Image Databases are Proliferating
we need search tools
Progress Through June 2000

• Development of a Novel Feature Set
  – Tuned to particular objects
  – Make learning much easier
  – Radically different in form from other features.

• Use of Boosting to improve learning and to increase performance.
  – Learning can use positive and negative examples
  – Learning is very fast
  – Final query is very efficient computationally
**New Features**

<table>
<thead>
<tr>
<th>input image</th>
<th>weak classifier 1</th>
<th>weak classifier 2</th>
<th>weak classifier 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="" alt="Image" /></td>
<td><img src="" alt="Image" /></td>
<td><img src="" alt="Image" /></td>
<td><img src="" alt="Image" /></td>
</tr>
</tbody>
</table>

**Boosting**

- Incorrect classifications re-weighted more heavily
- Final classifier is weighted combination of weak classifiers