

Adam's Law: LLMs Work Better When You Rephrase Your Prompt Into Words They've Seen More Often

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Adam's Law: LLMs Prefer Common Phrasing

Rephrase prompts into frequent expressions to boost LLM accuracy

- TFL**
Textual Frequency Law
For prompts and fine-tuning
- ACL 2026**
Main conference
FaceMind & CUHK
- Open + Closed**
Works on GPT-4o, Qwen,
Llama-3 with no retraining

Same meaning, more common words = better answers

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Researchers at FaceMind and the Chinese University of Hong Kong have formalized something prompt engineers have long suspected: LLMs are better at understanding sentences phrased the way most people on the internet phrase them. Their paper, [Adam's Law](#), accepted at

ACL 2026, proposes a Textual Frequency Law (TFL) stating that frequently occurring textual expressions are systematically easier for LLMs to handle, both at prompting time and during fine-tuning. The team built an input paraphraser that estimates sentence-level frequency using web resources, then rewrites prompts into more common phrasings without changing meaning. The same principle drives a fine-tuning data filter that prefers high-frequency expressions. Across reasoning, code, and instruction-following benchmarks, applying TFL improved performance for both closed-source models like GPT-4o and open-weight models like Qwen2.5 and Llama-3, with no architectural changes.

The practical takeaway is concrete. If your carefully worded prompt underperforms, the problem may not be the model: it may be that your phrasing is rare in the training data. Running the same intent through a paraphraser that biases toward common expressions can recover lost accuracy without prompt rewrites by hand. For teams fine-tuning open models, filtering training data by frequency offers a cheap quality lever before touching hyperparameters or scale.

This reframes prompt engineering as a frequency-matching problem rather than a rhetorical one. It also tightens an existing finding from a [related study showing that prompt specificity, not length, drives code quality](#): specificity helps, but only if expressed in phrasing the model has seen often.

Sources:

- [Adam's Law: A Textual Frequency Law for LLMs \(arXiv\)](#)
- [GitHub: frequencylaw Implementation](#)
- [ACL 2026 Accepted Papers](#)
- [Hugging Face Daily Papers](#)

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