

TABLE OF CONTENTS

WHO THIS BOOK IS FOR	1
How to Use This Book	2
WHAT BUSINESS LEADERS NEED TO KNOW	5
1. BASIC TERMINOLOGY IN ARTIFICIAL INTELLIGENCE	7
AI vs. AGI	8
Modern AI Techniques	9
2. THE MACHINE INTELLIGENCE CONTINUUM	21
Systems That Act	22
Systems That Predict	22
Systems That Learn	23
Systems That Create	25
Systems That Relate	27
Systems That Master	28

Systems That Evolve	29	Get Organizational Buy-In	69
3. THE PROMISES OF ARTIFICIAL INTELLIGENCE	31	Educate Your Stakeholders	73
Microfinance	31	7. INVEST IN TECHNICAL TALENT	75
Social Justice	32	Understand Different Job Titles	76
Medical Diagnosis	34	Seek the Right Characteristics	79
4. THE CHALLENGES OF ARTIFICIAL INTELLIGENCE	37	Optimize Recruiting Strategies	82
The Effects of Discrimination	39	Emphasize Your Company's Unique Advantages	86
Malicious AI	40	8. PLAN YOUR IMPLEMENTATION	89
5. DESIGNING SAFE AND ETHICAL AI	43	Rank Business Goals	89
Ethics and Governance	43	Perform Opportunity Analysis	90
Education as Remedy	44	AI Strategy Framework	93
Collaborative Design	46	Know Your Data and Analytics	95
HOW TO DEVELOP AN ENTERPRISE AI STRATEGY	51	Technical Prerequisites	98
6. BUILD AN AI-READY CULTURE	53	Build vs. Buy	100
Be Honest About Your Readiness	53	Calculate ROI and Allocate Budget	112
Choose the Right Champions	57	Pick the Right "True North" Metric	117
Build An Enterprise-Wide Case For AI	66	9. COLLECT AND PREPARE DATA	121
Why You Need a Multi-Disciplinary "AI SWAT Team"	67	Data Is Not Reality	121

Common Mistakes With Data	122
10. BUILD MACHINE LEARNING MODELS	129
AI Is Not a Silver Bullet	129
Assessing the Performance of Your Models	131
Common Mistakes With Machine Learning Models	135
Machine Learning Workflow	136
Maintain an Experimental Mindset	141
11. EXPERIMENT AND ITERATE	143
Agile Development	143
Technical Debt	144
Deployment and Scaling	146
Iteration and Improvement	149
AI FOR ENTERPRISE FUNCTIONS	151
12. OBSTACLES AND OPPORTUNITIES	153
Current Obstacles	155
What AI Can Do for Enterprise Functions	157
13. GENERAL AND ADMINISTRATIVE	159
Finance and Accounting	159

Legal and Compliance	160
Records Maintenance	163
General Operations	163
14. HUMAN RESOURCES AND TALENT	165
Matching Candidates to Positions	165
Managing the Interview Process	166
Intelligent Scheduling	167
Career Planning and Retention Risk Analysis	167
Administrative Functions	168
15. BUSINESS INTELLIGENCE AND ANALYTICS	169
Data Wrangling	169
Data Architecture	171
Analytics	172
16. SOFTWARE DEVELOPMENT	175
17. MARKETING	181
Digital Ad Optimization	182
Recommendations and Personalization	184
18. SALES	187

Customer Segmentation	187
Lead Qualification and Scoring	188
Sales Development	189
Sales Analytics	189
19. CUSTOMER SUPPORT	191
Conversational Agents	192
Social Listening	194
Customer Churn	194
Lifetime Value	195
20. THE ETHICS OF ENTERPRISE AI	197
 SUMMARY AND ADDITIONAL RESOURCES	 203
END NOTES	207
ACKNOWLEDGEMENTS	221
AUTHOR AND EDITOR BIOGRAPHIES	225

APPLIED ARTIFICIAL INTELLIGENCE