

# Contents

Contributor Biographies	ix
<b>Part I Roots and Core Themes</b>	<b>1</b>
1 The Philosophy of Transhumanism <i>Max More</i>	3
2 Aesthetics: Bringing the Arts & Design into the Discussion of Transhumanism <i>Natasha Vita-More</i>	18
3 Why I Want to be a Posthuman When I Grow Up <i>Nick Bostrom</i>	28
4 Transhumanist Declaration (2012) <i>Various</i>	54
5 Morphological Freedom – Why We Not Just Want It, but Need It <i>Anders Sandberg</i>	56
<b>Part II Human Enhancement: The Somatic Sphere</b>	<b>65</b>
6 Welcome to the Future of Medicine <i>Robert A. Freitas Jr.</i>	67
7 Life Expansion Media <i>Natasha Vita-More</i>	73
8 The Hybronaut Affair: A Ménage of Art, Technology, and Science <i>Laura Beloff</i>	83

vi	<i>Contents</i>	
9	Transavatars <i>William Sims Bainbridge</i>	91
10	Alternative Biologies <i>Rachel Armstrong</i>	100
<b>Part III Human Enhancement: The Cognitive Sphere</b>		<b>111</b>
11	Re-Inventing Ourselves: The Plasticity of Embodiment, Sensing, and Mind <i>Andy Clark</i>	113
12	Artificial General Intelligence and the Future of Humanity <i>Ben Goertzel</i>	128
13	Intelligent Information Filters and Enhanced Reality <i>Alexander "Sasha" Chislenko</i>	138
14	Uploading to Substrate-Independent Minds <i>Randal A. Koene</i>	146
15	Uploading <i>Ralph C. Merkle</i>	157
<b>Part IV Core Technologies</b>		<b>165</b>
16	Why Freud Was the First Good AI Theorist <i>Marvin Minsky</i>	167
17	Pigs in Cyberspace <i>Hans Moravec</i>	177
18	Nanocomputers <i>J. Storrs Hall</i>	182
19	Immortalist Fictions and Strategies <i>Michael R. Rose</i>	196
20	Dialogue between Ray Kurzweil and Eric Drexler	205
<b>Part V Engines of Life: Identity and Beyond Death</b>		<b>213</b>
21	The Curate's Egg of Anti-Anti-Aging Bioethics <i>Aubrey de Grey</i>	215
22	Medical Time Travel <i>Brian Wowk</i>	220
23	Transhumanism and Personal Identity <i>James Hughes</i>	227

24	Transcendent Engineering <i>Giulio Prisco</i>	234
<b>Part VI Enhanced Decision-Making</b>		<b>241</b>
25	Idea Futures: Encouraging an Honest Consensus <i>Robin Hanson</i>	243
26	The Proactionary Principle: Optimizing Technological Outcomes <i>Max More</i>	258
27	The Open Society and Its Media <i>Mark S. Miller, with E. Dean Tribble, Ravi Pandya, and Marc Stiegler</i>	268
<b>Part VII Biopolitics and Policy</b>		<b>279</b>
28	Performance Enhancement and Legal Theory: An Interview with Professor Michael H. Shapiro	281
29	Justifying Human Enhancement: The Accumulation of Biocultural Capital <i>Andy Miah</i>	291
30	The Battle for the Future <i>Gregory Stock</i>	302
31	Mind is Deeper Than Matter: Transgenderism, Transhumanism, and the Freedom of Form <i>Martine Rothblatt</i>	317
32	For Enhancing People <i>Ronald Bailey</i>	327
33	Is Enhancement Worthy of Being a Right? <i>Patrick D. Hopkins</i>	345
34	Freedom by Design: Transhumanist Values and Cognitive Liberty <i>Wrye Sententia</i>	355
<b>Part VIII Future Trajectories: Singularity</b>		<b>361</b>
35	Technological Singularity <i>Vernor Vinge</i>	365
36	An Overview of Models of Technological Singularity <i>Anders Sandberg</i>	376
37	A Critical Discussion of Vinge's Singularity Concept <i>David Brin, Damien Broderick, Nick Bostrom, Alexander "Sasha" Chislenko, Robin Hanson, Max More, Michael Nielsen, and Anders Sandberg</i>	395

<b>Part IX</b>	<b>The World's Most Dangerous Idea</b>	<b>419</b>
38	The Great Transition: Ideas and Anxieties <i>Russell Blackford</i>	421
39	Trans and Post <i>Damien Broderick</i>	430
40	Back to Nature II: Art and Technology in the Twenty-First Century <i>Roy Ascott</i>	438
41	A Letter to Mother Nature <i>Max More</i>	449
42	Progress and Relinquishment <i>Ray Kurzweil</i>	451
	Index	454