



LexisNexis *Academic* Features: SmartIndexing Technology

The new LexisNexis *Academic* exploits SmartIndexing Technology at every turn to help guide users to the information they need.

What Is SmartIndexing Technology?

Briefly stated, SmartIndexing Technology (or, simply, SmartIndexing) applies controlled vocabulary terms for several different taxonomies to all LexisNexis news and business content. (Legal content is also indexed, but by a different set of taxonomies developed specifically for legal researchers.) Sources are also indexed, making it easy to locate publications in the Source Selection tool by attributes such as publication type, language, geographic region, and main topics covered.

The taxonomies are built and maintained by the LexisNexis Taxonomies & Indexing team, comprised of information professionals, lawyers, subject matter experts and analysts. Index terms are assigned using a unique approach that combines the best features of human and automated indexing practices. Index term rules are developed and tested by the Taxonomies & Indexing team. These rules “read” incoming documents and assign relevant index terms automatically to documents and sources.

Point your browser to the LexisNexis InfoPro site for more information on this remarkable project: <http://www.lexisnexis.com/infopro/smartindexing/>. The site includes background information, practical advice, and search tips and tricks.

SmartIndexing in LexisNexis Academic

SmartIndexing plays a major role at each step of the search and retrieval process, including:

- Source selection
- Query formulation
- Working with results

Source Selection: Browse

The Taxonomies & Indexing team has created a separate taxonomy to index LexisNexis sources, which is consistent with the controlled vocabularies used to index documents. The illustration below shows the “News and Business” topics in the Source Selection Browse form. Three different taxonomies are available on this form: geography, publication type, and topic.

The screenshot shows a web form titled "Browse Sources" with a help icon. It features three radio buttons for selection: "Publication Type", "News & Business Topics" (which is selected), "Industry", and "Area of Law". Below these are two dropdown menus for filtering: "Country" (set to "All Countries") and "Publication Type" (set to "All Publication Types"). A "Trail" section shows "News & Business Topics". A step indicator shows "3" with a downward arrow and the text "Select a category to view sources". A "View:" dropdown is set to "All sources". The main content area displays a two-column list of categories, each preceded by a folder icon. The categories are: General News Sources, Business & Management, Company Information, Crime & Justice, Demographics, Economics, Education & Training, Employment & Human Resources, Environment, Government & Politics, International Affairs, Organizations & Associations, People & Biographical Information, Risk, Safety & Security, Science & Technology, Society & Lifestyle, and Trade & Development.

Browse Sources ?

1 By ☐ Publication Type ☒ **News & Business Topics** ☐ Industry ☐ Area of Law

2 Filter by: Country
Publication Type

Trail: News & Business Topics

3 ↓ Select a category to view sources

View:

| | |
|---|--|
| <input type="button" value="v"/> General News Sources | <input type="button" value="v"/> Government & Politics |
| <input type="button" value="v"/> Business & Management | <input type="button" value="v"/> International Affairs |
| <input type="button" value="v"/> Company Information | <input type="button" value="v"/> Organizations & Associations |
| <input type="button" value="v"/> Crime & Justice | <input type="button" value="v"/> People & Biographical Information |
| <input type="button" value="v"/> Demographics | <input type="button" value="v"/> Risk, Safety & Security |
| <input type="button" value="v"/> Economics | <input type="button" value="v"/> Science & Technology |
| <input type="button" value="v"/> Education & Training | <input type="button" value="v"/> Society & Lifestyle |
| <input type="button" value="v"/> Employment & Human Resources | <input type="button" value="v"/> Trade & Development |
| <input type="button" value="v"/> Environment | |

Source Selection: Find

The same source taxonomies, plus language and periodicity classifications, are available on the Source Selection Find form. (The geography, language, and periodicity choices are collapsed under “More Options” in the illustration.) Note that the publication type options expand, which allows you to select more specific types such as “newspapers” or “transcripts” within the “News” category.

Find Sources

1 By ☒ **Keyword** ☐ Alphabet ☐ Source Code

2 Enter keywords and/or select categories to find matching sources

Keyword
e.g.: "New York Times" or Times New York

Publication Type

- ☒ All Publication Types
- ☐ News
- ☐ Companies & Organizations
- ☐ Industries & Markets

Topics

| News & Business Topics | Industry | Legal |
|--|---|---|
| <input checked="" type="checkbox"/> All Topics | <input checked="" type="checkbox"/> All Topics | <input checked="" type="checkbox"/> All Topics |
| <input type="checkbox"/> General News Sources | <input type="checkbox"/> General Industry Sources | <input type="checkbox"/> General Legal Sources |
| <input type="checkbox"/> Business & Management | <input type="checkbox"/> Accounting & Tax | <input type="checkbox"/> Accounting Law |
| <input type="checkbox"/> Company Information | <input type="checkbox"/> Agriculture & Forestry | <input type="checkbox"/> Administrative Law |
| <input type="checkbox"/> Crime & Justice | <input type="checkbox"/> Automotive | <input type="checkbox"/> Administrative Procedure & ... |

Regions of Coverage: All Countries
Publication Languages: All Languages
Frequency of Update: All Frequencies

You can combine the source indexing with keyword searching, or use it by itself. For example, without entering a keyword, you could use SmartIndexing to quickly produce a list of Spanish-language newspapers covering business and management topics.

Searching: News

The News Search form looks quite similar to the Source Selection Find form, in that it includes three boxes that let you quickly add SmartIndexing terms to your search. On this form, you can also use the “exclude” option, which has the effect of using the AND NOT operator with the selected term(s).

The screenshot shows a web-based search interface titled "News". At the top, there are two radio buttons: "Terms and Connectors" (unselected) and "Natural Language" (selected). Below these is a large text input field with up and down arrow buttons on its right side. To the right of this field is a red "Search" button with a magnifying glass icon. Below the main input field is a smaller text box labeled "Required Terms (Optional)" with the instruction "Specify terms that must be found in retrieved documents:". Below this is another text input field. To the left of the "Required Terms" section is a link that says "Add Index Terms" with a minus icon and a "Hide" link. Below the "Required Terms" section are three columns of checkboxes for filtering results: "Industry", "Subject", and "Region". Each column has a list of terms with checkboxes, and an "Exclude from Search" checkbox at the bottom. The "Industry" column includes "All Industries" (checked), "Accounting", "Aerospace", "Agriculture", and "Automotive". The "Subject" column includes "All Subjects" (checked), "Alliances & Partnerships", "Appointments", "Best Practices", and "Board Changes". The "Region" column includes "All Countries" (checked), "Africa", "Americas", "Antarctica", and "Asia". Each column has up and down arrow buttons on its right side.

News

Enter Search Terms ☐ Terms and Connectors ☒ Natural Language

Search

Enter a question, a sentence, or a few descriptive terms. Use quotation marks for an exact phrase. Do not use wildcard characters such as ! or *.

Required Terms
(Optional)

Specify terms that must be found in retrieved documents:

Add Index Terms [\[-\] Hide](#)

| Industry | Subject | Region |
|--|---|---|
| <input checked="" type="checkbox"/> All Industries | <input checked="" type="checkbox"/> All Subjects | <input checked="" type="checkbox"/> All Countries |
| <input type="checkbox"/> Accounting | <input type="checkbox"/> Alliances & Partnerships | <input type="checkbox"/> Africa |
| <input type="checkbox"/> Aerospace | <input type="checkbox"/> Appointments | <input type="checkbox"/> Americas |
| <input type="checkbox"/> Agriculture | <input type="checkbox"/> Best Practices | <input type="checkbox"/> Antarctica |
| <input type="checkbox"/> Automotive | <input type="checkbox"/> Board Changes | <input type="checkbox"/> Asia |
| <input type="checkbox"/> Exclude from Search | <input type="checkbox"/> Exclude from Search | <input type="checkbox"/> Exclude from Search |

Searching: Power Search

The Power Search form has a SmartIndexing link that opens a special Index Term Lookup tool in a separate window. The tool allows users to search or browse for index terms from the following taxonomies:

- Company
- Industry
- Subject
- Geography

The geographic hierarchy is shown below. The tool is interactive, and is a great way for users to become familiar with the LexisNexis indexing approach as they find the correct terms for their searches.

The screenshot shows a web-based interface for selecting index terms. At the top, a message reads: "To improve your results, select LexisNexis® Index Terms to add to your search." Below this is a section titled "Lookup Options" with three radio buttons: "Find", "Hierarchy" (which is selected), and "Alphabet". To the right of these is a "Change Index:" dropdown menu currently set to "Geography".

The main area is titled "Geographic directory" and contains a hierarchical tree of geographic regions. Each region is preceded by a square checkbox and a plus icon. The regions listed are: Africa, Antarctica, Asia, Caucasian States, Central Asia, East Asia, China, Japan, Mongolia, North Korea, South Korea, Taiwan, Northern Asia, South Asia, South Central Asia, and South East Asia. Under the "Japan" region, two sub-entries are listed: "Osaka, Japan" and "Tokyo, Japan", each with a checked checkbox and a green checkmark icon.

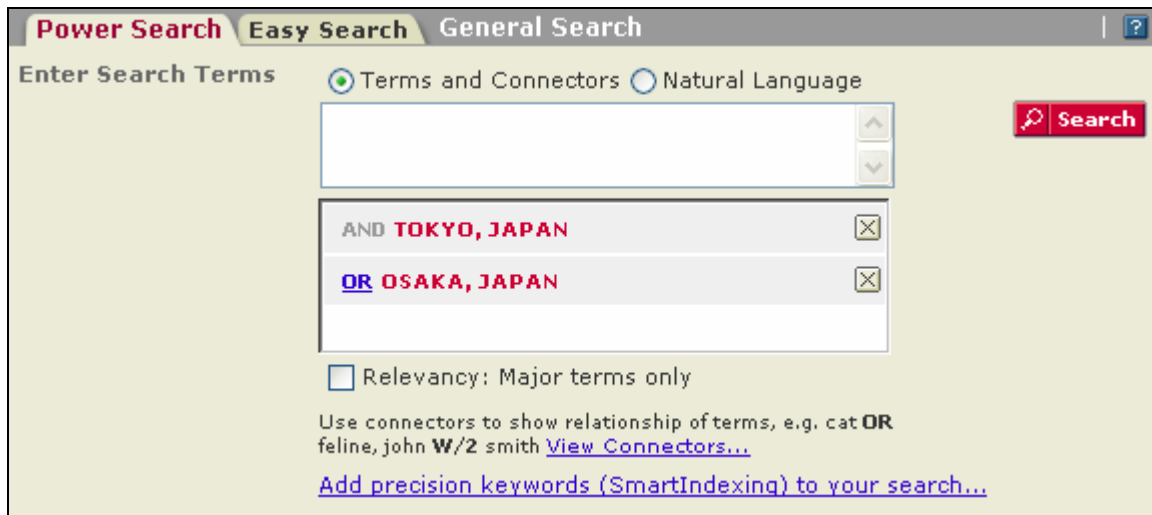
At the bottom of the window, there is a "View Selected" checkbox (which is checked), a red button labeled "OK - Add to Search", and a "Cancel" button.

Clicking the "Add to Search" button closes the Index Term Lookup Tool and returns you to the Power Search Form.

As shown below, a new box has been revealed in the Power Search Form to hold the SmartIndexing terms that have been selected. Additional search specification, such as full-text strings, date ranges, or particular sources can be added, but are not required.

The Boolean operator used between the index terms can be toggled between AND, OR, and AND NOT.

Check the Relevancy box to limit your search to major terms. This will restrict your results to documents for which the specified terms have a relevancy score of 85% or higher, indicating a significant discussion of the terms.



The screenshot shows a web interface for a search engine with three tabs: "Power Search" (selected), "Easy Search", and "General Search". Below the tabs is a section titled "Enter Search Terms" with two radio buttons: "Terms and Connectors" (selected) and "Natural Language". A large text input field is present. Below it, a list of search terms is displayed: "AND TOKYO, JAPAN" and "OR OSAKA, JAPAN", each with a small 'X' icon to its right. Below the list is a checkbox labeled "Relevancy: Major terms only". At the bottom, there is a note: "Use connectors to show relationship of terms, e.g. cat OR feline, john W/2 smith" followed by a link "View Connectors...". Below that is another link: "Add precision keywords (SmartIndexing) to your search...". A red "Search" button is located in the top right corner of the form.

Narrower term roll up (hierarchical inclusion) is used in the search logic. Thus a search for "Asia" will also return documents indexed to the narrower term, "Tokyo, Japan." However, a search for a narrower term will not return documents indexed to broader terms.

Working with Results: Clustering

The results form in the new LexisNexis Academic uses clustering to help users work with their results set. The left side of the form includes a drop down box that lets you select which type of taxonomy to use for the clustering. Subject indexing is used in the example below. As a result set is returned, LexisNexis *Academic* analyzes the SmartIndexing terms assigned to the documents and uses them to create the groupings on the left side of the form. The number of documents indexed to each term is shown in parentheses, with the most frequently occurring terms at the top. Clicking on a term will filter the results set to show only those documents to which the term has been assigned.

The screenshot displays the LexisNexis Academic Results Groups interface. On the left, a 'Result Groups' sidebar shows a taxonomy of subject terms, with 'All Results (132)' at the top. Below it, various subject categories are listed with their respective document counts: Society, Social Assistance & Lifestyle (47), Families & Children (34), Government & Public Administration (26), Medicine & Health (25), Population & Demographics (25), Government Bodies & Offices (20), Population Characteristics (18), Reports, Reviews & Sections (18), Births & Birth Rates (17), Government Departments & Authorities (1), Family (16), Demographic Groups (15), International Relations & National Security, and Marriage (14). The main area shows a list of results, with the first four items visible. Each item is preceded by a checkbox and a number. The results are sorted by relevance, as indicated by the 'Sort' dropdown. The top result is 'A PRINCE IS BORN: It began at a university bookstore' from The Daily Yomiuri (Tokyo), September 7, 2006 Thursday, Pg. 11, 839 words. The second result is 'Gov't to create support clubs for 'older freeters'' from Japan Economic Newswire, August 22, 2006 Tuesday, INTERNATIONAL NEWS, 511 words. The third result is 'Communities fight falling populations' from The Nikkei Weekly (Japan), September 4, 2006 Monday, 934 words. The fourth result is 'Leaping the hurdles of long-distance love: Leaping the hurdles of long-distance love' from Japan Times (Tokyo), August 15, 2006 Tuesday, STATE AND REGIONAL NEWS, 959 words, Tomoko Otake, Japan Times, Tokyo.

The Results form also allows you to cluster your results set using these categories:

- Publication Category (or type)
- Publication Name
- Subject
- Industry
- Company
- Geography
- Language

Results clustering makes SmartIndexing convenient for novice users who would not consider adding index terms to their search. It allows them to search first and then easily sort through their results.

The use of SmartIndexing in Results Groups also provides an instant analysis of your search strategy, allowing you to see the distribution of your results set by publication type, geography, etc.

Working with Results: More Like This

SmartIndexing also appears when selecting the “Full with Indexing” view for the full text of news and business documents. Index terms are shown for all news and business documents, and in more recent documents you can select the terms occurring in the document to restrict the results set or revise your search.

View

Full with Indexing

Narrow Search

1 of 132

Next Steps

Edit Search

A PRINCE IS BORN; It began at a unive...

Find Documents with Similar Topics

Below are concepts discussed in this document. Select terms of interest and either modify your search or narrow the current results set

Company

Minor Terms

SRI LANKA TELECOM(53%)

Industry

BOOKSTORES(90%)

Minor Terms

ZOOS & AQUARIUMS(70%)

ANTIBIOTICS(64%)

ANTI-INFECTIVES(51%)

Subject

CONFERENCES & CONVENTIONS(89%)

FAMILY(89%)

Minor Terms

MARRIAGE(78%)

PRESS CONFERENCES(76%)

TALKS & MEETINGS(76%)

PREGNANCY & CHILDBIRTH(74%)

COLLEGES & UNIVERSITIES(73%)

SPORTS & RECREATION(67%)

BIRDS(65%)

DISABLED PERSONS(52%)

Geography

ASIA(92%)

JAPAN(92%)

THAILAND(90%)

Minor Terms

CAMBODIA(79%)

INDIA(79%)

MELANESIA, MICRONESIA & POLYNESIA(79%)

SAMOA(79%)

SRI LANKA(79%)

TONGA(79%)

PAKISTAN(57%)

TOKYO, JAPAN(54%)

→ Modify Search with Selections

OR

→ Narrow Search with Index Terms

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Six Highlights of SmartIndexing

1. *Accuracy*: LexisNexis indexers and analysts run a battery of iterative tests on new index terms and periodically re-test and update existing index terms to ensure the highest levels of recall and precision.
2. *Consistency*: The same taxonomies are used throughout news and business content in LexisNexis *Academic*
3. *Currency*: Index terms and hierarchies change over time, but many databases have no practical method for re-indexing older documents to keep them in synch. The automated processes of SmartIndexing are run against all documents in the database on a quarterly schedule so that all indexing is current.
4. *Indexing to concepts, not words*: Behind the scenes, SmartIndexing uses indexing codes, not words. This means that changes in terminology, such as when a company or a country changes its name, can be made instantly.
5. *Language-neutral*: The same SmartIndexing codes are used in English- (US and UK), German- and French-language documents, so you can search for foreign-language sources and documents using English index terms.
6. *Narrower term roll up*: Subordinate terms are included in searches for higher level terms unless explicitly excluded by the user. This approach matches the natural assumption of most users that, for example, a search on (the broad term) Insurance Products should return an article indexed to (narrower terms) Automobile Insurance or Health Insurance.