

# December 15, 2016

## Search Enhancements

Following changes are made to improve performance and usability with Summon 2.0:

- **Query Expansions**

We have added new Library of Congress Subject Headings to [query expansions](#) so that “variants” (as specified by the LCSH) are now used to expand queries. For example, a search for “bionanotechnology” is now expanded to include results for “nanobiotechnology” since “bionanotechnology” is a variant of “nanobiotechnology”. Or “science of language” is now expanded to include results for “linguistics” since “science of language” is a variant of “linguistics.”

Please note that not all variant heading mappings from LCSH are included in the new query expansion. For example, “healthcare” is defined as a variant for the heading “medical care” in LCSH. This mapping is not included in the current query expansion data set because “healthcare” is a very common term, and it is probably not necessary nor desirable to expand the query for “healthcare” to include results for “medical care”.

Another new feature included in this release is the “context-sensitive” expansion feature. LCSH uses the notion of “qualifying terms” indicated in parentheses. For example, “optimization (linguistics)” is defined as a variant term for the heading “optimality theory” with the qualifying term “linguistics”. This means the term “optimization” used in the context of “linguistics” is a variant for the heading “optimality theory”. The new feature looks for both the variant term “optimization” and the qualifying term “linguistics”, and it does the expansion only if both terms are present in the query.

Examples:

- optimization >> no expansion
- optimization engineering >> no expansion
- optimization linguistics >> search expanded to include results for “optimality theory”
- linguistics optimization >> search expanded to include results for “optimality theory”

- **Database Recommender Improvements**

In addition to upgrading the overall [recommendation service](#) to use updated technology (now uses Java8, for example), now any database that you have rights to is available for recommendation. This means there are over 47,000 databases available for recommendation. If you have Database Recommender activated in your instance of Summon, any databases you have rights to will be made available for recommendation by default. Customizing resources for recommendation is done via the [Recommender page in the administration console](#).

We’ve also updated the navigation and search functionality for databases within the admin console to make managing these resources easier.

Also we have addressed outstanding issues or defects:

- Searching on a tag or name of a Best Bet in quotation marks now returns an appropriate match
- Better handling of different accents in Spanish and Catalan
- Best Bets now appear with Query Expansion

## Topic Explorer Relevance Improvements

We've improved the reliability and frequency of topic matching to provide more relevant [topic recommendations](#). This includes:

- Better matching of longer queries; for example, "English as a Second Language" previously did not return a topic; now this search term can produce a match
- Better handling of close matches for longer phrases, to eliminate false matches; for example:
  - Previously the topic "stress in the workplace" would trigger a match for a search for either "\_\_\_\_\_ in the workplace" or "stress in the \_\_\_\_\_", so that "lunch in the workplace" or "stress in the joints" would result in the matching topic "stress in the workplace"; phrase matching (having 3 words in order) would trigger the match despite the disconnect
  - Now we have balanced phrase matching with better term matching, so that the above examples no longer return the topic, but the following do: stress in the workplace, stress and workplace, stress from the workplace, and stress in a workplace
- The addition of JapanKnowledge as a resource available for topic content
  - You need to have rights to this content in order to display it in the Topic Explorer, and the database is turned on as a Summon Topic by submitting a request to our Support team.

Note: all examples provided in these release notes may not be valid for your implementation of Summon. Generating a match is dependent on the source of your Topic Explorer content and how you have the service configured.

### • **Analytics**

We are pleased to announce that with this release, we will be replacing our current reporting system with Oracle Business Intelligence (OBI). In addition to the launch of the initial dashboard, which includes reporting equivalent to our current set of reports, this release lays the groundwork for expanded reporting of events throughout the Summon interface.

A few things to note regarding this initial launch of OBI reporting:

- Logging of data will begin at the time of the December release
- We will run our current analytics platform, Urchin, and the new system, Oracle Business Intelligence or OBI in parallel while we validate the outputs of the new system
- Moving forward, 2016 data will be available in Urchin and 2017 will be available in OBI
- Reports will be made available after a complete month of data collection, at the beginning of February
- When the reports are live, you find the reports under the current Usage. Under that tab you'll find two sub tabs: "Historical" and "Current". (Historical = Urchin and Current = OBI)

We will follow up in January with more details on the launch of our new analytics, including dates and support materials.

### • **Relevance Improvements: Subject Term Boost**

With our December release, we are publishing a new relevance algorithm with Subject Terms having a higher influence in relevance. Previously subject terms were given similar treatment to

other metadata found within the record; now subject terms are given a boost more similar to how Title or Author are treated.

This new relevance algorithm is one of six we tested with a Subject Term boost, and this candidate demonstrated the best performance for application of the boost as well as preserving performance for other types of searches, such as known item searches.

For example, the boost should only apply when query terms match specific subject terms and not when subject terms are found in other fields in the record. When searching on “computational linguistics,” the title “foundations of Computational linguistics” shouldn’t be affected, since “computational linguistics” is not a subject term for this item. However, the title “Readings in Machine Translations” should get a boost since computational linguistics is a subject term in that record. Also, the title “Japanese Computational Linguistics” should get a boost because it also has computational linguistics as a subject term.

Note: Because relevance ranking is a complex calculation of multiple factors, actual influence of subject terms will be determined by the search parameters at the time of execution. Also, you may not be able to recreate these exact examples in your instance of Summon due to differences in the search configuration at the time of searching, including differences in content rights, configuration, and facets applied, for example.

- **Bug Fixes**

Beyond the fixes and improvements listed above, we have also made the following changes to improve performance and usability with Summon 2.0:

- Addressed issues that were causing the Summon search box generated by the Summon widget to disappear
- Corrected the placement of the spinner overlay icon in Right-to-Left interfaces
- Addressed issues with text appearing out of margin in the new Summon results page preview pane
- Removed "Indian" as a language option in Advanced Search Language dropdown
- Corrected issues with the MLA Citation format