

**Preface — V**

**Part 1: Competition and Regulation**

Richard von Maydell, Christoph Menzel

**Chapter 1**

**The Rise of Artificial Intelligence: Towards a Modernisation of Competition Policy — 3**

**Part 2: Production and Processes**

Markus Feld, Wolfgang Arens-Fischer, Marcel Schumacher

**Chapter 2**

**“KI-AGIL” – An Agile Process Model to Make AI Development Accessible to SMEs — 19**

Robert Menger, Karla Ohler-Martins, Amanda Lemetite, Robert J. Martin

**Chapter 3**

**Automatic Classification of Files Based on the Classes of IEC 61355 — 31**

**Part 3: Finance and Accounting**

Marcus Bravidor

**Chapter 4**

**Auditing Algorithms in the (Non-)Financial Audit: Status Quo and Way Forward — 45**

Isabel Lausberg, Arne Eimuth, Anne Stockem Novo

**Chapter 5**

**Barriers to the Use of Artificial Intelligence (AI) in Management Reporting — 57**

Thomas Rautenstrauch, Janis Hummel, Oliver Isoz, Simon Moser

**Chapter 6**

**Transforming Management Accounting with Robotic Process Automation – Requirements and Implications — 71**

## **Part 4: Organisation and Workflow**

Markus Harlacher, Andrea Altepost, Ingo Elsen, Alexander Ferrein, Adjan Hansen-Ampah, Wolfgang Merx, Sina Niehues, Stefan Schiffer, Fatemeh Nasim Shahinfar

### **Chapter 7**

**Approach for the Identification of Requirements on the Design of AI-supported Work Systems (in Problem-based Projects) — 87**

Nicolai Krüger, Agnis Stibe, Jacqueline Krüger

### **Chapter 8**

**Plug and Play AI – How Companies Can Benefit from AI as a Service — 101**

## **Part 5: HR and Employment**

Timm Eichenberg, Nils Pudill, Britta Rüschhoff, Anne Stockem Novo, Michael Vogelsang

### **Chapter 9**

**Developing Personas of Ideal-type Candidates in AI-related Jobs — 115**

Ed Dandalt

### **Chapter 10**

**Artificial Intelligence and Care Leaders: A Critical Perspective — 131**

## **Part 6: Artificial Intelligence and Humans**

Zunera Rana, Jessica Roemer, Thomas Pitz, Joern Sickmann

### **Chapter 11**

**Public Perception of Artificial Intelligence: A Systematic Evaluation of Newspaper Articles Using Sentiment Analysis — 139**

Simone Roth, Medina Klicic

### **Chapter 12**

**Generational Differences in Framing for Social Robot Usage Intention from a Consumer Behaviour Point of View — 155**

Irina Simon

### **Chapter 13**

**Towards a Structuralist Data Narratology — 171**

Khuliso Mapila, Tankiso Moloi

**Chapter 14**

**Exploring the Adoption of AI for Customer Engagement Marketing by Small and Medium Enterprises in South Africa: A Literature Review of Challenges and Opportunities — 185**

**Part 7: Forecasting**

Katharina I. Köstner, Bàrbara Llacay, David Alaminos

**Chapter 15**

**Forecasting Brent Oil Volatility: DeepAR vs LSTM — 203**

Jan Vogt, Alexander Bönner, Michael Römmich, Malte Weiß, Merih Türkoglu

**Chapter 16**

**Energy Stock Price Forecast Based on Machine Learning and Sentiment Analysis – Which Approach Performs Best in Day Trading? — 225**

Gregor Johnen, Jens Kley-Holsteg, André Niemann, Florian Ziel

**Chapter 17**

**Optimising Water Supply – Application of Probabilistic Deep Neural Networks to Forecast Water Demand in the Short Term — 243**

**List of Contributors — 257**

**About the Editors — 261**

**List of Figures — 263**

**List of Tables — 265**