


Machine knows best

Why AI-driven solutions will replace traditional business research





Anyone with a smartphone or laptop has all the world's knowledge at their fingertips. So, why is it so hard for a business to get high-quality answers to simple research questions?

Here's why. Search engines are littered with sponsored content and easily gamed. Research from high-profile vendors costs a fortune and is fraught with issues of objectivity, expertise and timeliness. And the large language models that have attracted so much recent attention don't cover the up-to-date body of data needed. Plus, they hallucinate.

What, then, is the insight-hungry business to do?

When you're looking to find the best suppliers in a particular region, or invest in a business that's the perfect fit with yours, where do you start?

In this paper, we explain why traditional models for business research, dominated by either one-size-fits-all search engines or expensive research providers, are fatally flawed. And we introduce an AI-powered alternative that makes accurate, up-to-date research answers available at a fraction of the cost of the traditional model.

The end of an era

Five reasons why traditional research models are no longer fit for purpose

1. Money talks, objectivity walks.

In research, just as in politics, the “pay to play” model corrupts outcomes. Today's internet search model is optimised for sellers. In a simple search engine query, paid-for results are often the first to appear, rather than the most valid or relevant answers. For organic (unpaid) search, the first results may have earned their top spot not on merit, but because their owners spent big on state-of-the-art SEO (search engine optimisation). In this model, objective answers are impossible.

The same is true for the results that professional research firms create. Their relationships and fee structures reduce the likelihood that they will give an unbiased view of their customers' products or services, and may compel them to downplay issues that might be out of step with a customer's goals.

2. Experts can't have all the answers

In business research, can a human really be an expert? If the definition of 'expert' is someone who can guarantee that these are definitely your five ideal suppliers of a niche component across four different countries, then it's unlikely. No matter how expert they are, people are prone to bias. "Proximity bias" can make them prioritise data that is more recent, geographically closer or from a source they trust. And "confirmation bias" can steer researchers towards outcomes that fit with their beliefs or theories. Either of these biases makes a good result less likely.

Timeliness is an issue, too. Even experts who are the most plugged in to their chosen field struggle to be completely up-to-date, especially in fast-moving tech domains – there's only so much information an individual can process.

3. Structure (or the lack of it) skews results

Structured classifications such as the Dewey system have historically been essential to accurate research. However, taxonomies can also hide results. If you're interested in blockchain's application for smart contracts, your results may be skewed by the fact that much of the domain is associated with cryptocurrency. Or you might miss the fact that a computer game could produce the best 3-D simulation for teaching people how to refuel an airliner, because no-one has classified gaming in relation to corporate training.

“The traditional research model? Yes-men in expensive suits delivering yesterday's insights at tomorrow's prices.”

David Doyle,
Forestreet

Large language models (LLMs) get around the classification problem by applying machine learning across vast bodies of unstructured data. But as their creators freely admit, they can have a tendency to “hallucinate”, often presenting false information as if it were hard fact. This limits their value when highly specific results are needed.

4. Research costs a fortune in either time, money or both

The internet may be free but getting accurate, actionable research results from it can be extremely time-consuming. McKinsey has found, for example, that it takes an organisation around three months to complete a single search for a new supplier, with a sourcing professional logging around 40 hours of work. And even then, the business will only have covered a fraction of available suppliers.

At the other end of the spectrum is professional research. Here, only a tiny fraction of businesses have the resources either to pay for a bespoke engagement, or for expensive proprietary research that is unlikely to be an exact match for their needs.

5. It's out of date the moment it lands on your desk

When markets and trends move as fast as they do today, research results need to reflect the most up-to-date information on a topic. They rarely do. Search algorithms tend to be more concerned about the popularity than the recency of results – and in any case, they may have been gamed (see point 1 above). As for professional research that has either been individually commissioned, or released as part of a firm's regular publication cycle, the time taken to compile it means that it is always out of date by the time it sees the light of day.

For businesses seeking fast, accurate answers, today's models are not fit for purpose.

What the new research model looks like

Today, there's no reason why business should put up with research models that are biased, imprecise, overpriced, out of date or all four of these things. By applying sophisticated technologies in sophisticated ways, it's possible to create a new research model where the user has precise control over the outcomes and costs.

1. Research without bias

As we've seen, current research models don't see things from the point of view that you want. Search engines prioritise paid or optimised listings, while human analysts and researchers can't help but bring their own biases to the table, whether it's different flavours of proximity and confirmation bias, or simply devaluing results because it's lunchtime or you've already spent three hours searching.

One effective way to remove these biases is to take data from multiple sources and analyse it using LLMs. This way, textual information such as company web pages, news reporting and sentiment are taken at face value and given equal weighting.

Numerical data can be subject to bias, too, if it comes from single data source. Here, what's important is to use multiple data enrichment partners to acquire data for analysis from sources such as web pages, news reports, web traffic and geographic data.

The Forestreet model overcomes bias by throwing targeted analytic power at the problem. It consumes millions of pages of text data, accesses billions of external data points, weighs 25 variables to judge similarity, reads thousands of pages of news, and then indexes and categorises by relevance.

LLMs then further enrich the data with semantic indexing, sentiment analysis, text classification, topic modelling, and other techniques. At this point, users can filter their chosen websites or data sources using terms of their choice, from a list that is free of SEO or paid-for bias.

And because the model also searches across multiple languages and markets, another bias or constraint on research is removed, enabling researchers to extend their expertise into previously unexplored data. It transforms a "letterbox" view into a truly global perspective.

2. Intelligence organised on your terms, not someone else's

Classification systems and third-party researchers mean well. But their structures and simple, binary questions can easily obscure or lead you away from the information that's most valuable.

Applied AI makes it possible to use what you have discovered as a tool to refine your discovery further, in the direction you want. Forestreet's algorithm uses multiple "passes" of research to first discover your market, and then to refine and enrich your knowledge and expertise based on what it has learned.

If you are researching manufacturers of wind turbine blades, for example, the AI will suggest related topics, exploding the detail so you ultimately know who specialises in which materials, technologies, geographies or other valuable detail. Even without domain expertise, it becomes possible to become a domain expert in a matter of hours.

90%
less time to find
the right supplier
using AI

Source: McKinsey

\$66bn
billed by market
intelligence
companies in 2022

Source: Statista

“Intelligence organised on your terms” also means information that’s available when you want it and that covers the most up-to-date resources. Forestreet achieves this by building research databases profiles on demand, rather than pre-compiling studies, and ensuring that any third-party data used is the latest available. Its “rolling refresh” mechanism means that users can update a given market study at any time.

AI can also create valuable, custom categories from natural language queries. Forestreet’s semantic search helps to create an index of concepts that can be used for cross-referencing, as opposed to literal search terms. For example, only some organisations searching for help with ESG reporting will want Scope 3 emission coverage. Forestreet is unique in allowing this level of granularity.

3. Trainable AI

LLMs are typically trained to perform well across a broad of range contexts and tasks. The well-known models currently available illustrate the immense power of this technology but also highlight its shortcomings, in particular around “hallucinating” or suggesting and inventing facts.

When LLMs are re-trained to perform more strongly in narrow domains, they can become more accurate, expert assistants. Known as “transfer learning”, this process refines LLMs in specific areas through exposure to more specific data. Forestreet is extending the performance of its models with a view to providing a conversational AI that becomes a researcher’s in-house expert.

“Forestreet is an analyst killer.”

Richard Gregory, Global Sourcing Lead,
Avanade

4. Precision searching

Before search engines, online search queries were precise. But they relied on experts to build complex search strings using arcane terms, and results typically came at a high cost, even if they were unusable.

This precision was lost in the search engine era, with researchers compelled to manually scroll through endless screens of results. But precision has returned with AI, where highly specific conversational queries can create valuable results. Forestreet’s models have refined this precision to a high level. Following a natural language query, researchers can refine results by filtering companies according to a desired set of phrases, controlling how strict they want the match to be. For example, “fair trade” matches to “we ensure farmers are well compensated” with some degree of confidence. Researchers looking for coffee suppliers, for example, can change the confidence threshold, either looking for an exact match with the words “fair trade” or with their own flexible criteria.

And by using AI to search maps with high levels of precision, researchers can segment their results by geography to very granular levels. This is particularly relevant for procurement, where location is a key consideration. Traditional map searches prioritise popularity and relevance, which are likely to only highlight the most prominent companies in any specific area, not necessarily the ones with the attributes a researcher is looking for.

The Forestreet model carries out a large number of location searches, using local language, allowing for the effective discovery of companies that traditional map searches would miss.



Time for change

In volatile and dynamic markets, there's a lot at stake for businesses trying to understand their market landscape, find opportunities and build relationships with other companies. But right now, many are spending too much time or money – or both – and still failing to pinpoint the answers they need. The commercial models and conventions of traditional research make this almost inevitable.

This is why it's time for change – for a research model that takes the best of today's automation technologies but puts them in the service of the researcher rather than research provider.

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