Part II

Technology Watch for Search Computing
Introduction to Part II
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The second part of the book presents surveys of the technologies providing foundations to search computing. These chapters offer state-of-the-art and research trends within strongly related fields of research, useful both for setting the theoretical premises for search computing, and for providing a technological framework for building search computing systems and applications.

Chapter 4 includes the analysis and classification of search systems, which are facing a time of extremely rapid development. The study discusses a methodological framework for clustering search systems within categories; as a byproduct, the study detects decision variables and search engine features which are most likely to produce innovation and value in the search engine industry.

Chapter 5 deals with mashup languages and systems, a new way of describing computer processes through visual abstractions; mashup interfaces are very relevant to search computing, given that queries aim at the efficient interconnection of search engines and are primarily addressing expert users or developers.

Chapter 6 deals with data extraction on the Web, describing mechanisms for extracting information which is available on Web pages and putting it into repositories, by capitalizing on the experience of the Lixto project; data extraction technology is essential for building and exposing data services. This chapter deals with monitoring Web content and alerting users when information is updated.

Chapter 7 focuses on data spaces as a new concept for gluing loose and flexible approaches to data management, which give rise to a variety of new services for exposing data to wider usage; indeed search computing primarily pursues a data-driven approach to search service compositions and takes advantage of flexible technologies for exposing data sources.

Chapter 8 presents a review of search technologies for multimedia content, by showing the processes and tools for augmenting audio and video content with metadata, so as to facilitate search upon multimedia content and its integration within search results.