## Contents

Chapter :	1 Metadata and their Impact on Processes in BIM 5
1.1	Managing knowledge sharing6
1.2	Understanding Information10
1.2.1	Objects as documents in information systems12
1.3	Knowledge representation14
1.3.1	Impact on Integrated Education16
1.3.2	Objects
1.3.3	From Knowledge Organization Systems to
Onto	logies18
1.4	Metadata for rich KOS – BIM20
1.4.1	Industry Foundation Class (IFC) and use of
meta	data22
1.5	Conclusion25
Chapter 2	2 BIM Component Libraries and Semantic Web 27
2.1	Current BIM component libraries28
2.2	Linked Open Data33
2.3	Library of BIM components in the Semantic Web35

	2.4	Requirements of Linked Open Data Library of BIM	
	compoi	nents	36
	2.5	Selected related research	36
	2.6	Conclusions	37
C	hapter :	3 The Influence of BIM Approach on Construction	1
P	roject D	evelopment	.39
	3.1	Introduction	40
	3.1.1	Problem description	40
	3.1.2	Project management dynamics	40
	3.2	Method	41
	3.3	Model description	42
	3.3.1	The structure of the model	42
	3.3.2	Investegated cases and input values	.42
	3.4	Results from simulation	.42
	3.5	Conclusions	.47
	hapter 4	RÚIAN Usage for the Generation of the 3D Analy	tic
	-	ity) Model	
		Introduction	
	4.2	Typology of 3D models	.50
	4.2.1	Level of detail	.51
	4.2.2	Usage of models	.53
	4.3	Data and data sources	.53
	4.4	Basic registers	.57
	4.5	RÚIAN	.58
	4.5.1	Data of RÚIAN	.59
	4.5.2	Sharing of data RÚIAN	.61
	4.6	Conclusions	.61