



Human- Computer Interaction

Fundamentals

Edited by

Andrew Sears
Julie A. Jacko



Human Factors
and Ergonomics

 CRC Press
Taylor & Francis Group

CONTENTS

Contributors	ix
Advisory Board	xi
Preface	xiii
About the Editors	xv
PART I—Humans in HCI	1
1 Perceptual-Motor Interaction: Some Implications for HCI	3
<i>Timothy N. Welsh, Romeo Chua, Daniel J. Weeks, and David Goodman</i>	
2 Human Information Processing: An Overview for Human-Computer Interaction	19
<i>Robert W. Proctor and Kim-Phuong L. Vu</i>	
3 Mental Models in Human-Computer Interaction	39
<i>Stephen J. Payne</i>	
4 Emotion in Human-Computer Interaction	53
<i>Scott Brave and Cliff Nass</i>	
5 Cognitive Architecture	69
<i>Michael D. Byrne</i>	
6 Task Loading and Stress in Human-Computer Interaction: Theoretical Frameworks and Mitigation Strategies	91
<i>J. L. Szalma and Peter Hancock</i>	
7 Motivating, Influencing, and Persuading Users: An Introduction to Captology	109
<i>B. J. Fogg, Gregory Cueller, and David Danielson</i>	
8 Human-Error Identification in Human-Computer Interaction	123
<i>Neville Stanton</i>	
Part II—Computers in HCI	135
9 Input Technologies and Techniques	137
<i>Ken Hinckley</i>	
10 Sensor- and Recognition-Based Input for Interaction	153
<i>Andrew D. Wilson</i>	
11 Visual Displays	177
<i>Christopher Schlick, Martina Ziefle, Milda Park, and Holger Luczak</i>	
12 Haptic Interfaces	205
<i>Hiroo Iwata</i>	
13 Nonspeech Auditory Output	223
<i>Stephen Brewster</i>	
14 Network-Based Interaction	241
<i>Alan Dix</i>	
15 Wearable Computers	271
<i>Dan Siewiorek, Asim S. Mailagic, and Thad Starner</i>	
16 Design of Computer Workstations	289
<i>Michael J. Smith, Pascale Carayon, and William J. Cohen</i>	
Author Index	303
Subject Index	321