
Contents

Foreword	ix
Acknowledgements	xiii
Introduction	xv
Chapter 1. From Data to Decision-Making: A Major Pathway	1
1.1. Background on economic intelligence	2
1.2. Strategic economic intelligence revisited	3
1.2.1. The three major steps for decision support	3
1.2.2. Modeling the concept of strategic business intelligence	4
1.3. Conclusion	9
Chapter 2. Data: An Indispensable Platform for Companies	11
2.1. The key figures of digital technology	14
2.1.1. Figures on social networks	20
2.1.2. Numbers: Big Data	22
2.1.3. Key figures: the Internet of Things	24
2.2. The power of data: a major challenge	28
2.3. The Big Data revolution, “Mega Data”	30
2.3.1. Understanding the world of Big Data	31
2.3.2. Open data: a new challenge	41
2.4. Developing the culture of data sharing	55
2.5. Storage of data in databases	56
2.6. The appearance of buzzwords: Big, Open, Viz, etc.	58
2.7. Conclusion	59

Chapter 3. From Data to Information: Essential Transformations . . .	63
3.1. Value creation from data processing	63
3.2. Value creation and analysis of open databases	69
3.3. From data to information: the “DataViz” or data visualization	73
3.4. From data to information: statistical processing	74
3.4.1. Phases of data processing	75
3.4.2. Processing the data	75
3.5. Turning mass data into an opportunity for innovation.	81
3.6. Development of company assets in the web of data	87
3.7. Conclusion	91
Chapter 4. Information: Contextualized and Materialized Data	93
4.1. What is information?	94
4.1.1. How can we define information?	94
4.2. Internal and external information	100
4.2.1. Internal information	100
4.2.2. External information	100
4.3. Formal and informal information	100
4.3.1. Formal information	100
4.3.2. Informal information	101
4.4. Importance of information	101
4.4.1. White information	101
4.4.2. Gray information	101
4.4.3. Black information.	101
4.5. Décodex set up by Le Monde	102
4.6. Conclusion	103
Chapter 5. From Information to Knowledge: Valuing and Innovating	105
5.1. Innovation as a driving force of growth	105
5.1.1. Innovation and the intangible economy	106
5.2. Knowledge: the key to innovation	108
5.3. Building knowledge: economic intelligence	109
5.3.1. The EI process and the transition from information to knowledge	110
5.3.2. Managing the data warehouse to extract knowledge and insight	111
5.4. Data mining, Statistica and Tibco.	114
5.5. Information an economic good?	115
5.5.1. Innovation as a driving force of growth.	115
5.5.2. Strategic business intelligence	116
5.6. What is data science?	118
5.7. Conclusion	119

Chapter 6. From Knowledge to Strategic Business Intelligence: Decision-Making	121
6.1. Data valuation mechanisms	121
6.2. How do you value data?	122
6.3. Data governance: a key factor in valuation	132
6.4. EI: protection and enhancement of digital heritage	138
6.5. Data analysis techniques: data mining/text mining.	143
6.6. Conclusion	148
Conclusion	151
Glossary	157
References	159
Index	173