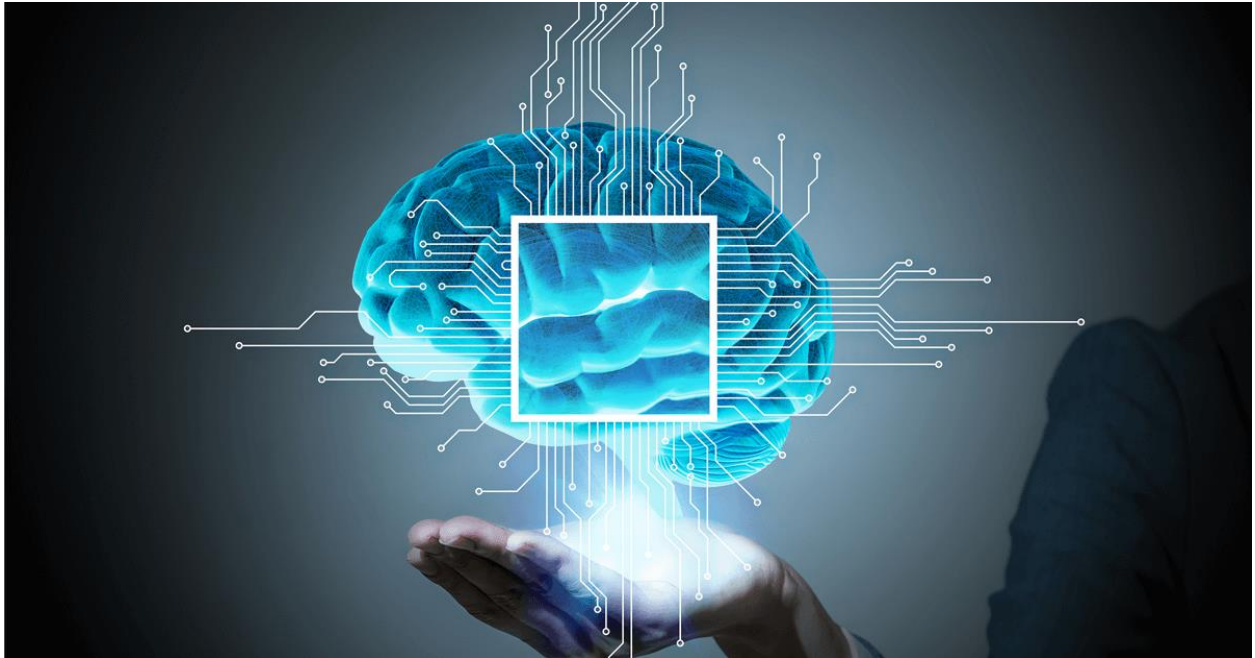- March 19, 2025

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- [Forward Thinking](#)

The Prompt Box: From Humble Beginnings to AI Portal

Remember the days of the dusty old command line? Thankfully, the command line and its cryptic commands have been replaced by the prompt box. Over the years, prompt boxes have been known by many names, including input box, text box, chat box, command box, query box, omnibox, context window, and request box. The prompt box has come a long way from its humble beginnings as a mere text-entry babysitter.

Back in the day, the prompt box was like the shy kid in the back of the class, only capturing strings of text. But then came the GUI revolution, when the prompt box finally got a chance to shine alongside buttons and menus. The prompt box worked hard to collect names, addresses, math formulas and other chunks of data that the menus and buttons could not manage.

But then, things got interesting. The omnibox, used by web browsers, entered the scene, letting users type or speak actual English phrases. Imagine a prompt box that understood what you type or say.

Recently the world has seen a proliferation of generative large language models (LMM) created by analyzing massive amounts of data. LLMs contain the knowledge used by artificial intelligence applications to create songs, poems, images, videos, stories, theater scripts, and other artistic stuff. The prompt became a way for users to provide information and instructions for generating these works and other uses (see sidebar). The results are often presented to users as conversational history logs, with the prompt displayed below each result, like the user interface for text message systems.

Enter the *prompt engineer*, the human translator between your creative whims and the AI's sometimes-wonky understanding. The prompt engineer is the prompt box's therapist, helping it understand what you really want, even if you cannot quite put it into words. Instead of coding a program to compute your desired results, a prompt engineer describes your problem by crafting initial instructions and providing hints and examples. The prompt engineer also evaluates the AI's outputs, analyzing whether they align with your intended purpose and refines prompts based on the results, adjusting wording, examples, or structure to get closer to your desired outcome.

The future appears bright (and possibly a little bit scary). We might soon see a specialized interactive AI assistant taking over the role of the prompt engineer.

And to top it all off, the researchers are working on a universal interface for conversational agents that capture your wishes via a prompt box and pass them on to a multitude of specialized apps.

A prompt box for the universal API does the following:

- Accept natural language prompts, requests, or instructions expressed as voice, text, or a combination of voice and text.

- Use speech recognition technology to convert speech to text.

- Display the text to the user to review and edit.

To assist the user in formulating the prompt, the prompt box may present options using word prediction (anticipating and suggesting the next word based on the context) and spelling correction (identifying and fixing errors in existing text).

In the future, a user will use a prompt box to define an agentic AI. This type of agent leverages an LLM and other up-to-date data to autonomously make decisions and perform operations, all the while learning from and adapting itself to its changing environment.

Users enter conversational requests in English, German, French, or some other language rather than some artificial language with keywords and structured syntax. The user does not need to learn a computer-oriented language to interact with the application.

The humble prompt box has come a long way from just capturing text strings. It is now a Rosetta Stone of communication, ready to bridge the gap between humans and the ever-evolving world of AI.

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Apps That Use Prompt Boxes

- Text message systems (user enters text into a prompt box and presses send; text and result are presented to the user in a dialog history box)

- Large language model user interface (similar to text message system)

- Virtual assistants (Siri, Google Assistant, Alexa)

- Chatbots (customer service chatbots, personalized recommendation apps)

- Search engines (Google Search, Wolfram Alpha)

- Voice control (apps for dictating emails, creating documents, and navigation)

- Games (some games are starting to incorporate natural language interfaces)

- Tutorial and language learning apps