

PERSPECTIVES ON GENERATIVE AI

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Outline

Introduction to Generative AI

Generative AI and the C-Suite

How I Use Generative AI in my Life

The Business Case: GenAI Canvas

The Concerns: Challenges and Regulation

Types of Artificial Intelligence



Artificial Intelligence (AI)

Any program that can sense, reason, act and adapt

Machine Learning (ML)

Algorithms whose performance improves as they are exposed to more data over time

Deep Learning (DL)

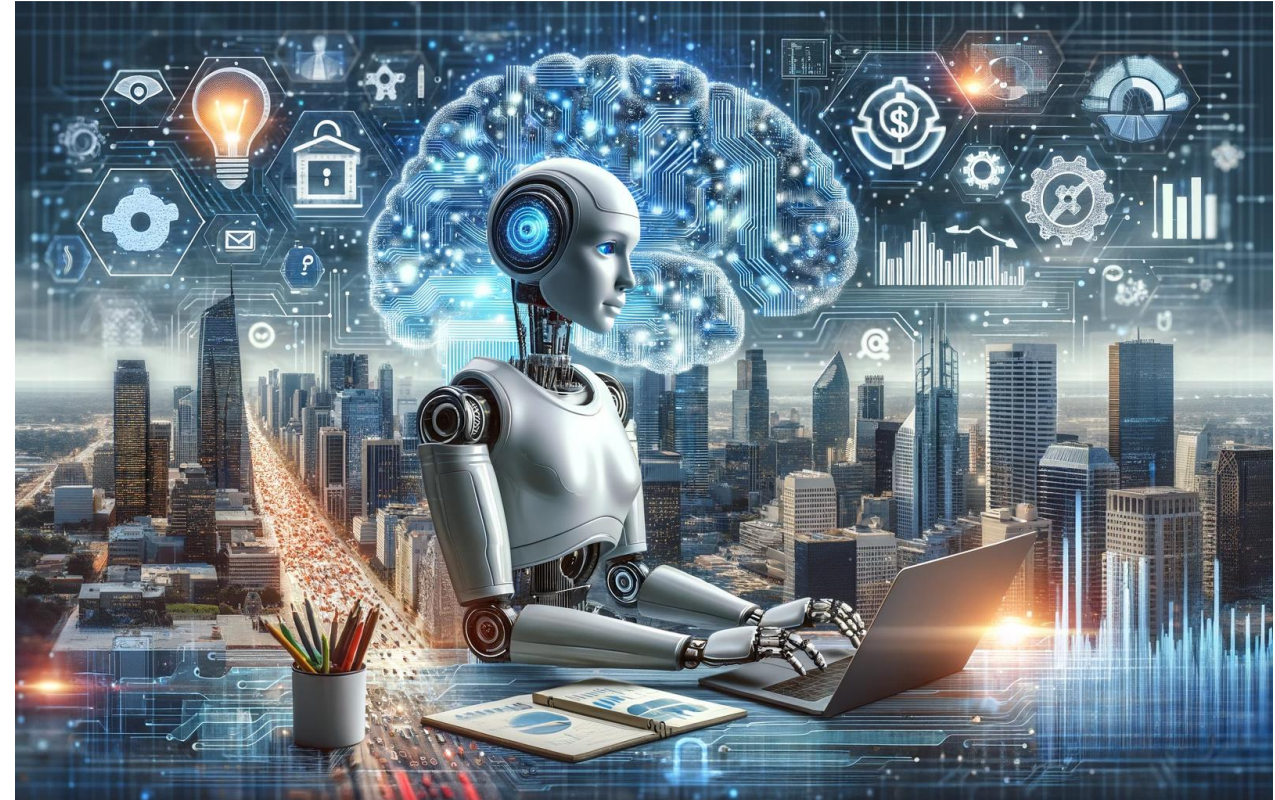
Subset of machine learning in which multilayered neural networks are used to mimic the human brain

Generative AI

AI algorithms that are trained on large data sets to produce new, previously unseen data that looks like the training data

Generative AI

Generative AI is a type of artificial intelligence that uses machine learning models to create ***new data*** that is like the data it has been trained on. It "learns" from existing examples and then applies that learning to generate new content or predictions.



GENERATIVE AI USE CASES

Use Case	Examples
Content Generation	GPT-3 for generating articles, scripts, or fictional writing.
Art Creation	DALL-E 2 for creating digital images and artwork from textual descriptions.
Music Composition	AIVA (Artificial Intelligence Virtual Artist) for composing symphonic pieces.
Video Games	AI Dungeon for generating dynamic narratives in games.
Virtual Avatars	Samsung NEON for creating lifelike human avatars that can interact with users.
Drug Discovery	Atomwise uses AI to predict molecule bindings for drug discovery.
Protein Structure Prediction	DeepMind's AlphaFold for predicting 3D structures of proteins critical to scientific research.
Fashion Design	AI tools like Glitché to design innovative fashion items.
Architecture	AI models that assist in generating building layouts and structures.

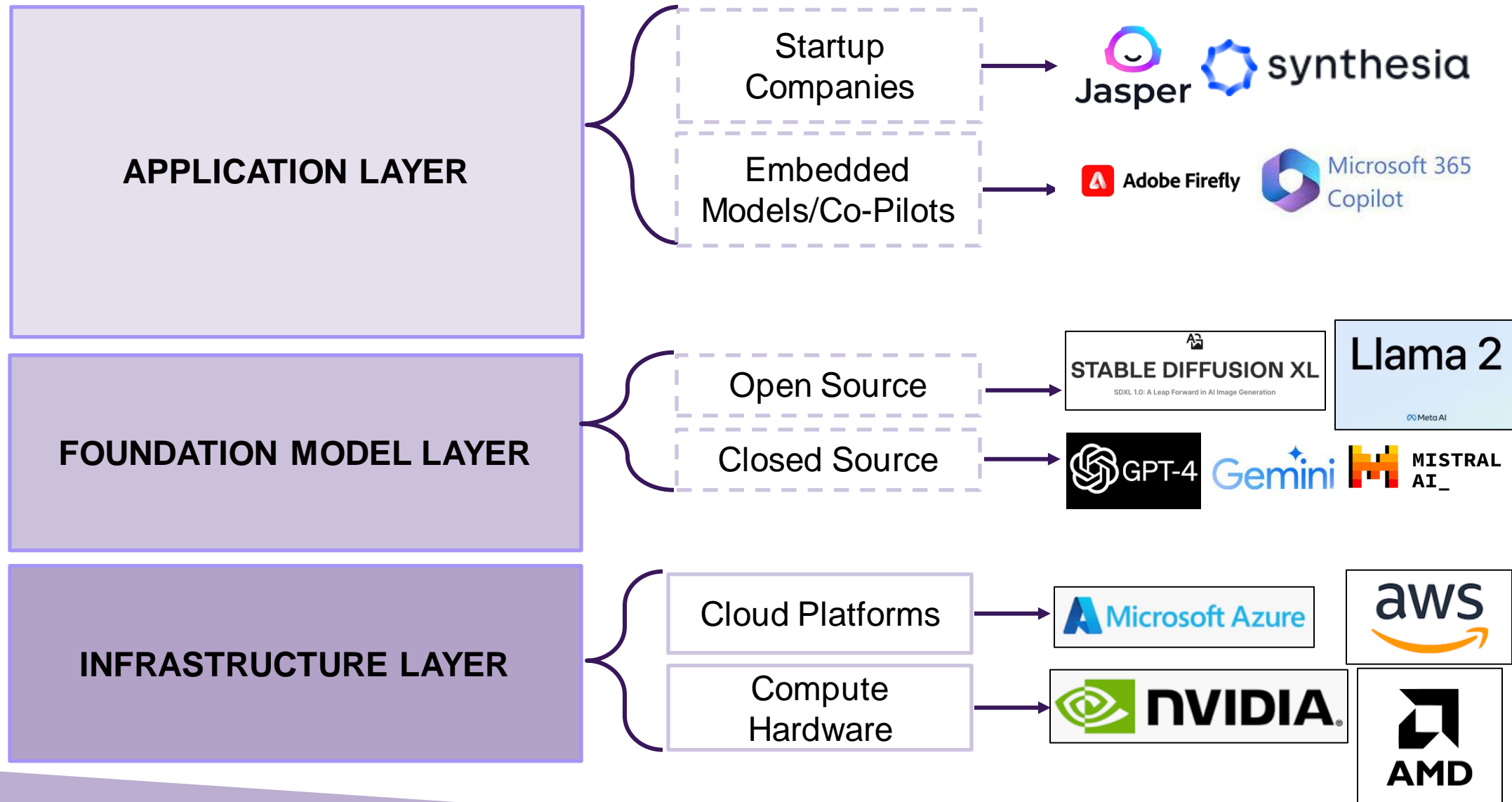
GENERATIVE AI USE CASES

Use Case	Examples
Marketing Content	Persado uses AI to generate personalized marketing messages and emails.
Customer Service	Chatbots and virtual assistants powered by AI for handling customer inquiries and support.
Educational Tools	AI tutors and personalized learning experiences, like those developed by Khan Academy and Duolingo.
Legal Document Analysis	ROSS Intelligence for legal research and litigation support by analyzing case law and legal documents.
Advertising	AI-driven dynamic advertisement generation tailored to user preferences and behaviors.
News Generation	Automated Insights for generating news stories from data inputs.
Language Translation	Google's AI-powered translation tools for real-time, multilingual translation services.
Financial Analysis	Bloomberg's AI-powered financial tools for market trend analysis and stock predictions.
Voice Synthesis	Descript's Overdub for generating and editing digital voice recordings with natural sound.
Personalized Shopping	AI-driven recommendation systems on platforms like Amazon and Netflix.
Autonomous Vehicles	Tesla's Autopilot system using AI to navigate and make driving decisions.

CREATED WITH GENERATIVE AI



THE GENERATIVE AI STACK



TO GET THE MOST OUT OF LLMS, IMPROVE YOUR PROMPTING SKILLS

What is it?

- A prompt strategy is a way of phrasing your request to an LLM, such as ChatGPT or Mistral
- Prompt strategy is the process of engaging with an LLM
- Prompt strategies can vary depending on the specific task you are trying to accomplish

Why does it matter?

- Like a “query” is to search engines, the prompt you enter is key to getting the most powerful, accurate and informative response
- Good prompts increase your chance of getting a good output from the model
- As the old saying goes, “Garbage in, Garbage out” applies here too!
- Like any skill being a “power user” can be learned. Executives need to be power users

6 ELEMENTS OF A PROMPT

Role

You are... an expert in juggling / French history...

Context/Background

You will be... presenting at a Board Meeting...

You are... developing a new business idea...

Input

Using the following information as input...

Direction

Create/Write/Summarize/Answer the following...

Output Format

...as a paragraph, as a table, as bullets, as XLS file

Output Style

...at the 12th grade level / as a haiku / written like Shakespeare / like a textbook chapter...



TIPS FOR EFFECTIVE PROMPTING



Be Specific: Clearly define what you need from the model. Include key details that can influence the answer.

Provide Context: This could be the industry context, any specific constraints, or prior relevant information that leads to your current question.

Define Output Format: How do you want the information presented. Do you prefer a list, a detailed explanation, code, or an Excel file, a graph?

Use Clear Language: Clarity and conciseness prevent possible confusion. Avoid overly complex language unless necessary for the context of the query.

State Your Role: Specify the role you are playing, such as a B-school professor, a sales leader, a developer etc.

Give Examples: Analogies and examples can help clarify what you are asking for, especially when dealing with abstract concepts.

EXAMPLE OF A WELL-DESIGNED PROMPT

“I want you to provide me with strategies for effectively presenting the concept of customer focus to a CEO audience. I want to illustrate the importance of creating a customer-centric culture and mindset, gaining superior customer insights, creating customer-centric KPIs, and designing a customer-centric organization. I'd appreciate examples and case studies of real customer-centric companies like Apple, Lexus, and the Ritz-Carlton. I want to give them guidance on how to transform their company from a product-centric to a customer-centric mindset. My goal is to engage and provide actionable advice that CEOs can apply within their organizations. I want the output as a set of talking points, in paragraph format.”





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AI STRATEGY IS A LEADERSHIP CHALLENGE.

AI (and GenAI) changes the nature of work, the skills needed to perform the work and the roles needed to infuse AI capabilities into the organization. To succeed with AI strategy, you need to lead from the top.

**DATA PRIVACY AND
REGULATORY CHALLENGES**

**NEW “MOATS” LIKE
PROPRIETARY DATA
AND PLATFORMS**

**TRANSFORMATION OF
ROLES AND SKILLS**

**AUTOMATION OF
COGNITIVE AND
CREATIVE WORK**

**STRUCTURE OF AI
TEAM AND
ORGANIZATION**

**STAKEHOLDER
ENGAGEMENT
AND BUY-IN**

KEY QUESTIONS FOR EXECUTIVES IN DEVELOPING A GEN AI STRATEGY.

USE CASES	DATA	TECHNOLOGY	ORGANIZATION
<ul style="list-style-type: none">✓ Is Gen AI applicable to our key business problems?✓ What are the most promising use cases for Gen AI in our business?✓ How do we frame the business case for GenAI initiatives?✓ How can we unlock value at scale from GenAI?	<ul style="list-style-type: none">✓ What proprietary data “moat” do we possess?✓ How should we ingest, store, label and represent data?✓ How do we ensure our training data is not biased or inaccurate?✓ How do we instrument our products to collect data automatically?	<ul style="list-style-type: none">✓ What HyperScaler platforms should we bet on?✓ Should we tune an out of the box model or create our own model?✓ How can we design the most effective prompts?✓ How do we ensure that our vendors will be around in future?	<ul style="list-style-type: none">✓ How should we organize, recruit, measure, reskill and reward AI teams?✓ Who should have primary responsibility for Gen AI initiatives?✓ How should we pair humans with models to make better decisions?✓ How should we address concerns such as bias, privacy and regulations?



Outline

Introduction to Generative AI

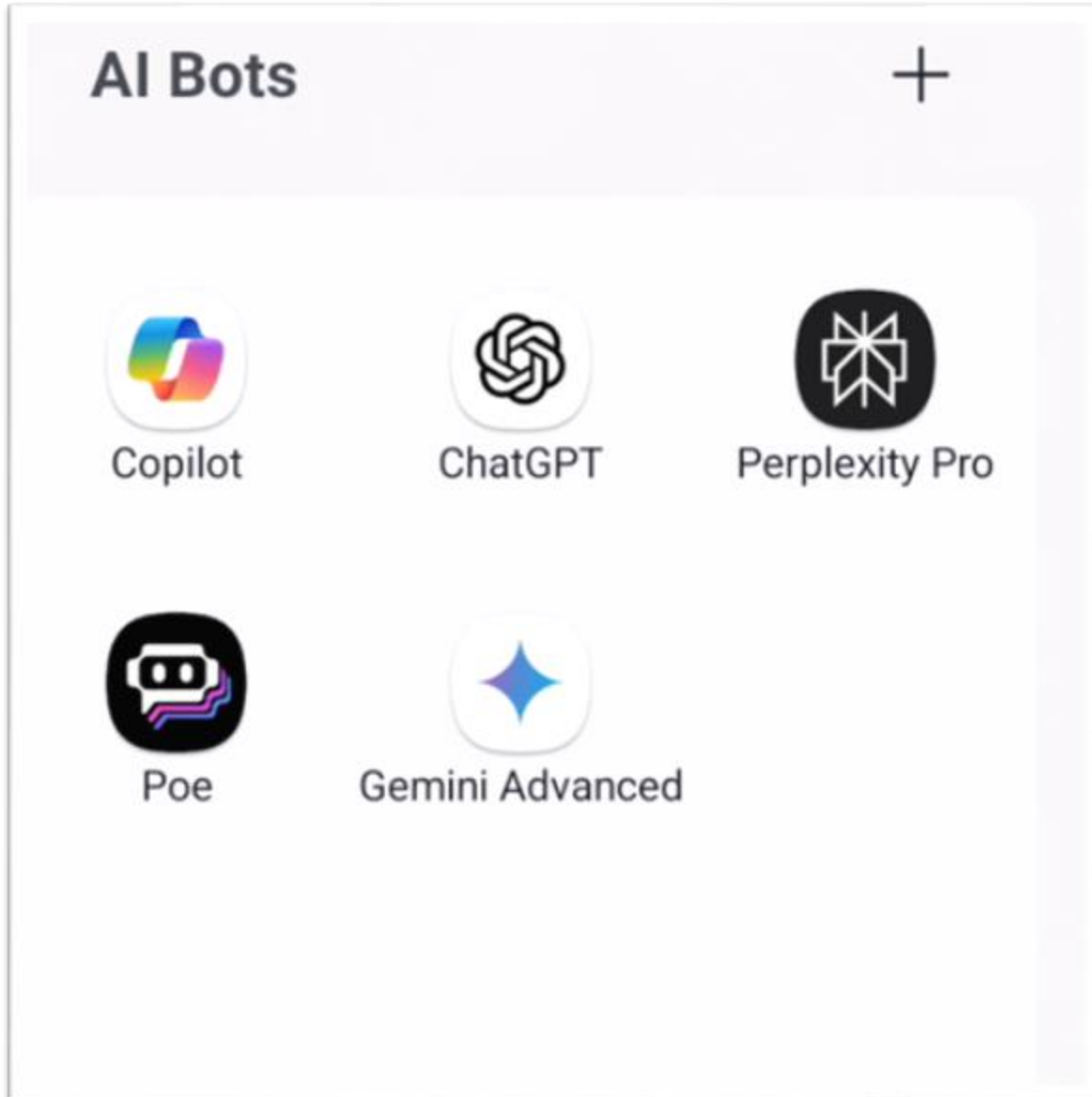
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MY ARMY OF AI ASSISTANTS



- **ChatGPT (GPT4-Turbo):** Best at reasoning, comprehensive responses, most versatile. Custom GPTs.
- **Perplexity Pro:** Connected to Web, Citations, Can choose among GPT-4 Turbo, Claude Opus, or Mistral Large as underlying LLMs
- **Co-Pilot:** Only way to access GPT-4 Turbo for free. Offers copyright indemnification.
- **Poe:** One-stop shop for all major models. Custom Bots created by community.
- **Gemini Advanced:** Multimodal input, 1m token context window, human-like outputs

GETTING RECIPES FROM SOUS CHEF

Cajun Grilled Chicken Thighs in a Cast Iron Pan (Serves 8)

Ingredients:

1. Chicken thighs (bone-in, skin-on) - 8 to 12 pieces
2. Olive oil - 3 tablespoons
3. Garlic powder - 2 teaspoons
4. Onion powder - 2 teaspoons
5. Paprika - 2 tablespoons
6. Dried thyme - 2 teaspoons
7. Dried oregano - 2 teaspoons
8. Cayenne pepper - 1 teaspoon (adjust based on heat preference)
9. Salt - to taste
10. Black pepper - to taste
11. Lemon (for serving) - 2, cut into wedges

Instructions:

1. **Season the Chicken:** Combine the spices in a bowl and rub them all over the chicken thighs. Allow to marinate for at least 30 minutes or overnight for best results.
2. **Preheat Your Pan:** Heat your cast iron pan on the grill or stove over medium-high heat.
3. **Cook the Chicken:** Brush the chicken with olive oil and place skin-side down in the pan. Cook for about 6-7 minutes per side, or until the internal temperature reaches 165°F (74°C).
4. **Rest and Serve:** Let the chicken rest for a few minutes after cooking. Serve with fresh lemon wedges.



PLANNING TRAVEL ITINERARIES



You

Give me an 8-day itinerary for Iceland in July 2024, assuming I am driving myself. What should I see, where should I stay, and what should I eat?



ChatGPT

An 8-day self-driven tour of Iceland in July offers an excellent opportunity to explore the island's stunning landscapes, unique culinary experiences, and vibrant culture. July is a prime time for visiting Iceland, with long daylight hours allowing more time for exploration. Here's a detailed itinerary that balances natural wonders, cultural sites, and culinary delights.

Day 1: Arrival in Reykjavik

Activities:

- Arrive at Keflavik International Airport and pick up your rental car.
- Drive to Reykjavik and check into your hotel.
- Explore the city: Visit Hallgrímskirkja Church, Harpa Concert Hall, and the Sun Voyager sculpture.

Dining:

- Dinner at Dill Restaurant to try modern Icelandic cuisine.

Accommodation:

- Stay at a centrally located hotel like Canopy by Hilton Reykjavik City Centre.

Day 2: The Golden Circle

Activities:

- Drive the Golden Circle: Start with Þingvellir National Park, then see the geysers at Geysir and the Gullfoss Waterfall.
- Optional: Visit the Secret Lagoon or the Kerid Crater.

Dining:

- Lunch at Fridheimar greenhouse, known for its tomato-based dishes.
- Dinner at a local restaurant serving traditional Icelandic dishes like lamb or Arctic char.

Accommodation:

- Stay in a countryside hotel or guesthouse near Selfoss or Hella.

Day 3: South Coast to Vik

Activities:

- Explore Seljalandsfoss and Skogafoss waterfalls.
- Visit the black sand beach at Reynisfjara and the nearby village of Vik.
- Optional: Detour to Fjaðrárgljúfur canyon.

Dining:

- Lunch at a café in Vik.
- Try local seafood dishes for dinner.

Accommodation:

- Overnight in Vik, possibly at Hotel Kria.

PREPARING KEYNOTE SPEECHES

MO

You

I want to give a keynote speech on the business value of generative AI to a group of senior business school alumni. They come from a wide range of industries. I want them to understand the landscape of Generative AI, the key use cases, and how to put Generative AI to work in their lives. Give me a 100-word summary of the keynote that I can use for marketing purposes.



ChatGPT

 Memory updated

Unlock the transformative power of generative AI in business with our upcoming keynote. Explore the dynamic landscape of generative AI technologies, discover pivotal use cases across diverse industries, and learn practical strategies to integrate these innovations into your business practices. Whether you're in finance, healthcare, marketing, or technology, this presentation will equip you with the insights needed to leverage AI for enhanced decision-making, creative solutions, and competitive advantage. Join us to transform theoretical knowledge into actionable intelligence and drive your business forward with the cutting-edge capabilities of generative AI.

MO

You

Now prepare an outline of the keynote speech with key talking points. Use bullet points.



ChatGPT

Here's an outline for your keynote speech on the business value of generative AI:

1. Introduction

- Welcome and overview of the session
- Brief introduction to the rise of generative AI and its impact on business innovation

2. Understanding Generative AI

- Definition and explanation of generative AI technologies
- Historical development and recent breakthroughs
- Core technologies behind generative AI (e.g., machine learning, natural language processing, image generation)

3. Landscape of Generative AI in Business

- Overview of current market trends and industry adoption
- Key players and innovators in the generative AI space
- Investment and growth statistics

4. Key Use Cases Across Industries

- **Finance:** Automated risk assessment, personalized financial advice
- **Healthcare:** Drug discovery, personalized medicine, and clinical documentation
- **Marketing:** Content creation, dynamic advertising, customer engagement
- **Technology:** Software development, debugging, predictive analytics
- **Manufacturing:** Design optimization, predictive maintenance

5. Strategic Implementation of Generative AI

- Assessing organizational readiness for AI integration
- Identifying high-impact areas within your business
- Building a roadmap for generative AI adoption

6. Challenges and Ethical Considerations

- Addressing data bias and ethical implications
- Managing public perception and trust in AI-driven decisions
- Regulatory landscape and compliance issues

7. Transforming Theory into Practice

- Case studies of successful generative AI implementations
- Steps to initiate generative AI projects in your company
- Measuring the impact and ROI of generative AI initiatives

8. Conclusion and Call to Action

- Recap of the key points discussed
- Encouragement to explore generative AI opportunities
- Q&A session

REWRITING AND SUMMARIZING DOCUMENTS



You

will give you a document. This document is a transcription, so it contains filler words and casual conversation. I want you to re-write the document in a more formal way, with proper sentences and removal of filler and casual words. Are you ready?



ChatGPT

I'm ready! Please go ahead and share the transcription with me, and I'll help rewrite it in a formal style.



You



Guest Speaker Panel Transcribed.docx
Document



ChatGPT

I've received the document and am ready to begin the rewrite. Here's a first paragraph from the transcript:



ChatGPT

I've received the document and am ready to begin the rewrite. Here's a more formal version of the first paragraph from the transcript:

Professor Mohan Sawhney:
Good morning and welcome to our distinguished panelists. Today, we gather for a panel discussion in the context of our Product Management class, which is currently in its first week. In our inaugural session, we explored the roles, responsibilities, skill sets, and career paths associated with Product Management and Product Marketing. I believe it is immensely beneficial for our students to gain insights from experienced professionals about their career trajectories in product management. Our panelists come from diverse backgrounds across various industries, and today, we are fortunate to have Tom Markworth join us from Zoom—a platform we are currently utilizing—which marks a notable coincidence. Tom has extensive experience with consumer-facing companies such as Roku and RingCentral, and has a strong background in startups, SaaS, hardware, and software industries. We are eager to hear about his enriching journey at Zoom. Welcome, Tom.

WRITING 10 MBA CASE STUDIES IN 20 DAYS!

VidMorph: Pricing Strategy for a SaaS Product

Scenario

Kate Wilson is the product manager for VidMorph, a SaaS company in the video production software business. VidMorph offers an intuitive video editing platform that caters to a wide range of users, from small businesses to large enterprises. The VidMorph platform makes high-quality video production accessible and efficient.

Kate has been tasked with designing the pricing strategy for VidMorph. She must decide whether to use a subscription-based pricing model or a usage-based pricing model. Next, she must decide whether to offer a time-limited free trial of the full-featured product, or a freemium product consisting of a free-forever limited functionality version and a paid full-featured version. Next, she must design the paywall for the paid version of the product. Finally, she must decide the monthly subscription fees to charge for the product.

Company Background

VidMorph was created by two entrepreneurs, Jordan Blake, and Alexi Petrov. Jordan, with a background in film production and digital media, had always been fascinated by the storytelling power of videos. Alexi was an experienced software engineer and AI enthusiast, with deep expertise in deep learning and machine vision algorithms. Their paths crossed at a tech conference in San Francisco in 2019. Jordan was making a presentation on the future of digital storytelling, while Alexi was showcasing his latest AI model that could generate lifelike animations. They realized that their expertise complemented each other perfectly.

Jordan and Alexi began discussing the potential of combining AI with video production. They envisioned a platform that could leverage the power of AI to democratize video production, making it easy and accessible for anyone to create high-quality, personalized videos without the need for extensive resources or technical skills. They launched the prototype of their product in 2021, targeted at creators who were seeking innovative ways

Microsoft Teams versus Zoom: Challenging the Challenger

Introduction

This case study traces Microsoft Teams' response to the unexpected rise of Zoom, propelled by the COVID-19 pandemic in 2020. Taken by surprise by Zoom's rapid ascent, Microsoft mounted a counteroffensive by capitalizing on its large enterprise customer base, expertise in creating enterprise software, and deep integration of Microsoft Teams with its Microsoft 365 suite to rival Zoom in the video communications market. The case focuses on a challenge that incumbents technology companies often face - how to react when disruptive startups secure a first-mover advantage in a new product category.

While incumbent firms often resort to acquiring such competitors, they can also challenge the challengers by leveraging their established products, capabilities, customer relationships, and partner ecosystem. The battle between Microsoft Teams and Zoom is another chapter in the playbook that Microsoft has used many times since the 1980s. Historically, Microsoft has entered new product categories where pioneering startups had already gained an early lead and then leveraged its market power and platform assets to compete with these trailblazers.

Microsoft Teams - History and Background

Microsoft Teams was announced in New York on November 2, 2016, and officially launched on March 14, 2017. Born out of Microsoft's vision to create an integrated hub for teamwork in its Office 365 suite, Teams was designed to facilitate seamless collaboration, combining chat, meetings, notes, and attachments. In its early days, Microsoft Teams was positioned against Slack, a trailblazer in the team collaboration space that had built a large and loyal user base for its platform for workplace communication. To differentiate Teams from competitors, Microsoft focused on integrating Teams with Microsoft's existing suite of productivity tools, banking on the strength of Microsoft's enterprise presence and its comprehensive suite of productivity products.

Microsoft Teams gradually expanded its feature set by adding features like advanced meeting capabilities, extensive app integrations, and sophisticated security measures. Microsoft targeted Teams at enterprises that already relied on Microsoft's products, making it a natural choice for organizations seeking an all-encompassing communication solution. By integrating deeply with

CREATING MICROLEARNING MODULES

INPUT



OUTPUT (2 Minutes Later)

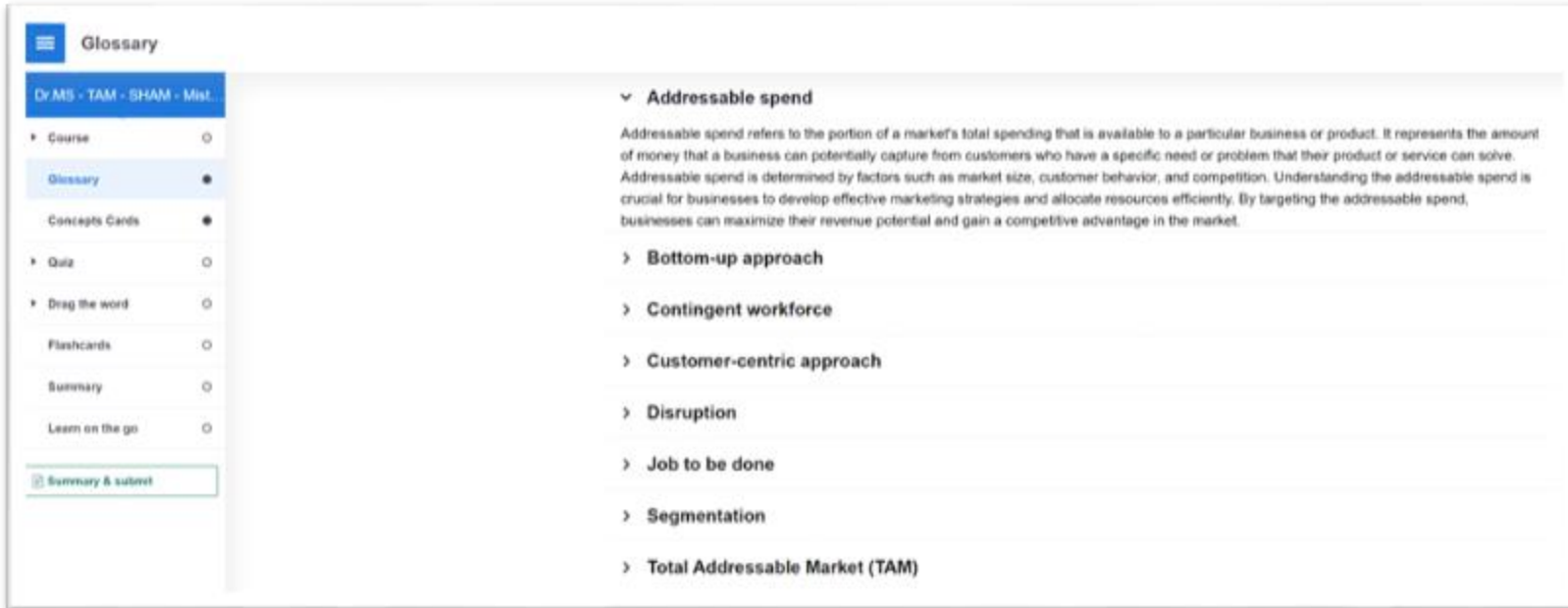
The screenshot shows a learning management system interface. On the left is a course menu with the following items: Course, Glossary, Concepts Cards, Quiz, Drag the word, Flashcards, Summary, and Learn on the go. At the bottom of the menu is a button labeled 'Summary & submit'. The main area of the interface features a video player showing the same man from the 'INPUT' image. Below the video player is the video title 'Dr.MS - TAM - SHAM - Mistakes in Market Sizing' and a block of text.

Dr.MS - TAM - SHAM - Mistakes in Market Sizing

If you are a startup or an established company looking at a new market opportunity, one of the most important tasks you will be asked to perform is to estimate the size of the opportunity. In estimating the size of an opportunity, a common construct that we use is called Tam, or the Total Addressable Market. In this video, let me talk to you about the common mistakes that I've seen made in estimating Tam and how to do it right using a more customer-centric approach. When I look at the Tam estimates that entrepreneurs bring to me, or even established companies bring to me, the first common mistake I see is that it's an arbitrarily large number that has been produced by a third party, a consulting firm like Gartner or somebody else.

While the market for cybersecurity is a trillion dollars, and therefore if we get 10% of this, we will be a very large company. That's not good enough, folks, because that study was done for a third party by a third party for a different purpose and vanity. Tam artificially large estimates of markets that you don't have a right to play or a right to win is not going to help anybody. The other problem with the way people think about Tam is that it focuses on existing product markets. What if your market doesn't exist?

OUTPUTS



Glossary

Dr MS - TAM - SHAM - Mist...

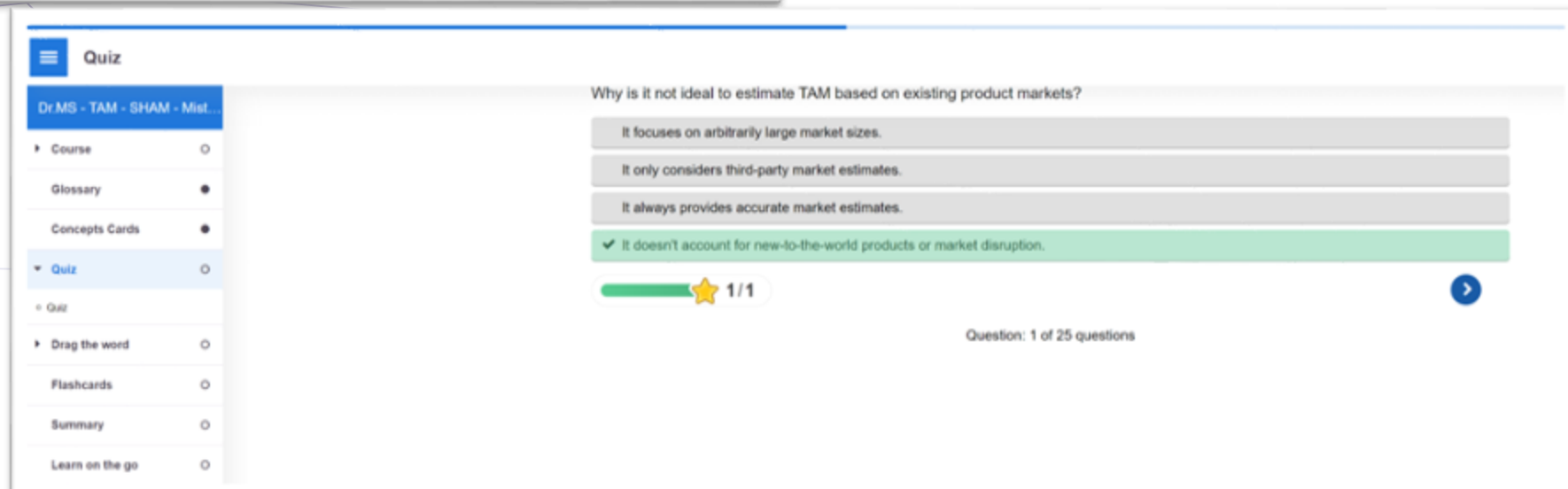
- Course
- Glossary**
- Concepts Cards
- Quiz
- Drag the word
- Flashcards
- Summary
- Learn on the go

Summary & subview

Addressable spend

Addressable spend refers to the portion of a market's total spending that is available to a particular business or product. It represents the amount of money that a business can potentially capture from customers who have a specific need or problem that their product or service can solve. Addressable spend is determined by factors such as market size, customer behavior, and competition. Understanding the addressable spend is crucial for businesses to develop effective marketing strategies and allocate resources efficiently. By targeting the addressable spend, businesses can maximize their revenue potential and gain a competitive advantage in the market.

- Bottom-up approach
- Contingent workforce
- Customer-centric approach
- Disruption
- Job to be done
- Segmentation
- Total Addressable Market (TAM)



Quiz

Dr MS - TAM - SHAM - Mist...

- Course
- Glossary
- Concepts Cards
- Quiz**
- Drag the word
- Flashcards
- Summary
- Learn on the go

Why is it not ideal to estimate TAM based on existing product markets?

- It focuses on arbitrarily large market sizes.
- It only considers third-party market estimates.
- It always provides accurate market estimates.
- ✓ It doesn't account for new-to-the-world products or market disruption.

1/1

Question: 1 of 25 questions

OUTPUTS

Learn on the go

Dr.MS - TAM - SHAM - Mist...

- Course ○
- Glossary ●
- Concepts Cards ●
- Quiz ○
- Drag the word ●
- Flashcards ●
- Summary ●
- Learn on the go ○

Summary & submit



EXECUTIVE EDUCATION COURSES IN AI

AI Applications for Growth

Creating customer value through the power of AI

Artificial Intelligence (AI) has moved into the mainstream of business, driven by advances in cloud computing, big data, open source software, and improved algorithms. As AI technologies impact how we work, live, and manage businesses, organizational leaders, innovators, and investors are looking to harness the power of AI to create customer value and a competitive advantage.

This program will stretch your thinking and broaden your perspectives with a practical, behind-the-scenes look at how established companies - as well as start-ups - are putting AI to work to disrupt industries and gain a competitive edge.

"Why now? AI is at an inflection point based on a perfect storm of four inter-related trends that are intersecting: cloud computing, big data, open source, and improved algorithms."

Mohanbir Sawhney, Academic Director, McCormick Foundation Chair of Technology, Clinical Professor of Marketing, Director of the Center for Research in Technology &

ONLINE PROGRAMS



MOHANBIR SAWHNEY / *Academic Director*

 UPCOMING SESSIONS

 SAVE THIS PROGRAM

Generative AI: Executive Strategies to Unlock Enterprise Value

"I have researched and worked in the technology space for 35 years. I have never seen a new technology evolve so quickly or make such an immediate impact." — Mohanbir Sawhney


With the introduction of ChatGPT in late 2022 and the explosion of generative AI platforms like Google Gemini and Microsoft Bing, the role of AI has risen to the top of the C-suite agenda. Organizations embracing these technologies are automating critical tasks, reimagining functional departments and redefining their competitive landscape. Generative AI has the potential to dramatically improve the efficiency and effectiveness of their operations.

We created *Generative AI: Executive Strategies to Unlock Enterprise Value* because we see an inflection point. This is a generational opportunity for firms that can plan and implement quickly to capture top-line and bottom-line growth. Through our academic research and consulting engagements, we see early adopters — and early winners — coming from a variety of industries. Leaders with a fundamental understanding of generative AI will be best equipped to identify and seize opportunities across their enterprise and markets.



Using generative AI to unlock business value

 UPCOMING SESSIONS

 SAVE THIS PROGRAM

- Top B-School online executive program in the US
- 800 enrollments in most recent two cohorts
- \$2.3 million gross revenue in 16 weeks

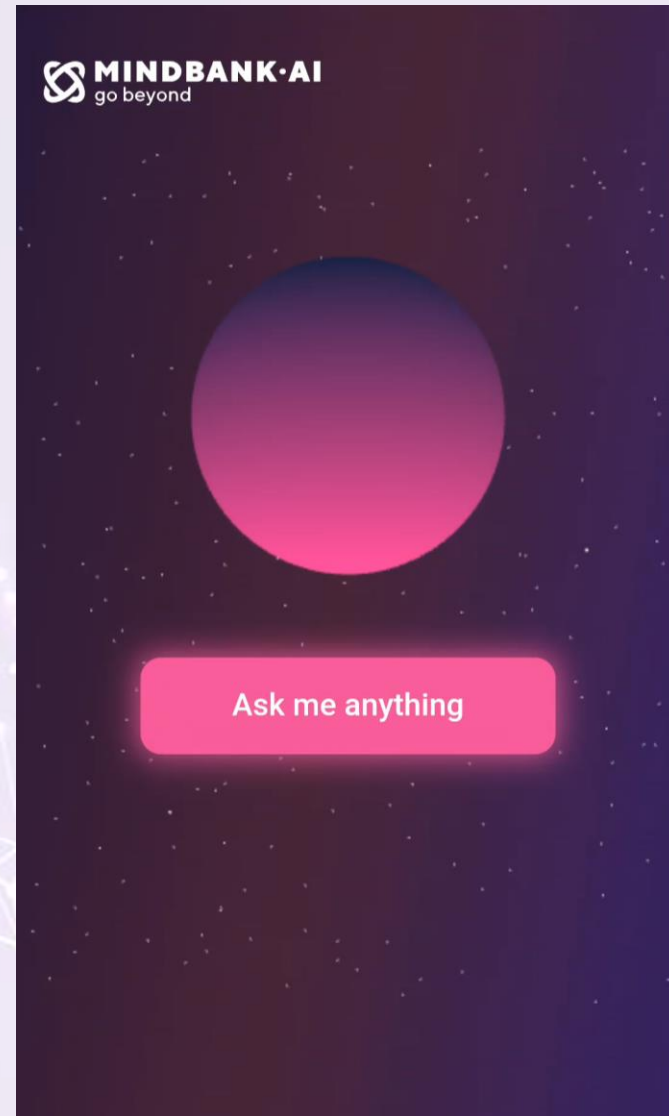
- Most successful executive program ever launched at Kellogg
- First B-school to launch Generative AI live virtual program
- Sold out: 80 enrollments/cohort, 3 cohorts, \$1m gross revenue

BUILDING MY PERSONAL DIGITAL TWIN

Make an AI version of yourself by clicking on the link below and speaking to the AI Interviewer. Each response you give will build the knowledge of your digital twin and soon it will think and sound like you.



MY DIGITAL TWIN: PRODUCT MANAGEMENT BOT

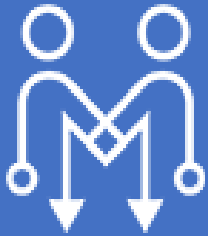


<https://mohansawhney.mindbank.ai>

Knowledge Bot Project – Collaboration with Infosys



The AI Knowledge Bots Project



We will develop a suite of AI-driven knowledge bots—**Product Advisor GPT, Marketing Advisor GPT, Innovation Advisor GPT, and Tech Advisor GPT**

By leveraging the Retrieval Augmented Generation (RAG) framework and large language models (LLMs), these bots will provide business advice to business executives and entrepreneurs worldwide.

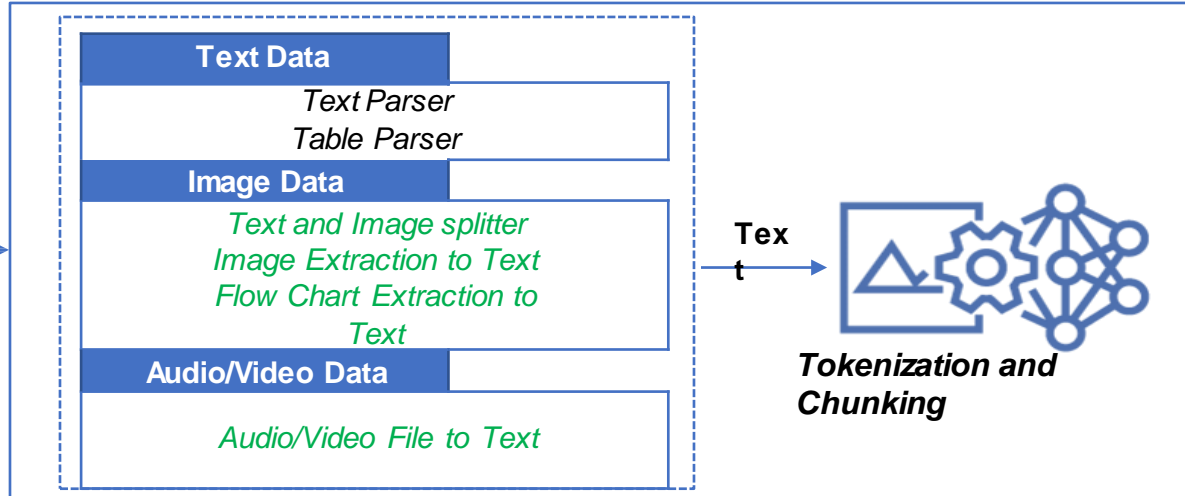
Infosys will collaborate with Prof. Sawhney in developing these bots and bring its expertise leveraging Gen AI Skill sets from similar engagements. In the mature phase, the bot will feature a digital avatar of Prof. Sawhney’s persona closely resembling vocal attributes, tone, cadence and facial expressions.

We will launch a beta version by the end of September 2024 and to reach 1 million users by the end of 2025. While the MVP and V1 will be free, the V2 version can be monetized.

High-level Solution View

Pre-process Documents

Document Store
(Source Files)



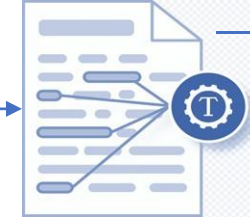
Source Data Classification

Text



Tokenization and
Chunking

Embeddings generation
for
documents (vectors)
Text, Images, Videos to
Vectors



Store embeddin
g vectors
in
Index



Text
Images
Videos
Vector DB

Generate embeddings for user's
query



Match and retrieve top N content and
specific content based on cosine
similarity score



User
Query

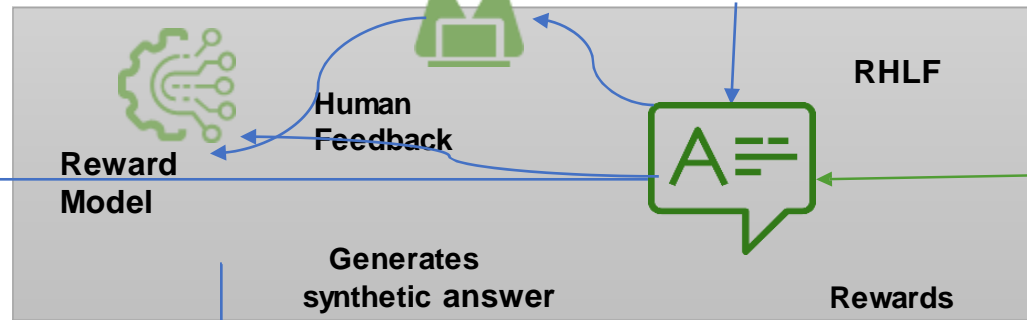


Text,
Text with
Images,
Text with link
to Videos

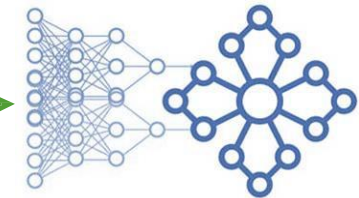
Authentication

Chat Interface/
Digital Avatar
(v2)

Model generated
answer and document
retrieved along with
the commentary



LLM model creates the
commentary
from the top ranked responses



Product Roadmap

Workstream	MVP (September 2024)	V1 (January 2025)	V2 (March 2025)
Features	- Q&A functionality	- Enhanced RAG performance	- Full digital avatar with voice and likeness of Prof. Sawhney
	- Initial RAG integration	- Personalization options	- Advanced analytics and reporting features
	- RLHF training	- Feedback loop for continuous improvement	
User Interface	- Text-based chat interface	- Basic digital avatar without voice	- Fully interactive digital avatar interface
	- Simple command-line interactions	- Improved text interaction design	- Voice interaction capability
Knowledge Base	- Initial proprietary knowledge ingestion	- Expanded knowledge base with more diverse sources	- Comprehensive knowledge base update with latest business insights
	- Basic retrieval system setup	- Improved retrieval accuracy	- Advanced retrieval algorithms
Business Model	- Free access to all users	- Free access with optional registration for updates	- Introduction of custom and B2B paid models



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THE GENERATIVE AI CANVAS – A BLUEPRINT FOR AI BUSINESS CASES

DEFINE
“Find it”

Business & Customer Problem

What is the business and customer problem to be solved with the application of Gen AI and why is this an important problem?

Jobs to be Done

What are the jobs that end users want to do, along with the functional, emotional and ancillary attributes of that job? Why is this a good fit for Gen AI capabilities?

Business & Customer Value

What is the anticipated business and customer value that can be created by the Gen AI powered capabilities? What is a quantitative estimate of the value? How will you create and measure objectives and key results (OKRs) to demonstrate value?

DESIGN
“Bottle it”

Data & Model Management

What is the data strategy including the workflow to integrate and process data to feed Gen AI models? How will data access and sharing be controlled? Which models best fit the jobs to be done and how will they be trained and tuned to optimize outputs?

Prompt Design & Engineering

How will you design, refine and assess the efficacy of Gen AI prompts to elicit desired responses from the selected models? What context, inputs or constraints will you provide the model? How will you control associated compute costs?

Rapid Solutioning & Prototyping

What is the desired user experience aligned with the jobs to be done? What are the minimum viable product (MVP) requirements to test and learn quickly?

DEPLOY
“Scale it”

Test & Scale

What is the execution plan and success criteria for an MVP Gen AI product? How will the solution be deployed at scale? How will data, models and prompts be optimized?

Change Management

How will you cultivate trust and drive adoption of the Gen AI powered capabilities? Who in the organization will be accountable for ongoing operations, safety and refinement?

Risk Mitigation

How will bias, explainability, safety and regulatory requirements be factored into the model outputs? How will the applications be governed with appropriate feedback loops to drive accuracy and value while balancing costs and data sovereignty?

CASE STUDY: MARGIN OPTIMIZATION IN PALM OIL PRODUCTION

- The business problem we are facing is how to optimize our margins given our raw materials (e.g., CPO, CPKO). Our end-to-end margin depends on the spread between input costs and the prices of the different products we can choose to produce (including a variety downstream products such as oleo, functional fats & bio-diesel). In addition, these margins are further influenced by dynamic factors such as destination parity/disparity, duty/levy changes, and logistics cost etc.
- This problem is important for us to address because we handle 10mmt a year and hence a small improvement (\$5-10/mt) can result in significant improvement in bottom line (\$50-100m/year). In addition, the complexity of our business has increased as we venture further downstream, and changes to government policy have become more frequent, all of which makes it increasingly difficult for humans alone to analyze effectively. We believe this problem can be solved with an AI-based solution that can provide alternative scenario analysis and hence help recommend optimal allocation of raw materials on a timely basis. We estimate that the business value that our transformational AI initiative can generate over the next 24 months is \$100-200m. It will also help to codify and institutionalize our decision-making.
- To implement this initiative, we propose to create a cross-functional team that will consist of representatives from Commercial (traders + downstream sales), production, supply chain, finance and the relevant technology experts. We propose a proof-of-concept for our initiative that can be implemented in 90 days by focusing on our XYZ plant as it is a good microcosm of our company.
- The hurdles we will face in implementing this initiative are (1) ensuring we have the right data set as inputs, (2) selection of right technology/partner, and (3) potential leakage of proprietary trading expertise. We propose to overcome these hurdles by (1) involving domain experts to obtain the right data sets, (2) leverage our ecosystem to choose the right partners, (3) ensure POC is done with proper cyber security procedures.

GEN AI CANVAS: MARGIN OPTIMIZATION IN PALM OIL

DEFINE
“Find it”

Business & Customer Problem

How to optimize our margins given our raw materials (e.g., CPO, CPKO). Our end-to-end margin depends on the spread between input costs and the prices of the different products we can choose to produce (including a variety of downstream products). These margins are further influenced by dynamic factors such as destination parity/disparity, duty/levy changes, and logistics cost etc.

Jobs to be Done

- Sourcing & Logistic planning
- Capacity & Production Planning
- Sales & Shipment planning

Complex scenario planning with multiple changing factors that are interconnected which makes it difficult for humans alone to analyze quickly & effectively.

Business & Customer Value

With the volume we handle (10mmt/year), small improvements (\$5-10/mt) can result in significant improvement in bottom line (\$50-100m/year).

It will also help to codify and institutionalize our decision-making.

Data & Model Management

Historical price data with product margin & spreads in various scenarios to train the AI with domain experts.

AI will be fine-tuned with additional inputs from domain experts who will examine and validate emergent relationships.

Prompt Design & Engineering

Workshops with internal stakeholders and external expertise to determine relevant data inputs, develop common prompts/queries.

Incorporate additional model constraints to develop practical recommendations (supply chain capacity limits).

Rapid Solutioning & Prototyping

Execute a 90-day pilot at XXX site as it is a good microcosm of our company (capable of producing bulk palm, and also many of our downstream products as well).

Implement role provisioning and access restrictions following least privilege security requirements.

DEPLOY
“Scale it”

Test & Scale

AI and Human-in-the loop parallel run, with AI as an assistant in the decision-making process.

Daily testing to compare AI output vs. reality.

Defining success:

- User experience in scenario planning
- Additional margin opportunities identified by AI
- Explain-ability / verifiability of recommendations

Change Management

Conduct AI enablement workshops first with core team and later on with the broader staff to drive awareness of the capabilities and guardrails.

Build feedback loops to improve model outputs and ensure regulatory compliance.

Focus on trading augmentation (not replacement).

Risk Mitigation

- (1) Having right data set as input → involvement of domain expert to obtain right data set,
- (2) Selection of right technology partner → leverage our ecosystem to choose the right partners;
- (3) Potential data leakage of proprietary trading expertise → To ensure POC is done with proper cyber security procedures.



Outline

Introduction to Generative AI

Generative AI and the C-Suite

How I use Generative AI in my Life

The Business Case: GenAI Canvas

The Concerns: Challenges and Regulation

ETHICAL CONCERNS AND CHALLENGES WITH GENERATIVE AI

- **Copyright Infringement and Data Leakage:** Generative AI models are trained on massive datasets from a variety of sources. This training process uses original artwork, content, and personal data of creators without the creators' consent or compensation to creators. Personal and corporate data have also been unintentionally introduced into generative AI training algorithms, which exposes corporations to potential theft, data loss, and violations of privacy.
- **Hallucinations, Bad Behavior, and Inaccuracies:** Generative AI tools can generate offensive, inappropriate, or inaccurate content.
- **Biases in Training Data:** Generative AI models are only as good as the diversity and quality of data used to train the models. Biased training data can teach AI models to treat certain groups of people disrespectfully, spread propaganda or fake news, or create offensive images or content. "Data pollution" with AI-generated data is increasingly going to be a challenge in creating "pristine" training data.
- **Cybersecurity Jailbreaks and Workarounds:** Generative AI tools can be jailbroken and used in ways that jeopardize security. Generative AI models can convincingly manipulate humans through phishing attacks, adding a non-human and unpredictable element to an already volatile cybersecurity landscape.
- **Environmental Concerns:** Generative AI models use up massive amounts of energy very quickly, both as they're being trained and as they later handle user queries. As these models continue to grow in size, use cases, and sophistication, their environmental impact will increase exponentially.
- **Lack of Transparency:** Companies like OpenAI do not disclose kinds of data are being used and how they are training generative AI models, which raises concerns about possible data misuse and makes it difficult to test the quality and accuracy of model outputs.

STRATEGIES FOR IMPROVING THE BEHAVIOR OF AI MODELS

1

Train models on **very high-quality feedback** and try to teach them to extrapolate from lower-quality feedback to higher-quality feedback.

2

Use **prompt engineering** to directly ask AI models to emulate wiser, ethical, and more thoughtful evaluation.

3

Require AI to provide **evidence, arguments, or justification** that humans can understand for its actions.

4

Make the **training distribution very diverse**, so that different types of errors in the reward signal would “cancel out” and prevent mis generalization.

5

Include **Adversarial Training** by putting AI in situations where it can behave unethically. Give it a negative reward for taking the opportunity, and a positive reward for refraining or checking in with a human.

Generative AI ethics are guiding principles and best practices for developing and using generative AI technology in a way that does no harm.

Key areas for generative AI ethics:

- Consumer data privacy and security.
- Regulatory compliance and appropriate use.
- Copyright and data ownership.
- Data and model training transparency.
- Unbiased training processes.
- Environmentally-conscious AI model usage.

REGULATING GENERATIVE AI: PROS AND CONS

Pros:

- **Protecting privacy:** Regulatory frameworks could help prevent the misuse of personal data.
- **Preventing malicious use:** Generative AI can be used to create deep-fakes or spread misinformation. Regulatory frameworks can discourage or penalize such activities.
- **Ensuring accountability:** Regulations can clarify who is responsible when an AI system causes harm. This can ensure that victims have legal recourse, and organizations have incentives to build safe and reliable systems.
- **Promoting fairness:** Regulatory frameworks could require that AI systems are evaluated for bias and fairness, helping to ensure that these technologies are inclusive and fair.

Cons:

- **Stifling innovation:** Overly restrictive regulations could slow down technological development and innovation.
- **Global enforcement issues:** AI technology is global, but regulations are enacted at a national level. This can lead to enforcement challenges and may allow malicious actors to operate from jurisdictions with lax regulations.
- **Risk of overregulation or misregulation:** Policymakers might not fully understand the technology, leading to regulations that are overly restrictive, not restrictive enough, or misdirected.
- **Potential for bias:** Regulations are created by humans, who have their own biases. This could lead to regulations that reflect and reinforce existing societal biases.