



INNOVENT
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Spotlight
on
Client Success

CLIENT PROFILE

Name:

Medical Equipment Marketplace Provider

Description:

Client works with leading hospitals, manufacturers and resellers to provide an open and collaborative marketplace for healthcare professionals to buy and sell used medical equipment.

Industry:

Healthcare

Need:

Make it easy to purchase used medical and lab equipment, and provide members with an exceptional search experience.

Results:

Greatly increased quality of search, high performing search and enhanced search features.

BACKGROUND

Our Client's company was created to help hospitals, labs and clinics get more value from their used medical equipment and is designed to help health care professionals find quality, used medical and lab equipment for sale that comes direct from hospitals and manufacturers throughout the United States. Client's goal is to make it easy to purchase used medical and lab equipment, and provide members with an exceptional user experience. Client's website enables users to browse used medical and lab equipment by category, and the site has a custom-built search engine to navigate thousands of detailed listings. Client provides an open and collaborative marketplace for healthcare professionals and the company works with leading hospitals, manufacturers and resellers.

BUSINESS CHALLENGE

The initial release of the Client's website achieved many goals in providing a collaborative marketplace for the purchase and sale of medical equipment. However, based on customer feedback, Client felt improving product and site search should be a priority as the custom-built search solution needed improvement. The Management team began to realize how important search was to their success and began looking for cost efficient way to better serve their users.

Innovent began working Client to help them understand how to evaluate a search solution and created a small project that was essentially organized around three objectives: dramatically improve the quality of search results, minimize impact to the existing site, and extend the site with robust search features.

Improve Quality of Search

Client was not satisfied with the quality and relevancy of their existing search results. Higher quality in search results, bringing more accurate and more relevant results to the top of the search results page, would mean a better experience for the customer and a greater probability of conversion.

Minimize impact to existing web application

As a growing company, Client was operating with tight constraints for time and money. As a result, any implementation needed to be planned for incremental integration and modification, with minimum impact to other site functionality. Search features would need to be integrated with little or no change to the existing site server infrastructure and web page design.

Extend the site with robust search features

New features driven by search were seen as highly beneficial and desired functionality to enhance the user's experience. These included:

- Search and Navigation - deriving search results either through a navigation path (typically starting with categories of products) or through a user-driven search
- Flexible attribute refinement - providing faceted navigation and refinement of search results with minimal effort
- Linguistic controls - adding synonyms, stop words, spelling suggestions and other linguistic methodologies

SOLUTION

Based on the requirements as defined by Client, Innovent suggested evaluating Solr-Lucene and provided Client with a proof of concept application of the technology. Innovent created a proof of concept application, utilizing the existing site and data, which enabled the management at Client to see hands-on how a new search solution could be implemented.

Innovent and Client worked together to create an implementation plan to integrate the Solr-Lucene technology into the website. Coordination by the teams identified issues early and minimized impacts and risk.

Quality of Search

The custom-built search was replaced with a Solr-Lucene implementation that was designed and tuned by Innovent. The result was a dramatic, measurable improvement in the quality of search, the relevancy of results, and the user's experience with the site. Additionally, Solr-Lucene's powerful and flexible linguistics tools added features that were sorely missing from the custom-built solution. Solr-Lucene's ability to search across multiple fields and apply varying levels of importance enabled the tuning of the results to achieve the optimum search results.

Minimize Impact to Web Application

The search and navigation functionality was seamlessly integrated with minimal changes to the existing web site's look and feel, and with no new hardware architecture required. Original queries designed to run against a database system from the original custom-built search engine are now handled by the Solr-Lucene server. After the implementation, users found a familiar but much more efficient search-based application.

Extend Site with Robust Search Features

Many of Solr-Lucene's core features were new to the web site. New features implemented included:

- Faceted search, giving users the ability to refine or navigate search results, also eliminating issues with users refining results to an empty set
- Flexible, user-driven sorting
- Spell checking ("Did you mean") functionality
- Linguistics, including synonyms, stemming and stop words
- Data indexing in less than 2 minutes for full data set, and real-time incremental updates of the search index.
- High-performance search queries with results well below a 100 millisecond average
- Merchandising functionality implemented including related products and featured products

THE RESULTS

In coordination with the Client team, Innovent Solutions created a comprehensive plan which was executed with success. Quality of search improvements over the previous solution were appreciably and demonstrably better. Additionally, the performance of the Solr-Lucene search solution was lightning fast, exceeding the expectations of Client in its ability to quickly provide their catalog of data with robust and highly-relevant results. The level of performance and quality of the results were a very compelling validation of the decision to upgrade the search system.

The correct level of coordination, planning and testing achieved by the client and Innovent Solutions teams created the environment for the success achieved by this effort. Together, these improvements provided for greatly increased quality of search and search query performance. The client was extremely thrilled to have the solution delivered on time, as promised.



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Enabling Intelligent Decisions®

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Innovent Solutions is a consulting firm, dedicated to the improvement of decision making through effective information management. We build systems that enable our clients and our client's customers to:

Find the information they want and need

Understand the context and meaning of information

Trust the information to be accurate and timely

Innovent Solutions is a privately held company headquartered in Los Angeles with offices in Minneapolis.

<http://www.innoventsolutions.com>

How can we help you?

Innovent Solutions is a consulting firm with many years of experience building and supporting eCommerce search solutions. Our consultants understand the importance of conversion, acquisition and retention, branding, and the culture of eCommerce. Whether your eCommerce site is for the consumer, or business to business, we can help guide you to an appropriate search solution strategy to increase ROI.

Our services are designed to:

- ◆ Improve the Quality of Search
- ◆ Maximize Return on Investment through Features Integration
- ◆ Automate and Simplify System Management
- ◆ Report, Measure and Analyze using Business Intelligence