# Table of Contents

Acknowledgments xv

## Chapter 1

*Cybersecurity: The Sunscreen of the Information Technology World* 1

1.1. Cybersecurity: Don’t Get Burned! 1

1.2. A Gap in Cybersecurity Education 3

1.3. So Why Should You Care? 4

1.4. Who Is Peter the Salesman? 4

1.5. What Will You Learn in this Book? 6

References 7

## Chapter 2

*Cybersecurity Advice from the Angel and the Devil* 9

2.1. Peter the Salesman Meets the Angel and the Devil 9

## Chapter 3

*Securing Your Communications: E-mail, Web, and Phone* 15

3.1. Introduction 15

3.2. “Left of Bang” Cybersecurity Awareness 16
3.3. Communication Dos and Don’ts 18
3.4. E-mail
3.4.1. Limitations of E-mail Security 19
3.4.2. Secure E-mail 20
3.4.3. Phishing and Spear Phishing 21
3.5. Web Safety
3.5.1. Cloud Security 21
3.5.2. Web Security 22
3.5.3. Web Tracking 22
3.5.4. Bad Sites and Links 23
3.6. Phone
3.6.1. Recommended Phones 23
3.6.2. Secure Phones “As Seen on TV” 24
3.6.3. Voice, Text, and Messaging 24
3.6.4. Cars, Events, and Overseas Travel 25
3.6.5. PACE Communications 25
3.7. Post Quantum Cryptography 26
3.8. Conclusions 26
References 27

CHAPTER 4
Protect Your Financial Transactions Now! Cybersecurity and Finance for the Entrepreneur 31
4.1. Introduction 31
4.2. A Little Background on Data Breaches that an Entrepreneur Should Consider 32
4.3. How to Keep Your Finances Safe 34
4.3.1. Identity and Access Management (IAM) 34
4.3.2. Data Encryption 35
4.3.3. Business Continuity (Backup and Restore!) 35
Contents

4.4. The Cloud, Data, and Software-as-a-Service 36
  4.4.1. API Security 38
4.5. Credit Card Processing Compliance and Standards 39
4.6. Conclusions 41
References 41

CHAPTER 5
Who Needs a VPN? 43

5.1. Introduction 43
5.2. What Is a VPN? 43
5.3. But No One Is Spying on Me 47
5.4. Do I Need to Use a VPN When Surfing the Internet? 51
  5.4.1. Wow! It Is Hopeless! 52
  5.4.2. Threats to VPN Traffic Are Everywhere! 52
5.5. What Features Matter Most in a Modern VPN Service? 53
5.6. It Is 2023, What VPN Fits the Bill? 54
5.7. Conclusions 55
References 57

CHAPTER 6
Securing Your IoT Devices 59

6.1. Introduction 59
6.2. Reduce Your Attack Surface 60
6.3. Keep Your Devices Updated 61
6.4. Cutting Out the “Middle Man” 63
6.5. Practice Good IoT Cyber Hygiene 66
CHAPTER 7
Product Security for Entrepreneurs Selling Digital Products or Services

7.1. Introduction
7.2. Flaws in Digital Products Can Be Expensive
7.3. Shifting Security Earlier
7.4. A Basic Security Approach
7.5. Threat Modeling
7.6. Testing
7.7. Sustainment
7.8. Conclusions
References
8.4. Modern Entrepreneurial Networking 101
  8.4.1. Entrepreneurial Ecosystems 101
  8.4.2. Ecosystem Builders 102

8.5. Value of Entrepreneurial Strategies, Tools, and Networking in the Digital Age 103

References 105

CHAPTER 9

Cyber Law for Entrepreneurs 107

9.1. Introduction 107

9.2. Federal Laws, Executive Orders, and Regulations 108
  9.2.1. Federal Laws and Regulations 108
  9.2.2. Executive Orders 113

9.3. State Laws, Regulations, and Executive Orders 115
  9.3.1. Data Breach Laws 115
  9.3.2. Minimum Standard and Reasonable Data Security Measure Laws 118

9.4. European Union and International Requirements 121

9.5. Practical Considerations: How Cyber Law Can Directly Impact Your Business 123
  9.5.1. General Recommendations 123
  9.5.2. Cybersecurity Terms in Contracts 124

9.6. Conclusion 124

CHAPTER 10

Cyber Economics: How Much to Spend on Cybersecurity 127

10.1. Introduction 127

10.2. Value of Your Product or Service 128
10.3. Cybersecurity as a Cost Center versus a Profit Center 130

10.4.1. Return on Investment (ROI) 132
10.4.2. Risk-Based Return on Investment for Cost Center Spending 134
10.4.3. Delayed Net Present Value and Catastrophic Cybersecurity Incidents 139

10.5. Estimating Costs, Benefits, and Other Information 144

10.6. Conclusions 145

CHAPTER 11

Cyber Insurance for Entrepreneurs 147

11.1. Introduction 147

11.2. What Is Cyber Insurance? 151

11.3. When and How Do I Buy Cyber Insurance? 152
11.3.1. When Should I Buy Cyber Insurance? 152
11.3.2. How Do I Get Cyber Insurance and Who Should I Contact? 153
11.3.3. How Do I Apply for Cyber Insurance? 153

11.4. What Are Some Controls That Would Be Important? 155
11.4.1. Network Security Vulnerabilities 155
11.4.2. Email Security 155
11.4.3. Internal Security Controls 156
11.4.4. Backup and Recovery 157
11.4.5. Phishing 158

11.5. What Are Some Important Contractual Aspects to Know about the Insurance Policy? 160

11.6. What Are Some Important Parts of the Insurance Policy to Pay Attention To? 160
## Contents

11.7. First- and Third-Party Insuring Agreements 162
   11.7.1. First Party 162
   11.7.2. Third Party 165

11.8. Conclusions 167

References 168
   Disclaimer 168

### Chapter 12

Cyber Resilience for Entrepreneurs 169

12.1. Protection versus Performance 169
12.2. Introducing Resilience 170
12.3. Holistic Approach 173
12.4. Resilience as a Cycle 175
12.5. Design Principles 178
12.6. Taking Action 180
12.7. Conclusions 182

### Chapter 13

Cybersecurity for Entrepreneurs... and Beyond 183

13.1. So What Have We Learned in this Book? 183
13.2. Epilogue: Peter Looks toward the Future 186

About the Authors 189
About the Illustrator 205
Index 207