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Opening Plenary

ChatGPT: The Future is Here

Presented By:
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About the Presenter...

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Generative AI and Legal Practice: An Overview of ChatGPT and its Applications

Introduction

Generative AI is a branch of artificial intelligence that can create new content, such as text, images, music, or speech, based on existing data. It has been advancing rapidly in recent years, thanks to the development of powerful deep learning algorithms and neural networks. One of the most impressive examples of generative AI is ChatGPT, a natural language processing system developed by OpenAI, a research organization dedicated to creating and promoting beneficial AI. ChatGPT can generate coherent and fluent text on any topic, given a prompt or a context. In this article, we will explore how generative AI works, how it can be applied in legal practice, and some of the success stories and examples of using ChatGPT and other generative AI tools in the legal profession.

How Generative AI Works

Generative AI is based on the idea of learning from data and generating new data that follows the same patterns and distributions. To achieve this, generative AI uses deep learning algorithms and neural networks, which are computational models that mimic the structure and function of the human brain.

ChatGPT is trained on a massive corpus of text from the internet, such as Wikipedia articles, news stories, books, and web pages. It learns the statistical patterns and probabilities of words and sentences and uses them to generate new text that is relevant and coherent, given a prompt or a context.

Essentially, it's predicting a series of "next most likely words" based on the context you've given it in the prompt. If you say "The sky is…" the AI may predict that the next word should be "blue". Or it could predict that the next word should be "clear". But it could also predict that the next word should be "the" followed by "limit".

But every now and then the AI can get out in front of its skis and respond with: "The sky is a mesmerizing tapestry of hues and mysteries, a canvas that paints the story of day and night, where clouds dance and stars twinkle in the vast embrace of the universe."

Generative AI can also adapt to different styles, tones, and domains of text, depending on the data it is trained on or the feedback it receives.

Prompts in Generative AI

A prompt is a word, a phrase, a sentence, or a paragraph that is used to initiate or guide the generation of new text by a generative AI. A prompt can be anything from a simple topic or keyword, to a question, to a partial text that needs to be completed or extended.

Prompts are essential for generative AI, as they provide the direction and the context for the output text. Prompts can also influence the style, the tone, and the domain of the generated text, depending on how specific or general they are.

Most of the quality of what you get out of generative AI comes down to the quality of the prompt you give it.

For example, if the prompt is "Write an email to confirm an appointment with a client", generative AI will generate a text that is formal, polite, and concise. The response may include relevant details such as the date, time, and location of the appointment if the AI has any way to know that information. The more information you can give it the more complete its response is going to be. Accordingly, you may get a better result by simply adding "…in my office, next Tuesday at 10AM." to that basic prompt.

If the prompt is "Write a short story about aliens invading Earth", the AI will generate a text that is creative, descriptive, and engaging, and that includes elements such as characters, plot twists, and dialogues.

Prompts can also be used to control or modify the output text by adding keywords or phrases that indicate what kind of text is desired. For example, if the prompt is "Write an email to confirm an appointment with a client. Make it humorous", the AI will generate a text that is still formal and polite but also has some jokes or witty remarks.

What is a neural network?

A neural network is a type of artificial intelligence that mimics the way the human brain works. It consists of a large number of interconnected units, called neurons, that process information and learn from data. A neural network can perform complex tasks, such as recognizing images, understanding speech, or generating text, by adjusting its connections and weights based on the feedback it receives.

A neural network has three main components: an input layer, one or more hidden layers, and an output layer. The input layer receives the data that the neural network needs to process, such as words or numbers. The hidden layer(s) transform the input data into a higher-level representation, using mathematical functions and rules. The output layer produces the final result, such as a category, a score, or a sentence. The output layer can also provide feedback to the previous layers, to improve the performance of the neural network.

A neural network learns from data by adjusting its connections and weights through a process called training. During training, the neural network is given a set of examples, each with an input and a desired output. The neural network compares its actual output with the desired output, and calculates the error or the difference between them. Then, it uses a technique called backpropagation, which updates the connections and weights in the opposite direction of the error, to reduce it. The neural network repeats this process until it reaches a satisfactory level of accuracy or convergence.

Under the hood, it’s all about the tokens

One of the challenges of generative AI is to make the computer understand and produce natural language, which is the way humans communicate with words and sentences. Natural language is very complex and flexible, and it has many rules and exceptions that the computer needs to learn.

One way to make the computer deal with natural language is to break it down into smaller units, called “tokens”. Tokens are like the building blocks of natural language, and they can be different things, such as letters, words, phrases, or symbols. For example, the sentence "I love cats" can be divided into three tokens: "I", "love", and "cats". Each token has a meaning and a function in the sentence, and the computer can assign a number or a code to each token, to represent it.

By using tokens, the computer can simplify the process of analyzing and generating natural language and reduce the amount of data that it needs to process. The computer can also learn the patterns and rules of how tokens are combined and arranged in natural language and use them to create new sentences or texts. For example, if the computer learns that "I love X" is a valid pattern, where X can be any token, it can generate sentences like "I love dogs", "I love pizza", or "I love books". Tokens are like the Lego pieces that the computer can use to build and play with natural language.

Applications of Generative AI in Legal Practice

Generative AI has the potential to revolutionize the legal profession, as it can enhance many of the tasks that lawyers perform on a daily basis. Some of the possible applications of generative AI in legal practice include:

- Contract analysis and negotiation: Generative AI can help lawyers analyze and review contracts and other legal documents, and identify any errors, inconsistencies, risks, or opportunities. Generative AI can also generate draft contracts and clauses, based on the parties' preferences and objectives, and negotiate the terms and conditions with the other party, using natural language.
- Document drafting and review: Generative AI can help lawyers draft and review various types of legal documents, such as pleadings, motions, briefs, memos, letters, and emails, based on the facts and arguments of the case, and the relevant laws and precedents. Generative AI can also check the grammar, spelling, style, and format of the documents, and suggest improvements or corrections.
- Due diligence: Generative AI can help lawyers conduct due diligence investigations and audits, and collect and analyze relevant information and evidence, such as financial records, contracts, assets, liabilities, litigation history, and reputation. Generative AI can also generate reports and summaries of the findings and recommendations.
- Intellectual property management: Generative AI can help lawyers manage and protect their clients' intellectual property rights, such as patents, trademarks, copyrights, and trade secrets. Generative AI can help lawyers search and register intellectual property, monitor and enforce intellectual property, and deal with any infringement or dispute.

- Legal research: Generative AI can help lawyers conduct legal research and find the most relevant and authoritative sources of law, such as statutes, regulations, cases, and articles, based on the keywords or questions they enter. Generative AI can also generate summaries and analyses of the sources and compare and contrast them.

IMPORTANT – it is critical that you have a process in place to review, fact-check, and edit anything generated by the AI. They're not infallible and the value you, as a lawyer, bring to the matter is your experience and point of view. The AI is a powerful starting point, a powerful tool for review or summarization, and may sometimes spot things you didn't initially see. But it shouldn't be used instead of a person – it's there to work with you, not instead of you.

Success Stories and Examples

There are already many examples of generative AI being used successfully in legal practice, both by law firms and legal tech companies. Some of them are:

- Ironclad, a contract intelligence company that uses generative AI to streamline contract review and analysis. Ironclad's generative AI can extract and classify key information from contracts, such as parties, dates, amounts, and obligations, and store them in a structured database. It can also generate contract summaries and insights, and flag any issues or risks. Ironclad's generative AI can also help lawyers draft contracts, by suggesting clauses and language based on the best practices and standards of the industry.
- HarveyAI, a startup backed by OpenAI that uses GPT technology to develop a tool for legal AI generation. HarveyAI's tool can generate various types of legal content, such as contracts, briefs, memos, and letters, based on the user's input and context. HarveyAI's tool can also generate natural language responses to legal questions, and provide explanations and citations for the answers.
- ChatGD, a platform developed by Gunderson Dettmer, a leading law firm for startups and venture capitalists, that uses generative AI to enhance legal communication and collaboration. ChatGD's generative AI can help lawyers and clients communicate more effectively and efficiently, by generating relevant and concise messages, summaries, and feedback, based on the context and purpose of the conversation. ChatGD's generative AI can also help lawyers and clients access and share legal knowledge and resources, by generating links, references, and documents, based on the topic and query. ChatGD's generative AI can be integrated with various communication channels and platforms, such as email, chatbots, video conferencing, social media, etc., to provide a seamless and convenient user experience.

Potential Problems with Generative AI for Lawyers

For all of the potential of generative AI there are also some possible pitfalls to watch out for.

Quality and reliability

Generative AI can sometimes produce inaccurate, inconsistent, or irrelevant content, depending on the quality and quantity of the data it is trained on, the parameters and settings it is configured with, and the randomness and variability it introduces. For example, generative AI may generate factual errors, logical fallacies, grammatical mistakes, or stylistic issues in the text it produces.

Generative AI may also generate content that does not match the user's intent, purpose, or tone, or that contradicts or conflicts with other sources of information. Therefore, lawyers should not blindly trust or rely on generative AI output, but always verify and validate it with their own knowledge and expertise.

Don’t do this…

Steven Schwartz is a New York attorney from the law firm Levidow, Levidow, and Oberman who used ChatGPT for legal research in a case. However, the AI tool generated fake cases that were cited in the court filing, leading to possible sanctions against the lawyer.

Schwartz admitted to using ChatGPT and signed an affidavit stating that he had no intent to deceive the court and didn’t act in bad faith. He explained that he had not used ChatGPT for legal research before and had learned of the technology from his college-age children. Schwartz said he was "mortified" upon learning about the false cases and vowed to never use AI to supplement his legal research in the future without absolute verification of its authenticity.

Bias and fairness

Generative AI can also reflect and amplify the biases and prejudices that exist in the data it is based on, or in the algorithms and models it uses. For example, generative AI may generate content that is discriminatory, offensive, or harmful towards certain groups of people or individuals, based on their race, gender, ethnicity, religion, sexual orientation, disability status etc.

Generative AI may also generate content that is biased towards certain viewpoints or opinions on controversial or sensitive topics such as politics, ethics, morality etc. Therefore, lawyers should be careful when using generative AI, and ensure that it does not violate any laws, norms, values, or rights of others.

Garbage in, garbage out…

Remember that large language models like ChatGPT are trained on content from the public internet. And the public internet often has content that is problematic, biased, wrong, even hateful. Though the AI vendors put in a lot of guardrails to try and prevent problems there’s always the possibility that the AI will produce a response that is informed by some of that problematic input.

Ethics and responsibility

Generative AI can also raise some ethical and moral dilemmas for lawyers, such as who owns the intellectual property rights of the content generated by generative AI, who is liable for any

damages or harms caused by generative AI output, how to protect the privacy and confidentiality of the data used by generative AI , how to ensure the transparency and explainability of generative AI processes and decisions.

Conclusion

Generative AI is a powerful and promising technology that can create new content, such as text, images, music, or speech, based on existing data.

Generative AI has many potential applications in legal practice, such as contract analysis and negotiation, document drafting and review, due diligence, intellectual property management, and legal research.

There are also many success stories and examples of using ChatGPT and other generative AI tools in the legal profession, such as Ironclad and HarveyAI. Generative AI can offer many benefits and opportunities for lawyers, such as increasing efficiency, accuracy, quality, and creativity, and reducing costs, errors, and risks.

However, generative AI also poses some challenges and risks, such as ethical, legal, and social implications, such as privacy, security, accountability, transparency, and trust. Therefore, lawyers should be aware of the potential and limitations of generative AI, and explore its use in their own practices, with caution and responsibility.

By the way…the first draft of this article was created by Copilot in Word, starting from an outline that was drafted by Bing Chat. I then went through it and reviewed, edited, added, and removed content.