

## Foreword

All around modern society, an enormous amount of strategic information is spread in many different presentation forms, like e-mail, formal and informal documents, historical reports, personal notes, Web pages, and so on. The access and transformation of this information in knowledge as a basis for decision making in the corporate world have become crucial in the face of global competitiveness. Since the mid-1990s, much research has been devoted to creating techniques, methods, and tools to support organizations in discovering useful knowledge from those sources. An important challenge has been brought into the scene for the next 10 years: how can we prepare a real David's Army in order to take advantage from this exponentially generated information in favor of a society with more wisdom, justice, and equal opportunities for all citizens? For this purpose, it is necessary intelligence and technology.

In this context of information-drowning fields as data, text, and Web mining have developed many solutions by extending techniques from artificial intelligence, statistic, data bases, and information retrieval aiming to scale them to the new problems. Also, new techniques to extract knowledge from corporate databases have been proposed crossing those areas. Text mining (TM), in particular, has presented a significant evolution from simple word processing, around 1997, until now, when the adequate processing of concepts or even the extraction of knowledge from linguistic structures has been made possible. In this way, the complexity involved in processing the huge amount of texts available in the organizations can be effectively approached.

Drs. Edilson Férneda and Hércules Prado, since 2002, have carried out methodological and applied research in data and text mining fields in the context of competitive and organizational intelligence. Particularly, on the TM side, their effort was focused first in covering the gap existing between the technology and its effective application in organizations. Next, they stressed the application of TM in solving problems in governmental research and development (R&D) and strategic management.

The book *Emerging Technologies of Text Mining: Techniques and Applications* brings some of the most significant research results achieved recently in the TM field, and represents a reference for researchers and practitioners.

*Cláudio Chauke Nehme, DSc*  
*Catholic University of Brasilia*  
*Head of the Development and Innovation Directorate*

**Cláudio Chauke Nehme** is a mathematician by the Federal Fluminense University (1986), MSc in systems and computing by the Military Engineering Institute (1989), and DSc in systems engineering and computing by the Federal University of Rio de Janeiro (1996). He is specialized in ontological coaching by a joint initiative of the Newfield Group and the Technological and High Studies Institute of Monterrey, Mexico (1999). He is head of the development and innovation directorate in the Catholic University of Brasilia (UCB) and full professor in the graduate program of knowledge and information management in that university. Previous to his work at UCB, Dr. Nehme held many positions as researcher, supervisor in ontological coaching programs, coordinator of many research projects in artificial and military intelligence, and consultant in some of the most important Brazilian research agencies. His main research interests are organizational intelligence, innovation, social technologies, foresight and complex Systems.

Since its creation in 2001, the graduate program in knowledge and information technology management of the Catholic University of Brasilia, has contributed significantly to the knowledge management field by means of MSc dissertations and scientific publications concerning to real world problems. Methodologies and techniques have been proposed, beyond their application, in public and private organizations, for competitive and organizational intelligence.