

# Contents

## Part I Introduction

<b>Advanced Research on Data Privacy in the ARES Project. . . . .</b>	<b>3</b>
Guillermo Navarro-Arribas and Vicenç Torra	
<b>Selected Privacy Research Topics in the ARES Project:</b>	
<b>An Overview . . . . .</b>	<b>15</b>
Jesús A. Manjón and Josep Domingo-Ferrer	
<b>Data Privacy: A Survey of Results . . . . .</b>	<b>27</b>
Vicenç Torra and Guillermo Navarro-Arribas	

## Part II Respondent Privacy: SDC and PPDM

<b>A Review of Attribute Disclosure Control. . . . .</b>	<b>41</b>
Stan Matwin, Jordi Nin, Morvarid Sehatkar and Tomasz Szapiro	
<b>Data Privacy with <i>R</i> . . . . .</b>	<b>63</b>
Daniel Abril, Guillermo Navarro-Arribas and Vicenç Torra	
<b>Optimisation-Based Study of Data Privacy by Using PRAM . . . . .</b>	<b>83</b>
Jordi Marés, Vicenç Torra and Natalie Shlomo	

## Part III Respondent Privacy: Semantic Related Respondent Privacy Protection

<b>Semantic Anonymisation of Categorical Datasets. . . . .</b>	<b>111</b>
Sergio Martínez, Aida Valls and David Sánchez	

<b>Contributions on Semantic Similarity and Its Applications to Data Privacy . . . . .</b>	<b>129</b>
Montserrat Batet and David Sánchez	
<b>An Information Retrieval Approach to Document Sanitization. . . . .</b>	<b>151</b>
David F. Nettleton and Daniel Abril	
 <b>Part IV Respondent Privacy: Location Privacy</b>	
<b>Privacy for LBSs: On Using a Footprint Model to Face the Enemy. . . . .</b>	<b>169</b>
Mauro Conti, Roberto Di Pietro and Luciana Marconi	
<b>Privacy in Spatio-Temporal Databases: A Microaggregation-Based Approach . . . . .</b>	<b>197</b>
Rolando Trujillo-Rasua and Josep Domingo-Ferrer	
<b>A Prototype for Anonymizing Trajectories from a Time Series Perspective . . . . .</b>	<b>215</b>
Sergi Martínez-Bea	
 <b>Part V Respondent Privacy: Social Networks</b>	
<b>A Summary of k-Degree Anonymous Methods for Privacy-Preserving on Networks . . . . .</b>	<b>231</b>
Jordi Casas-Roma, Jordi Herrera-Joancomartí and Vicenç Torra	
<b>Evaluating Privacy Risks in Social Networks from the User's Perspective . . . . .</b>	<b>251</b>
Michal Sramka	
 <b>Part VI Respondent Privacy: Other Respondent Privacy Enhancing Technologies</b>	
<b>Trustworthy Video Surveillance: An Approach Based on Guaranteeing Data Privacy . . . . .</b>	<b>271</b>
Antoni Martínez-Ballesté, Agustí Solanas and Hatem A. Rashwan	

<b>Electronic Ticketing: Requirements and Proposals Related to Transport</b> . . . . .	285
M. Magdalena Payeras-Capellà, Macià Mut-Puigserver, Josep-Lluís Ferrer-Gomila, Jordi Castellà-Roca and Arnau Vives-Guasch	
<b>Security and Privacy Concerns About the RFID Layer of EPC Gen2 Networks.</b> . . . .	303
Joaquín García-Alfaro, Jordi Herrera-Joancomartí and Joan Melià-Seguí	
<b>Privacy on Mobile Coupons Booklets</b> . . . . .	325
M. Francisca Hinarejos, Andreu Pere Isern-Deyà and Josep-Lluís Ferrer-Gomila	
<b>Smart User Authentication for an Improved Data Privacy.</b> . . . .	345
Vanesa Daza and Matteo Signorini	
 <b>Part VII User Privacy: Web Search Engines</b>	
<b>Multi-party Methods for Privacy-Preserving Web Search: Survey and Contributions</b> . . . . .	367
Cristina Romero-Tris, Alexandre Viejo and Jordi Castellà-Roca	
<b>DisPA: An Intelligent Agent for Private Web Search.</b> . . . .	389
Marc Juárez and Vicenç Torra	
<b>A Survey on the Use of Combinatorial Configurations for Anonymous Database Search</b> . . . . .	407
Klara Stokes and Maria Bras-Amorós	
 <b>Part VIII User Privacy: Recommender and Personalized Systems</b>	
<b>Privacy-Enhancing Technologies and Metrics in Personalized Information Systems</b> . . . . .	423
Javier Parra-Arnau, David Rebollo-Monedero and Jordi Forné	
<b>Managing Privacy in the Internet of Things: DocCloud, a Use Case</b> . . . . .	443
Juan Vera del Campo, Josep Peguerols, Juan Hernández Serrano and Miguel Soriano	

Advanced Research in Data Privacy

Navarro-Arribas, G.; Torra, V. (Eds.)

2015, IX, 463 p. 72 illus., 18 illus. in color., Hardcover

ISBN: 978-3-319-09884-5