

## BOOK REVIEW

# Business Intelligence Applications and the Web: Models, Systems and Technologies

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*Business Intelligence Applications and the Web:  
Models, Systems and Technologies*

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We are fortunate to teach at Taiwan's top international institution of higher education, Ming Chuan University (<http://www.mcu.edu.tw/>). Ming Chuan University was Taiwan's first women's business school, and devoted to supporting national economic development. As Ming Chuan started out as a commercial college, it originally consisted of business-related programs. Nowadays, it not only an interna-

tionalized university, but has also become the first U.S.-accredited University in Asia, with its bachelors' and masters' degrees now jointly recognized both by the Middle States Commission on Higher Education, one of six U.S. regional accrediting agencies, and the Taiwan Ministry of Education. As the reviewers teach or have taught in the Department of Information Management, which includes Business Intelligence Research Center, Web Application Systems Development Techniques Lab, Knowledge Management and Virtual Learning Research Center, and Enterprise Resource Planning Research Center, we are happy to apply our experience in this review of *Business Intelligence Applications and the Web: Models, Systems and Technologies*.

*Business Intelligence Applications and the Web: Models, Systems and Technologies* integrates numerous case studies in data ware-

housing, data mining, business performance management, OLAP, and periodical business reports devoted to make better decisions. In reviewing this book, we have chosen to extract the snippets that resonate with highly relevant considerations when developing new learning modules for the rapidly changing and challenging educational and business environments.

The emphasis throughout the book is on business professionals, resources that have been developed for the commercial affairs, and the assistance they provide to solve business problems. "Using a business intelligence solution, people get business insight from vast amounts of data they manage. .... Using TM technology, we can perform the operations of classifying, clustering, summarizing, or extracting top keywords from a set of text documents" (p. 78). According to the earlier cases discussed in the book, it is necessary to promote business intelligence (BI) solution program to business professionals, and strive with them to revise the deficiencies in these programs. "One such process is business intelligence, which aims to gather, analyze, and use company-related data in order to support decision making" (p. 103).

Moreover, this book points out the recent business trend of guiding people to grasp the latest information. "All products show an interesting trend: companies need to monitor customers' behavior from multiple sources in order to spot any arising issues in due time. Having this knowledge at hand allows companies to react fast and fix the problem before it becomes unmanageable" (p. 127). Innovative commercial platforms have been designed to impact on business decisions and promote conversations between customers and companies. "..... given the growing amount of such data on the Internet, sifting through it is a time-consuming task for human users. Thus, specialized systems must be built to automatically retrieve the information needed by these users, extract the relevant content, classify the opinions expressed according to their polarity and, finally, create statistical summaries" (p. 172). This book conceptualizes the concepts of business interaction between customers and companies and highlights the

importance of choosing and using the analysis tools well. "..... using automation in making sense of unstructured customer information was particularly challenging as it must first be turned into structured information and then analyzed with the appropriate tools" (p. 126).

This book introduces the BI approach, systems, models, tools, and processes, and then presents their respective advantages and challenges to take readers into all kinds of BI situations. "The major novel aspect in the presented work is a modular and automated approach, which streamlines data acquisition, keyword extraction and taxonomy creation as the basis for trend detection. The framework provides evidence for growing technologies to decision makers in a logically structured manner" (p. 179). Furthermore, the book distinguishes BI framework clearly to guide us in reading. "Two important aspects of BI-as-a-service architectures are: (i) the functional aspects to deliver business intelligence services covering the Model-Driven Data Warehousing (MDDW) services; and (ii) the technical aspects covering the recommended open industry standards and open-source tools" (p. 200). The authors offer the basic presentation; after that they explain the benefits of BI. "The main benefits the Business Intelligence Network (BIN) approach aims at delivering to the corporate world are the possibility of building new inter-organizational relationships and coordination approaches, and the ability to efficiently manage inter-company processes and safely sharing management information besides operational information" (p.245). However, it is also mentioned that "business users are aware of the benefit of such (BI) systems but they also have some major concerns based upon their own experiences. The major challenges are: a. Need for fast retrieval of information and flexible adaption to business requirements; b. Need for business context information" (p.269).

Technology management is central to many chapters within the book. "BI is now spreading to nearly every part of organizations and enables nearly everybody to gain new business insights. So with the help of the web, future BI solutions

will deliver information to the right people in real-time across the whole enterprise” (p. 304). The book’s main contribution is to concern and help both readers and companies to solve problems. “The large international electronics and systems company provides solutions in various areas to customers all over the world. There are a number of emerging challenges of BI within the solutions of this company: a. Need for a user-centric and role-specific analyses; b. Need for business context to explain BI results; c. Need for an integrated collaboration environment” (p.270). It’s worth noting that the authors not only indicate the disadvantages of using BI, but also offer the readers suggestions for how to overcome those. “Regarding the shortcomings of current BI solutions identified above, our envisioned BI platform addresses the individual needs as follows: Focus on individual needs; Availability of business context information;

Support for collaboration; Open Business Intelligence world” (p.279).

*Business Intelligence Applications and the Web: Models, Systems and Technologies* is an excellent book for rapidly changing business environments. The extracted snippets illustrate the wide range of real-world cases that will inform readers, practitioners, governments and management in finding a comprehensive spectrum of current trends and market needs. It also provides readers an overview of the two main current research lines regarding (i) how to fully use the huge amount of data retrieval from the web with BI applications, and (ii) how to apply web engineering methods to design BI applications. In this regard, we will certainly be referencing it as we, at Ming Chuan University, continue to advance our own and our students’ concepts and applications of BI.

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