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# Preface

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## Overview and Goals

This book will explain, using examples, both business and technical issues around the management of information systems in the era of Big Data and beyond. Using examples, this book will explain business and technical issues around the management of information systems in the era of Big Data and beyond. A synthesis of business and technology theory and practice. A synthesis of business and technology theory and practice, the structure is largely built around an enhanced version of the 7-S management model (Waterman et al. 1980).

Designed from the start to support a module on modern information systems, this book is suitable for students with either a management or technology focus, providing a broad discussion of the key elements in modern information systems.

Those coming to Big Data for the first time but not studying on a university course will also find this text of use as it starts from first principles and place Data Science in the context of how it can be used in business.

Key objectives for this book are to:

- Explore the potential use of a variety of Big Data tools and techniques in a business environment whilst explaining how these newer techniques can fit within an organisation's information systems strategy
- Review existing information systems theories and practices and explore their continued relevance in the era of Big Data
- Present an understanding of the key technologies involved in information systems in general and Big Data in particular, and place those technologies in a historic context
- Point out areas for further research in a fast moving domain
- Equip readers with an understanding of the important aspects of a data scientist's job
- Provide some hands-on experience to further assist in the understanding of the technologies involved

## Suggested Uses

This book can be used as a solid introduction to the concept of information systems in general, as well as of Big Data in particular. The book is suitable as both a comprehensive introduction as well as a reference text as the reader develops their skills and abilities through application of the ideas. For *University Instructors* we have followed the common 12-week semester pattern, deliberately allowing the tutor to use a chapter per week.

Each chapter concludes with a set of review questions that make specific reference to the content presented in the chapter, plus an additional set of further questions that will require further research. The review questions are designed in such a way that the reader will be able to tackle them based on the chapter contents. They are followed by discussion questions, which often require research, extended reading of other material or discussion and collaboration. These can be used as classroom discussion topics by tutors or used as the basis of summative assignments.

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## Reference

Waterman RH, Peters TJ, Phillips JR (1980) Structure is not organization. *Bus Horiz* 23(3):14–26

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