
Indice

1.	INTRODUCTION	14
1.1	Context and Motivation	14
1.2	Objectives	18
1.3	Research Context	19
1.4	Structure.....	20
2.	ACCESSIBILITY WITHIN WE APPROACHES	23
2.1	Web Accessibility	23
2.2	Proposals for Developing Accessible Web Applications	27
2.2.1	Providing a Student of his/her Faculty Site	28
2.2.2	Automatic Annotations for Accessibility.....	29
2.2.3	Rules for an Accessible Composition	33
2.2.4	Adaptation to tackle Crosscutting Concerns	36
2.2.5	User Needs through Personas	41
2.2.6	Model-Driven Development with AWA.....	43
3.	BACKGROUND OF OUR PROPOSAL	47
3.1	Introducing the Basis	47
3.2	Aspect-Oriented Composition	47
3.2.1	Aspectual Implementations: Advices and Pointcuts.....	49
3.3	Reference Frameworks and Ontologies.....	51
3.3.1	Design Decisions within a User Interface Framework	51
3.3.2	An Ontology to share Abstract Interface Vocabulary.....	53
3.4	User Interaction Diagrams.....	55
3.5	Softgoals Interdependency Graphs	57
3.6	Web Content Accessibility Guidelines Documents.....	58

4. AN APPROACH FOR ENGINEERING ACCESSIBLE WEB APPLICACCTIONS	61
4.1 Our Approach in a Nutshell	61
4.2 Identifying Application's Requirements that Involve Accessibility Needs	63
4.3 Specifying Accessibility Concrete Concerns	65
4.3.1 Using UIDs with Integration Points Technique	65
4.3.2 Applying the SIG Template	67
4.4 Discovering Crosscutting and Applying Aspects	70
4.5 Designing with Accessible Interface Widgets	72
4.5.1 A Mapping between Onlology Concepts and HTML Elements	72
4.5.2 Association between Ontology Concepts-HTML Elements-WCAG Checkpoints	75
5. APPLYING OUR PROPOSAL	84
5.1 A Case Study	84
5.2 Our Proposal Step-by-Step on the Field	86
5.3 A Supporting Tool for Our Proposal	104
5.3.1 Architecture's Overview: Layers and Classes	105
5.3.2 Tool's Resources: XML Schemas and Specifications	107
5.3.3 Tool's User Interfaces	117
5.3.4 Some Insights about the Tool	120
6. COMPARING OUR PROPOSAL	123
6.1 Comparison Criteria	123
6.2 Discussion	127
6.3 Focusing on Ours	137
6.3.1 Migrating to WCAG 2.0	138
7. CONCLUSIONS AND FUTURE WORK	142
7.1 Conclusions	142
7.2 Future Work	144

7.3	Publications related to this Thesis	145
7.3.1	Journals	145
7.3.2	Book Chapters.....	146
7.3.3	International Conferences	146
7.3.4	National Conferences.....	147
7.4	Other related Publications	148
7.4.1	International Conferences	148
7.4.2	National Conferences.....	149
	APPENDIX I – WCAG 1.0	151
	APPENDIX II – WCAG 2.0	178
	REFERENCES.....	212

