Exploring Multi-Faceted Search in Specialized Collections

Sean Fox, Cathryn A. Manduca, Science Education Resource Center, Carleton College

The Science Education Resource Center is developing websites to support faculty in improving geoscience education. An integral part of this work is the development of thematic collections of educational resources. We have developed a multi-faceted search tool which allows exploration of these collections along multiple conceptual axes (e.g., earth system topic, level of inquiry, easy of use, resource type). The tool integrates text search with browsing, supports specialized vocabularies tuned to specific collections, and facilitates exploration across multiple collections.

Controlled Vocabularies for Specialized Collections

The projects on the SERC site include a variety of specialized web resource collections. To support exploration of these collections we are developing several controlled vocabularies. Web resources are tagged with terms from these vocabularies allowing us to provide a faceted search through the topic with easy exploration along axes of interest.

Terms in these vocabularies need to:
• have a meaning that educators will immediately grasp: be evocative and resonant
• highlight ideas of greatest interest to educators.

Teaching with Data

<table>
<thead>
<tr>
<th>Teaching with Data</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of Use</td>
<td>Observational Data</td>
</tr>
<tr>
<td>Broadly accessible</td>
<td>Real-Time Data</td>
</tr>
<tr>
<td>Basic scientific background required</td>
<td>Synthetic/Model Data</td>
</tr>
<tr>
<td>Advanced geoscience background required</td>
<td></td>
</tr>
</tbody>
</table>

Faceted Search

Resources in SERC specialized collections can be explored through a faceted search interface. The collection is categorized into multiple facets--each controlled vocabulary providing refinement along a different axis. Browsing through these facets (vocabularies) can be freely combined with text-based search, allowing users to control their view of the collection.

The user can refine the search results easily along multiple axes--through the provided vocabularies as well as text search. The controlled vocabularies serve double-duty--a browse interface and a feedback tool for search scope.

For More on Faceted Search

We Need Your Feedback

We are looking for feedback from educators about how well the vocabularies and search tool work for you. Do these terms address your top criteria in evaluating teaching materials? Do you understand (at first glance) where each term might lead you? Does the search interface work in ways that aren’t surprising? Does it lead you toward resources in a transparent way? Please fill out one of our review forms or get in touch at http://serc.carleton.edu/serc/review.html