

Contents

1 Introduction: Perspectives of Various Stakeholders and Challenges for International Law	1
1.1 Perspectives of Stakeholders.....	1
1.2 General Introduction to Public International Law	15
1.3 Food for Thought	21
2 Jurisdiction and Attribution of State Responsibility in Cyberspace	23
2.1 Jurisdiction.....	23
2.2 Attribution of State Responsibility	32
2.2.1 ILC's Draft Articles on State Responsibility.....	36
2.2.2 Standard(s) of Proof.....	40
2.2.3 Attribution and International Organizations, Such As NATO	43
3 Regulation of Cyberspace and Human Rights	45
3.1 General Background	45
3.2 Human Rights in Cyberspace	53
3.2.1 Privacy and Related Rights	54
3.2.2 Right to the Freedom of Expression.....	84
3.2.3 Anonymity and the Right to Be Forgotten	87
3.3 Exceptions.....	94
3.3.1 European Practice.....	101
3.3.2 US Practice.....	111
3.3.3 Some Examples of Practice in Other Global Regions.....	128
3.4 Territorial Scope of Human Rights Protection and Extraterritorial Jurisdiction Regarding Search Warrants and Other Law Enforcement Measures	132
3.5 Food for Thought	150

4	Cyber Warfare	153
4.1	Cyberattack.....	153
4.2	Cyber Warfare.....	158
4.3	Cyber Weapons.....	160
4.4	Use of Force Under International Law.....	161
4.5	Armed Attack and the Right of Self-Defence.....	166
4.6	Self-Defence Against Non-State Actors.....	175
4.7	Countermeasures.....	191
4.8	Necessity.....	192
4.9	Reprisals.....	193
4.10	Retorsion.....	194
4.11	Neutrality in Cyberspace.....	195
4.12	Cyber Disarmament.....	196
5	Application of the Law of Armed Conflict, Including International Humanitarian Law, In Cyberspace	201
5.1	The Law of Armed Conflict/International Humanitarian Law.....	202
5.2	International Armed Conflict.....	208
5.3	Non-international Armed Conflict.....	224
5.4	War Crime of Terrorism.....	228
5.5	Food for Thought.....	229
6	Cyber Espionage	233
6.1	Modus Operandi.....	234
6.2	Targets.....	236
6.3	International Law on Espionage.....	241
6.4	Food for Thought.....	260
7	Cyber Crimes	263
7.1	Cyber Crimes: The Challenges.....	263
7.2	Budapest Convention: Model for Universal Suppression of Cyber Crimes.....	270
7.3	Beyond the Budapest Convention.....	292
8	Cyber Terrorism	295
8.1	Acts of Terrorism Against Civil Aviation.....	299
8.2	Acts of Terrorism Against Potential Victims.....	308
8.3	Acts of Terrorism at Sea.....	310
8.4	Acts of Terrorism Relating to Dangerous Materials.....	313
8.5	Terrorist Financing.....	318
8.6	Developments Beyond the Sectoral Conventions.....	322
8.7	National Laws.....	324

9 Future Prospects of Public International Law of Cyberspace..... 335

 9.1 Stocktaking..... 335

 9.2 Cybersecurity..... 343

 9.3 Cyber Deterrence..... 343

 9.4 Cyberspace Governance 347

 9.5 Cyber Sovereignty 352

Glossary 357

Bibliography 359