Title:

Improvement of search experience based on MeSH semantics: recent innovations in MEDVIK Portal

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Summary:

National Medical Library (NML) of the Czech Republic operates MEDVIK Portal - a web application for access to several bibliographic databases produced by NML and cooperating institutions. The main databases are Medvik Catalogue describing library collections with Union catalogue of Czech medical libraries holdings, and Bibliographia medica Czechoslovaka - Czech national medical bibliography. The total amount of bibliographic records approximates 700 thousands. Technical design of MEDVIK portal with multiple underlying databases was not sufficient for fast and reliable retrieval which has led to further development. An aggregated database specially optimized for searching tasks has been created. The database is updated automatically from production databases and allows efficient access to all bibliographic data from one access point using full-text search approach. This design provides usual Google-like search experience, but there is the need to add more functionality to achieve better precision and recall. This need comes from obvious limits of full-text search and also from our users feedback and recent NML's survey of health workers information behaviour and needs. NML translates Medical Subject Headings (MeSH) into Czech language using MTMS. Majority of our bibliographic records are indexed with MeSH descriptors with qualifiers and NML Subjects terms which can be used for concept-based and context-sensitive tools. We have focused on MeSH semantics and NML Subjects to develop following features: search term suggestion and query builder, detailed filters, multiple clustering of search results, tag clouds for query representation and browsing support, related documents display, and the Subject browser - aggregating MeSH, NML Subjects and Supplementary Concepts Records. The techniques used to implement these features will be presented together with detailed new user interface explanation.