

3D User Interface for Internet Search Systems

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Abstract

This article describes how to display search results on an Internet page. The goal is twofold:

- To simplify visual perception of massive amount of data as found in a query
- To provide a visual relation between a series of consistent searches.

The suggested graphic solution allows comfortable and easy handling of results including narrowing of search region, managing of a series of nested searches etc. Search data are stored in an information grid of N dimensions. A matrix table with search results with possibility to rotate it visually in pseudo 3D mode is used to visualise it.

Introduction

The main problem of the existing user interfaces of the most popular Internet search systems is the amount of text the user has to read. Search results are represented by a textual summary with the corresponding URL. Therefore, the users have to read the search results, scanning the text for those word combinations that match best. In fact, the user has to realise a kind of "second phase" in the search process and has to use cursory reading skills. This is tiring, and slows down the process of getting needed information resources.

To investigate whether or not the above is true we kept a survey. (It is described completely in the appendix A. In this text we will just use some data.) On average 73% of the search session time is being spent reading the resource summaries. Any effort to simplify this process by developing a suitable interface will be appreciated. The problem of representation of search results is obvious. The search interface has to suggest significant information in condensed format, which could give the user the possibility to judge whether the found resources are what (s)he needs. In fact there are just a few things that can be extracted by a search engine from the information resources:

- Title of the site
- A piece of text taken from the home page