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GenAl Demystified:

A 15-minute primer for forward-thinking professionals

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Introduction

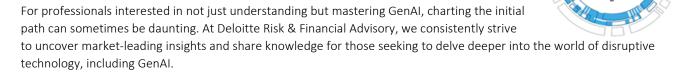
In the realm of technological advancements, Artificial Intelligence (AI) has consistently demonstrated its significance across multiple sectors, such as automation, data analysis, personalization, autonomous systems, predictive analytics, education,

getting computers

to do tasks that

require human

and entertainment, with more possibilities unfolding each day. A specific subset—Generative AI (GenAI)—stands out, offering a diverse array of applications that span numerous sectors. As organizations increasingly recognize the potential of automating tasks, streamlining decision—making, and generating novel content, the demand for a clear understanding and proficiency in this domain grows.



This whitepaper endeavors to lay a solid foundation, setting the stage for enhanced capability and eventual mastery of the topic. By offering insights into the practicalities, leading practices, and potential challenges, we aim to provide a balanced and informed perspective on its current and potential capabilities.

Beginning Your GenAl Journey: 0 – 25mph

GenAl Benefits and Use Cases

GenAl has rapidly become a focal point in the tech arena with its myriad applications rooted in its core competency of natural language processing (NLP).

NLP allows GenAl to effectively interpret written prompts, automate unique and tailored content creation, and boost productivity; thus, enabling better human resource allocation and improving operational efficiency.



Completed Draft of Deliverable Ready for Presentation

The draft for the deliverable is complete and is scheduled for a demonstration to the Medicaid Director within the coming weeks. We will obtain their feedback and further refine our work. This opportunity could potentially lead to additional assignments if the director approves of the deliverable.

GenAl's versatility shines in its ability to automate routine tasks. The following table lists just a few use cases of its application.

USE CASES	EXAMPLE TASK	
Document Summarization	Extract and condense vital points from lengthy documents (see example in Tutorial section below summarizing the Declaration of Independence).	
Writing Refinement	Generate a coherent writeup from unrefined notes or text, such as transforming stream-of-consciousness meeting notes into a coherent writeup.	
Email Formulation	Distill key information into concise business emails.	
Concept Simplification	Reduce definitions of technical or complex concepts into easily understandable terms.	
Advanced Search	Search for publicly available information in cases where search engines are ineffective.	
Agenda Creation	Craft formal meeting agendas from unordered topics and durations.	
Meeting Scheduling	Analyze participant availability to suggest optimal meeting slots.	

Leading Practices For Effective User Prompting/Prompt Engineering

Implementing effective user prompting and prompt engineering practices are crucial for optimizing GenAl performance. Gradually refining prompts, providing specific examples, and tailoring prompt length are key strategies to achieve accurate and tailored results:

1. GRADUALLY DEVELOP AND PERFECT PROMPTS

Begin with straightforward prompts to get a feel for the model's responses. Gradually refine and iterate your prompts with additional elements and context based on the generated output as you aim for your desired result. For example:

Simple prompt:	"Summarize the key points of the quarterly report."
Refined prompt:	"Provide a concise summary of the financial performance in the quarterly report, highlighting major trends and metrics."

2. BE SPECIFIC AND PROVIDE EXAMPLES

Clearly articulate what you're seeking from the model. Provide specific examples or scenarios to guide its response. For example:

Specific prompt:	"Generate a sample press release announcing our new product launch."
Accompanied by examples:	"Imagine we're unveiling a revolutionary health and wellness app. Draft a press release emphasizing its user-friendly interface, personalized fitness plans, and advanced tracking capabilities. Showcase how this app will empower individuals to take control of their well-being."

3. TAILOR PROMPT LENGTH AND SUITABILITY

Tailor the length of your prompt to match the complexity of the task. For intricate tasks, a more detailed prompt might be necessary; but too many details may be excessive, depending on the task. Ensuring the context is relevant helps the model understand the scope and deliver a more accurate response.

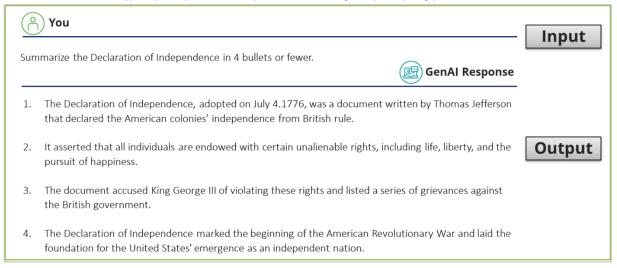
Tutorial: Getting Started With GenAl

GenAl language models are advanced Al systems developed to process and generate human-like text based on user inputs. They have gained popularity due to their ability to produce coherent and contextually relevant responses, making them valuable tools for a wide range of applications. In this tutorial, we'll explore how to get started with GenAl using a generic approach.

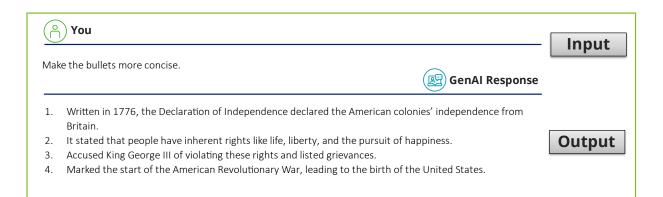
To begin using a GenAl language model, follow these steps:

- 1. **CREATE AN ACCOUNT**: Visit the platform where your desired GenAl language model is hosted and look for the "Sign up" option. Follow the prompts to create your account to get started.
- 2. **INITIATE A SESSION**: Once you've logged into the platform, you'll typically encounter a dialogue box or an input field. This is where you'll input your prompts or questions to interact with the GenAl model.

CRAFTING PROMPTS: Type a prompt into the input line, following the prompting practices listed above.



3. **REVIEW AND REFINE**: After you submit your prompt, the GenAI model will provide a response. If the answer isn't quite what you were hoping for, tweak your prompt's phrasing or provide additional context.



Some Current GenAl Risks And Limitations

The adoption of GenAl has transformed various sectors, but it comes with both benefits and risks.

- 1. "IS IT STILL MINE?" GenAl engines learn from user inputs and incorporate that knowledge into their database. Caution is needed when *sharing intellectual property*, as IP protection in this evolving field is uncertain.
- 2. **"WAIT A MINUTE | DID NOT SAY THAT!"** GenAl complexity can lead to *Al hallucinations* when trained on extensive personal data. Mitigating this risk requires data diversity, minimization, transparency, and continuous monitoring of GenAl.
- 3. "IS THIS AN ECHO CHAMBER?" The effectiveness of GenAl-powered tools depends on the quality of instructions and the inclusivity of training data. *Training data bias* can lead to misrepresentation or underrepresentation of certain aspects of content, impacting the generated output.
- 4. **"What about Me?"** GenAl tools, trained on skewed data, may produce responses aligned with dominant opinions, leading to *Group Think*-like outcomes, contrasting with the goal of unbiased, comprehensive content generation.

Embracing GenAl presents significant risks and potential benefits for many organizations in various industries.

Trustworthy Al™ Framework Bridging The Ethics Gap Surrounding Al

Deloitte is helping clients address challenges related to responsible usage of Al, including defining Al strategy and governance, by assisting with deployment and monitoring to enable trustworthy Al. Deloitte's Trustworthy Al framework can help clients reduce Al risks through control assessments and design/implementation of Al controls and assessing Al applications and models for potential adverse outcomes.

Furthering Your GenAl Immersion: 25 – 65mph

To deepen your immersion in GenAI, consider reaching out to discuss Deloitte's top-tier GenAI solutions tailored for businesses. Exploring additional use cases (see appendix for examples) can expand your understanding of the technology's potential while refining your skills in crafting effective user prompts can enhance your GenAI proficiency and comfort level. Additionally, addressing specific pain points or larger scale GenAI training of staff can unveil potential GenAI applications that may provide innovative solutions to problem areas within your organization.

More Complex Use Cases

- While web searches can point to individual sources, GenAl can consolidate information from multiple sources and extract the material that is most likely useful
- Generating project-specific analytics
- Parsing through and summarizing policy or regulatory documents (federal/state statutes and budgets, etc.)
- Assisting Medicaid beneficiaries (via chatbot) with the application process, eligibility criteria, healthcare provider matching, and appointment scheduling
- Forecasting future health needs and resource allocation for a federal/state agency's Medicaid spending
- Enhancing health provider networks by analyzing provider locations, specialties, and patient populations
- Analyzing patterns in claims data to detect potentially fraudulent activity

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Appendix: Additional Use Case Examples

USE CASE	EXAMPLE USER PROMPT	EXAMPLE GenAl OUTPUT
WORD-SMITHING TEXT	I need help with the following sentence: "The project was completed by the team last week and we are scheduling a meeting in a couple of weeks with the client to debrief."	Certainly! Here's an improved version of your sentence:
		"The team successfully wrapped up the project last week, and we're in the process of scheduling a debriefing meeting with the client in a couple of weeks."
		This version provides a more concise and polished expression of the same information. If you have any further questions or need additional help, feel free to ask!
GENERATE IMAGES FOR PRESENTATIONS, CORPORATE LOGOS, OR PROMOTIONAL MATERIALS	Simple, single color icon symbolizing stability.	
CREATE WORK SCHEDULES OR PLAN MEETINGS AROUND PARTICIPANTS' CALENDARS	I need help scheduling a meeting with three participants, Christos, Tyra, and Hillel. Could you assist me in finding a suitable time slot? Christos is available Monday from 3pm to 5pm and Tuesday from 10am to 12pm; Tyra is available Monday from 2pm to 4pm and Wednesday from 11am to 1pm; and Hillel is available on Monday from 1pm to 3pm and Tuesday from 2pm to 4pm.	I've reviewed their schedules, and it looks like Tuesday from 2:00 PM to 3:00 PM is a time slot that works for all three participants, Christos, Tyra, and Hillel. Would that time work for you as well?

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