

Contents

Foreword	xiii
Preface	xv
Acknowledgments	xvii
Image Credits and Copyright Notices	xxi
Introduction	xxv
 Part 1 Game Design Basics	 1
 Chapter 1 The Role of the Game Designer	 3
An Advocate for the Player	3
Passions and Skills	6
A Playcentric Design Process	11
<i>Designers You Should Know</i>	13
<i>The Iterative Design Process</i>	17
Designing for Innovation	22
Conclusion	22
<i>Designer Perspective: Christina Norman</i>	23
<i>Designer Perspective: Warren Spector</i>	26
Further Reading	28
End Notes	28
 Chapter 2 The Structure of Games	 29
Go Fish versus Quake	29
Engaging the Player	36
<i>What Is a Puzzle?</i>	38

VI Contents

The Sum of the Parts	45
Defining Games	45
Beyond Definitions	46
Conclusion	48
<i>Designer Perspective: Jane McGonigal</i>	49
<i>Designer Perspective: Randy Smith</i>	52
Further Reading	54
End Notes	54

Chapter 3 Working with Formal Elements 55

Players	55
<i>Persuasive Games</i>	63
Objectives	66
Procedures	72
Rules	74
Resources	78
Conflict	83
Boundaries	84
<i>The Mechanic Is the Message</i>	85
Outcome	89
Conclusion	90
<i>Designer Perspective: Tim LeTourneau</i>	91
<i>Designer Perspective: Matt Korba</i>	93
Further Reading	95
End Notes	95

Chapter 4 Working with Dramatic Elements 97

Challenge	97
Play	102
Premise	105
Character	108
Story	112
<i>The Two Great Myths of Interactive Storytelling</i>	114
World Building	115
The Dramatic Arc	116
Conclusion	120
<i>Designer Perspective: Dr. Ray Muzyka</i>	121
<i>Designer Perspective: Don Daglow</i>	123
Further Reading	125
End Notes	125

Chapter 5 Working with System Dynamics	127
Games as Systems	127
System Dynamics	131
<i>Deconstructing Set.</i>	132
Interacting with Systems	146
<i>A Conversation with Will Wright</i>	150
Tuning Game Systems	155
Conclusion	156
<i>Designer Perspective: Alan R. Moon.</i>	157
<i>Designer Perspective: Frank Lantz</i>	160
Further Reading	162
End Notes	162

Part 2 Designing a Game163

Chapter 6 Conceptualization	165
Where Do Ideas Come From?	165
Brainstorming	167
Alternate Methods	170
<i>Experimental Gameplay</i>	171
Editing and Refining	177
<i>Electronic Arts Preproduction Workshop</i>	178
Turning Ideas into a Game	183
<i>Where Do Game Ideas Come From?</i>	185
<i>Getting the Most Out of Focus Groups.</i>	187
Conclusion	189
<i>Designer Perspective: Jenova Chen</i>	191
<i>Designer Perspective: Josh Holmes</i>	194
Further Reading	196
End Notes	196

Chapter 7 Prototyping	197
Methods of Prototyping	197
<i>Catastrophic Prototyping and Other Stories.</i>	204
Prototyping Your Original Game Idea	210
<i>The Design Evolution of Magic: The Gathering.</i>	213
Making the Physical Prototype Better	228
Beyond the Physical Prototype	228

Conclusion	229
<i>Designer Perspective: James Ernest</i>	230
<i>Designer Perspective: Katie Salen</i>	232
Further Reading	234
Chapter 8 Digital Prototyping.....	235
Types of Digital Prototypes	235
<i>Using Software Prototypes in Game Design</i>	242
<i>Prototyping for Game Feel</i>	246
Designing Control Schemes.....	249
<i>Prototyping Cloud</i>	250
Selecting Viewpoints	254
Effective Interface Design	258
Prototyping Tools	260
Conclusion	264
<i>Designer Perspective: David Perry</i>	265
<i>Designer Perspective: Elan Lee</i>	267
Further Reading	269
End Notes.....	269
Chapter 9 Playtesting.....	271
Playtesting and Iterative Design	272
Recruiting Playtesters	272
Conducting a Playtesting Session	275
<i>How Feedback from Typical Gamers Can Help Avoid Disappointing Outcomes</i>	276
Methods of Playtesting	282
<i>A Primer for Playtesting: Don't Follow These Rules!</i>	283
<i>Why We Play Games</i>	290
The Play Matrix	293
Taking Notes.....	294
Basic Usability Techniques.....	296
Data Gathering	296
<i>Metrics in Game Design</i>	298
Test Control Situations	301
Playtesting Practice	302
Conclusion	303
Further Reading	304
End Note.....	304

Chapter 10 Functionality, Completeness, and Balance. 305

What Are You Testing For?	305
Is Your Game Functional?	307
Is Your Game Internally Complete?	307
Is Your Game Balanced?	314
<i>A Conversation with Rob Pardo</i>	326
Techniques for Balancing Your Game	332
Conclusion	334
<i>Designer Perspective: Brian Hersch</i>	335
<i>Designer Perspective: Heather Kelley</i>	337
Further Reading	339
End Notes	339

Chapter 11 Fun and Accessibility. 341

Is Your Game Fun?	341
Improving Player Choices	347
<i>Tuning and Balance: Us vs. It</i>	359
Fun Killers	364
Beyond Fun	367
Is Your Game Accessible?	368
<i>Using Audio as a Game Feedback Device</i>	369
Conclusion	373
<i>Designer Perspective: Robin Hunicke</i>	374
<i>Designer Perspective: Lorne Lanning</i>	377
Further Reading	379
End Notes	379

Part 3 Working as a Game Designer. 381**Chapter 12 Team Structures 383**

Team Structure	384
Developer's Team	386
<i>Applying for a Job in Game Design</i>	388
Publisher's Team	398
Team Profile	402
All Contribute to the Design	403
Team Building	404

Team Communication	404
Conclusion	406
<i>Designer Perspective: Nahil Sharkasi</i>	407
<i>Designer Perspective: Matt Firor</i>	409
Further Reading	411
End Note	411
Chapter 13 Stages and Methods of Development.....	413
Stages Defined.....	413
<i>From Classroom to Console: Producing flOw for the PlayStation 3</i>	419
Using Agile Development	421
Agile Project Planning	423
<i>Opportunities for Indie Gamemakers</i>	427
Conclusion	430
<i>Designer Perspective: Michael John</i>	431
<i>Designer Perspective: Jeff Watson</i>	434
Further Reading	436
Chapter 14 Communicating Your Designs	437
Visualization	437
Flowcharts	439
Tables and Spreadsheets	441
Concept Art.....	441
Description.....	442
<i>Virtual Reality and the Oculus Rift</i>	443
Formats for Design Documents	446
Contents	447
Design Macros.....	452
Conclusion	453
<i>Designer Perspective: Anna Anthropy</i>	454
<i>Designer Perspective: Rob Daviau</i>	456
Further Reading	457
End Notes.....	457
Chapter 15 Understanding the New Game Industry	459
The Size of the Game Industry	459
Platforms for Distribution.....	460
Genres of Gameplay	462
<i>Mobile Game Design and Zombies, Run!</i>	463
Publishers	469
Developers	470

The Business of Game Publishing	470
Conclusion	474
<i>Designer Perspective: Keita Takahasi</i>	475
<i>Designer Perspective: Graeme Bayless</i>	477
Further Reading	480
End Notes	480
Chapter 16 Selling Yourself and Your Ideas to the Game Industry...	481
Getting a Job at a Publisher or Developer	481
Pitching Your Original Ideas	485
Independent Production	488
Conclusion	489
<i>Designer Perspective: Erin Reynolds</i>	490
<i>Designer Perspective: Asher Vollmer</i>	493
Further Reading	494
Conclusion	495
Index	497

There is magic in games. There is a magic you get when you purchase a game, the kind of magic you get when you purchase a game that organized religion can go on about. No, games are magic in the way that first kisses are magic, the way that finally arriving at a perfect solution to a difficult problem is magic, the way that conversation with close friends over good food is magic.

The magic at work in games is about finding hidden connections between things, in exploring the way that the universe of a game is structured. As all game players know, this kind of discovery makes for deeply profound experiences. How is it possible that the simple rules of chess and go continue to evolve new strategies and styles of play, even after centuries and centuries of human study? How is it that the nations of the entire world, and even countries at war with each other—at war!—can come together to celebrate in the conflict of sport? How do computer and videogames, seemingly so isolating, pierce our individual lives and bring us together in play?

To play a game is to realize and reconfigure these hidden connections—between units on a game board, between players in a match, between life inside the game and life outside—and in so doing, create new meaning. And if games are spaces where meaning is made, game designers are the metacreators of

up at night demanding to be designed. Games that are brimming with potential for discovery, for meaning, for magic.

Game Design Workshop presents, with shared insight and an eye to the importance of the design process, tried-and-true strategies for thinking about and creating games. More than just fancy notions about how games work, Game Design Workshop is a treasury of methods for putting game design theories into practice. Tracy Fullerton has real experience making games, teaching game designers, and writing about game design. And I can honestly say that she has personally taught me a great deal about games. In the ambition of its scope and the value of its insights, you hold in your hands a very unique text.

Why do we need a book like Game Design Workshop? Because despite the fact that games are so very ancient, are part of every culture, and are increasingly important in people's lives, we hardly know anything about them. We are still learning. What makes games tick? How do we create them? How do they fit into culture at large? The explosion of computer and videogames in recent decades