

Contents

Board Committee	i
Abstract / Resumen / Resum	ii
Keywords	iv
Acknowledgments	v
Nomenclature	ix
1 Introduction	1
1.1 Preamble: On User Behavior	2
1.2 Implicit Interaction	3
1.3 Aims and Goals of the Thesis	6
1.4 Thesis Overview	9
Bibliography of Chapter 1	11
2 Interactive Usability Evaluation	14
2.1 Introduction	15
2.2 Related Work	16
2.3 Simple Mouse Tracking	18
2.4 Applications	23
2.5 A Case Study	25
2.6 Conclusions and Future Work	28
Bibliography of Chapter 2	29
3 Behavioral Clustering	32
3.1 Introduction	33
3.2 Revisiting the K-means Algorithm	34
3.3 Evaluation	40
3.4 Conclusions and Future Work	52
Bibliography of Chapter 3	53

4 Human Multitasking	56
4.1 Introduction	57
4.2 MouseHints	61
4.3 Evaluation	63
4.4 Discussion	66
4.5 Conclusions and Future Work	68
Bibliography of Chapter 4	68
5 Adaptive User Interfaces	71
5.1 Introduction	72
5.2 Related Work	73
5.3 ACE: An Adaptive CSS Engine	74
5.4 Fostering Creativity	79
5.5 Evaluation	81
5.6 Discussion	82
5.7 Conclusions and Future Work	84
Bibliography of Chapter 5	85
6 Interactive Pattern Recognition	87
6.1 Introduction	88
6.2 IPR Systems Overview	91
6.3 Evaluation	94
6.4 Conclusions and Future Work	108
Bibliography of Chapter 6	109
7 General Conclusions	111
7.1 Summary	111
7.2 Future Outlook	112
Additional References	113
A Research Dissemination	114
List of Publications	115
List of Figures	118
List of Tables	120
Index	121