



Central  
Maryland  
Chapter



# Practical Applications with Google AI using Gemini for Workspace

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Presented by KAM 2025-11-19

Google Workspace



<https://linkedin.com/in/kmcgrail>

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# Meet the Speaker

**Kevin A. "KAM" McGrail**

Cloud Fellow / Principal Evangelist, DitoWeb.com

CEO Emeritus, PCCC.com

- Distinguished Senior Fellow in Cyber Security at Thomas University's Armed Services Institute in the Center for Military Life
- Member, Apache Software Foundation
- Google Developer Expert for Cloud, Workspace & Machine Learning / Artificial Intelligence
- Member, U.S. Marine Corps Cyber Auxiliary
- M3AAWG 2025 Mary Litynski Award Winner for lifetime achievements in making the internet safer

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Caricature courtesy of Cartoon Bob, used with permission

# **How I Got Interested in AI: “The Test,” by Theodore Thomas**

<https://www.auburn.wednet.edu/cms/lib/WA01001938/Centricity/Domain/2205/The%20Test.pdf>

# What is Natural Language Processing?



**MAD LIBS®**

## A PEANUT AND HIS POOCH

If you've ever met my \_\_\_\_\_, Snoopy, then you know he's not  
your average canine companion. Some kids might find it \_\_\_\_\_  
that their beagle has such a/an \_\_\_\_\_ imagination, but not

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TL;DR: Think about your Grammar and Thank an English Teacher  
MadLib from <https://www.readbrightly.com/mad-libs-printables-activities/>



**First, a warning:**

**“Never work with  
children or  
animals” (or do a  
live demo)...**

- W.C. Fields (mostly)

Draw a beautiful version of a rubberband riding a door while running a plant while drinking strawberry daiquiri in the style of van gogh with the words "ISSA of Central Maryland"

Interesting note about the quote.

Never let an engineer name anything... Nano Banana

# Imagen

Imagine not Image Gen... \*brain explodes\*

**Demo #1:** Create an image.

*I like to do things that match colors.  
GenAI is NOT a database.*

**IMPORTANT:** Creating w/AI may impact the ability to copyright or patent (Pros & Cons).

**Demo #2:** Upscale and Clean Up Willard's Army Photo & Add a Birthday Cake for Dylan



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create a stuffed animal of an capyberra playing axe throwing in a scuba suit with the following hex colors <#000000> and <#060606>

## What is Artificial Intelligence (AI)?



### Data Science / Analytics

insights and  
hypotheses based on  
data  
  
anywhere: on a napkin,  
grid paper, Google  
Sheets



### Machine Learning (ML)

builds on data science  
and hypotheses  
  
uses computer models  
to create predictions  
for new data based on  
the data science



### Artificial Intelligence (AI)

builds on ML to take  
action based on  
predictions  
  
Trivia: Thomas Bayes'  
book was published  
posthumously in 1763

**Credit: Based on Dave Robinson's AI Publications**

**True AI**  
**The AI creates the models**



## **Ethical AI**

**Includes the Ability for a Human  
to recreate the AI's decision**

KAM's definition

## Overcoming Fear & Apprehension with Ethical

AI

1 Zip Code Fiasco

2 Bank Loan Bug

3 Failure to Think Evil

Publishing things such as GANs such as thispersondoesnotexist.com and creating deepfake technology without considering the negative unintended uses.

**PROBLEM:** Not everyone uses technology as intended or for good.

“AI is like a drunk friend at the bar with an MBA and a law degree. Trust but verify.”

4

Robot  
Takeovers

“We don't know who struck first, us or them. But we do know it was us that scorched the sky. At the time, they were dependent on solar power. “

**PROBLEM:** Watching too many movies & Reading too much/little of Ellison and Asimov :-)

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*Rich Foltak, Dito, VP of Cloud*

# THINK EVIL

[ThisPersonDoesNotExist.com](https://ThisPersonDoesNotExist.com)

[ThisRentalDoesNotExist.com](https://ThisRentalDoesNotExist.com)



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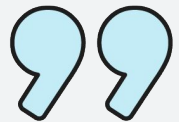


Open-Source: Everyone knows what it's doing.

Closed-Source: Only the vendor knows what it's doing.

AI: Nobody knows what it's doing.

- Mike Hillyer, KumoMTA



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I like to say that we are on the very beginning edge of the Star Trek era.

**What does GPT stand for?**  
**Who invented it?**  
**When?**

# Google AI & Generative Pre-trained Transformer



**2015**

Google DeepMind  
AlphaGo defeats  
Go champion



**2016**

Google's  
DeepMind  
helps detect  
eye disease



**2017**

Google invents  
Transformer,  
kickstarting LLM  
revolution



**2018**

Google's  
groundbreaking  
large language  
model, BERT



**2019**

Text-to-Text  
Transfer  
Transformer  
LLM 10B P  
Model Open  
Sourced



**2020**

Google LaMDA  
model trained  
to converse



**2022**

AlphaFold  
predicts  
structures of all  
known proteins

**BARD**

**2023**

A conversational  
AI service  
powered by  
PaLM2.  
  
Duet AI for  
Google  
Workspace apps  
(Gmail, Docs,...)



## Responsible AI\*

- ✓ Built and tested for safety
- ✓ Upholds high scientific standards
- ✓ Socially beneficial
- ✓ Privacy in design
- ✓ Accountable to people
- ✓ Avoid creating unfair bias

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[Google AI Principles](#)

Google Cloud

Google Slide, Used with Permission

**First use of Transformer was for Google Translate almost a decade ago with their whitepaper a few years later**

# Real-World Use of Google Translate



Translate your text across 3 continents such as English -> Portuguese -> Simple Chinese -> English. If the gist of the information remains, your technical writing will translate well!

**“Multi-modality is the application of multiple literacies within one medium.”**

**Any questions?**



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In school, you heard it, you wrote it, you did it, you knew it.

In AI, it means that you can use Text + Video + Images + Live Video + Live Audio + Recordings + Hand Gestures



# Integration Overview



The Gemini Star



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Side Panel

“Enter a prompt here”

Nudges

“Help me write”

Building Blocks &  
Help Me Write

Let’s do a few  
demos: Side  
Panel with Gmail,  
Docs and an  
Email Building  
Block.

Gemini Star from <https://commons.wikimedia.org/wiki/File:Google-gemini-icon.svg>

BTW, never let engineers name anything. Gemini is a constellation NOT a single star.  
The Gemini TWINS.

Glossary Term: Contextuality

# Creating a Policy



## Canned Demo

Let's take a look at  
[This Document](#) with a  
new policy

## Live Demo

Let's create an  
Incident Response  
Plan

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Canned demo shows a real hiring policy created in less than 30 minutes with 10 minutes of research and 18 minutes of writing and improving with Gemini.

This is the result of the live demo:

[https://docs.google.com/document/d/1WWxSznemJFm1oC\\_ptNRYDQn2YfPu-vf0BmDBDzWDIWI/edit?tab=t.0](https://docs.google.com/document/d/1WWxSznemJFm1oC_ptNRYDQn2YfPu-vf0BmDBDzWDIWI/edit?tab=t.0) Quick prompt was: "Please write an incident response plan for senior and executive staff who lose their phone and have lost contact with it for more than 20 minutes. Include contact information for AT&T."

**Persona:** Specify the role or perspective you want Gemini to adopt. This helps it tailor the output to your needs.

**Task:** Clearly state the action you want Gemini to perform. Include a verb or command, such as summarize, write, change the tone, or create.

**Context:** Provide relevant information to help Gemini understand your request. This can include details about specific documents, projects, or goals.

**Format:** Specify the desired output format. For example, you might request a bulleted list, an email draft, or a summary.

## Persona/Task/Context/Format

Prompts should include Persona / Task / Context / Format

Prompts are both art and science

Hone your Prompt-Fu



Source: Google GenAI for Work by Amy Yuan

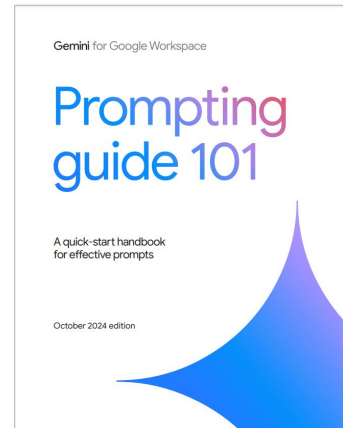
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Write a prompt like you are Making a deal with the Devil

## Prompting Guide 101

This second edition of the prompting guide is crucial reading in the AI Era.

<https://services.google.com/fh/files/misc/gemini-for-google-workspace-prompting-guide-101.pdf>



# Learning about the Gemini App

**Live Demo:** Gemini.google.com

- Demo #1 Normal and Deep Research on a Security Topic - Perhaps “Post Quantum Cryptography”?
- Demo #2 Transcribe Business Cards

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Result from Demo 1 on a <https://docs.google.com/document/d/1-5gO8Rs3adyxw1pG6GalAZHYhkKf-jkyNblbE7YuC4/edit?tab=t.0> with prompt of “Deep Research” for “how should I implement post quantum cryptography for postfix on Almalinux 8.” and “add a step to check nsa.gov and fedramp.gov for any post quantum cryptography guidance.”

## Privacy and Compliance

If you aren't paying  
for the product, you  
are the product...

For compliance, a license for Gemini is like a license for Google Workspace. Gemini does not have to be listed specifically for a compliance or security framework because it's built on the Workspace Tech and acts as the user.

This means that with a licensed Gemini product: all data stays within the protection boundary, no humans review the data, and no training or use of the data other than to support the user ephemeraly is done.



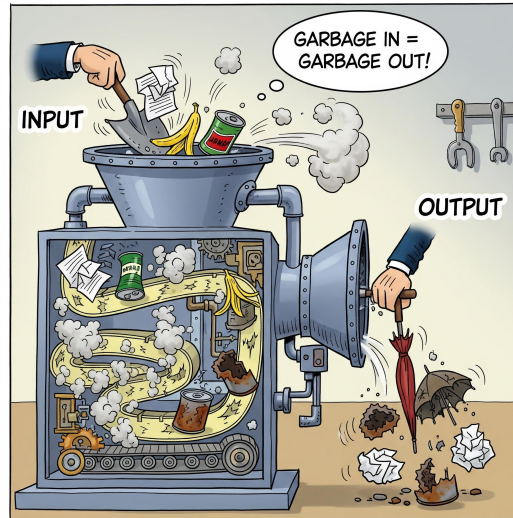
# Vague Prompts Lead to Vague Answers

AKA Garbage In = Garbage Out

**Example:** Think about making a deal with the Devil. Write out lots of specifics.

Sometimes a “Bad” prompt can be good: “Create me a paragraph about [topic]” is vague but might be good for brainstorming!

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Create a cartoon of garbage in = garbage out

Pronouns and unclear attributions. John and David are students. He wore a sweater today.

# Diving into NotebookLM

**What is NotebookLM?**

**How to Access it?** [notebooklm.google.com](https://notebooklm.google.com)

**Sharing & Analytics**

<https://support.google.com/notebooklm/answer/16206563?hl=en>

**Podcast & Video Overview Features**

**Demo:** Let's build a Notebook on a City or Country.



**And Combine with Deep Research from Gemini App...**



A background image of Mickey Mouse in a boat, holding an American flag, with water splashing around him. The image is semi-transparent, allowing the text to be clearly visible.

**“Think about AI as a very dumb intern that can do repetitive tasks very well over and over.”**

-Peter Goldthorp

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Mickey background from Disney from Fantasia

# Video Prompting Guide

1. **Subject**
2. **Context**
3. **Action**
4. **Style** - Consider using specific film style keywords, such as *horror film*, *film noir*, or animated styles like *cartoon style render*.
5. **Camera motion** - What the camera is doing, such as aerial view, eye-level, top-down shot, or low-angle shot.
6. **Composition** - How the shot is framed, such as wide shot, close-up, or extreme close-up.
7. **Ambiance** - How the color and light contribute to the scene, such as blue tones, night, or warm tones

**Example:** Close up shot (composition) of melting icicles (subject) on a frozen rock wall (context) with cool blue tones (ambiance), zoomed in (camera motion) maintaining close-up detail of water drips (action).



Using **Subject** <photo> have them **Action** juggle chainsaws **Context** with the text ISSA on the bar of the chainsaw in the **Style** style of a lego minifig with a **Camera Motion** top-down shot that ends with **Composition** an close up. **Ambiance** The overall feel should be cartoony and bright.

## Google Vids EmPowering teams to tell **more engaging** stories at work



### For customer service agents

- Customer support
- Customer experience and loyalty
- Internal updates and recaps



### For learning and development

- Employee training
- Process trainings
- Sales enablement



### For marketers

- Event or campaign recaps
- Internal newsletters
- Process explainers



### For project managers

- Internal project updates
- Business and partner management
- Relationship building



### For Leaders

- Company wide announcements
- Important internal updates
- Relationship building

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Saving Time, Improving Learning, & Inspiring Creativity

## Teaser: flows.workspace.google.com

Let's create an agent!

The prompt is "Please find and summarize recent news articles, press releases, and significant mentions related to "<name a company>". Focus on key developments, financial news, store openings/closings, and competitive landscape information. Provide a concise summary with relevant links. Email the results to [xyz@fqdn.tld](mailto:xyz@fqdn.tld)."

**Glossary Terms:** Corpora, Grounding & Referencing

**“Ask not what your AI can do for you – ask what you can do for your AI.”**

-John F. Kennedy's speechwriter in  
an alternate universe

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How to Get Updates on New Features

Hint: Ask Gemini what it can do

<https://workspaceupdates.googleblog.com/search/label/Gemini>

## Trust No One



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draw a cartoon in the style of the tv show x files that says trust no one in the forest at night vs

draw a cartoon in the style of the tv show “x files” that says “trust no one” in the forest at night

Did I want it to say “trust no one in the forest at night?” ???

## More Gemini with Workspace 101 Use Cases



**Presentations:** Add a slide for... What are the top 10 takeaways?

**Live Demo:** Generate an Audio Overview & a Quiz in NotebookLM

**Glossary Term:** Weighting

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1. Create an audio overview of the CISSP Study Guide / Create a Quiz

## More Gemini with Workspace 101 Use Cases (Continued)



Live Demo: Edit Images

Live Demo: Create a form and use =AI on the responses

Run a Parliamentary Meeting (Use Google Docs for the Agenda, Multiple Editors for Minutes, Record, Transcribe, Take Notes, Ask Gemini during the Meeting, Closed Captions with Translation in Real-time, Translate in post)

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1. Use =AI to do sentiment analyzation on a Form Response

Edit the image and change it to a male with no blazer



# Thanks!

askKAM@ditoweb.com

<https://linkedin.com/in/kmcgrail>

dito@emailtester.raptoremailsecurity.com

The Gemini logo features the word "Gemini" in a blue sans-serif font. A small, stylized four-pointed star in a gradient of purple and blue is positioned above the letter "i".

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Hint: Atkinson Hyperlegible is a perfect font for cybersecurity. [fonts.google.com](https://fonts.google.com).