande.'



Apple Music

www.apple.com

£10.99, \$10.99, 10,99 € per month

With Apple Music you can choose from a huge library of 100 million tracks. It's fine for Alexa and Google Nest devices as well as HomePods. You get a month free when you subscribe, but there's no free demo or trial tier.



Spotify

open.spotify.com

Free or £11.99, \$11.99, 10,99 € per month

The daddy of all music streaming services, Spotify has a wide range of tracks, great podcast support and a good selection of price plans (prices listed above are for one person).



Amazon Music

www.amazon.com

Free or £11.99, \$11.99, 10,99 € per month

This one has an ad-supported free tier and a 90-day free trial if you want to take out a subscription. It integrates well with Amazon devices, but can be played on a Google Nest, or on a HomePod by AirPlaying it from your iPhone or iPad.



Deezer

www.deezer.com

£47.99, \$33.99, 69,99 € per month

The feature that sets Deezer apart from the crowd is you can upload your own MP3s to your account, and enjoy them through your streaming service. It has a free tier for trial purposes, but it's limited to 30 seconds of each track.



Idagio

www.idagio.com

£9.99 \$9.99, 9.99 € per month

Idagio is arguably the best streaming service for classical music. You can link a Idagio account with your Google account to use it on your Nest, but it's not yet integrated with Alexa, and to use it on a HomePod, you have to use AirPlay from an Apple device.



Tidal

www.tidal.com

£10.99, \$10.99, 10,99 € per month

If you're really serious about your music, Tidal includes hi-res audio streaming, a great range of videos and music-focussed articles and podcasts. Doesn't directly integrate with Google Nest.

Robot Vacuum Cleaners Can't The AI Do It?

Because who wouldn't want an AI-powered robot to sweep the floors?

eufy Omni C20, Robot Vacuum Cleaner with Mop

www.eufy.com

£599, \$699.99, 599 €

This clever little robot offers fully automated cleaning, with auto emptying, washing and drying. It has powerful suction for carpets and a handy mop for hard floors.



DREAME X50 Ultra Complete Robot Vacuum with Mop

global.dreametech.com

£1,299, \$1,699.99, 1,389 €

It's not cheap, but this is a quality vacuum cleaner. Its retractable robot legs can overcome obstacles, and its height lowers so it can clean under the sofa.



Lefant M210P Robot Vacuum Cleaner

www.lefant.com

£239.99, \$209.99, 179,95 €

This self-charging vacuum features Alexa voice control, and is perfect for pet hair. It's only 28cm in diameter, and it has an anti-collision infra-red sensor.



Shark PowerDetect 2-in-1 Robot Vacuum & Mop

sharkclean.co.uk

£699.99, \$645, 699,99 €

A feature-packed vacuum with a self-draining base station, self-cleaning mop pad, water tank with automatic refill, dirt detection, 3D 360° LiDAR vision mapping, app control and more.



UBPET 22000 Pa Suction Robot Vacuum Cleaner for Pet Hair

ubpet.ubtrobot.com

£349.99, \$499.99, 349,99 €

If you have dogs or cats in the house, this is the robot vacuum cleaner for you. It's perfect for pet hair, and it features intelligent navigation with LiDAR technology.



HONITURE Robot Vacuum Cleaner with Mop

honiture.com

£199, \$199.18, 199,99 €

With a suction power of 4500 PA, this robot vacuum cleaner has a performance that belies its price. You can control it with an app or Alexa, and it's great for getting into tight spaces.





Home Security

Keeping Your World Safe

Keeping your home safe and sound

Google Nest Doorbell, 2nd Gen

store.google.com

£168.60, \$179.99, 197,43 €

Doorbells with video cameras are nothing new, but this one uses artificial intelligence to distinguish between humans at your door and other movement.



Eve Motion Wireless Motion Sensor

www.evehome.com

£44.95, \$48.54, 49,95 €

With IPX3 water resistance, you can use this Matter-enabled motion detector indoors or out. Integrate it into your smart home and you can have it turn the lights on as soon as you arrive home too.



Ution Nuki

www.ution-lock.co.uk

£255, 269 €

A smart door lock with Wi-Fi and Matter for remote access. You can assign up to 200 individual access authorisations, each with their own rules.



Eve Door & Window

www.evehome.com

£34.95, \$67.91, 37,30 €

Use Alexa or an app to check at a glance whether your door or window is open. It's Matter enabled, so it's easy to integrate into your smart home, whichever platform you prefer.



Ring Outdoor Camera Plug-In

en-uk.ring.com

£79.99, \$59.99, 79,99 €

Ring cameras incorporate AI for features such as object recognition, smart notifications, and AI-powered video search. They're fairly cheap too, but video recording requires a subscription.



AI in TV Streaming Services Entertainment Via AI

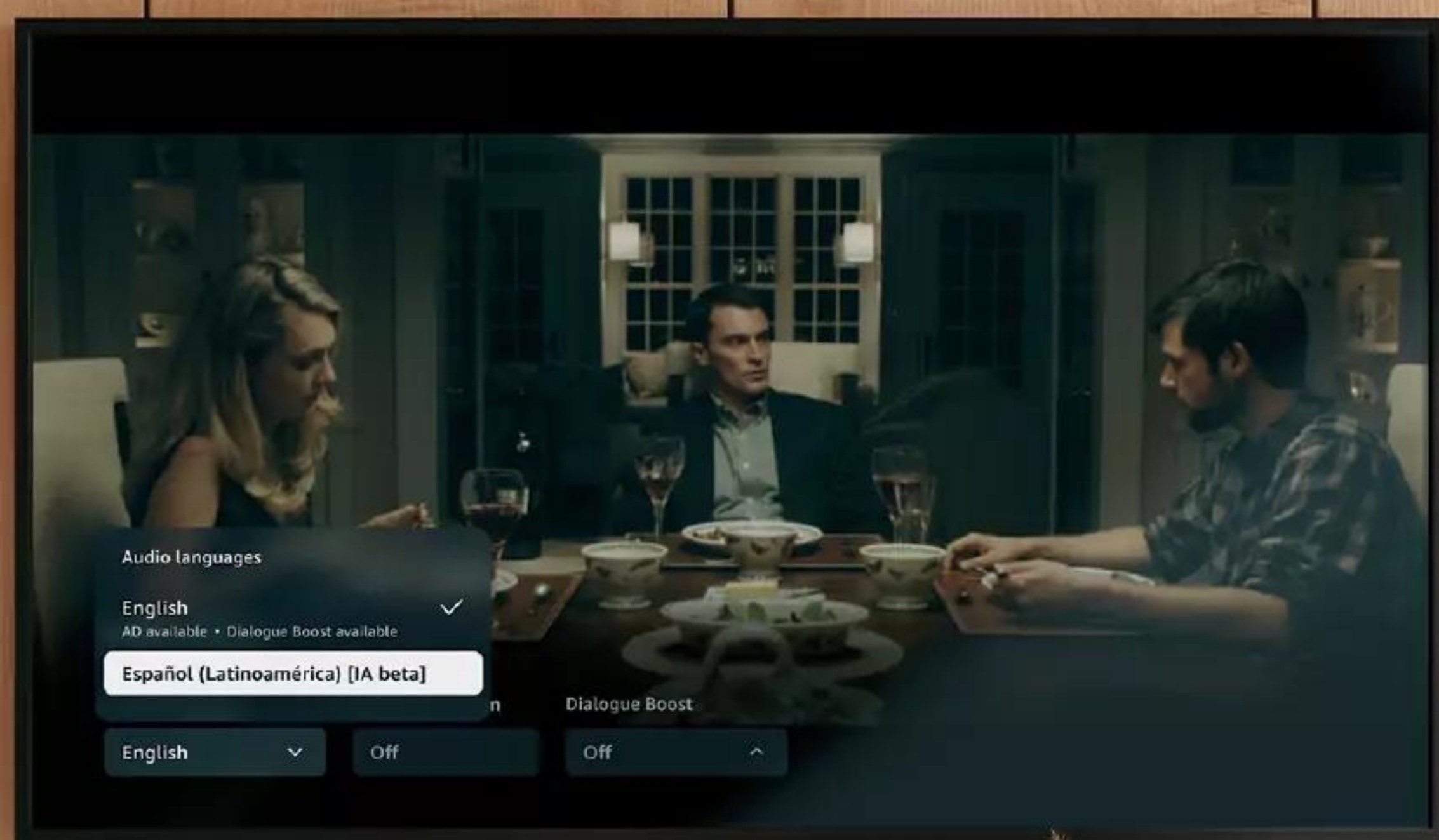
How will artificial intelligence affect the way you watch TV?

Television streaming services such as Netflix, Disney+ and Amazon Prime have long been famous for their algorithms that analyse what you've already watched and use this information to suggest other shows you might enjoy. But these algorithms are being revolutionised with artificial intelligence.

Amazon Prime Video

Artificial intelligence takes curated viewing suggestions to the next level. As well as basing suggestions on what you've previously watched, Amazon Prime Video ascertains what parts of a show viewers overall liked the most, and uses this information when producing new content. Starting from early 2025, Amazon began using artificial intelligence to translate content into different languages, allowing people to enjoy shows recorded in languages they don't natively speak. The initial batch of translations covered English and Latin American Spanish in shows such as *El Cid: La Leyenda*, *Mi Mamá Lora*, and *Long Lost*, and more will surely follow.

An AI feature adopted by Amazon which will surely be taken up by other streaming services is using the power of machine learning to improve streaming quality. Lip-syncing issues can be identified and erased, as can frame rate problems and audio distortion. Making Prime Video a must.



Amazon is to begin to use artificial intelligence to dub a foreign-language film into your chosen tongue.



Netflix

Much of Netflix' use of artificial intelligence is in personalising viewing recommendations, and analysing user data to create personalised marketing, bringing the shows you're most likely to want to watch to your attention. But even before shows are made, AI is utilised in choosing scripts to develop. Successful shows are analysed, and the information is used to predict trends in viewer habits and future trends. The company is also currently testing an AI-powered search engine, further improving results. According to CEO Gregg Peters, "There is more room to improve the discovery and recommendation experience, and therefore provide more value for members, and therefore find the biggest audiences for our titles."



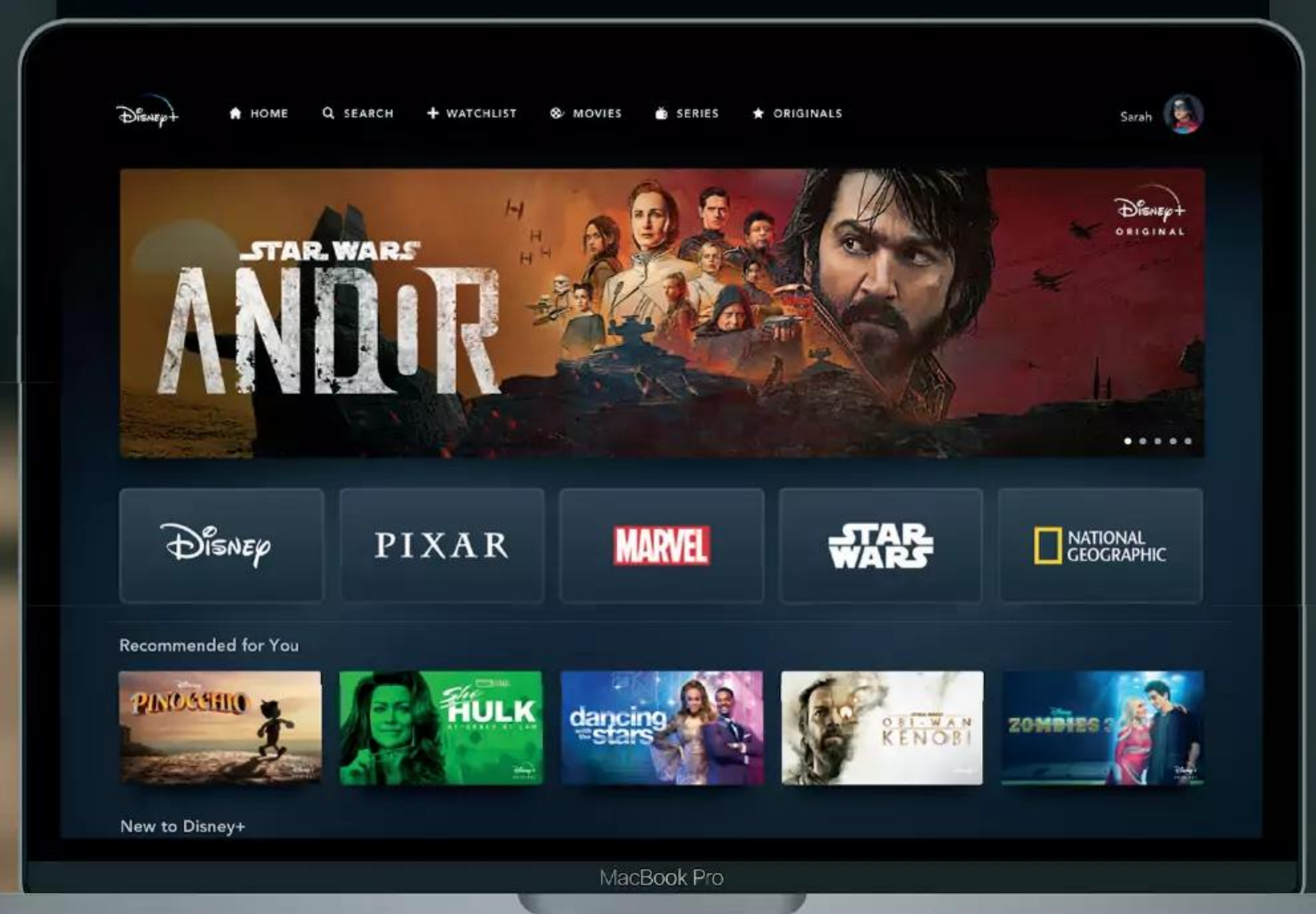
Netflix is integrating artificial intelligence throughout its services.

Disney+

Given its child-friendly image and family-oriented output, it's no surprise Disney+ is using artificial intelligence in its parental controls. AI tools offer suggestions of what to watch for children, but ensure compliance with parental settings. The company is also using AI to power dynamic user profiles. For example, if a viewer primarily watches Star Wars and Marvel content, but then develops an interest in historical dramas, the algorithm adapts to accommodate these new interests without losing sight of what they preferred before.

One way in which AI is being used to improve audience engagement is through Natural Language Processing (NLP). This is being used to tag existing content in Disney's library, analysing each show for content, language and tone. Again, this information is used to pair up the viewers with shows they might like to watch. Collaborative filtering takes things even further, by comparing your viewing habits to those of other users, and recommending shows watched by people with similar tastes to yourself. At user level, of course, all this is invisible; you just see recommendations, as usual. But under the hood, much work is being done to ensure those recommendations are right for you.

And this is just the beginning. Over time, expect all your favourite streaming services to improve thanks to the power of artificial intelligence and machine learning.



Disney+ uses artificial intelligence to recommend shows while making sure these recommendations are compliant with parental controls.



Prompt :



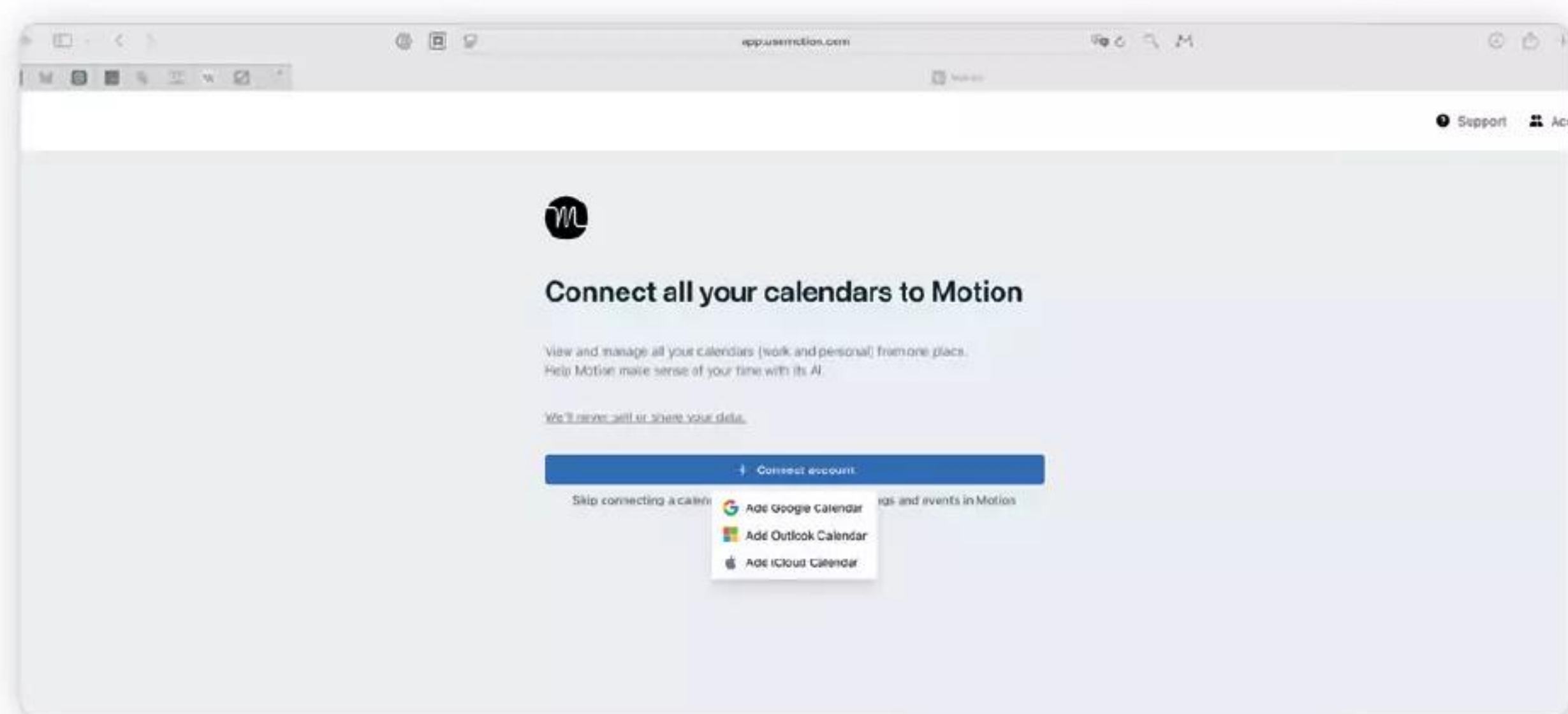
Make Life Easier

How can AI help you organise? Planning your day-to-day schedules is much easier with artificial intelligence. In meetings, you can use AI to make a transcript of your discussions, and summarise them so you don't have to read it all to get a recap. There's some great AI platforms for planning a trip, taking the tedium out of tourism, and you can use artificial intelligence to make schedules for entire teams too.

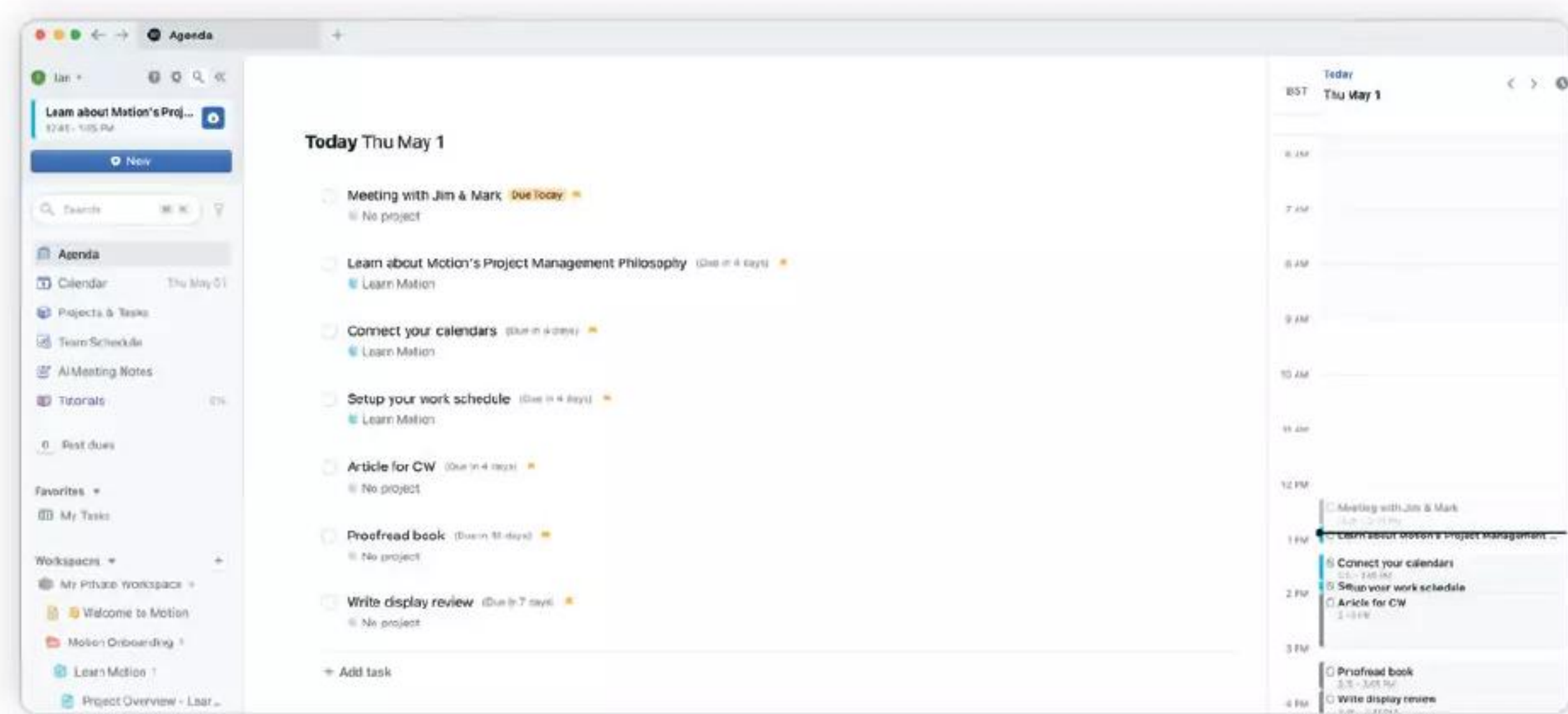


Motion AI Task Scheduler

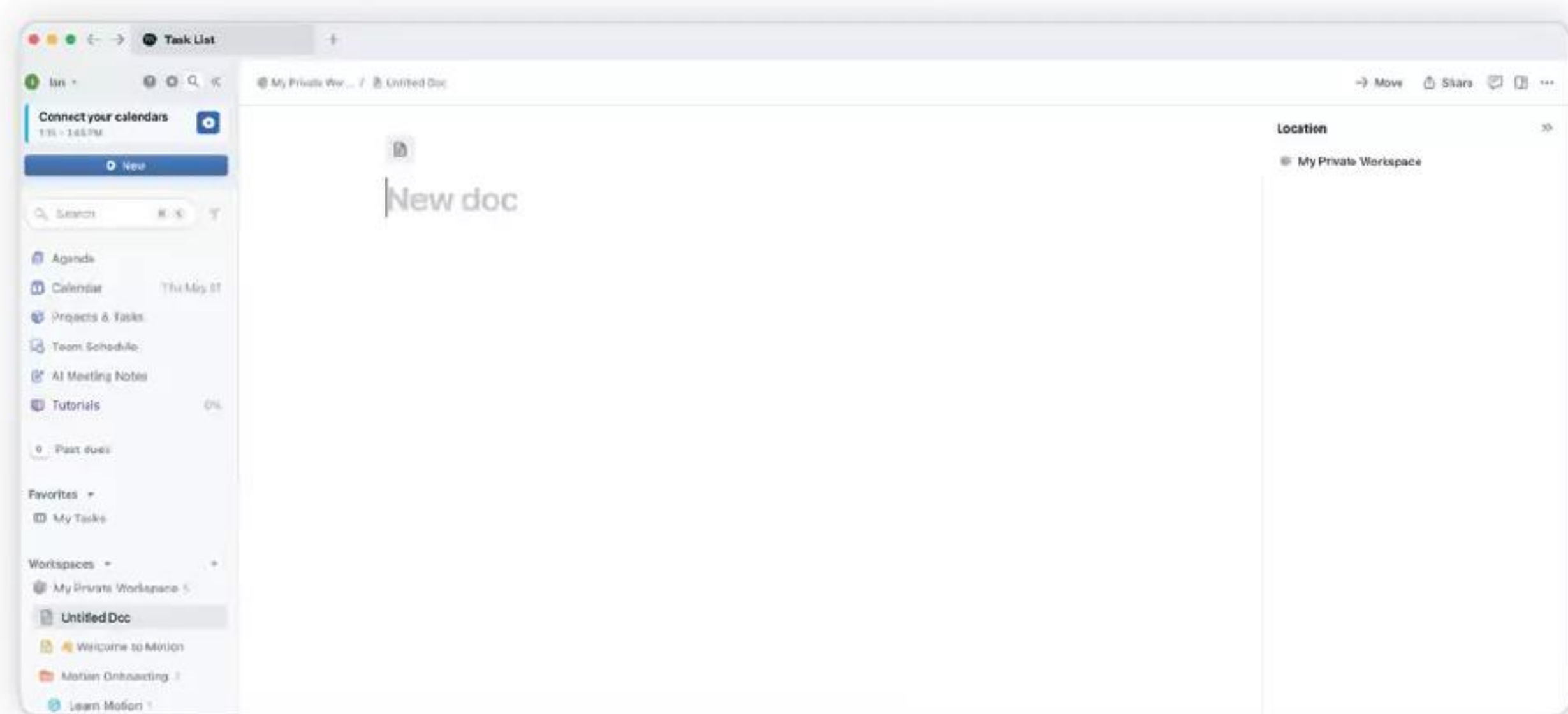
Are you looking for a new sort of task planner? Motion is AI-powered, available for teams or individuals and free for a seven-day trial.



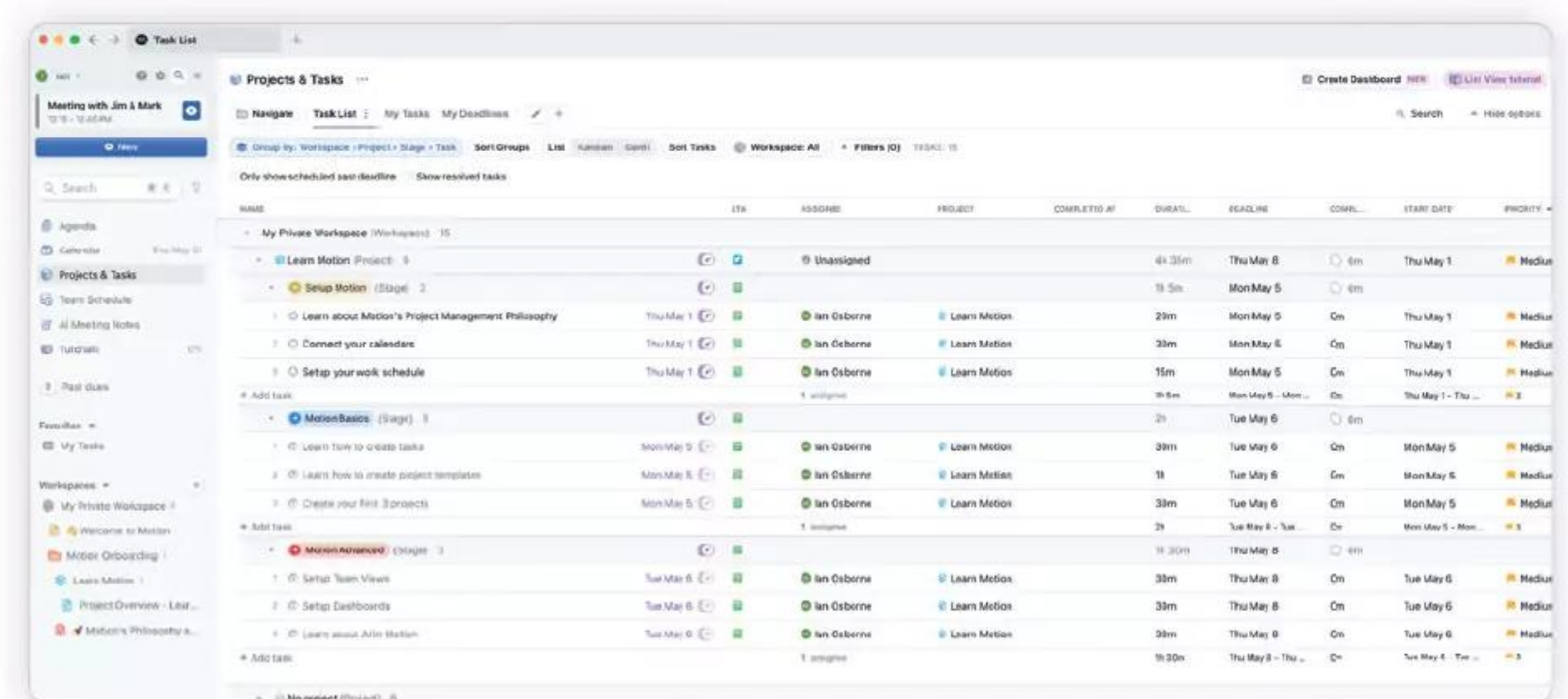
1 Motion is accessed through a web browser, but there's an app for Macs and Windows. During setup, you should connect your Motion account with via your system's Calendar app.



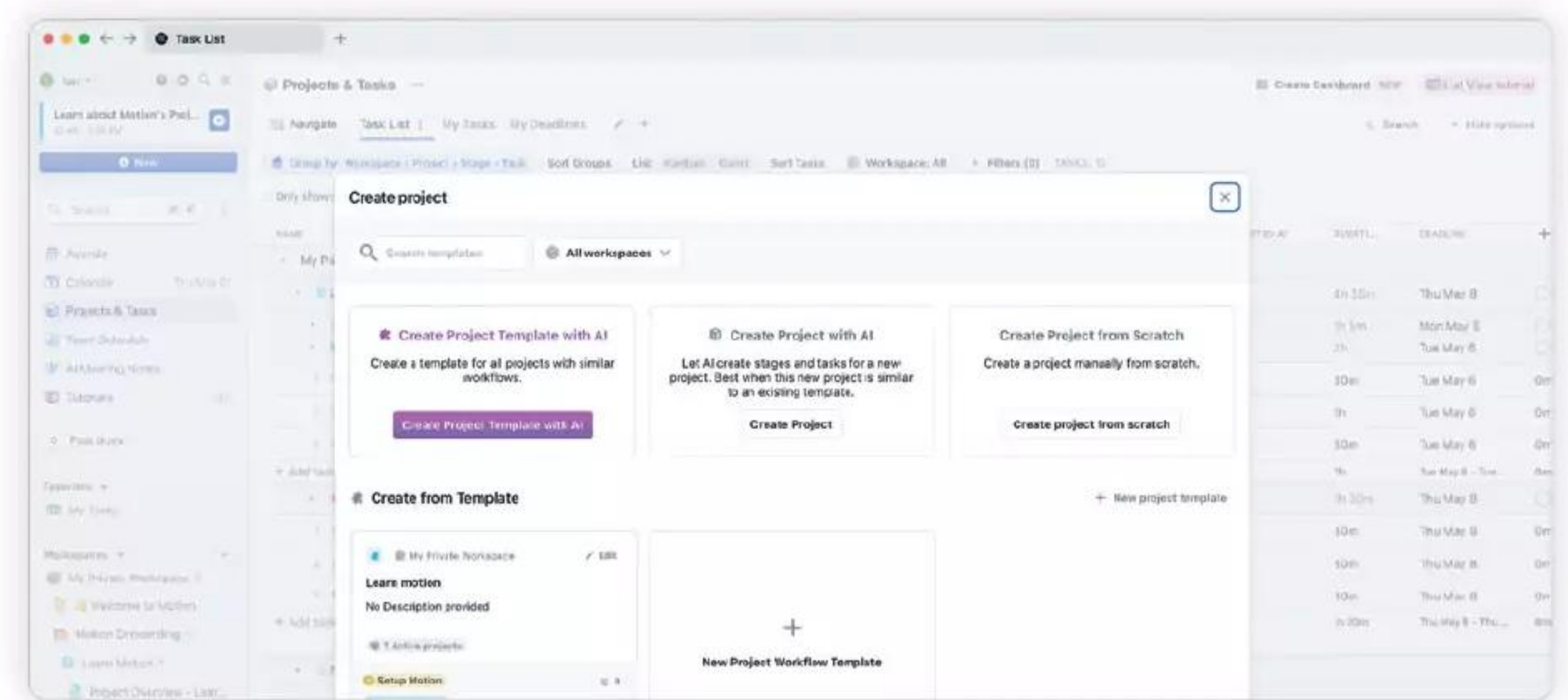
3 The app uses artificial intelligence to assign content you've edited and details taken from your calendar a priority, based on due date and other factors. It's all done automatically through Motion.



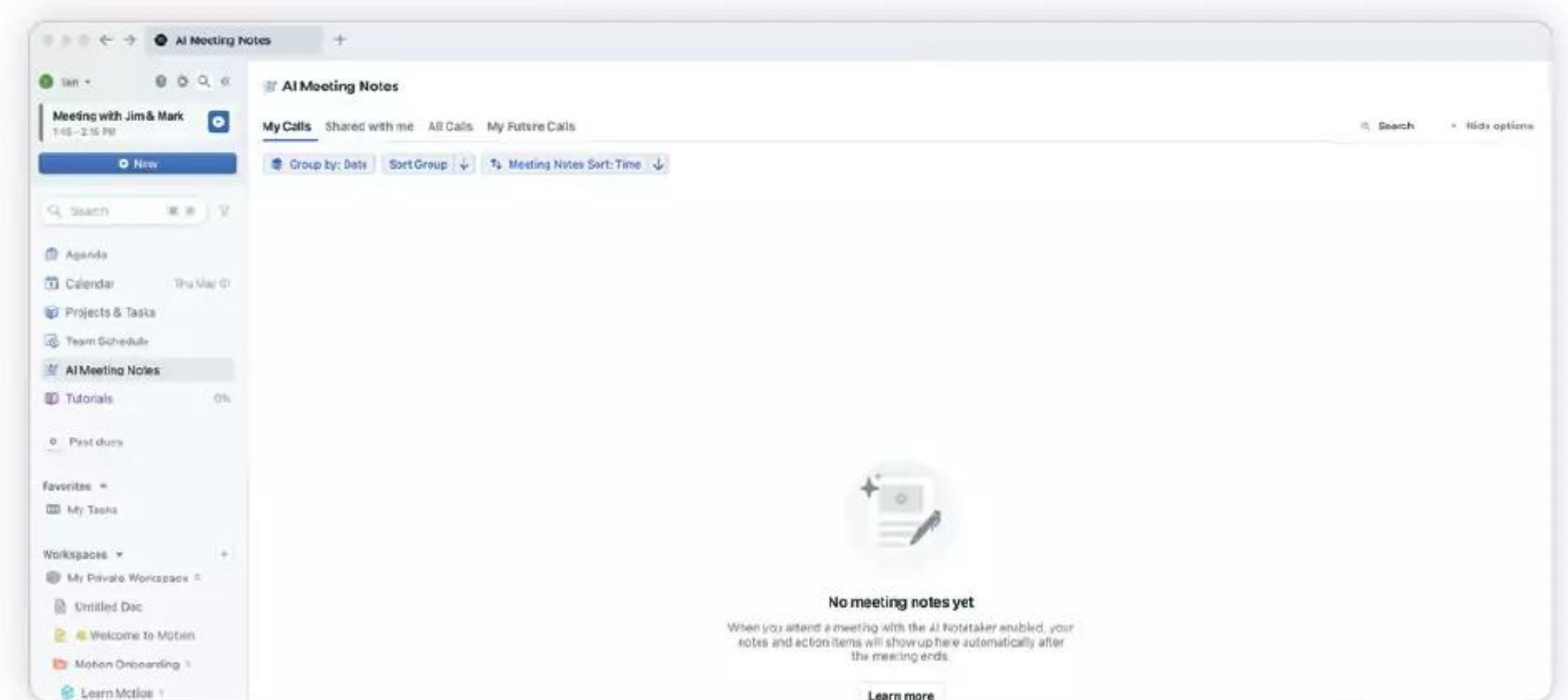
5 Write a brainstorming document in Motion – or copy and paste the text from one you wrote earlier – and Motion's artificial intelligence turns it into a listings of achievable tasks.



2 Enter your daily tasks, meetings, to-dos and projects into the Motion app (or web portal, if you prefer) and Motion sorts them into groups, adding events and appointments from your linked calendars.



4 Click the New button to start a new Task, Doc, Project or Meeting. If you describe what you're trying to do in a project, Motion's AI can break it down into a listing of separate tasks for you.



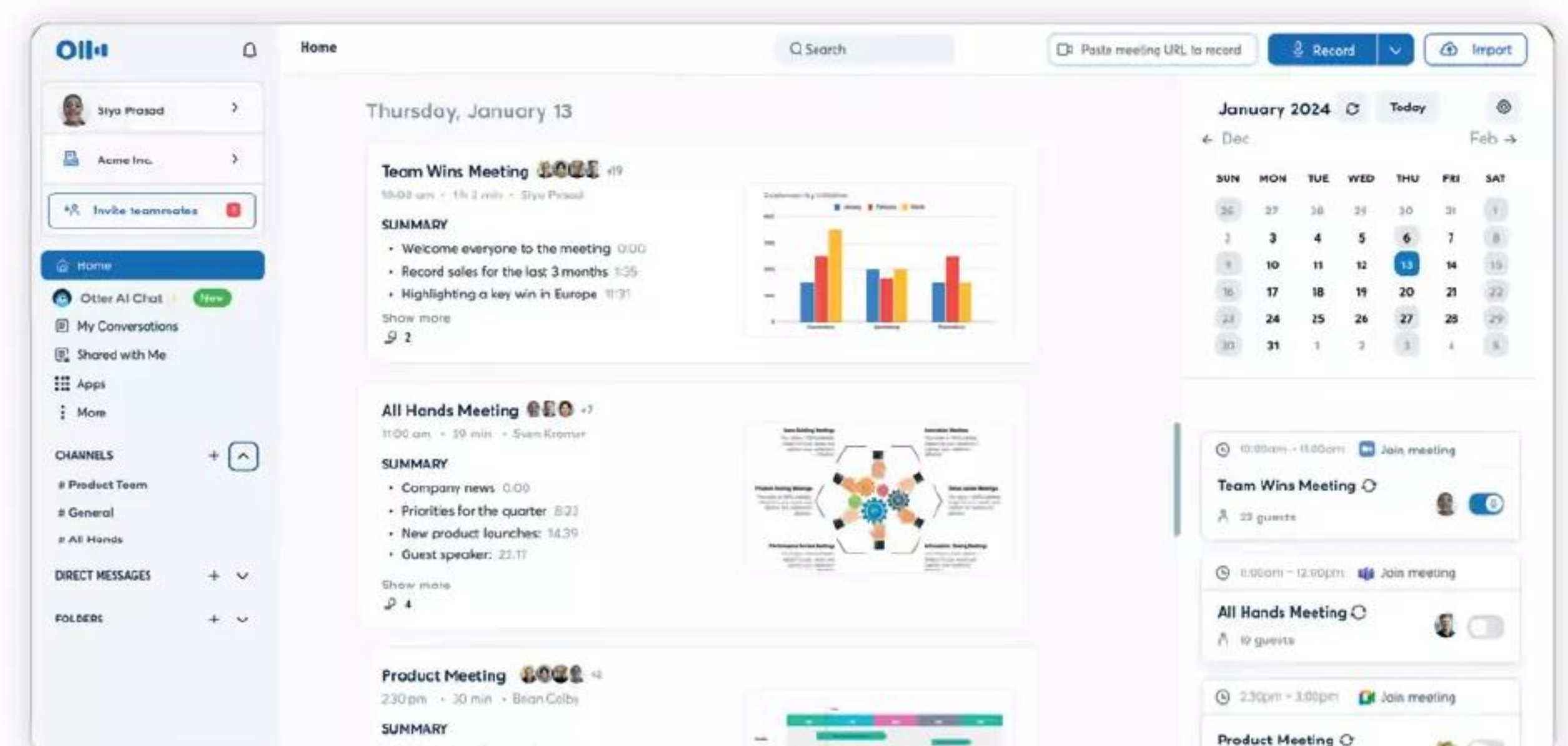
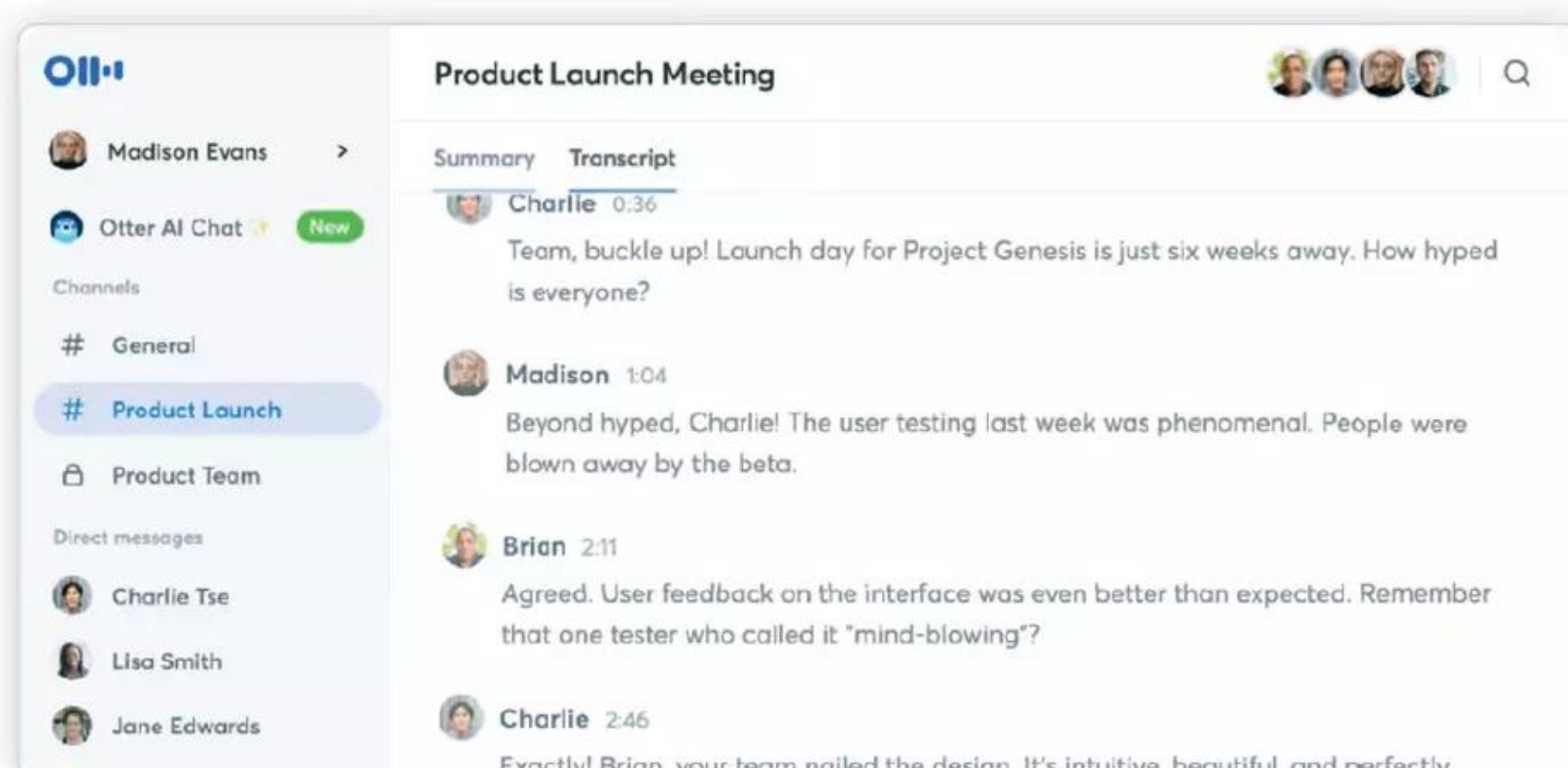
6 Attend a meeting with the AI Notetaker enabled and your notes and action items show up in Motion after the meeting ends. It can even incorporate any of your personal notes that were taken.



Otter.ai

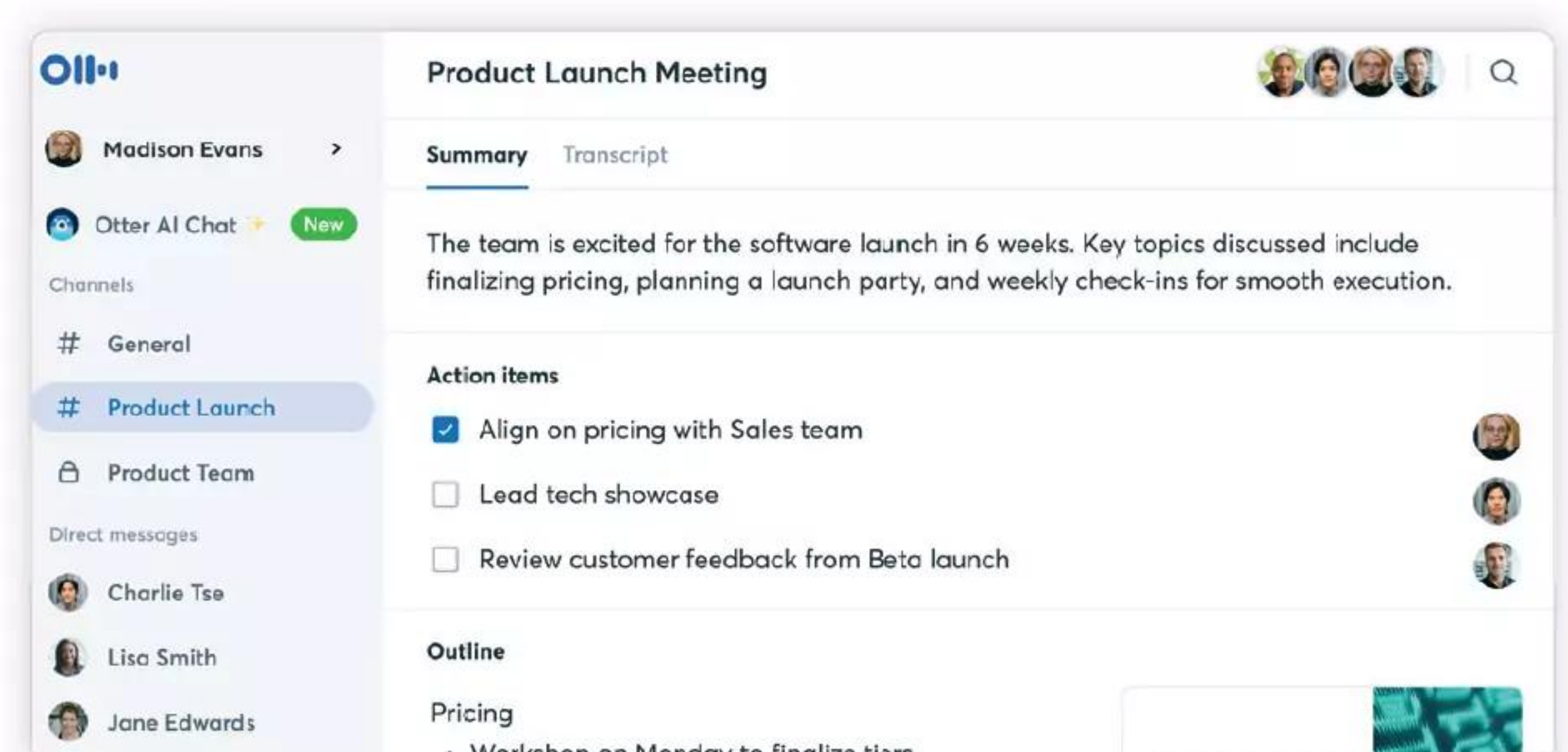
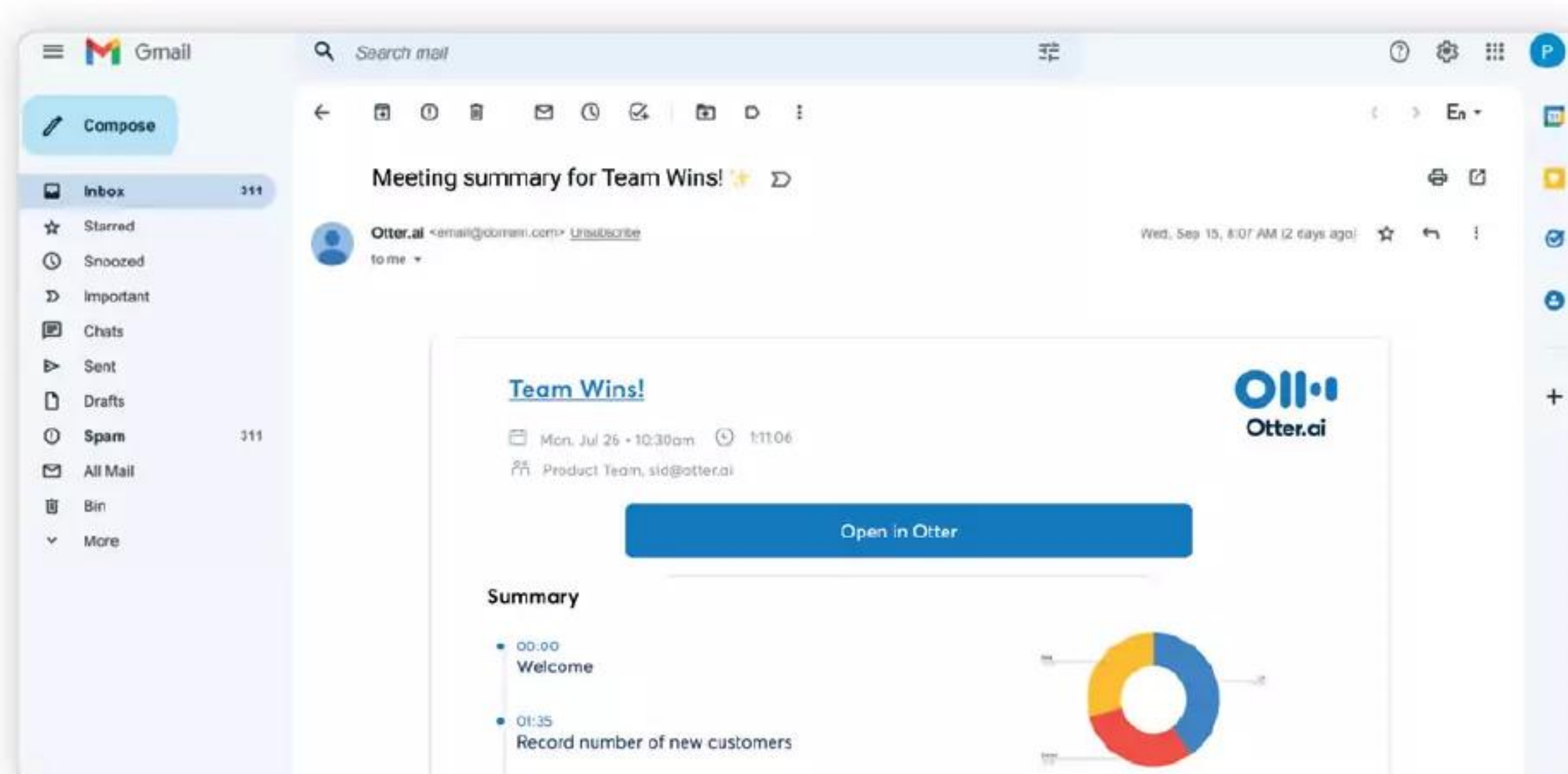
For AI Meeting Notes

Another artificial intelligence-driven app that's available on the web and as an app is Otter.ai. It's great for making automatic meeting notes.



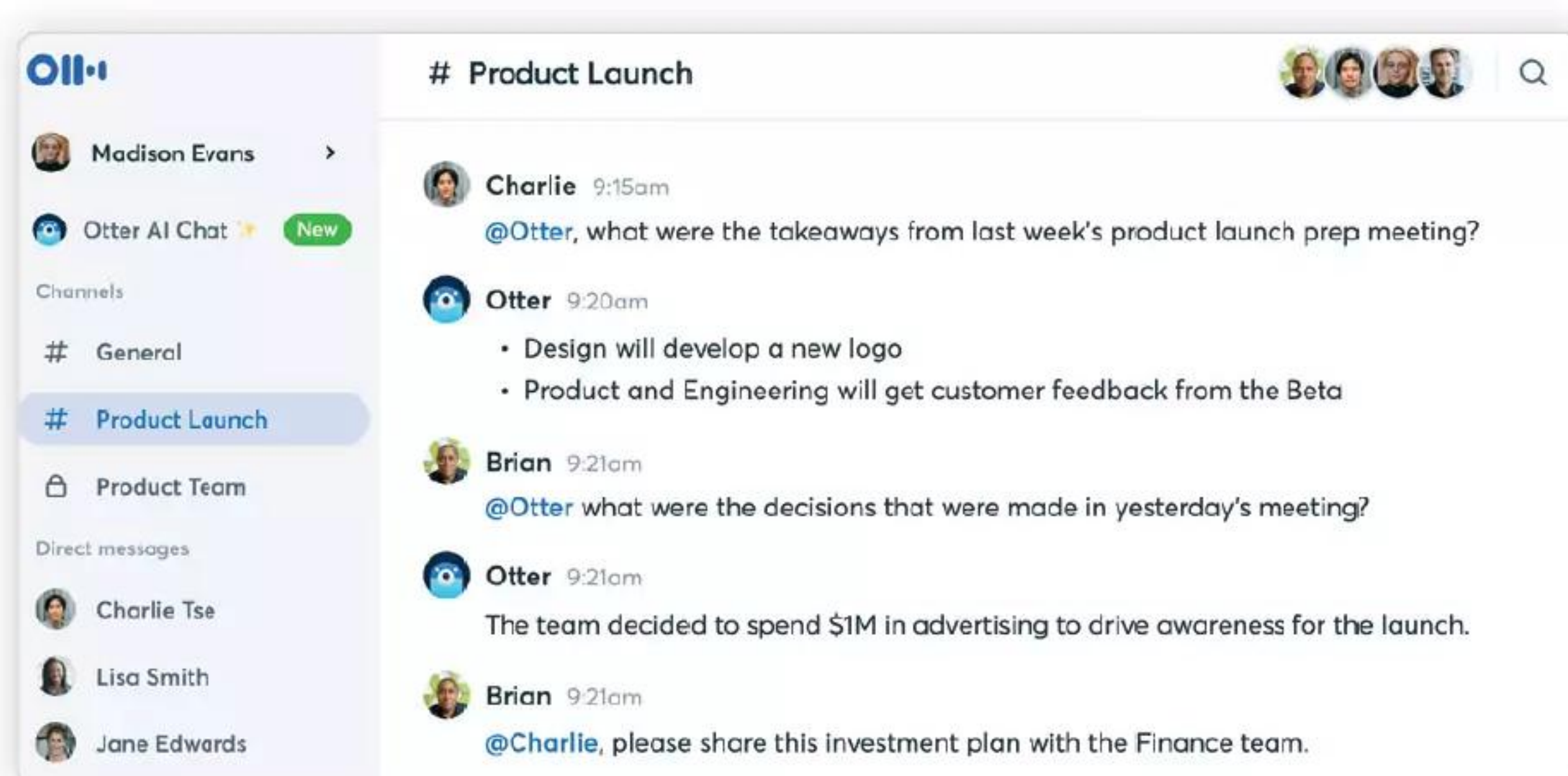
1 Otter.ai takes automated meeting notes which have been generated by apps such as Zoom, Google Meet, Microsoft Teams and more. It records audio and transcribes it to text.

2 Meeting notes are summarised, so you can get the gist of what was said. If you want to listen to a part of it, you can search the text rather than having to scrub through the whole audio file.



3 You can have Otter.ai summarise a meeting in an email, and send it out to the people who were in the meeting. It's much easier than doing it by hand.

4 Not only are meetings transcribed for later reading, but Otter.ai also produces a list of Action Items, that is, tasks that must be undertaken, as identified in the meeting.



5 If you need a recap, you can interrogate Otter.ai, asking questions about what went on in the meeting and getting answers generated from the transcript using AI.

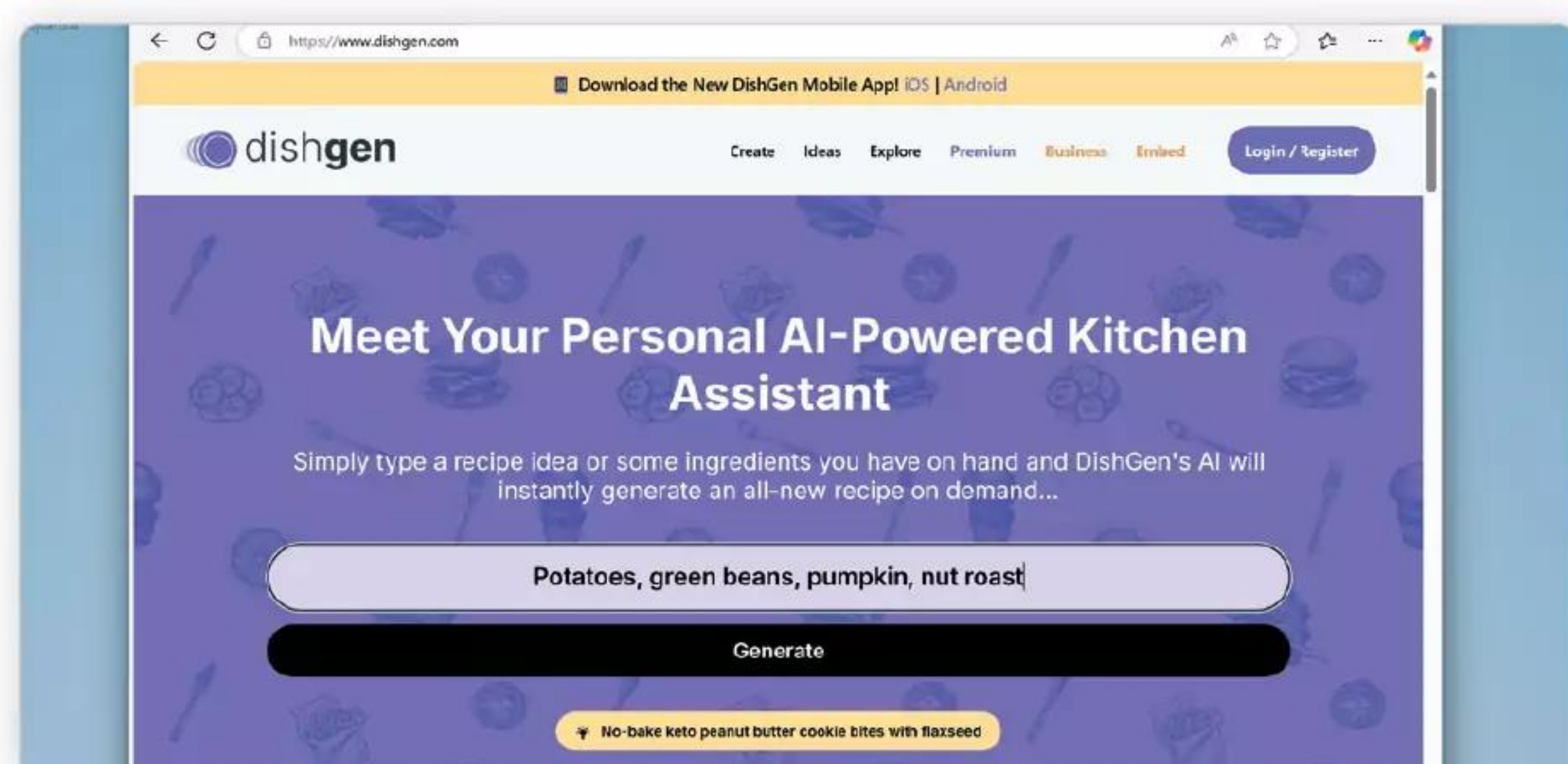
6 You can even transcribe a YouTube video by playing it in one web browser tab, and using Otter.ai in another. Otter.ai transcribes the video soundtrack automatically.



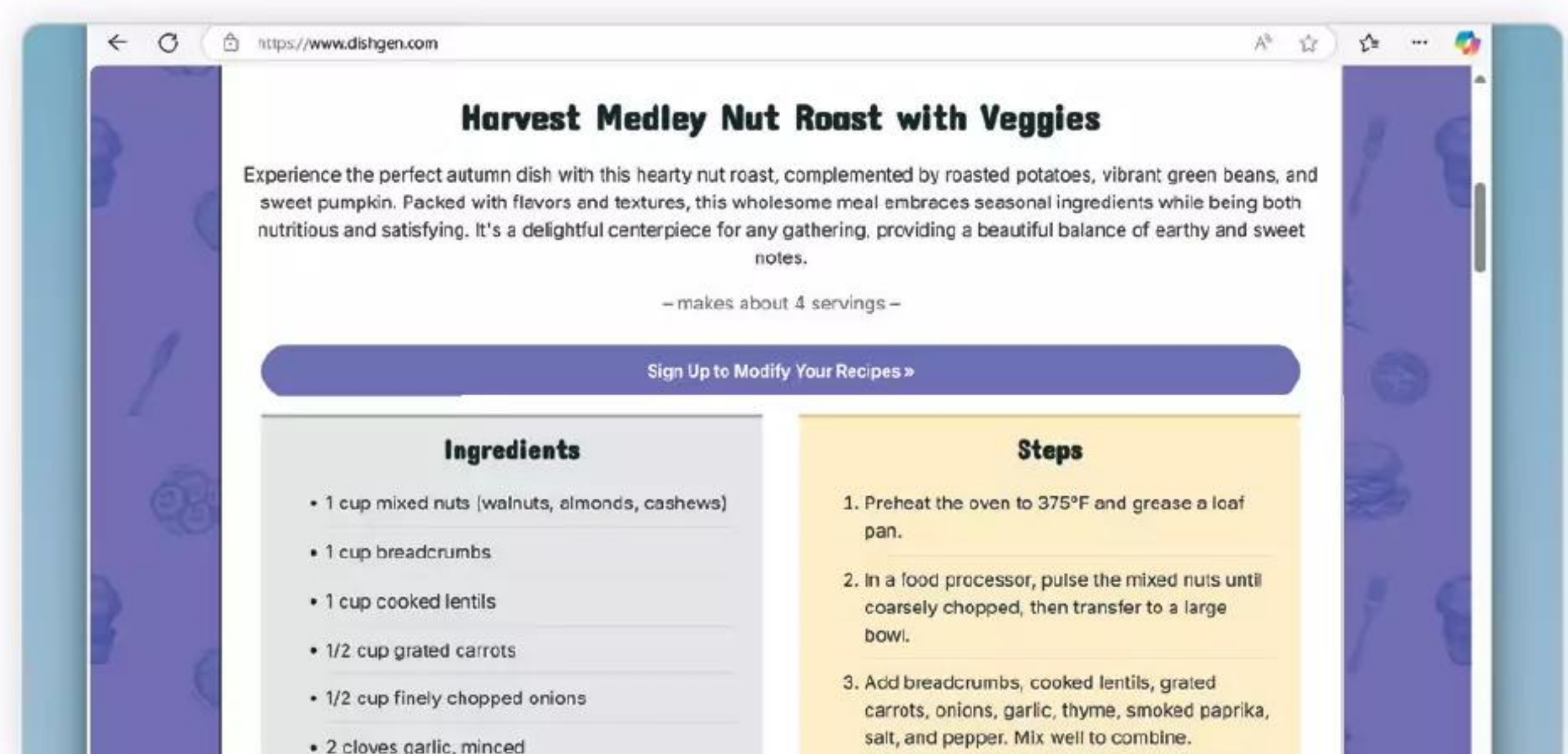
DishGen

AI Recipe Generator

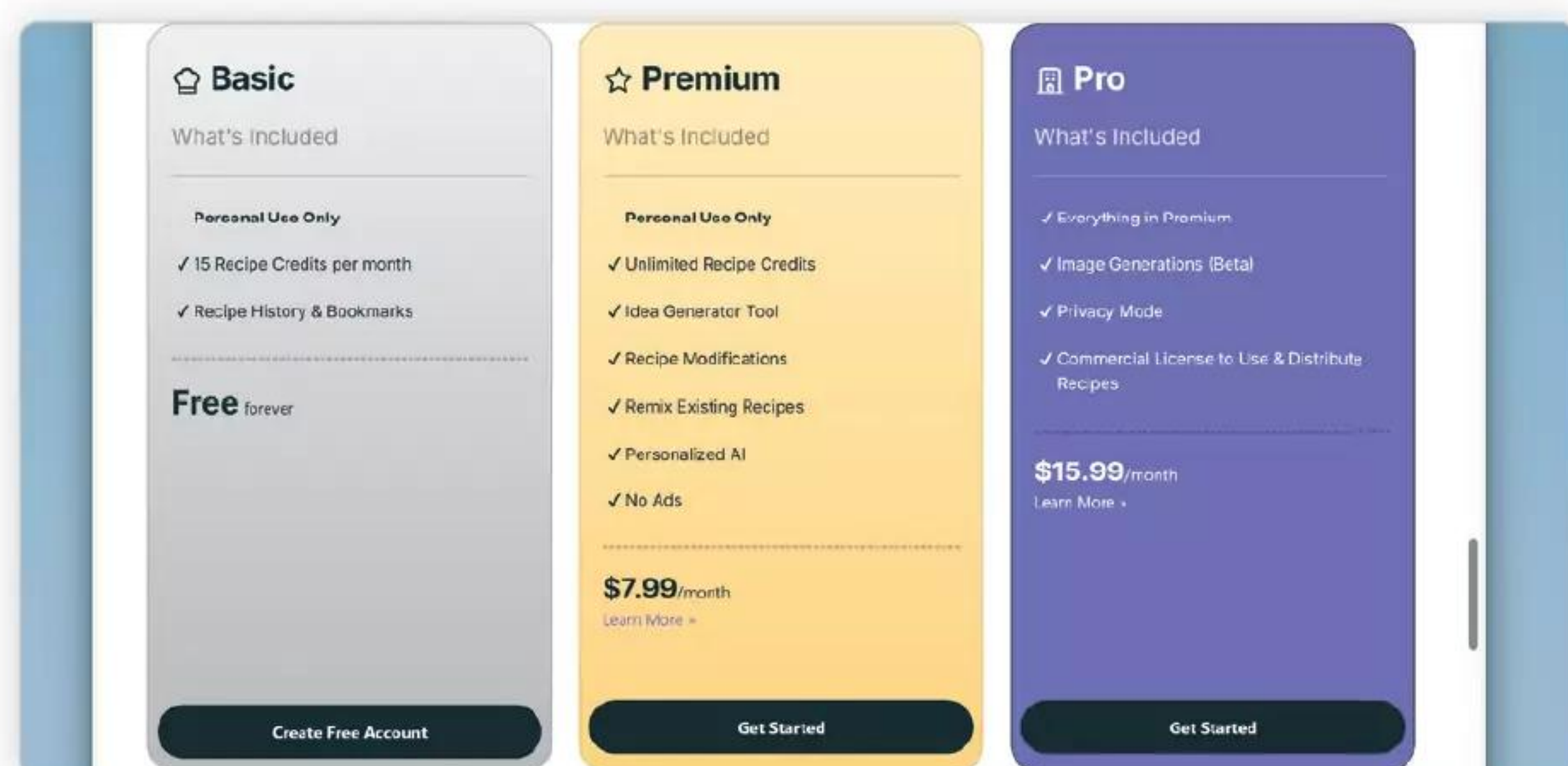
Let artificial intelligence design recipes around whatever you have in the kitchen.



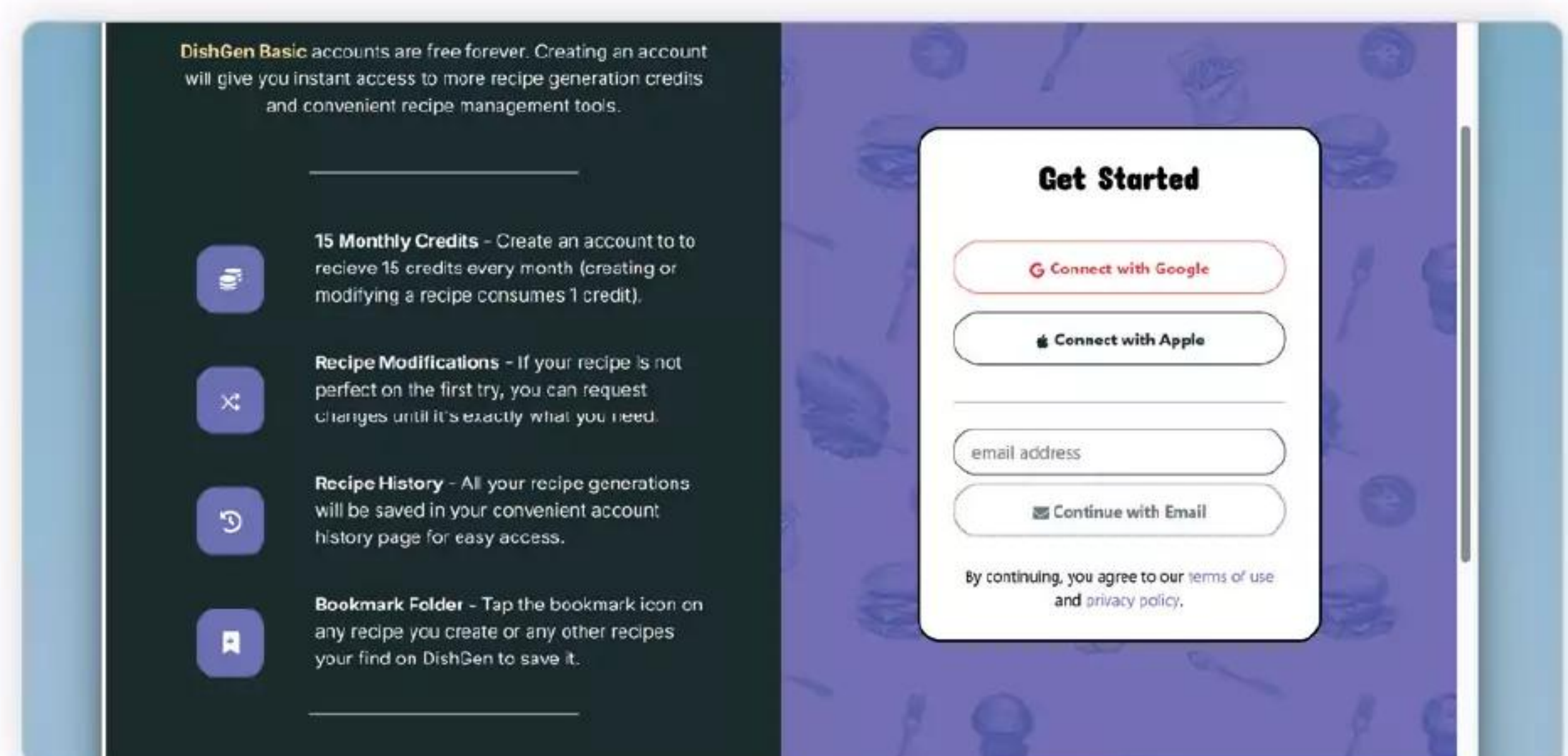
1 DishGen is easy to use. In the text field, type in the ingredients you want to use for your recipe. Then click the Generate button, and let the AI do its work.



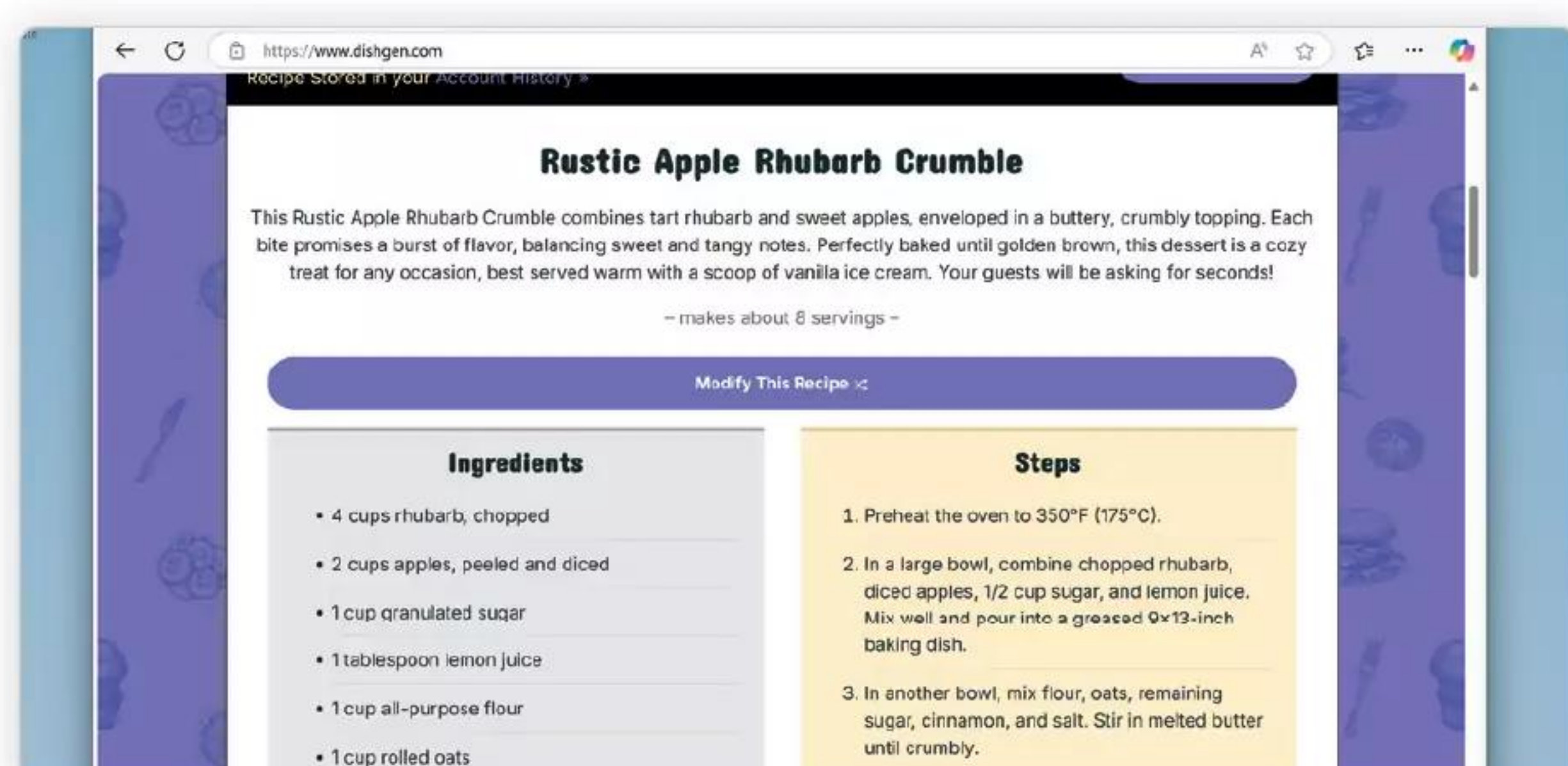
2 When DishGen has finished thinking, scroll up and see a recipe that's been produced for you. You get three demo recipes before you need an account.



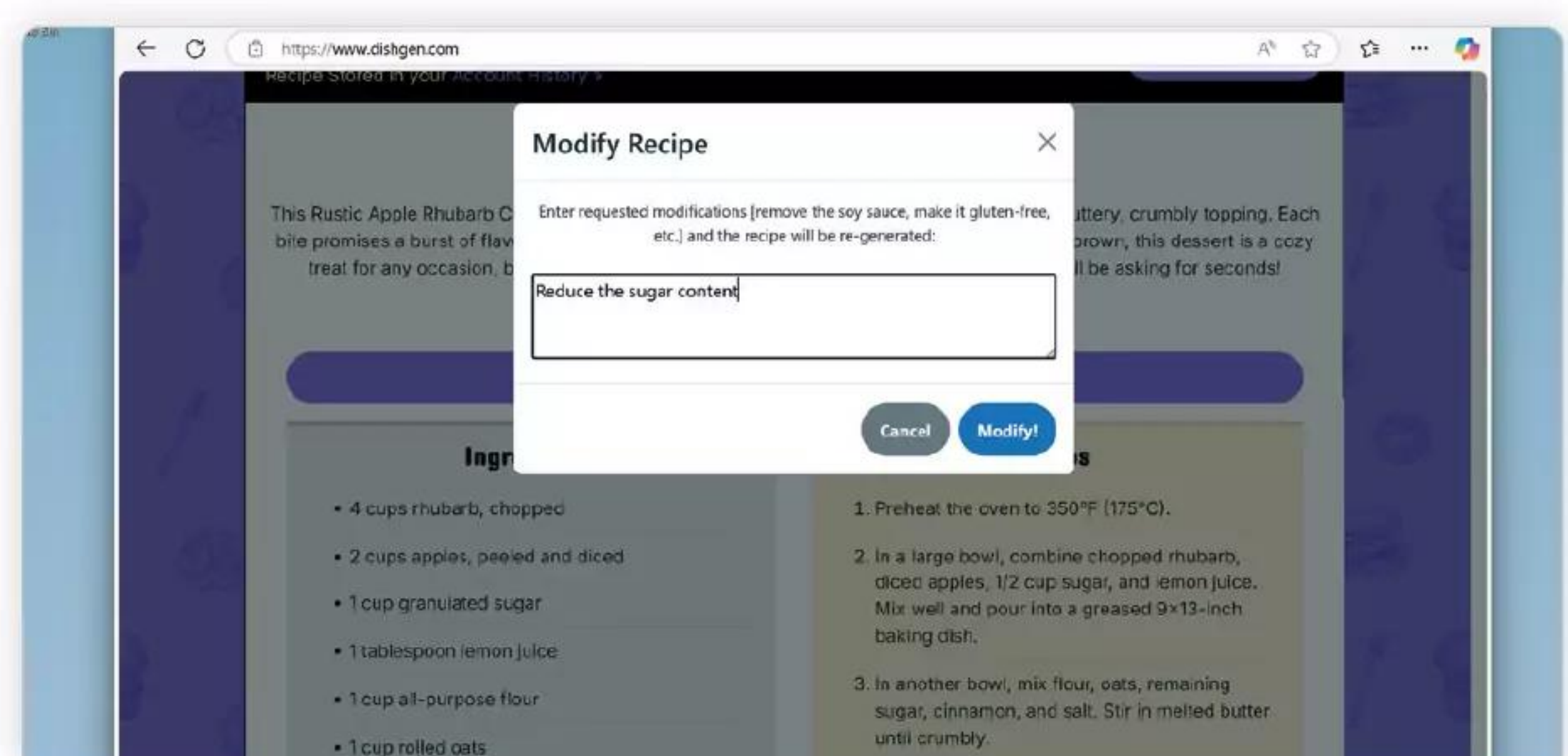
3 There are three tiers of account to choose from. Basic is free, Premium is £7.99/\$7.99 a month and Pro is £15.99/\$15.99 a month. Chose one and click its button to start.



4 We're creating a free account here, which gives us 15 credits a month for free (creating or modifying a recipe costs one credit). Follow the on-screen instructions to register your unique user account.



5 Now you have an account, if you want to modify a recipe after DishGen's AI has produced it, you can, though it costs another credit. Click Modify This Recipe.



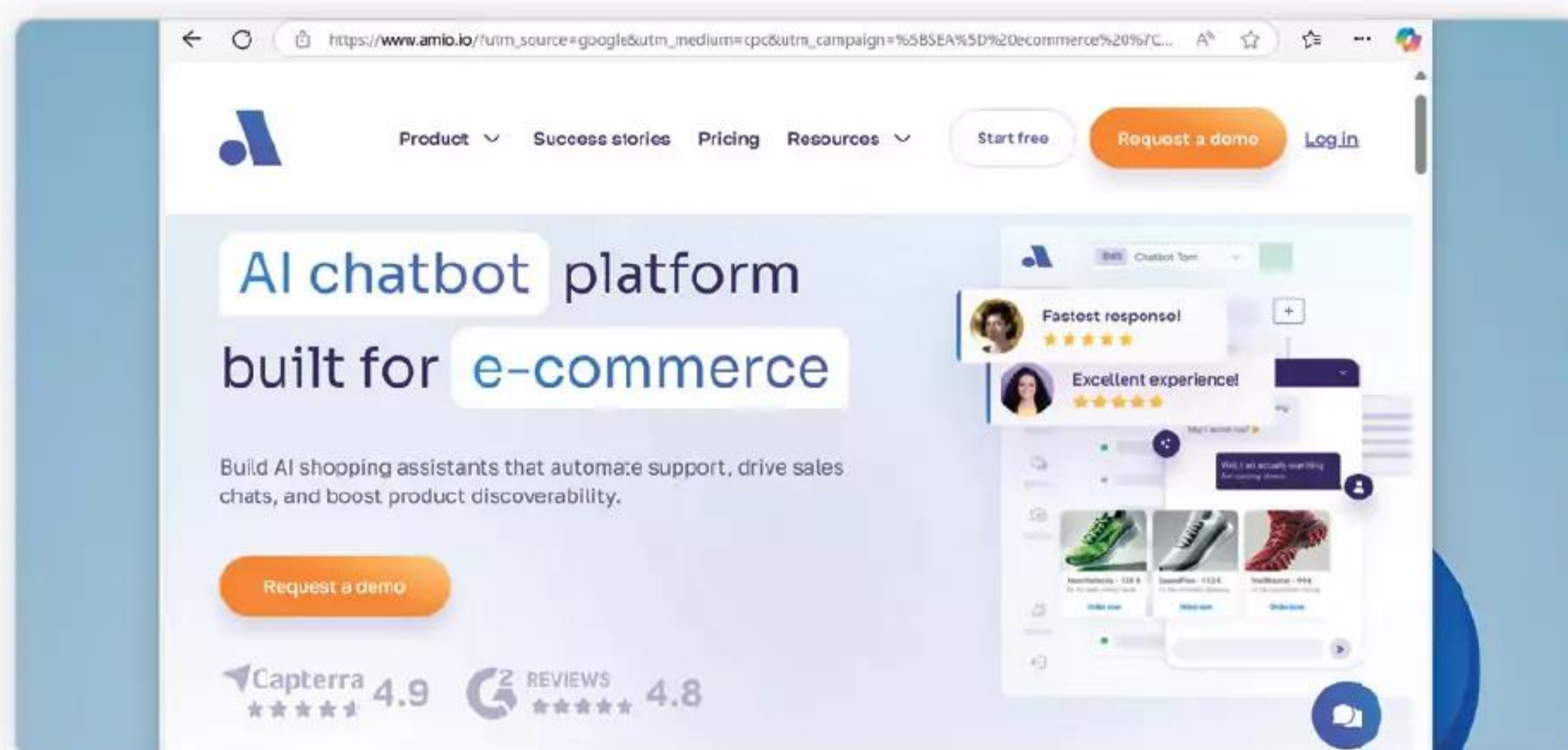
6 In the window that pops up, tell DishGen how it is you want to modify the recipe, then click the Modify! button. A new version of the recipe is produced.



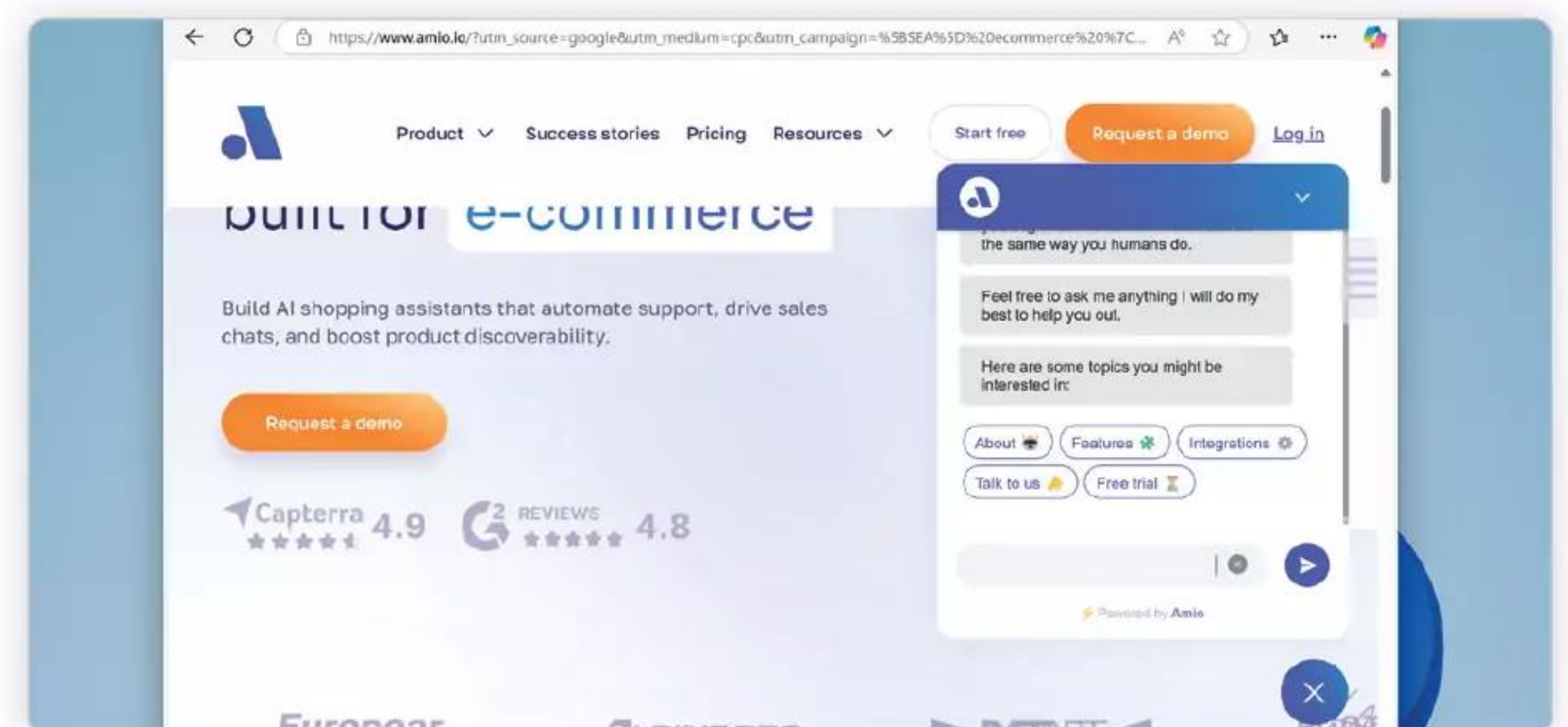
Amio.io

AI For eCommerce

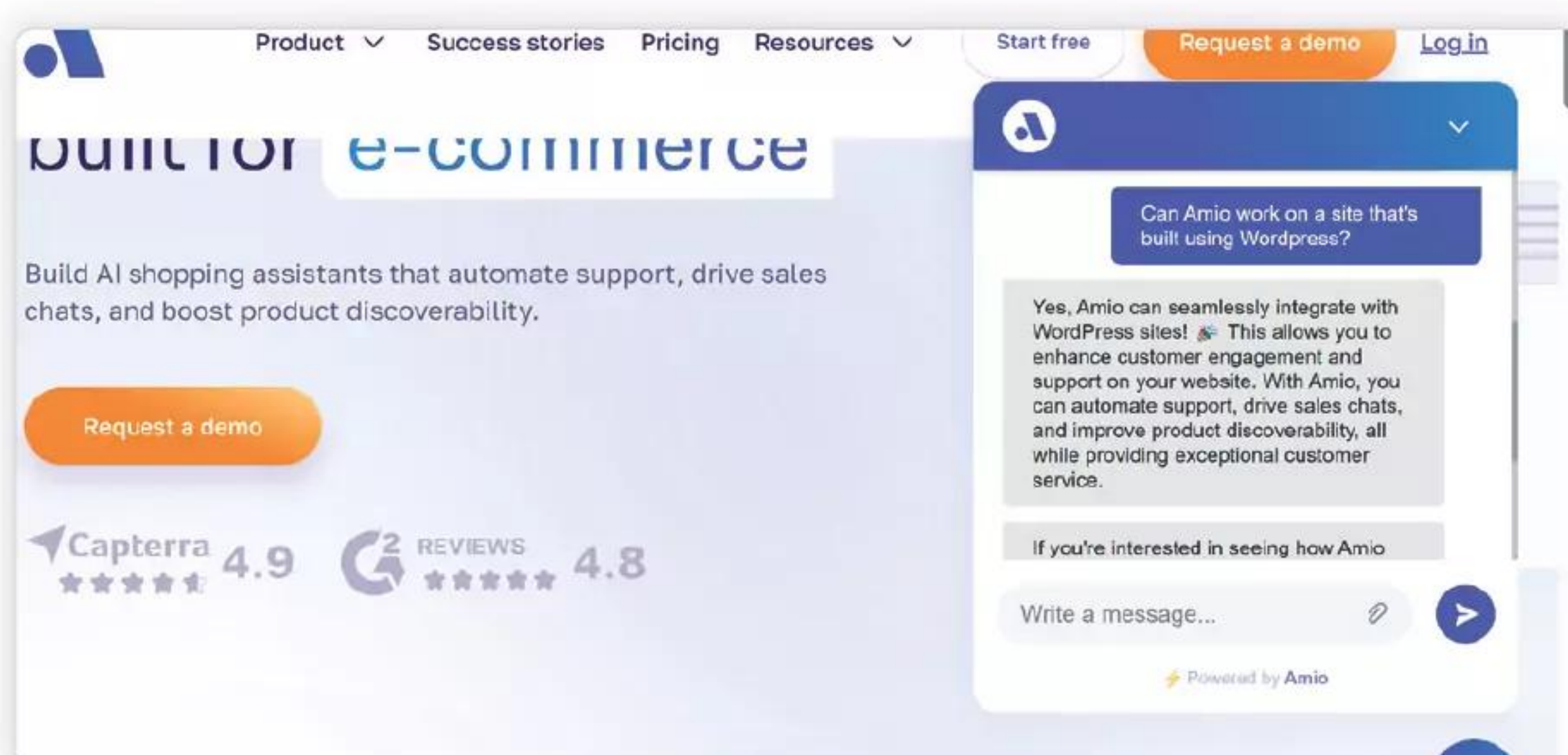
If you have an e-commerce website, Amio.io can add an AI-powered chatbot to help your customers find what they want.



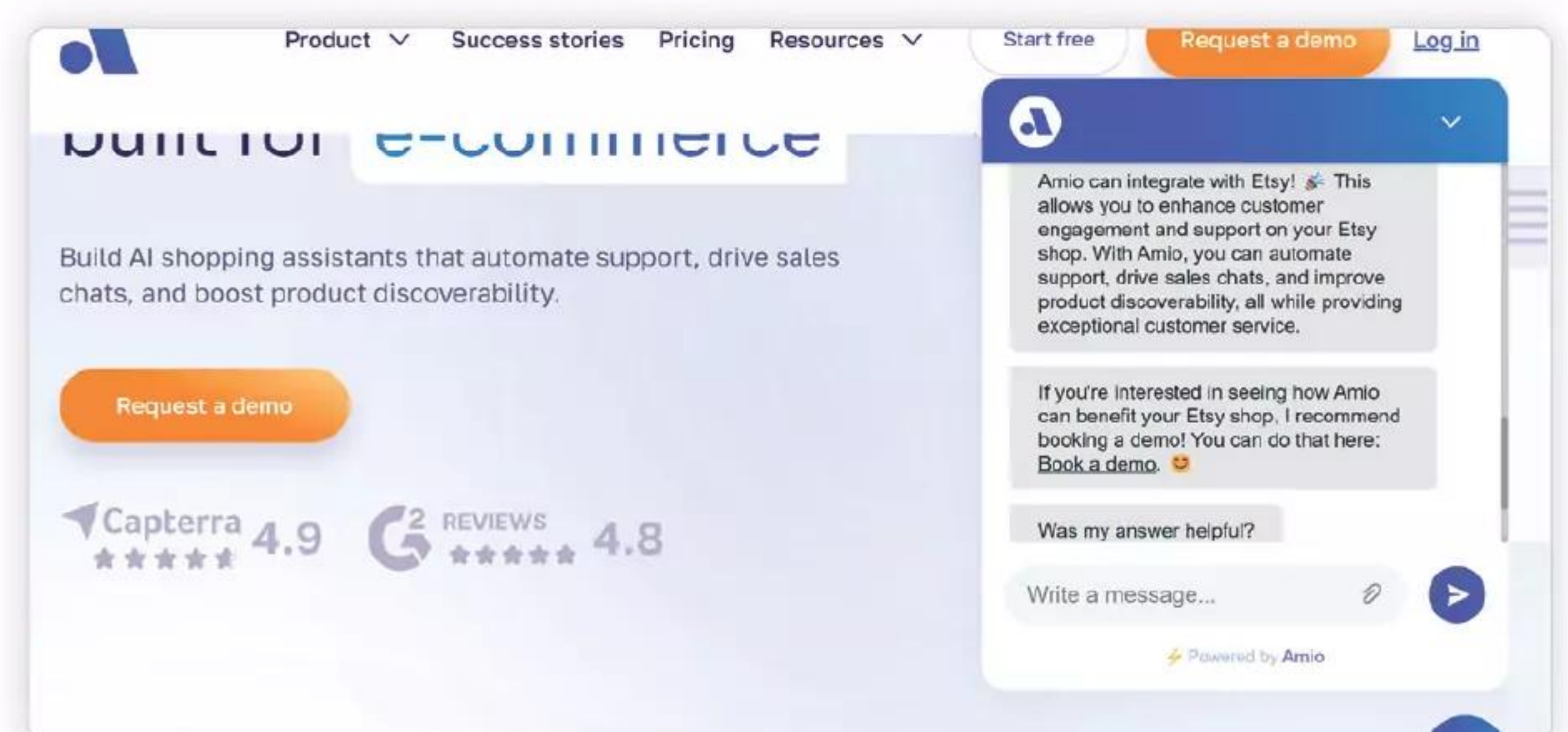
1 Point your browser at www.amio.io. Amio is a chatbot designed for use on e-commerce sites, to interact with your customers and boost product discoverability.



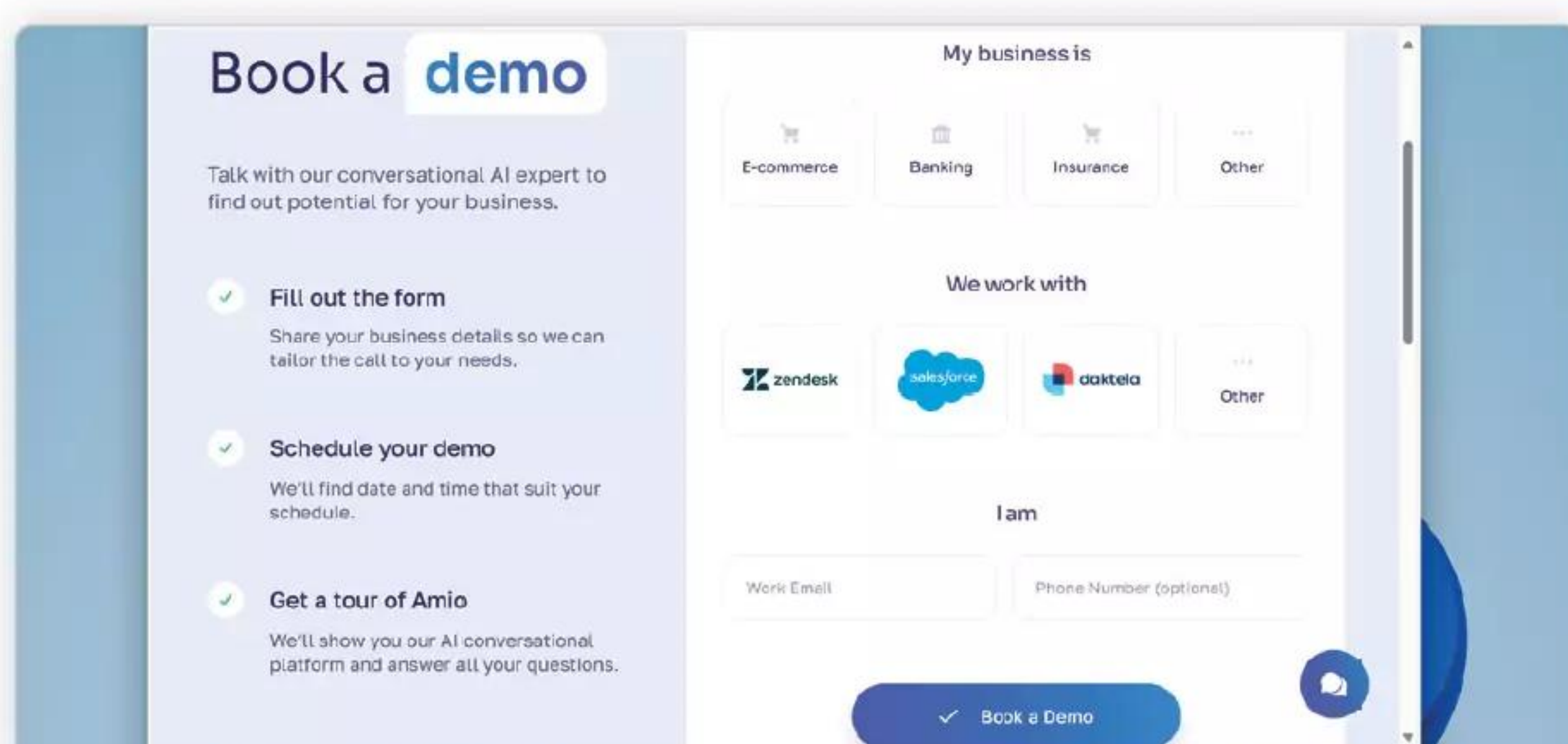
2 To get an idea what a chatbot can do, click the button with the two speech bubbles in the bottom-right corner. A window appears, in which you can ask questions.



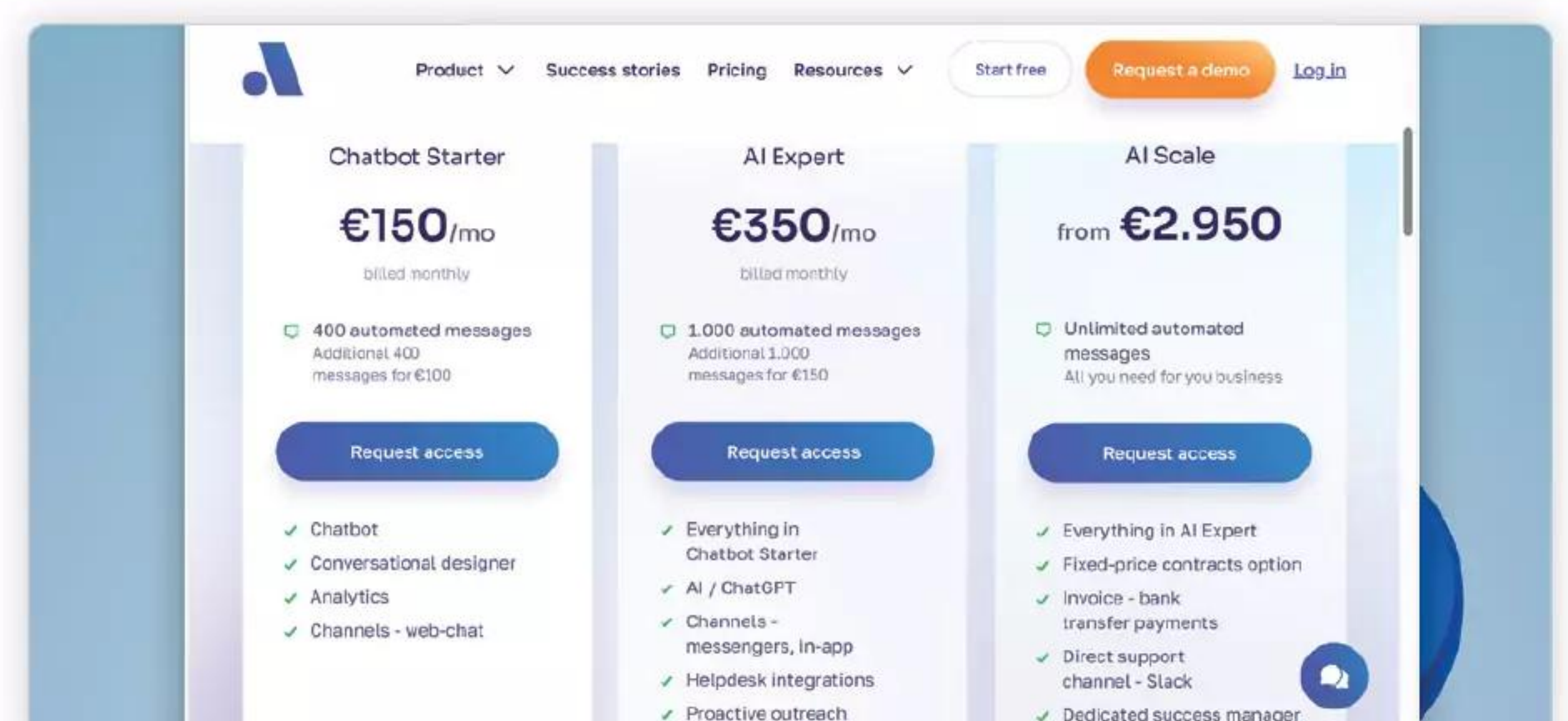
3 Ask Amio questions about its services and features, and the chatbot answers them. It doesn't take long, and the answers are curated with the bot's artificial intelligence.



4 You can ask follow-up questions too, just as if the chatbot was a human being and is very well integrated. Here we asked if you could use Amio with Wordpress, and followed with 'What about Etsy?'.



5 If you're interested in taking things further, click the Book a Demo button and enter details about your e-commerce business. You can schedule a time for your demo with one of their sales people.



6 Amio has three subscription tiers. None are free, but if they bring revenue to your e-commerce business, you might find integrating an Amio chatbot is worth the money or at least worth a try.



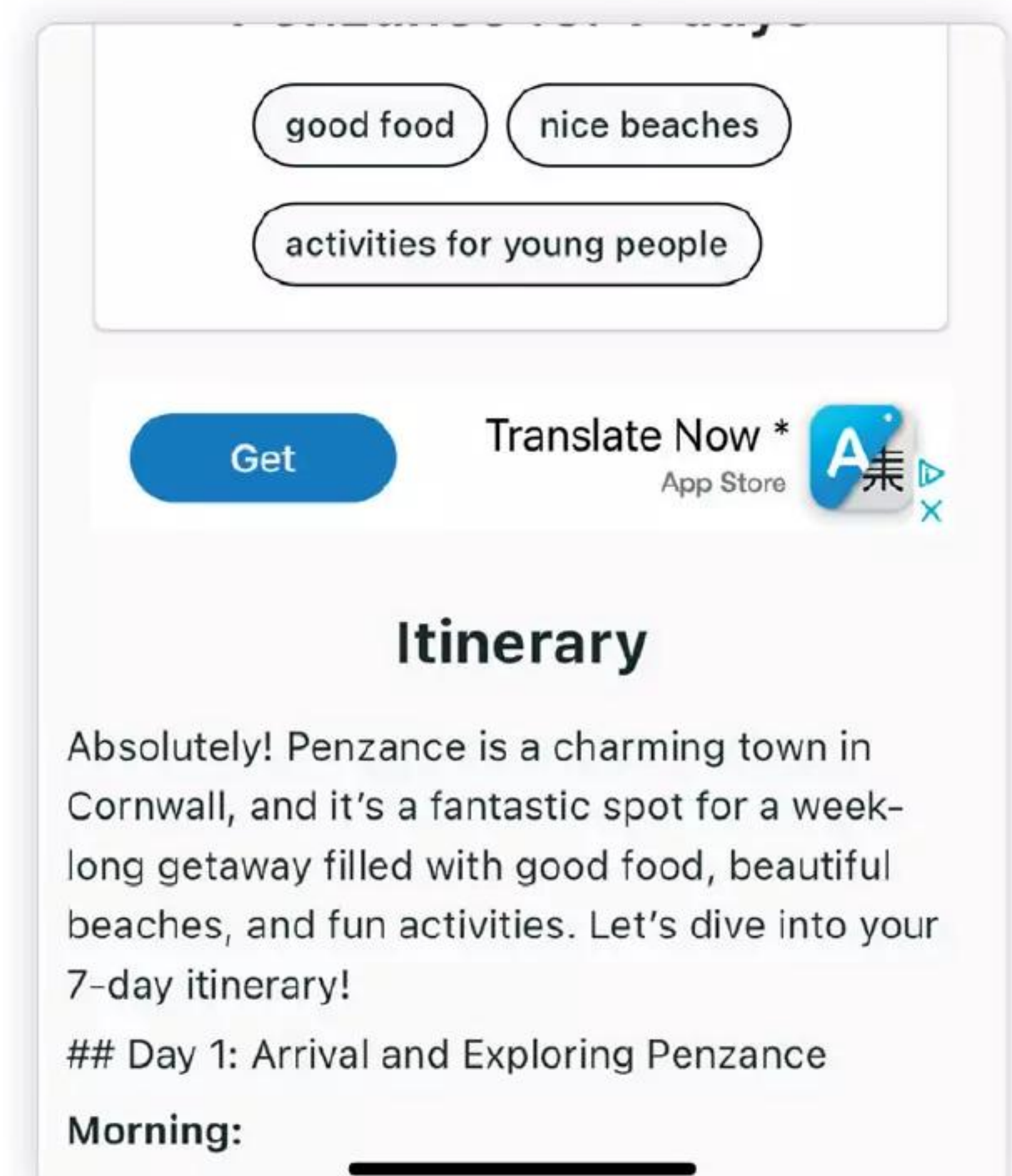
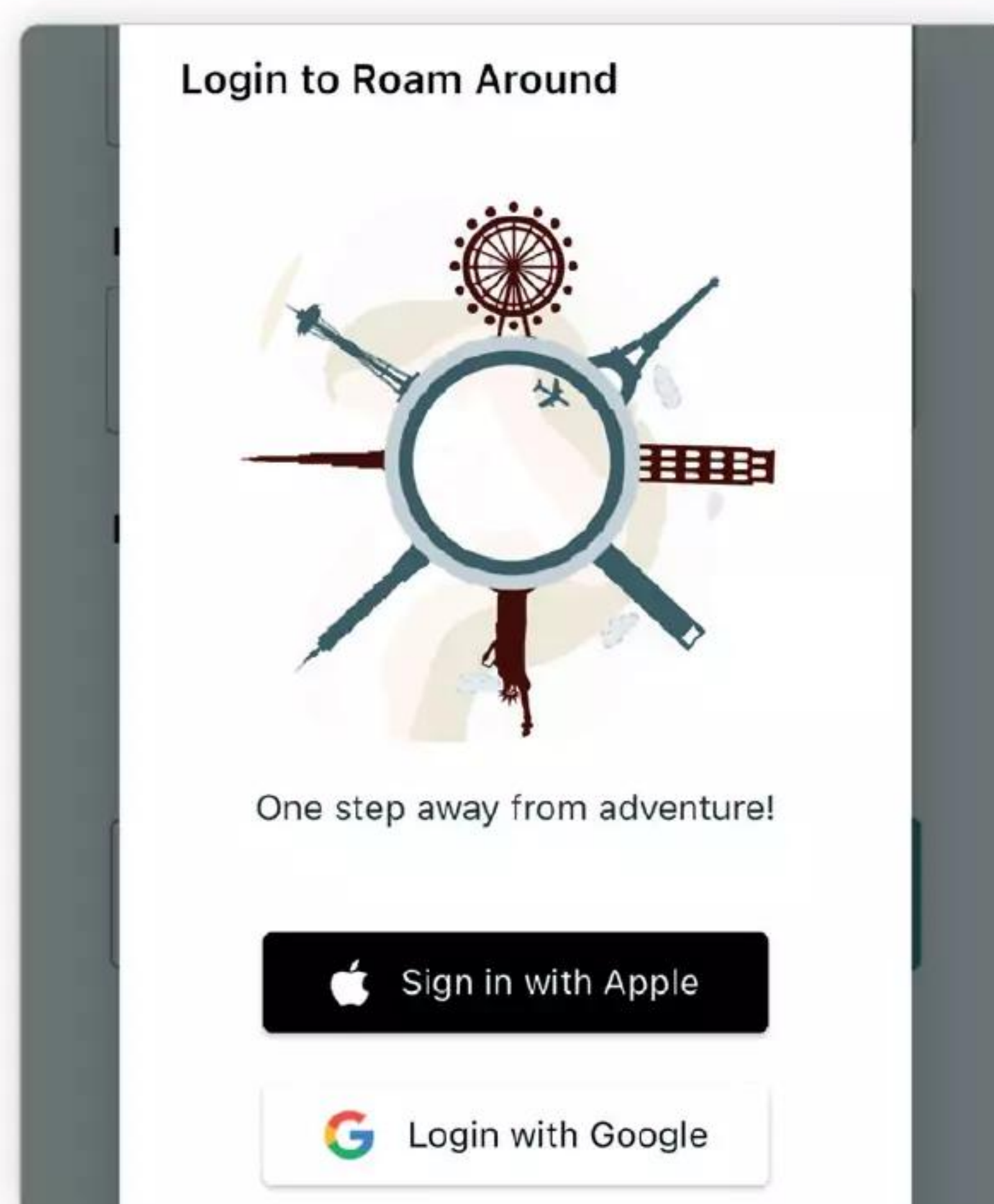
Roam Around Plan Your Next Trip

Described as ‘the ultimate AI travel planner,’ Roam Around is available on Apple and Android devices, or at <https://roamaround.app>.

How many days?

Personalize? (optional)

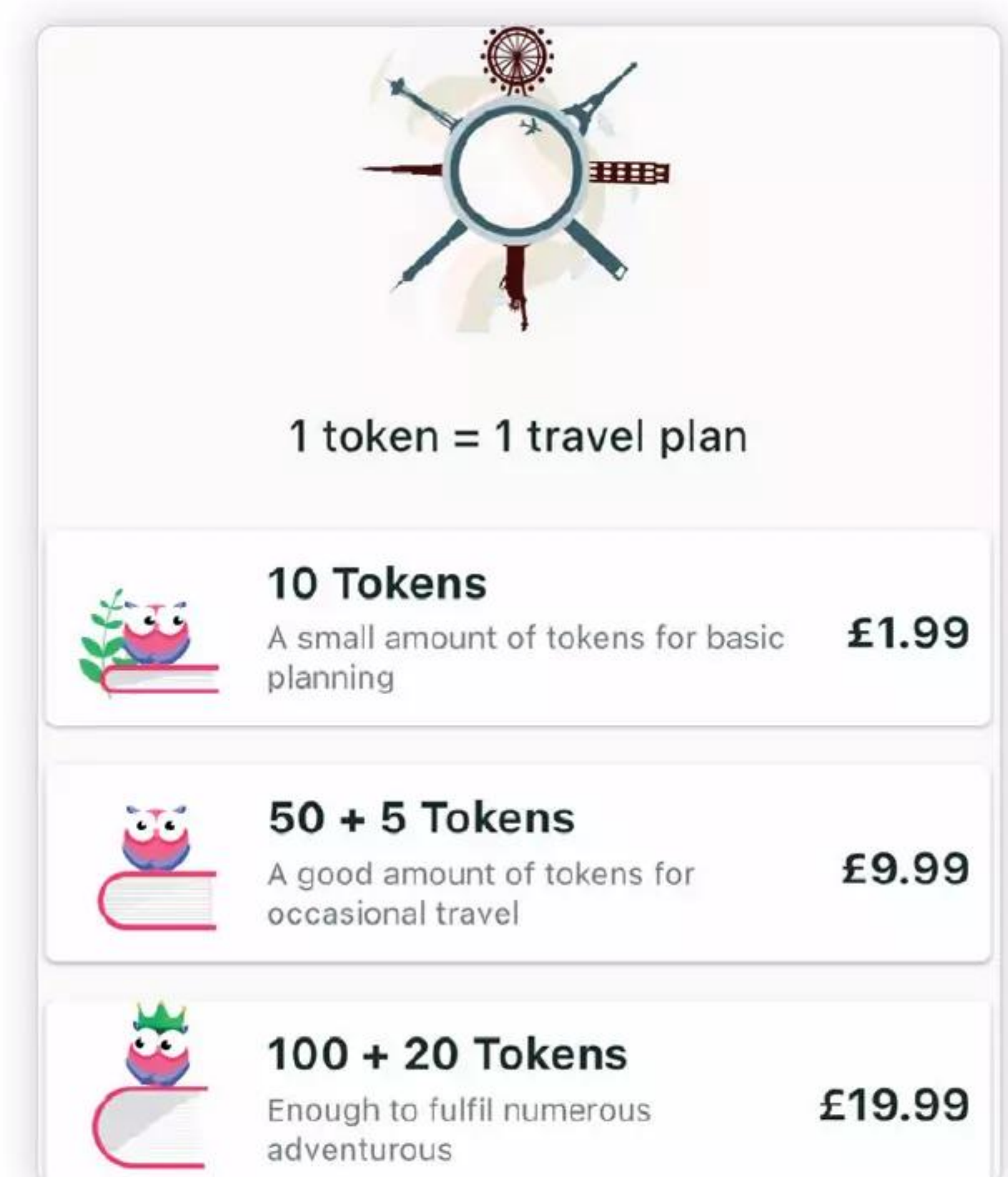
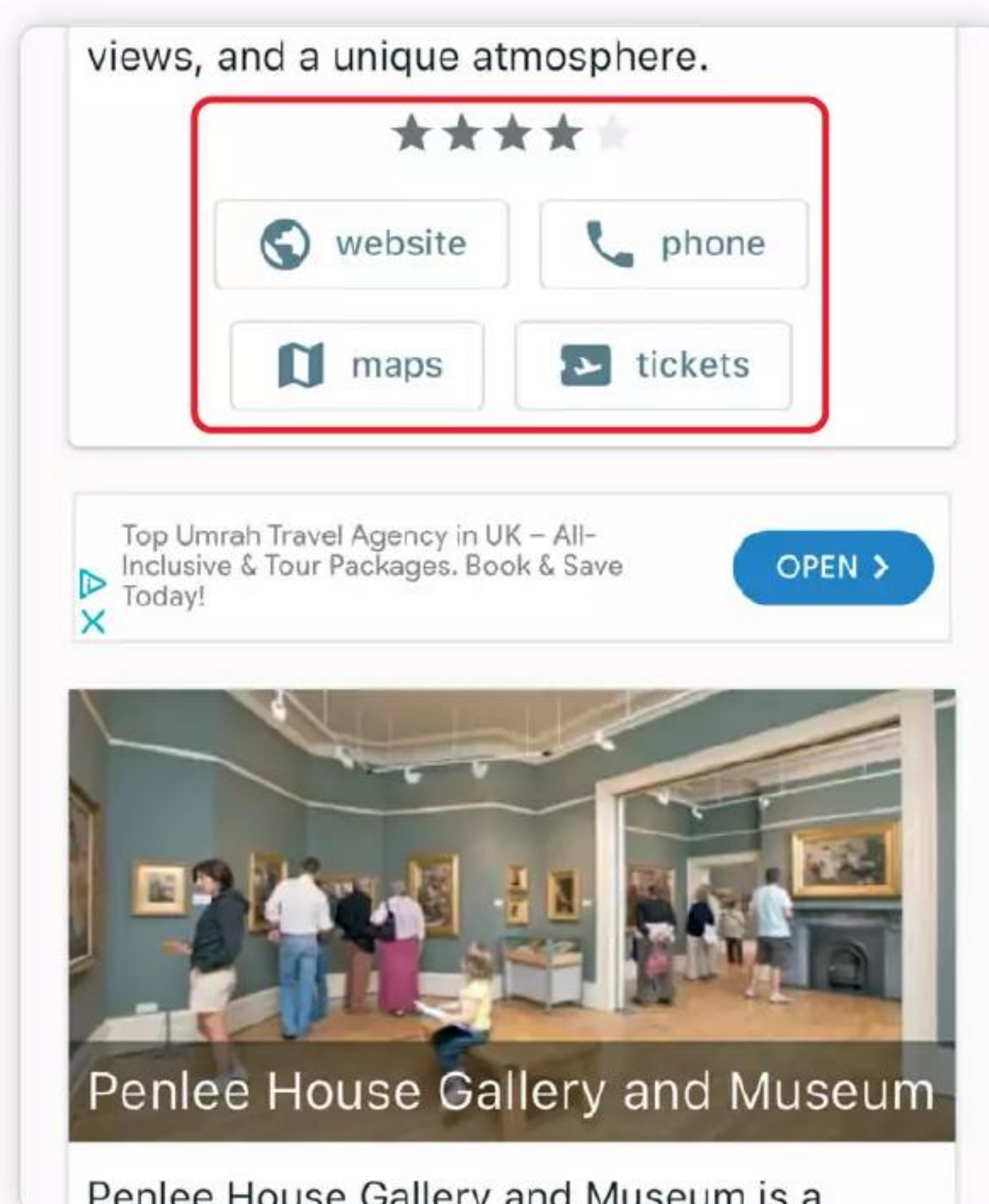
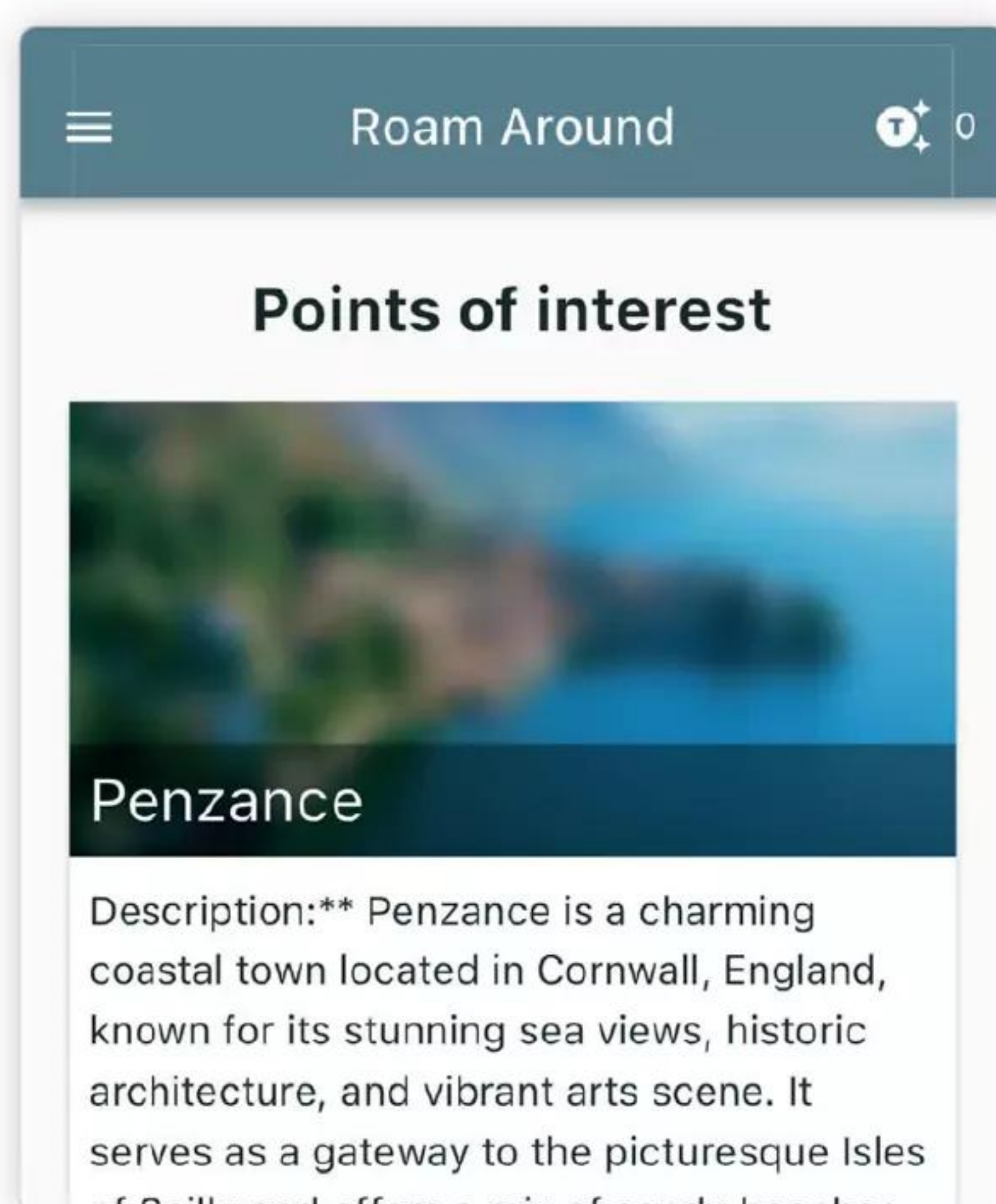
You can add upto 5 customizations



1 Roam Around is easy to use. Open the app, and enter a destination, the number of days you want to spend and some personalisation ideas for the trip.

2 Tap the Plan a Trip button. As this is the first time you used the app, you have to log in. Follow the on-screen instructions to make and set up a new account.

3 You're given an itinerary, offering a schedule created by the Plan a Trip artificial intelligence. Things to see and do are offered for every day of your trip.



4 Scroll down for some points of interest in your intended locale, based on the choices you made regarding your destination and customising factors.

5 Each point of interest includes a score out of five, and where possible, links to a website, telephone details, Google Maps and a site on which to buy tickets.

6 Your first plan is free, but after that you need Travel Tokens. You can buy these, or earn them by watching video adverts presented to you by the app.



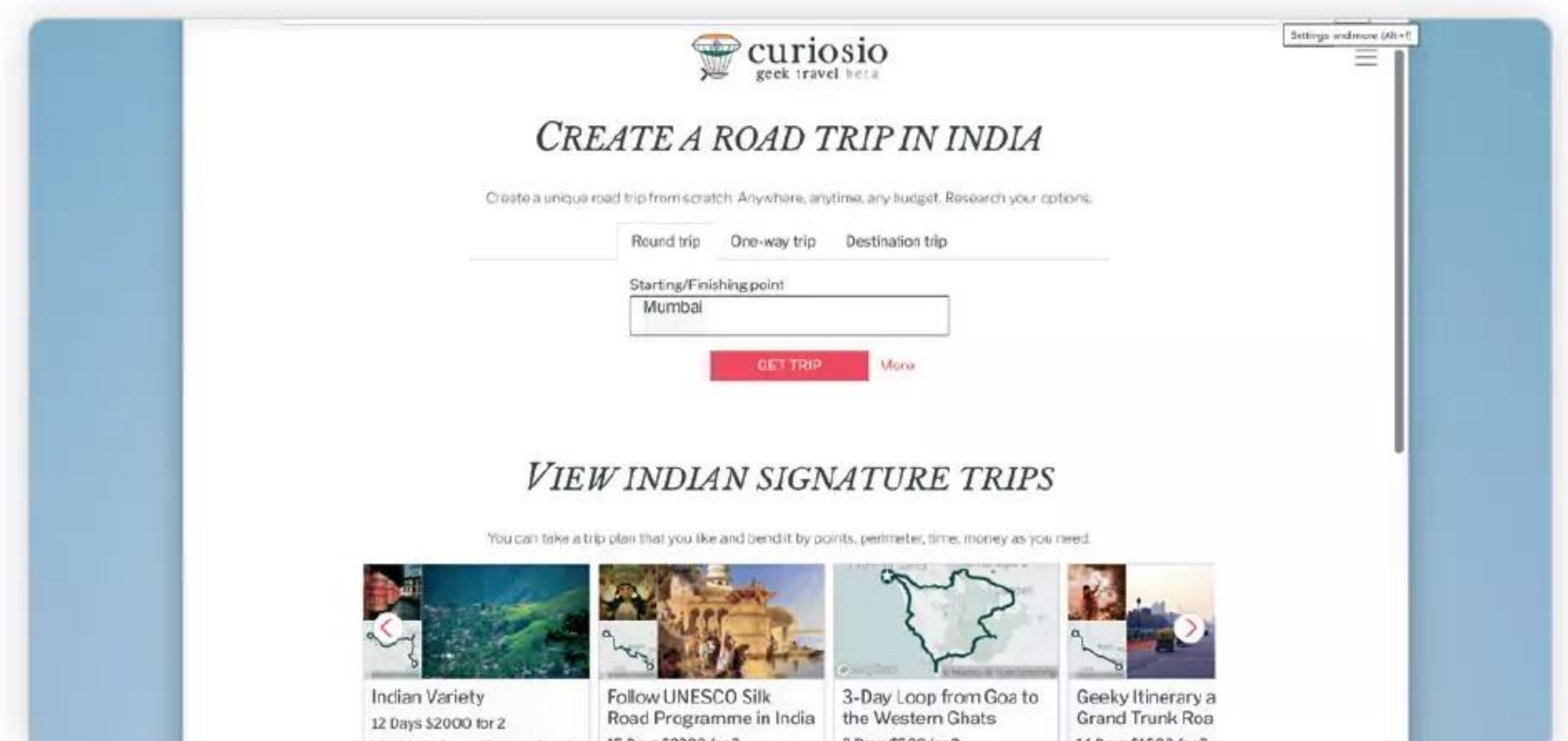
Curiosio

Making Travel Easier

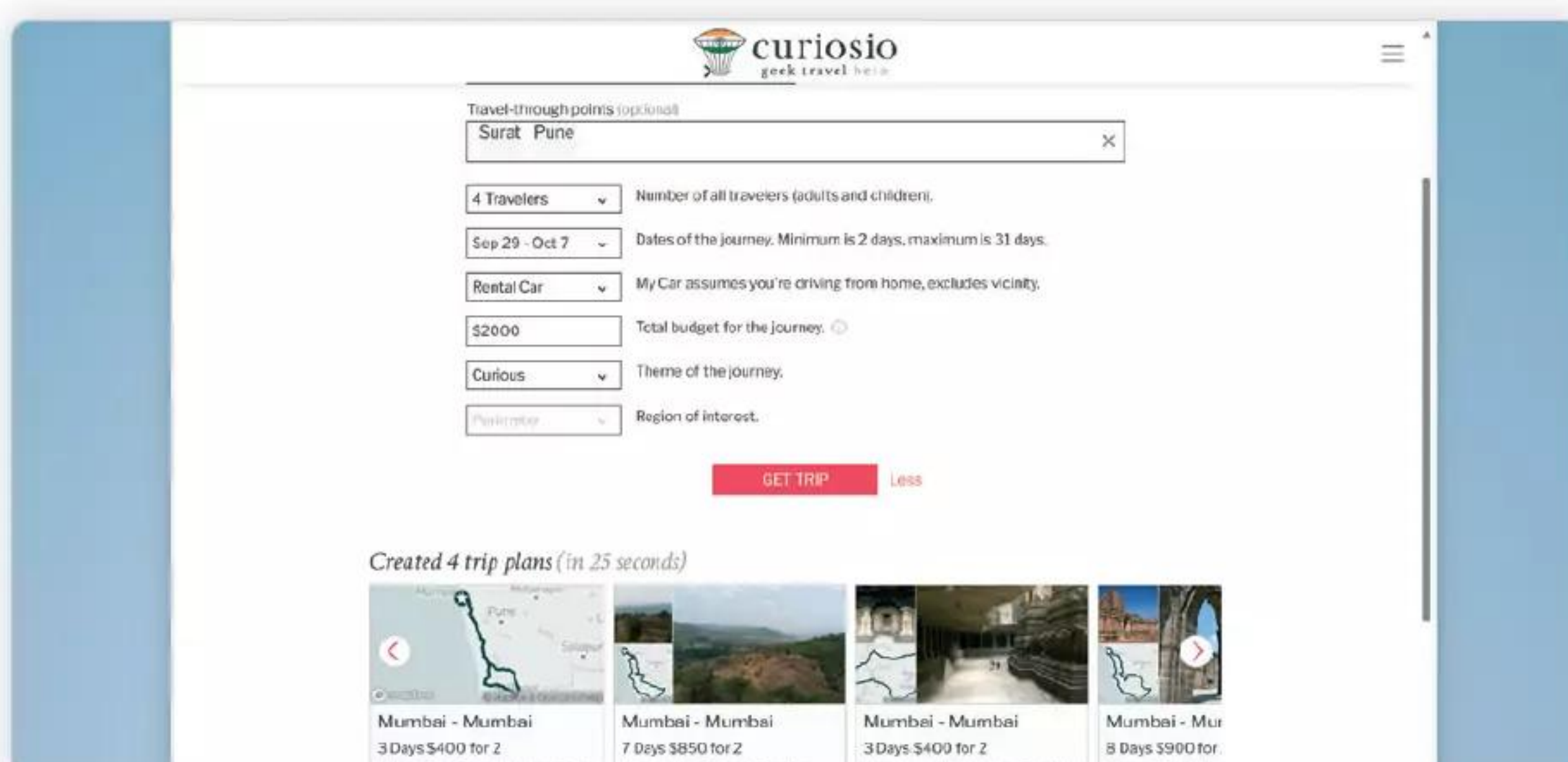
Curioso (<https://curiosio.com>) is another trip planner, this time designed for worldwide road trips.



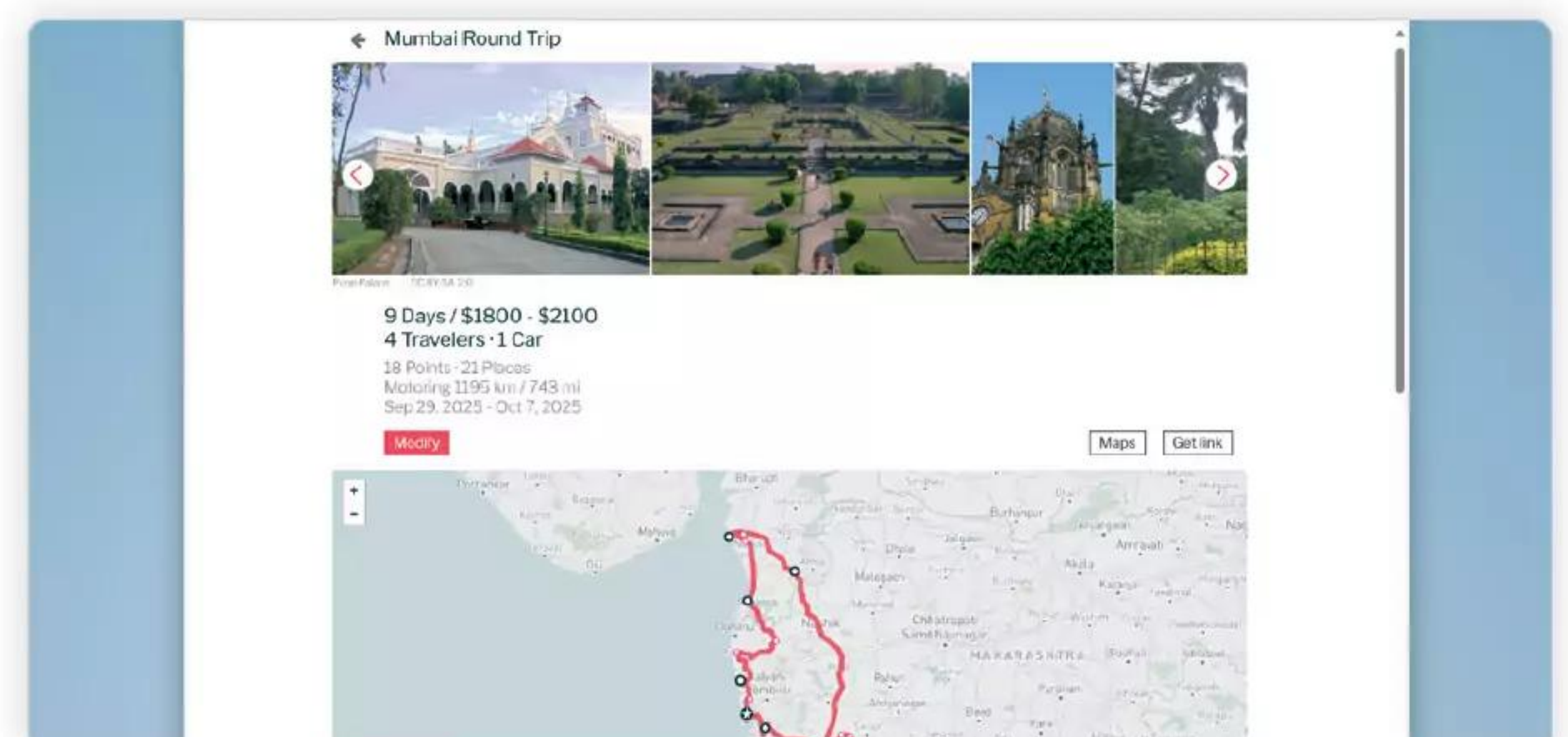
1 Where do you want to go? How long do you have to travel? How much do you have to spend? These are the sort of factors covered by the Curiosio site.



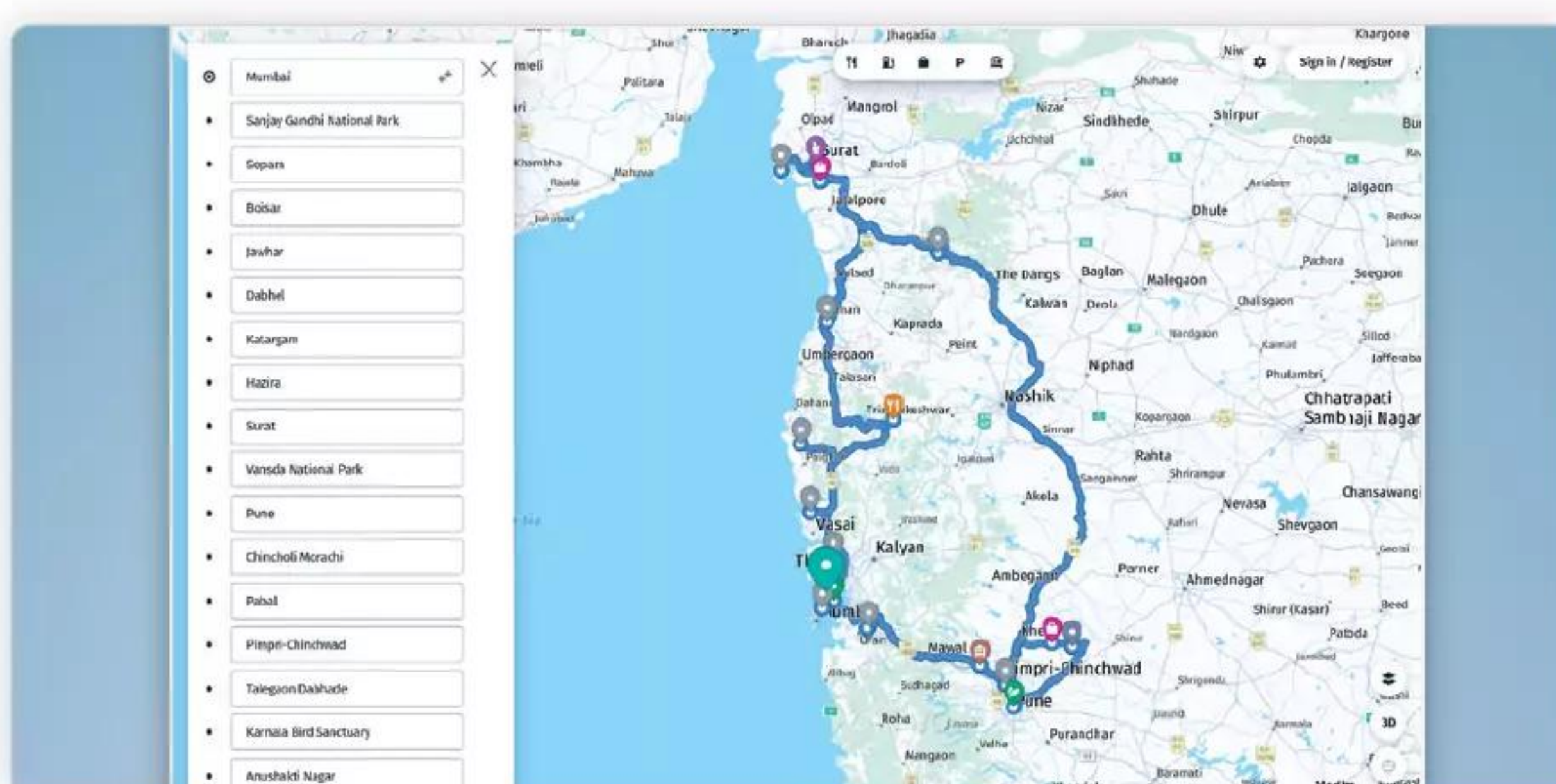
2 Start by choosing a country. You can then choose a round trip, a one-way trip or a trip that takes you to a specific destination. After choosing, click Get Trip.



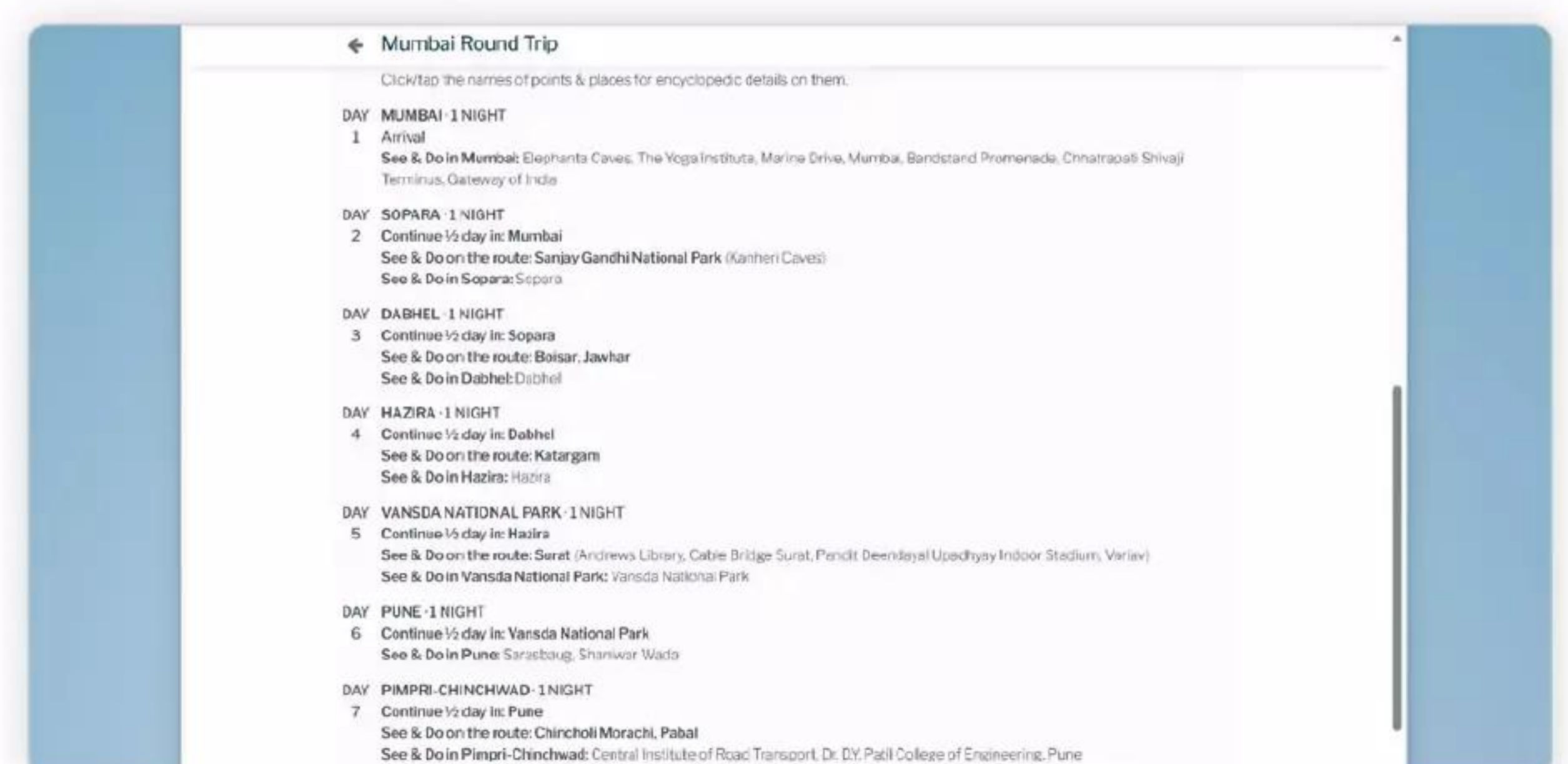
3 After confirming you're not a bot, you're presented with a series of trip plans, of varying lengths and costs. Choose one of these, or add more details and click Get to replan the entire trip again.



4 When you're ready, click on one of the trips generated by the site's artificial intelligence. To improve the experience you're given photographs, points of interest, distance in miles and KM and more.



5 You're shown a map for your trip – click Maps to open a larger, more manageable version in Google Maps or HERE WeGo, or Get Link to copy the trip's link.



6 Scroll up for an itinerary, showing where you should be on which day. Things to see and do are listed, and if you click a name of a point or place, you get more details.

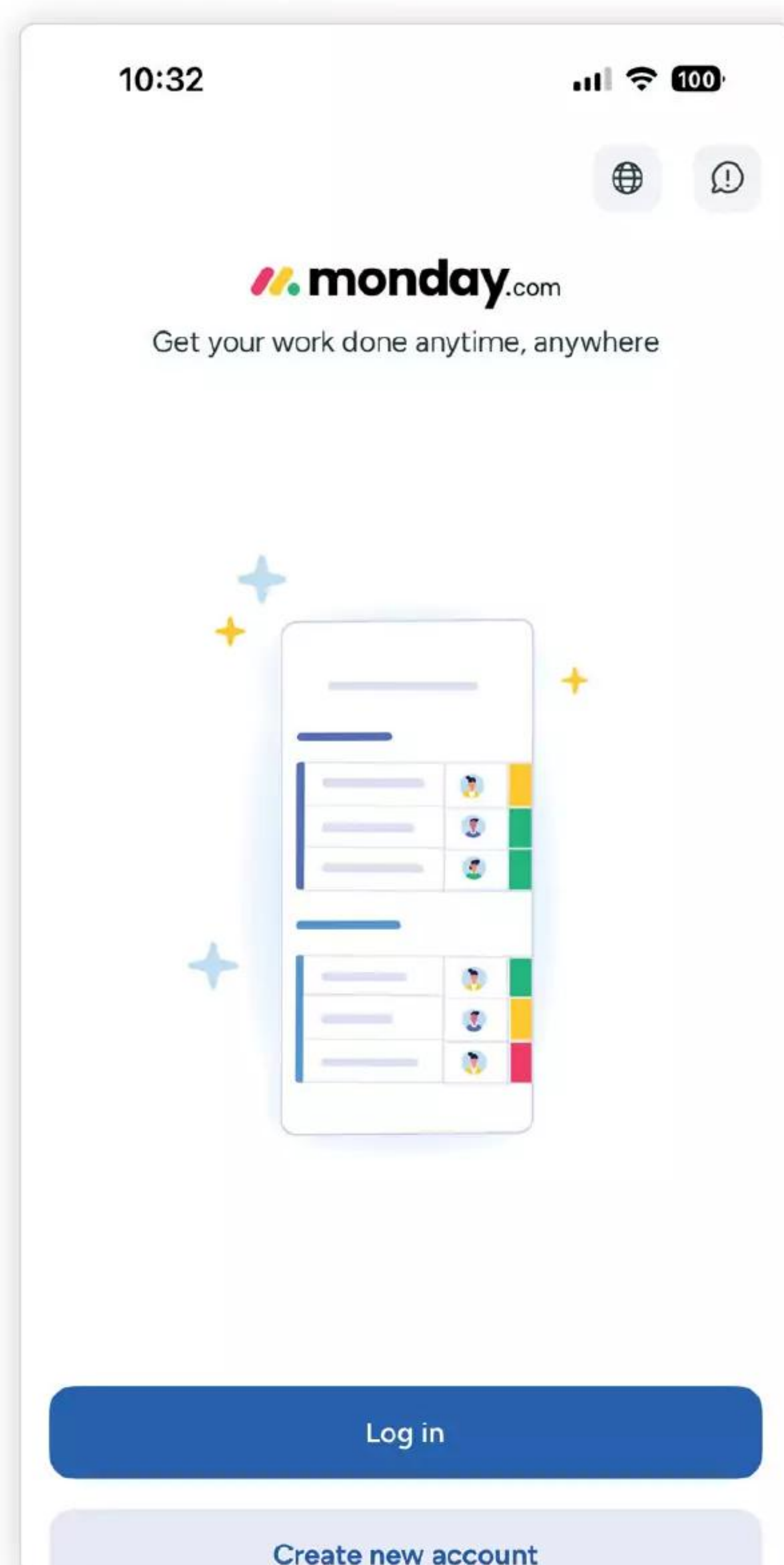


Monday.com

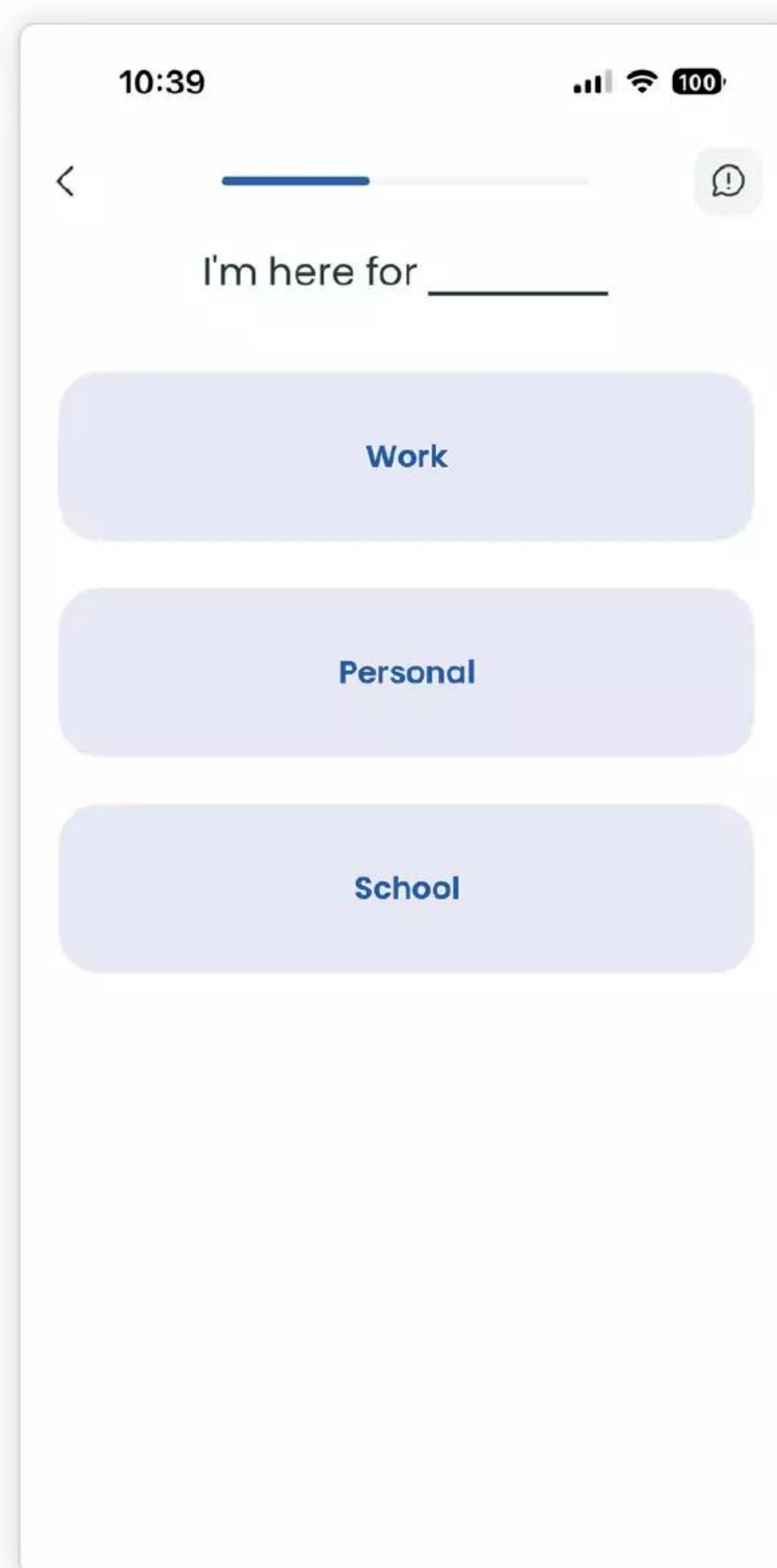
An AI Work Platform

Monday.com brings artificial intelligence to your professional life, with streamlined workflows, with manual tasks run in the background with AI. Drag-and-drop convenience allows you to customise the platform to meet your project's needs, and there's a range of price points available, including a free tier. According to the company, '61% of the Fortune 500 work with monday.com'.

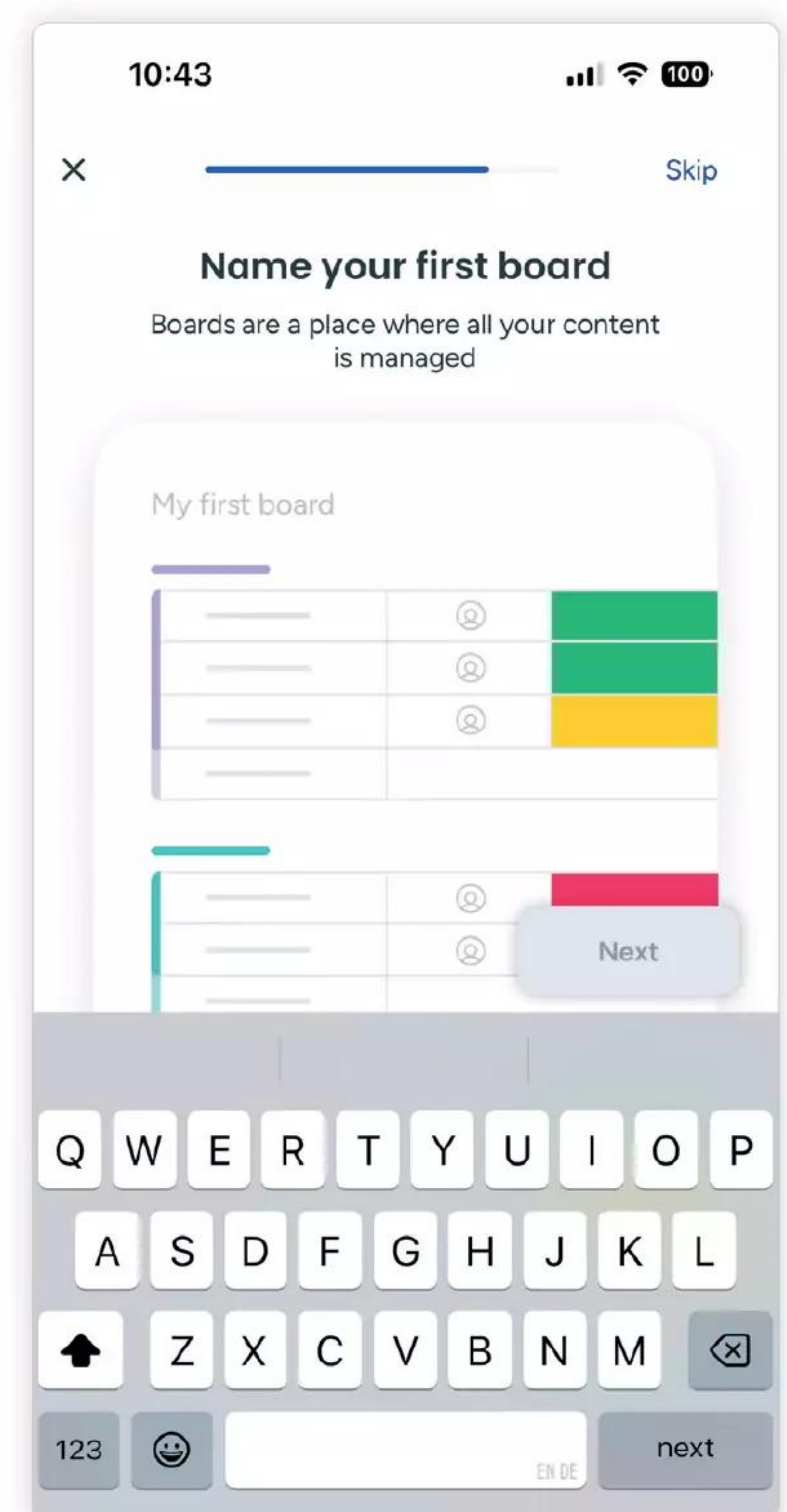
Setting Up



1 You can use monday.com from your computer's web browser, or using a dedicated smartphone app. We're using the iPhone app here, but it's available on Android as well. Open the app, and create a new account. Here we're using the free payment tier; you can upgrade later if you wish.



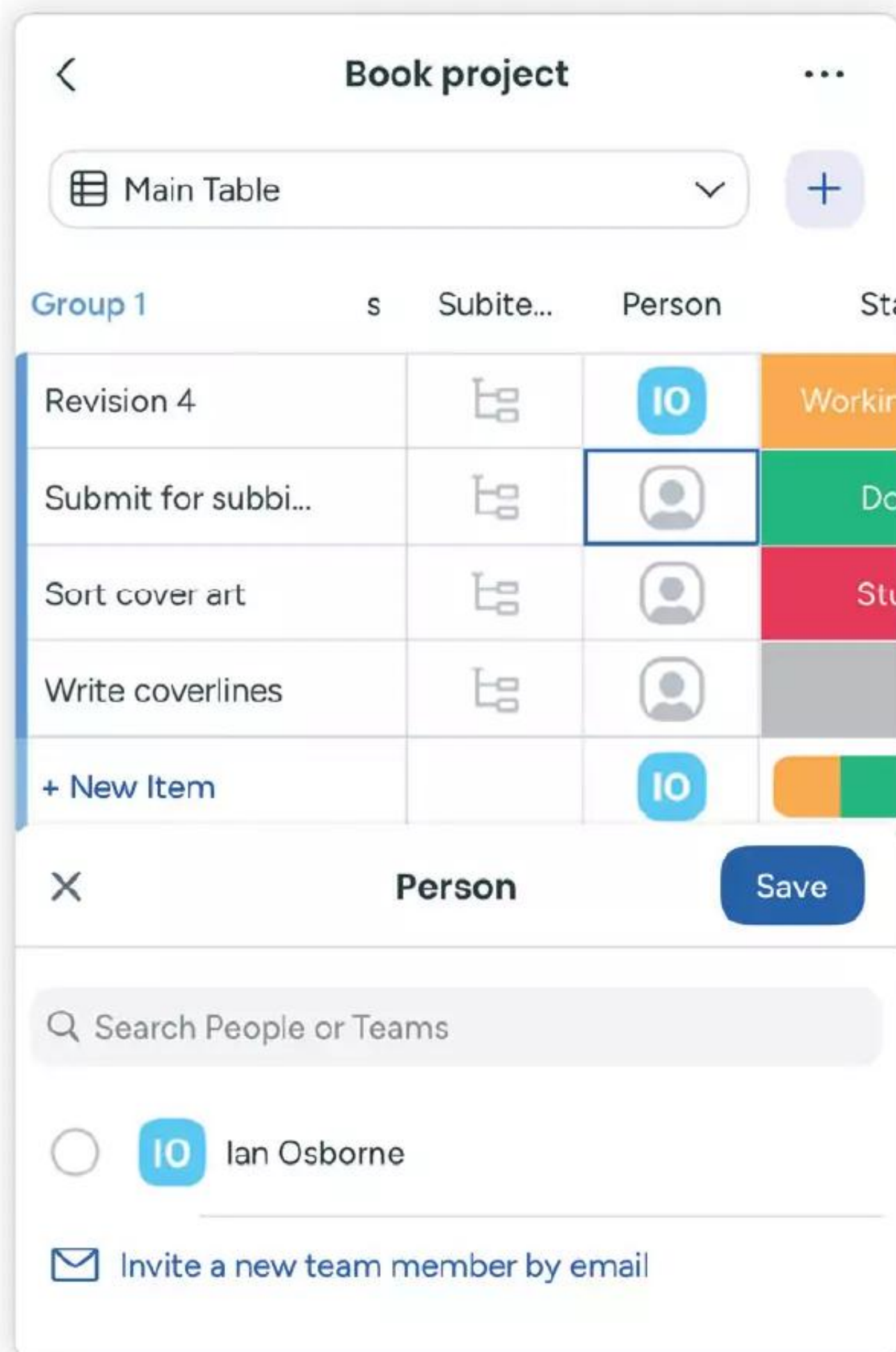
2 Follow the on-screen instructions as you're taken through the setup process. You're asked questions about how you intend to use Monday.com. You can skip this if you wish, and get straight to using the app, but answering the questions might help you to get started.



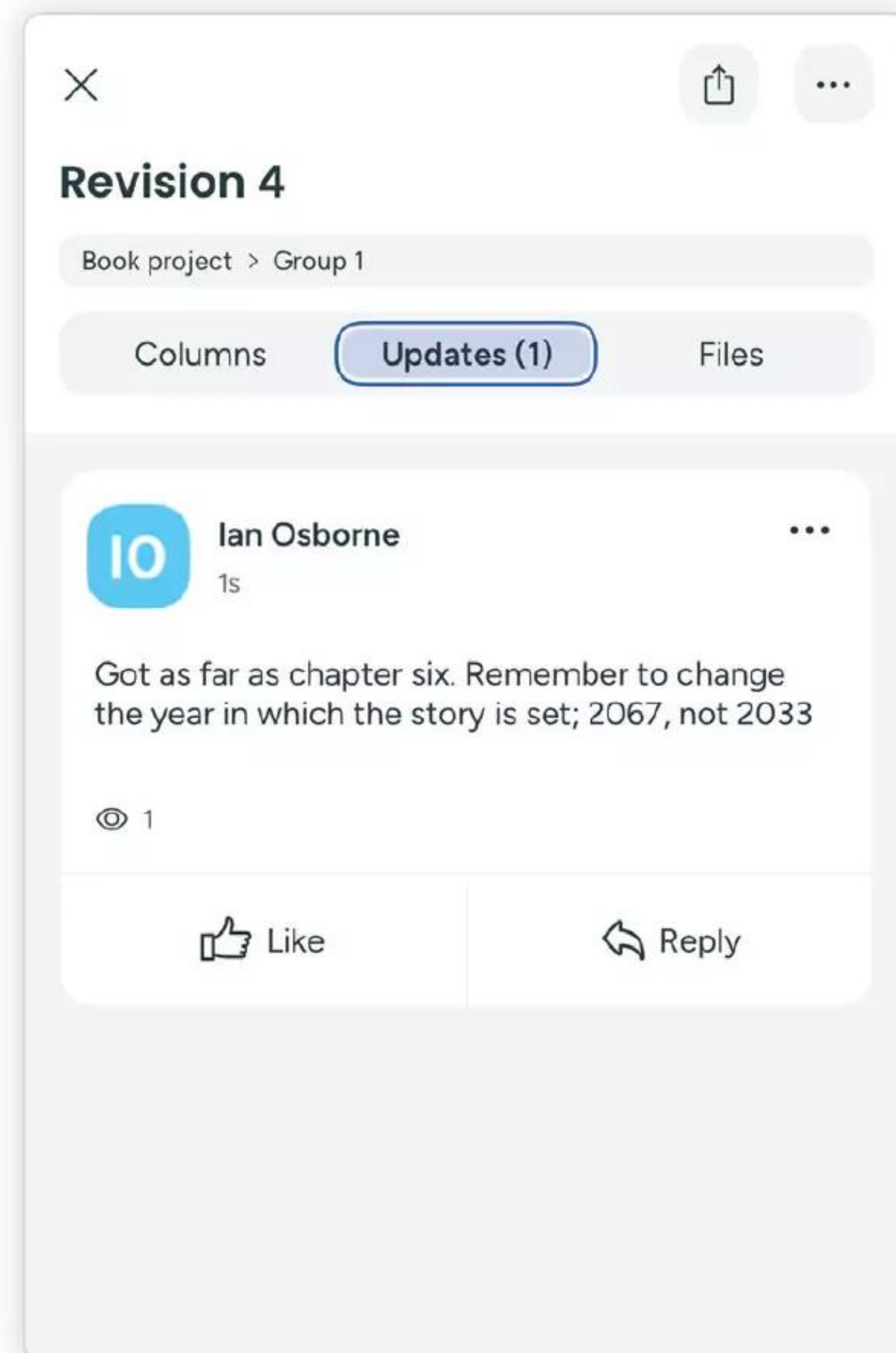
3 You're then asked to name your first board. The boards are where your content is managed, so name it for the project you're currently working on. When you're done, tap Next and you can add items to your first board. Don't worry about missing one – you can add it later.



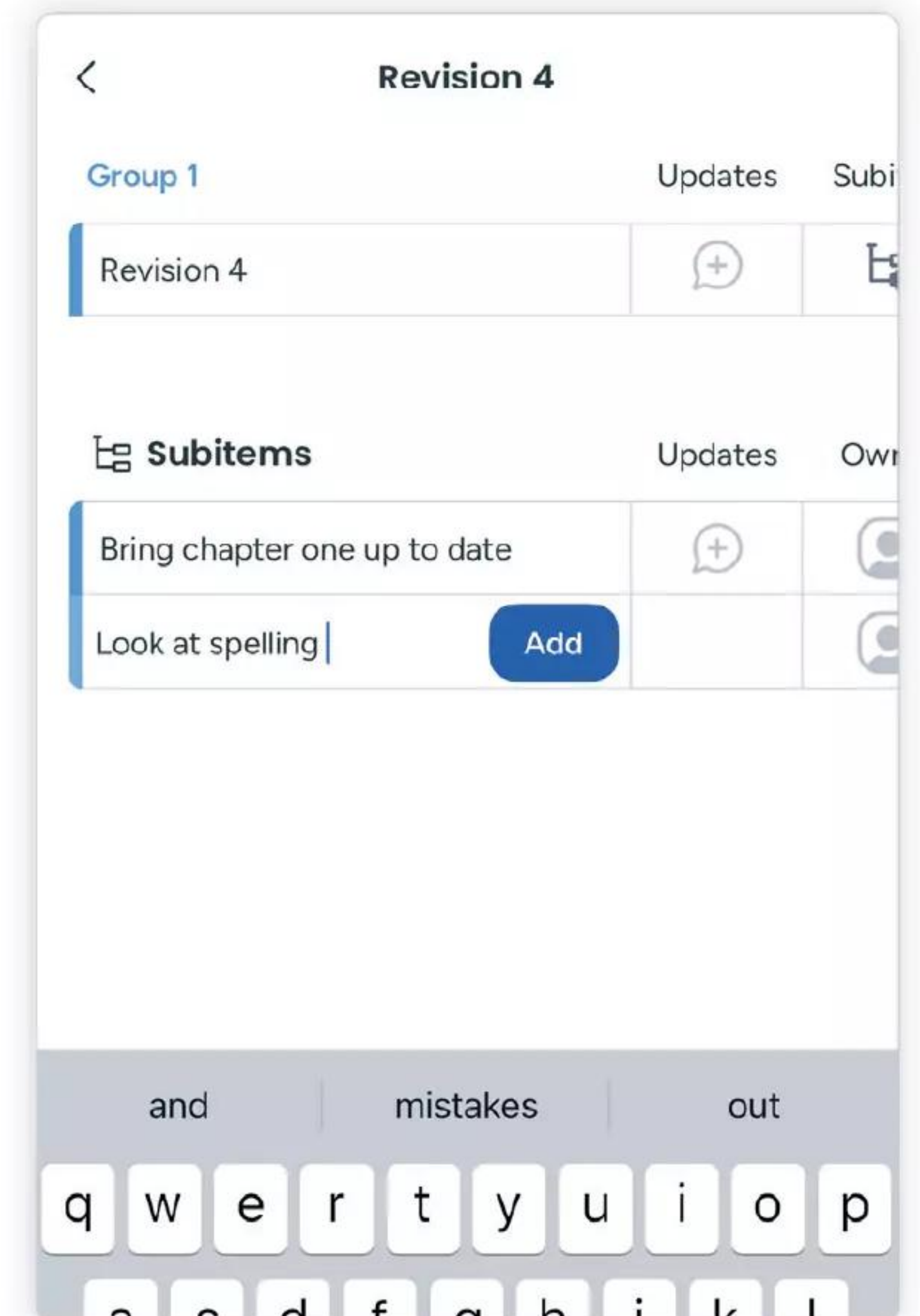
Getting Started With the App



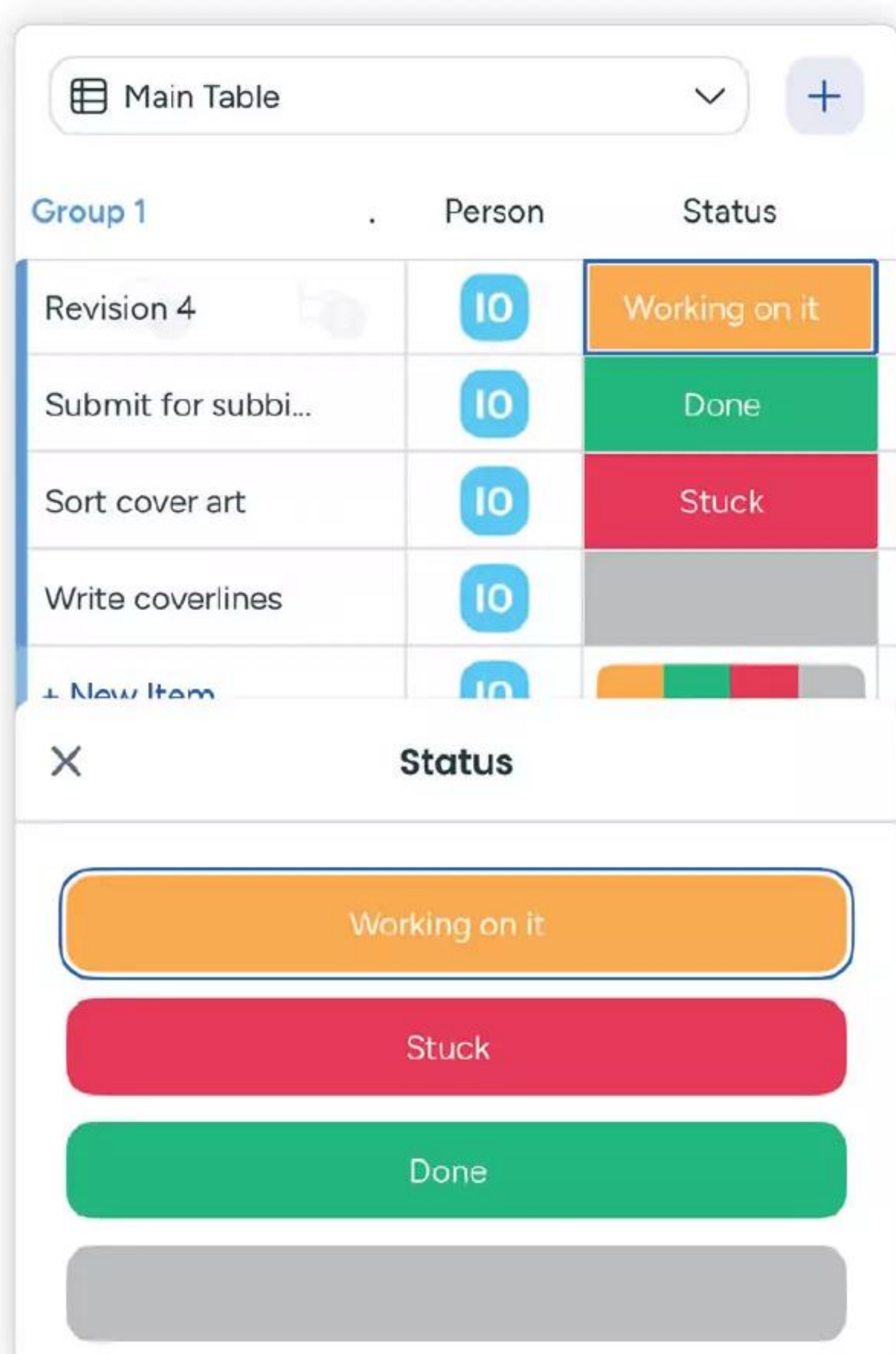
1 The first board you set up on the previous page is shown as the sole entry in a list. Tap on it to open it. Tap the Add link to add another item to the list. Tap a silhouette in the Person column next to a task to assign it to a team member.



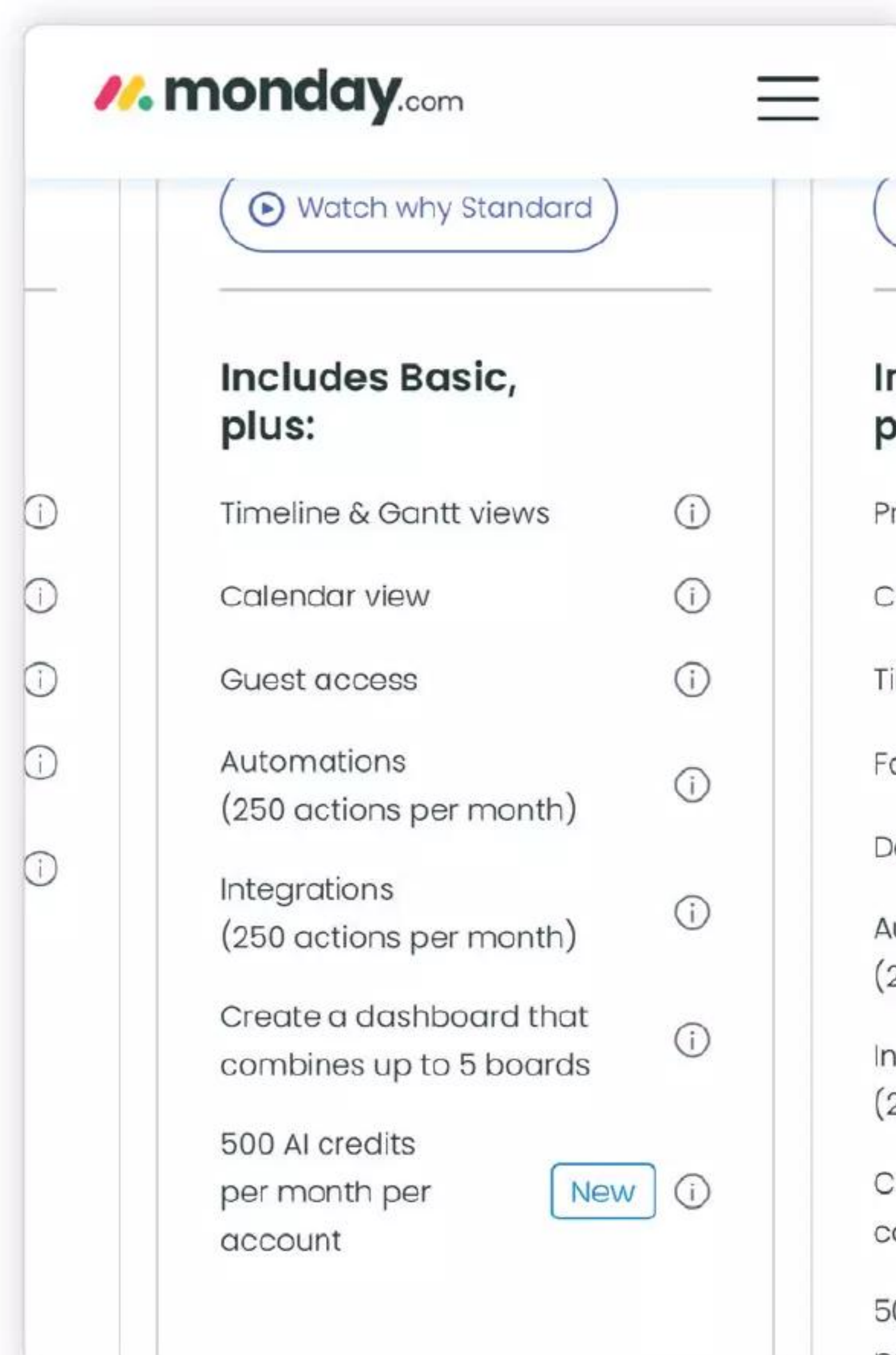
2 Tap an Updates box to add an update to a task. This is especially useful if you're working in a team, as other team members can add their own updates, and you can make replies on each others' updates.



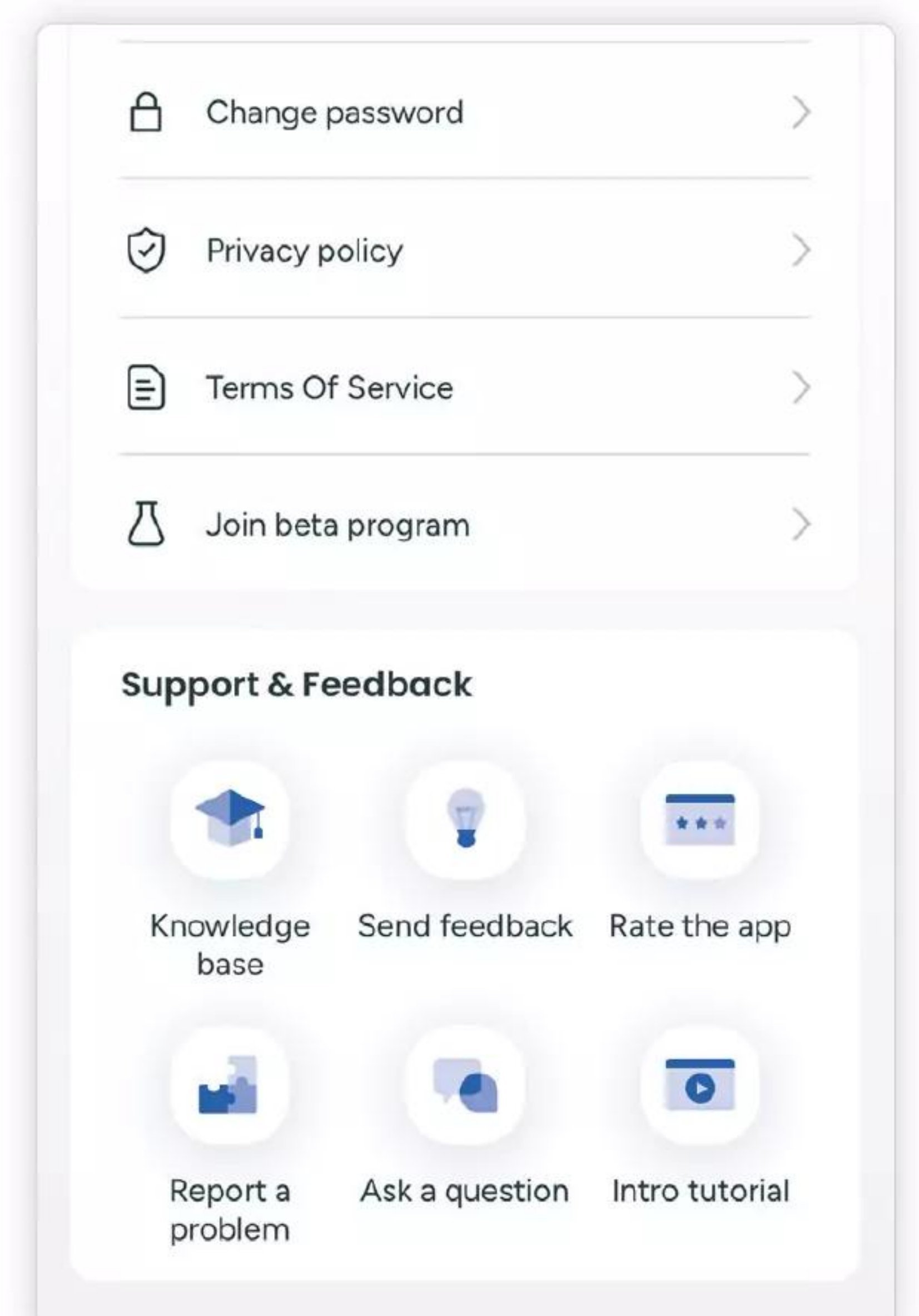
3 The Subitems column lets you break a job down into smaller tasks. Add them as subitems, and you can assign those items to a person, add updates, add status and dates, attach files and more.



4 Tap an item's Status entry and you can change it. Three statuses are offered by default, but you can tap Add/Edit Labels and customise them to suit the way you work. You can change their colours too.



5 To use AI features, upgrade to a paid tier. Go to monday.com, sign in and tap Pricing at the top. Paid tiers give you 500 AI credits a month, which can be used to automate the processes described in this guide.



6 If you get stuck, at the bottom of the screen on the right, tap More. Scroll to the bottom of the page and under Support and Feedback is an option called Knowledge Base. Tap it for helpful information.

The Ultimate Jargon Buster

Avoid tech confusion, either when reading this guide or when talking to friends, with this glossary of technology terms and phrases. We have looked across the tech borders to bring to you the definitive jargon buster, and we firmly believe it should help you to understand the common terms people use when talking about their devices and their software.

0–9

3G/4G

The third and fourth generation of mobile data networking.

5G

The fifth generation of mobile data networking offers increased speed when transferring data on the go but it is still in its early stages of adoption by mobile phone networks.

A...

A/D Converter

An in-built converter that changes the analogue signal from a digital camera sensor into digital values.

Accessibility

A series of tools and features in Settings designed to make Apple devices easier to use for those with disabilities.

Active layer

The layer currently selected in the Layers panel.

Activity

An Apple app that records calories expended, exercise minutes, and standing time.

Adjustment layer

A layer used to experiment with color and tonal adjustments without permanently changing pixel values.

Adobe RGB

A color space profile created by Adobe Systems that provides a large gamut of colors.

Ad Blocker

Ad blockers, often browser extensions, block ads and tracking scripts for faster, safer browsing. They improve page load times, reduce data usage, and enhance privacy.

ADSL

A means of connecting to the Internet through a telephone line.

AE Lock

A function enabling a photographer to take and hold a light meter

reading from a specific area while composing an image.

AGP

A high-speed channel for attaching video or graphics cards to a motherboard.

Airplane Mode

A setting that turns off all incoming and outgoing wireless signals (data, Bluetooth, and Wi-Fi) on an Apple device.

AI (Artificial Intelligence)

AI enables machines to mimic human thinking, learning, and problem-solving by analysing data and adapting over time.

AirPlay

A wireless protocol for streaming audio and video from an Apple device to compatible speakers or Apple TV.

AirPods

Apple's in-ear Bluetooth earbuds that automatically pair across synced devices.

Algorithm

A set of instructions for a programme.

Aliasing

Jagged edges on diagonal lines or arcs caused by pixels lining up in a saw-tooth pattern.

Alpha channels

Masks in Photoshop used to manipulate, isolate, and protect specific parts of an image.

AMOLED (Active-matrix organic light-emitting diode) A display technology used in mobile devices and cameras that consumes less power than LCD.

Android

Android, a Google-created mobile operating system, powers smartphones and tablets from various brands.

Anti-aliasing

The smoothing of jagged edges in digital images by averaging colors at a boundary.

Antivirus Software

Antivirus software scans for and

removes harmful files, viruses, and malware.

Aperture

A movable circular iris behind the camera lens that controls the amount of light falling on the sensor.

Aperture Priority

A semi-manual exposure option where the user sets the aperture and the camera sets the shutter speed.

App

Short for "application"; a program used on iOS devices and Apple Watch.

App (Programming)

An application designed to execute on a small, handheld device.

App Store

A digital storefront or platform for downloading free and paid programs using an Apple ID.

Apple ID

A registered email and password required for Apple applications and features.

Apple Pay

A contactless payment feature using stored credit or debit card information.

Application

A program or suite of programs with a defined function.

Argument

A value or reference to a value passed to a function.

Array

An ordered sequence of same-typed values accessed by their numerical index.

Artefact (Photography)

Unexpected changes or angular blocks in an image caused by incorrect settings, processing, or data loss during compression.

Aspect ratio

The ratio of an image's width to its height.

ATX

A motherboard form factor speci-

fication developed by Intel in 1995.

Augmented Reality (AR)

Augmented reality adds digital elements to the real world when viewed through a compatible hardware, for example a smartphone camera.

Autofocus

A system to automatically focus a lens, typically using contrast detection or phase detection.

B...

Back End

The server side of an application providing functionality, inaccessible to users.

Background layer

The bottom-most, usually locked layer in an image containing the primary data.

Backlight

Light coming from a source behind the photographed subject, often resulting in a dark silhouette if not adjusted.

Back-side illumination

A sensor design method where wires are placed on the back of the chip to increase the light-collecting area.

Bandwidth

The amount of data that can be sent through a network or modem connection, usually measured in bits.

Barrel distortion

A lens effect, usually with wide-angle lenses, where an image appears slightly spherized or curved at the edges.

Batch processing

Performing one or more tasks on a group of files simultaneously.

BIOS

A program preinstalled on computers used for startup.

Biometric Security

A security feature authenticating users, such as facial recognition or fingerprint scanners unlocking phones.

Bit depth

The number of colors used to represent a pixel (e.g., 8-bit equals 256 colors).

Bitmap image

An image consisting of rows and columns of pixels, also called a raster image.

Bits per channel

Determines how many tones each color channel in an image can contain.

Blending mode

A feature controlling how pixels are affected by editing tools or how layers blend with those beneath them.

Blockchain

Blockchain is a distributed network system for recording transactional data, ensuring immutability and transparency.

Blu-ray Drive

An optical disc drive capable of reading Blu-ray discs.

Bluetooth

A wireless technology used to link and exchange data within a range of approximately 8 meters.

Boolean

A data type for yes/no or true/false values.

Boot

The process of turning on a computer and loading startup instructions.

Boot Disc

A disk (usually an internal hard drive) that a computer can start up from.

Bracketing

Taking the same shot multiple times at different exposures to increase the chance of obtaining an ideally exposed image.

Broadband

Wide bandwidth, fast Internet data transmission, as opposed to older dial-up services.

Brush preset

A brush in Photoshop with preset settings for thickness, size, and style.

Bug

A coding error disrupting a website or application's normal operation.

Burning

The selective darkening of a specific part of an image.

Burst mode

A camera feature that takes several images in rapid succession.

Bus

A communication system that

transfers data between computer components.

C...

Cache

A component that stores data so future requests for that data can be served faster.

Camera raw format

Data exactly as captured by a camera sensor without in-camera processing.

Canvas

The workspace around an existing image within the image window.

Case

Also known as the chassis or tower; the computer enclosure with a style determined by motherboard size.

CCD

The light sensor behind a camera lens consisting of millions of tiny light sensors (pixels).

CD-ROM

A pre-pressed optical disc containing data or music.

Centre-weighted metering

A system where the camera takes an average light reading from the whole frame but prioritizes the center.

Channel

A construct describing color data; for example, an RGB image has three channels.

Charger

The USB cable used to charge a device.

Chip

A miniaturized electronic circuit manufactured on a semiconductor substrate.

Chipset A group of integrated circuits designed to work together.

Chromatic aberration

Colored fringes appearing around objects toward the edges of a frame due to light wavelengths focusing at different distances.

Class

A set of objects with the same behavior or a template defining such a set.

Clipboard

A temporary holding area for data stored with Cut or Copy commands.

Clock Cycle

One increment of the CPU clock during which the smallest unit of processor activity is performed.

Clock Speed

The speed of a processor measured in hertz (cycles per second).

Clone

To paint using the Clone Stamp tool after setting a sampling point.

CMOS

Low-power memory used to store BIOS settings, powered by a battery.

CMOS Photography Context

A chip-manufacturing technology used for sensors in a large proportion of digital cameras.

CMYK

Cyan, magenta, yellow, and black; the inks used by most printers to produce color images.

Color cast

An unwanted color shift in a photo (e.g., an indoor photo appearing too yellow).

Color depth

A measure of how much color information is available to display or print each pixel.

Color management

A system used to achieve consistent color across different devices.

Color temperature

The degree of heat (in Kelvin) associated with different colors and types of light.

Compiler

A program that transforms source code into object code.

Compression

A technique that reduces the file size of bitmap images.

Constructor

A class method that creates and initializes an instance of an object.

Contacts

A digital address book that syncs across Apple devices via iCloud.

Content Marketing

Using blog posts, videos and other materials to engage and attract potential customers.

Core

The portion of a CPU that performs arithmetic and logical operations.

CPU

The electronic "brain" of a computer that carries out program instructions.

Cropping

Trimming a portion of an image to improve composition or create a frame.

D...

Data Mining

Analysing large datasets to uncover hidden patterns or trends

explaining consumer behaviour.

Data type

A classification of data stating possible values, storage methods, and allowed operations.

Database

A collection of information accessible, managed, queried and updated by users based on permissions.

DDR

An advanced version of SDRAM memory; includes newer versions like DDR2, DDR3, and DDR4.

Debugging

The process of finding and fixing problems in code.

Definition

The sharpness or clarity of detail in an image.

Depth of field

The distance between the nearest and furthest in-focus objects in an image.

Digital zoom

Enlarging the center of an image in-camera, which lacks the resolution of optical zoom.

DIMM

A small circuit board holding memory chips.

Disk Drive

A device used to read or write data to internal or removable disks (e.g., hard drive, optical drive).

Dithering

Approximating an unavailable color using two or more available colors.

Dock

An Apple hardware feature showing recently used or favorite apps.

Dodging

The selective lightening of any part of an image.

Dots per inch (dpi)

A measure of printer or monitor resolution.

DRAM

The most common type of synchronous computer memory.

Dump

A formatted listing of program storage contents produced by a failing program.

Duotone

A two-color grayscale file using custom inks.

DVI

A port supporting both analogue and digital displays.

Dynamic range

The difference between the lightest and darkest areas of an image.

E...

Effective pixels

The actual number of pixels used to capture an image, excluding those for color balance or those outside the lens range.

EIDE

An improved version of the IDE drive controller standard.

Electronic viewfinder

A miniature LCD monitor inside a camera viewfinder showing what the camera sees.

Embedded profile

An ICC color profile resident in an image file to ensure correct color interpretation.

Emoticon

Small drawings, typically yellow faces, used to augment text messages.

Encryption

Think of encryption as writing a secret message in code. Only someone with the right key (or code) can read it. This is super important for keeping your data safe from anyone who might want to see it.

Enumeration

A data type whose values are a set of mutually exclusive named constants.

EPS

A file format for images used in illustration and page-layout programs.

Ethernet

A family of computer networking technologies that are all connected via wires not wi-fi.

Event

An action that causes something to happen in a computer program.

Exception

An interruption in normal processing usually caused by an error.

EXIF (PC)

A standard for exchanging data between cameras and software, including camera settings.

Expansion Card

A printed circuit board installed into a PC to add functionality.

Exposure

The combination of shutter speed and aperture used to obtain the correct amount of light for a picture.

External flash

A connection (usually a hot-shoe) that allows the use of a separate flashgun.

F...

Facebook

A social networking site with a messaging app component for Apple Watch.

FaceTime

A communication service; Apple Watch supports FaceTime Audio but lacks a camera for video.

FAT32

A system for storing data on Windows hard drives.

Feathering

The softening of the edge of a selection.

Fill layer

A layer containing a solid color, pattern, or gradient.

Filters

Options to alter an image's look, such as adding distortions or unique lighting.

Firewall

A security device monitoring network traffic and preventing unauthorised access.

Firmware

Software instructions programmed on a hardware device for communication with other hardware.

Fixed focus

Lenses that cannot be adjusted and rely on a narrow aperture to keep objects in focus.

Flash Memory

A type of electrically erasable programmable read-only memory (EEPROM).

Flattening

Merging all visible layers into the Background layer to reduce file size.

Floating point

A method of representing real numbers as a pair of integers.

f-number

The ratio of a lens aperture to its focal length.

Focal length

Describes the magnifying power of a lens.

Font

A set of characters sharing a common weight, width, and style.

For Loop

A programming loop with a predetermined beginning, end, and incremental steps.

Force Restart

A troubleshooting method for Apple Watch involving the side button and digital crown.

Framework

A programme, code library or component for developing software applications.

Front End

The user-facing side of an application displaying information and enabling interaction.

FSB

Connects the processor to the system memory and motherboard components.

Function

A routine that receives arguments and may return a result.

G...

Gamma adjustment

Changing the brightness of mid-tones without affecting highlights or shadows.

Gamut

The range of color that a specific device can reproduce.

Gateway

A gateway is like a crossroads where different networks come together. It serves as the main entrance and exit for all data.

Gaussian blur

A softening effect applied through a bell-shaped distribution of colors.

GDPR

General Data Protection Regulation is an EU data protection and privacy law.

Gestures

Actions performed with fingers on a touchscreen or touchpad.

GIF

A format suitable for line art, text, and web animations.

Gigabyte

A unit of measurement equal to 1,024 megabytes.

Gigahertz

A unit equal to 1,000 megahertz used to measure processing speeds.

GIT

Git is a version control system for tracking source code changes during software development.

Goto

An older programming statement for unconditional control transfer.

GPU

A component used primarily for computing 3D functions like

lighting and motion.

Gradient

A method for achieving a smooth transition between two adjacent colors.

Graphical user interface

Think of a graphical user interface (GUI) as a window into your computer, where you can see information and interact with it using menus, chat boxes and icons. This interface helps you connect with the system.

Greyscale

A single-channel image containing only black, white, and shades of grey.

GUI

A visual interface allowing interaction via mouse rather than text commands.

H...

Halftone

A monochrome image simulating grey shades using variably sized dots.

Hard Disk

Also known as a Hard Drive; the internal drive that reads, writes, and transmits data between the CPU and the disk.

HDD

Short for "hard disk drive".

HDMI

A digital interface for transmitting audio and video in a single cable.

HDR

A technique combining multiple exposures to produce one image with a wide range of contrast.

Heat Sink

A metal component attached to a processor to draw heat away.

Highlight and shadow

The lightest and darkest colors in an image.

Histogram

A graph representing the brightness distribution or pixel values of an image.

Hosting

Hosting makes a website accessible via the web by purchasing a URL and connecting it to content.

Hue

The property that allows a color to be distinguished as red, blue, yellow, etc..

Hyper-threading

Intel technology allowing a processor to execute two sets of instructions (threads) simultaneously.

L...

I/O (Input/Output)

Ports on a computer used to connect input and output devices.

ICC

The industry standard for accurate color reproduction across devices.

iCloud

Apple's suite of online services for syncing data across devices.

Identifier

A formal name in source code referring to variables, functions, or procedures.

If

A programming structure for implementing conditional statements.

IGP

A graphics chip integrated into a computer's motherboard.

Image cache

A section of hard disk space used as virtual memory to speed up on-screen redraws.

Image mode

The color mode of an image, such as RGB or Greyscale.

Indexed colour

Color rendered using a pixel value as an index to a panel of 256 or fewer colors.

Input Device

Any device providing input to a computer, such as a keyboard or mouse.

Integer

A data type for integer values.

Interlacing

A video display system where each frame is divided into two fields of odd and even scan lines.

Internet

A global system of interconnected computer networks using the TCP/IP protocol suite.

Interpolation

Software-based addition of pixels between original ones to increase image size.

Interpreter

A program that executes another program written in a non-machine language.

iOS

The operating system used by all Apple iPhone devices since their launch, with a new update released on an annual basis.

IP Address

IP addresses are unique strings of

numbers assigned to internet-connected devices for identification and communication.

iPadOS

The name given to Apple's operating system that is used on their iPad tablet devices.

ISO

A measure of light sensitivity for the CCD or sensor in digital photography.

ISP

The company providing Internet access.

J...

Jaggies

Jagged diagonal lines appearing in low-resolution pictures due to the square nature of pixels.

JavaScript

Programming language crucial for web development, enabling interactive website elements.

JPEG

A common algorithm and file format for compressing images.

JPEG compression

A lossy technique that reduces image data and file size.

K...

Kbps

Kilobits Per Second; 8 times less data than Kilobytes per second.

Kilobyte

A unit of measurement equal to 1,024 bytes.

L...

LAN

A network limited to a small area like a home or office.

Landscape mode

An exposure setting for wide photos or holding the camera horizontally.

Latency

The time it takes for a data packet to move across a network connection.

Layer

A mechanism for overlaying images like transparent sheets of glass.

Layer group

A collection of layers saved together within an image.

Layer mask

A protected area in a layer where underlying content cannot be edited.

Large Language Model

AI models such as ChatGPT are trained on huge amounts of text data to help them understand and create text that sounds just like it was written by a human.

LCD

A display technology used for camera monitors and viewfinders.

Levels

Functionality for adjusting color, tone, shadows, and highlights.

L-ion

A type of rechargeable battery that does not suffer from "memory effect".

Library

A collection of pre-written code saving time for programmers during development.

Link Editor

A program that assembles compiler-generated objects into a single executable.

Linux

A free, open-source operating system.

Locked layer

A layer that cannot be changed, indicated by a lock icon.

Loop

A routine where code is executed repeatedly.

Lossless compression

An image-compression technique that prevents data loss and degradation.

Lossy compression

A technique using high compression ratios that result in the loss of some image data.

Luminance

Lightness; technically the highest plus lowest RGB values divided by two.

M...

Machine Code

Instructions directly understandable by a computer's CPU.

Macro mode

A setting used for taking extreme close-up photographs.

Mail

Apple's email client capable of handling multiple account types.

Malware

Malware is malicious software designed to harm or exploit devices, services, or networks.

Manual mode

A setting giving the photographer full control over aperture and shutter speed.

Matting

A method for simulating transparency on web pages when it is not supported.

Mbps

A measure of high-bandwidth data transfer speeds.

Megahertz

A measurement commonly used for processor clock speed.

Megapixel

One million pixels; a measure of image size and resolution.

Memoji

An Apple app for creating caricatures for use on watch faces.

Memory

General term for electronic data storage facilities.

Memory card

Removable storage for digital pictures (e.g., SD, CompactFlash).

Memory Module

Another name for a RAM chip (e.g., SIMM, DIMM).

Mesh

A way to combine two wireless access points into a single network.

Messages

An Apple app handling SMS and MMS text and media messages.

Metaverse

A digital world with augmented and virtual reality interactions.

Meta Elements

HTML tags in a website's head section providing site metadata.

Method

A subroutine or function belonging to a class or object.

Metering system

How a camera measures light to determine correct exposure.

Midtone

An image area falling between the brightest highlight/ darkest shadow.

Modem

A device that converts data for transfer over telephone lines.

Module

A program linked with others to form an application.

Moire

A wavy striped pattern in an image, often an artefact of the camera.

Monitor resolution

Resolution described in pixel dimensions.

Multi-pattern metering

An exposure system that takes readings from several areas of a frame.

Multithreading

Enabling the processing of multiple threads at once.

N...

Night-time mode

An exposure mode that sets the aperture to maximum to compensate for low light.

Ni-MH

A type of rechargeable battery that does not suffer from memory effect.

Noise

An artefact seen as stray pixels or a grainy appearance caused by interference or camera error.

Northbridge

A chip connecting the CPU to other primary system components.

NTFS

A file system introduced by Microsoft with Windows NT.

O...

Object

An instance of a class.

Object code

The non-executable output of a compiler or assembler.

Object-oriented

Using entities (objects) that process data and exchange messages.

Opacity

The extent to which a layer or effect blocks light.

Operating System (OS)

Core software that communicates with hardware to allow programs to run.

Optical Drive

Drives that read optical media like CDs, DVDs, or Blu-rays.

Optical zoom

Adjusting a lens to magnify an image while maintaining full sensor capabilities.

Overclocking

Increasing a CPU's clock speed beyond its designed rate.

P...

Panorama

A broad view made by merging individual overlapping shots.

Paradigm

A fundamental style of computer programming, such as object-oriented or functional.

Parallel Port

An older 25-pin connector used for printers and scanners.

Parameter

A name in a function definition replaced by an actual argument when called.

Partition

A section of a hard disk recognized by the computer as a separate disk.

PCI

A connection for add-on cards.

PCI Express

An improved, faster version of PCI.

PDF

An Adobe format capturing document elements as an electronic image.

Peripheral

Any device providing an external function, such as a printer or monitor.

Perspective

The angle or level from which a photograph is taken.

Phishing

Phishing is a deceptive tactic used by scammers to steal personal information by impersonating trustworthy entities.

Python

Open-source programming language, praised for readability and versatility, used by Google, and NASA.

Pixel

Tiny squares that are the basic rectangular units of data in digital photographs.

Pixel dimensions

The number of pixels along the width and height of an image.

Pixels per inch (ppi)

A measure of image resolution stored in a camera or computer file.

Platform

A computer's operating system or the combination of motherboard, CPU, and memory.

Port

Hardware sockets where peripherals are connected to a PC.

Portrait mode

An exposure mode that widens the aperture to minimize depth of field.

PostScript

An Adobe programming language for describing the appearance of printed or displayed pages.

Printer profiles

Profiles describing how specific printers reproduce colors.

Procedure

A subroutine or function coded for a specific task.

Processor PC Context

The component that performs computations like addition and multiplication.

Program

A software application designed for a specific task.

Program exposure

An automatic setting where the camera selects both aperture and shutter speed.

Progressive scan

A display process drawing 60 complete frames every second.

PSD

The native uncompressed file format of Adobe Photoshop.

Q...

Quad-core

A CPU containing four processing cores in a single chip.

Quick Mask

A mask channel created in Quick Mask mode in Photoshop.

R...

RAID

A configuration where multiple disks appear as one large disk.

RAM

Small memory chips forming a module.

RAW

Stores uncompressed data from the sensor; contains more information than JPEGs.

Real

A number containing a decimal point.

Red eye

The reflection of camera flash from the retina, resulting in a red dot in the subject's eye.

Rendering

Converting a vector layer into a normal layer.

Resample

To change image resolution by changing pixel dimensions.

Resolution

A measure of image clarity and sharpness, expressed as the number of pixels (height and width) or pixels per inch.

Retina Display

Apple's term for high-resolution screens where pixels are indistinguishable at normal distances.

RGB

A color model combining red, green, and blue to represent any color on a display.

Router

A device that manages and organizes home network devices, both wired (LAN) and wireless (WLAN).

Run Time

The time during which a program is executing.

S...

Sample

Selecting a color with an eyedropper tool for use in drawing.

SATA

An interface for connecting drives to a motherboard.

Saturation

The purity or strength of a color.

SDRAM

A fast version of standard DRAM.

Selection

A part of an image chosen for manipulation or deletion.

SEO

Search Engine Optimisation improves website ranking in search engine results to increase organic traffic.

Settings

An app for configuring device or application features.

Sharpening

Functionality that enhances details at the edges of objects.

Shutter

A device that opens to allow light onto the CCD for a specific length of time.

Shutter lag

A delay between pressing the button and the camera taking the photo.

Shutter Priority

A semi-manual mode where the user specifies shutter speed and the camera sets the aperture.

Siri

Apple's voice-activated digital

assistant.

Skewing

Deviation of image content from a vertical or horizontal axis.

Sleep/Wake Button

Hardware button used to power or wake devices.

SLI

NVIDIA technology allowing multiple graphics cards to work together.

SLR

A camera using a mirror or prism so the viewfinder shows exactly what the lens sees.

Smart Speaker

A voice-activated speaker, such as Amazon Echo, which can answer your questions, play music and even manage your smart devices.

Smartwatch

Wearable digital technology that can run apps and use sensors.

Smoothing

Averaging pixel values to reduce contrast and create a blurry effect.

SMS

Text messages sent from the Messages app.

Socket

Sockets on a motherboard where components like the CPU are plugged in.

Source Code

Human-readable instructions in a programming language.

Southbridge

A chip connecting the Northbridge to components like hard drives.

Spam

This is a generalised term for all unwanted or unsolicited digital communication, such as messages or email.

Spatial Video

3D video capture technology creates immersive experiences.

Spot metering

A mode that takes a light reading from a small area in the middle of the frame.

Spyware

Malware is a covert program that monitors and collects user activity without consent.

SSD

A storage device using flash memory instead of magnetic disks.

SSID

The name of a wireless network.

Streaming

Just browsing or listening to things online without having to download them first. Think Netflix, YouTube or Spotify.

String

A data type for a sequence of characters.

Stroke

An outline around an image or the characteristics of lines created with painting tools.

Subroutine

A section of code that implements a specific task.

Swatches

Preset colors chosen from the Color Swatches panel

T...

Tablet

A portable, flat computer with a touchscreen, larger than a smartphone but smaller than a laptop.

Terabyte

A unit of measurement equal to 1,024 gigabytes.

Thumbnail index

A display of smaller images representing larger picture files.

TIFF

A digital format widely used for printed or published images.

Time lapse

A technique where shots taken at intervals are played back rapidly to give the impression of motion.

Touchscreen

A screen responding to touch from fingers or a stylus.

Transform

To scale, rotate, distort, or change the perspective of a layer.

Transparency

Functionality supporting transparent areas in an image.

Troubleshooting

When discussed in the IT terms, this means involves identifying and resolving technical problems, such as software installation issues.

Two-Factor Authentication

2FA is like having a double password on your digital details. It adds an extra layer of security by asking for two different ways to prove who you are before letting you into your online accounts.

Type

A tag attached to variables deter-

mining allowed value assignments.

U...

UI

The visible interface, like the home screen layout and interactive elements.

Unsharp Mask

A technique sharpening details by increasing contrast between light and dark areas.

Update

Just a heads-up: updating your app or software to the newest version is a great way to get rid of bugs, fix security problems and add some cool new features!

UPnP

A protocol for enjoying media over a home network.

URL

A web address.

USB

A common type of port for connecting peripheral devices.

USB-C

You'll often find USB-C cables around, as it's a pretty common way to charge and transfer data across many different gadgets.

User Experience

UX considers ease of use, navigation and accessibility to enhance overall user satisfaction.

V...

Variable

A named memory location used to store results in a program.

Vector graphics

Graphic components stored using geometric formulas that scale without degradation.

VGA

PC Context An older display standard allowing 640x480 resolution. Photography Context Refers to an image size of 640 x 480 pixels.

Vignetting

An effect where the edges of an image gradually fade out.

Vishing

Vishing, or voice phishing, is a scam where criminals use phone calls to trick you into sharing personal information, such as passwords or credit card details.

VPN

A VPN encrypts internet connections, safeguarding personal information and masking real

locations. It enables secure browsing and access to restricted content.

VR

Virtual Reality is a computer-generated simulation.

W...

Warping

A distortion of an image, often text, to conform to a variety of shapes.

watchOS

The operating system for the Apple Watch.

White balance

A function or adjustment that compensates for different color rendering under various light sources.

White point

A reference point used to represent white and calculate other colors.

Widget

Think of it as a handy little app on your phone or desktop that pops up with quick information or useful functions, such as a weather forecast or a calendar.

Wi-Fi

A wireless means of connecting to the Internet or other devices.

WLAN

A network of wireless devices.

WPS

An easier way to connect devices to a router.

Y...

YouTube

A video social media platform where individuals and businesses can share video content, on a paid or ad supported free basis.

Z...

Zoom

A video conferencing tool that can be used to facilitate remote learning and meetings.

Zip File

Compressed file or folder reduces size for easier sharing or storage.

Save a whopping 25% Off! ALL Tech Manuals

with  Papercut



Not only can you learn new skills and master your tech, but you can now SAVE 25% off all of our coding and consumer tech digital and print guidebooks!

Simply use the following exclusive code at checkout:

NYHF23CN

www.pcupublications.com

AI For Beginners

2 - ISBN: 978-1-914404-04-7

Published by: Papercut Limited

Digital distribution by: ReadyAB - www.ready.com

© 2026 Papercut Limited All rights reserved. No part of this publication may be reproduced in any form, stored in a retrieval system or integrated into any other publication, database or commercial programs without the express written permission of the publisher. Under no circumstances should this publication and its contents be resold, loaned out or used in any form by way of trade without the publisher's written permission. While we pride ourselves on the quality of the information we provide, Papercut Limited reserves the right not to be held responsible for any mistakes or inaccuracies found within the text of this publication. Due to the nature of the software industry, the publisher cannot guarantee

that all apps and software will work on every version of device. It remains the purchaser's sole responsibility to determine the suitability of this book and its content for whatever purpose. Any app images reproduced on the front cover are solely for design purposes and are not representative of content.

We advise all potential buyers to check listing prior to purchase for confirmation of actual content. All editorial opinion herein is that of the reviewer - as an individual - and is not representative of the publisher or any of its affiliates. Therefore the publisher holds no responsibility in regard to editorial opinion and content.

This is an independent publication and as such does not necessarily reflect the views or opinions of the producers of apps or products contained within. This publication is 100% unofficial. All copyrights, trademarks and registered trademarks for the respective companies are acknowledged.

Relevant graphic imagery reproduced with courtesy of brands and

products. Additional images contained within this publication are reproduced under licence from Shutterstock. Prices, international availability, ratings, titles and content are subject to change. All information was correct at time of publication. Some content may have been previously published in other volumes or titles.



Papercut Limited

Registered in England & Wales No: 04308513

INTERNATIONAL LICENSING – Papercut Limited has many great publications and all are available for licensing worldwide. For more information email: james@papercutltd.co.uk



www.pclpublications.com