

Table of Contents

Foreword	V
Preface.....	VII
List of Figures	XVII
List of Tables.....	XXI
List of Abbreviations.....	XXV
1 Introduction	1
1.1 Motivation	1
1.2 Goal	1
1.3 Vision	1
1.4 Research Questions	2
1.5 Research Methodology.....	3
1.5.1 Information Systems Research Framework	4
1.5.2 Application of The IS Research Framework	6
1.6 Work Structure	6
2 Prior Research	9
2.1 Coaching.....	10
2.1.1 Definition	10
2.1.2 Coaching Stakeholders	13
2.1.3 Motivation for Coaching	14
2.1.4 Assessing The Need for Coaching	15
2.1.5 Coach Profile.....	16
2.1.6 Selecting Coaches	19
2.1.7 Matching The Right Coach	22
2.1.8 Coaching Process	23
2.1.9 Coaching Types.....	24
2.1.9.1 Individual Coaching	25
2.1.9.2 Team (Group) Coaching.....	25
2.1.9.3 Performance Coaching	25
2.1.9.4 Skills Coaching	25
2.1.9.5 Executive Coaching.....	26
2.1.9.6 Life/Personal Coaching	26
2.1.9.7 Business Coaching	26
2.1.9.8 Management Coaching.....	26
2.1.9.9 Leadership Coaching.....	27
2.1.9.10 Career Coaching.....	27
2.1.9.11 Project Coaching	27
2.1.9.12 Conflict Coaching	28
2.1.9.13 Telephone Coaching.....	28
2.1.9.14 Online Coaching.....	28

2.1.10	Success Factors of Coaching.....	28
2.1.11	Coaching Techniques and Tools	30
2.1.11.1	Time Management Techniques and Tools	31
2.1.11.2	Stress Management Techniques and Tools	32
2.1.11.3	Information Skills Techniques and Tools	33
2.1.11.4	Communication Skills Techniques and Tools.....	33
2.1.11.5	Leadership Skills Techniques and Tools.....	35
2.1.11.6	Problem Solving Techniques and Tools.....	36
2.1.11.7	Decision Making Techniques and Tools.....	38
2.1.11.8	Creativity Techniques and Tools.....	39
2.2	Project Management.....	40
2.2.1	Definitions.....	40
2.2.1.1	Project.....	40
2.2.1.2	Project Management.....	41
2.2.1.3	Project Stakeholders.....	42
2.2.2	Project Development Process.....	43
2.2.2.1	Initiation	43
2.2.2.2	Planning.....	44
2.2.2.3	Executing.....	44
2.2.2.4	Monitoring and Controlling	44
2.2.2.5	Closing	45
2.2.3	Project Management Standards and Practices.....	45
2.2.4	Project Management Body of Knowledge	46
2.2.4.1	Project Management Process Groups and Their Processes.....	48
2.2.4.2	Process Group “Initiating”	48
2.2.4.3	Process Group “Planning”.....	49
2.2.4.4	Process Group “Executing”.....	50
2.2.4.5	Process Group “Controlling and Monitoring”	51
2.2.4.6	Project Group “Closing”	52
2.2.4.7	Project Management Knowledge Areas	52
2.2.4.8	Project Management Process Mapping	55
2.2.5	Six Sigma	55
2.2.5.1	Project Scope.....	57
2.2.5.2	Understand Current Situation.....	61
2.2.5.3	Analysis and Solution Generation.....	64
2.2.5.4	Implement and Control.....	69
2.2.6	Project Management Office (PMO)	71
2.3	Computer-Supported Cooperative Work and Groupware.....	73
2.3.1	Definitions, Goals and Application.....	74
2.3.2	Classification of CSCW Systems.....	74
2.3.2.1	Time Space Taxonomy.....	75

2.3.2.2	Application Level Classification	76
2.3.2.3	Classification According to 3C Model	80
2.3.3	Design of CSCW Systems	80
2.3.3.1	Requirements	82
2.3.3.2	Design	84
2.3.3.3	Deployment and Adoption	88
2.3.4	Architectures of CSCW Systems	89
2.3.4.1	Application Scheme	90
2.3.4.2	Basic Distribution Types	91
2.4	Theories of Computer-Mediated Communication and Cooperation	92
2.4.1	Media Choice Theories	92
2.4.1.1	Rational-Choice Theories	94
2.4.1.2	Normative Media Choice Theories	103
2.4.1.3	Interpersonal Media Choice Theory	104
2.4.2	Media Characteristics Theories	105
2.4.2.1	Channel Reduction Theory	105
2.4.2.2	Cues-Filtered-Out Theory	106
2.4.2.3	Information Theory	108
2.4.3	Theories of Computer-Mediated Communication Behaviour	108
2.4.3.1	Social Information Processing Theory	108
2.4.3.2	Social Identity Model of Deindividuation Effects	109
2.5	E-Coaching	110
2.5.1	Definition	110
2.5.2	E-Coaching Research	112
2.5.3	E-Coaching Opportunities	112
2.5.4	E-Coaching Threats	113
2.5.5	E-Coaching Model	114
2.5.6	E-Coach Profile	115
2.5.7	E-Coaching Best Practices	118
2.5.8	Overview of Existing E-Coaching Services	119
2.6	Summary	121
3	Development Process	123
3.1	Selecting Development Process	123
3.2	Community Platform Engineering Process (CoPEP)	124
3.3	Summary	125
4	Requirements	127
4.1	Requirement Analysis Model	127
4.2	Functional Requirements	129
4.2.1	Use Case "Coaching"	130
4.2.2	Use Case "Perception"	131
4.2.2.1	Task Analysis	131

4.2.2.2	Work Process Analysis.....	132
4.2.2.3	Analysis of Means for Work and Their Context.....	133
4.2.2.4	Interaction Analysis.....	134
4.2.3	Use Case “Acquaintance”.....	135
4.2.3.1	Task Analysis.....	136
4.2.3.2	Work Process Analysis.....	137
4.2.3.3	Analysis of Means for Work and Their Context.....	138
4.2.3.4	Interaction Analysis.....	139
4.2.4	Use Case “Clarifying Initial Situation”.....	139
4.2.4.1	Task Analysis.....	140
4.2.4.2	Work Process Analysis.....	141
4.2.4.3	Analysis of Means for Work and Their Context.....	141
4.2.4.4	Interaction Analysis.....	143
4.2.5	Use Case “Goal Definition”.....	144
4.2.5.1	Task Analysis.....	144
4.2.5.2	Work Process Analysis.....	145
4.2.5.3	Analysis of Means for Work and Their Context.....	145
4.2.5.4	Interaction Analysis.....	146
4.2.6	Use Case “Interventions”.....	147
4.2.6.1	Task Analysis.....	148
4.2.6.2	Work Process Analysis.....	148
4.2.6.3	Analysis of Means for Work and Their Context.....	149
4.2.6.4	Interaction Analysis.....	150
4.2.7	Use Case “Evaluation”.....	151
4.2.7.1	Task Analysis.....	152
4.2.7.2	Work Process Analysis.....	152
4.2.7.3	Analysis of Means for Work and Their Context.....	153
4.2.7.4	Interaction Analysis.....	154
4.2.8	Use Case “Closure”.....	154
4.2.8.1	Task Analysis.....	155
4.2.8.2	Work Process Analysis.....	155
4.2.8.3	Analysis of Means for Work and Their Context.....	156
4.2.8.4	Interaction Analysis.....	157
4.2.9	Use Case “Registration”.....	157
4.2.9.1	Task Analysis.....	158
4.2.9.2	Work Process Analysis.....	159
4.2.9.3	Analysis of Means for Work and Their Context.....	160
4.2.9.4	Interaction Analysis.....	160
4.2.10	Use Case “Orientation and Information”.....	160
4.2.10.1	Task Analysis.....	161
4.2.10.2	Work Process Analysis.....	162

4.2.10.3	Analysis of Means for Work and Their Context	162
4.2.10.4	Interaction Analysis.....	162
4.2.11	Use Case “Networking”	163
4.2.11.1	Task Analysis	163
4.2.11.2	Work Process Analysis.....	164
4.2.11.3	Analysis of Means for Work and Their Context	164
4.2.11.4	Interaction Analysis.....	165
4.3	Summary	166
5	Design.....	171
5.1	Design Framework	171
5.1.1	Conceptual Design Model	171
5.1.2	Architectural Design Model	172
5.2	Design Elements.....	175
5.2.1	Actors	176
5.2.2	Materials.....	177
5.2.2.1	Coaching Guides	178
5.2.2.2	Reference Documents	179
5.2.2.3	Project Documents	179
5.2.2.4	Other Materials.....	180
5.2.3	Tools.....	180
5.2.3.1	Communication Tools	181
5.2.3.2	Cooperation Tools	189
5.2.3.3	Coordination Tools.....	195
5.2.3.4	Analysis Tools	199
5.2.3.5	Matching Tools	203
5.2.3.6	Support Tools	208
5.2.4	Working Spaces.....	211
5.2.4.1	Open Rooms	213
5.2.4.2	Personal Rooms.....	214
5.2.4.3	Public Rooms	214
5.2.4.4	Private Rooms	214
5.2.5	Mapping Materials and Tools to Rooms	215
5.2.6	Mapping Materials, Tools and Rooms to Use Cases	217
5.3	Technical Design.....	218
5.3.1	Mission	219
5.3.2	Environment.....	219
5.3.3	Portal Technology	219
5.3.4	Benefits of Using Portal Technology	222
5.3.4.1	Conceptual and Technical Benefits.....	222
5.3.4.2	Developmental Benefits	223
5.3.5	Liferay Enterprise Portal	224

5.3.6	Architecture	227
5.4	Evolution of Platform Development	228
5.4.1	First Iteration: Demonstration Prototype.....	229
5.4.1.1	Description of First Demonstration Prototype	229
5.4.1.2	Test and Evaluation	231
5.4.2	Second Iteration: Vertical Prototype	234
5.4.2.1	Planned Extensions	234
5.4.2.2	Specification of Requirements Gained in First Iteration.....	235
5.4.2.3	Evaluation.....	236
5.4.3	Third Iteration: Pilot System	238
5.4.3.1	Specification of Requirements and Planned Extensions	238
5.4.3.2	Evaluation.....	239
5.4.3.3	Improvement Potentials.....	240
5.5	Summary	241
6	Implementation.....	243
6.1	WebCoaching Use Case	243
6.2	Registration	244
6.3	Orientation.....	247
6.4	Information.....	251
6.5	Networking.....	253
6.6	Coaching.....	256
6.6.1	Perception.....	256
6.6.2	Acquaintance	260
6.6.3	Clarifying Initial Situation	263
6.6.4	Goal Definition.....	267
6.6.5	Coaching Interventions	270
6.6.6	Evaluation.....	273
6.6.7	Closure	274
6.7	Summary	275
7	Implications and Design Recommendations	277
7.1	Evaluation Framework	277
7.1.1	Evaluation of Usage	278
7.1.2	Evaluation of Web Based Project Coaching	279
7.1.3	Methods for Data Collection	279
7.2	Evaluation Goal	280
7.3	Evaluation Organization.....	280
7.4	Evaluation of Platform Usage	280
7.4.1	Used Data Collection Methods	281
7.4.2	User Group	281
7.4.3	Objects of Usage	282
7.4.4	Intensity of Platform Usage.....	282

7.4.5	Evaluation of Tools' and Materials' Usage.....	285
7.4.5.1	Usage of Communication Tools.....	286
7.4.5.2	Usage of Coordination Tools	287
7.4.5.3	Usage of Cooperation Tools.....	288
7.4.5.4	Usage of Reference Documents	289
7.5	Implications on Interaction Process Between Coaching Actors	290
7.5.1	Support and Improvement of Interaction Process	290
7.5.1.1	Better Structuring and Documenting of Coaching Processes	290
7.5.1.2	Process of Web Based Coaching Sessions	290
7.5.2	Time	291
7.5.3	Quality.....	292
7.5.3.1	Better Organization and Higher Transparency of Coaching Process.....	292
7.5.3.2	Wide Methodical Support of Coaching Process	292
7.5.4	Costs	293
7.5.4.1	Lower Necessity of Face-to-Face Coaching Sessions.....	293
7.5.4.2	Indirect Saving of Costs	293
7.5.5	Flexibility	293
7.5.5.1	Instructing Role of Coaches	293
7.5.5.2	Less Complicated Involving Additional Players into Coaching Process...	294
7.5.6	Human Situation.....	294
7.5.6.1	Remaining Importance of Face-to Face Meetings	294
7.5.6.2	Building Rapport and Trust Between Coaching Actors.....	295
7.5.6.3	Absence of Media Breaks	296
7.6	Design Recommendations.....	296
7.6.1	Room Concept.....	296
7.6.2	Best-Practice Configuration of Project Rooms	296
7.6.3	Portal Technology	297
7.6.4	Analysis Tools in The Frame of Project Coaching	298
7.7	Summary	299
8	Conclusions and Outlook	301
	References	303