

Contents

Figures	xv
Tables	xix
Code Examples	xxi
Abbreviations	xxv
How it all began	xxvii
1 Introduction	1
1.1 Metadata	2
1.2 Metadata in business reports.....	4
1.3 Use cases for metadata and business reporting.....	8
1.4 Instance documents and taxonomies	11
1.5 Multidimensionality	13
1.6 What comes next	14
2 Handling Semantics in Information Exchange – An Introduction to XML	15
2.1 What is XML?	17
2.2 XML namespaces	24
2.3 XML schema	26
2.4 XLink.....	29
2.5 Summary	32
2.6 Key terms you should know	32
2.7 Case analysis	33
3 Introduction to XBRL	35
3.1 What is XBRL?	37
3.2 The XBRL base specification.....	38
3.3 XBRL financial reporting.....	41
3.4 Open and close XBRL reporting cycles	43
3.5 Classifications of XBRL technologies.....	45
3.6 Summary	48
3.7 Key terms you should know	48
3.8 Case analysis	49

4	XBRL Taxonomies	51
4.1	Taxonomy schema.....	53
4.2	Taxonomy linkbases.....	58
4.3	XBRL Global Ledger (GL)	71
4.4	Summary	77
4.5	Key terms you should know	78
4.6	Case analysis	78
5	XBRL Taxonomy Extensions	79
5.1	Extensibility	80
5.2	General XBRL extensibility framework.....	81
5.3	XBRL taxonomies extensibility methods and approaches	82
5.4	XBRL taxonomies extensibility technologies	91
5.5	Summary	99
5.6	Key terms you should know	100
5.7	Case analysis	101
5.8	Referencing taxonomy from instance document	103
5.9	Reported single and tuple facts.....	104
5.10	Context of the reported facts	106
5.11	Information about units of measure.....	108
5.12	Expressing accuracy of reported numbers by means of precision and decimals	109
5.13	Additional information about reported facts in footnotes.....	110
5.14	Summary	110
5.15	Key terms you should know	111
5.16	Case analysis	112
6	XBRL Taxonomy Engineering.....	113
6.1	What is XBRL taxonomy engineering?.....	115
6.2	Phases of XBRL taxonomy development.....	117
6.2.1	Planning and analysis	117
6.2.2	Design.....	119
6.2.3	Building	120
6.2.4	Testing.....	121
6.2.5	Publication and recognition	122
6.2.6	Usage and maintenance	123
6.3	Taxonomy development process model	123
6.4	Summary	125
6.5	Key terms you should know	125
6.6	Case analysis	126

7	Multidimensionality in XBRL.....	129
7.1	Background requirements for dimensions	130
7.2	Dimensions specification and technical files.....	134
7.3	Architecture and terminology	135
7.3.1	Dimensions application in taxonomies	136
7.3.2	The application of dimensions in instance documents.....	143
7.4	Summary	147
7.5	Key terms you should know	147
7.6	Case analysis	148
8	XBRL Dimensional Engineering.....	149
8.1	Modularization of dimensional taxonomies	150
8.2	Examples of use of dimensions	152
8.2.1	Explicit dimensions example.....	152
8.2.2	Dimension default example.....	170
8.2.3	Empty hypercubes and empty dimensions.....	174
8.2.4	Base taxonomy	177
8.3	Summary	184
8.4	Key terms you should know	184
8.5	Case analysis	185
9	Introduction to Latest XBRL Technologies	189
9.1	Introduction to XBRL Formulas.....	190
9.1.1	XBRL formulas framework.....	193
9.1.2	Implicit filtering.....	203
9.1.3	Summary.....	203
9.2	Introduction to XBRL versioning.....	203
9.3	Introduction to XBRL rendering	205
9.4	Summary	208
9.5	Key terms you should know	209
9.6	Case analysis	210
	References and Recommended Readings	213