**Conventional metasearching** of the WWW is coarse-grained. Queries are sent to several search engines, processed against all the content indexed by the search engines, and finally the separate result lists are merged for presentation to the user.

Our approach involves a selection broker that is used to determine which information resources are most useful for a query. The selection broker has a representation of each candidate information resource. The example depicted here shows two queries along with the top 10 ranked information resources for each. The rank of each information resource is shown in parentheses.

As in conventional metasearching, the result lists returned from each information resource are merged and returned to the user so that the actual web pages can be viewed.

**Fine-grained metasearching** is an attempt to improve retrieval effectiveness by targeting queries to subsets of content rather than to an entire collection. For example, we are testing this technique by treating the subject categories available at search engines as separate, individually searchable information resources.

Note that the “jupiter moons” query (shown in blue) has been restricted to a subset of the available information resources. In the example here, the last two columns of information resources have been eliminated. This can occur for a variety of reasons, for example, a user may not have access to some information resources (e.g. may not be a subscriber), or may simply elect to have some excluded because of perceived poor quality.

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**Table: Category Structure of Search Engines**

<table>
<thead>
<tr>
<th>Category</th>
<th>AltaVista</th>
<th>Infoseek</th>
<th>NorthernLight</th>
<th>Yahoo!</th>
<th>Lycos</th>
<th>Snap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Education</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Science</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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**Figure: Selection Broker**

- **Query: “lyme disease”**
- **Query: “jupiter moons”**

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**Example: Current Trends Update Lyme Disease and Cases Occurring during Pregnancy / United States**

- **CDC**
- **Lyme Disease Vaccine Recommendations**
- **Lyme Disease Treatment**

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**Example: Moons and Kings**

- **Mystery Moons and Kings**
- **Moons Teacher Activity Sheet**
- **Moons and Kings**

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