



SEGUROS
MONTERREY

THE FUTURE OF SMNYL IS TODAY

INNOVATION DAY



SEGUROS
MONTERREY

GENERATIVE AI FOR CLAIMS & FINANCIAL SERVICES

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Demi van Koppen

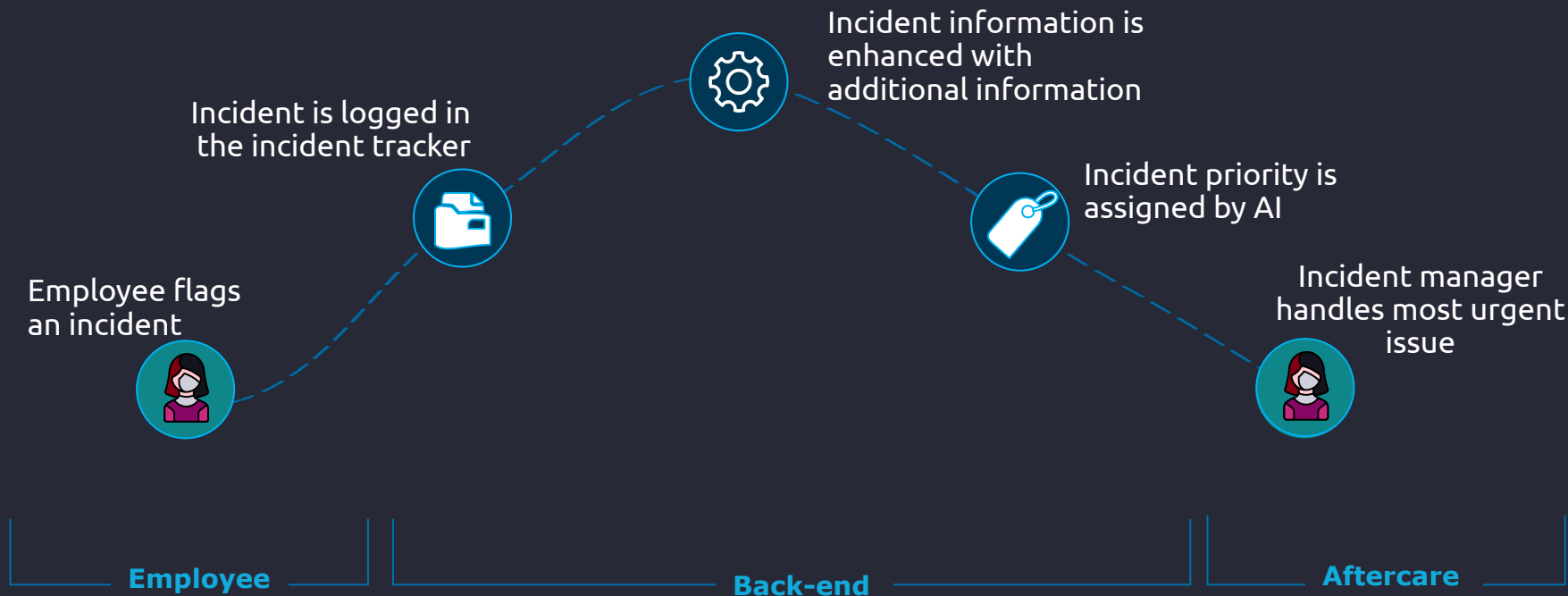
INNOVATION DAY



CHATGPT'S POTENTIAL IS SHOCKING: A CLIENT'S EXPERIENCE

This large corporate client has a mature incident management department, responsible for managing incidents for a global operation. To manage the inflow of new incidents the client uses artificial intelligence models to assess the priority. Over the course of **two years**, they have developed an AI that assigns priorities to incidents.

As an experiment they asked ChatGPT to assess the priorities of incidents. ChatGPT seemed to be **equally accurate**.



As is

Their Artificial Intelligence department build a series of AI models to label incidents. Based on these labels, the priority of these incidents is determined.

With ChatGPT

The client asked ChatGPT to assign labels to incidents based on anonymized data. Chat GPT seemed to be as accurate as their proprietary models. ChatGPT also explained why the labels were assigned.

THE LAUNCH OF CHATGPT IS A
WATERSHED MOMENT
FROM NARROW DOMAIN AI TO
GENERALLY APPLICABLE AI.

A	Breakthrough example
B	Introducing ChatGPT
C	Generative AI architecture & 5 principles
D	Capabilities & use cases
E	Our approach



ChatGPT EXAMPLE

Prompt:

GM

I am looking for some chatGPT prompts to demo your power in insurance claim handling



Response:



Certainly! Here are some chatbot prompts that you can use to demo my capabilities in insurance claim handling:



1. Customer: Hi, I need to file an insurance claim. Can you help me?
ChatGPT: Of course! I'd be happy to assist you with your claim. Can you please provide me with your policy number and a brief description of the incident?
2. Customer: My car was damaged in an accident. How do I file a claim?
ChatGPT: I'm sorry to hear that. Let's get started on your claim. Can you please provide me with your policy number and the date and location of the accident? Also, do you have any photos of the damage?
3. Customer: I need to know the status of my insurance claim. Can you help me?
ChatGPT: Sure thing! To help me locate your claim, please provide me with your policy number and the date you filed the claim. I can then check the status and provide you with an update.



Not only does ChatGPT give a great answer, but it also mimics conversations.

ChatGPT EXAMPLE

Prompt:



It was my favorite car.. My father gave it to me

Response:



I understand that your car was not just a means of transportation, but also held sentimental value to you since it was a gift from your father. Losing it in a fire can be distressing, and we will do our best to support you throughout the claims process.



When you make a claim, we will assess the damages to your car and determine the amount of compensation you are eligible to receive under the terms of your policy. We will also take into consideration the sentimental value of the car to you.

Please know that we are here to help and will do everything we can to make the claims process as smooth as possible for you. If you have any questions or concerns, please don't hesitate to reach out to me or your assigned adjuster.



ChatGPT can provide empathic responses, as well as on-topic conversation.

ChatGPT EXAMPLE

Prompt:



As a fraud investigator, what do you think of the following story?



So yesterday I was driving the car in the afternoon. I just returned from the car mechanics who says the car needs 15.000 in repairs next week or it won't pass the vehicle testing regulations. But I don't have the money, so I was on my way to jack. He owns a nice little farm in the country side. All small little dirt roads. And I didn't see this truck coming from the right and before I knew it.. I hit the truck full on. Hopefully I am legible for the full insurance amount as I really loved the car.

Response:



As a fraud investigator, there are several red flags in this story that could indicate fraud:



1. The timing of the alleged repairs: The fact that the insured claims to have just returned from the car mechanics and was told that the car needs repairs totaling 15,000 immediately raises suspicions. This may suggest that the insured is trying to justify the damages and inflate the claim.
2. The lack of funds: The insured mentions not having the money to pay for the repairs. This could be an attempt to explain why they didn't fix the car and why they are filing a claim instead.



ChatGPT can detect suspicious stories and explain why and how these might be relevant.

It can even propose next steps

CHATGPT IS A LARGE LANGUAGE MODEL

Large Language Models (LLM)

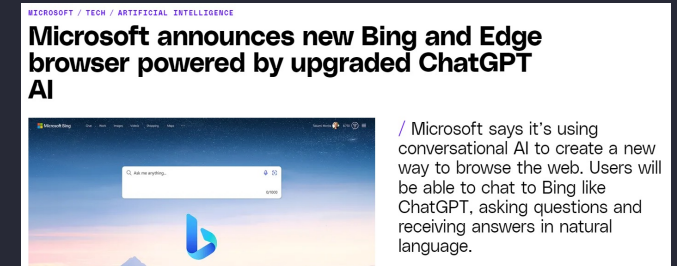


Open AI
ChatGPT

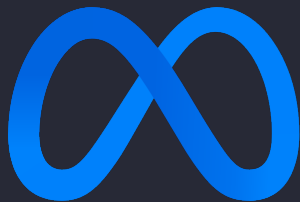


Google invests \$500mn in artificial intelligence start-up Anthropic

Cash-for-computing deal shows how large tech groups are investing in companies at the vanguard of generative AI



Microsoft
Bing



Meta
LLaMA

Microsoft Invests \$10 Billion in ChatGPT Maker OpenAI

Amazon tells employees it isn't falling behind on AI

Though it hasn't launched a chatbot of its own, the company says its customers plan to use generative AI in lots of new ways, like automating call centers

ACTION IS NEEDED TO ENSURE YOUR COMPANY IS COMPLIANT WITH PRIVACY & IP REGULATIONS

Limit the use of public Generative AI

Publicly hosted generative AI such as ChatGPT should not be used when working with sensitive data, including company secrets & personal data.

A companywide policy should be in place to prevent data leaks.



Output of AI could infringe on IP

Data used to train an AI model is often subject to IP protection.

Use of copyrighted works to train AI raises questions of infringement.

Your company is liable for the output of ChatGPT.

Example: [Getty Images sues AI art generator Stable Diffusion for copyright infringement](#)



Output is not protected by copyright

Most copyright laws worldwide provide protection only to human creation: An AI generative application cannot own a copyright.

In general, nowadays, no work created exclusively or mainly by an AI can be protected.

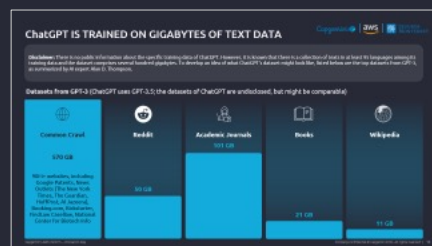
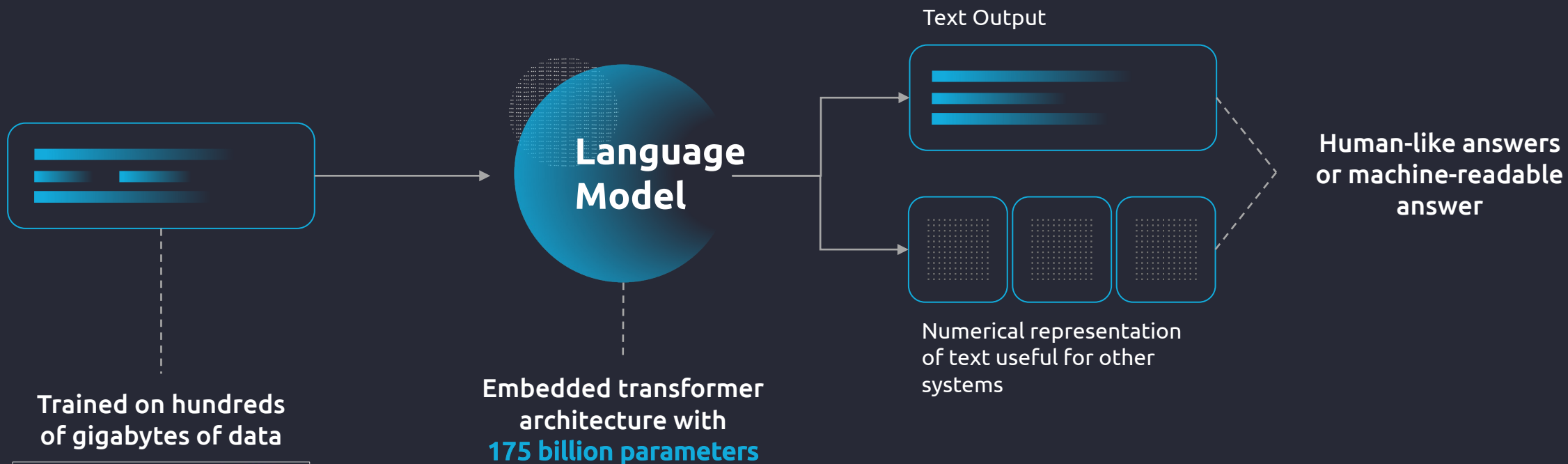
Example: Inventions created by [DABUS](#) (AI) rejected patent protection in several jurisdictions. [MidJourney](#)



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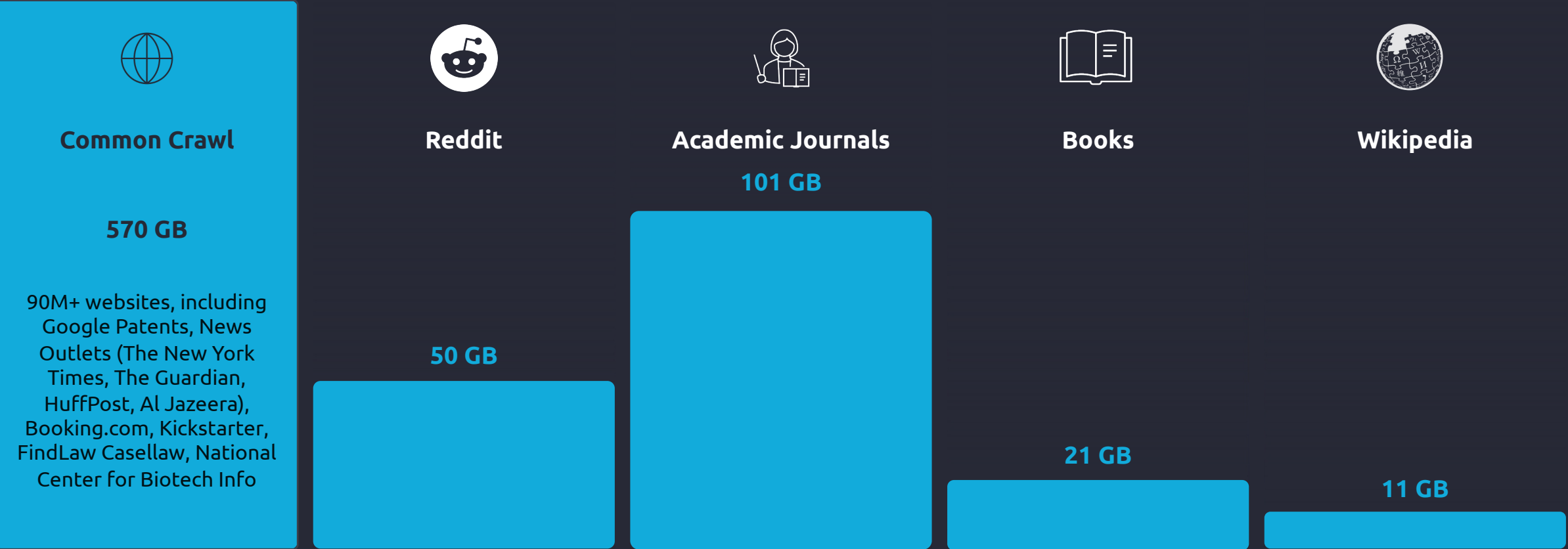
INTRODUCING LLM ARCHITECTURE



ChatGPT IS TRAINED ON GIGABYTES OF TEXT DATA

Disclaimer: There is no public information about the specific training data of ChatGPT. However, it is known that there is a collection of texts in at least 95 languages among its training data and the dataset comprises several hundred gigabytes. To develop an idea of what ChatGPT's dataset might look like, listed below are the top datasets from GPT-3, as summarized by AI expert Alan D. Thompson.

Datasets from GPT-3 (ChatGPT uses GPT-3.5; the datasets of ChatGPT are undisclosed, but might be comparable)



5 PRINCIPLES OF LARGE LANGUAGE MODELS



LLM'S ARE NEXT WORD PREDICTORS

LLM's are trained to predict the next word in a text. The answers it creates are emulations of the training data.



LLM'S HAVE CONTEXT AWARENESS

LLM's **understands cultural context and user intents**, allowing it to generate more coherent and relevant responses.



LLM'S ARE A BRILLIANT CHARLATAN

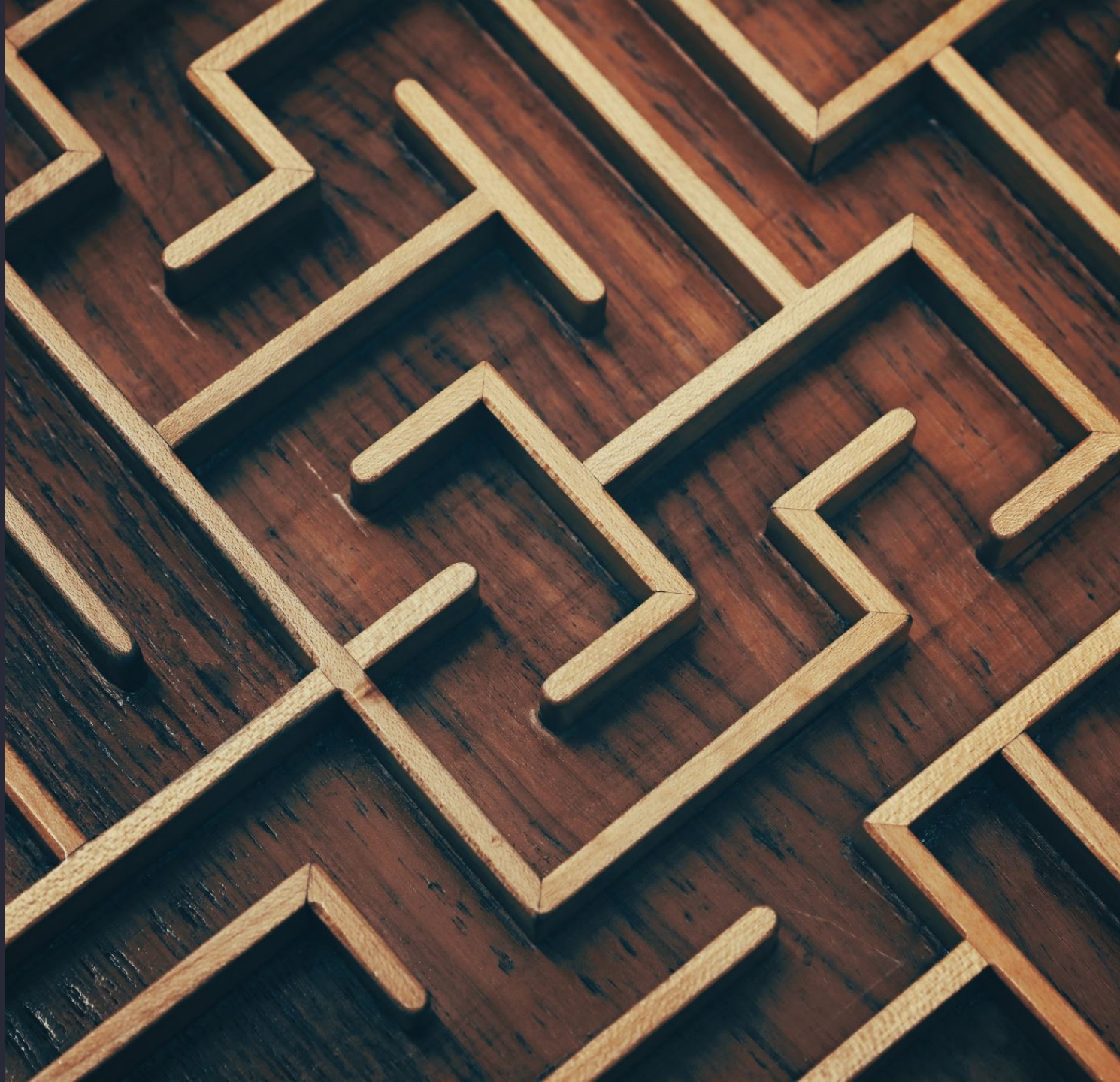
LLM's are likely to say things which are true, because these words or sentences are correlated in the training data.

However, LLM's might make things up.



LLM'S MIMIC LOGICAL REASONING

ChatGPT been trained to write code. Therefore, it is claimed that ChatGPT has a **limited capability to mimic logical reasoning.**



LLM'S HAVE TRANSFER LEARNING CAPABILITIES

LLM's **understanding of intents and contexts can be repurposed** and fine-tuned for specific tasks and domains, making LLM's highly versatile and adaptable.



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CAPGEMINI HAS IDENTIFIED 24 CAPABILITIES OF GENERATIVE AI OVER FOUR DOMAINS



GENERATIVE AI IN KNOWLEDGE MANAGEMENT

- 1. Search & answer:** Gen AI can be used to receive a response to your question based on your (internal) knowledge base for more efficient data retrieval.
- 2. Summarization:** Gen AI can be used to summarize long documents or articles, making it easier to consume large amounts of information.
- 3. Classification:** Gen AI can be used to classify and categorize images or text into (predefined) categories, making it easier for organizations to find and retrieve relevant information.
- 4. Predictive analytics:** Gen AI can be used to analyze historical data to generate predictions, enabling proactive decision-making.
- 5. Anomaly detection:** Gen AI can be used to identify unusual patterns in your data, automatically raise alerts, and indicate potential issues.



GENERATIVE AI AS CREATIVE ASSISTANT

- 1. Text Generation:** Gen AI can be used to generate new text based on the input it is given. This can be used for tasks like story generation, creative writing, content creation, etc.
- 2. Simulation:** Gen AI can generate virtual models or environments for simulations or training environments to enable risk-free testing of real-world scenarios.
- 3. Suggestions:** Gen AI can be used to provide suggestions to text, such as fixing grammatical errors and rephrasing sentences, or provide next-best action advice.
- 4. Synthetic Data Generation:** Gen AI can be used to generate data that looks like real data, which can be useful for model testing and training, while minimizing potential user privacy issues.
- 5. Personalized Content Generation:** Gen AI can be used to analyze user behavior or preferences to provide content tailored to an individual's need and enhance user engagement.



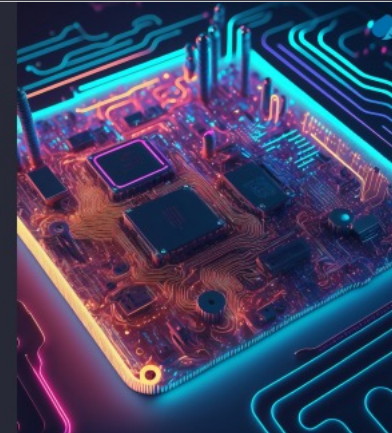
GENERATIVE AI IN CONVERSATIONAL AI & NLP

- 1. Multilingual Capabilities:** Gen AI is able to understand & generate text in multiple languages and translate text accurately, facilitating communication across the world.
- 2. Voice-To-Text:** Gen AI can translate spoken language into written text, reducing resources needed for manual transcription and enabling accurate voice analyses.
- 3. Text-To-Voice:** Gen AI can transform written text into spoken language by generating synthesized speech that mirrors human voice, leading to improved interaction.
- 4. Sentiment Analysis:** Gen AI can be trained to identify the sentiment expressed in a piece of information, which can be used for various applications like brand monitoring, product reviews, and social media analysis.
- 5. Contextual Understanding:** Gen AI has the powerful capability of contextual understanding in conversation which leads to better machine-human interaction by reducing misunderstanding.



GENERATIVE AI IN DEVELOPMENT ACCELERATION

- 1. Code Evaluation:** Gen AI can be used to evaluate the quality and efficiency of your software code, which can be used for code review and to provide recommendations for improvement.
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Gen AI as a Q&A service



Employee

"I have a type of insurance claim that I have not seen before. Can you provide me with similar cases we have seen over the years and their outcome?"



Model

"In 2019, Lisa, a satellite operator, made a claim (claim number NF305A) for space debris damage on one of her satellites. Max, who worked for the company from June 2017 to May 2020, and is specialized in space debris damage to satellites, investigated the claim and approved it under Lisa's insurance policy. The insurance company paid \$1.5 million for the cost of repairing the damaged satellite.

Space debris damage claims are relatively rare, but we have seen a handful of cases that are covered by specialized insurance policies due to the high risk of space debris damage to satellites in orbit."

All company information will be one question away.

SEARCH AND ANSWER APPLIED FOR A MAJOR PLAYER IN THE FINANCIAL SECTOR

Use case

- ✓ Company internal Chatgpt-like Chatbot
- ✓ Answers from internal document database content
- ✓ Retrieve most relevant documents sources and highlight the citation paragraph

Solution

- State-of-the art **NLP**
- **Generative AI** algorithms
- **Client local environment** integration

Main features for Information Retrieval task (IR):

1. Select pertinent content documents in document database
2. Write back the right answer in a human-like style
3. Retrieve the top n documents on which the AI has based the answer



Results

~20k

Users targeted

8

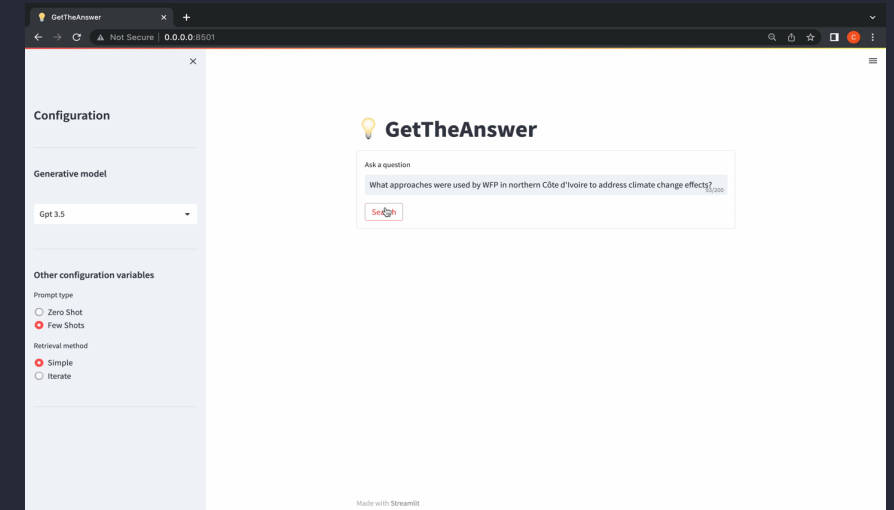
Weeks of development to deliver a proof-of-value

11K+

Documents targeted from knowledge hub



DEMO



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- 5. Personalized Content Generation:** Gen AI can be used to analyze user behavior or preferences to provide content tailored to an individual's need and enhance user engagement.

All content provided should be customized based on your data.

Personal optimized landing page



Customize text below for

- Stan (55 years old)
- On his honeymoon travelling through Italy
- Works as an archaeologist

Text: <...>



Customize the same text for

- Laura (23 years old)
- Planning a city trip with friends during summer
- Not a big interest in history

Website

"The Roman Forum was ancient Rome's showpiece center, a grandiose district of temples, basilicas and vibrant public spaces. The site, originally a marshy burial ground, was first developed in the 7th century BCE, growing over time to become the social, political and commercial hub of the Roman empire."



Website

"Rome is not only famous for its ancient city and beautiful architecture, but also for its vibrant nightlife scene. Younger tourists who love to party will find plenty of options in Rome, from trendy bars and rooftop clubs, to underground music venues and outdoor parties."



GPT-3 Integration for ecommerce platform



Current situation

Multi-national consumer goods retailer with thousands of brands across the globe has an incredible need for **content optimization**.



Solution

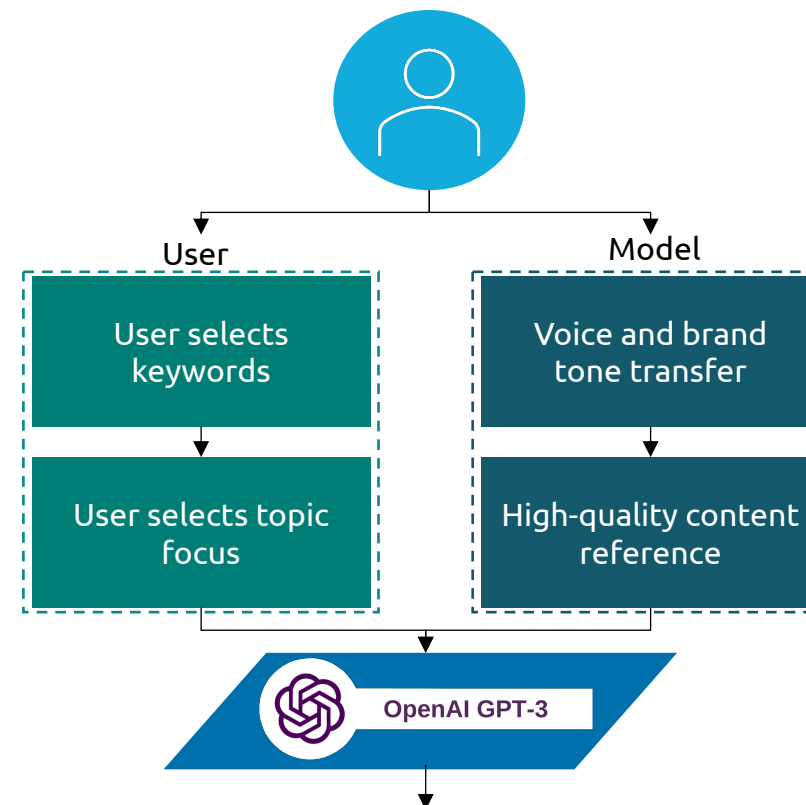
Capgemini built an **automated content generation model with GPT** integrated with automated prioritized keyword selection to quickly **create and publish new content** that also **improves search performance**



Benefits

- Automated content generation across countries
- Increased product search rank results
- Reduced content creators' time
- Ensure adherence to client's quality product metrics
- Seed keyword insertion enables SEO for global product suite

Solution Framework



"[Brand Name] Antiperspirant Deodorant Dry Spray for Women provides 72-hour sweat and odor protection with [proprietary] technology. This anti-sweat deodorant releases a burst of fragrance every time you move, keeping you feeling fresher, drier, and more confident."

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- 5. Contextual Understanding:** Gen AI has the powerful capability of contextual understanding in conversation which leads to better machine-human interaction by reducing misunderstanding.

Empathic & Intelligent voice- & chatbots



"Hi, I'd like to cancel my flight"



"I'm sorry to hear that. May I know the reason for cancelling your flight?"



"My son has been quite sick lately, so unfortunately we cannot travel to our destination."

"**I'm sorry to hear** your son is unwell. On behalf of all of us, **we wish him a speedy recovery.** If you could provide me with your reservation number and name of the passengers, I can assist you in the cancellation."

Generative AI will add an empathic and personal touch to chat & voice bots.

GENERATIVE AI FOR IPA & BUSINESS OPERATIONS

NEXT GENERATION SELF-SERVICE –powered by Generative AI

Digital Human is an innovative solution for human like interactions between users and machines. Digital Human Avatar technology employs cutting-edge technologies combined in a single interactive solution for the ultimate Customer experience.

Natural language understanding

Natural language generation

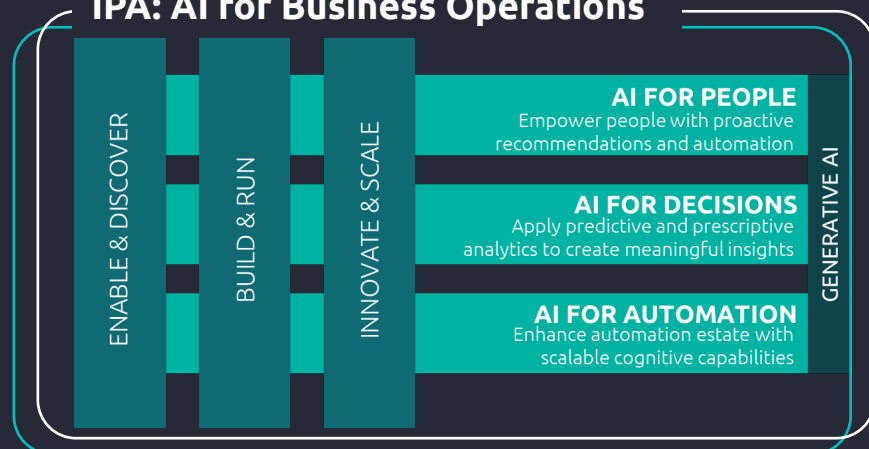
Multiple languages and accents

Multiple channels

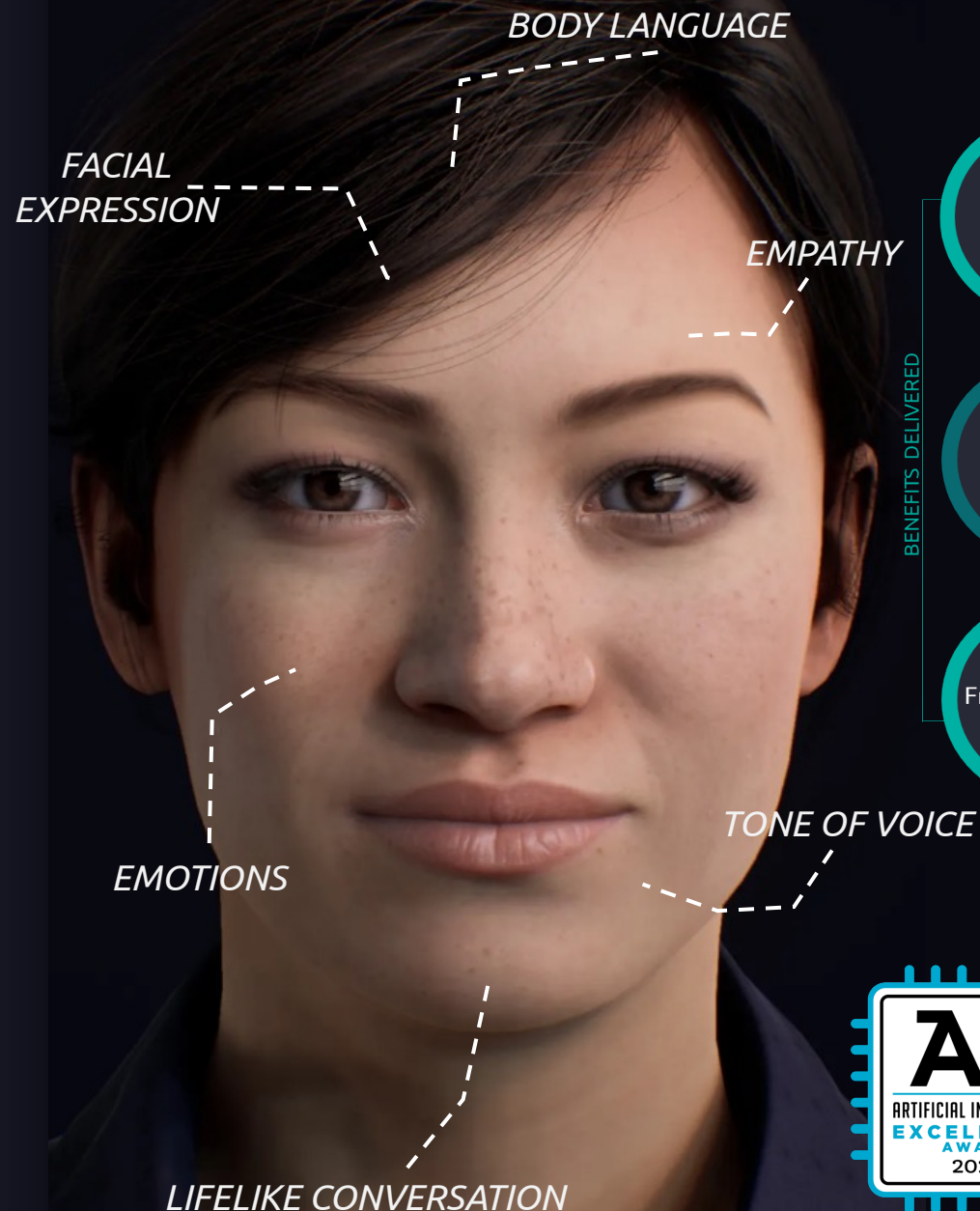
Knowledge mining

Perform tasks based on conversation

Part of IPA: AI for Business Operations



Capgemini | AWS | SMNYL – Innovation Day



24x7

Personalized Self-Service

>130

Languages Supported

3 months

From concept to ready-to-use product

AI
ARTIFICIAL INTELLIGENCE
EXCELLENCE
AWARD
2023

GENERATIVE AI IN DEVELOPMENT ACCELERATION

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- 5. Text-To-Code:** Gen AI can be used to translate text into computer readable software, useful for rapid prototyping, software development, or learning code.

Coding can be sped up to 30% through the use of generative AI.

Gen AI as co-programmer



"What is the code for fetching the stock price in JS?"



"In this code snippet, we are using the fetch method to make an HTTP request to the Alpha Vantage API with the function=GLOBAL_QUOTE parameter, which returns the latest global quote for the specified stock symbol. The API key and stock symbol are specified in the apiKey and symbol variables, respectively."

```
javascript Copy code  
  
const apiKey = 'YOUR_API_KEY'; // Replace with your Alpha Vantage API key  
const symbol = 'AAPL'; // Replace with the stock symbol you want to fetch  
const apiUrl = 'https://www.alphavantage.co/query?function=GLOBAL_QUOTE&symbol=' + symbol + '&apikey=' + apiKey;  
  
fetch(apiUrl)  
  .then(response => response.json())  
  .then(data => {  
    const price = data['Global Quote']['05. price'];  
    console.log('The current price of ' + symbol + ' is ' + price);  
  })  
  .catch(error => console.error(error));
```



WE HELPED MANY ORGANIZATIONS TO KICKSTART THEIR BUSINESS DNA TRANSFORMATION



Multinational Consumer Goods

Large language model
for **Marketing**

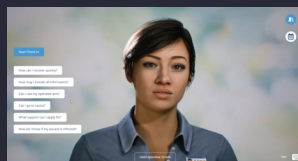
Keyword	Relevance	Content Count	Google	Amazon
toffee ice cream	100%	0	437	0.00
health ice cream	98%	0	345	0.00
health ice cream bar	98%	0	512	0.00
coffee ice cream	92%	2	10,033	88.58
peppermint ice cream	84%	0	10,817	47.23
cinnamon ice cream	78%	0	5,217	0.00

AI-enabled
Content Generation
for ecommerce

Automated content generation with GPT-3
and web marketing keyword optimization.

Multinational Healthcare

Personal Assistants
for **Self-Service**



Multi-lingual
Digital Human for
Cancer Patient Care

Next-generation Conversational AI capabilities
with realistic human-like interactions.



Government Insurance Agency

Synthetic medical data
for **Research**



Created synthetic data that was

**safe, usable
and shareable**

Multinational Pharmaceutical

Large language models
for **Knowledge**

Large language model for medical public
data, search and automated insight for
employees.

Multiple Organizations

A2B Automation
for **Code Conversion**

AI-driven legacy codebase
migration with built-in quality
assurance

- Code Converter
- ETL Migration
- Report Converter
- Test Automation

...are you ready for yours?

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**A GREAT WAY TO START,
ARE OUR WORKSHOPS**

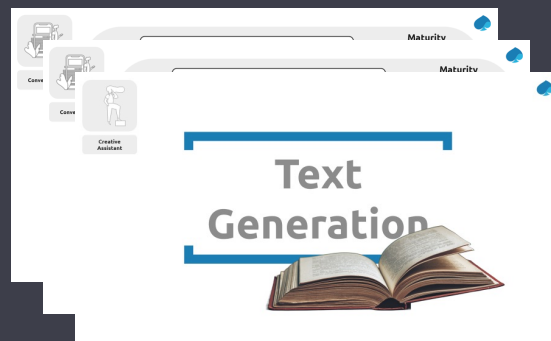
OUR CAPGEMINI GENERATIVE AI TOOLBOX PROVIDES YOU WITH INSIGHT WHAT GENERATIVE AI MEANS FOR YOUR BUSINESS



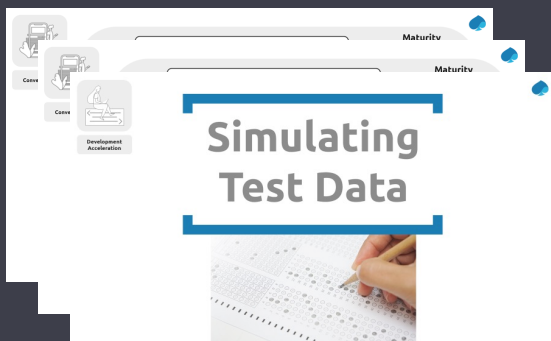
Conversational



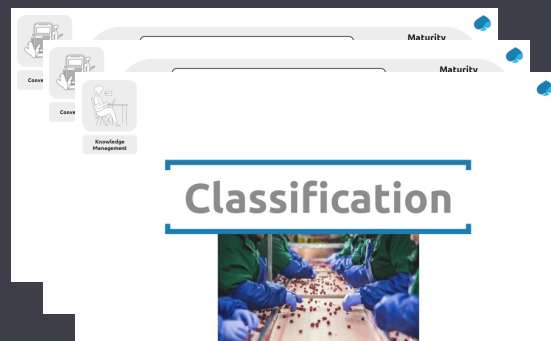
Creative



Development Acceleration



Knowledge



Contextual Understanding

Maturity

- ☐ Mature
- ☒ Maturing
- ☐ Emerging

Description

Understand context in text or speech

- Understands the context in conversation, improving accuracy of responses.
- Essential for chatbots, virtual assistants, customer service automation.
- Enhances machine-human interaction by reducing misunderstanding.
- Adapts responses according to the ongoing context of a conversation.

Examples

- **AI Customer Service Assistant**
- **AI Online Chatbot**

What we offer:

Brainstorming with a diverse set of experts & internal stakeholders.

Insight into your major business challenges

How to **apply our 24 capabilities to your business**

Requirements for a **POC with proven business value**



OUR APPROACH TO CREATE VALUABLE BUSINESS CASES UTILISING THE POWER OF GENERATIVE AI

Explore and prepare

- On the basis of conversations and documentation: where are the opportunities and risks?
- Conversation about the role of candidates for the working session and create inspiring communication to participants

Workshop 1

- Introduction of generative AI. Including: principles, history and privacy/ethics.
- Proven usecases and a frameworking to think about off the shelf vs custom solutions.
- Brainstorming of business-case workshops and exploration of possibilities.

Workshop 2

- Business case evaluation on the bases of viability and impact (Capgemini Invent)
- Shortlisting business-cases
- Designing the requirements for the proof of concept / technology of value eruit? (Capgemini Invent)

Result:

- Planned workshop with relevant stakeholders and inspiring communication

Result:

- All participant have the same knowledge of generative AI
- Insight into possiblities and impossibilities of generative AI in the next three years
- Long list of generative AI - business cases

Result:

- Short list of viable and impactful generative AI business cases
- High level approach for a few business cases with a Proof of Concept/Technologie of Value 'PoX with a fail fast philosophy'



Let's talk Generative AI & AI Collaboration



Guido Rademakers

Expert Conversational AI & ChatGPT

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A large, thin, light blue arc curves from the left side of the text, arching over the words "GET THE" and "FUTURE", and then curving back down to the left side of the word "YOU".

**GET THE
FUTURE
YOU WANT**



About Capgemini

Capgemini is a global leader in partnering with companies to transform and manage their business by harnessing the power of technology. The Group is guided everyday by its purpose of unleashing human energy through technology for an inclusive and sustainable future. It is a responsible and diverse organization of over 360,000 team members more than 50 countries. With its strong 55-year heritage and deep industry expertise, Capgemini is trusted by its clients to address the entire breadth of their business needs, from strategy and design to operations, fueled by the fast evolving and innovative world of cloud, data, AI, connectivity, software, digital engineering and platforms. The Group reported in 2022 global revenues of €22 billion.

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