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# Why Natural Language Search Beats Google's Keyword Appliance?

The Google Search Appliance (GSA) has set a high standard for enterprise search and remains popular in the market, offering business an easy-to-deploy search engine that plugs into internal databases and helps workers retrieve information.

Nevertheless, GSA is – surprisingly, for Google – out of date. It bases searches on keywords rather than the actual meaning of a user's question, and this means results obtained are often not relevant to questions posed.

Presenting irrelevant results to employees and stakeholders has a cost. Employees can't find what they need when they need it, increasing frustration and decreasing productivity. Irrelevant results are especially a problem in large corporations, whose data reserves are complex, unstructured and, of course, big. A keyword search tool would just about suffice if enterprise domains were systematically hyperlinked, or generated reliable user data – but it is very rare that they do.

Now that [Google is killing off Search Appliance](#), it's a good time to consider future GSA alternatives to which current GSA owners can migrate. Rather than a threat, enterprise should see the end of GSA as an opportunity – to move away from outdated keywords and towards the more intuitive **natural language search** that has been enabled by recent advances in [cognitive computing](#).

In this article, we break down the principal benefits to enterprise of natural language as compared to keyword search.

## **Better search results, faster actions**

Because NLS relies on ideas instead of keywords, the intent of a user's question is much better captured – and answers can be retrieved with much greater efficiency. Rather than second-guessing hyperlinks, keywords and ontologies, NLS works like a well-trained professional reading through all of an enterprise's documents and reporting meticulously on the results that matter.

Let's say an executive wants to find out why sales dropped last quarter. Achieving this with keyword search would involve an element of trial and error, and take multiple steps: They would first have to identify the data metrics that contribute to sales – things like lead generation and ad-spend. They could then use these metrics to formulate keywords to be fed to their enterprise's search engine and, over a series of searches, compile a report that helps them understand the poorer-than-expected figures.

With NLS, an executive would simply have to ask the search engine, "why did sales drop last quarter?" and an extensive report would be generated by the search engine, in less than a

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second. This report would cover:

1. Information and documents that match the correct date range, even if they don't include the word "quarter".
2. Information that shows the drop, like a graph, even if that graph has not been tagged as information that shows sales dropping.
3. Information that matches the reasoning e.g. "US recession may have contributed to a slow down" – Natural language search is smart enough to understand that "slow down" equates to "loss in sales".

Cumulatively, this streamlined approach to enterprise search generates a massive boost to productivity, saving professionals who regularly interact with enterprise data many hours every week and freeing them up for more mission-critical tasks that involve creativity, judgement and strategy.

### **Needles, not haystacks**

Keyword searches are great at finding and ranking documents by their relevance to keywords. They stack documents one on top of the other in a logical, ordered way.

But the point of a search is not to build the haystack. It is to find the needle. The professional does not need a list of labyrinthine documents that may or may not hold the information they require. They need the crucial bits of information *inside the documents* that are pertinent to their query. And that is exactly what natural language search enables.

Because natural language search processes ideas, it is able to search at the atomic level, cutting relevant information from lengthy documents and [putting it in front of the user in an easy-to-scan format, instantly.](#)

Moreover, because the search is now at an atomic level, it can run over all kinds of data formats – from documents and databases to live APIs, image and video. With natural language search we are no longer searching for the best document – but looking for the best piece of content.

### **The prelude to complete knowledge management**

Perhaps the most exciting element of natural language search is that it enables easy interaction between worker and enterprise. It is the key to transforming the cumbersome, complex enterprise database into an artificial intelligence that works for the organization rather than against it. In other words, NLS is the prelude to a complete knowledge management system.

How? Well, it's very easy to wrap natural language search in a chatbot. Imagine a HR staffer who wants to review diversity in their workforce. Using an NLS-enabled chatbot, the worker could make requests like, 'how many minority employees work here?' and then follow this up with a question like, 'how does that compare to our competitors?' The chatbot, recognizing the worker's relevant position and role within the organization, would retrieve the information from the relevant internal documents (and in the case of competitors' diversity, from the web),

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automatically ignoring irrelevant and redacting confidential information included alongside.

These types of conversations can also be linked to actions, so a worker not only searches for things, but actually [gets things done, all from a single interface](#). Our HR employee, for example, could follow up a poor diversity report with an action like: “Email this to recruitment. Request new criteria”.

When combined with other cognitive capabilities, natural language search creates a much more intuitive form of database – an information architecture that humans can easily, quickly and naturally interact with

## Endgame

Writing in Slate last year, Will Oremus made a [great point](#) about human-computer interaction. *“In the beginning, computers spoke only computer language, and a human seeking to interact with one was compelled to do the same. First came punch cards, then typed commands such as run, print, and dir. The 1980s brought the mouse click and the graphical user interface ... the 2000s, touch screens; the 2010s, gesture control and voice. It has all been leading, gradually and imperceptibly, to a world in which we no longer have to speak computer language, because computers will speak human language—not perfectly, but well enough to get by.”*

Seen through this lens, natural language search can be thought of as human-computer interaction’s endgame. It will complete the pivot from humans having to learn the language of computers, to computers understanding the language of humans.

This paradigm shift will have a huge impact on enterprises worldwide, increasing productivity and freeing up workers to do the things we humans do best: creativity, judgement, strategy.

Wondering about the best way to replace GSA? Coseer is a leading light in the new generation of cognitive computing companies that are building natural language search appliances for the enterprise search market. It uses cognitive analytics to make a specialized version of itself that trains to each enterprise database. Built with continuously self-learning algorithms, it keeps getting better too – recursively improving search and boosting productivity.

You can [request a demo of our product here](#).

## What is Next-Generation Enterprise Search?

Coseer's search solutions are transforming industries from healthcare to finance. Our point-and-shoot AI trains finds answers and insights with 95%+ accuracy within 4-12 weeks - all of this in 100% security. The reason? We founded Coseer on the principle that computers should take care of the boring stuff so that humans can focus on creativity and judgment. To that end, we've built enterprise search solutions to complete complex workflows just as humans would in a fraction of the time. Fortune 500 leaders are using Coseer to speed up and automate their most

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complex work.

We follow a tactical approach to enterprise search:

- We deliver 95-98% accurate solutions within 4-12 weeks.
- Our solutions deploy entirely behind your own firewall for 100% security, and every decision point is logged for full transparency.
- You add the finishing touches, but our point-and-shoot AI practically trains itself. No more huge training data sets or time wasted annotating and tagging.

Visit our [website](#) for in-depth case studies, ROI breakdowns per industry, and other insight.