
CONTENTS

<i>Acknowledgements</i>	<i>v</i>
<i>Abbreviations</i>	<i>xi</i>
<i>Tables and Figures</i>	<i>xv</i>
<i>Table of Cases</i>	<i>xvii</i>
<i>Table of Legislation</i>	<i>xxiii</i>

Introduction	1
I. Investigating the Relationship of the Triad	2
II. Plan of the Book.....	5

PART 1

INTRODUCING CYBERSECURITY, PRIVACY AND DATA PROTECTION LAW AND THEIR INTERPLAY

1. Cybersecurity, Privacy and Data Protection: An Analytical Framework	9
I. Studying the Relationship between Cybersecurity, Privacy and Data Protection	10
A. Introducing Cybersecurity, Privacy and Data Protection (the Triad)	10
B. The Ambivalent Relationship of the Triad.....	15
C. Towards an Analytical Framework to Study the Reconciliation of the Triad.....	22
II. The Triad within the EU Constitutional Architecture: A Policy, Law and Technology Analysis.....	26
A. The EU Constitutional Architecture as a Constraint on the Relationship between Cybersecurity, Privacy and Data Protection	27
B. Cybersecurity, Privacy and Data Protection as Situated Objects: Law, Policy and Technology	36
III. Conclusion: An Analytical Framework to Study the Relationship of the Triad.....	38

2. The EU Cybersecurity Policy	40
I. The Development of the EU Cybersecurity Policy.....	40
A. The EU's Approach to the Security of Cyberspace before 2013	40
B. The Adoption of the EU Cybersecurity Policy.....	45
C. The 2017 'Update' to the Cybersecurity Policy.....	48
D. The 2020 Cybersecurity Policy	50
II. The EU Cybersecurity Policy and Law Landscape	52
A. Network and Information Security (NIS) and the DSM.....	53
B. Cybercrime, e-Evidence and the AFSJ	57
C. Cyber Defence, Diplomacy, Trade and the EA.....	62
III. Conclusion: Tensions within Cybersecurity and the Way Forward	66
 3. Privacy: The Right to Respect for Private and Family Life	68
I. Sources and Scope of Article 7 CFR.....	68
A. Determination of the Relevant Sources to Interpret Article 7 CFR	69
B. The Correspondence between Articles 8 ECHR and 7 CFR	71
II. Essential Components of Article 7 of the Charter.....	77
A. 'Everyone has the Right to'	77
B. 'Respect for': Vertical and Horizontal Obligations	78
C. 'His or Her Private ... Life'	80
D. Family Life (The 'Inner Circle')	88
E. Home.....	90
F. (Confidential) Communications.....	91
III. Conclusion: Essential Components of Article 7 CFR, Essence	94
 4. The Right to the Protection of Personal Data	97
I. Sources of Article 8 CFR.....	97
A. EU Sources	98
B. Council of Europe Instruments: The ECHR and Convention 108	102
C. Other Relevant Sources	110
II. Essential Components of Article 8 CFR	111
A. Paragraph One: An Inclusive Right to Data Protection	111
B. Paragraph Two: Obligation to Process Data Fairly, Purpose Limitation as Essence and Data Subjects' Rights	119
C. Everyone has the Right of Access to Data which has been Collected Concerning Him or Her, and the Right to have it Rectified	122
D. Paragraph Three: Control by an Independent Authority Ensuring Compliance	123
III. Conclusion: Essential Components of Article 8 CFR, Essence	125

PART 2
TECHNOLOGY AND THE TRIAD IN THE DSM,
THE AFSJ AND THE EA

5. Cybersecurity, Privacy and Data Protection as Techno-Legal Objects:	
Investigating the Role of Technology	129
I. Leveraging Technology to Appraise the Reconciliation of the Triad.....	130
A. Technology: Security Properties, Threat Modelling, Protection Goals and Design Strategies	130
B. Linking Technological and Legal Notions of Cybersecurity, Privacy and Data Protection	132
C. Mode of Reconciliation of the Triad: From Overlap to Indeterminacy	138
II. Technology as a Regulatory Target: The Effacement of Technology from the Law and its Consequences.....	141
A. The Principle of Technology Neutrality	142
B. The Principle of 'By Design'	144
C. TN and By Design in Practice: TOMs, SoA, Standards and the New Legislative Framework	146
D. Interim Conclusions: Technology Effacement and Indeterminacy.....	152
III. Courts, the Effacement of Technology and the Indeterminacy Loop.....	152
IV. Conclusion.....	155
6. The DSM: Network and Information Security (NIS), Privacy and Data Protection	157
I. Reconciliation of Network and Information Security, Privacy and Data Protection: Policy	158
II. Reconciliation of NIS, Privacy and Data Protection: Law.....	160
A. Overview of Legal Instruments Relevant to NIS.....	161
B. Comparative Analysis of Selected Instruments.....	162
C. Interim Conclusion: Strong Reconciliation of NIS with Privacy and Data Protection in the Law.....	176
III. Reconciliation of NIS, Privacy and Data Protection: Technology	177
A. State-of-the-Art ToMs and the Regulation of ICT Products, Services and Processes: Strong Reconciliation (Im)possible?	178
B. State of the Art Technical Measures: The Example of Deep Packet Inspection (DPI)	182
IV. Conclusion: Strong Reconciliation of NIS with Privacy and Data Protection Challenged by Technology.....	193

7. The AFSJ: The Fight against Cybercrime, e-Evidence, Privacy and Data Protection	195
I. Reconciliation of the Fight against Cybercrime, e-Evidence, Privacy and Data Protection: Policy.....	196
II. Reconciliation of the Fight against Cybercrime, e-Evidence, Privacy and Data Protection: Law	200
A. Reconciling the Fight against Cybercrimes with Privacy and Data Protection	202
B. How the Collection of e-Evidence Affects the Reconciliation of the Fight against Cybercrime with Privacy and Data Protection	219
III. Reconciliation of the Fight against Cybercrime, E-evidence, Privacy and Data Protection: Technology	229
A. ‘Use of Tools’ and Implicit Reference to Technology Neutrality (TN).....	230
B. Deep Packet Inspection (DPI) in the Fight against Cybercrimes	232
C. Beyond DPI: Technical Measures to Fight Cybercrime and Visions of Reconciliation Through Technology	237
IV. Conclusion: Weak Reconciliation of the Fight against Cybercrime, e-Evidence, Privacy and Data Protection Challenged by Technology.....	239
8. The EA: ‘Cyber’ External Action, Privacy and Data Protection	240
I. Reconciliation of Cybersecurity, Privacy and Data Protection in the EA: Policy.....	241
II. Reconciliation of Cybersecurity, Privacy and Data Protection in the EA: Law	244
A. The Overarching Framework for the Relationship between the Triad in the EA.....	245
B. The Cyber Diplomacy Toolbox with a Focus on Cyber-Related Restrictive Measures	248
C. Reconciliation of Cybersecurity, Privacy and Data Protection in EA Law	254
III. Technology.....	255
A. The Importance of Technical Attribution for RMs and Some Considerations on Deep Packet Inspection	256
B. The Effacement of Technology: International Flow of Values, Norms, Ideas and Impact on the Triad.....	257
IV. Conclusion: Weak Reconciliation of Cyber External Action, Privacy and Data Protection Challenged by Technology	259
Conclusion	261
I. Summary of Findings.....	261
II. Research Trajectories and the Future of the Triad.....	267
<i>Bibliography</i>	270
<i>Index</i>	293