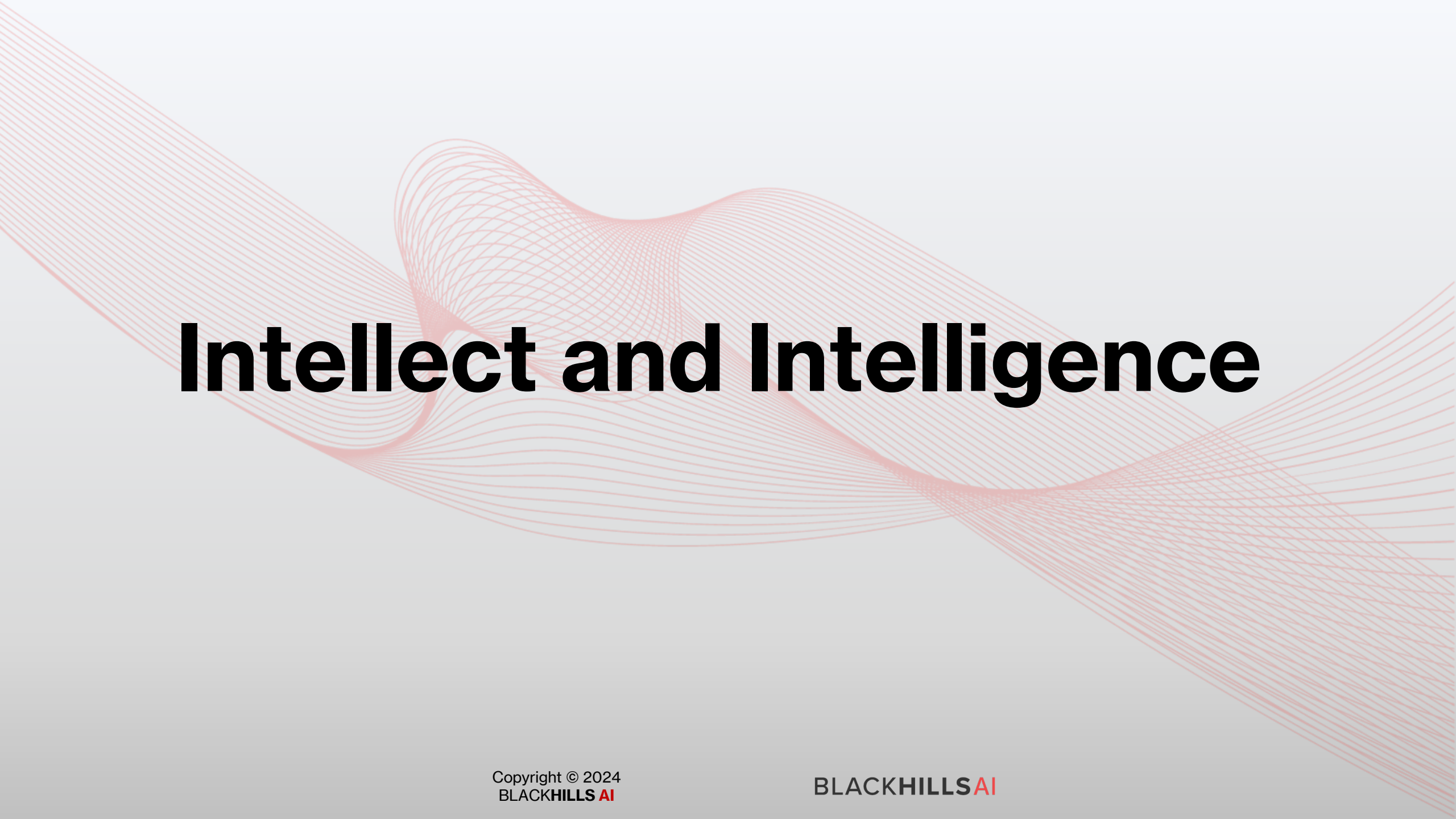
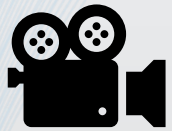


The background features a series of thin, red, wavy lines that flow across the frame, creating a sense of movement and depth. These lines are layered, with some appearing more prominent than others, and they generally trend from the upper left towards the lower right.

Intellect and Intelligence

Before We Get Started



Recording

A link to the recording and slides will be emailed to all registrants.



Recording

Type in the question box, and we will answer in real time or during the Q&A.



Social

Follow us on LinkedIn, Facebook, Youtube, and/or Instagram or visit blackhills.ai to see upcoming and on-demand webinars.

Panel



Jim Hallenbeck

*Chief Executive Officer and
President, Black Hills AI*



Thomas Marlow

*President, Black Hills Renewals
Chief Technology Officer, Black
Hills AI*



Manjeet Rege

*Director of Center of Applied
Artificial Intelligence and Professor,
University of St. Thomas
Advisor to Black Hills AI*

Large Language Models (LLMs)

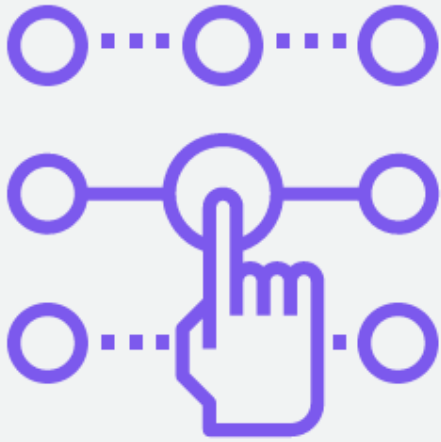
LLM = Lots of Data

- + Transformer Architecture
- + Pre-Training
- + RLHF
- + Fine-Tuning on Domain Specific Data

Prompt Engineering



Prompt
engineering



Design and
refine prompts

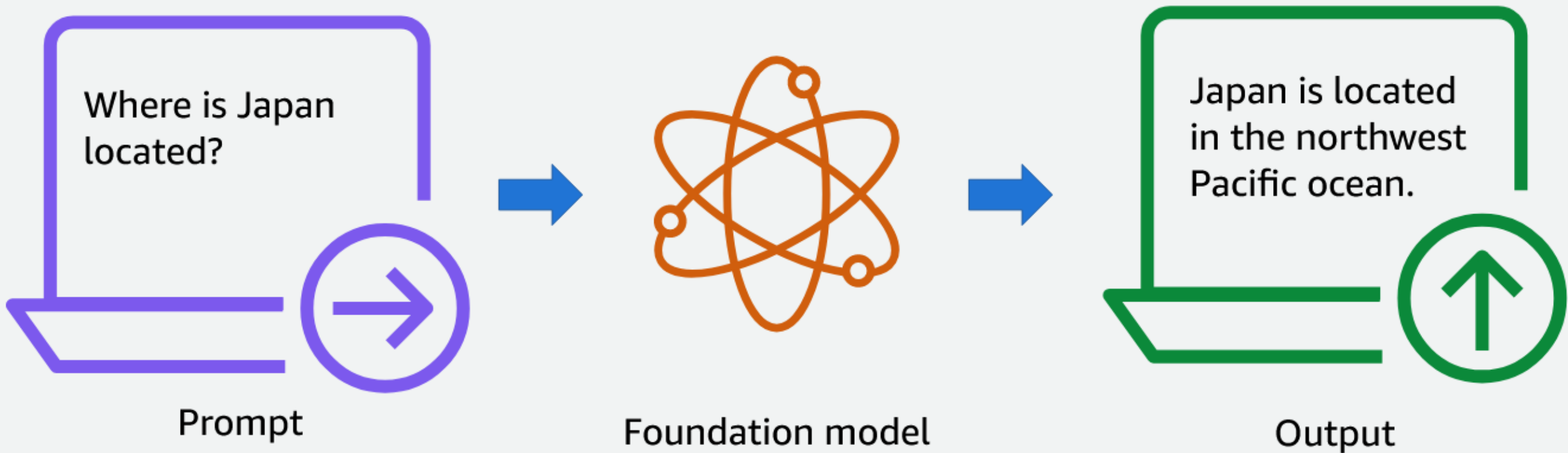


Large language
model (LLM)



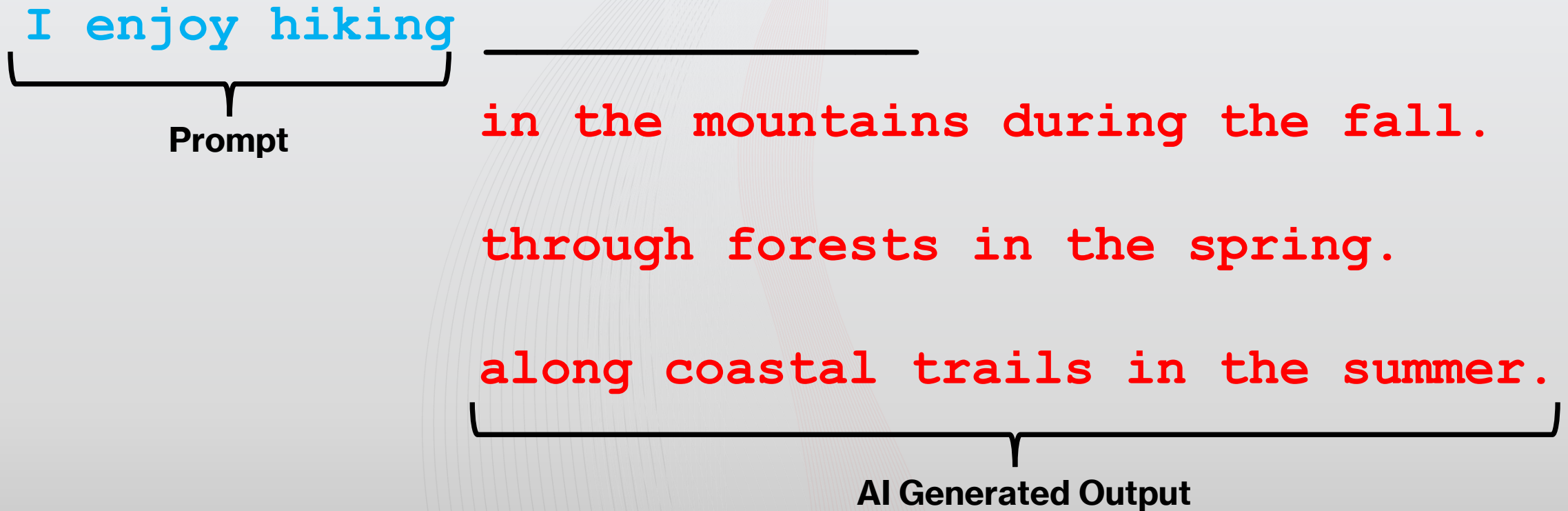
Generate specific
types of output

How Prompt Engineering Works



Generating Text with LLMs

- Text generation process



How LLMs Work

- LLMs are built using supervised learning to repeatedly predict the next word.

Input	Output
I enjoy hiking	in
I enjoy hiking in	the
I enjoy hiking in the	mountains
I enjoy hiking in the mountains	during
I enjoy hiking in the mountains during	the
I enjoy hiking in the mountains during the	fall

- When we train a large model on a lot of text data (billions of words), we get a Large Language Model like ChatGPT.

What can LLMs be used for?

- **Writing**

- Using an LLM to generate ideas or create new content.

- **Reading**

- Using an LLM to interpret the text provided.

- **Chatting**

- Conversing with a user about products/services provided.

What can LLMs be used for? - *Writing*

- Given a small piece of text (i.e. prompt), an LLM can generate larger text.
- More context we provide, better it can write.

Generic Prompt:

Prompt: "Generate ideas for marketing strategies."

LLM Generated Output:

"Some marketing strategy ideas could include utilizing social media platforms, email marketing campaigns, search engine optimization (SEO), influencer partnerships, and content marketing efforts. These strategies aim to increase brand visibility, attract new customers, and foster engagement with the target audience."

What can LLMs be used for? - *Writing*

Detailed Prompt:

Prompt: "Generate innovative ideas for digital marketing strategies tailored to the e-commerce industry, with a focus on enhancing customer engagement and driving sales. Provide concrete examples and data-driven insights, drawing inspiration from successful online retailers."

LLM Generated Output:

"In the e-commerce realm, leveraging augmented reality (AR) technology to allow customers to virtually try on products before purchase could revolutionize the shopping experience. Additionally, implementing personalized email marketing campaigns based on past purchase behavior and browsing history can significantly boost customer engagement and loyalty. Statistical analysis suggests that integrating gamification elements into the shopping process, such as reward points and interactive quizzes, can increase conversion rates by up to 30%."

What can LLMs be used for?

- **Writing**

- Using an LLM to generate ideas or create new content.

- **Reading**

- Using an LLM to interpret the text provided.

- **Chatting**

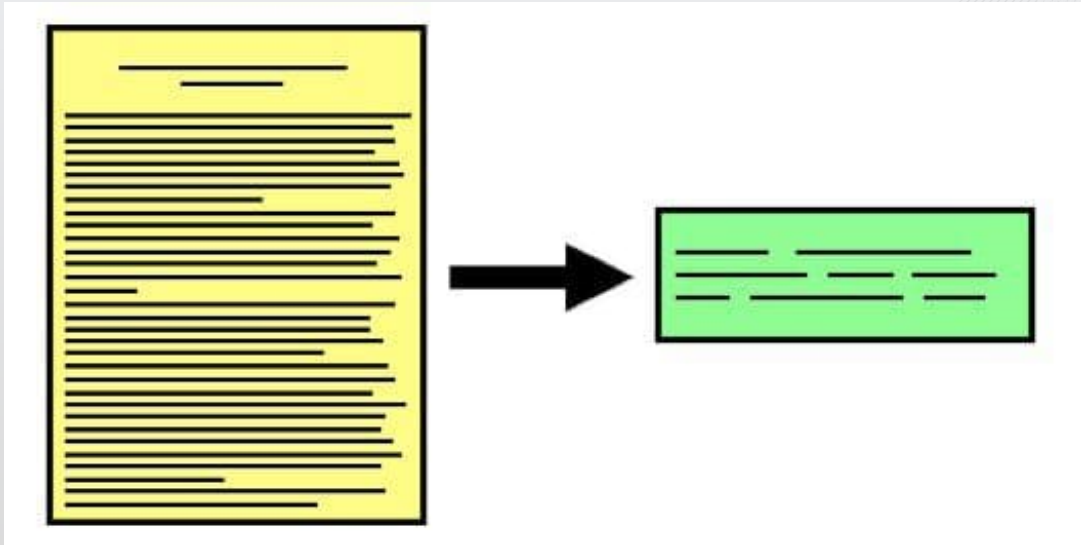
- Conversing with a user about products/services provided.

What can LLMs be used for? - *Reading*



What can LLMs be used for? - *Reading*

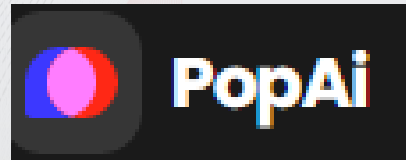
Summarizing



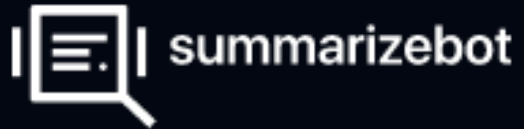
- **Executive Briefings**
- **Legal Document Analysis**
- **Medical Record Summarization**
- **Meeting Minutes and Transcription Summarization**
- **Email Management**
- **Real Estate Market Analysis**

What can LLMs be used for? - *Reading*

Summarizing



RESOOMER



What can LLMs be used for? - *Reading*



What can LLMs be used for? - *Analyzing*

Analyzing Call Center Conversations



- **Multi-Language Support**
- **Quality Assurance and Compliance**
- **Knowledge Base Creation and Maintenance**
- **Sentiment Analysis**
- **Script Generation for Agents**
- **Voice Cloning for Consistency**
- **Training Simulations**

Analyzing Customer emails

"The dining table set I purchased is elegant and sturdy. It looks fantastic in my dining room, and the chairs are comfortable too."

Complaint: No

Department: Furniture

Analyzing Customer emails

Specify the department the following email should be forwarded to:

Articulate the task you would like the model to perform

"The dining table set I purchased is elegant and sturdy. It looks fantastic in my dining room, and the chairs are comfortable too."

Provide the email for analysis

Department: Home Furnishing

Generic answer from the model

Analyzing Customer emails

Specify the department the following email should be forwarded to:

Articulate the task you would like the model to perform

Select one department from the following:
Appliances, Clothing, Electronics, Furniture

Provide a list for the model to select from

"The dining table set I purchased is elegant and sturdy. It looks fantastic in my dining room, and the chairs are comfortable too."

Provide the email for analysis

Department: Furniture

Model responds by selecting a category from the list

Reputation Monitoring

Dashboard to track customer sentiment over time

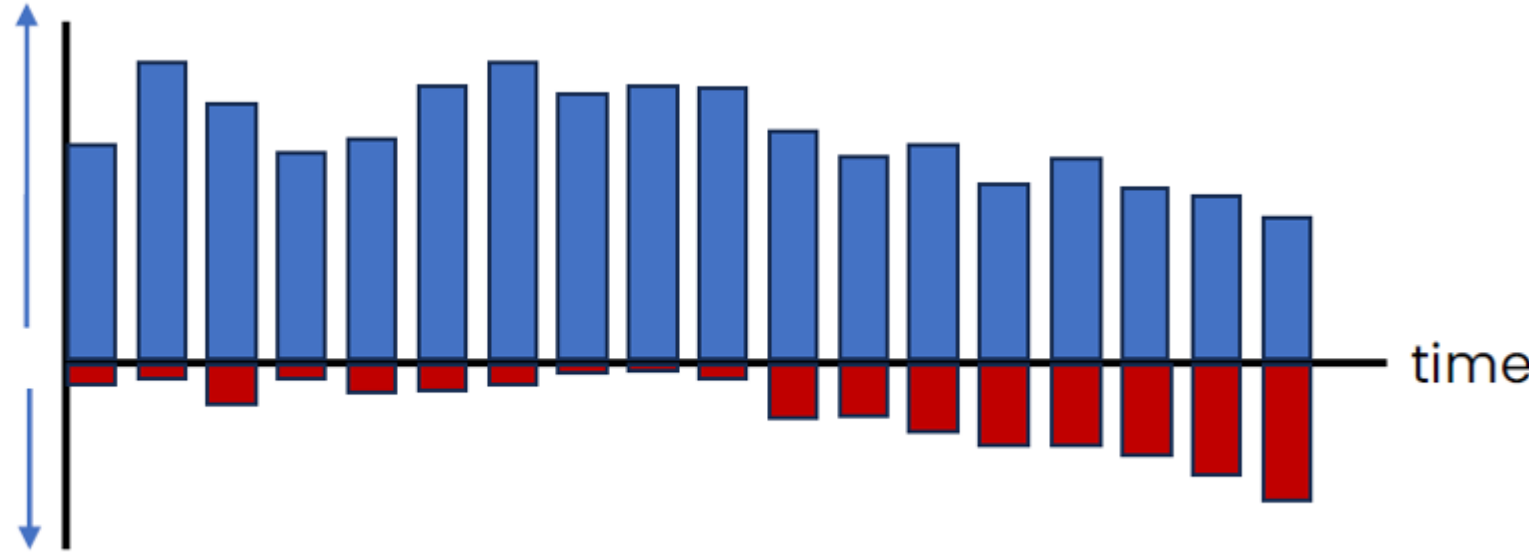
Read the following review and classify it as having either a positive or negative sentiment:

The food was amazing and the servers were so friendly!

Positive

Number
positive
reviews
per day

Number
negative
reviews
per day



Legal Ethics and GenAI

Practical Guidance for the Use of Generative AI in IP Practice

Introduction

- Understanding generative AI in the context of IP practice
- Conformance with professional responsibility obligations with reference to the ABA Model Rules of profession Conduct

Agenda

- Understanding GenAI
- GenAI Applications in IP Practice
- GenAI Benefits
- GenAI Ethical Considerations

What is GenAI

- Tool with wide-ranging applications in law.
- Uses large volumes of data from which models are generated.
- Interaction via prompts or pipelined processes that emulate human responses.
 - Output may include text, images, video, and data.
- Risks include over-reliance and potential biases, relevant to ABA Model Rule 1.1 (Competence).

Generative AI in IP Practice

- **Document Drafting & Research:** Assists in drafting patent applications, trademark filings, summarizing documents, drafting correspondence and court filings, comparing documents, increasing efficiency in evaluating prior art searches and trademark checks, preparing for meetings and interviews, portfolio management, ...
- **Analysis & Prosecution:** Helps analyze and respond to office actions, infringement accusations, (in)validity issues, drafting interrogatories, generating contract language, evaluating contracts, preparing for depositions, ...

Generative AI in IP Practice

- **Can be used to improve accuracy, efficiency, and thoroughness:**
 - Improve thoroughness by taking into account larger volumes of information in drafting documents and reviewing work product.
 - Quality control checking, editing, and revising can be automated.
 - Conceptual and logical analysis is rapid, feasible, and actionable.

But...

- Just as with any new technology, there are certain risks and considerations.
- But don't put your head in the sand, work through the issues and keep an open mind.
- Just because one client says no to GenAI doesn't mean that is the right answer for all clients.
- Plus, you are already using GenAI even if you don't realize it.

**AI WON'T REPLACE YOU, BUT THE
PERSON USING AI WILL.**

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ABA Model Rules of Professional Conduct

- 49 states, along with the District of Columbia and the USPTO, have adopted versions of the ABA Model Rules of Professional Conduct, either in whole or with modifications.
- California is the only state that has not adopted the Model Rules in their entirety, though it has incorporated many principles from the Model Rules.
- While the Model Rules serve as a good template for broad consideration, be mindful that the rules can vary significantly from one state to another, reflecting local legal cultures and priorities.

ABA Model Rule 1.6 (Confidentiality of Information)

- Avoid inputting confidential information into insecure AI systems.
 - Seek Gen AI tools utilizing zero retention APIs that segregate your uploads, prompts, responses, and client matters (**see also ABA Model Rule 1.7 (Conflict of Interest: Current Clients) and Rule 1.8(b) (shall not use information ... to the disadvantage of the client....)**).
- Ensure appropriate security protocols are implemented and practices are followed.
- Evaluate client specified obligations and terms of client agreement letters.
- Consider anonymizing client information.
- Consult IT professionals for security protocols, aligning with ABA Model Rule 1.6 (Confidentiality of Information).

ABA Model Rule 1.1 (Competence)

- Understand AI technology, its limitations, and terms of use.
- AI outputs should be critically analyzed for accuracy and bias.
- Supplement AI-generated work with human-performed research and analysis, as per ABA Model Rule 1.1 (Competence).
- See also Rule 2.1 (Advisor):
 - In their role as advisors, lawyers should provide independent judgment and candid advice. When using AI tools, you must ensure that the advice is not unduly influenced by the AI's outputs and remains the lawyer's independent judgment.

ABA Model Rule 1.3 (Diligence)

- You shall act with reasonable diligence and promptness
 - GenAI can certainly help with promptness
 - Absent reviewing, revising, and independent research, diligence can be an issue in view of the “approximate” answers offered by GenAI
- AI outputs should be critically analyzed for accuracy and bias.
- Supplement AI-generated work with human-performed research and analysis, as per ABA Model Rule 1.1 (Competence).
- Again, see also Rule 2.1 (Advisor)

ABA Model Rules 5.1 (Responsibilities of Partners, Managers, and Supervisory Lawyers) and 5.3 (Responsibilities Regarding Nonlawyer Assistance)

- Establish policies on AI use.
- Provide training on ethical and practical aspects of AI.
- *The subordinate lawyer does not violate the Rules when following a supervisory lawyer's reasonable resolution of an arguable question of professional duty. Rule 5.2(b) (Law Firms and Associations).*

ABA Model Rule 1.4 (Communications) e.g., Disclosure of Gen AI use?

- Consider disclosing AI use in client representation.
 - Ensure compliance with client instructions and policies for outside counsel as well as your own client agreement letter.
 - Consider explaining how the technology will be used.
 - Considering discuss benefits and risks with clients.
 - *Consider adding (Gen)AI usage language to client agreement/engagement letters.*
- Review client instructions regarding AI limitations, as required by Rule 1.4 (Communications), and abide by client decisions concerning the objectives of representation as required by Rule 1.2 (Client-Lawyer Relationship).
- See also Rule 7.1 (Communications Concerning a Lawyer's Services):
 - Lawyers must be truthful in their communications about their services, including the capabilities and limitations of the generative AI tools they use.

Sample Paragraph for Client Agreement/Engagement Letter

In our ongoing commitment to provide you with the most efficient and effective legal services, we may utilize advanced artificial intelligence (AI) technologies to assist in generating legal documents and other attorney work product. Please be assured that the use of AI tools is carefully managed under strict professional standards to enhance our service delivery without compromising the quality or confidentiality of your legal matters. All AI-generated outputs are thoroughly reviewed and refined by our legal team to ensure accuracy, compliance with applicable laws, and alignment with your specific legal needs and objectives. We believe that the responsible use of AI technology can significantly contribute to the sophistication and efficiency of the services we offer. As part of our transparency policy, we are disclosing this potential use of AI and are happy to discuss any questions you may have regarding our processes or the technologies employed.

Rule 3.3 (Candor Toward the Tribunal)

- Review AI outputs for accuracy before court submissions to maintain candor and fairness.
- Validate any GenAI generated citations, legal theories, factual assertions, ...
- Ensure compliance with rules of the relevant jurisdiction regarding the disclosure of GenAI usage, which could include inventorship.
- Address potential biases in AI training data, as per ABA Model Rule 3.3 (Candor Toward the Tribunal).
 - Bias can be demographic which is likely what first comes to mind. But keep in mind that GenAI is based on probabilistic modeling, if there are issues with the underlying training data, the output will be tainted by the same issues.

Embrace Gen AI with Prudence

- Continuous learning about AI and its implications.
- Regularly update policies to adapt to new AI developments.
- Prioritize ethical considerations and client interests.

**Writing a first draft consumes 75% of the writing process,
while the other 25% is more important for ensuring
completeness, accuracy, and overall quality.**

**Embracing AI in drafting documents transforms a meticulous task
into a symphony of efficiency...**

**OTTO™ is like having a diligent assistant who comprehends legal and
technical intricacies, accelerates the drafting process, and enhances
precision, enabling greater focus on strategy and refinement.**

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Thank you for your interest.

Questions?

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