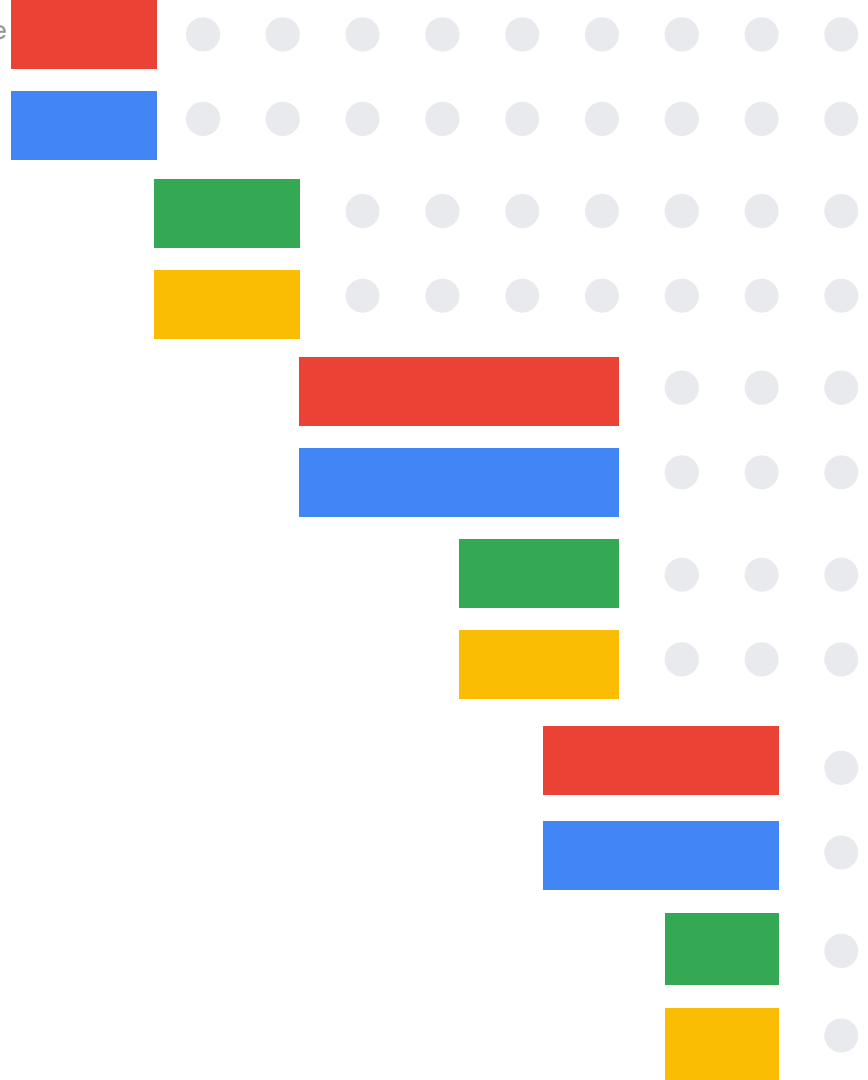


Internal use

Demystifying AI

HSMAI, Nov 2023





Ben Heller

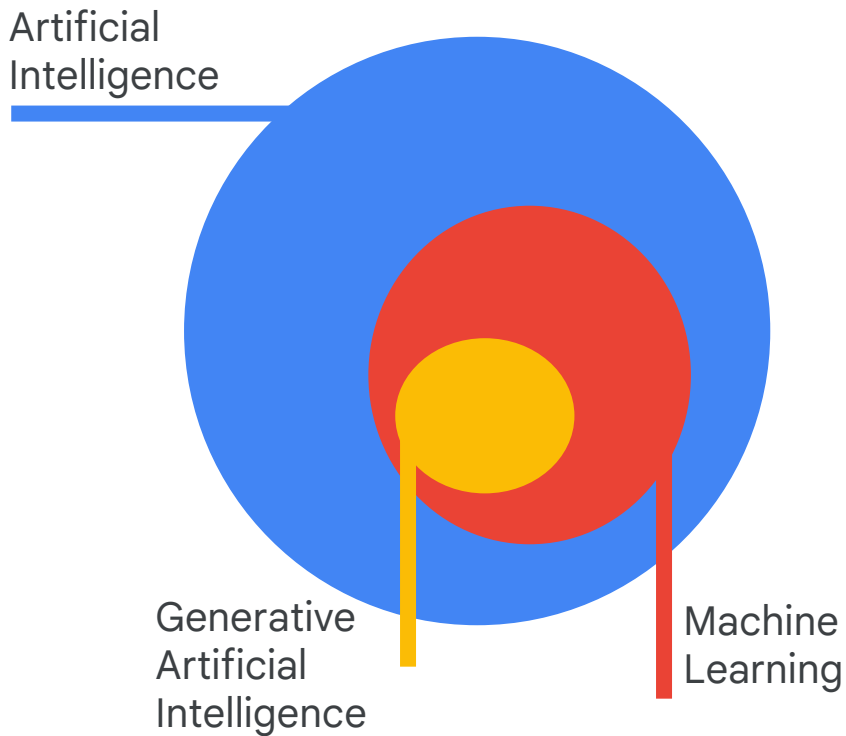
AI Transformation Manager @ Google
Cloud

Agenda

- 01 Applications
- 02 Use Cases
- 03 Organizational Benefits
- 04 Get Started



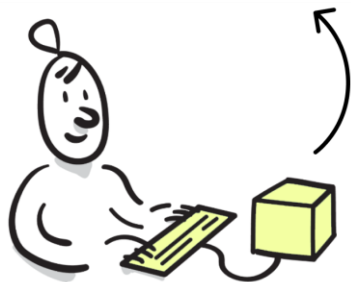
Artificial Intelligence is a discipline; machine learning and generative AI are specific ways of solving AI problems.



The Path to Generative Language Models

cat:

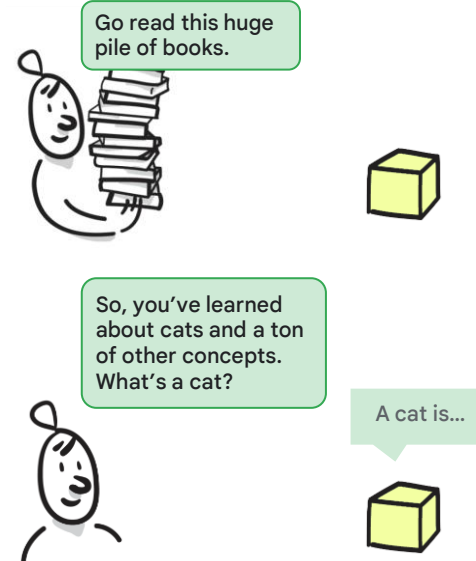
```
type: animal  
legs: 4  
ears: 2  
fur: yes  
likes: yarn, catnip
```



Traditional Programming



Machine Learning



Generative Language Models

Google Lens

Google Maps

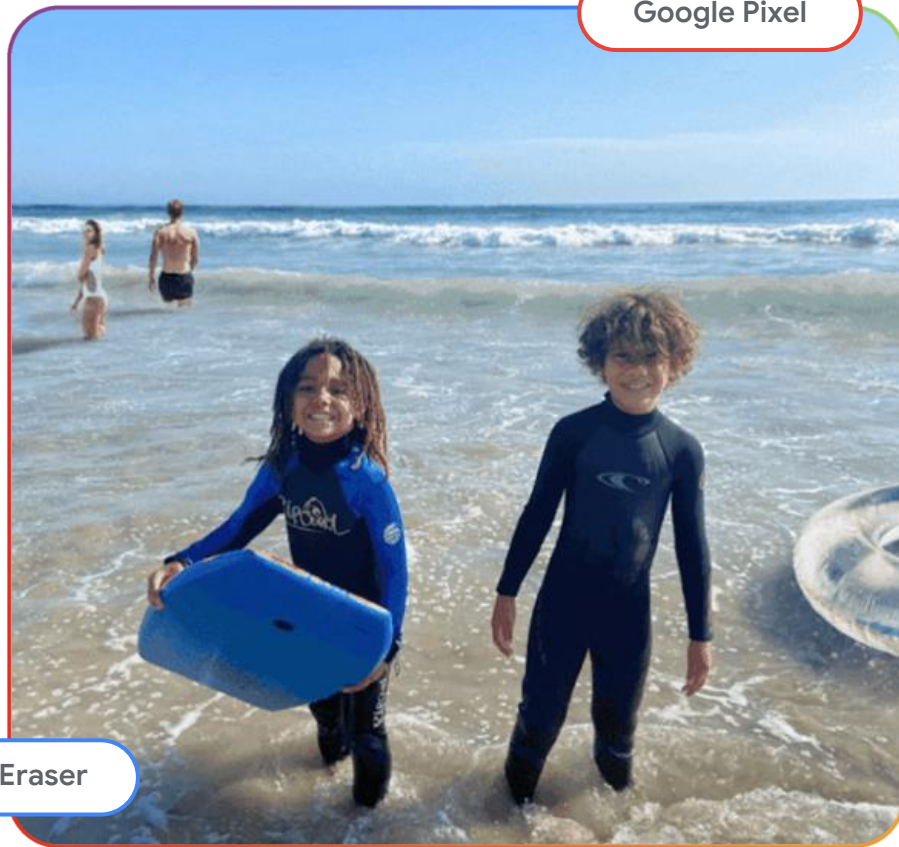
Bringing magic to everyday life

YouTube

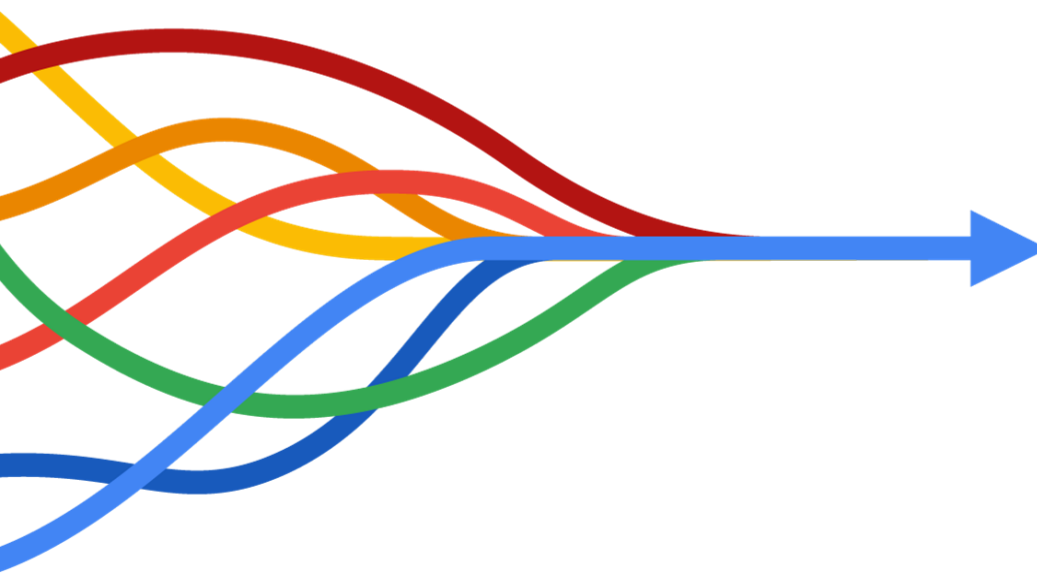
Smart Compose

Magic Eraser

Google Pixel




So why is everyone so excited?

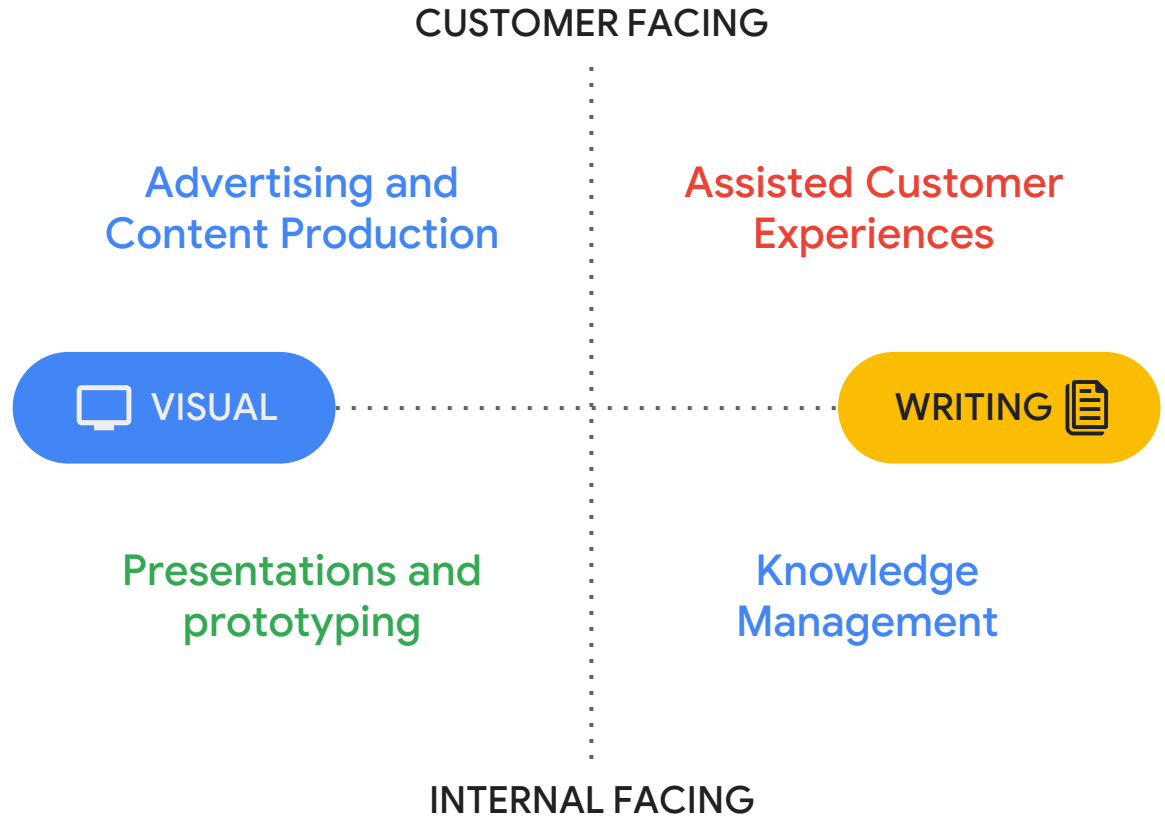


Applicability 

Workforce enhancements 

Operational efficiencies 

GenAI has many applications across the organization

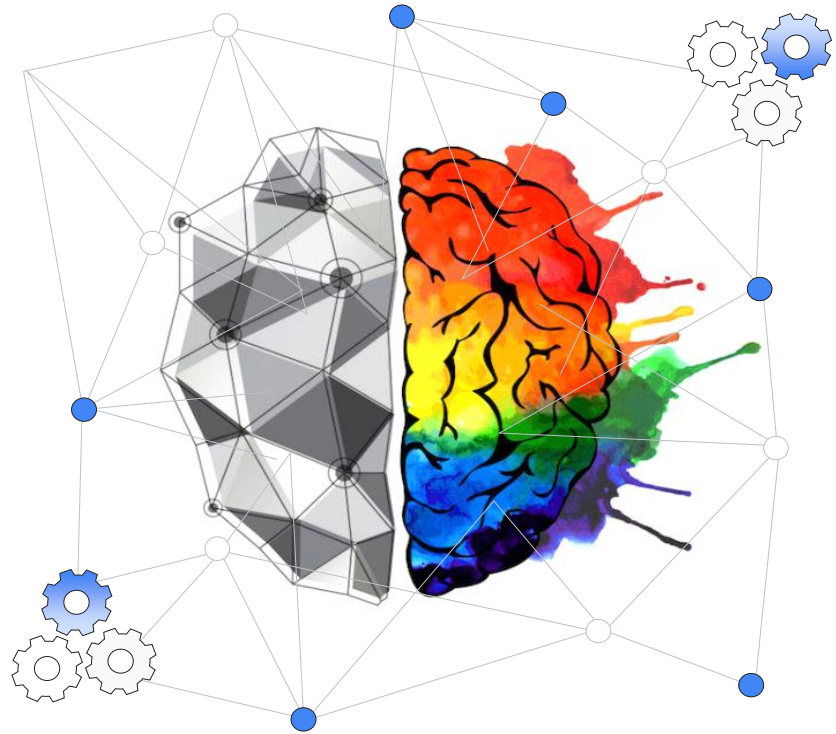


Survey of 1,300 execs:



Companies generally have longer to respond than they expect, and an effective response is available to them.

Content & Creative Production with Gen AI



GenAI represents
a functional change in
both creative capabilities
and those who can create.



Text-to-image

Image generation — Generate images from text descriptions or other images

E.g. [Imagen](#)



A photo of a corgi riding a bike in Time Square. It is wearing sunglasses and a beach hat.

Personalized, targeted content outperforms generic campaigns.

AI can speed, scale, and simplify building it.

73%
of shoppers

expect brands to understand their unique needs and expectations.

Source: [Insider Intelligence, May 2022](#)



← Add subject



Edit as text



New subject

Subject ID *

A unique identifier for each subject, e.g. "cymbal logo".

Class name

Optional. Adding a class name helps the model identify what kind of object you are attempting to generate, e.g. "logo"

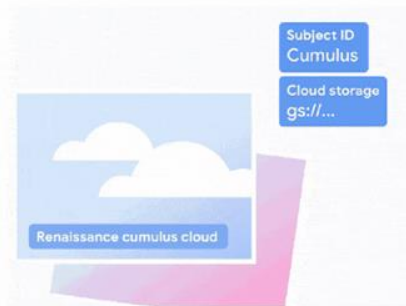
gs://

The CSV file and the images it references must be stored in a Google Cloud Storage bucket. We recommend uploading 5-10 images per subject, but no more than 10. You can add an optional description to each image. [Learn more](#)

CANCEL

DONE

ADD A SUBJECT



Generate images with your own custom subjects, such as brands, unique designs, and artwork. Just upload a few reference images and assign them to an subject ID. [Learn more](#)

GENERATE





Brownbag23 on a rooftop bar in New York City, nighttime, dramatic lighting, background out of focus, product photography



Brownbag23 covered in dust on the edge of a cliff, with the grand canyon in the background, product photography, sunlight, lens flare



Beach with a palm tree and Brownbag23 on a towel, clear blue ocean in the background, product photography



Brownbag23 next to a stack of leather-bound books on a mahogany bookshelf in a luxurious study, zoomed product photo with dim lighting

Instagram Caption 1: The perfect travel companion that leaves no footprint, only fashion statements. Unveiling Cymbal Atelier's sustainable handbag - your passport to eco-friendly fashion adventures. #TravelInStyle #SustainableFashion #CymbalAtelier

Ad Banner Caption 1: Cymbal Atelier's sustainable handbag - Crafted for the woman who wears her wisdom and her commitment to the planet with pride.

But it's not just art and copy...

Text-to-video

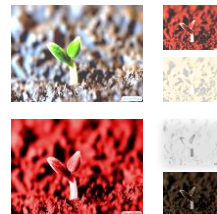
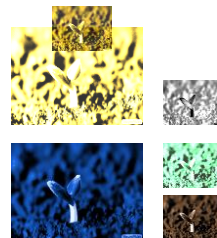
Video generation — Generate video from keywords, scripts or other video inputs

E.g. [Imagen Video](#)



Flying through an intense battle between pirate ships in a stormy battle

Make thousands of ads in each module

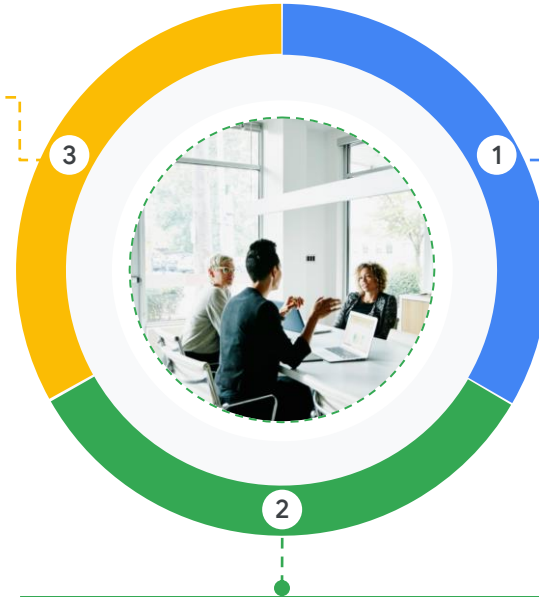


- No more one creative to rule them all
- Prevent creative decay

Downstream Effects

Iterative improvement every campaign

A feedback loop by affinity and creative idea improves overall team performance



Faster time to market

More team members provided with more thorough information for creative development

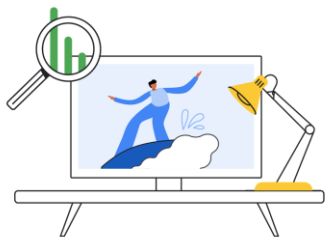


More assets per insight

Increase the likelihood of success through more variants in market

Media & Entertainment

Expanding **content creation**, production, and management



Enhancing and **personalizing** audience experiences



Improving content and platform **monetization**



Gaming

Never ending
open worlds

Cut scene
generation

Code
development

NPC
dialogue

Music &
SFX

Customer Experiences with GenAI



On the ground effects



"Tech support agents who used AI tools that created conversational scripts **boosted their productivity by 14% on average**, but the improvement was even more pronounced for 'novice and low-skilled workers' who were able to get their work **done 35% faster**."

+14%

Average
Improvement in
productivity when
using a AI created
conversational script

+35%

Faster achievement
with "novice and
low-skilled workers"

Knowledge Management with GenAI



Knowledge Management use cases



Extract
specific information
from a knowledge hub



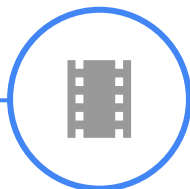
Synthesize
new documents from
sample documents



Summarize
from large
documents



Extract
documents from
large corpora



Summarize
videos



Intra knowledge
Q&A



Academic
and scientific
research

Downstream effects



Personalized and timely summarization raises your Knowledge Quotient

- Reduced time to insight
- Faster onboarding of new team members
- Faster decision-making
- Up-to-date executive summaries

How can augment human intelligence and insight to drive better, faster decisions?

Financial analysts often do detailed capital markets research to identify investment opportunities and mitigate risk.

This can often take hours or even days; analysts must manually search across multiple internal and external data silos.





Capital Markets - Portfolio

File Edit View Insert Format Data Tools Extensions Help

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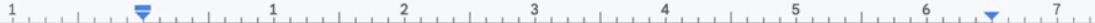
	A	B	C	D	E
1	Ticker	Company Name	Industry	Percent Allocation	
2	ALPHA	Alpha Corp	Technology	3%	
3	BETA	Beta Co	Energy	8%	
4	GAMMA	Gamma Inc	Manufacturing	5%	
5	DELTA	Delta Corp	Transportation	6%	
6	EPSILON	Epsilon Co	Financial Services	7%	
7	ZETA	Zeta Inc	Healthcare	3%	
8	ETA	Eta Co	Agriculture	7%	
9	THETA	Theta Corp	Consumer Goods	3%	
10	KAPPA	Kappa Co	Consumer Services	5%	
11	IOTA	Iota Inc	Real Estate	2%	
12	LAMBDA	Lambda Corp	Technology	3%	
13	MU	Mu Co	Healthcare	2%	
14	NU	Nu Corp	Manufacturing	4%	
15	XI	Xi Inc	Financial Services	1%	
16	OMICRON	Omicron Co	Transportation	2%	
17	PI	Pi Inc	Real Estate	2%	
18	RHO	Rho Corp	Energy	3%	
19	ARCTIC	Arctic Co	Energy	8%	
20	ATLANTIC	Atlantic Corp	Financial Services	2%	
21	BALTIC	Baltic Co	Transportation	4%	
22	CARIBBEAN	Caribbean Inc	Real Estate	6%	
23	INDIAN	Indian Co	Manufacturing	6%	
24	MEDITERRANEA	Mediterranean Corp	Agriculture	1%	
25	NORTH SEA	North Sea Co	Consumer Services	4%	
26	PACIFIC	Pacific Inc	Technology	3%	
27					
28					
29					
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nt Allocation	<i>*Form 10-K Search*</i> What are the company's commitments to reduce greenhouse gas emissions?	
3%		
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5%		
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Summary +

Outline
Headings you add to the document will appear here.

✎ Help me write

Create

AI is the ultimate research assistant across industries

Finance



Enable quick financial data access, improve forecasting and analysis, and aid investment decisions with personalized insights.

Science and Academia



Accelerate research with advanced data analysis and modeling, streamline literature reviews and data extraction, and facilitate experimental design.

Healthcare



Assist drug discovery, optimize patient monitoring and diagnosis, and provide personalized treatment recommendations.

Law and Government



Streamline legal research and analysis, aid in drafting and reviewing legal documents, and facilitate policy analysis for better governance.

Media



Enhance content creation, support distribution and audience targeting, and provide insights on audience engagement and sentiment analysis for better content strategy.

Education



Enhance personalized learning experiences, simplify online learning and course management, and streamline administrative tasks for more efficient education delivery.

Trust + ethical issues are reported barriers to successful AI adoption

Of professionals surveyed - The London
School of Economics

75% say they use AI as part of the
news value chain ¹

60% say they're concerned about
ethical implications ¹

¹ [A global survey of what news organisations are doing with AI](#)

Building **AI responsibly** requires answering hard questions across a product's lifecycle

01

**Define
Problem**

02

**Collect and
prepare data**

Iterate

03

**Train
model**

Iterate

04

**Evaluate
the model**

Iterate

05

**Integrate
and monitor**

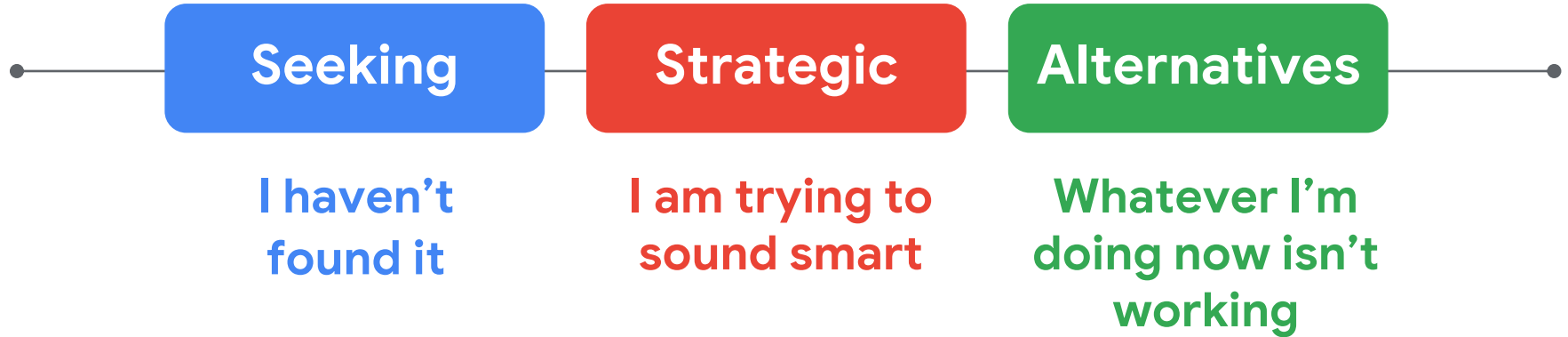
Iterate



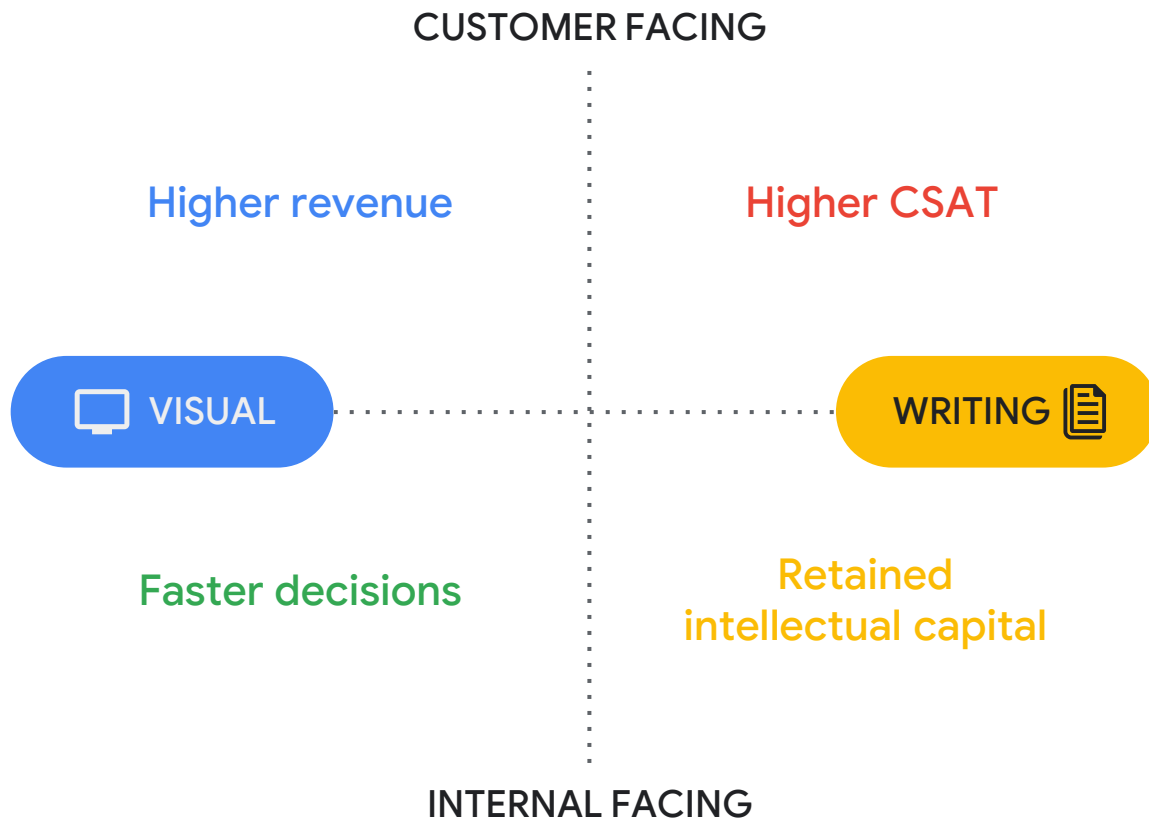


PRO TIP

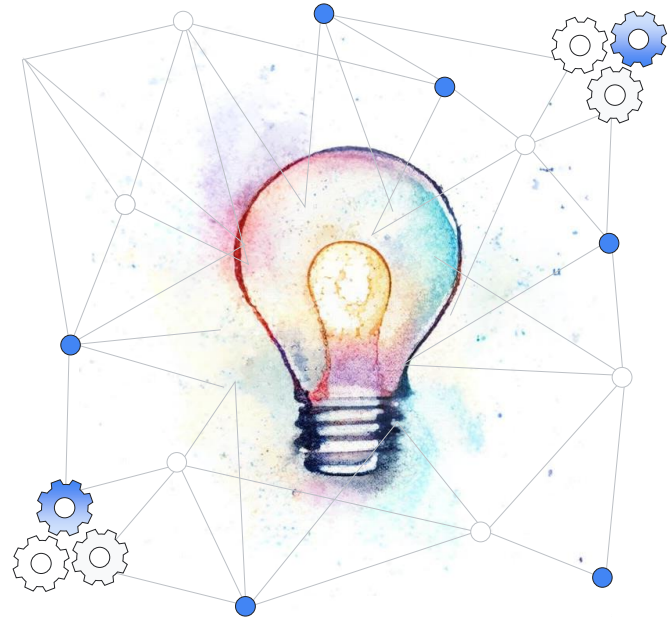
What 3 words said by an executive were associated with 6 month stock decline?



GenAI benefits the organization



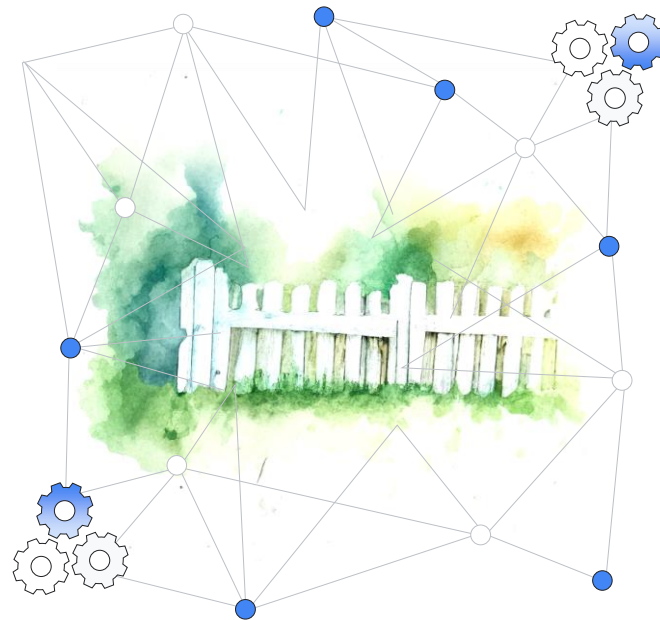
What Decision Makers Need To Know



Large foundation models are **free**



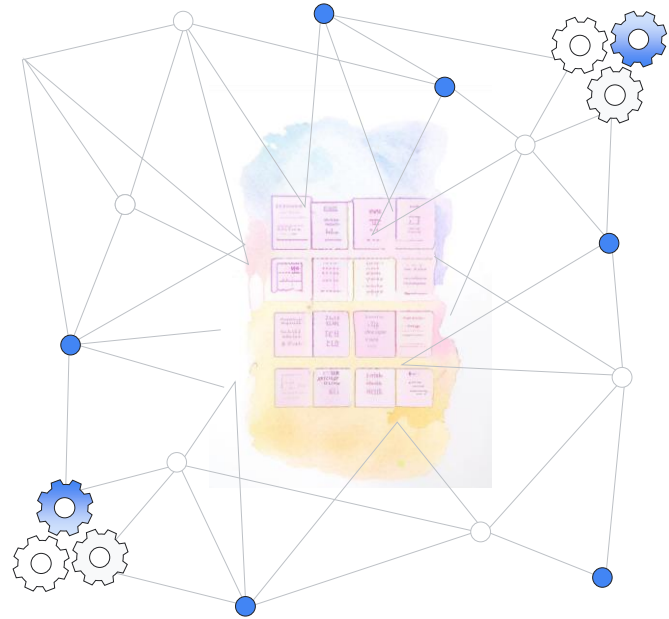
Data **security**
matters even more



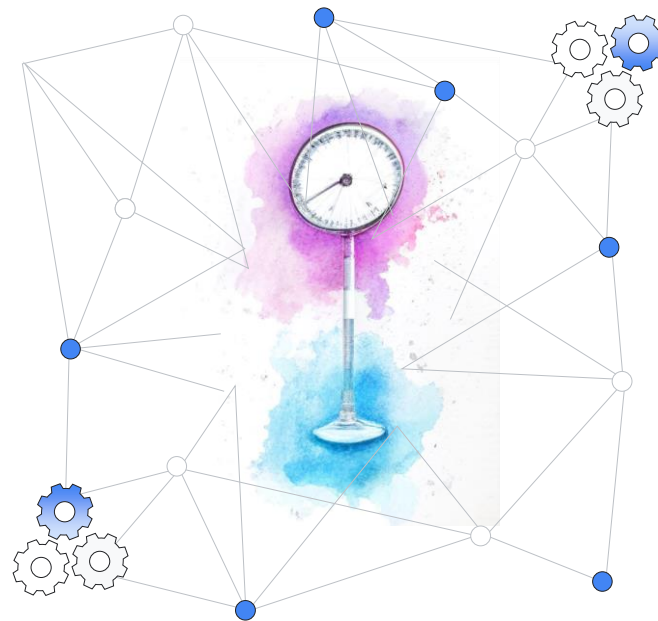
Outputs are yours



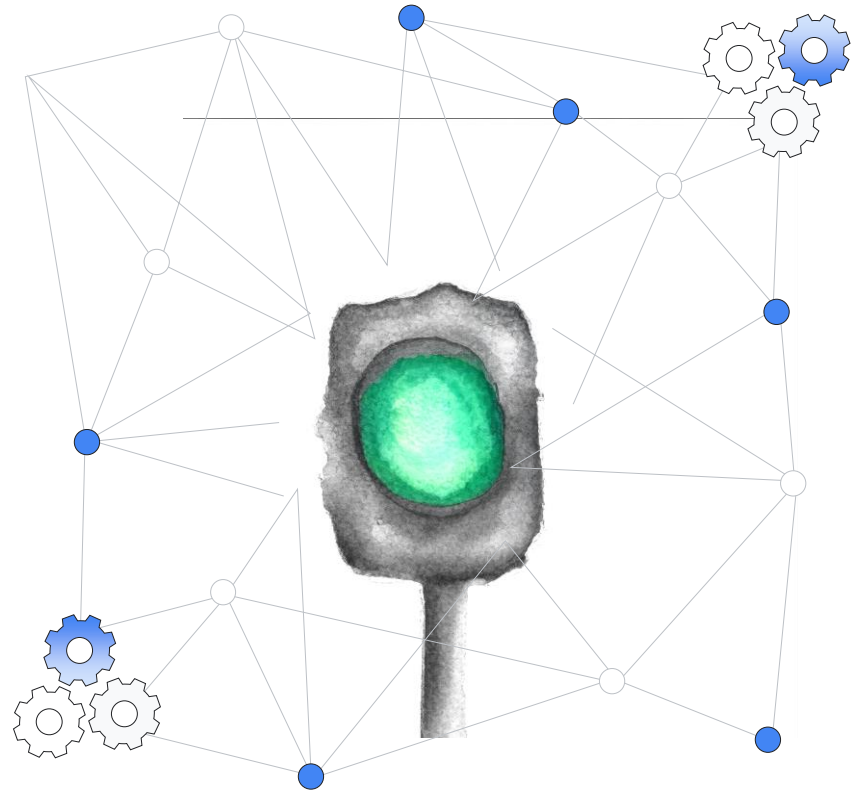
Responsible AI is a feature



Adjust models for your use case



So where do
you **start**?



What's your **use case**?

**Questions,
comments,
scathing rebuttal?**

Oh, and one last thing...

Thank You

