

Contents

Preface — XI

Acknowledgements — XV

Introduction — XVII

Overview — XXIII

Part I: **ChatGPT**

1 Foundation — 3

- 1.1 What is ChatGPT? — **3**
- 1.2 Hallucinations — **7**
- 1.3 How Does ChatGPT Work? — **11**

2 Empire — 16

- 2.1 Getting ChatGPT — **16**
- 2.2 The Art of the Prompt — **21**
- 2.3 Handling Poor Responses — **22**
- 2.4 Case Studies and Real-World Examples of Effective Prompts — **23**
- 2.5 TeX Programming — **25**
- 2.6 Don't Ask Silly Questions — **26**
- 2.7 Hallucinating on Steroids — **28**
- 2.8 Writing Effective Prompts — **29**
- 2.9 Conclusion — **31**

3 Introducing AC — 33

- 3.1 The Unexpected Side of ChatGPT — **33**
- 3.2 Discovering Surprising Help — **34**
- 3.3 Nonintuitive Help — **34**
- 3.4 Nonintuitive Scenarios — **34**
- 3.5 Real Stories: When AC Surprised Us — **35**
- 3.6 Buying a TV on Sale — **37**
- 3.7 Conclusion: Embracing the Unexpected — **38**

Part II: ChatGPT Redux

4 ChatGPT for Collaborative Creativity — 41

- 4.1 Creative Writing — 41
- 4.2 Screenwriting and Dialogues — 42
- 4.3 Art and Design — 43
- 4.4 Music and Lyric Writing — 44
- 4.5 Game Development — 45
- 4.6 Collaborative Problem-Solving — 46
- 4.7 Ethical Considerations — 47
- 4.8 Conclusion — 48

5 Multimodal ChatGPT — 49

- 5.1 Introduction — 49
- 5.2 The Concept of Multimodal AI — 49
- 5.3 ChatGPT as a Multimodal Assistant — 51
- 5.4 Applications of Multimodal AI — 52
- 5.5 Personalized Language Learning in German — 53
- 5.6 Challenges in Multimodal AI — 56
- 5.7 Implications for the Future — 57
- 5.8 Conclusion — 57

Part III: Stories About Small Companies

6 MonteCalc — 61

- 6.1 Two Valuable Numerical Methods — 61
- 6.2 Founding Story — 62
- 6.3 Products and Services — 63
- 6.4 Future Plans — 64

7 Kimo Sabe Mezcal — 66

- 7.1 Introduction — 66
- 7.2 Company Background — 66
- 7.3 Implementation of ChatGPT — 69
- 7.4 Future Prospects — 69

8 WoodCraft — 70

- 8.1 The Challenge — 70
- 8.2 Implementing ChatGPT — 72

- 8.3 Case Study: Customer Experiences — 74
- 8.4 Lessons Learned and Future Steps — 74

Part IV: ChatGPT in Industry

9 Customer Support — 79

- 9.1 Introduction — 79
- 9.2 The Training Process — 79
- 9.3 Future Trends — 81
- 9.4 Challenges and Ethical Considerations — 81
- 9.5 Customer Feedback on AI-Driven Support — 82
- 9.6 AI and Accessibility in Customer Support — 83
- 9.7 Case Studies: Quantifiable Results — 83
- 9.8 Conclusion — 84

10 AI in Healthcare — 86

- 10.1 Revolutionizing Diagnostics — 86
- 10.2 Patient Interaction and Virtual Assistants — 88
- 10.3 Medical Education with ChatGPT — 90
- 10.4 Biometrics in Medicine — 91
- 10.5 Challenges in Psychiatry: The Absence of Biometric Definitions — 92
- 10.6 AI in Mental Health Diagnosis — 94
- 10.7 AI in Mental Health Treatment Planning — 94
- 10.8 AI and Suicide Prevention — 95

11 Education Reimagined — 97

- 11.1 The Traditional Model — 97
- 11.2 Transforming Learning — 98
- 11.3 Personalized and Lifelong Learning — 99
- 11.4 A Global Perspective — 100
- 11.5 The Educator's Role — 101
- 11.6 Conclusion — 101

12 Business and ChatGPT — 103

- 12.1 AI Monetization Models — 103
- 12.2 ChatGPT in Startups and Small Businesses — 103
- 12.3 Market Disruptions — 104
- 12.4 ChatGPT and Global Markets — 105
- 12.5 Future Trends — 106

12.6	Challenges and Ethical Considerations —	106
12.7	Conclusion —	107

Part V: Beyond ChatGPT

13 Tesla FSD — 111

13.1	Introduction —	111
13.2	Tesla's Full Self-Driving (FSD) Technology —	112
13.3	Ethical Frameworks and Challenges —	113
13.4	Market Analysis —	115
13.5	Technical Challenges and Innovations —	115
13.6	Impact on Society and Urban Infrastructure —	116
13.7	Conclusion —	117

14 Alibaba — 118

14.1	AI Strategy —	119
14.2	AI for Sustainability —	121
14.3	Future AI Innovations at Alibaba —	121
14.4	Challenges and Ethical Considerations —	121
14.5	Global AI Success Stories —	122

Part VI: The Future

15 Future Applications of ChatGPT — 125

15.1	AI in Virtual and Augmented Reality —	125
15.2	Healthcare Integration —	125
15.3	Future of Customer Support —	125
15.4	Beyond Text: Multimodal AI —	126
15.5	Conclusion: The Path Ahead —	126
15.6	Alice and the Red Queen —	127

Part VII: Two More Things...

16 Limitations — 131

16.1	Common AI Errors —	131
16.2	Broader Implications of Errors —	132
16.3	Strategies for Mitigating AI Errors —	133

16.4	Effective Prompt Refinement —	134
16.5	Tokens, Darn It —	135
16.6	Conclusions —	136

17 Can You Catch the Cheaters? — 137

17.1	Introduction —	137
17.2	Detection —	138
17.3	Challenges in Detection —	140
17.4	Ethical Considerations —	140
17.5	Future Trends —	141
17.6	Conclusion —	142
17.7	Very Final Conclusion —	142

Glossary — 143

Bibliography — 147