

Generative Ai For You

The Supergeneralist's Playbook



SCRATCH
CONTENT

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What is AI?

Artificial intelligence (AI) uses computer systems to simulate human intelligence, so they can do things like understand language, analyze data, make recommendations, and more. It's like giving machines the ability to think and learn, just like humans do. AI is all about creating smart machines that can make decisions and take actions on their own, almost as if they were humans with thoughts and intentions.

What is AGI?

AI aims to simulate human-like intelligence for specific tasks. It's like training machines with loads of data so they can predict or make decisions based on patterns. It's incredibly useful for tasks like voice assistants or for recommending things online.

Now, Artificial General Intelligence (AGI) takes things to a whole new level. AGI represents a higher level of AI that possesses human-like cognitive abilities. Open AI CEO Sam Altman goes as far as to call AGI a 'median human' who you could hire as a co worker.

AGI is not limited to predefined tasks but has the capacity to learn, reason, plan, and adapt across a wide range of intellectual tasks, similar to human intelligence. So, while AI is more about specialized skills, AGI aims to create machines that can be as versatile and adaptable as humans. It's an exciting but challenging goal to achieve!

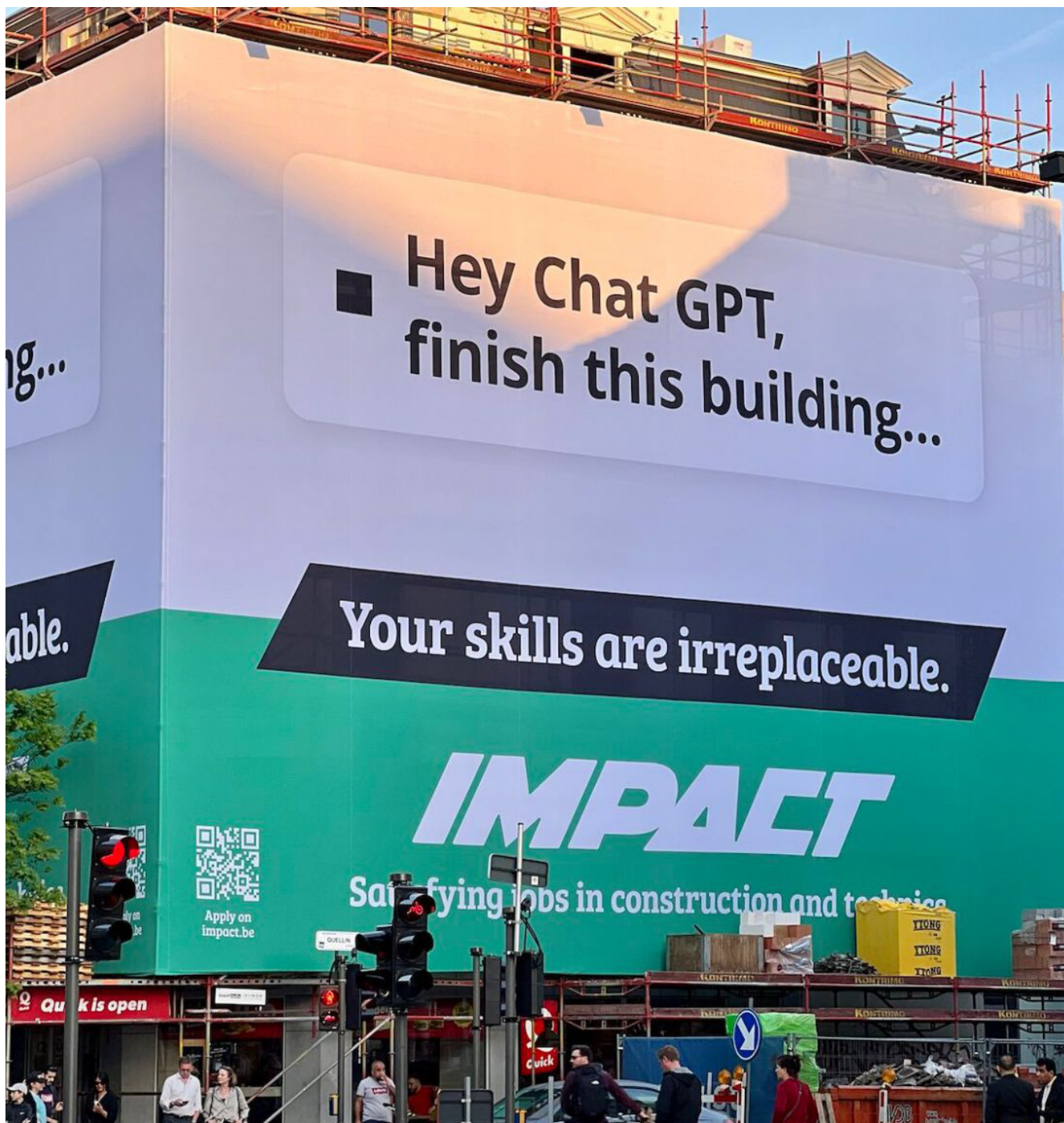
What is GenAI?

It's basically text-to-anything; so for instance, you use natural language to describe something, and poof...in a matter of seconds you can create a 3D image of it.

Generative AI (GenAI) is an advanced form of artificial intelligence, but as of today it's still AI, and not yet in the realm of AGI. GenAI uses algorithms to produce original content – across text, images, audio, and video. It's basically text-to-anything; so for instance, you use natural language to describe something, and poof...in a matter of seconds you can create a 3D image of it.

By learning patterns from existing data, GenAI generates highly realistic and detailed outputs, exhibiting human-like creativity. GenAI has been useful in solving complex problems, brainstorming ideas, creating art, and even aiding scientific research. These algorithms use deep learning models trained on large amounts of data, to identify underlying patterns, and generate new, lifelike content.





Belgian agency impact.be, that specializes in construction jobs, pulled off a marketing masterstroke with this image that went viral. We couldn't agree more, ChatGPT or GenAI can't do everything, certainly not actual construction. But what it can do is brainstorm 5 ways in which the construction can be planned better, generate images of how the finished product would look, and create virtual customer experiences to help market this same building.

Here's the crucial insight for businesses – *generative AI has more impact on knowledge work associated with occupations that have higher wages and educational requirements than other types of work.*¹

¹The economic potential of generative AI report by McKinsey & Company, June 2023

What can Generative AI, well generate?

GenAI's astronomical contribution to us is that we can now produce content in any format we please. Text, code, design, video, voice – whatever does justice to your idea, is yours to create. There are [AI presentation deck creators](#), tools that can convert [still images to videos](#), those that can write everything [from code to poetry](#), and even those that can ['uncrop' pictures](#).



Who owns all of this?

The short answer is, no one. While ChatGPT is the poster child of GenAI, it is by no means either the first or the best GenAI tool, though it is the most widely used and lauded. It's brilliant, but here's a bit of a backstory just so we all know that GenAI has a long and illustrious lineage.

- ✓ 1st LLM* was created ~20 years ago by AI 'Godfather' Yoshua Bengio
- ✓ Bengio's concept of attention inspired Google's Transformer in 2017
- ✓ Open AI used Google's Transformer architecture to develop GPT** in 2018
- ✓ A conversational version of GPT-3 was developed and launched as ChatGPT in 2022 that made GenAI mainstream

This is an over-simplified sequence and there are far more players and nuances between each step

** Large Language Model (LLM) **Generative Pre-trained Transformer (GPT)*

What is prompt engineering?

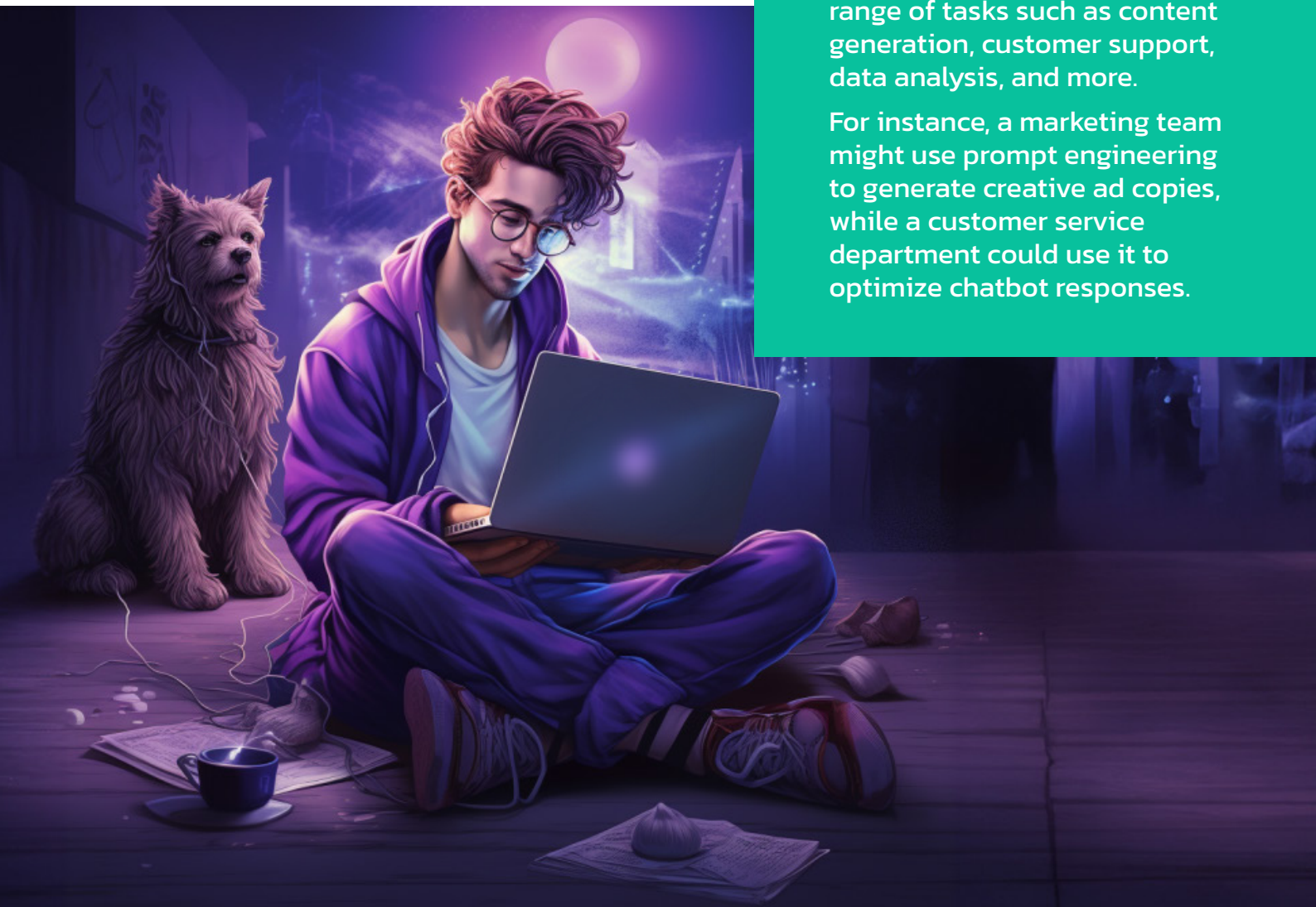
GenAI tools like ChatGPT and Google Bard can do a whole host of things that the large majority of us don't even know they are capable of. It helps to leverage the knowledge, experience and skill of a smart prompt engineer to unlock the full potential of all the GenAI tools that are flooding the market. Don't let the term 'prompt engineer' mislead you; you don't really need a technical background to be one.

At its core, prompt engineering involves crafting well-structured queries or instructions to AI systems in order to receive specific and high-quality outputs. Think of AI language models as highly sophisticated tools that have a vast amount of information and capabilities, but require the right commands to unlock their potential.

For businesses, prompt engineering can be leveraged to enhance a wide range of tasks such as content generation, customer support, data analysis, and more. For instance, a marketing team might use prompt engineering to generate creative ad copies, while a customer service department could use it to optimize chatbot responses.

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Typically, a prompt engineer's work involves:

1

Studying and comparing different AI models

Google Bard, the text-generation tool, has been built on the PaLM LLM, or the Pathways Language Model. ChatGPT, on the other hand, is built on GPT, or the transformer model. Each model has its own features and prompt engineers often step back and understand some of these architectures to be able to devise better ways to use the tools that are born of different LLMs.

2

Having adequate domain knowledge

Subject matter expertise on the topic that the GenAI tool is expected to help create content for, is a necessary ask from prompt engineers. This helps to craft the right prompts or instructions and get the best responses from the AI tool. This mimics the client-agency relationship where the client is the domain expert, and the agency team, the creative experts.

3

Fine tuning

A prompt engineer tests various parameters and settings, and fine-tunes instructions to optimize the AI's output for specific tasks. This is similar to calibrating a piece of machinery for optimal performance.

4

Developing and researching techniques that can be deployed as templates

Some techniques, once developed and tested, can then be adopted as strategies that can be deployed by anyone to get better outputs from GenAI tools. Tree-of-Thought / chain prompting, and looping are among a handful of models that have proved useful. The next section explores three strategies you can get started with.

3 prompt engineering strategies for ChatGPT

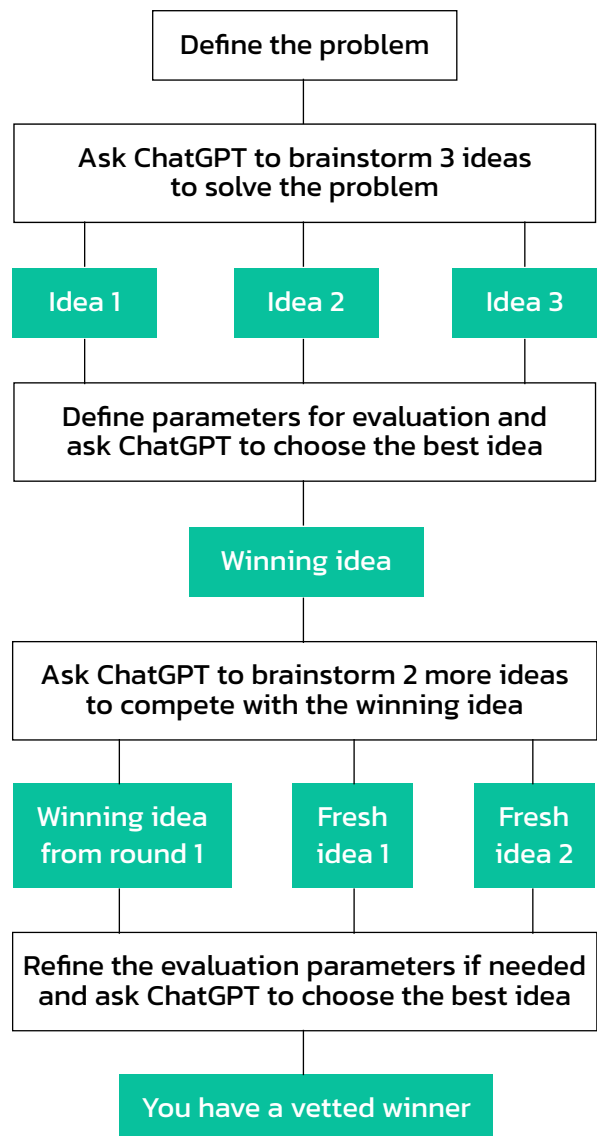


1

Tree-of-Thought or chain prompting

In its simplest form, tree-of-thought (ToT) prompting is a way to help AI tools like ChatGPT organize the thinking process, evaluate progress and explore different solutions. Imagine a tree. When using ToT, we start at the trunk of the tree, which is the main problem we want to solve. Then, we generate different thoughts or steps that could lead us closer to finding a solution. These thoughts are like smaller branches growing from the trunk.

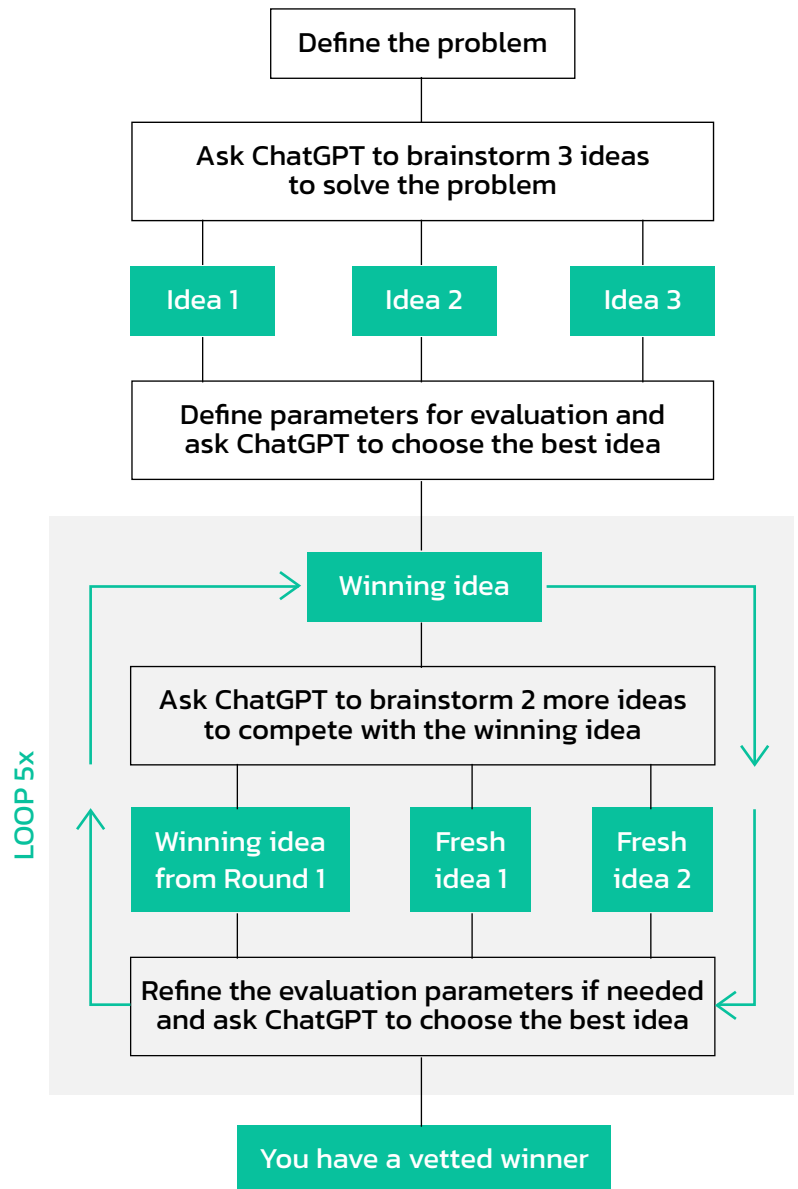
The AI model evaluates each thought and decides which ones are more promising or helpful in solving the problem. It does this by thinking through the consequences and reasoning out the different possibilities. The thoughts that are considered more useful become stronger branches, while others may become smaller branches or even disappear.



2

Looping

In the above example, suppose you were to extract the evaluation step and repeat it 5 times, you would then have a larger pool of ideas to choose from. This is a way of being absolutely thorough in your brainstorming process to ensure that you have explored all possible ideas to solve the main problem. It is also possible to use a simple Python code to save time and effort on the looping process.

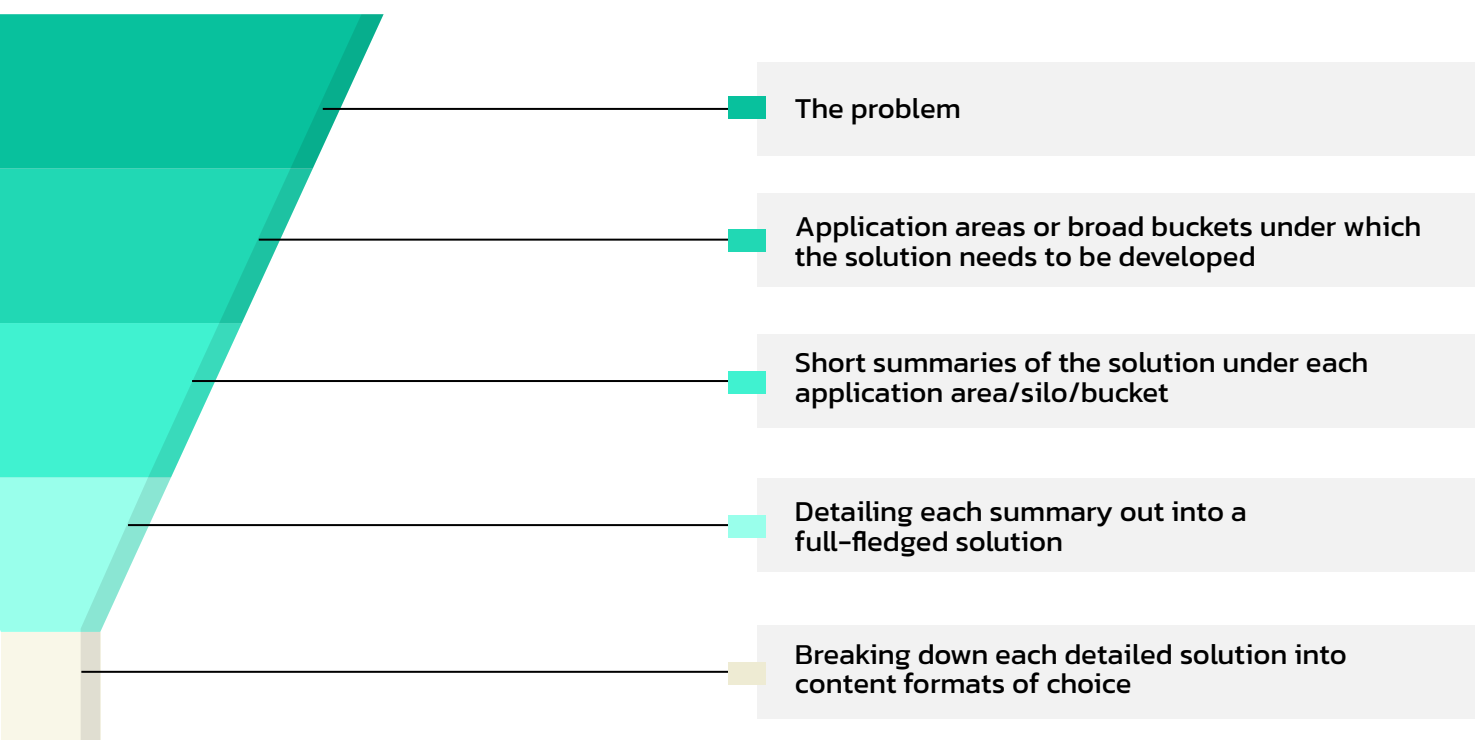


3

Funneling

Many practitioners find that decomposing tasks for AI tools go a long way in delivering better outputs. In this approach, a problem is solved or a task accomplished by breaking the solution down into multiple steps – starting with a broad structure and ending with populating the details. For instance, let's suppose you want to write an ebook on integrating sustainable practices in your business. The first step would be to ask ChatGPT to suggest the chapters that need to be included, without detailing out what goes in each chapter. This would form the broadest level of your funnel, right at the top. Once you have the suggested list of chapters, you might want to eliminate some and include some others instead.

After arriving at a satisfactory list of chapters, the second step would be to start work on each chapter one at a time. Even within each chapter, tasks will need to be broken down to ensure that you have a higher degree of control over the output. Say your first chapter is 'How to get started – evaluating current business processes'. One way of breaking down the tasks within this chapter is to ask chat GPT to create a 100-word summary on what the core points of the chapter should be. Once you know the crux, the next stage can be writing out the whole chapter. The final stage is when you read the chapter and then task ChatGPT with making portions of it into either a table format, a series of bullet points or something else among a variety of other options, to make the content more easily consumable.



How brands are using GenAI



ChatGPT real-world use cases

1

Duolingo

Language education specialist, Duolingo, leverages AI to deliver personalized learning experiences with their new subscription tier, Duolingo Max. It uses GPT-4 to power two features, Explain My Answer and Roleplay. The former allows learners to understand why their responses to a lesson were wrong and offers further clarification on the subject. In addition to resulting in more accuracy and thorough learning, the feature maximizes the potential of Duolingo to serve as a reliable language education tool.

Roleplay, on the other hand, gives learners the opportunity to practice real-time conversation skills with in-app world characters. The app guides them through various scenarios, offering a plethora of practical, day-to-day situations such as vacation planning, ordering coffee, and more. The AI then generates constructive feedback on accuracy and complexity while also suggesting tips for improvement. And there is monitoring too! Designers and curriculum experts at Duolingo evaluate the content for correctness and tonality, ensuring that quality is never compromised.

Read more about this case [here](#), and yet more [here](#).

2

Bain & Company

Management consultants Bain & Company have partnered with OpenAI to expand its applications, research, and operations. It leverages AI for content creation, personalized marketing, and streamlined customer service. Furthermore, their Advanced Analytics practice combines their expertise in business strategy and customer needs with AI's prowess to deliver valuable solutions.

The key areas in which the company has deployed AI are customer service, marketing, and financial services. For the first, they are building next-gen contact centers with automated and personalized scripts to support sales personnel. In marketing, they use ChatGPT and DALL-E to create targeted messaging, copy, and imagery. Lastly, AI enables the company to automate client dialogue and fiscal literature analysis, thus improving efficiency, responsiveness, and advisors' productivity.

Read more about this case [here](#).

MidJourney / DALL.E real-world use cases

1

HDR

Text-to-image generating AI has struck a chord with architects, with global firms like HDR leveraging it to visualize concepts, test approaches, and explore unusual designs. In one instance, a residence has been designed in the style of Maurice Sendak, the famed illustrator of children's books. Moreover, the firm has also used AI to generate design ideas for many of the firm's live projects, including a mix-use community center in Toronto, Canada.

Owing to the accessibility and diverse possibilities of GenAI tools, the results can sometimes be far-fetched. However, HDR's computational design lead, Howard Harrison, firmly believes that it is the architect's responsibility to use AI as a mechanical intern and transform such designs to a conceivable reality. Not only does this fortify the work of designers but also offers non-design clients to participate more actively in the process of conceptualisation.

Read more about this case [here](#).

2

Baskin Robbins

When ice cream brand Baskin Robbins elevated their menu to introduce new flavors, they also elevated their advertising strategy. They used AI-generated images to bring their new flavors alive in their BR x Tapan Aslot series. So wildly imaginative and attractive were their images, that they got a whole lot of admiration and attention.

Read more about this case [here](#).

3

Godrej Vending

Closer home, our own clients at Godrej Vending allowed our team at Oh So Digital to reimagine how drinking a Godrej beverage makes a person feel. From a surfer engulfed in a sea of *nimbu pani*, to a decadent coffee volcano – this social campaign brought flavours alive through AI art.

Read more on the social campaign [here](#).



What's next?

From where we stand today, AI is inherently useful. Iconic Tennis Grand Slam event, the Wimbledon, has already announced that they will integrate AI-powered commentary this year. Though, for now, it's only going to be in its online highlights videos.

In an instance that goes beyond using GenAI for communication and marketing activities, BCG's Chris Meier has explained how pharma companies have started working with AI experts to aid drug discovery and clinical trials. Discovery involves finding a new chemical structure. Now, large amounts of relevant data can be used to 'teach' chemistry to language models, helping discover new drug molecules more quickly. Similarly, Meier explains that for clinical trials, historical records of thousands previous trials can be leveraged to devise the best design for new trials.

Today, India already has over 60 GenAI startups – a barometer for the fact that there is a market out there across both end consumers and business houses. But is speed coming at the cost of caution? Perhaps yes, as pointed out by Elon Musk and several other industry leaders, who created a petition calling for a slowdown/halt in GenAI activity till risks are mitigated. Like all truly transformative forces, GenAI can be used with malicious intentions and even the makers are aware of the risks. Meta's Voicebox generative model allows text-to-speech generation in anyone's voice, as long as you can feed the system just 2 seconds of voice recording. Think of all the WhatsApp voice notes that you have sent people, and you will know how easy it would be for anyone to access your voice sample. Acutely aware of the potential for misuse, Meta will only open the tool to the public once it finds a way to embed an 'AI-generated' alert notification in any content the tool is used to create. Google too announced in their I/O conference that their soon-to-be-launched multimodal language model Gemini, will have a watermark embedded in every piece of content it creates to identify it as AI-generated.

Risk mitigation, ethical considerations and governance are crucial to making GenAI a force for good. Without much oversight or a clear set of laws, what businesses can do for now is build capability in GenAI and deploy the content responsibly.

GenAI FAQs, simply-put

Are ChatGPT, MidJourney, Google Bard etc. applications/models/programs/services; what is the best way to address them in a conversation?

A good, blanket term to use for all of the above is 'generative AI tools'.

With so much talk about GenAI, what are some examples of AI that are not generative?

GenAI refers to the creation or generation of new matter across text, images, video and much more. A non-generative form would be 'classification of data' including sentiment analysis (like you see when drafting an email that is AI-enabled). Again, 'reverse image search' on Google is not generative, though Google Lens has now introduced other capabilities that are generative. Typically, classification, computer vision, and forecasting are non-generative forms of AI.

What is the prevalent way to refer to all the different types of content like text, video, voice, etc. that AI can generate?

While many of us are used to referring to these types as 'formats' of content, the term prevalent in the industry is 'modality'. We can call numbers, text, image, voice, video etc., different modalities.

Generative AI is less than a year old, right?

Not quite. The concept of Generative AI arguably goes back to the 1960s, when we had ELIZA, the chatbot. However, generative AI only became a truly household term after OpenAI launched ChatGPT as a revolutionary conversational tool.

Is generative AI expensive to implement in a way that can bring in real business value?

Not really. It's true that several organizations have built customized versions of generative AI tools to protect their own data, as well as ensure accuracy and safety. However, it is possible to use the available web versions of GenAI tools responsibly, across several functions including marketing, customer service, training and much more - in a way that doesn't need intense capital investment.

To start a conversation with an actual person, please write to us at



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