

## Foreword

Historically, organizations have evolved due to economic, social, and political worldwide contexts within human history. A new stage of development after the Industrial Revolution subsequently followed and many contributions from multidisciplinary studies and theories have been added since the beginning of the 20th Century especially in new emerging global organizations.

In these processes organizations have provided people with higher capabilities for information processing and uncertainty management in complex environments. In such a perspective, information has always been a core and strategic element for organizations. Nevertheless, it was only with continuous advances in information science and technology along with new organizing forms that emerged from the middle of the 20th Century that organizations have developed systems for improving capacities of computation and information management.

This book represents some contribution to a disciplined theory on organizational cognition, whose main purpose comprises to understand and to improve the computational capacity of the organization along with its ability for knowledge management. It touches upon three key elements of cognition: Man, Machines, and Processes. The first is concerned with humans in organizations. The second is concerned with new agents that participate in organizations through high levels of automation. The third is concerned with the processes that provide the organization with cognition, and thus with the capability to learn, to pursue goals and to achieve results.

What is unique in this book is that among the participants of the organization it includes the concept of cognitive machines – which are new agents necessary, when we need to extend the human boundaries of computational capacity along with knowledge and uncertainty management to more advanced models of cognition and information processing in organizations.

In addition, the authors put forward new challenges and new perspectives to the understanding of the participation of cognitive machines in organizations. The book also addresses the possible implications of cognitive machines for current and future organizations. From all these diverse backgrounds, it outlines the concept of new organizations with structures and processes of computational organizational management networks.

There is no doubt that the management and technology principles of the past and the present have contributed with brilliantly successful applications in many areas of organizations and society. But these successes should not obscure the fact that the world is changing, that new organizational and technological systems - such as Organizational Cognition, Cognitive Machines, and Computational Organization Management Networks (COMN) - are becoming reality, and that systems that have proved to be successful in the past may not provide the right tools for addressing the problems of the future.

The research presents new insights and alternatives for national and international organizations and it can be used for academic and practical functions in the diverse areas of business administration, management, social sciences, information systems, psychology, informatics, engineering, and computer science. This work represents a milestone along the new avenues of exploration in this vital area of management and technology activities. A future based on Utopia rather than Armageddon might now be possible.

*Professor Michael Czinkota*  
*McDonough School of Business*  
*Georgetown University*  
*Washington – USA*  
*August 2008*

*Professor Michael R. Czinkota works in the international marketing field at Birmingham and at Georgetown University. He served in the U.S. government as deputy assistant secretary of commerce and as head of the U.S. delegation to the OECD industry committee in Paris, and was a partner in a fur trading firm. Aside from more than 100 articles on export management and trade policy, his key books are International Marketing (8th edition) and International Business (7th edition) and Mastering Global Markets. He is on the board of governors of the Academy of Marketing Science, on the international board of the American Management Association and on the international marketing board of the American Marketing Association. He has been awarded several honorary degrees.*