
Contents

Foreword	xi
List of Contributors	xvii
List of Figures and Table	xix
List of Abbreviations	xxi
Part I Setting the Framework for The Humanized Internet: Digital Identity, Human Dignity	1
Introduction Vision of the Humanized Internet	3
Conclusion	7
References	7
1 Identity and the Internet	9
<i>Akram Alfawakheeri</i>	
1.1 Introduction	9
1.2 Identity As We Know It	10
1.3 The Invisible Population: A Personal Story	11
1.4 A Brief History of Identity	15
1.5 Digital Identity World Order: Toward Self-Sovereign Identity.	17
1.6 Summary	19
References	20
2 Evolution of the Internet and New Technological Developments	23
2.1 Introduction	23
2.2 Brief History of the Internet.	25
2.3 The Internet of Trust and Self-Sovereign Identity.	28
2.4 Internet and Ethics.	30

2.5 Chapter Summary	33
References	33
Part II Societal Dilemmas	37
3 New Organizations	39
3.1 Introduction	39
3.2 Emerging Organizations and Programs	42
3.2.1 Decentralized identity foundation	46
3.2.2 W3C Credentials Working Group	46
3.3 A Word About Data Policy	48
3.4 Technology for Good: Closing in on These Social Dilemmas.	49
3.5 Summary	50
References	51
4 Societal Vulnerabilities and Implications Toward Tokenization of the Self	53
<i>Monique J. Morrow and Mehran Zarrebini</i>	
4.1 Introduction	54
4.2 Tokenization and Encryption	54
4.3 The Shift Toward Decentralization	57
4.4 Trust in a Centralized World and Emerging Solutions for the Protection of Human Data.	58
4.5 Governance and Regulation in a Tokenized World	60
4.6 Tokenization in Waste Management, Electrical and Autonomous Vehicles	62
4.7 Conclusion.	66
References	67
Part III The Humanized Internet Enablers	73
5 Ethics, Governance, and Regulatory Challenges	75
5.1 Introduction	75
5.2 The Current Systems Are No Longer Tenable	76
5.3 Defining a New Framework for Ethics, Governance, and Regulation	79
5.4 Summary	80
References	80

6	Standardization	81
6.1	Introduction	81
6.2	Decentralized Identity Foundation (DIF)	82
6.3	Institute of Electrical and Electronic Engineers (IEEE).	83
6.4	Summary	84
	References	85
7	Ethical Machines	87
7.1	Introduction	87
7.2	The Ethical Machine	88
7.3	Conclusion.	94
	References	95
Part IV	Evoking the Humanized Internet Use Cases	97
8	Impact of Technology on Healthcare Today: A Nursing Perspective	99
	<i>Frances Hughes</i>	
8.1	Challenges and Opportunities	103
8.2	Digital Health Technology	104
8.3	Blockchain.	108
8.4	Artificial Intelligence	110
8.5	Standards and Ethics	112
8.6	The Role of Patient	114
8.7	Conclusion.	115
	References	116
9	eGovernment as a Service	121
	<i>Daniel Gasteiger and Adithya Pradeep Kumar</i>	
9.1	Introduction	121
9.2	The Crisis of Liberalism – Hijack by the Elites	121
9.3	Digital Identity – The Foundation for a Digital Society.	124
9.4	The Path to Universal Digital Identity & Inclusion	125
9.5	The State of Self-Sovereign Identity Today	127
9.6	The Next Frontier in Self-Sovereign Digital Identity – Personal Data Management	128
9.7	The State of Self-Sovereign Personal Data Management	129
9.8	e-Voting	129
9.9	The State of Blockchain-based eVoting Today	130

9.10 Exploring the Societal Implications of Digital Technologies.	131
References	132
Conclusion	135
Additional Research	137
Index	139
About the Authors	141
Part IV. Evolving the Humanized Internet Use Cases	
References	15
8 Impact of Technology on Healthcare Today: A Nursing Perspective	
Tokenization of the Self	
8.1 Challenges and Opportunities	
8.2 Digital Health Technology	
8.3 Blockchain	
8.4 Artificial Intelligence	
8.5 Standards and Interoperability	
8.6 The Role of Patient	
8.7 Conclusion	
References	26
Autonomous Vehicles	
7.4.7 Conclusion	
References	27
Part III. The Humanized Internet	
9.1 Introduction	
9.2 The Crisis of Identity	
9.3 Digital Identity – The Foundation for a Digital Society	
9.4 The Path to Universal Digital Identity	
9.5 The State of Self-Sovereign Identity Today	
9.6 The Next Frontier: Self-Sovereign Digital Identity	
9.7 The State of Self-Sovereign Personal Data Management	
9.8 e-Voting	
9.9 The State of Blockchain-based e-Voting Today	