

Contents

Part I **Overview of Human-Computer Interaction**

- 1 Introduction to human-computer interaction 3

Part II **Understanding People**

- 2 Introduction to understanding people 27

- 3 Perception 37

- 4 Motor control 63

- 5 Cognition 83

- 6 Needs and motivations 109

- 7 Experience 123

- 8 Collaboration 141

- 9 Communication 159

Part III **User Research**

- 10 Introduction to user research 183

- 11 Interviews 197

- 12 Field research 215

- 13 Survey research 229
- 14 Unobtrusive research 249
- 15 Representations of user research 259

Part IV **Understanding Interaction**

- 16 Introduction to interaction 279
- 17 Information and control 291
- 18 Dialogue 309
- 19 Tool use 325
- 20 Automation 339
- 21 Rationality 355
- 22 Practice 375

Part V **User Interfaces**

- 23 Introduction to user interfaces 389
- 24 Input devices 405
- 25 Displays 425
- 26 Interaction techniques 445
- 27 Commands and navigation 469
- 28 Graphical user interfaces 485
- 29 Reality-based interaction 503

Part VI **Design**

- 30 Introduction to design 529
- 31 Design cognition 543
- 32 Design practice 565
- 33 Design processes 585

Part VII **Engineering**

- 34 Introduction to engineering 599
- 35 Systems 607
- 36 Design engineering 623
- 37 Safety and risk 645
- 38 Software 667
- 39 Computational representations and models 681

Part VIII **Evaluation**

- 40 Introduction to evaluation 707
- 41 Analytical evaluation methods 719
- 42 Think-aloud studies 741
- 43 Experiments 751
- 44 Field evaluations 771

Part IX **Conclusion**

45 Growing into the HCI discipline 783

46 Summary: HCI principles 793

References 805

Index 849