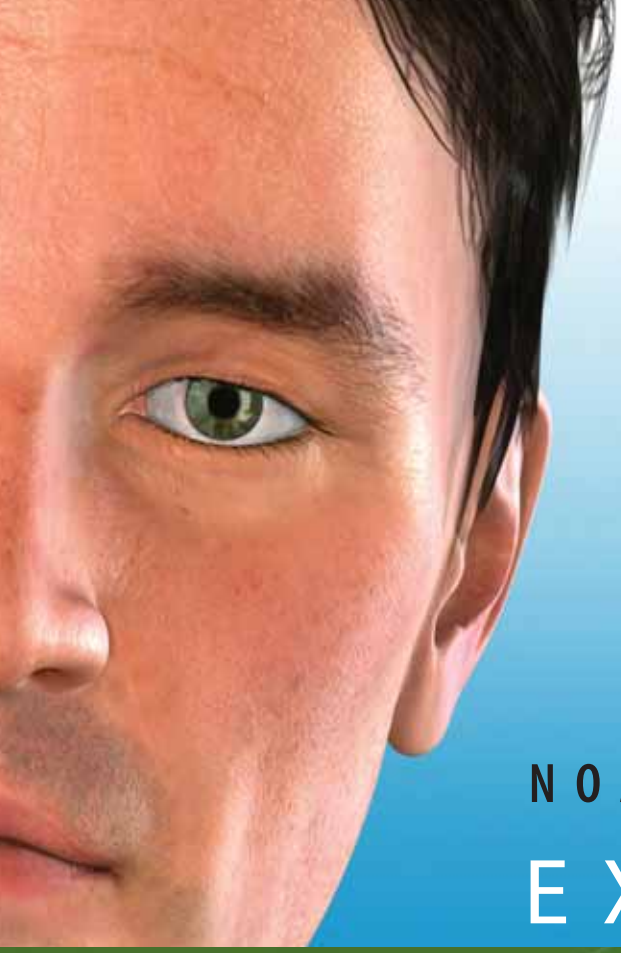

NOAH WARDRIP-FRUIN

EXPRESSIVE PROCESSING

Digital Fictions, Computer Games, and Software Studies

Expressive Processing

Software Studies

Matthew Fuller, Lev Manovich, and Noah Wardrip-Fruin, editors

Expressive Processing: Digital Fictions, Computer Games, and Software Studies,
Noah Wardrip-Fruin, 2009

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Digital Fictions, Computer Games, and Software Studies

Noah Wardrip-Fruin

The MIT Press
Cambridge, Massachusetts
London, England

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This book was set in Adobe Garamond, Helvetica Neue,
and Arena by Michael Crumpton.

Printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

Wardrip-Fruin, Noah.
Expressive processing : digital fictions,computer games and software studies / Noah Wardrip-Fruin
p. cm.
includes bibliographical references and index.
ISBN 978-0-262-01343-7 (hardcover : alk. paper).
1. Interactive multimedia—Social aspects. 2. Computer games—Social Aspects. 3. Digital media. 4. Digital computer simulation. I. Title.
QA76.76.159.W37 2009
006.7—dc22

2009000144

10 9 8 7 6 5 4 3 2 1

Preface

Expressive Processing

This book demonstrates a new approach to understanding digital media—and uses it to shed light on two of my favorite kinds of media: digital fictions and computer games. This new approach assumes that it isn't just the external appearance and audience experience of digital media that matter. It is also essential to understand the computational processes that make digital media function.

Computational processes are a powerful new tool in the hands of authors. Shaping these processes enables the finely honed commercial entertainments of the computer game industry. Inventing new processes is at the heart of the radical media experiments of artificial intelligence (AI) and other areas of computer science. Finding unexpected uses for processes is common in the fusion of concept and craft that defines the work of independent artists, writers, designers, and studios. Such authorial expression through processes is one of the central topics of this book and one of the meanings of the term *expressive processing*. I hope the projects examined in this book can help authors think productively about the future of fiction, games, and digital media more generally.

For critics seeking to understand process-intensive work, finding an appropriate way to grapple with processes themselves can be puzzling. While some authors focus on the potential of interpreting each work's source code, this level of detail is not necessarily telling (for most works, the textual style of the code is not central), and for many works the code itself is not available. Instead, this book's approach looks at what I call the *operational logics* at work within a variety of examples. My focus is on interpreting what processes do—the ideas expressed through the design of their movements—and the relationships that processes express with schools of thought and communities of practice. Looking at what processes express in this manner, enabling critics to interpret elements

of works not visible on the surface, is the other main element of what I mean by expressive processing.

Beyond digital media specifically, I also believe it is essential for our political future that people develop the ability to think critically about software systems. Coming to understand the processes of digital media can contribute to this. Many general concepts about software are more easily understood when tied to specific, legible examples, which digital media can provide. I explore a number of the examples in this book in terms of their wider lessons about software and the potential political implications of these lessons.

Acknowledgments

I have many people to thank, both intellectually and personally, for helping make *Expressive Processing* possible.

This book—like the Software Studies series in which it is the first volume—exists through the support and collaboration of my editor at the MIT Press, Doug Sery. I also wish to thank Melissa Goldsipe, Alyssa Larose, Katie Helke, and Deborah Cantor-Adams at the MIT Press.

I first explored these ideas in my dissertation work. I owe a deep debt to my committee. My dissertation grew out of a yearlong series of conversations with David Durand. It would not have been possible without his intellectual guidance and support. George Landow's *Hypertext* was the first book I read that discussed digital literature. I am in his debt both for providing that opportunity, which has shaped my thinking since, and for his generous feedback on my dissertation. My dissertation would have been conceptually narrower and significantly less readable without the careful attention and helpful comments of Wendy Chun. I am thankful for how she has pushed my thinking and writing. I went to Brown University to work with Robert Coover and was never disappointed. For my five years there I greatly benefited from his generosity with his energy, time, and knowledge—and I continue to do so. Brown has been a leading institution for innovative

interdisciplinary digital work for more than four decades, in large part due to the project sponsorship and stewardship of my committee chair, Andy van Dam. I was honored to be able to include my dissertation in that tradition.

Beyond my dissertation committee, I owe a great intellectual debt to those who study and create digital media—especially games, new forms of literature, and new tools for art. I especially thank my editorial collaborators Pat Harrigan, Nick Montfort, and Jill Walker—as well as my fellow Grand Text Auto bloggers Mary Flanagan, Michael Mateas, Scott Rettberg, and Andrew Stern. My collaborators at the University of California at San Diego Software Studies initiative, Lev Manovich and Jeremy Douglass, have also been a great intellectual influence. In addition, my collaborators on digital media projects have shaped the thinking (and helped create some of the work described) in this volume. They include Kirstin Allio, Clilly Castiglia, Josh Carroll, Adam Chapman, Michael Crumpton, Elaine Froehlich, Shawn Greenlee, Erik Loyer, Andrew McClain, Brion Moss, Benjamin "Sascha" Shine, Chris Spain, Camille Utterback, and Duane Whitehurst. I am also honored to have many of those mentioned in this paragraph as personal friends.

Within the field of digital media I also wish to thank others, not yet listed, who have talked with me about ideas that have helped shape my thinking about computational processes as tools for creation and objects of study: Espen Aarseth, Ian Bogost, John Cayley, Markku Eskelinen, Gonzalo Frasca, Fox Harrell, N. Katherine Hayles, William Huber, Mimi Ito, Jesper Juul, Matthew Kirschenbaum, Peter Lunenfeld, Mark Marino, Carl McKinney, Stuart Moulthrop, Simon Penny, Jessica Pressman, Rita Raley, Casey Reas, Warren Sack, Phoebe Sengers, Stephanie Strickland, and many others. Conferences have also provided important intellectual moments for this work, ranging from the 2005 Digital Arts and Culture conference to SoftWhere, the 2008 software studies workshop.

I should also thank other staff, faculty, students, and friends from

my time at New York University, the University of Baltimore, Brown University, and the University of California—especially Cynthia Allen, Jane de Almeida, Kam Bellamy, Stephen Boyd, Poppy Brandes, Helena Bristow, Barry Brown, Sheldon Brown, Lisa Cartwright, Rachel Cody, Michael Cohen, Mike Cole, Brian Evenson, Thalia Field, Julia Flanders, Forrest Gander, Marjetta Geerling, William Gillespie, Athomas Goldberg, Brian Goldfarb, Dan Hallin, Robert Horwitz, Daniel C. Howe, Adriene Jenik, Natalie Jeremijenko, Jamie Jewett, Bruce Jones, Nancy Kaplan, Nancy Kramer, Carole Maso, Miranda Mellis, Talan Memmott, Jon Meyer, Elli Mylonas, Gale Nelson, Robert Nideffer, Christiane Paul, Ken Perlin, Butch Rovan, Jurgen Schulze, Jack Schwartz, Cicero Silva, Roberto Simanowski, Anna Joy Springer, Brian Kim Stefans, Stefan Tanaka, Jim Whitehead, Adrianne Wortzel, Vika Zafrin, and Sara Zatz.

The afterword to this book describes another great debt of gratitude I owe: that to those who participated in the blog-based peer review of the first draft of this manuscript. This includes a number of people not mentioned elsewhere in these acknowledgments: Dominic Arsenault, Barry Atkins, Balthazar Auger, Paul B., Sean Barrett, Matt Barton, Bryan G. Behrenshausen, Mark Bernstein, Emily Boegheim, Terry Bosky, Alex J. Champandard, Randall Couch, Drew Davidson, Richard Evans, David Fisher, Sol Gaitán, Susan Gibb, Josh Giesbrecht, Benjamin Grandis, Barbara Grueter, Huysmans, Jon Ippolito, Ishmael, Dennis G. Jerz, Kitsu, Dega Lancaster, Chris Lewis, Christian McCrea, Dave Miller, Mark J. Nelson, Nicholas Novitski, Brad O'Donnell, Jeff Orkin, Jason Rhody, Mark Riedl, Bonnie Ruberg, Malcolm Ryan, Greg J. Smith, Sarah Toton, Scott Turner, Julius Valsson, J. Robinson Wheeler, Lord Yo, Jose Zagal, Hyokon Zhiang, and anonymous contributors. I owe thanks as well to Ben Vershbow, the Institute for the Future of the Book, and the University of California at San Diego Academic Senate Committee on Research for supporting the blog-based review.

My family—Nathan, Carolyn, Mark, Elma, Buford, Gertrude, and

Richard—not only supported me during the process of this work, directly and indirectly, but also provided an intellectually stimulating and creatively oriented environment from the first moment of my life.

Finally, none of this would have been possible without Jennifer K Mahal, and I dedicate this book to her.