

## ***DolphinSearch Applications***

- Intelligence analysis (open source and classified)
- Email monitoring and archiving
- Document management and categorization
- Data mining

## ***DolphinSearch Features***

- Smart information management
- Unique proprietary relevance ranking algorithm
- Learns meaning from context
- No thesauri or taxonomies required
- Ability to zoom in to most relevant paragraph of document
- Secure Web-based access and administration
- Dynamic and adaptive
- Truly language independent
- Easy to implement and to maintain
- Highly scalable

**DolphinSearch works in the same way that human brains do, rather than forcing people to adapt their thinking to that of a machine.**

**DolphinSearch solves your information management problems.**

**When there is a critical need to find and analyze information, DolphinSearch is your most viable choice.**

## ***Homeland Security***



## ***DolphinSearch***

**When there is a need to know ...**

DolphinSearch technology automatically reads text and understands the content in context. It uses patented neural networks to quickly form semantic (meaning) profiles of words, paragraphs, documents, and text.

DolphinSearch provides core capabilities wherever text-based material has to be stored and retrieved, recognized, compared, or categorized. Because it learns the meanings of the words from the documents, it will work in any language.

Patent 6,189,002, others pending



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# DolphinSearch for Homeland Security

Information management is the enabling force for Homeland Security. Information management provides the right information to the right person at the right time. Information management allows intelligence analysts to mine incredible volumes of data to produce actionable intelligence. DolphinSearch, Inc. is the leader in providing the most powerful text mining tools in the industry. When there is a critical need to find and analyze information, DolphinSearch is your most viable choice.

The patented DolphinSearch technology provides highly

**Uses patented neural networks to understand text**

scalable, fast, accurate, and comprehensive access to most forms of text in any language. Its neural network system automatically reads text documents and understands the content in context. This technology provides core capabilities wherever text-based material has to be stored and retrieved, recognized, compared, or classified.

**Resolves ambiguity and synonymy** The two ultimate limitations of most information tools are *synonymy* (multiple words with similar meaning) and *polysemy* (multiple meanings for the same word).

Synonymy requires a searcher to guess which of many expressions an author used (e.g., there are 122 words for “think”). Studies have found that this is a profoundly difficult problem. Even experienced analysts are only about 20% accurate in guessing the correct search terms.

Polysemy causes most systems to return multiple irrelevant documents with unrelated meanings in response to a query because these systems have no way to guess which meaning the user had in mind. For example, the word “strike” has 82 definitions. The 500 most frequently used English words have an average of 23 definitions each.

DolphinSearch resolves these problems that plague other systems. It learns the meanings of words from the documents that it reads and uses context to disambiguate them. It implements a sound mathematical theory of meaning.

**DolphinSearch understands the amazing variety of ways people can say things**

**No preplanned thesauri or taxonomies are required** The system does not depend on any preconceived or preplanned thesauri, taxonomies, categories, or dictionaries. It automatically finds documents that word-search systems would miss, even when the searched-for terms are not found in the particular document. DolphinSearch is, by far, the easiest system to deploy and maintain.

In tests for a US intelligence agency, we compared DolphinSearch with a word search tool in common government use. One question concerned identifying the currency used in Somalia and its exchange rate. The first 8 documents retrieved by DolphinSearch each answered the question directly, providing the name (Shilling) and its exchange rate when the document was written. The word-search tool did not provide this information until document 13.

In use, DolphinSearch has: (a) identified co-conspirators, (b) recognized related chemicals and drugs, (c) identified paraphrases of key terms, and (d) learned acronym expansions, among others.

DolphinSearch ranks documents by relevance using the most powerful and accurate algorithm available.