MIPLC Studies 35

Shraddha Kulhari

Building-Blocks of a Data Protection Revolution

The Uneasy Case for Blockchain Technology to Secure Privacy and Identity

Nomos

MIPLC Munich Intellectual Property Law Center
Augsburg München Washington DC

MIPLC Studies
Edited by

Volume 35

Shraddha Kulhari

Building-Blocks of a Data Protection Revolution

The Uneasy Case for Blockchain Technology to Secure Privacy and Identity

Nomos

MIPLC Munich Intellectual Property Law Center
Augsburg München Washington DC

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available on the Internet at http://dnb.d-nb.de

a.t.: Munich, Master Thesis Munich Intellectual Property Law Center, 2017

ISBN 978-3-8487-5222-5 (Print)
978-3-8452-9402-5 (ePDF)

British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library.

ISBN 978-3-8487-5222-5 (Print)
978-3-8452-9402-5 (ePDF)

Library of Congress Cataloging-in-Publication Data
Kulhari, Shraddha
Building-Blocks of a Data Protection Revolution
The Uneasy Case for Blockchain Technology to Secure Privacy and Identity
Shraddha Kulhari
62 p.
Includes bibliographic references.

ISBN 978-3-8487-5222-5 (Print)
978-3-8452-9402-5 (ePDF)

1st Edition 2018

Table of Contents

Abstract

The General Data Protection Regulation (GDPR) replaced the old and battered Data Protection Directive on 25 May 2018 after a long-drawn reform. The rapidly evolving technological landscape will test the ability of the GDPR to effectively achieve the goals of protecting personal data and free movement of data. This thesis proposes a technological supplement to achieve the goal of data protection as enshrined in the GDPR. The proposal comes in the form of digital identity management platforms built on blockchain technology. Such digital identity management platforms enhance the personal autonomy and control of individuals over their identities. This is important in light of heightened profiling activity. However, the very structure of blockchain poses some significant challenges in terms of compatibility with the GDPR. In light of these challenges, the claim of GDPR being a technologically neutral legislation is analysed. Further, the thesis attempts to assess compatibility issues of a blockchain based digital identity management solution on the parameters of data protection principles like accountability, data minimisation, control and data protection by design in conjunction with the right to be forgotten and right to data portability.

Acronyms and Abbreviations

AmI	Ambient Intelligence
Art	Article
CJEU	Court of Justice of the European Union
DIM	Digital Identity Management
DPD	Data Protection Directive 95/46/EC
ECHR	European Convention on Human Rights
ECtHR	European Court of Human Rights
ESOs	European Standardisation Organisations
EU	European Union
EUCFR	European Union Charter of Fundamental Rights
GB	Giga Byte
GDPR	General Data Protection Regulation (EU) 2016/679
IP	Internet Protocol
IoT	Internet of Things
MIT	Massachusetts Institute of Technology
TCP	Transmission Control Protocol
WEF	World Economic Forum