

Table of Contents

List of Figures	ix
List of Tables	xiii
Acronyms	xv
A. Foundation.....	1
I. Introduction	2
I.1 Motivation.....	2
I.2 Research Agenda	4
I.3 Structure of the Dissertation.....	8
I.4 Research Context and Design	10
I.5 Contributions	14
II. Theoretical Background	17
II.1 Widespread Diffusion of Digital, Connected Objects	17
II.2 Digital Life	20
II.3 Technology Acceptance.....	21
B. Exploring Technology Acceptance in the Context of Digital Transformation	27
I. Setting the Context: Digital Transformation.....	28
1 Study 1: A Systematic Review of the Literature on Digital Transformation: Insights and Implications for Strategy and Organizational Change	29
1.1 Introduction	30
1.2 Research Design.....	32
1.3 Findings.....	35
1.4 Discussion of Findings	39
1.5 Implications	47
1.6 Conclusion	58
1.7 Appendix A: Research Matrix – Contextual Conditions	59
1.8 Appendix B: Research Matrix – Mechanisms	60
1.9 Appendix C: Research Matrix – Outcomes	61
II. Studies on Individual Behavior in the Digital Age	62
1 Study 2: Digital Connectedness Expectancy: Construct Development and Scale Validation.....	63
1.1 Introduction	64
1.2 Theoretical Background	65

1.3	Methodology.....	67
1.4	Discussion.....	77
1.5	Appendix A: Items Used in the Questionnaires.....	80
1.6	Appendix B: Sample Characteristics.....	81
2	Study 3: A Needs-Affordances-Satisfaction Perspective on the Use of Connected Objects	82
2.1	Introduction	83
2.2	Conceptual Framework.....	84
2.3	Theory and Hypotheses.....	86
2.4	Methodology.....	89
2.5	Data Analysis and Results	91
2.6	Discussion of Findings	94
2.7	Implications	96
2.8	Limitations and Avenues for Future Research.....	98
2.9	Appendix A: Survey Items Used in Questionnaires	99
2.10	Appendix B: Sample Characteristics.....	101
3	Study 4: Handling the Efficiency-Personalization Trade-Off in Service Robotics: A Machine-Learning Approach	102
3.1	Introduction	103
3.2	Background.....	105
3.3	Research Setting.....	111
3.4	A Division-of-Labor Application for Resolving the Efficiency-Personalization Trade-Off in Autonomous Vehicles.....	113
3.5	Evaluation	117
3.6	Discussion and Implications.....	121
3.7	Appendix A: Additional Empirical Study on the Efficiency-Personalization Trade-Off	129
3.8	Appendix B: Literature Review on Big Data Analytics and Autonomous Vehicles	137
3.9	Appendix C: Vehicle Data and Preprocessing	146
3.10	Appendix D: Tuning LSTM Hyperparameters	153
3.11	Appendix E: Details Regarding the Evaluation of the Prediction Modules Using the Carsharing Data Set.....	163
3.12	Appendix F: Variables used for Personalization in Prior Studies	172
C.	Contributions.....	175
I.	Findings	176
I.1	Summary of Findings	176
I.2	Synthesis of Findings: A Framework for the Study of Connected Objects.....	184

II.	Implications, Limitations and Opportunities for Future Research.....	190
II.1	Implications for Research.....	190
II.2	Implications for Practice.....	193
II.3	Limitations.....	196
II.4	Opportunities for Future Research.....	198
III.	Concluding Remarks	202
References.....		203
Appendix		xvii