

Moral Machines

Teaching Robots Right from Wrong

WENDELL WALLACH
COLIN ALLEN

OXFORD

UNIVERSITY PRESS

2009

CONTENTS

Acknowledgments ix

Introduction 3

Chapter 1. Why Machine Morality? 13

Chapter 2. Engineering Morality 25

Chapter 3. Does Humanity Want Computers Making
Moral Decisions? 37

Chapter 4. Can (Ro)bots Really Be Moral? 55

Chapter 5. Philosophers, Engineers, and the Design
of AMAs 73

Chapter 6. Top-Down Morality 83

Chapter 7. Bottom-Up and Developmental Approaches 99

Chapter 8. Merging Top-Down and Bottom-Up 117

Chapter 9. Beyond Vaporware? 125

Chapter 10. Beyond Reason 139

Chapter 11. A More Human-Like AMA 171

Chapter 12. Dangers, Rights, and Responsibilities	189
Epilogue—(Ro)bot; Minds and Human Ethics	215
Notes	219
Bibliography	235
Index	263