2024

Lawyers as Next Generation Wordsmiths: How Legal Research Skills Unlock the Power of Generative AI

Eliza Boles

TALKING TECH

Lawyers as Next Generation Wordsmiths

How legal research skills unlock the power of generative AI.

BY ELIZA BOLES

Generative AI's influence in legal research is undeniable. You cannot avoid it, even if you have dodged the webinars, conferences, and internal discussions. Your inbox likely overflows with reminders: the artificial intelligence revolution is here, ready or not. While the legal world is currently preoccupied with the risks of AI platforms, a shift is imminent. We will soon transition away from arguments regarding attorneys' trust in AI and move on to learning the skills necessary to utilize AI to its fullest potential.

In the seemingly disparate worlds of law and artificial intelligence, a common thread emerges: the art of effective research. Just as legal professionals wield well-honed strategies to find relevant primary and secondary authorities, so too must users of generative AI models learn the art of prompt design to maximize the platform's full potential. Fortunately, many of the skills required to excel in prompt engineering are already ingrained in lawyers through their training in legal research.

This exchange of expertise is not unilateral; researchers and research instructors can also gain valuable insights from the evolving discipline of effective prompt design.

Generative AI and Large Language Models

Generative AI is a type of artificial intelligence that uses machine learning to create new content, such as text, images, or programming code. You can think of it as a program that learns by analyzing massive datasets, like libraries of books or collections of paintings. It identifies patterns and relationships within this data. Unlike earlier AI tools that categorize information or make predictions, generative AI uses these patterns to create entirely new outputs. These models are often built using complex neural networks, inspired by the human brain that processes information in ever-evolving layers.

Large Language Models (LLMs) are a type of generative AI that is specifically trained to generate human-like text based on input prompts. While generative AI cannot truly understand the contents of its dataset, it excels at mimicking styles and structures. This allows it to create realistic outputs (and helps to explain why, facing a lack of sources, AI can "hallucinate" a realistic citation, even if that citation leads nowhere).

Considering the growing number of legal-specific AI platforms and the promises from various sales representatives that *their* system does *not* hallucinate, we can imagine a world where that is true, and the process of legal research transforms. At its core, legal research is a dogged pursuit of information. Lawyers meticulously craft search terms, navigate vast legal databases, and narrow down mountains of text to find the precise legal precedents that bolster their arguments. This skill set translates surprisingly well to the realm of generative AI, due to the complex and nuanced art of prompt engineering.

What Is Prompt Engineering?

The practice of prompt engineering, or prompt design, refers to the careful creation of commands or instructions that, when fed into a generative AI platform, retrieve the best possible answers or outcomes. A well-crafted prompt guides AI with clarity and specificity, while providing enough context for the platform to draft an accurate and thorough response efficiently and effectively.

While creating an effective prompt might appear straightforward to beginners, it's crucial to recognize that just as legal research can seem simple to legal professionals adept at using Google, there's more complexity beneath the surface. Giving due attention to research strategy itself can significantly enhance the quality of outcomes obtained from both Generative AI platforms and legal research databases.

The Parallels of Prompt Engineering and Legal Research Strategies

Formulating a Plan

At the outset of any research assignment, whether completed in traditional legal databases or utilizing an AI platform, the first step is to formulate a plan. According to Mark K. Osbeck's *Impeccable Research: A Concise Guide to Mastering Legal Research Skills*, this process begins by thoughtfully considering the question presented. Here, Osbeck urges readers to think about the assignment in terms of abstract concepts such as the relationships between involved parties and the overarching legal issues at hand.

Likewise, the development of effective AI prompts should begin with a similar tactic—deliberately considering the desired outcome of the generated response and deconstructing this

requirement into abstract concepts, allowing the researcher to consider the problem broadly and refrain from selecting a focus that is too narrow or excludes necessary elements or ideas.

Understanding Context is Crucial

Just as a lawyer would not (usually) cite a nineteenth-century horse-drawn carriage case in a modern automobile accident lawsuit, understanding context is paramount in prompt design. Legal research requires situating the issue within the broader legal framework. Similarly, effective prompts should provide context to the AI model, allowing it to tailor its response accordingly.

Prompt Chain Example for Case Preparation

INITIAL PROMPT

Set the stage. Provide context and define a limited dataset where possible.

"Analyze the case details in the attached documents. Please list any relevant laws and court rulings that pertain to the case."

SUBSEQUENT PROMPTS

Review and analyze results for each prompt. Once accuracy is assessed, build on the knowledge that the AI has gained.

"Here are the key details of my case. [Details]. Assess the relative strengths and weaknesses of the case when applying the specific facts to the sources found in the first prompt."

From here, follow the logical progression of writing a plan for your case, considering the context and information previously provided

"Outline high-level arguments that maximize the strength of the case and minimize its weaknesses."

"Draft a complete legal brief for this case using the outlined arguments."

Evaluate, Refine and Repeat the Process

If responses to your prompts are losing focus or accuracy, it may be necessary to alter keywords or provide more context to the platform. Analyzing results after each prompt allows researchers to identify and resolve problems quickly.

Example prompts inspired by Sunil Remlochan, *Getting Started with Prompt Chaining,* PromptEngineering.

Prompt Chaining

While still in the initial stage of a research project, both traditional and AI-powered fact finders can benefit from breaking complex research questions into a series of smaller, more manageable secondary questions. By building a logical chain of these secondary questions, researchers can efficiently build foundational knowledge. This step-by-step approach makes it easier to tackle increasingly intricate questions as research progresses.

While breaking down subtopics is merely good practice for traditional researchers, Generative AI leverages this technique, termed "prompt chaining," to enhance its functionality. This improvement is facilitated by the dynamic evolution of the platform's dataset, enabled by LLM systems. These systems not only recall a user's input during subsequent prompts, but also adapt their interpretation of the input based on the evolving situational context. Consequently, constructing a series of prompts that logically build upon each other enables these platforms to improve answer relevance and contextual understanding through progressive learning. Through this iterative process, AI systems derive and assimilate insight from each interaction, refining their responses as researchers continue to refine their prompts, thus enabling the recognition of patterns and inference of context from previous exchanges.

When a researcher employs prompt chaining techniques, they stand to benefit in several ways. The first is the creation of simplified prompts, which increases the chance of receiving accurate results. Prompt-chaining also allows a user to easily isolate parts of a complex problem that the LLM is struggling with, as each concept is part of an individual prompt. Alternatively, receiving accurate results at each step of the prompt chain serves as incremental validation, reassuring a researcher that they are on track, and allowing for potential problems to be addressed immediately.

Keywords: The Foundation of Both Worlds

Effective keywords act like guideposts, steering a research platform toward the desired outcome.

Both legal research and prompt design rely heavily on selecting the most impactful language. Upon identifying the initial question presented, researchers must then turn their focus to choosing keywords.

Both legal research and prompt design demand precision to produce the best outcomes. However, with nearly 200,000 words in the English language (plus a few dozen legal terms-of-art expressed in Latin), it can be difficult to determine the exact language needed to solve a specific problem. In both situations, researchers may need to adjust preferred terms as their project progresses.

Returning to Osbeck's *Impeccable Research*, readers are encouraged to generate a list of potential search terms at the beginning of a project, shortly after they formulate the question presented. Once that list is generated, Osbeck recommends focusing on the legal rule they are attempting to find and thoughtfully considering the way the courts or legislature would have written it.

Refocusing the Conversation

Throughout the course of a research project, it is possible to veer off-course. Quite often an attorney's first iteration of the question presented will transform as they discover relevant terminology, existing precedent, and expert analysis. When this happens, it becomes necessary to reestablish the goal of your research and tailor subsequent searches accordingly.

This shifting attention is a characteristic shared by both human and machine conversations. When an AI user becomes disoriented, prompt-chaining techniques prove highly advantageous. By employing concise and straightforward prompts, identifying the point where the conversation veered off track becomes much simpler, thereby enabling a swift return to the previous step and preventing significant deviation from the project's goals.

If All Else Fails, Have Fun

While no one can predict the future, it seems safe to say that generative AI platforms will be part of our lives for quite some time. It is important that we guide legal professionals in their use, while reinforcing the adage, "A fool with a tool is still a fool," to encourage them to use the technology with proper care.

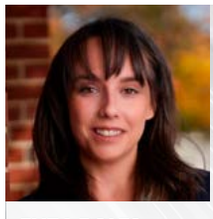
But, for now, research instructors can simply encourage legal professionals to have fun with AI. The more prompts they draft, the more skilled they will become, even if the prompts are not useful in an educational or professional setting.

The domains of law and AI may seem far removed; a closer look reveals a fascinating parallel. The ability to conduct effective research, honed by legal professionals for centuries, proves to be an asset in the nascent world of generative AI. By mastering the art of prompt design, users can unlock the true power of these AI models, transforming them into potent tools for problem-solving.

Key Takeaways:

1. With the right prompts, large language model AI can generate text that is indistinguishable from human-written content.
2. Several well-established strategies and processes in traditional legal research can be leveraged to use generative AI platforms more effectively.
3. Prompt-chaining techniques can be useful to researchers in a variety of ways, including reducing the complexity of prompts and making problem areas in an AI system's understanding of context easier to spot. ■

IM Information Management
R+A Research + Analytics
T+T Teaching + Training



ELIZA BOLES
INTERIM HEAD OF RESEARCH AND INSTRUCTIONAL SERVICES
University of Tennessee College of Law
Joel A. Katz Law Library
Knoxville, TN
eliza.boles@utk.edu