

Avi Rappoport Resumé

Avi Rappoport
1629 Dwight Way
Berkeley, CA 94703
(510) 684-0826

avi@searchtools.com / [@searchtools_avi](https://twitter.com/searchtools_avi) / linkedin: [searchtools](https://www.linkedin.com/company/searchtools)

Search is more than technology: it is the most powerful tool available to analyze information, and to solve problems correctly, clearly, efficiently and quickly. Making search engines work properly for humans has been my avocation during my professional career, and I am currently looking for another chance to analyze and improve search.

Search Tools Consulting, 1998 - present

I work with organizations to understand their true search needs, help them choose a good engine and iteratively implement the search to improved quality and usability. I use information architecture, UX principles, Agile development, relevance tuning, and qualitative and quantitative metrics for document and ecommerce search.

Expertise

- Customer and user information analysis, domain expert support, content source input design, crawlers, document data extraction (including Apache Tika), metadata, tokenization, query processing, rules, boosting, synonyms, spelling, auto-suggest, recall/precision, relevance ranking, faceting, grouping, results display elements, user acceptance testing, query log definition, analysis, machine learning and AI training and feature definition.
- **Search Engines** - configuration of Apache Solr/Lucene, ElasticSearch, Lucidworks Fusion, Sharepoint Search, Endeca, Attivio, Google Search Appliance (obsolete).
- **Analytics** - Kibana, Google Analytics, Adobe Analytics (Omniure)
- **Languages** - Python (Pandas, BeautifulSoup, Jupyter), JavaScript, Java, Perl, C, C++, Pascal, SQL, JSON, Excel & other spreadsheets

Projects

- **Rhapsody/Napster** - analyzed music search analysis (ElasticSearch).
- **Netflix** - Performed extensive search log analysis, user interface design and wireframes for search improvements
- **United States Library of Congress** - analyzed future search requirements, metadata integration, and user experience improvements.

- **Amgen** - Participated in enterprise search proof of concept and rigorous comparison testing of industry-leading search engines using TREC processes.
- **VeriSign** - Ran the search engines on the main public site, international sites, and intranet for several years
- **Hewlett-Packard** - Analyzed logs and provided recommendations for improving the public site search, later Intranet search.
- **QwestDex** - Performed faceted metadata search RFI, RFP, and recommendation. The entire site was re-designed around this dynamic interaction.
- **Kühl.com** - implemented small ecommerce search (Lucidworks Fusion Solr/Lucene).
- **Council of Better Business Bureaus** - best practices on query intent.
- **Google** - Edited their early Search Appliance (GSA) Reviewer's Guide.
- **Proctor & Gamble** - Advised on intranet search engine selection.
- **Fair, Isaac** - Advised on intranet search engine selection
- **Wal-Mart** - Advised on commerce search engine selection
- **Salon.com** - Analyzed site search, leading to significant improvement in search quality.

Long-term Search Projects

- **Lowe's Home Improvement**, via Sapiient, *Search Quality Consultant 2020*
Worked with search team to transfer knowledge, improve analytics, systematize synonym, boost and rules lists for Lucidworks Fusion Solr/Lucene engine with millions of queries per day. With Machine Learning expert, defined new auto-suggest ranking model, worked with project engineers and testers to implement multivariant (multiple A/B) tests and analyze results, leading to an estimated \$10M+ improvement in sales.
- **Lucidworks, Inc.** *Search Generalist, 2017-18*
Worked with Lucidworks Fusion search, including crawling, indexing, relevance tuning, machine learning Signals, search analytics and Solr. Managed and tuned Intranet search projects with millions of documents on Box and Google Drive. Consulted on the requirements, UI and functionality of a cloud search system. Performed gap-fit analysis and requirements design for a large ecommerce site. Managed the internal project for Search Rules (frequently used by online stores) culminating in a successful version update.

- **Cisco Systems** via eTouch: *Search Project Consultant* 2016
Analyzed all aspects of the internal search engine, running on Attivio, including crawling exclusions, auto-suggest featured terms, query processing, synonyms, relevance weight adjustments, special results, spelling suggestions, machine learning automated query expansion, federated search results pages, and relevance evaluation, analysis using Kibana. Worked across teams, including offshore engineering and data science, made improvements on query and click logs, pre-processing, and analysis tools.
- **Search Technologies:** *Senior Search Quality Analyst*, 2013-2015
 - **Search Quality Analyst - Apple Online Store search** (Jan. 2014-Sept. 2015):
Developed search quality metrics and processes for the Apple Online Store (hardware and accessories), performed analysis on store query performance and worked with engineering on Endeca to implement changes with positive results. Analyzed machine learning for auto-suggest. Created tests on live and test sites using JSON requests, configuration database in Ruby and SQLite. Recruited and led a team of three other analysis to improve quality on international stores. Worked on implementation of search switching and auto-suggest in the worldwide revamp for the Apple.com site covering marcomm materials, Apple products, accessories, and support search.
 - **Search Design and Quality Analysis - Various Search Technologies clients:**
Worked with Search Technologies consultants and architects to respond to RFPs, created corporate search assessments, analyzed data input in CMS XML, SQL and other formats. Recommended search engines, investigated security processes for mixed public/private search engine. Presented on Search Quality to company meetings 2014, 2015.
- **Kaiser-Permanente:** *Search Analyst*, 2011-2012
Worked with a small team to implement Enterprise Search across the entire Kaiser intranet, about 270,000 pages on several dozen web servers for 160,000 employees using IBM Watson Explorer. Designed and tested crawling, indexing, query parsing, search retrieval, relevance ranking, user interface and reporting, search log analytics and reports. Managed API integration with the IBM Web Content Management system using a service-oriented architecture and XML.

Education

- **University of California, Berkeley, School of Information** (aka *iSchool* and *Library and Information Studies*), **Master of Arts**, December 1987. University Fellowship, 1986-87. Alumni Association Board of Directors, 1998-99.
- **University of California, Berkeley, School of Letters and Sciences**, B.A. in Medieval Studies (Individual Major), with Honors, December 1985.