

Sentencing and Artificial Intelligence

Edited by

JESPER RYBERG AND JULIAN V. ROBERTS

OXFORD
UNIVERSITY PRESS

OXFORD
UNIVERSITY PRESS

Oxford University Press is a department of the University of Oxford. It furthers the University's objective of excellence in research, scholarship, and education by publishing worldwide. Oxford is a registered trade mark of Oxford University Press in the UK and certain other countries.

Published in the United States of America by Oxford University Press
198 Madison Avenue, New York, NY 10016, United States of America.

© Oxford University Press 2022

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, without the prior permission in writing of Oxford University Press, or as expressly permitted by law, by license, or under terms agreed with the appropriate reproduction rights organization. Inquiries concerning reproduction outside the scope of the above should be sent to the Rights Department, Oxford University Press, at the address above.

You must not circulate this work in any other form
and you must impose this same condition on any acquirer.

Library of Congress Control Number: 2021917982
ISBN 978-0-19-753953-8

DOI: 10.1093/oso/9780197539538.001.0001

1 3 5 7 9 8 6 4 2

Printed by Integrated Books International, United States of America

Contents

<i>Acknowledgments</i>	vii
<i>Contributors</i>	ix
1. Sentencing and Artificial Intelligence: Setting the Stage <i>Jesper Ryberg and Julian V. Roberts</i>	1
2. Sentencing and Algorithmic Transparency <i>Jesper Ryberg</i>	13
3. Transparency at Sentencing: Are Human Judges More Transparent Than Algorithms? <i>Vincent Chiao</i>	34
4. Sentencing and the Conflict between Algorithmic Accuracy and Transparency <i>Jesper Ryberg and Thomas S. Petersen</i>	57
5. Algorithm-Based Sentencing and Discrimination <i>Kasper Lippert-Rasmussen</i>	74
6. Learning to Discriminate: The Perfect Proxy Problem in Artificially Intelligent Sentencing <i>Benjamin Davies and Thomas Douglas</i>	97
7. Enhancing the Integrity of the Sentencing Process through the Use of Artificial Intelligence <i>Mirko Bagaric and Dan Hunter</i>	122
8. The Compassionate Computer: Algorithms, Sentencing, and Mercy <i>Netanel Dagan and Shmuel Baron</i>	145
9. Algorithmic Sentencing: Drawing Lessons from Human Factors Research <i>John Zerilli</i>	165
10. Plea Bargaining, Principled Sentencing, and Artificial Intelligence <i>Richard L. Lippke</i>	184

vi CONTENTS

11. Reconciling Artificial and Human Intelligence: Supplementing Not Supplanting the Sentencing Judge <i>Mathis Schwarze and Julian V. Roberts</i>	206
12. Artificial Intelligence and Sentencing: Humans against Machines <i>Sigrid van Wingerden and Mojca M. Plesničar</i>	230
13. Iudicium ex Machinae: The Ethical Challenges of ADM at Sentencing <i>Frej Klem Thomsen</i>	252
<i>Index</i>	277