Foreword

I am very glad to have this opportunity to provide a foreword for this book in one of today's most important areas in computing and information science. I cannot wait for introducing it to my friends and students around my circle. The reasons are stated as follows.

The World Wide Web overwhelms us with immense amount of widely distributed data and interconnected, rich and dynamic hypertext information. People are beginning to be puzzled by the problem of information acquisition from internet. That is why Information Retrieval Technology catches great attention from academics and industries in recent years.

The title of this book is "Design, Performance, and Analysis of Innovative Information Retrieval." Different with others in the subject area, the book is started with a fundamental problem, XML stream data processing, followed by special issues, such as Compressed XML document information retrieval, XML documents and relational database mapping, multi-feature image query language for image classification, and finally ended at business process in information retrieval. This book summarizes these developments, presents the state of the art of the technology in the fields both in the algorithms and system design. Some essential problems are extremely important for the multimedia search, e.g. efficient data processing, specially facing a large amount of data, is a key for internet data process and management systems; query language must be able to capture the user's intentions and translate them into a machine-understandable format. Another interesting area presented in the book is the last section of the book, titled "Business Processing in Information Retrieval." Business process as well as related information retrieval seldom mentioned in the conferences of IR, and should be counted as a topic of interdisciplinary research. The 5th section of the book supports for the analysis, design, implementation, management methods, techniques and tools for business process. It should be worth reading, since with the development of scientific management in both enterprises and economic, some disciplines would be beneficial from Business Process Management. Thus, the history of BPM, classification of Business process, and the lifecycle of BPM, will be keys to survive the business. It follows that as information retrieval techniques will be one of the most important needs, this book brings some lights for readers.

I believe the book will draw attention from the intended audiences, such as academic researchers who are interesting in some special issues, graduate students and industry professionals who are learning XML stream data processing, investigating and designing information retrieval systems.

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