

Unlocking the Power of Generative AI: The Art of Effective Prompting

How AI is Transforming Traditional Translator into Translation Engineer

Vilal Ali

MS By Research in Data Science, IIIT-H
Sr. Software Engineer, IHub-Data IIIT-H
IT Consultant, eBhashasetu

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Introduction to Generative AI

- **What is Generative AI?**

- AI that generates text, images, and code based on patterns in training data.

- **How Does It Work?**

- Uses deep learning models like ChatGPT, DALL-E 2, Stable Diffusion, Midjourney, Bard, Llama 2, Claude, Jasper, Copy.ai, RunwayML, Synthesia, GitHub Copilot, Amazon CodeWhisperer, MusicLM, Imagen, Character AI, DeepFloyd IF, Firefly (Adobe), Pika Labs.

- **Real-World Applications:**

- Chatbots, Content Creation, Code Generation, and Translation.

- **Why Does It Matter?**

- Enhances productivity, creativity, and automation in various industries.

The Art of Prompting in Generative AI

- **What is prompting?**

- The method of instructing AI to generate desired content.

- **Types of Prompts:**

- **Basic Prompting:** Simple commands.
- **Contextual Prompting:** Provides additional information.
- **Few-Shot Prompting:** Gives examples for consistency.
- **Chain-of-Thought Prompting:** Breaks down responses step-by-step.

Good vs. Bad Prompting

- **Bad Prompt:** "Write urdu shayri."
- **Output:**
 - *Chandni raaton mein, sitaron ki baat,
Dil ki khamoshi mein, raazon ki ghaat.*
 - *Translation: ???*

Good vs. Bad Prompting

- **Good Prompt:** "Write deep Urdu Shayari about love for Allah in the style of Mirza Ghalib."
 - **Output:**
 - *Dil ki justuju hai Jalwa-e-Yazdan ki har aan,
Har nafas mein hai talab, har saans mein armaan.*

Good vs. Bad Prompting

- **Few-Shot Prompting:**

- **Prompt 1: "Write Urdu Shayari about nature"**

Gulshan mein bahaar aayi, phoolon ki hai barsaat,
Har su hai ajab manzar, qudrat ki karamaat."

- **Prompt 1: "Write Urdu Shayari about sun"**

Suraj ki kiranon se jagmag hai yeh sama,
Zindagi ka paigham hai roshni ka silsila."

- **Now write a new Urdu Shayari about education in a similar style.**

- **Output:**

- *Ilm roshni hai jo andheron mitata,
Har ek mushkil ka raasta dikhata.*

Good vs. Bad Prompting

- **Chain-of-Thought Prompting:** Asking AI to explain the poetic meaning step-by-step.
 - **Prompt:** "Write Urdu Shayari about the beauty of the moon, and then explain the meaning of each line in simple terms."
 - **Output:**
 - *Falak par chand nikla, kaisa suhana samaan hai,
Roshni se bhar gaya hai, yeh sara jahan hai.*

Example 2 - Historical Context Matters

- **Bad Prompt:** "Shayari do."
 - **Output:**
 - *Ilm ka noor hai jo mita nahi,
Jo seekh le isse, kabhi girta nahi.*
- **Better Prompt:** "19th century ki shayari do."
 - **Output:**
 - *Gir pade jo andheron mein be-sahaare,
Ilm hi hai jo ujaale lutaaye pyaare.*
- **Best Prompt:** "Mirza Ghalib style mein 19th century ki shayari do."
 - **Output:**
 - *Jahl ke daaman se jo chhuta nahi,
Ilm ka daaman usne thaama nahi.*

Example 3 - Comparative Prompting

- **Prompt:** "19th aur 20th century shayari compare karo, style ka farq bata ke."
 - **Output:**
 - *19th century shayari mein gehrai aur alfaaz mushkil hotay thay. 20th century shayari asaan alfaaz aur naye topics pe focus karti hai.*

How Generative AI Helps Translators

- **Traditional vs. AI-Assisted Translation**

- **Traditional:** Manual effort, slower, lacks context.
- **AI-Assisted:** Faster, context-aware, learns from past translations.

- **How AI Improves Translation:**

- Real-time text generation and grammar corrections.
- Adaptive learning for idiomatic expressions.
- Domain-specific translations (legal, medical, technical, poetry).

- **Examples:**

- **Bad Prompt:** "Translate this poem."
- **Good Prompt:** "Translate this Urdu ghazal by Mirza Ghalib into Hindi while preserving its poetic essence."

From Traditional Translator to Translation Engineer

Feature	Traditional Translator	AI-Powered Translation Engineer
Speed	Slow, manual work	Fast, AI-assisted
Accuracy	Human-dependent	AI-enhanced + Post-editing
Context Awareness	Limited	Advanced via AI prompting
Scalability	Limited capacity	Bulk translation
Industry Demand	Traditional roles	High-Value roles

- **AI-Powered Workflows:**

- AI translates first, human refines the output.
- AI ensures consistency across large projects.

- **Why Translation Engineers Are More Valuable:**

- Higher demand for AI-integrated workflows.
- Businesses prefer professionals optimizing AI for translation.

The Future of AI in Translation & Beyond

- AI's evolving role in linguistic preservation and multilingual accessibility.
- Potential developments in AI-powered real-time translation.
- The role of AI in breaking language barriers worldwide.

- **Audience Task:** Suggest a vague prompt.
- **Step-by-Step Refinement:** Improve the prompt using learned techniques.

- **Key Takeaways:**

- Generative AI enhances creativity and productivity.
- Effective prompting improves AI-generated content.
- AI is transforming translation into a high-tech profession.

- **Q&A Session**

Thank You

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Vilal Ali
[vilal.ali@research.iiit.ac.in]

