

Encore

Encore represents the effort of Innovative Interfaces to produce a next-generation library interface, which the company positions as a new “discovery and services platform.” Encore embraces a more expansive view of its scope than a traditional catalog. Innovative first announced its plan to create Encore in June 2006, though work was already in progress. The company has followed an ambitious development strategy, with production release of the product expected in mid-2007.¹

This overview of Encore is based on the early implementations at some of Innovative’s development partner sites. At the time of writing, Encore had not been released for production use at any of the sites, but was in a phase of review for library staff. As Encore moves into production release, features will change from those seen in this early version.

Innovative has worked with a cadre of libraries in the creation of Encore:²

- Binghamton University, one of the SUNY campuses in New York (ALEPH 500)
- Cameron University in Oklahoma (Millennium)
- Chinese University of Hong Kong (Millennium)
- Darien Library in Connecticut (Millennium)
- Deakin University in Australia (Millennium)
- Deschutes Public Library in Oregon (Millennium)
- Ferris State University in Michigan (Millennium)
- General Motors Corporation
- Grand Valley State University (Voyager)
- Green County Public Library in Ohio (Millennium)
- Georgetown University (Millennium)
- Jefferson County Public Library in Colorado (Millennium)
- Metropolitan Library System in Illinois (Millennium)
- Michigan State University (Millennium)
- Nashville Public Library (Millennium)
- Scottsdale Public Library System (Millennium)
- Springfield-Greene County Library in Missouri (Millennium)
- Suffolk Collaborative Library System in New York (Millennium)
- Tri-College Library Consortium in Pennsylvania (Millennium)
- University of Glasgow (Millennium)
- University of Kentucky (Voyager)
- University of Queensland Library in Australia (Millennium)
- University of Western Ontario (Millennium)
- Victoria University in Australia (Millennium)
- Westerville Public Library in Ohio (Millennium)
- Wright State University in Ohio (Millennium)
- Yale University’s Lillian Goldman Law Library (Millennium)

While the majority of the initial Encore development partners run Innovative’s own Millennium system, a number rely on ILS products from its competitors. This long list of libraries engaged with Innovative Interfaces on the creation of this new product reflects strong interest in this expanded vision of the library interface.

In the creation of Encore, Innovative has followed a different development style than it has in the past. Less fettered by the traditional development methods, Innovative followed a much more fluid process. Such an approach is necessary to keep pace with rapidly evolving expectations of a modern Web environment in this loosely defined arena of next-generation library interfaces.

Architecture and Technology

Encore operates as a next-generation library interface independently of any specific ILS product. Innovative bases Encore on entirely new technologies it has created, apart from what exists in its Millennium ILS. Encore presents the library with the ability to take advantage of new technologies for its user interface while preserving the data that reside in its ILS.

For libraries already running Millennium, there is no need to perform a mass export of the database into a new search engine. Encore makes use of the data in the library's existing Millennium system. If the library wants to expand the scope of what it offers through Encore, additional types of content can be loaded alongside the library's core bibliographic databases.

For libraries not already running Millennium, data from the existing ILS would be exported and loaded onto a server that hosts the Millennium search technology. The library would continue to use its existing ILS. Encore interacts with the existing ILS to display the location, call number, and status of items in the physical collection and to enable patron-request features. Encore provides access to electronic content by integrating federated search and OpenURL linking.

Encore makes use of AJAX technology to retrieve additional information available to supplement what's in the basic record. AJAX allows an application to dynamically request and present additional information without having to redisplay the entire page. Following this approach, Encore is able to display the initial page quickly, retrieving additional information, such as holdings information, that has to be retrieved from an external system, only when needed.

The Scope of the Catalog

Encore aims to provide access to all of the content and services a library offers. In addition to providing a new interface, Encore expands the scope of the catalog both through being able to harvest additional collections of content into the local index, and also through incorporating federated-search results into its interface.

The integration of federated search is optional. But if the library enables the federated-search feature, search queries entered into Encore are also passed into the federated-search platform. Encore is designed to be compatible with all of the major federated-search products. In one of the public library implementations of Encore, for example, Encore has been configured to work with Research Pro, Innovative's own federated-search product. A section of the right column summarizes the results from each of the individual resources addressed by Research Pro, showing the total number of results from the resource that match the query and the number retrieved so far.

It is also possible to incorporate content into Encore from other collections beyond the basic bibliographic database of the library's physical inventory. Records from other collections can be loaded into Encore's search engine. The Encore implementation at another public library, for example, includes a large collection of citations from local newspapers.

Interface Characteristics

Encore's point of entry starts with a simple search box, which can easily be embedded on the library's main Web page or any other suitable location (see figure 7). Once the user enters a query, the Encore interface presents the initial results set along with a number of features to refine or extend the search.

The Encore search box, populated with the last search entered, appears persistently throughout the session, allowing the user to start a new search at any point.

When displaying search results, Encore divides its interface into three columns. A wide column in the middle displays the results gathered so far. A narrow column on the left provides links for faceted navigation. A narrow column on the right provides additional features, such as highlighting featured resources, a tag cloud, and federated-search results (see figure 8).

Relevancy Ranking

The search engine returns results according to relevancy rank, using technology developed by Innovative called RightResult. Although Innovative does not provide the technical details that underlie RightResult, it does appear to function well as a relevancy engine for library-specific data.

Encore groups results according to relevancy categories. Each group falls under a label showing bars that reflect the strength of relevancy and the number of items within that level. The bars emulate the bar display on cell phones that represents the strength of signal, which has become a universally recognized visual icon to represent the relative strength of a variable quantity (see figure 9).

Although the default search order is by relevancy rank, the user can change the sort order to title or date by clicking on links at the top of the results.



Figure 7: Initial search box for Encore, which can be embedded anywhere in the library's Web site.

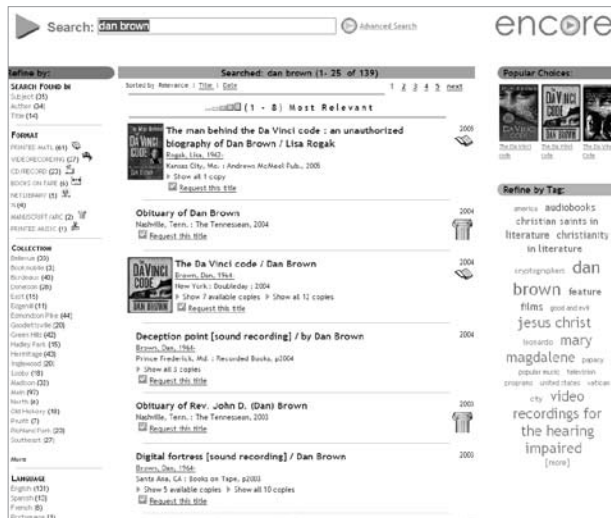


Figure 8: Initial results display from Encore. Facets display on the left, initial results in the middle, with Popular Choices and tag cloud on the right.



Figure 9: Encore's relevancy bars.

Popular Choices

As Encore displays search results, it presents selected items in the upper right corner in a box labeled "Popular Choices." This feature initially displays three items calculated to be of strongest interest, with navigational bars with arrows that can be used to scroll through additional items.

This position can also be used to display new items in the collection that relate to the user's query (see figure 10).

Faceted Navigation

Consistent with the trend in next-generation library catalogs, Encore makes use of faceted navigation as a tool to home in on the results that match the searcher's interests.

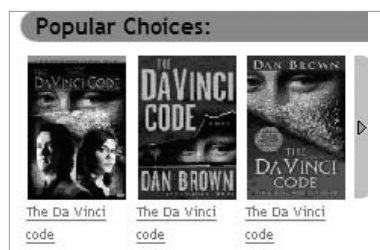


Figure 10: Encore panel for presenting popular choices related to a results set.

A narrow column on the left side of the window, labeled "Refine by," displays facets that can be used to narrow the results of the search. Encore groups the facets according to several categories, including format, collection, language, and date. Following accepted conventions, the number of items that will be returned when each facet is selected is displayed in parentheses.

The Collection facet provides a convenient way to limit the results to those items available in a given library branch or in a specific digital collection. The Format section breaks out the results according to the broad format types, such as printed material, video recordings, CD/record, books on tape, manuscripts, music, and the like. Each Format facet features an icon that provides a visual representation, which also serves as a legend for how these icons appear in the records.

At the top of the facets column is a section titled "Search Found In," which indicates how the term matches within the results list, showing the frequency of matches as subject, author, and title. This feature provides a helpful tool to assist the user in focusing results, providing, for example, a way to separate items by an author versus those that are about the author.

Tag Cloud

One of the conventions that has emerged on the Web involves creating a "tag cloud," a listing of the tags found within the results, with the font size of the tag indicating level of popularity or importance. Positioned in the right column of the page, the tag cloud appears under the label "Refine by Tag," allowing the user to narrow the search to the items associated with the tag selected (see figure 11).

When the user clicks on a tag from the cloud, a narrowed set of results displays and the tag selected appears in the trail-of-breadcrumbs links at the top of the results list. Selecting additional tags further narrows the



Figure 11: The tag cloud from Encore.

results and adds the tag to the trail of breadcrumbs. Each breadcrumb link is followed by a red “(X)” that can be used to deselect the entry. Unlike other implementations of breadcrumb links, this approach allows the user to deselect a single tag or facet without also removing the ones that follow it in the trail.

Local Holdings

Through real-time interactions with the local ILS, Encore presents current information on the items from the physical collection. On the brief-record view, each item from the library’s collection will include links labeled “Library holdings” and “Show available holdings.” Clicking on an orange triangle opens up a small table that shows information on each copy of the item available in the library system, displaying the location (library or branch), call number, and shelf status. Each record shows two holdings triangles, one that shows all the available copies and another that includes all the copies in the library system, including those checked out.

Users can also initiate requests for library materials through Encore. Clicking on the Request This Title link opens a new browser window that prompts users for their library card barcode number and then connects them to the user account feature of the ILS that allows them to place holds or other requests.

Full-Record View

Clicking on an item in the initial results list displays a more complete view of information. This full-record view includes information about the item from the bibliographic record and other sources.

Encore highlights any occurrences of the search terms as they appear anywhere in the full-record view. This common convention helps the user understand how this item relates to the search.

This view of the record provides additional information regarding the holdings in each of the libraries and branches for the selected item.

The full-record view also divides the browser window into three columns. The narrow left column shows the image of the item, a Find Out More link for viewing the record in the library’s ILS, a Request This Title link, and other features. The wide middle column presents details about the item from the bibliographic record and other sources. A narrow column on the right provides navigation to other records in the results set.

Just below the holdings table, a section labeled “More Details” provides additional information from the bibliographic record, including publication data, edition,

summary, subject headings, and the like. Encore presents each of the subject headings as a clickable link that executes a new search on that term.

When a full-record view is displayed, the narrow column on the right provides an interesting navigational tool for browsing through the results list. This tool includes the graphic for the item currently displayed. Above that are the image and title link that correspond to the items that occur earlier in the list. Below it are images and links for the items following the current item in the results list. Arrows at the top and bottom of the icon stack allow the user to scroll further up and down the list. Clicking on an icon or title link will display the full-record view for the corresponding item. This tool allows the user to navigate through the results in this full-record view without having to go back to the original results list each time.

Encore also displays a Back to Results link at the bottom of the image stack and on the left side of the full-record display to allow the user to return to the current position in the record list (see figure 12).

Encore taps into the existing ILS as needed to display additional information about an item. On the full-record display, for example, a Find Out More link launches a new browser window that invokes the item as displayed by the online catalog of the local ILS.

A link labeled “Request this Title” launches a new browser window that takes the user to the user-request module of the local ILS. Encore also provides an advanced search link that launches a new window that displays the advanced search page from the local ILS.

“Did You Mean . . . ?”

Encore includes a “did you mean” feature that gives the user a suggestion when the search either is a commonly misspelled term or returns no results.



Figure 12: Full-record view from Encore.

For any term that returns no results, Encore provides some suggestion rather than leave the user at a dead end. The suggestions offered are more than just spelling corrections. All suggestions offered by Encore lead to some results.

User-Contributed Content

Encore has provisions for social networking features that were not yet in place in the preview version. The full-record view includes sections labeled “My Voice” and “Community Voices,” which were grayed out on the pre-release versions examined for this report. Once activated, these sections will allow users to contribute comments and reviews.

Enriched Content

Encore makes use of a number of enrichment options. It layers in cover art on both the brief- and full-record views to visually enhance the presentation. Encore can also display other types of enrichment, such as reviews and summaries. What enrichment features display in Encore is a function of the library’s subscription level with providers such as Syndetic Solutions or Baker and Taylor Content Cafe.

The far right side of the center results column displays an icon depicting the material type and the publication year. Other information regarding the item, such as summaries and reviews, will also display in this position, as shown in figure 13.

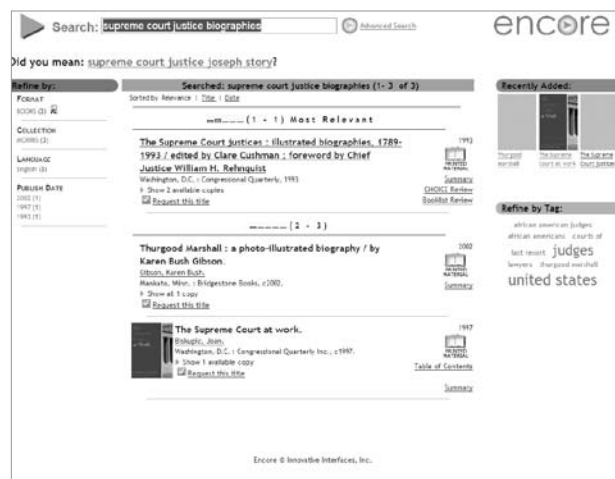


Figure 13: Encore view displaying enriched content availability.

Additional information from external sources available for the item is displayed on the right of the citation. A law library Encore development partner, for example, provides access to reviews from Choice and Booklist, as shown in figure 14.

Federated Search

For libraries that have implemented a federated-search environment, the right column of the brief view includes a section to display materials available from other resources. One of the public library Encore development partners, for example, includes a section labeled “Research Pro” that lists the results from its major subscription products. For each source that returned results, it lists the name of the resources, the total number available, and the number of entries in the initial results set available for immediate viewing. The results from many of these subscription products may be restricted to users who have been authenticated as affiliated with the library.

Notes

1. Innovative Interfaces, “Innovative Announces Encore,” press release, May 26, 2006, available on the Library Technology Guides Web site, www.librarytechnology.org/ltg-displaytext.pl?RC=12014 (accessed June 1, 2007).
2. List of libraries courtesy of Innovative Interfaces.



Figure 14: A full-record view from Encore, showing highlighting of the query terms and enriched content under the Extras section.