

1	Textbook Cyber Crises	1
1.1	Cyber Crisis Re-invented: Sony Pictures Entertainment	1
1.2	Dramaturgy of Inadequately Managed Cyber Crises	3
2	First Things First: The Human Factor in the Management of (Cyber) Crises	9
2.1	Decisions or the Essence of Crisis Management	9
2.2	Assessments, Behavioral Patterns and Stress	11
2.2.1	How People Perceive and Assess Situations	11
2.2.2	Behavioral Patterns and How They Manifest Themselves	12
2.2.3	Stress and How It Arises	13
2.2.4	Stress and What We Can Do About It	15
2.3	Requirements for the Members of the Emergency and Crisis Management Organization	17
3	Cyber Crisis Response	19
3.1	Alerting, Escalation, and Notification	19
3.1.1	Principles and Success Factors	19
3.1.2	Responsibilities and Processes	22
3.1.3	Availability or Stand-by Arrangements	25
3.1.4	Information Channels or: Alerting tools Vs. Telephone Cascades	26
3.1.5	Escalation Criteria Vs. Responsibility and Error Culture	29
3.2	Response at Strategic Level	30
3.2.1	Setting the Course: Initializing the Work of the Crisis Management Team	30
3.2.1.1	Before We Go into Action: The Get-Out-of-Jail-Free Card	32
3.2.1.2	Initial Analysis of the Situation or: What's Going On?	35
3.2.1.3	Affected Stakeholders or: Who Should We Expect?	37

3.2.1.4	Thinking Negatively for a Change: What If?	44
3.2.1.5	From Identification to Assessment: Objective, Objective, and Objective Again	48
3.2.1.6	The Formal Establishment of the Crisis Case: Houston, We Have a Problem	52
3.2.2	Managing Cyber Crises in a Structured Way: Crisis Management Process	53
3.2.2.1	Variant A: Leadership Process	55
3.2.3	Variant B: FOR-DEC	62
3.2.4	Crisis Communication	63
3.2.4.1	Rules of Thumb for Crisis Communication	64
3.2.4.2	Starting Point: Stakeholder Needs and Distress in Cyber Crises	65
3.2.4.3	W-Questions of Crisis Communication	67
3.2.4.4	From Bloggers, YouTubers, and Journalists: Limits of German Press Law	73
3.2.5	From Practice: Strategies in Acute Cyber Crises	74
3.2.5.1	Victim Care Above All	75
3.2.5.2	We Ourselves Are Also Victims!	77
3.2.5.3	Attack Is the Best Defense	79
3.2.5.4	Putting the Cards on the Table Vs. Refusing to Communicate	81
3.2.5.5	Getting Out of the Line of Fire	82
3.2.5.6	Swapping a Scapegoat for an Identification Figure	84
3.2.5.7	When We Are Blackmailed	84
3.3	Reaction at Tactical-Operational Level	86
3.3.1	The Show Must Go on or: Restart of Processes and IT Systems	86
3.3.1.1	Restart: Critical (Business) Processes	88
3.3.1.2	Restart: IT Systems and Data	90
3.3.2	Cybersecurity Incident Response	94
3.3.2.1	Cybersecurity Incident Response Procedure	95
3.3.2.2	Rules of Thumb for Cybersecurity Incident Response	97
4	Cyber Crisis Preparation	99
4.1	Nothing for Regular Operations or: Emergency and Crisis Organization	99
4.1.1	The Rescue Team or: CMT	102
4.1.1.1	The Organizational Framework of the CMT	104
4.1.1.2	Manning of the CMT	105
4.1.1.3	The Crucial Question: Who Would Be Better (Not) to Be a Member of the CMT	109
4.1.2	Situation Center	111

4.1.3	Communications Staff	112
4.1.4	Emergency Bodies at the Tactical-Operational Level	113
4.2	Infrastructures and Tools	115
4.2.1	Crisis Manual	115
4.2.2	CMT Room	119
4.2.3	Templates and Posters	121
4.2.4	IT-Supported Crisis Management Tools	121
4.2.5	Alerting Tools	123
4.2.6	Governance Suites for BCM, IRBC, and ISM	124
4.2.7	IDS and SIEM Tools	125
4.3	Logistics Ensure Sustainability	126
4.4	Preparing for Crisis Communication	128
4.4.1	Communication Aids	129
4.5	Practice Creates Masters: Trainings and Exercises	134
4.5.1	Formats	134
4.5.2	Training Program	136
4.6	Create Conditions for the Continuation of Business Operations	139
4.6.1	Prepare Emergency Operation of (Business) Processes	139
4.6.1.1	Criticalities and Resources	139
4.6.1.2	Business Continuity Plans	142
4.6.2	Enable Restart of IT Systems	143
4.6.2.1	Technical Solutions	143
4.6.2.2	Organizational Preparations: Restart Plans and Restore Concepts	145
4.6.3	Creating a Framework for Cybersecurity Incident Response	147
4.7	What Works and What Does Not: Tests	147
4.8	Insurance of Cyber Risks	151
5	Cyber Crisis Prevention	155
5.1	Starting with an Analogy	155
5.2	Danger Recognized, Danger Averted: Awareness	157
5.3	Early Warning System: Risk Communication, Stakeholder Management, and Issue Management	158
5.3.1	Stakeholder and Issue Management	160
5.3.2	Risk Communication (And Its Pitfalls)	162
5.4	Not Sexy, but Fundamental: Asset Management and Structural Analysis	165
5.5	Indispensable: Information and IT Security Management	168
5.5.1	ISM in Fast Forward Mode	168
5.5.2	Fields of Action for Information Security	170
5.6	Focus Availability: Continuity Management	171
5.6.1	Business Continuity Management	171

5.6.2	IRBC/IT Service Continuity Management	173
5.7	Cyber Risk Management	176
5.7.1	Preliminary Work	177
5.7.2	Risk Assessment	177
5.7.2.1	Risk Identification	177
5.7.2.2	Risk Analysis	179
5.7.2.3	Risk Assessment	180
5.7.3	Risk Treatment	182
5.7.4	Acceptance of (Residual) Risks	183
5.8	Our Cyber Resilience and What It Is Like: Audits	185
6	Post Crisis Care: Follow Up	187
6.1	The View Outwards: Repairing Stakeholder Relationships	187
6.2	The View Inwards: People, Processes, and Technology	188
6.2.1	Human Factor	189
6.2.2	Alerting and Escalation	190
6.2.3	Interaction Between the Levels of the Emergency and Crisis Organization	190
6.2.4	Strategic Level	191
6.2.5	Operational Level: BCM and IRBC	192
6.2.6	Tactical Level: CSIRT and Cybersecurity Incident Response . . .	193
6.2.7	Crisis Communication	194
7	At a Glance: Seven Deadly Sins of Cyber Crisis Management	195
	Appendix A: Read More	199
	Appendix B: Abbreviations and Glossary	205
	Index	217