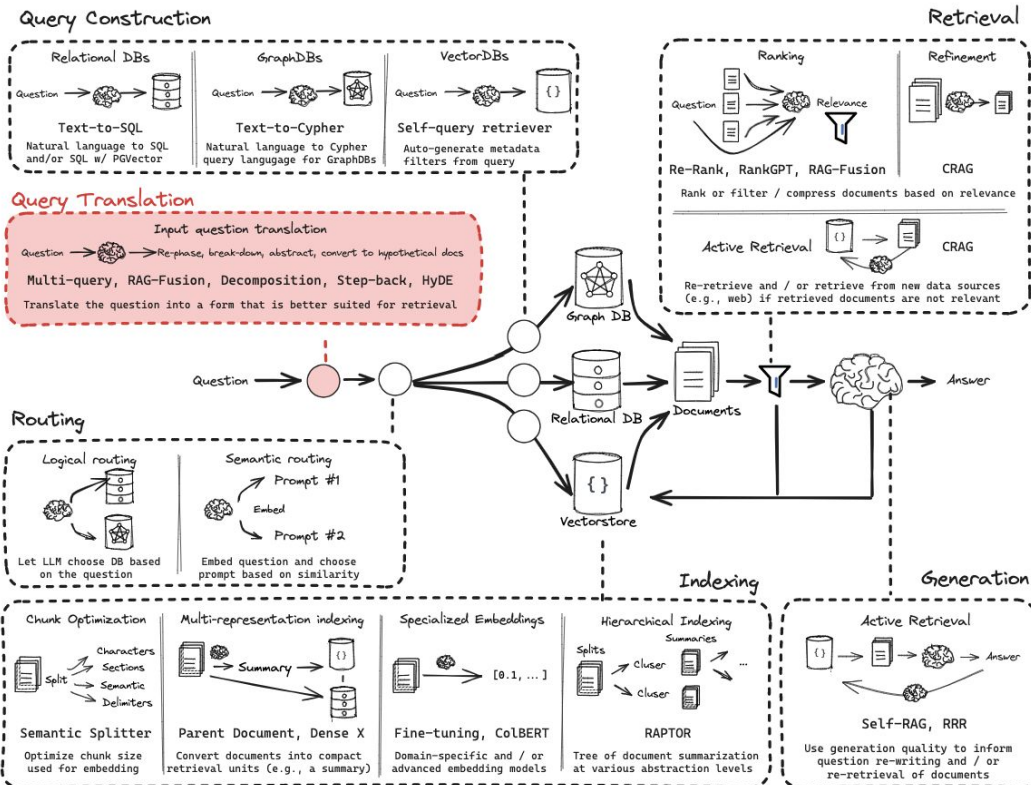


# RAG from scratch: Query Translation (Multi-Query)

Lance Martin  
Software Engineer, LangChain  
[@RLanceMartin](https://twitter.com/RLanceMartin)

# Query Translation



## Problem statement



**anton** ✓  
@abacaj



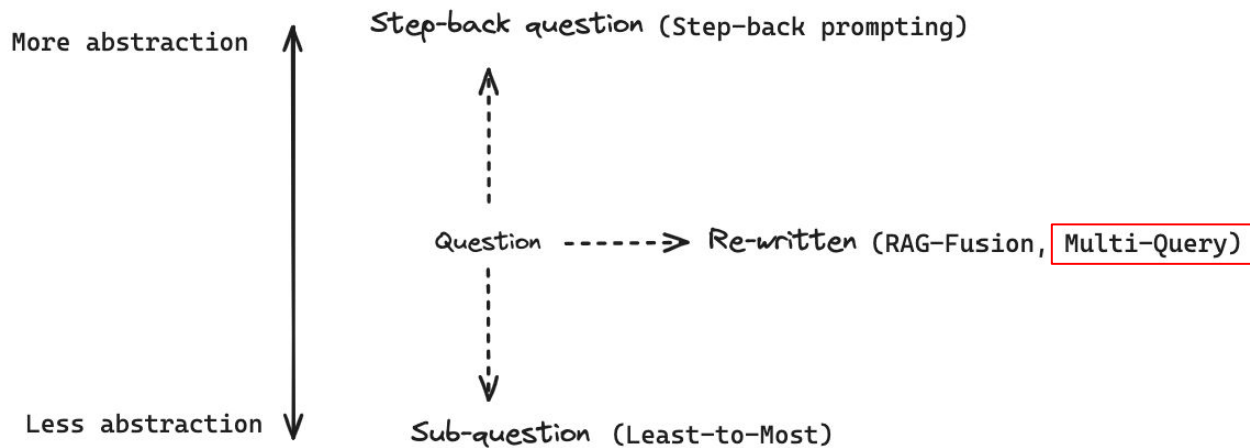
Semantic search on embeddings is hard to get right. Embedding long documents is a challenge. User queries are a challenge, if a user provides an ambiguous query they'll get ambiguous matches

LLMs just follow what was in the context and hallucinate answers as a result

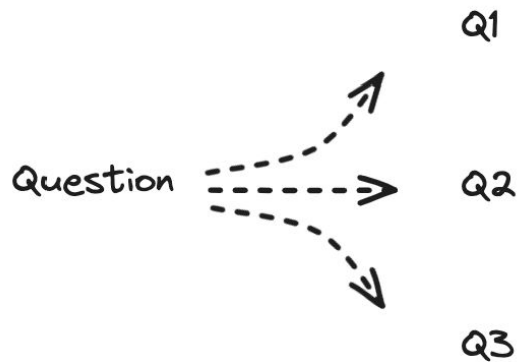
11:06 AM · Apr 28, 2023 · **113.7K** Views



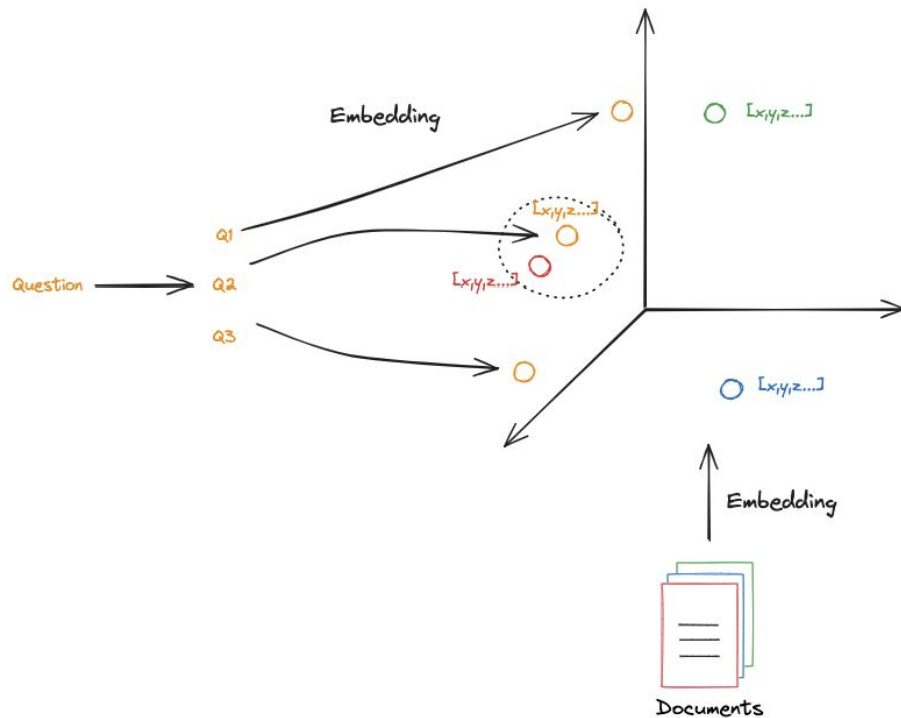
## General approaches to transform questions



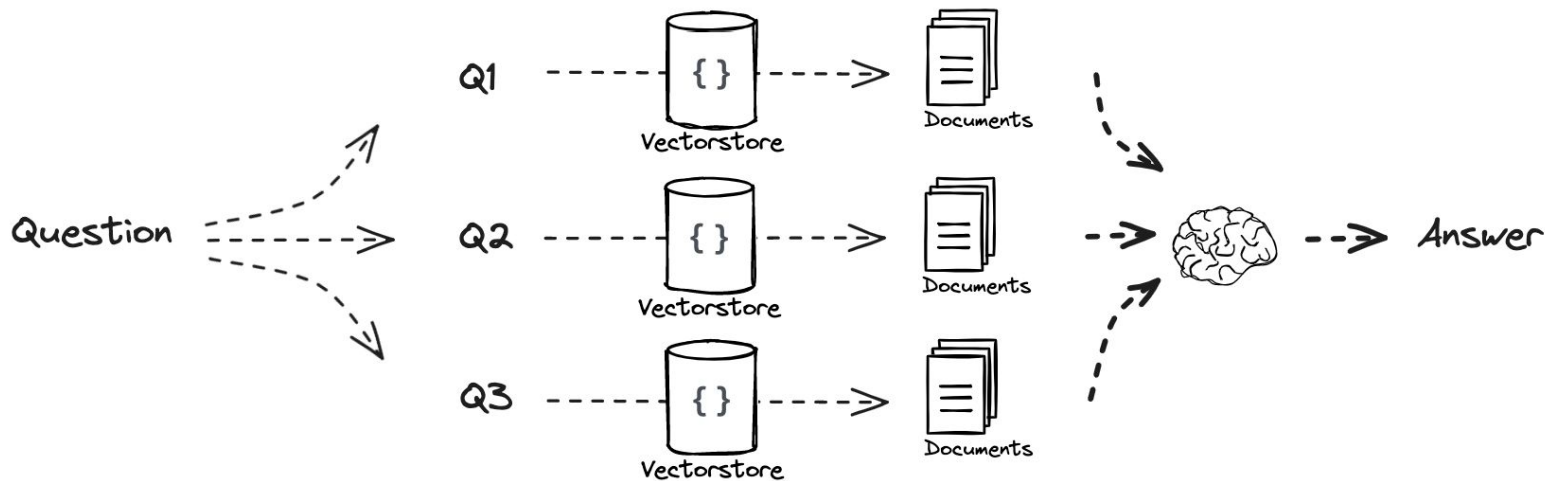
## Transform a question into multiple perspectives



## Intuition: Improve search



## Use this with parallelized retrieval



## Code walk-through