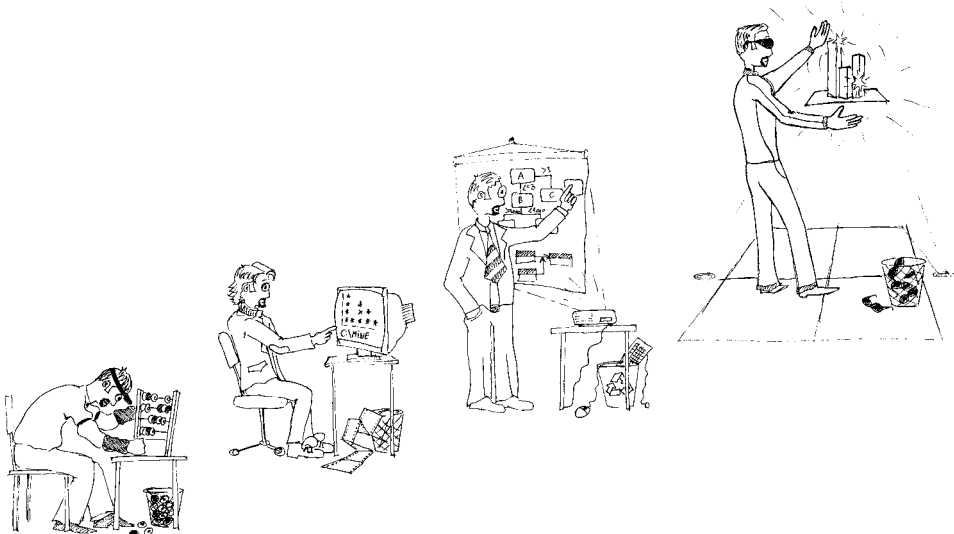


Foreword

“Data mining has become a standard tool helping both the business and scientific worlds. It undergoes a continuous rapid development, however, while overviewing it we emphasize our own experience.”



The Internet has completely changed most business functions like sales, distribution, customer service, marketing and even production. This change has resulted in two major consequences. Firstly, the barriers to enter new markets have become very low, and getting financed by Capital Ventures or Angel Investors is relatively easy. Secondly, competition takes place on a global level with hundreds or thousands of competitors.

The question is - How can you survive in this environment? How can you differentiate yourself?

I firmly believe the only way to gain a long-term sustainable competitive advantage is by having business intelligence. Other competitive factors are easy to copy or are not sustainable. So the real question faced by decision makers is - How can the company gain and take advantage of business intelligence?

This cannot be answered in just one sentence. That is why I suggest you read through this book. The authors have created an excellent body of work as they have managed to translate very math-intensive science into an easy-to-understand solution-oriented book. Several real-life examples will make it clear how you can improve your company's profitability, identify hidden patterns or attain precise predictions of customer behaviour. By the end of the book you will be able to identify those key areas of your operations where you can apply data mining. Do not forget! It is not a method, it is a way of thinking! The data in your hands can be transformed into valuable information and your decisions will rely on analytics your competitors do not possess.

Do not hesitate! Start reading and earning more money!

Roland Szűcs
Former CFO of T-Systems Hungary

[14]

Data mining has, for a long time, been an emerging field of computer and information science for extracting relevant information from huge masses of data. In various application areas of science and technology, the amount of data has recently been exploding. Simultaneously, understanding and analyzing these ever growing data sets, the so called Big Data, has become more and more difficult or even impossible using traditional database management and analysis tools. In industrial applications, for instance, novel machine learning based information retrieval methods are needed in extracting important information from databases and measurements.

The textbook at hand, *Business Value in an Ocean of Data (Data Mining from a User Perspective)*, approaches this important topic from user perspective. Success in complex data mining and analysis projects requires multidisciplinary expertise which usually is obtained through team work combining, e.g., data mining methodology, application knowledge, and data understanding in novel and innovative ways. In the development of data mining methods, the user should always be in the centre.

I know personally Professor László Cser from a long-term research cooperation in an international industrial data analysis project. Professor Cser is internationally highly acknowledged as a scientist and researcher. His multidisciplinary expertise in the field of this textbook is also widely appreciated in the scientific community. His experience and knowledge of practical problems in industrial environment are clearly visible in the book. Human thinking is often visually-oriented and, thus, visualisation plays an important role in data analysis and understanding. This is nicely emphasized in the various applications and case studies discussed in the text.

I am especially happy to see that the important aspect of user perspective in data mining has properly taken into account in the text. I assume that the textbook at hand is a valuable contribution to the field of data mining and analysis. It gives valuable examples to researchers and scientists as well as to developers of practical engineering applications of data mining.

Prof. Olli Simula
Dean of the Faculty of Information and Natural Sciences
Aalto University, Helsinki (Finland)

Recommendations

Modern business organizations face the challenge of a real data boom today. They can measure their environment and internal activities with unprecedented precision and frequency. Data miners can find real business value in this exponentially growing hill of data. This is a great book about how to find the value creating opportunities and how to utilize them. Reading it is a must for managers who understand that data became an extremely important source of competitive advantage in today's business.

|15|

György Bőgel
CEU Business School (Hungary)

This book provides an excellent overview over business intelligence applications. The authors explain both advanced algorithms and technical concepts at the core of BI vividly and comprehensibly, even for non-expert readers. Real-life examples illustrate the pitfalls of BI and data mining applications and offer advice on how to avoid them. Professionals working on BI-related problems as well as students in management and information systems will find this book to be a most valuable and entertaining source of information.

Prof. Franz Lehner
University of Passau (Germany)

As a practicing top manager, I regularly face business challenges in which the analysis of huge amount of data is required. It was important for me to recognize that in our business life, data mining and data warehouse are becoming extremely important to answer questions, make decisions and solve problems. Being responsible for the operative management of a multinational telecommunications company, I had the privilege to meet the authors of this book and to elaborate and build up a robust data warehouse and a management information system that proved to be very useful for the management team. This project was a great, real-life experience with the authors who demonstrated their unparalleled knowledge and competence in designing, building and operating such systems. This book is based on this knowledge and competence of the authors, and rightfully belongs in the library of every manager to be used every day!

Csaba Bóthe
CEO, IT Services Hungary (Hungary)

[16]

Data mining is a very helpful digital technology to discover the golden nuggets of information in a large amount of data. This book highlights the potential business value in data mining, and from the perspective of users, the book mainly elaborates data mining technology in the business field in a systematic way, which is exceedingly valuable to both individuals and corporations. Besides, the authors of this book are all experts in this field and have done voluminous research in the field concerned. In conclusion, this book is definitely worth reading.

Dr. Zhen Zhao
Jiao Tong University of Shanghai (China)

Prof. Laszlo Cser has worldwide reputation in data mining, among other fields. He recognized the importance of finding the right data in exponentially increasing galaxy of data years ago and the way how to convert it into information. Prof. Cser brilliantly combines the theory with practical application. I recommend this book not only for educators and researchers, but managers and specialists in every branch of economy.

István Lepsényi
CEO, Knorr-Bremse Hungary (Hungary)

The experienced authors provide a comprehensive overview able to serve as a guide to the perplexed in a crowded world of information.

The useful, logical and professional content is presented in a friendly style, illustrating through practical examples the importance and advantages of data mining.

I strongly recommend this book to engineers, applied scientists, researchers and businessmen battling with data mining proliferation, while searching for clear interpretations and ways for practical applications.

Prof. em. Zvi Katz
University of Johannesburg (South Africa)