

Agnieszka Gryszczyńska ·
Przemysław Polański · Nils Gruschka ·
Kai Rannenberg · Monika Adamczyk (Eds.)

LNCS 13279

Privacy Technologies and Policy

10th Annual Privacy Forum, APF 2022
Warsaw, Poland, June 23–24, 2022
Proceedings

 Springer

Founding Editors

Gerhard Goos

Karlsruhe Institute of Technology, Karlsruhe, Germany

Juris Hartmanis

Cornell University, Ithaca, NY, USA


Editorial Board Members

Elisa Bertino

Purdue University, West Lafayette, IN, USA

Wen Gao

Peking University, Beijing, China

Bernhard Steffen 

TU Dortmund University, Dortmund, Germany

Moti Yung 

Columbia University, New York, NY, USA


More information about this series at <https://link.springer.com/bookseries/558>


Agnieszka Gryszczyńska · Przemysław Polański ·
Nils Gruschka · Kai Rannenberg ·
Monika Adamczyk (Eds.)


Privacy Technologies and Policy

10th Annual Privacy Forum, APF 2022
Warsaw, Poland, June 23–24, 2022
Proceedings

Editors

Agnieszka Grysczyńska 
Cardinal Stefan Wyszyński University
in Warsaw
Warsaw, Poland

Nils Gruschka 
University of Oslo
Oslo, Norway

Monika Adamczyk 
ENISA
Athens, Greece

Przemysław Polański
Kozłowski University
Warsaw, Poland

Kai Rannenberg
Goethe University Frankfurt
Frankfurt, Germany

ISSN 0302-9743

ISSN 1611-3349 (electronic)

Lecture Notes in Computer Science

ISBN 978-3-031-07314-4

ISBN 978-3-031-07315-1 (eBook)

<https://doi.org/10.1007/978-3-031-07315-1>

© Springer Nature Switzerland AG 2022

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

With this volume we introduce the proceedings of the 2022 edition of the Annual Privacy Forum (APF). APF 2022 was co-organized by the European Union Agency for Cybersecurity (ENISA), DG Connect of the European Commission, the Cardinal Stefan Wyszyński University in Warsaw, and Koźmiński University. The conference was hosted in Warsaw, Poland. This conference, already in its 10th edition, was established as an opportunity to bring together key communities, namely policy, academia, and industry, in the broader area of privacy and data protection while focusing on privacy-related application areas.

Like in the previous edition, a large focus of the 2022 conference was on the General Data Protection Regulation (GDPR).

There were 38 submissions in response to the APF call for papers. Each paper was peer-reviewed by three members of the international Program Committee (PC). On the basis of significance, novelty, and scientific quality, eight papers were selected (a 21% acceptance rate) and are compiled in this volume. The papers are organized across four thematic areas:

- Users’ Rights (“A Generic Data Model for Implementing Right of Access Requests”, “Can Authoritative Governments Abuse the Right to Access?”);
- Security of Personal Data (“The Data Protection Implications of the EU AML Framework: A Critical Overview & the Case of AI”, “Data Protection and Machine-Learning-Supported Decision-Making at the EU Border: ETIAS Profiling Under Scrutiny”);
- Privacy Enhancing Technologies (“Application-oriented Selection of Privacy Enhancing Technologies”, “Fifty Shades of Personal Data – Partial Re-identification and GDPR”);
- Privacy Engineering (“Google and Apple Exposure Notifications System: Exposure Notifications or Notified Exposures?”, “Analysis and Constructive Criticism of the Official Data Protection Impact Assessment of the German Corona-Warn-App”).

We wish to thank the members of the PC, for devoting their time to reviewing the submitted papers and providing constructive feedback, the authors, whose papers make up the bulk of the content of this conference, and the attendees, whose interest in the conference is the main driver for its organization.

June 2022

Agnieszka Gryszczyńska
Przemysław Polański
Nils Gruschka
Kai Rannenberg
Monika Adamczyk

Organization

General Co-chairs

Agnieszka Gryszczyńska	Cardinal Stefan Wyszyński University in Warsaw, Poland
Przemysław Polanski	Koźmiński University, Poland
Nils Gruschka	University of Oslo, Norway
Kai Rannenber	Goethe University Frankfurt, Germany
Monika Adamczyk	ENISA, Greece

Program Committee

Harsha Banavara	S&C Electric, USA
Bettina Berendt	Katholieke Universiteit Leuven, Belgium
Athena Bourka	ENISA, Greece
Jerzy Cytowski	Cardinal Stefan Wyszyński University in Warsaw, Poland
Kamil Czaplicki	Cardinal Stefan Wyszyński University in Warsaw, Poland
Giuseppe D'Acquisto	Garante per la protezione dei dati personali, Italy
José M. Del Álamo	Universidad Politécnica de Madrid, Spain
Matteo Dell'Amico	EURECOM, France
Diana Dimitrova	FIZ Karlsruhe, Germany
Piotr Drobek	Cardinal Stefan Wyszyński University in Warsaw, Poland
Prokopios Drogkaris	ENISA, Greece
Petros Efstathopoulos	Symantec Research Labs, USA
Anna Fabijańska	Technical University of Łódź, Poland
Paweł Fajgielski	John Paul II Catholic University of Lublin, Poland
Ana Ferreira	University of Porto, Portugal
Simone Fischer-Hübner	Karlstad University, Sweden
Michael Friedewald	Fraunhofer ISI, Germany
Marta Fydrych-Gąsowska	mBank S.A., Poland
Agnieszka Grzelak	Koźmiński University, Poland
Jassim Happa	Royal Holloway, University of London, UK
Szymon Jaroszewicz	Polish Academy of Sciences, Poland

Meiko Jensen	Karlstad University, Sweden
Christos Kalloniatis	University of the Aegean, Greece
Irene Kamara	VUB and TILT, The Netherlands
Saffija Kasem-Madani	University of Bonn, Germany
Sokratis Katsikas	Norwegian University of Science and Technology, Norway
Beata Konieczna-Drzewiecka	Cardinal Stefan Wyszyński University in Warsaw, Poland
Slawomir Kowalski	Koźmiński University, Poland
Konstantinos Limniotis	Hellenic Data Protection Authority, Greece
Irena Lipowicz	Cardinal Stefan Wyszyński University in Warsaw, Poland
Paweł Litwiński	Barta Litwiński, Poland
Alessandro Mantelero	Politecnico di Torino, Italy
Maurizio Naldi	LUMSA University, Italy
Robert Pająk	AI Law Tech Foundation, Poland
Wiesław Paluszyński	Polish IT Society, Poland
Ingrida Papáčová	Advokati s.r.o., Slovakia
Sebastian Pape	Goethe University Frankfurt, Germany
Wojciech Penczek	Polish Academy of Sciences, Poland
Robin Pierce	Tilburg University, The Netherlands
Heiko Roßnagel	Fraunhofer IAO, Germany
Marlena Sakowska-Baryła	SBC Kancelaria Radców Prawnych, Poland
Cristiana Santos	Utrecht University, The Netherlands
Stefan Schiffner	Universität Münster, Germany
Krzysztof Silicki	Research and Academic Computer Network (NASK), Poland
Fernando Silva	CNPD, Portugal
Grażyna Szpor	Cardinal Stefan Wyszyński University in Warsaw, Poland
Katarzyna Trynda	University of Silesia in Katowice, Poland
Mirosław Wróblewski	Office of the Commissioner for Human Rights, Poland

Organizers



Contents

Users' Rights

- A Generic Data Model for Implementing Right of Access Requests 3
Malte Hansen and Meiko Jensen
- Can Authoritative Governments Abuse the Right to Access? 23
Cédric Lauradoux

Security of Personal Data

- The Data Protection Implications of the EU AML Framework: A Critical
Overview & the Case of AI 37
Iakovina Kindylidi
- Data Protection and Machine-Learning-Supported Decision-Making
at the EU Border: ETIAS Profiling Under Scrutiny 50
Paulina Jo Pesch, Diana Dimitrova, and Franziska Boehm

Privacy Enhancing Technologies

- Application-Oriented Selection of Privacy Enhancing Technologies 75
Immanuel Kunz and Andreas Binder
- Fifty Shades of Personal Data – Partial Re-identification and GDPR 88
Jan Willemson

Privacy Engineering

- Google and Apple Exposure Notifications System: Exposure Notifications
or Notified Exposures? 99
Tatiana Duarte
- Analysis and Constructive Criticism of the Official Data Protection Impact
Assessment of the German Corona-Warn-App 119
Rainer Rehak, Christian R. Kühne, and Kirsten Bock

- Author Index** 135