

CONTENTS

<i>List of Contributors</i>	<i>page viii</i>
<i>Preface</i>	<i>xi</i>
<i>List of Acronyms</i>	<i>xiii</i>
1 Mapping the Digital Healthcare Revolution	1
MARCELO CORRALES COMPAGNUCCI, MARK FENWICK, MICHAEL LOWERY WILSON, NIKOLAUS FORGÓ, AND TILL BÄRNIGHAUSEN	
PART I Platforms, Apps and Digital Health	17
2 Technology-Driven Disruption of Healthcare and ‘UI Layer’ Privacy-by-Design	19
MARCELO CORRALES COMPAGNUCCI, MARK FENWICK, HELENA HAAPIO, TIMO MINSEN, AND ERIK P. M. VERMEULEN	
3 Social Media Platforms as Public Health Arbiters: Global Ethical Considerations on Privacy, Legal, and Cultural Issues Associated with Suicide Detection Algorithms	68
KAREN L. CELEDONIA, MICHAEL LOWERY WILSON, AND MARCELO CORRALES COMPAGNUCCI	
4 Promoting the Use of PHR by Citizens and Physicians: Proposed Design for a Token to Be Allocated to Citizens	87
SHINTO TERAMOTO	
PART II Trust and Design	123
5 Privacy Management in eHealth Using Contextual Consenting	125
YKI KORTESNIEMI AND PÄIVI PÖYRY-LASSILA	

6	Artificial Intelligence and Data Protection Law	147
	THOMAS HOEREN AND MAURICE NIEHOFF	
7	AI Technologies and Accountability in Digital Health	166
	EVA THELISSON	
	PART III Knowledge, Risk and Control	207
8	The Principle of Transparency in Medical Research: Applying Big Data Analytics to Electronic Health Records	209
	NIKOLAUS FORGÓ AND MARIE-CATHERINE WAGNER	
9	The Next Challenge for Data Protection Law: AI Revolution in Automated Scientific Research	251
	JANOS MESZAROS	
10	A Global Human Rights Approach to Medical Artificial Intelligence	277
	AUDREY LEBRET	
	PART IV Balancing Regulation, Innovation and Ethics	309
11	Doctors Without Borders? The Law Applicable to Cross-Border eHealth Services and AI-Based Medicine	311
	JAN D. LÜTTRINGHAUS	
12	Organisational Readiness for the Adoption of Artificial Intelligence in Hospitals	334
	MAXIMILIAN SCHUESSLER, TILL BÄRNIGHAUSEN, AND ANANT JANI	
13	Regulating the ‘Benefits’ of eHealth: Information Disclosure Duties in the Age of AI	378
	MARC STAUCH	
14	Data Protection Implications of Forensic Genealogy: A Close Look at the Use of Forensic Genealogy in Solving a Double Murder in Sweden	401
	DENA DERVANOVIĆ	

15 Health Research, eHealth, and Learning Healthcare
Systems: Key Approaches, Shortcomings, and
Design Issues in Data Governance 423
SHAWN H. E. HARMON

Index 451