

# CRYSTAL SEMANTICS GRANTED PATENT FOR WORLD'S FIRST SENSE ENGINE

Submitted by: Pirate Communications

Wednesday, 2 March 2005

---

Ownership of technological process in the UK and US to provide leading position in analysis of textual content

Crystal Semantics, the context-targeting company, has been granted a US patent covering its development of the world's first Sense Engine technology. Already patented in the UK, this additional technology patent secures the core innovation of the Crystal Semantics' Sense Engine in the large and dynamic US market.

Crystal Semantics developed the 'Sense Engine' in order to produce relevant search results by utilising the senses of words, rather than statistical algorithms. Because any word in the English language can be part of a search enquiry, each word is analysed to determine its potential to discriminate which context the search should cover. For example, it will determine the sense of the word 'depression' that a searcher requires in relation to economics, meteorology or mental health. The 'Sense Engine' identifies all the likely search words, advises the user of the different contexts the search should cover and provides users with relevant results.

The patent outlines a structure where a database containing a 'plurality of terms' is used to define the placements of information within logical categories. The plurality of terms along with the classification of all the associated words are used to determine the particular subject. In everyday language, the words and senses of a dictionary are being accurately associated with the knowledge categories of an encyclopedia.

The Crystal Semantics' patent covers the following development areas:

- databases of keywords to motivate which advertisements should be placed on a page, similar to Google's Adsense and Adword products
- word-sense disambiguation, using contextual data rather than computer algorithms to determine the correct sense of a word
- web-spidering techniques to extract keywords & concepts from web-pages, enabling search queries to find the most appropriate website results
- search-engine optimisation techniques, analysing documents or web pages to extract specific keywords that can be applied to other documents to enhance future navigation
- document classification techniques to enable categorisation and navigation of large bodies of textual content
- semantic pattern analysis to detect potential fraud or paedophile activity within Internet interactions.

The 'Sense Engine' is the result of a six-year search linguistics development programme undertaken by Professor David Crystal, a world authority on linguistics, encyclopedia editor and published author for Cambridge University Press and Penguin Books. £4 million has been invested in lexicographical and encyclopedic research, giving the 'Sense Engine' a classification system of around 2,000 categories derived from an encyclopedia component of over five million words.

Crystal Semantics' patent was filed in 1999, a time when the technology was focused upon the classification and categorisation of documents, spell checking and refining keywords as part of a search query. Since then, a continuance has been filed with the U.S. Patent Office to define Crystal Semantics' new application areas of contextual advertising, search and navigation, categorisation, and e-commerce.

Ian Saunders, managing director at Crystal Semantics said: "Crystal Semantics provides a semantic analysis of the senses and diverse meanings of words that not only enhances search and navigation, but provides a unique and valuable method for marketers to target relevant ads at consumers.

"Furthermore, this patent will have an impact on the industry as up to now analysts have suggested that our approach was too labour intensive, would not scale and just could not be done. Crystal Semantics has proved that this is not the case and in doing so, will bring about a new era in context targeting"

To find out more about Crystal Semantics, visit [www.crystalsemantics.com](http://www.crystalsemantics.com).

-ENDS-

About Crystal Semantics ([www.crystalsemantics.com](http://www.crystalsemantics.com))

Crystal Semantics has developed Textonomy, the first Sense Engine to deliver significantly more accurate and powerful Internet search and contextual results. By applying human "senses" and concepts that current algorithms, semantic systems and other statistical techniques cannot match, Textonomy uniquely uses human linguistic intuition, tapping into the semantic relationships between words and the contexts in which they occur. The Textonomy suite of products includes solutions for search and navigation, e-commerce and contextual advertising.

Based in Holyhead, UK, Crystal Semantics is a division of Crystal Reference Systems Limited – a context targeting company. The company was founded in 2001 by Professor David Crystal, a world authority in linguistics, and managing director, Ian Saunders. It has provided online content for many major publishers including Penguin Books, A&E Television Networks and Webster Publishing and is one of the fastest growing online content publishers in Europe.

Further information

UK & Europe

Alex Crawshaw / David Pincott / Kate Bonner, Pirate Communications

tel: +44 20 7297 3350

[alex@piratecomms.com](mailto:alex@piratecomms.com) / [david@piratecomms.com](mailto:david@piratecomms.com) / [kate@piratecomms.com](mailto:kate@piratecomms.com)

US

Katherine Foster  
Connors Communications  
katherine@connors.com  
tel: 001 212 7981409