FEDERATED SEARCHING: NEW METHOD OF SEARCHING

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ABSTRACT

This paper discusses the concept of Federated search and provides to meet the need of searching multiple resources with single inquiry. This is also provide to search many resources at once in real time, arrange the results from the various resources into a very helpful systematic and then presents the outcome to the research scholars. This paper also discusses the characteristics, needs and challenges of federated searching system for libraries and key characteristics essential of the federated searching system.

Keywords: *Federated search, libraries, Method*

1. Introduction

Federated search service to facilitate the search for pertinent information transversely a set of online disseminated collections, a federated information retrieval system usually represents each collection, centrally, by a set of vocabularies or sampled documents. Correct retrieval is therefore related to how accurate each representation reflects the basic content stored in that collection. As collections develop over time, collection representations should also be efficient to reflect any change; however, a current solution has not yet been planned. Present scenario of information explosion age the Federated Search of users' becoming complex day by day. The task of information professionals is also very complicated and difficult to meet out the Federated Search of the different users.

As we know the importance of computer increases our capacity to store, search and retrieve for information externally. Over the past decade strong advances have been made in the development of technologies and system that enable the effective management of digital resources .The users' neFederated Search are becoming very specific and pin pointed. No one database or search service had all relevant information. Digital resources multiply organizational aspect at present. Such resources are like a new kind of 'Island', document delivery, delivery services, data archive, data service, collection management of different sources have created a challenge in front of information organizers and professionals. The increases in such an island have various drawbacks also. For users, the use of several databases is really a frustrating and daunting task, so Federated searching is a very new concept that is gaining importance in libraries everywhere.

Searching for information using electronic databases can be boring and wasting of time. We may start by searching one database and, after dead-ending a few times, find a few useful items. We know that we should searching a special resources but need to move on in our hectic schedules or are simply too irritated and fearful of the experience that might ensue if we were to continue with that second resources whose interface and query language we might not be familiar with. If only there were a way to gather resources from multiple sources simultaneously and deal with a single interface, the job would be so much faster and easier. Federated searching is a hot topic that seems to be gaining traction in libraries everywhere. Federated searching is a solution to this plight of many searchers. This definition shows the aggregating purpose of the federated search:

"Search for information using software designed to query multiple networked information resources via single interface" (Reitz).

2. Meaning of Federated Search

This is identified as Meta searching which provides capability to user to search many information resources from one platform. The types of resources that can be searched incorporate local and remote library catalogues, abstracting and indexing resources and institutional repositories. The technical point of view, this system distributed search method across various resources using many search procedures. Some specialized federated search systems are limited to metadata collected, searching various repositories, or using a limited number of procedures. The special nature of these appliances, they have partial value for library objectives.

Federated search technology is an integral component of an Information Portal, which provides the interface to diverse information resources. Once the user enters their search inquiry in the search area of the Information gateway, the system uses federated search system to send the search series to each resource that is integrated into the gateway. The entity information resources then send the Information gateway a list of output from the search inquiry. Users can analysis the number of papers retrieved in each resource and link honestly to each search result.

• Search for information in multiple information resources through a single query.

- View search results in a single list.
- Link directly to each resource to expand the search.

Three additional features are highly desirable, but not part of everyone's definition of a federated search. They are aggregation, ranking, and de-duplication. The essential benefits of federated search to its users include efficiency, quality of search results, and current, relevant content.

3. Need of Federated Search

The increased need for pin-pointed and information

- It is very difficult to find out which database to search
- It is very difficult to search all the databases even if you know the databases.
- It saves the time of the user, as faster searching is possible.
- The need to learn one simple interface rather than many complex interfaces.
- The search quality is high.
- The databases have simplest technical search.
- It helps in getting answers of quite complex and typical queries.
- The Search environment is robust type and centralized.
- It helps in locating best documents with the help of ranking.

4. Important Factors who make federated Search more Potential

Factors which make federated searching more powerful, There are certain factors that make the federated searching more powerful some of these are as follows:

- Compatibility with other standards
- Database compatibility
- Display of full text in true native interfaces
- Unlimited number of database searching at a time
- Open URL compatibility with all database results
- Parse citation for all databases
- Sorting by relevancy, date, author, title & Publication

5. Major Futures of Federated Search

By integrating critical components of federated search into your library's solution via federated search, your users will immediately benefit from the leading content and features that researchers have come to rely on through federated search, including:

- Rich metadata
- Superior relevancy ranking system for higher-quality search results
- Direct full-text linking, including Smart Links

- Access to critical subject indexes via Platform Blending, which combines rich metadata with subject indexing and abstracts from leading subject indexes that aren't available through any other discovery service.

- Comprehensive support of Facets, Limiters & Expanders

- Book jacket images and publication-type icons

- Persistent Links

- Custom Links

- Support for Guest Access and Simultaneous User Access

- Mobile availability

- Simplicity – Easy integration (with systems and for programmers)

- Integration with the most popular systems VuFind, Drupal, etc.

- Various options for use – The flexibility & features allow it to be consumed in many ways

- Continued commitment to performance and stability – Federated Search is dedicated to providing a state-of-the-art, high-performing.

- Comprehensive developer documentation – DTD, sample XSLT, sample applications, VuFind demo, XML schemas for Info/Search/Retrieve responses, etc.

- Access Protocols – SOAP and REST

- Improved Response Format – XML and JSON formats allow programmers to easily reproduce the federated search result list and detailed record exactly as seen in federated search (HTML markup, highlighted search terms, hyperlinked authors and subjects, display ready data, etc.), and display the results in a different manner

Federated search is the process of performing a simultaneous real-time search of multiple diverse and distributed sources from a single search page, with the federated search engine acting as intermediary. Look at the key words in the definition and their influence on the value of federated search:

- Federated - Content is combined from different sources saving the effort of searching sources one at a time.

- Simultaneous - Federated search queries all user-selected sources at once. It would be unacceptably slow if it waited for all of the results from one source before querying the next.

- Real-time - Federated search occurs live and results are current. There's no stale content.

- Multiple - The value of federated search to the researcher increases as the number of sources increases.

- Diverse Sources - Federated search engines typically can search sources containing documents of different types, e.g. PDF, Word, and PowerPoint.

The process of extracting text from documents of different types is hidden from the user.

- Distributed Sources - Federated search engines expect to search content that lives in different locations.

- Single Search Page - Federated search engines provide a single point of searching.

Federated search goes by a number of different names. Meta search (or meta-search), distributed search, directed search, broadcast search, deep web search, cross-database search, and universal search are often, but not always, used synonymously with "federated search."

As with many technologies that are rapidly adopted, there are some misconceptions about what it can do. Web Feat, a provider of federated search technology to more than 900 public, academic, and corporate libraries, including more than half of the top 10 U.S. public libraries, has compiled this list of the five most commonly repeated misconceptions about federated searching. EBSCOHOST and KNIMBUS are some of the examples of federated searching within India.

5.1. Competence, Time Savings

Using a federated search engine can be a huge time saver for researchers. Instead of needing to search many sources, one at a time, the federated search engine performs the many searches on the user's behalf. While federated search engines specialize in finding content that requires form submissions to retrieve, it isn't the only criterion for being a federated search engine. A federated search engine also associates content from different sources. Federated search uses just one search form to cover numerous sources, and combines the results into a single results page.

5.2. Worth of Outcome

Federated search engines show their value best in environments in which the quality of results matters, such as libraries, corporate research environments, and the federal government. In the case of the federal government, the constituents of the government benefit greatly from such applications. A major difference between a federated search engine and a standard search engine like Google is that the client who contracts for the federated search service selects the sources to search. In almost every case, the sources will be authoritative. Google, on the other hand, has very minimal criteria for source selection. If a Web page doesn't look like outright junk Google will present it among the search results. Thus, the federated search engine acts as a helpful librarian does, directing users to excellent quality.

5.3 Mainly Contemporary Content

In addition to filling out forms and combining documents from multiple sources, another important benefit of federated search engines is that they search content in real time. Real time data is crucial for researchers who are searching for up-to-the-minute content or for content those changes frequently. As soon as the content owner updates their source, the information is available to the searcher on the very next query. By contrast, with standard search engines/Google, the results are only

as current as the last time that Google crawled sites with content that matches your search words. Content you find via Google might be days or weeks old, which can be fine depending on your situation, but can be problematic if you want the most current information.

Some federated search applications include:

- Knimbus

- Mednar.com - Searches medical information sources.

- Biznar.com - Searches business-related sources.

- WorldWideScience.org - Searches science content from all over the world, from government agencies, as well as other quality research and academic organizations.

- http://search.smartlib-bibliogen.ca/zengine?VDXaction=ZSearchSimple - Searches Capital Smart Library Consortium of Libraries.

- http://osulibrary.oregonstate.edu/metafind/about.html - Searches Oregon State University's Library.

- http://scienceroll.polymeta.com/search/ui7/searchfr.jsp?un=scienceroll - Searches a medical student's journey inside genetics and medicine through web 2.0.

- Science.gov - Searches science documents from a number of US federal government agencies.

- http://lifesearch.indexdata.dk/# - Searches University of Copenhagen's Library of Faculty of Life Sciences.

- Scitopia.org - Searches digital libraries of leading science and technology societies.

- http://www.techxtra.ac.uk - Searches 31 different collections relevant to engineering, mathematics and computing, includes content from over 50 publishers and providers.

Conclusion

There is great deal more information available now days-of this there can be no doubt. At the same time lot of junk information is available and that waste the time of the users. Federated searching provides facility to user to search several databases in same interface. Federated searching provides several opportunities for information professionals, but at the same time it has several complexities also. The paper provides an overview of federated searching, its need, process etc. The local database and hub database relationship is also very important at the same time. The myths about the federated searching are dealt in the paper. No doubt federated searching provides a great opportunity for information professionals to provide better services to the users.

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