Using EBSCO SmartText

http://support.ebsco.com/knowledge_base/detail.php?id=3736 says the following.

1. SmartText Search takes the chunk of text entered into the search box and first runs it through a sophisticated summarizer, pulling out all the main words/phrases.
2. SmartText Search takes all of those main words/phrases and queries them against the database, getting back a sorted list of the words/phrases that are most relevant as compared to that database’s content.
3. Based on this result, a relevancy weight is assigned to each word/phrase.
4. A search string is then built OR’ing the terms and their weights together, and a search is conducted against the database.
5. A relevant Result List is returned.

So SmartText is meant to take natural language input. For testing purposes, we are going to use abstracts for two articles on the same topic: David L. Stubbs, “The Shape of Soteriology and the Pistis Christou Debate” (Scottish Journal of Theology 61, [2008]:137-57) and R. Barry Matlock, “The Rhetoric of Pistis in Paul: Galatians 2.16, 3.22, Romans 3.22, and Philippians 3.9” (Journal for the Study of the New Testament 30, [2007]:173-203).

1. Abstract for Stubbs article:

A historic debate concerns how to translate and interpret ten instances of the phrase pistis Christou and its near equivalents in Paul’s letters. This phrase provided the foundation for the Reformation understanding of justification by grace through faith. The question is whether “faith” refers principally to the believer’s “faith in Christ” or is “the faith of Christ.” Makes a contribution to the debate from a theological angle, but describing two “patterns of soteriology” which are in play, and examining how easily these patterns can be read onto what Paul writes concerning three issues: salvation, the Law and the “righteousness of God.” The overall theological vision which includes three facets – a Christologically centered understanding of the pistis Christou passages, a broader understanding of pistis, and the centering of soteriology around the concept of “participation in Christ” – provides the most convincing interpretational matrix for reading Paul. Points out implications for contemporary theology.

2. Abstract for Matlock article:

The question of pistis christou (Gal 2:16, 20; 3:22; Rom 3:22, 26; Phil 3:9, cf Eph 3:12) has proved resistant to resolution. The most frequent argument against the objective
genitive (faith in Christ) on behalf of the subjective (the faithfulness of Christ) is that the
together creates an unacceptable redundancy where one finds two or more pistis / pisteuo
phrases side by side (Gal 2:16; 3:22; Rom 3:22; Phil 3:9). Offers a fresh look at these
verses, accounting for five of the seven pistis christou phrases. Makes a positive inquiry
into the interrelation of and interaction between these pistis / pisteuo phrases and the
other elements of their respective contexts – and the role such consideration might play
in disambiguating pistis christou. Attends specifically to matters that bear on pistis
christou, and more particularly to matters of rhetoric / style / structure. Offers a number
of exegetical observations that weigh heavily in favor of the objective genitive reading.

For our test we copy an abstract into the search box and record the results.
Here are results based on 8/17/2017 searches.

<table>
<thead>
<tr>
<th>Search expression</th>
<th>Number found</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>copied abstract from RTA about an article by Stubbs on pistis Christou and pasted it into ATLA after choosing smart-text searching</td>
<td>12,439</td>
<td>Listed Stubbs’s article 1st and nearly all the first 50 were relevant to pistis Christou.</td>
</tr>
<tr>
<td>redid the search having it search with the full text also</td>
<td>270,509</td>
<td>Listed Stubbs’s article 28th. Many of first 50 were relevant to pistis Christou.</td>
</tr>
<tr>
<td>copied abstract from RTA about an article by Matlock on pistis Christou and pasted it into ATLA after choosing smart-text searching</td>
<td>6,702</td>
<td>Listed Matlock’s article 40th. Most of first 50 were on pistis Christou, but not all.</td>
</tr>
<tr>
<td>included the option to search the full text</td>
<td>198,889</td>
<td>Listed Matlock’s article 2nd (probably because the abstract was in the article, so there was a perfect match). Many of the first 50 were relevant.</td>
</tr>
</tbody>
</table>

The two abstracts retrieved very different numbers of citations. Pistis Christou is a distinctive search term, so high precision is easily attainable just using that phrase.

So what happens if we use just a few terms with SmartText? Here are results based on 8/17/2017 searches.

<table>
<thead>
<tr>
<th>Search expression</th>
<th>Search Option</th>
<th>Number found</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>“city of God”</td>
<td>Boolean/Phrase</td>
<td>258</td>
<td>Exact match, words adjacent in metadata. Since “of” is a stopword, however, “city of God” matches the same results as “city in God”.</td>
</tr>
<tr>
<td>“city of God”</td>
<td>Boolean/Phrase + Full Text</td>
<td>5,209</td>
<td>As above.</td>
</tr>
<tr>
<td>“city of God”</td>
<td>SmartText</td>
<td>110,549</td>
<td>Ignores quote marks. Approximately looks for “city” OR “God” somewhere in the record. Most items retrieved are irrelevant. Because of ranking, items listed first tend to be relevant.</td>
</tr>
<tr>
<td>“city of God”</td>
<td>SmartText + Full Text</td>
<td>474,119</td>
<td>Ignores quote marks. Approximately looks for “city” OR “God” somewhere in the article. Most items are irrelevant. Because of ranking, items listed first tend to be relevant.</td>
</tr>
</tbody>
</table>
Based on EBSCO's description and some experimenting, it appears that . . .

- SmartText ignores quote marks and search operators. SmartText automatically matches final s and final apostrophe s.
- Rare words are given high weight even if not important for a search so I’m guessing each search term is assigned a weight inversely proportional to frequency in the database. This is a common strategy.
- Weights assigned to terms vary by field; a match in a subject field is given more weight than a match in a note field, for example. This is a common strategy.
- There appears to be a minimum non-zero threshold weight below which records are not included in the results list (so a Boolean search using the same terms sometimes retrieves more). This is a common strategy.
- Ranking appears to be based on sum of matched weights plus other factors like age of document. This is a common strategy.

If you specify a Boolean search which finds nothing, then EBSCOHost automatically reformulates the search with SmartText and tries again. The error message looks like the following.

Note: Your initial search query did not yield any results. However, using SmartText Searching, results were found based on your keywords.