1. Record Nr. UNINA9910799225303321 Autore Moura Vicente Dário Titolo Legal Aspects of Autonomous Systems : A Comparative Approach / / edited by Dário Moura Vicente, Rui Soares Pereira, Ana Alves Leal Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2024 **ISBN** 3-031-47946-7 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (381 pages) Collana Data Science, Machine Intelligence, and Law, , 2730-5902;; 4 Altri autori (Persone) Soares PereiraRui Alves LealAna Disciplina 343.099 Soggetti Information technology - Law and legislation Mass media - Law and legislation Conflict of laws International law Comparative law Artificial intelligence IT Law, Media Law, Intellectual Property Private International Law, International and Foreign Law, Comparative Law Artificial Intelligence Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Intro -- Introduction -- Contents -- Editors and Contributors --Autonomous Systems and Civil Liability -- Autonomous Systems and Tort Law -- 1 The Limitations of the Traditional Tort Law -- 1.1 The Centrality of Fault -- 1.2 Wrongfulness -- 1.3 Causation -- 2 The Solutions -- 2.1 Algorithm Liability -- 2.2 Strict Liability -- 2.3 The European Proposal -- References -- Violation of the Right to Be Forgotten on the Internet: Legal Overview of Tort Law Aspects -- 1 Introduction and Context -- 2 The Development of the Right to Be Forgotten -- 3 The Infringement of the Right to Be Forgotten and Its

Legal Implications -- 4 Legal Overview of Tort Law Aspects -- 5 A Few Critical Remarks -- 6 Final Conclusions -- References -- Suppliers' Civil Liability for Damage Caused by Autonomous Vehicles: A Brazilian

Perspective -- 1 Introduction -- 2 The Two Hypothetical Scenarios and the Possible Paths for the Brazilian Law -- 3 Providing Solutions for Both Hypothetical Scenarios -- 4 Concluding Remarks --References -- European Al Regulation Perspectives and Trends -- 1 Background -- 2 Between Ethics and Law -- 3 Legal Regulation -- 4 The Place of Civil Liability in the Al Regulation -- 5 Conclusions --References -- Autonomous Systems, Attribution and Punishment --The Basic Models of Criminal Liability of AI Systems and Outer Circles -- 1 Introduction -- 2 The Perpetration-by-Another Liability Model --3 The Natural Probable Consequence Liability Model -- 4 The Direct Liability Model -- 5 Coordination of the Three Liability Models --References -- Punishing Artificial Intelligence: Legal Fiction or Science Fiction -- 1 Introduction -- 2 Artificial Intelligence and Punishment --2.1 Introduction to Artificial Intelligence -- 2.2 A Framework for Understanding AI Crime -- 2.3 A Mainstream Theory of Punishment -- 3 The Affirmative Case.

3.1 Consequentialist Benefits -- 3.2 Expressive Considerations -- 4 Retributive and Conceptual Limitations -- 4.1 The Eligibility Challenge -- 4.2 Further Retributivist Challenges: Reducibility -- 4.3 Not Really Punishment? -- 5 Feasible Alternatives -- 5.1 First Alternative: The Status Quo -- 5.2 Second Alternative: Minimally Extending Criminal Law -- 5.3 Third Alternative: Moderate Changes to Civil Liability -- 5.4 Concluding Thoughts -- References -- Robots and Liability: New Criteria and Attribution Methods -- 1 Introduction: Tort Law for Robots -- 2 Criteria and Methods for the Attribution of Liability in National Law -- 2.1 Application of Consumer Law Regulations -- 2.2 Application of General Civil Liability Regulations -- 3 Criteria and Methods for Attribution of Legal Liability in European Law -- 3.1 European Parliament Resolution of 16 February 2017 with Recommendations to the Commission on Civil Law Rules on Robotics -- 3.2 European Parliament Resolution of 20 October 2020 with Recommendations to the Commission on a Civil Liability Regime for Artificial Intelligence -- 3.3 Proposal of 21 April 2002 for an Artificial Intelligence Act -- 3.4 Proposal of 28 September 2022 for an Al Liability Directive -- 4 Conclusions -- 4.1 Protecting the Victims of AI Systems -- 4.2 An Urgent Need for Regulation -- 4.3 Risk Must Be a Determining Factor in the Liability Attribution System -- 4.4 A Strict Liability Criterion in Cases of High-Risk Al Systems Must Be Regulated -- 4.5 Fine-Tuning the Application of the Rules in the Absence of Specific Regulation -- References -- Self-Driving Cars and Criminal Law -- 1 Introduction -- 2 The Problem of the Tragic Choice: The Main Barrier to the Introduction of the Self-Driving Cars? -- 3 A Few Cases -- 3.1 Case One -- 3.2 Case Two -- 3.3 Case Three -- 3.4 Case Four -- 3.5 Case Five.

4 State of the Discussion and Main Challenges -- 5 Conclusion -- References -- Autonomous Systems and Wrongdoing: Revisiting the Meaning of Wrongdoing -- 1 Introduction -- 2 Wrongdoing and Civil Liability -- 2.1 Wrongdoing and Tort Liability -- 2.2 Wrongdoing and Other Non-contractual Civil Liability Situations -- 2.3 The Meanings of Wrongdoing Relevant for Damage Caused by Autonomous Systems -- 3 Wrongdoing and Criminal Liability -- 3.1 Traditional Perspectives on the Criminal Concept of Wrongdoing -- 3.2 Criminal Wrongdoing as Violation of the Duties of Cooperation that Derive from the Status of Citizen -- 4 Wrongdoing of the Citizen and Situations of Criminal Liability for Wrongful Results Caused by Autonomous Systems -- 4.1 Resemblances to Duff's Normative Theory of Criminal Law and of Criminalization and the Link to the Status of Citizen -- 4.2 Resemblances to Liability Systems

that Do Not Distinguish Between Wrongfulness and Fault -- 4.3 Difficulties in Solving Criminal Liability Situations for Damage or Wrongful Results Caused by Autonomous Systems -- 5 Concluding Remarks -- References -- Algorithmic Protection of the Core Area of Private Life. On the Deployment of Artificial Intelligence in Computer and Network Surveillance as a Duty of the State -- 1 Introduction -- 2 Computer and Network Surveillance as Criminal Procedural Interference with Fundamental Rights -- 3 The Fundamental Right to the Guarantee of Confidentiality and Integrity of Information Technology Systems and Its Essence -- 3.1 The Fundamental Right to the Guarantee of Confidentiality and Integrity of Information Technology Systems --3.2 On the Essence: The Core Area of Private Life -- 4 What is Deep Learning and What Can It Do? -- 5 Deep Learning in Computer and Network Surveillance-Already a State Duty? -- 5.1 Deep Learning in the Proportionality Assessment. 5.2 Is the Application of Deep Learning in the Course of Computer and Network Surveillance Already a Duty of the State? -- 6 Conclusion -- References -- The Spread of Fake News by Social Bots: Perspectives on Social Bot Regulation -- 1 Introduction -- 2 What Are Social Bots? --3 Are Social Bots Dangerous? -- 4 Are There Solutions to the Identification Problem? -- 4.1 The Technical Approach -- 4.2 The Normative Approaches -- 5 Is There a Way Out of the Authoritarian Path? -- 6 Conclusions -- References -- Autonomous Systems and Decision-Making -- Judicial Power Without Judicial Responsibility: The Case Against Robot Judges -- 1 Introduction -- 2 It Is Possible to Do It? -- 2.1 Preliminary Remarks -- 2.2 The Goal: Good Judicial Decisions -- 2.3 A Goal that is Unattainable from the Outset? -- 2.4 Interim Conclusion -- 3 Is It Admissible to Do It? -- 3.1 Positive Law Obstacles? -- 3.2 Pre-positive Obstacles: Incompatibility with the Nature of Law? -- 4 Conclusion -- References -- Regulating Judge Artificial Intelligence (AI) -- 1 Introduction -- 2 Data and Machine Learning -- 3 Expert Judge Al Systems -- 4 To What Extent Will Human Judging Be Retained? -- 5 Emotion and Judging -- 6 What Cases? -- 7 Ethical Frameworks for Judge AI -- 8 Conclusion --References -- Artificial Intelligence, Probabilities and Evidence -- 1 Why Do Probabilities (May) Matter? -- 2 Many Probabilities: The (Possible) Case for a Subjective Interpretation of Probabilities in a Legal Context -- 3 Bayes' Theorem -- 4 A Case Study (Legionella) -- 5 Concluding Remarks -- References -- Creative Machines-Machine Learning Models, Copyright, and Computational Creativity -- 1 Introduction -- 1.1 A Short Story of Al Art -- 1.2 Context of the Discussion -- 1.3 Structure of This Chapter -- 2 Terminology: Autonomy and the Creative Process -- 2.1 Trying to Define Autonomy. 2.2 The Creative Process -- 3 Machine Learning Models and the Creative Process -- 3.1 High-Level Overview of Machine Learning Systems -- 3.2 Using Machine Learning Models in the Creative Process -- 4 Machine Learning Art and (German) Copyright -- 4.1 Copyright Protection in Germany -- 4.2 Copyright Protection for Machine Learning Output -- 4.3 Application of the Three-Step-Test -- 5 Computational Creativity -- 6 Conclusion -- References --Autonomous Systems and Contracts -- Blockchain(s), Smart Contracts and Intellectual Property -- 1 Introduction -- 2 Bitcoin, Cryptocurrency and Blockchains -- 3 Smart Contracts: Definition and Historical Background -- 4 Blockchain and Smart Contracts IP Applications -- 4.1 Registration and Proof of Provenance -- 4.2 IP Rights Management --4.3 Enforcement and Combating Counterfeit -- 5 Current Problems --5.1 Technological Feasibility -- 5.2 IP Problems -- 6 Conclusion --References -- Algorithms, Creditworthiness, and Lending Decisions --

1 Introduction -- 2 Legal Discourse on Algorithms and Regulatory Models -- 3 Alternative Data: Panacea or Curse? -- 4 Prejudice and Distrust Towards Algorithms. A Deconstruction -- 4.1 The Argument of the "Discriminatory Effect" -- 4.2 The Argument of the "Harmful Effect" -- 4.3 The Argument of the "Multiplier Effect" -- 5 Opacity and Decision-Making -- 6 The Lending Decision and the Creditworthiness Assessment -- 7 Credit Scoring: The Score as a Measure of Trust -- 8 Refusal of Credit and Cut Credit Decisions. When "No" Is Not An Answer -- 9 Concluding Remarks -- References -- Blockchain, Currency and Systemic Issues -- 1 Introduction -- 2 Conventional Monetary Objects and Cryptocurrencies -- 2.1 Conventional Monetary Objects -- 2.2 Cryptocurrencies -- 2.3 Differences and Similarities -- 2.4 Risks.
3 Applicability of the Legal Framework Governing Conventional Monetary Objects to Cryptocurrencies.

Sommario/riassunto

As computational power, the volume of available data, IT systems' autonomy, and the human-like capabilities of machines increase, robots and AI systems have substantial and growing implications for the law and raise a host of challenges to current legal doctrines. The main question to be answered is whether the foundations and general principles of private law and criminal law offer a functional and adaptive legal framework for the "autonomous systems" phenomena. The main purpose of this book is to identify and explore possible trajectories for the development of civil and criminal liability; for our understanding of the attribution link to autonomous systems; and, in particular, for the punishment of unlawful conduct in connection with their operation. Al decision-making processes – including judicial sentencing – also warrant close attention in this regard. Since AI is moving faster than the process of regulatory recalibration, this book provides valuable insights on its redesign and on the harmonization, at the European level, of the current regulatory frameworks, in order to keep pace with technological changes. Providing a broader and more comprehensive picture of the legal challenges posed by autonomous systems, this book covers a wide range of topics, including the regulation of autonomous vehicles, data protection and governance, personality rights, intellectual property, corporate governance, and contract conclusion and termination issues arising from automated decisions, blockchain technology and Al applications, particularly in the banking and finance sectors. The authors are legal experts from around the world with extensive academic and/or practical experience in these areas.