



The Investor's Dilemma with LLM AI

In the investment community, there's a healthy skepticism regarding the real value of Large Language Models (LLMs) in business applications. This stems from a lack of clear differentiation and sustainable competitive advantage. Many companies are superficially incorporating LLMs into their products, often resulting in what can be termed as "LLM wrapped feature companies". This approach lacks significant distinction in providing unique value, and when building on OpenAI, Claude, Gemini, and Grok, face the risk of obsolescence with the rapid product feature evolution of these foundational model providers. In fact, even the competing LLM model companies that have spent untold tens or even hundreds of millions of dollars training their models are having increasing difficulty distinguishing themselves from one another as they are all trained on what is essentially the same dataset.



LLMs: Sophisticated Autocomplete or More?

While the utility of LLMs as productivity tools is well established, we like to think of LLMs as an interesting conversational access layer to content, but it is only a rear-view mirror on whatever data it was trained on. At their core, LLMs are advanced statistical tools in natural language processing, functioning similarly to sophisticated autocomplete systems powered by a neural network. They predict the next most likely word (token) based on a given prompt, using foundational models that are trained on billions of parameters, or weights. This capability, while impressive, essentially reflects a retrospective analysis based on their open-source training data primarily, and tends to produce outputs that are an 'average' representation of the open source internet, i.e., their training dataset.

The Limitation of Non-Proprietary Data

One significant limitation of current LLMs is their reliance on generic, non-proprietary datasets. Without access to unique, specific datasets for training, these models lack a defensible edge rooted in unique business value. Yes, there is prompt engineering, fine tuning and retrieval augmented generation (RAG) that LLMs can utilize to improve their reasoning, but unless you have underlying ML models to turn that underlying data into knowledge, you are still looking at generic solutions, as well as potential exposure to data security and privacy issues. New exploits by crafty actors can reverse engineer those proprietary RAG datasets. By the time you set up security around that, you limit access to information and, again, end up potentially with another bland offering.

Explainability and Transparency

The training data and outputs of LLMs are not inherently explainable or transparent, which is a critical drawback in applications requiring governance, clarity and accountability. There is no understanding as to the accuracy (hallucinations?), precision or robustness of these models that can provide business leaders with the confidence and conviction to make critical business decisions based on their outputs.



Understanding Context and Decision-Making

LLMs fall short in understanding the context of business-specific problems and in making causal inferences. For instance, they struggle to interpret how different business actions, such as which selling strategies, directly affect sales outcomes and cannot provide guidance on optimal interventions while considering their cost and impact on the broader business ecosystem. LLMs are not designed for decision-making, which involves a complex analysis of possibilities, risks, and potential outcomes.

Recalibrate: combine AI techniques for generating a new type of business value

The current enthusiasm for LLMs in the business sector needs a recalibration. While LLMs are a significant technological advancement, their application should be looked at primarily as a next generation access layer for exploring underlying data while at the same time recognizing their limitations. It's what LLM's provide access to that determines their utility. Put targeted diagnostic, predictive and prescriptive models behind an LLM and not just undifferentiated content, and it can uncover why things are happening, why that is important, what the long- and short-term impacts could be, and optimal next actions to fix those problems.