Computers as Theatre

Brenda Laurel

ADDISON-WESLEY

Boston • San Francisco • New York • Toronto • Montreal London • Munich • Paris • Madrid Capetown • Sydney • Tokyo • Singapore • Mexico City

Contents

Foreword ix
Preface xv
Acknowledgments xxi
Chapter One The Nature of the Beast 1 Representing Action 1 Interface Evolution 2 Interface Interdisciplines 5 Throw the Baggage Out 10 A Definitional Digression 11 Models of the Interface 22 The World's a Stage 14 Theatre as an Interface Metaphor 18 Interactivity and Human Activity 19 Is Drama Serious Enough? 22 An Artistic Perspective 28
Chapter Two
Dramatic Foundations, Part I: Elements of Qualitative Structure 35 Delayed Gratification 35 Hoary Poetics 36 The Cultural Backdrop 38 The Four Causes, or Why Things Are the Way They Are 40 The Four Causes of Human-Computer Activity 43 The Six Elements and Causal Relations Among Them 49

Chapter Three

Dramatic Foundations, Part II:

Orchestrating Action 67

Dramatic Potential: The "Flying" Wedge 67

Dramatic Anatomy 81

Chapter Four

Dramatic Techniques for

Orchestrating Human Response 93

Form and Experience 93

Constraints 99

Engagement: The First-Person Imperative 111

Chapter Five

Design Principles for

Human-Computer Activity 125

Designing Action 225

Designing Character and Thought 242

Designing Language and Communication 249

Designing Enactment 259

Chapter Six

New Directions in

Human-Computer Activity 267

Building a Better Mousetrap 267

An Environment for Writing 269

The Smart House:

Actions in Search of Characters 2 73

Multimedia 178

Virtual Reality 184

Beyond the Yellow Brick Road 188

A New Opposable Thumb 292

viii Contents

Contents

Chapter Seven
Post-Virtual Reality:
After the Hype Is Over 299
The Anatomy of a Fad 2 99
Enduring Investigations 202
What We Have Learned from VR 207
A Note on Technology and Culture 209
The Purpose of Passion 223

References 225

Index 223

Contents ix