Book review

Search engines in the web are the only tools to explore the content in the web for most of the users. Increasingly, users rely on search engines and in most cases the retrieval depends solely on the performance of search engines. Hence newer research is being poured in to the web search mechanism. Thus, this book on web search engine research is a significant tool to activate the thrust areas of research in the web world.

Authored as well as edited by Dirk Lewandowski, this book has three parts. The first part deals with the emerging areas of web searching followed by the parts on Beyond traditional search engine evaluation and New perspectives on search engines. Prior to these two parts, there is an outline chapter on New perspectives on web search engine research by the author Dirk. Dirk has given not merely an outline of the book in the opening chapter, but enabled the reader to gain an understanding of the current research in this thrust area.

Social web is proved to be a perfect collaborating platform to network the unlimited number of users in the last few years. In the chapter on 'The Many Ways of Searching the Web Together: A Comparison of Social Search Engines', the authors Manuel Burghardt, Markus Heckner and Christian Wolff have described the social web in the modern context with the discussion on social web characteristics. In the next chapter on 'Local Web Search Examined, Dirk Ahler has given the architecture of the search process before imitating a comprehensive discussion on location based search. He has illustrated the Google approach in describing the map search. The chapter on 'The Computational Analysis of Web Search Statistics in the Intelligent Framework Supporting Decision Making' has outlined the generation of web data based on the intelligent framework.

In the second part in the first chapter on 'Evaluation Web Retrieval Effectiveness' the authors Ben Carterette, Evangelos Kanouals and Emine Yilmaz have elaborated the traditional as well as refined techniques of IR evaluation. The future research on web is challenging as quoted by Denecke on the chapter on 'Diversity-Aware Search: New Possibilities and Challenges for Web Search.' Further evaluation in terms of search engines is offered by Kin Fun Li, Yali Wang and Wei Yu in the chapter on 'Personalised Search Engine Evaluation: Methodologies and Metrics. A useful comparison on search engines in terms of ranks is provided by Massimo Melucci.

In the third part on "*New Perspectives on web searching*" the book has three chapters on technology aspects of search, evaluation of search engine results and conceptual as well as nomenclature related discussion on search. This is somewhat surprise to note that the editor has pushed a discussion on the concept to the final part rather than the first part!

However, this book is an incremental addition on web information retrieval system. The editor has compiled a good number of required chapters and solicited contributions on modern areas of web world.

Daisy Jacobs
University of Zululand
South Africa

Model based software development differs from the conventional software development process and used in conjunction with a range of agile techniques. Despite improvements in third generation programming languages and runtime platforms, the levels of abstraction at which PLAs are developed today remains low-level relative to the concepts and concerns within the application domains themselves, such as manually tracking the library dependency or ensuring component composition syntactical and semantic correctness. [1] A promising means to address this problem involves developing PLAs using *model-driven engineering* (MDE) [2] which involves systematic use of models as key design and implementation artifacts throughout the software lifecycle. Thus to induce the works on architectures and models, researchers have been working to create structured models. The literature in this area hence proliferates; where the current edition [3] tries to address some of the significant aspects.

This book is structured with 11 chapters written not much comprehensively, but with a focus on basic as well as practice aspects. The chapter one is the overview of the contents of the book followed by a chapter on principles of MDSE wherein the authors have presented a discussion on classification of models, models use in industry and the negative side of the MDSE. We wonder to see such a mixture of the different discussions in one chapter! The next chapter on use cases is quite interesting. The next chapter provides a view on Model Driven Architecture which is the core of the scope of the book. The modelling levels and mappings are described with the help of architecture briefly in this unit.

The next unit presents the basic considerations on the adoption of MDSE and how it can be merged with the software development approaches of many kinds. The chapter six deals with the modelling languages which provides many diagrams and a good amount of discussions on UML. The next chapter illustrates clearly how a new model can be derived and what constituents form together the new models.

Models are merged, aligned, refactored, refined and translated to get implemented in the model transformation. [4] The chapter on Model-to-Model Transformations illustrated the transformation languages. The next chapter is the continuation of the previous one which deals with Model to text transformation. The chapter ten deals with the management aspects of the model-driven software architectures. The last chapter provides a very brief summary of the book.

This book is written in lucid style with many illustrations and diagrams which would enable the readers to gain good understanding. The discussions given in the text are brief and call for more descriptions in the future works.

References

1. Gan Deng, Douglas C. Schmidt, Aniruddha Gokhale, Jeff Gray, Yuehua Lin, and Gunther Lenz Evolution in Model-Driven Software Product-line Architectures. Book Chapter 10
2. Schmidt, D.C. (2006). "Model-Driven Engineering," *IEEE Computer*, February 2006, pp. 25-32.
3. Marco Brambilla, Jordi Cabot, Manuel Wimmer (2012). Model-Driven Software Engineering in Practice. Morgan Claypool. ISBN: 9781608458820
4. S, Shandal, W Kozaczynski. Modle Transformation: The heart and soul of Model driven software development, *IEEE Software*, 20 (5) 42-45. 2003

Daisy Jacobs
University of Zululand
Natal, South Africa