**Data Visualisation & Search Interfaces**

Many interfaces must support multi-parameter searching (e.g. eCommerce websites).

Using client-side scripting, it is possible to provide data visualisation facilities to ease the task of sorting large quantities of data.

Interfaces designed to support multi-parameter searching and data visualisation typically provide some or all of the following facilities:

|  |  |
| --- | --- |
| Overview | Gain an overview of the entire data-set |
| Zoom | Zoom-in on items of interest |
| Filter | Filter out un-interesting items |
| Details-on-Demand | Select an item or group and obtain details of it |
| Relate | View relationships among items |
| History | Keep a history of actions to support undo, replay and progressive refinement |
| Extract | Allow extraction of sub-collections and query parameters |

Such interfaces may present search results in various ways:

|  |  |
| --- | --- |
| 1D Linear | E.g., the results of a search using Google |
| 2D Map | E.g., a graph in which the *x* and *y* axes represent different search parameters |
| 3D World | E.g., a terrain map in which the *x*, *y* and *z* axes represent different search parameters |
| Multi-dimensional | Colour, size and shape of icons, etc., are used to represent different search parameters |
| Temporal | Features of the display change over time to represent search parameter(s) |
| Tree | Results presented as a network of parent/child relationships |
| Network | Results presented as a network which may not be branching or hierarchical |

Data visualisation works best when the user interacts with the data in real time.