APEX STANDARDS
GPT Prompting and Refinement Guidelines for Philosophical Scenarios

GPT Expert Guide
Prompting & Refinement
Philosophical Scenarios
15 September 2023

Action	Best Prompting Practice
(1) **Give Examples**	- Offer specific examples to facilitate a deeper understanding of your request's context for GPT. - Utilize analogies to clarify terminologies, such as comparing MTC (Machine Type Communication), often seen in technical specifications, with M2M (Machine to Machine Traffic), which is prevalently used in the language of patent claim embodiments.
(2) **Include Helpful Information Upfront**	- Before initiating your document, clearly delineate the text's purpose, the intended audience, and any specific requisites. For instance, when crafting a petition for a client to present before the USPTO PTAB IPR (Inter Partes Review), offer a few example contents at the outset. This enables GPT to grasp the necessary formatting, tone, and logical nuances inherent to a successful petition. - The Licensing Officer might include patent specifics and intended licensor's or licnesee's background information, while the IPR Professional could focus on intellectual property details.
(3) **Set the Stage**	- Provide the context or explain background information, the problem you're trying to solve, and any constraints. - The Standardization Expert might focus on the industry landscape, while the R&D Researcher could emphasize on technical aspects.
Fine-Tune with Few Shots	- Scientists or university professors can utilize domain-specific contexts to provide a series of examples that are specific to communication technology concepts, theories, or technologies. This will help in aligning the model's responses to the domain.
(4) **Interactive Refinement**	- Interactive refinement in the context of 3GPP 5G and 6G research could involve a step-by-step refinement process where the researcher iteratively fine-tunes GPT's responses based on the feedback from each previous interaction. Initially, start with framing open-ended questions or prompts on specific technical aspects of 5G and 6G technologies, such as latency, bandwidth, or network slicing. Then, progressively refine GPT's understanding by incorporating feedback from GPT answers and newly found references in each subsequent interaction. This fosters a dynamic, interactive learning environment, steering the GPT model towards generating more precise, insightful, and technically sound responses over time.
(5) **Tell it the Length**	- Specify the desired response length, e.g., write in 100 words for a summary or in 1000 words for substantive content.
(6) **Tell it the Output Structure You Want**	Informing GPT of the expected structure of the output can help to ensure that the results are presented in a way that is easy to understand and use. For example, if you need GPT to generate a list of bullet points, you can specify this in your prompt. This will help GPT to organize the output in a logical and concise way. Here are some specific examples of how to inform GPT of the expected structure: • **Bullet points:** "Please generate a list of key issues, in bullet point format." • **Hierarchy:** Please generate a hierarchy of the different company views on topic X, with the most generally agreed views at the top and the most specifically disagreed views and differences at the bottom." • **Detailed breakdown of concepts:** "Please generate a detailed breakdown of the steps involved in the base station-UE communication process, from the initial connection to the final disconnection, including acknowledgement of receipts, requests for multi-connectivity or handover, etc." • **Pros and Cons:** "Please create a pro and con list evaluating the potential impacts of implementing a feature X." • **Timeline:** "Please discuss things in temporal order by developing a timeline showing the development milestones and phases for topic X's standardization process." • **SWOT Analysis:** "Please conduct a SWOT analysis detailing the strengths, weaknesses, opportunities, and threats associated with techology X based on context Y." • **Executive Summary:** "Please compose a high-level executive summary that encapsulates the key findings in this 3GPP meeting regarding topic X or in this particular TDoc ID." • **Q&A Format:** "Please prepare a Q&A document, where you anticipate and answer potential questions regarding topic X based on my company's view Y." • **Case Study Formatting:** "Please draft a case study analysis, dissecting potentially a successful marketing campaign in our industry, highlighting the strategies used and the results achieved." By providing GPT with this information, you can help it to generate text that is more readable and easier to use for your subsequent tasks.
(7) **Specify the Thinking Process**	Teach GPT how to think: • **"Let's think step by step logically"** for analytical, action item problems. When tackling a complex research problem, we can break it down into smaller, more manageable parts. We can then address each part with a logical, step-by-step solution. This might involve starting with a literature review, followed by hypothesis formulation, experimental design, data collection, analysis, and conclusion. *If GPT does not draw the expected conclusions, we can still learn from its thinking process. By understanding its building blocks, we can brainstorm new potential solutions or identify unanticipated issues or blindspots.* • **"Thinking backwards"** to avoid inaccurate or unwanted conclusions. In the development of a new product, this strategy could be utilized to anticipate potential flaws by starting with a hypothetical failure scenario and then tracing back to identify possible causes, allowing for the development of preventive measures early in the design process. *Similarly, a researcher could set a desired conclusion first, and then ask GPT to come up with ways to achieve that conclusion. This could help to identify creative approaches that would not have been considered otherwise.* • **"In the style of a patent attorney or a standardization researcher"** for matching language styles. When documenting a novel invention for a patent application, adopting this style would involve detailed technical descriptions, claims, and illustrations, presented in a meticulous manner to fulfill patent office requirements, and possibly including a detailed discussion on how the invention differentiates from existing technologies in standard research papers. • **"Explain this topic for a CTO in high level"** to suit the target audience's understanding level. When presenting a research project's findings to an executive, this approach would involve distilling complex data and methodologies into key takeaways and strategic insights, possibly focusing on the potential business impact and competitive advantages, facilitating a comprehensive yet concise discussion suitable for executive-level decision-making.
(8) **Tell It Where to Focus**	- Direct its Attention! - When instructing GPT, it is important to give it specific instructions on what to focus on. This can be done by using phrases like "focus on" or "with emphasis on." For example, you might want to instruct GPT to "analyze the pros and cons" of a particular issue, or to "highlight" or "put an emphasis on" a specific aspect. If your priority is to defend your company's position, you could prompt GPT to "generate robust arguments that focus on the strengths of your proposed technology across various applications."
(9) **Specify Your Purpose**	- Clearly articulating your goal will enable GPT to better align with your needs. For instance, if your aim is to pinpoint weaknesses in a competitor's proposal or patents, instruct GPT to scrutinize for functional issues or potential inefficiencies. Conversely, if you're seeking to enhance your own project, ask GPT to identify areas ripe for future development and offer constructive recommendations.
(10) **Test and Iterate**	- Engage in iterative testing and refinement to hone the output. - Leverage GPT to streamline and accelerate the R&D or SEP operations process, allowing for quicker innovation cycles.

Rule of Thumb Using GPT to help bring new ideas and improvements in roles like Licensing Officer, IPR Professional, or University Professor means getting better at asking it questions in the right way. To start, make your conversation clearer by giving examples and sharing important information to help GPT give you the answers you're looking for. It's a good idea to work closely with GPT, making small changes to get better results each time; being clear about what you want in terms of the output length, structure and focus of the answers can help. Also, make sure to explain the main goal of your question so GPT knows what you're aiming for. Develop a habit of trying different things quickly one after the other, being ready to adjust based on what you learn from the previous answers and referenced documents, and keeping a steady pace. Being proactive and persistent in this way can speed up cycles of innovation, making it easier to keep coming up with useful ideas each time as stepping stones and achieving success faster.