A guide on how generative AI and Google Workspace are transforming work for the better
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Executive summary

In a nutshell, generative AI is a type of artificial intelligence that helps humans create content, such as text and images. It represents a new era of work, and the world is rapidly shifting to embrace it as it transforms how people do things, boosting creativity, productivity, and collaboration like never before. Business leaders across industries and around the world recognize that they need to quickly develop plans for adopting generative AI in a safe, secure, and scalable manner, and that organizations that adopt generative AI will leapfrog those who don’t.

Google Workspace is at the forefront of AI, having decided long ago that the most effective way to deliver AI features was not to bolt-on tools in a complementary manner, but to be an AI-first product instead. Along the way, we have used AI to block 99.9% of spam and phishing attacks on Gmail, provide summaries of long texts on Google Docs and conversations in Google Chat, and help people write over 180 billion times in the last year alone.

The latest milestone in our AI journey is the launch of Duet AI in Workspace, a powerful way of working that uses generative AI across Google Workspace apps. Duet AI in Workspace was built strictly following Google’s AI Principles to be helpful and responsible. It also adheres to our structurally safer approach to security. In fact, Google keeps more people safe online than anyone else, and our top priority is to protect the confidentiality and privacy of your data.

Read on to discover how we’re helping teams of all sizes do their best work with Duet AI in Workspace.

Google’s AI Principles

1. Be socially beneficial
2. Avoid creating or reinforcing unfair bias
3. Be built and tested for safety
4. Be accountable to people
5. Incorporate privacy design principles
6. Uphold high standards of scientific excellence
7. Be made available for uses that accord with these principles
Redefining productivity with Duet AI

From the beginning, Google Workspace was built to enable you to collaborate in real time with other people. Now you can also collaborate with Duet AI, which lets you use generative AI technology easily.

Through our Google Workspace Labs initiative, we’ve tested Duet AI features extensively with hundreds of thousands of users, who leveraged these tools to help them get things done at work and in their personal lives — including with client outreach emails, job postings, project plans, time-saving summaries, and more — and we are now ready to roll out Duet AI in Google Workspace to organizations. Duet AI can:

- Help you write
- Create original images
- Automate insights
- Foster meaningful connections
- Optimize project flows

What is AI and how is it different from generative AI?

AI, or artificial intelligence, is a broad term that encompasses a wide range of technologies that enable machines to mimic human cognitive functions. Generative AI is an advanced subset of AI that focuses on the ability to create and modify content, such as text, images, and other content.

Examples of AI:
- Route navigation in Google Maps
- Autocompletion in Google Search
- Autocorrection in word processors like Google Docs

Examples of generative AI:
- Summarization of Gmail and Google Chat conversations
- Generation of sentences and paragraphs from simple prompts in productivity software
- Creation of applications without code
How it works

Currently, most generative AI models are primarily language-driven, meaning people can use simple, conversational language in their interactions with the models. Duet AI uses two main models: generative language and generative imagery.

Generative language models learn about patterns in language through training data, by being exposed to enormous amounts of text in many different formats and used in different contexts. Given a text prompt, they predict what comes next through inference, and are used to create text-to-text content to help people write, summarize, and respond in apps like Gmail and Docs.

Generative image models produce new images using techniques like diffusion, which means the model learns by deconstructing a large number of images into noise, and then mapping noise back to images. Given a prompt or related imagery, they resolve noise into a correlated image, creating text-to-image content that can help people in Google Slides and Google Meet.

Two techniques that help people guide both of these types of models toward useful output are prompting and fine-tuning.

What makes a good prompt in Duet AI?

- **Be specific** in your prompt. The more specific you are, the better Duet AI will be able to understand what you’re looking for.
- **Use keywords and phrases** that are relevant to your topic. This will help Duet AI to better understand the context of your prompt.
- **Avoid using jargon or technical language.** Duet AI is evolving, so it may not be able to understand some types of complex language yet.
- **Provide examples** of the type of content you’re looking for. This will help Duet AI to better understand your expectations.
- **Fine-tune** your prompts in case the results don’t meet your expectations or if you believe there’s room for improvement.
How Duet AI can help teams and organizations

Duet AI in Workspace can be used by you and your team with a few clicks and prompts, without the need to acquire new and complex technical skills.

Boosting productivity with Duet AI

Advancements in generative AI will trigger technological and cultural transformations comparable to previous phase-shift waves like personal computers, the internet, cloud computing, and mobile devices. As with any of these major technological shifts, generative AI will both reshape industry structures and create new markets and revenue opportunities.

Generative AI can create value for companies in a number of ways. Two of the most important ways are:

- **Focus employees on high-value activities**
  Automating business processes and assisting with time-consuming or sometimes difficult tasks will make teams and individuals more productive.

- **Improving business outcomes**
  Increasing employee productivity will boost the company’s performance, and can result in more revenue as more output is available to be commercialized.

By 2025, 30% of outbound marketing messages from large organizations will be synthetically generated, up from less than 2% in 2022.”

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1 Gartner®, Beyond ChatGPT: The Future of Generative AI for Enterprises, Jackie Wiles, January 26, 2023
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Duet AI can immediately and positively impact how teams and individuals do day-to-day work. As an example, think of a sales team prospecting customers in a new region. With Duet AI, this team can now use AI-generated transcripts from Meet video calls with potential customers to automatically create custom sales pitches for each prospect, using the transcriptions of their conversations as prompts. In that scenario, the team would save many hours they would have spent writing documents, and be able to focus on what really matters — closing the deals.

Another valuable use case would be a marketing team working on a content calendar for the next quarter. The team can use Duet AI to automatically create a table in Google Sheets that includes project owners, dates, statuses, and even descriptions of each project, all in a couple of minutes and based on a few simple prompts.

These are some of the many ways Duet AI in Workspace can help teams work and collaborate better, and create additional value for organizations. In the next section, we’ll look more closely at five Duet AI use cases to make work better.

**Other practical ways Duet AI can make work better**

- Create early image concepts with text-to-image on Slides and free up designer time to work on more complex projects.
- Automatically generate customer outreach email content in Docs from Sheets containing information about the customers.
- Automatically create project plans in Sheets, giving Project Managers more time to work with stakeholders on reaching milestones for team projects.
- Write job descriptions for open positions based on simple prompts within Docs, giving time back to HR to source and recruit the right candidates.
5 ways to use Duet AI to work smarter

As more people start to use Duet AI, new ways to collaborate and get work done will emerge. Here at Google, we’ve been working with hundreds of thousands of customers and users to develop and test these new features, and we are happy to share some of the ways that Duet AI is helping us — and our customers — get more done and grow together.

1. **Help me write**
   Say goodbye to writer’s block and build sharper, more useful documents

2. **Help me organize**
   Organize and act on your data faster than ever

3. **Help me visualize**
   Convey your artistic vision from a simple prompt

4. **Help me connect**
   Have better calls with enhanced video, audio, and custom backgrounds

5. **Help me create an app**
   Build business apps and workflows using simple language
Help me write is ideal for creating content from scratch. This feature is perfect for when it feels daunting to stare at a blank page. You can provide an initial prompt about the topic you want to write about and let Duet AI create an initial draft for you. It can also help refine existing content, adjusting for length, tone, and style.

Conquering the blank page

Duet AI can generate project plans, proposals, briefs, job descriptions, and other types of documents in seconds. It will not only help you write the content, but it can also automatically add relevant smart chips with information such as location, status, and custom variables for you. This helps you stay in the flow of your projects and go from concept to completion faster, without ever having to leave your document. Soon, users will also see a new proofread suggestion pane that offers suggestions for writing concisely, avoiding repetition, or using a different tone.
Expanding and refining text

Duet AI in Gmail can help you write emails faster and more easily by generating a draft from a short prompt. Just type in your email topic and Duet AI will take care of the rest. Duet AI can also help you refine your emails, making them more formal, more concise, or changing the tone. You can then edit and refine the draft as needed. This can be a great time-saver for frequent communications, especially for those who are on-the-go.

“Adore Me has built our organization in a way that encourages cross-functional, multidisciplinary projects and the ability to write often presents a roadblock, especially with a highly international team. The ability to quickly create production-worthy copy with generative AI features in Docs and Gmail has been accelerating projects and processes in ways that have even surprised us!”

— Romain Liot, Chief Operating Officer, Adore Me
2 Help me organize

You can use Duet AI’s *help me organize* capability to create a custom template in Sheets by simply describing what you’re trying to accomplish and Sheets will generate a table that helps you get organized. Duet AI classifies data by understanding the context of that data in a cell and labeling it. This frees you up for more critical tasks than manual data input.

Creating project trackers with a simple prompt

Describe the type of project you’re managing and what kind of information you would like to track as part of the project. Duet AI in Sheets will instantly create a tracker and suggest timetables, descriptions, and other variables.

“We’re excited to test out the new generative AI Workspace experiences at Lyft. Whether it be kicking off a plan for a new campaign or drafting an email update to our community of drivers, we’re enthusiastic about how these new tools can help our teams move faster and be more productive.”
Help me visualize

With *help me visualize*, you can easily create original images for your Slides presentations. Sourcing relevant images can be expensive and time-consuming, but now you can create unique and compelling visuals with simple text prompts.

Creating early concepts for campaigns or products

Describe the image you would like to use in your slide, providing simple details about the style of the image (such as a photo or cartoon) and the subjects to be featured in it. Duet AI will generate options for you to choose from and refine. This makes it easier to share initial ideas for advertising campaigns or new product designs, for example.
Help me connect

Duet AI in Meet enhances the inclusiveness and interactivity of video calls. This allows distributed teams, hybrid workers, and frontline workers to stay connected, collaborative, and efficient.

Creating custom backgrounds for Meet video calls

Make a good impression on your video calls by using custom backgrounds to reflect your personality and interests. You can also use custom backgrounds to show your appreciation for your customers by reflecting their industry or market. This is a great way to build rapport and make your calls more personal.
Enhancing video and sound quality

Duet AI can help provide a studio look and sound in Meet by enhancing the quality of images in low-light or low-quality webcams, and the audio experience caused by poor microphones or noisy environments. Meet’s studio sound restores your original audio by recreating and balancing missing or distorted details and frequencies. Duet AI also simulates studio lighting with custom adjustments without the need for an expensive and complex lighting setup.
Help me create an app

Use AppSheet to rapidly create applications that simplify work without having to write a single line of code. Build and automate business applications in a few steps that connect you to the people, processes, and data you need, creating time for your team to focus on other high-impact work.

Creating a project tracker app

Automate workstream tracking for projects by creating no-code applications with AppSheet. Connect your data to the application and provide the parameters for the projects, such as description, start and end dates, status, and owner. Build automations to update the data, create a simple-to-use user interface, and securely deploy it across your team.
Google Workspace’s approach to helping protect your data

It is our priority to help protect the confidentiality and privacy of your data. With Google Workspace you can trust that:

- **Your data is your data.** The content that you put into Google Workspace services (emails, documents, etc.) is yours. We never sell your data, and you can delete your content or export it.

- **Your data stays in Workspace.** We do not use your Workspace data to train or improve the underlying generative AI and large language models that power Bard, Search, and other systems outside of Workspace without permission.

- **Your privacy is protected.** Interactions with intelligent Workspace features, such as accepting or rejecting spelling suggestions, or reporting spam, are anonymized and/or aggregated and may be used to improve or develop helpful Workspace features like spam protection, spell check, and autocomplete. This extends to new features we are currently developing like improved prompt suggestions that help Workspace users get the best results from Duet AI features. These features are developed with strict privacy protections that keep users in control. (See below for more detail on additional privacy, security, and compliance commitments we make for business customers).

- **Your content is not used for ads targeting.** As a reminder, Google does not collect, scan, or use your content in Google Workspace services for advertising purposes.

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Google Workspace was born in the cloud. Our cloud-native, zero trust architecture helps reduce security risk.

<table>
<thead>
<tr>
<th>No persistent local data</th>
<th>No thick desktop apps</th>
<th>No on-premises infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Data is in the cloud and ephemerally accessed with zero trust controls</td>
<td>• Full Workspace functionality is accessed via web browser</td>
<td>• Secure-by-design, born-in-the-cloud infrastructure</td>
</tr>
<tr>
<td>• You own and control your customer data, and you can delete it any time</td>
<td>• No thick Workspace desktop apps to patch</td>
<td>• Battle-tested development and production practices</td>
</tr>
</tbody>
</table>
Committed to security and compliance for business, education, and public-sector customers

When Google Workspace commercial customers adopt Duet AI for Google Workspace Enterprise they get the same robust data protection and security standards that come with all Google Workspace services, with specific protections for business, education, and public-sector customers:

- **Your interactions with Duet AI stay within your organization.** Duet AI stores any prompts or generated content alongside your Workspace content and does not share them outside your organization.

- **Your existing Google Workspace protections are automatically applied.** Duet AI brings the same enterprise-grade security as the rest of Workspace, automatically applying your organization’s existing controls and data handling practices, such as data-regions policies and Data Loss Prevention.

- **Your content is not used for any other customers.** None of your content is used for model training outside of your domain without permission.
A new and powerful way of working

Duet AI in Workspace enables teams to connect, create, and collaborate from anywhere, on a variety of devices, using the power of generative AI. It helps people get more out of work by boosting productivity, enabling new skills, and freeing up time for more impactful work. All of this is done in a smooth and easy-to-use way, without the need for code, new interfaces, or multiple buttons and steps.

We’re excited to see where Duet AI can take you and your team in this new era of work. We have made Duet AI available to enterprise customers, and are ready to work with you to implement it across your organization.