

# Contents

<b>1</b>	<b>Introduction</b>	1
	Jan Deckers and Francisco Lara	
<b>Part I Can an AI System Be Ethical?</b>		
<b>2</b>	<b>Bias and Discrimination in Machine Decision-Making Systems</b>	13
	Jorge Casillas	
<b>3</b>	<b>Opacity, Machine Learning and Explainable AI</b>	39
	Alberto Fernández	
<b>4</b>	<b>The Moral Status of AI Entities</b>	59
	Joan Llorca Albareda, Paloma García, and Francisco Lara	
<b>Part II Ethical Controversies About AI Applications</b>		
<b>5</b>	<b>Ethics of Virtual Assistants</b>	87
	Juan Ignacio del Valle, Joan Llorca Albareda, and Jon Rueda	
<b>6</b>	<b>Ethics of Virtual Reality</b>	109
	Blanca Rodríguez López	
<b>7</b>	<b>Ethical Problems of the Use of Deepfakes in the Arts and Culture</b>	129
	Rafael Cejudo	
<b>8</b>	<b>Exploring the Ethics of Interaction with Care Robots</b>	149
	María Victoria Martínez-López, Gonzalo Díaz-Cobacho, Aníbal M. Astobiza, and Blanca Rodríguez López	
<b>9</b>	<b>Ethics of Autonomous Weapon Systems</b>	169
	Juan Ignacio del Valle and Miguel Moreno	

**Part III The Need for AI Boundaries**

- 10 Ethical Principles and Governance for AI ..... 191  
Pedro Francés-Gómez
- 11 AI, Sustainability, and Environmental Ethics ..... 219  
Cristian Moyano-Fernández and Jon Rueda
- 12 The Singularity, Superintelligent Machines,  
and Mind Uploading: The Technological Future? ..... 237  
Antonio Diéguez and Pablo García-Barranquero