Contents

List of key cases x
List of abbreviations xv

1 Electronic surveillance yesterday and today 1
1.1 Introduction 1
1.2 Origins of bulk surveillance 2
1.3 Electronic surveillance in the digital era 8
1.4 Between targeted and untargeted measures 11
1.5 Development of technical capabilities 17
1.6 Summary 28

2 Sector-specific approach to bulk surveillance 34
2.1 Introduction 34
2.2 Electronic communications 35
2.3 Web services and online data gathering 43
2.4 Financial surveillance 51
2.5 Public space surveillance 56
2.6 Summary 64

3 Fundamentals of the European legal model 69
3.1 Introduction 69
3.2 Multilateral approach to the protection of human rights 70
3.3 Legitimate objectives for implementing surveillance measures 75
3.3.1 National security 75
3.3.2 Criminal investigations 79
3.4 Electronic surveillance and human rights 83
3.4.1 Right to privacy 84
3.4.2 Data protection 88

3.4.3 Right to information 92
3.4.4 Right to peaceful assembly 95
3.4.5 Right to a fair trial 97
3.5 Proportionality and necessity of surveillance measures 100
3.6 Summary 105

4 Shaping the European standard for electronic surveillance 111
4.1 Introduction 111
4.2 Secret surveillance programmes as interference with individual rights 112
4.3 Accessibility and foreseeability of the law 119
4.4 Minimum legal safeguards and the intrusiveness of surveillance 124
4.4.1 Criminal surveillance – a Huvig/Weber *test and beyond 125*
4.4.2 A "less intrusive" Uzun*-based approach 135*
4.4.3 From Huvig *to* Big Brother Watch*: aligning* Huvig/Weber *with indiscriminate surveillance 141*
4.4.4 Adoption of the ECtHR standard by the CJEU 148
4.5 Summary 151

5 In search of a European consensus 155
5.1 Introduction 155
5.2 The CJEU perspective: a more than decade-long saga concerning a general data retention obligation 157
5.2.1 Origins of the legal regulation of data retention in EU law 157
5.2.2 General obligation to retain data 159
5.2.3 Criteria for lawful access to data 166
5.2.4 Data retention and national security 171
5.2.5 Algorithmic retention 177
5.3 The ECtHR perspective: bulk surveillance in the light of the (strict) necessity test 179
5.4 Cross-border data flows 186
5.5 Best of both worlds – a common legal framework for electronic surveillance 193
5.6 Summary 200

6 Emerging challenges of bulk surveillance 207
6.1 Introduction 207
6.2 Mass surveillance as a targeted measure 208

6.3 *Future use of surveillance data warehouses* 217
6.4 *AI-based surveillance* 221
6.5 *Automatic content control and electronic surveillance* 230
6.6 *The fading public/private surveillance divide* 238
6.7 *The transatlantic cooperation in the shadow of surveillance* 243
6.8 *Summary* 253

Index 260