Technology And Regulation

#technology regulation #digital governance #tech policy #innovation frameworks #data privacy laws

Explore the complex interplay between technology and regulation, delving into the essential policies and frameworks that govern digital innovation. This section examines how various tech policies and digital governance strategies impact technological advancement, ensuring responsible development while fostering growth. Understand the challenges and opportunities in establishing effective innovation frameworks and navigating critical issues like data privacy laws within the evolving landscape of technology regulation.

Rethinking Law, Regulation, and Technology

This insightful book presents a radical rethinking of the relationship between law, regulation, and technology. While in traditional legal thinking technology is neither of particular interest nor concern, this book treats modern technologies as doubly significant, both as major targets for regulation and as potential tools to be used for legal and regulatory purposes. It explores whether our institutions for engaging with new technologies are fit for purpose.

Future Law

How will law, regulation and ethics govern a future of fast-changing technologies? Bringing together cutting-edge authors from academia, legal practice and the technology industry, Future Law explores and leverages the power of human imagination in understanding, critiquing and improving the legal responses to technological change. It focuses on the practical difficulties of applying law, policy and ethical structures to emergent technologies both now and in the future. It covers crucial current issues such as big data ethics, ubiquitous surveillance and the Internet of Things, and disruptive technologies such as autonomous vehicles, DIY genetics and robot agents. By using examples from popular culture such as books, films, TV and Instagram - including 'Black Mirror', 'Disney Princesses', 'Star Wars', 'Doctor Who' and 'Rick and Morty' - it brings hypothetical examples to life. And it asks where law might go next and to regulate new-phase technology such as artificial intelligence, 'smart homes' and automated emotion recognition.

The Oxford Handbook of Law, Regulation and Technology

This book brings together leading scholars from law and other disciplines to explore the relationship between law, technological innovation, and regulatory governance.

Dimensions of Technology Regulation

This volume represents the proceedings of an international conference organized by the Tilburg Institute for Law, Technology, and Society (TILT) in Tilburg, the Netherlands. The book brings together a wide range of international scholars from a variety of disciplines to shed light on the multiple dimensions of technology regulation. It presents different perspectives in an innovative way, visualizing the emerging discipline of technology regulation as a multidimensional space. The book explores a range of issues in the fields of nano-materials and nano-medicine, biotechnology, chemicals, and ICT, as well as overarching topics, such as innovation regimes, risk governance, and responsive regulation. By grouping the analyses along four dimensions - type of technology, type of regulation, innovation, and time - it allows both scholars and practitioners to explore the space of technology regulation along new lines and to identify new possibilities for regulatory action and future research. Technological developments pose enormous challenges for regulators. Not only do regulators need to find an optimal balance between protecting fundamental values and public goods and the stimulation of creativity and innovation, but they need to do so in a way that keeps pace with the speed and pervasive nature of technological developments. Technology regulation is thus emerging as an important field of interdisciplinary research. The book charts the multifarious challenges of new technologies and possible regulatory responses from a multidisciplinary perspective.

The REGTECH Book

The Regulatory Technology Handbook The transformational potential of RegTech has been confirmed in recent years with US$1.2 billion invested in start-ups (2017) and an expected additional spending of US$100 billion by 2020. Regulatory technology will not only provide efficiency gains for compliance and reporting functions, it will radically change market structure and supervision. This book, the first of its kind, is providing a comprehensive and invaluable source of information aimed at corporates, regulators, compliance professionals, start-ups and policy makers. The REGTECH Book brings into a single volume the curated industry expertise delivered by subject matter experts. It serves as a single reference point to understand the RegTech eco-system and its impact on the industry. Readers will learn foundational notions such as: • The economic impact of digitization and datafication of regulation • How new technologies (Artificial Intelligence, Blockchain) are applied to compliance • Business use cases of RegTech for cost-reduction and new product origination • The future regulatory landscape affecting financial institutions, technology companies and other industries Edited by world-class academics and written by compliance professionals, regulators, entrepreneurs and business leaders, the RegTech Book represents an invaluable resource that paves the way for 21st century regulatory innovation.

Regulation of Innovative Technologies

This book explores the regulation of emerging technologies. Developments such as bitcoin (based on blockchain technology), artificial intelligence, quantum computing, and other technical advances have the potential to revolutionize many aspects of everyday life. As with other significant occurrences, especially when coupled by financial rewards, there are the inevitable attempts to reap gains unlawfully. This book examines the legal and regulatory enactments that attempt to undermine the risks to society as well as the dangers to individual freedoms that the technologies present when abused by governmental and non-governmental authorities. Included are discussions of the dangers to the right of privacy posed by facial recognition, physical location tracking, automated license plate recognition (ALPR) and other evolving applications of technology. This book is an invaluable resource for those interested in the regulation of emerging technologies particularly as they relate to blockchain, artificial intelligence, and the most current advances in quantum computing. Emphasis is focused on invasion of privacy, particularly by government authorities, antitrust implications of private companies and the efforts of international entities to counter alleged abuses by them.

Regulating Technologies

While it is a truism that emerging technologies present both opportunities for and challenges to their host communities, the legal community has only recently begun to consider their significance. On the one hand, emerging information, bio, nano, and neurotechnologies challenge policy-makers who aspire to put in place a regulatory environment that is legitimate, effective, and sustainable; on the other hand, these same technologies offer new opportunities as potentially powerful regulatory instruments. In this unique volume, a team of leading international scholars address many of the key difficulties surrounding the regulation of emerging technological targets as well as the implications of adopting technology as a regulatory tool. How should we rise to the challenge of regulating technologies? How are the regulatory

lines to be drawn in the right places and how is the public to be properly engaged? How is precaution to be accommodated, and how can the law keep pace with technologies that develop ahead of the regulatory environment? How readily should we avail ourselves of the opportunity to use technology as a regulative strategy? How are we to understand these strategies and the challenges which they raise? To what extent do they give rise to similar policy problems accompanying more 'traditional' regulatory instruments or generate distinctive challenges? While the criminal justice system increasingly relies on technological assistance and the development of a 'surveillance society', is a regulatory regime that rules by technology compatible with rule of law values?

Regulating New Technologies in Uncertain Times

This book deals with questions of democracy and governance relating to new technologies. The deployment and application of new technologies is often accompanied with uncertainty as to their long-term (un)intended impacts. New technologies also raise questions about the limits of the law as the line between harmful and beneficial effects is often difficult to draw. The volume explores overarching concepts on how to regulate new technologies and their implications in a diverse and constantly changing society, as well as the way in which regulation can address differing, and sometimes conflicting, societal objectives, such as public health and the protection of privacy. Contributions focus on a broad range of issues such as Citizen Science, Smart Cities, big data, and health care, but also on the role of market regulation for new technologies.The book will serve as a useful research tool for scholars and practitioners interested in the latest developments in the field of technology regulation. Leonie Reins is Assistant Professor at the Tilburg Institute for Law, Technology, and Society (TILT) in The Netherlands.

The Regulation of Science and Technology

The worst chemical disaster ever could be happening right now. In India and Bangladesh between forty and eighty million people are at risk of consuming too much arsenic from well water that might have already caused one hundred thousand cancer cases and thousands of deaths. Many millions elsewhere in South-East Asia and South America may soon suffer a similar fate. Venomous Earth is the story of this tragedy: the geology, the biology, the politics and the history. It starts in Ancient Greece, touches down in today's North America and takes in William Morris, alchemy, farming, medicine, mining and a cosmetic that killed two popes.

Law and the Technologies of the Twenty-First Century

Law and the Technologies of the Twenty-First Century provides a contextual account of the way in which law functions in a broader regulatory environment across different jurisdictions. It identifies and clearly structures the four key challenges that technology poses to regulatory efforts, distinguishing between technology as a regulatory target and tool, and guiding the reader through an emerging field that is subject to rapid change. By extensive use of examples and extracts from the texts and materials that form and shape the scholarly and public debates over technology regulation, it presents complex material in a stimulating and engaging manner. Co-authored by a leading scholar in the field with a scholar new to the area, it combines comprehensive knowledge of the field with a fresh approach. This is essential reading for students of law and technology, risk regulation, policy studies, and science and technology studies.

Rethinking Law, Regulation, and Technology

This insightful book presents a radical rethinking of the relationship between law, regulation, and technology. While in traditional legal thinking technology is neither of particular interest nor concern, this book treats modern technologies as doubly significant, both as major targets for regulation and as potential tools to be used for legal and regulatory purposes. It explores whether our institutions for engaging with new technologies are fit for purpose. Having depicted a legal landscape that includes legal rules and principles, regulatory frameworks, technical measures and technological governance, this thought-provoking book presents further exercises in rethinking. These exercises confront communities with a fundamental question about how they are to be governed--by humans using rules or by technical measures and technological management? Chapters rethink the traditional arguments relating to legality, the rule of law, legitimacy, regulatory practice, dispute resolution, crime and control, and authority and respect for law. Examining the role of lawyers and law schools in an

age of governance by smart technologies, Rethinking Law, Regulation, and Technology will be a key resource for students and scholars of law and technology, digital innovation and regulation and the law.

Law 3.0

Putting technology front and centre in our thinking about law, this book introduces Law 3.0: the future of the legal landscape. Technology not only disrupts the traditional idea of what it is 'to think like a lawyer,' as per Law 1.0; it presents major challenges to regulators who are reasoning in a Law 2.0 mode. As this book demonstrates, the latest developments in technology offer regulators the possibility of employing a technical fix rather than just relying on rules – thus, we are introducing Law 3.0. Law 3.0 represents, so to speak, the state we are in and the conversation that we now need to have, and this book identifies some of the key points for discussion in that conversation. Thinking like a lawyer might continue to be associated with Law 1.0, but from 2020 onward, Law 3.0 is the conversation that we all need to join. And, as this book argues, law and the evolution of legal reasoning cannot be adequately understood unless we grasp the significance of technology in shaping both legal doctrine and our regulatory thinking. This is a book for those studying, or about to study, law – as well as others with interests in the legal, political, and social impact of technology.

The Legal Consistency of Technology Regulation in Europe

By bringing together fundamental rights, economic law, and recent legislation in the areas of digital platforms, data, and AI, this open access book gives a comprehensive picture of the state of play in technology regulation in the EU. Risks of regulatory fragmentation are on the rise with ever more legislative instruments becoming applicable to the technology sector. This book explores the prospects and challenges of ensuring legal consistency in a period of transition in which new legislation is being implemented and the interpretation of existing laws is being challenged by the use of data, AI, and platform technologies. The book analyses the legal consistency of technology regulation from three perspectives: (1) the relationship between the EU and the Council of Europe; (2) the relationship among EU regulatory frameworks; and (3) the relationship between EU and Member State law. By covering issues of fundamental rights protection, the free flow of data, consumer protection, competition, and innovation, the book gives a unique and extensive outlook into the state of the art in academic and policy discussions. Unravelling the relationship between legal fields, the book is an essential resource for academics, practitioners and students wishing to understand the increasingly complex landscape of technology regulation in Europe. The ebook editions of this book are available open access under a CC BY-NC-ND 4.0 licence on bloomsburycollections.com.

Law, Technology and Society

This book considers the implications of the regulatory burden being borne increasingly by technological management rather than by rules of law. If crime is controlled, if human health and safety are secured, if the environment is protected, not by rules but by measures of technological management—designed into products, processes, places and so on—what should we make of this transformation? In an era of smart regulatory technologies, how should we understand the 'regulatory environment', and the 'complexion' of its regulatory signals? How does technological management sit with the Rule of Law and with the traditional ideals of legality, legal coherence, and respect for liberty, human rights and human dignity? What is the future for the rules of criminal law, torts and contract law—are they likely to be rendered redundant? How are human informational interests to be specified and protected? Can traditional rules of law survive not only the emergent use of technological management but also a risk management mentality that pervades the collective engagement with new technologies? Even if technological management is effective, is it acceptable? Are we ready for rule by technology? Undertaking a radical examination of the disruptive effects of technology on the law and the legal mind-set, Roger Brownsword calls for a triple act of re-imagination: first, re-imagining legal rules as one element of a larger regulatory environment of which technological management is also a part; secondly, re-imagining the Rule of Law as a constraint on the arbitrary exercise of power (whether exercised through rules or through technological measures); and, thirdly, re-imagining the future of traditional rules of criminal law, tort law, and contract law.

Regulating Artificial Intelligence in Industry

Artificial Intelligence (AI) has augmented human activities and unlocked opportunities for many sectors of the economy. It is used for data management and analysis, decision making, and many other aspects.

As with most rapidly advancing technologies, law is often playing a catch up role so the study of how law interacts with AI is more critical now than ever before. This book provides a detailed qualitative exploration into regulatory aspects of AI in industry. Offering a unique focus on current practice and existing trends in a wide range of industries where AI plays an increasingly important role, the work contains legal and technical analysis performed by 15 researchers and practitioners from different institutions around the world to provide an overview of how AI is being used and regulated across a wide range of sectors, including aviation, energy, government, healthcare, legal, maritime, military, music, and others. It addresses the broad range of aspects, including privacy, liability, transparency, justice, and others, from the perspective of different jurisdictions. Including a discussion of the role of AI in industry during the Covid-19 pandemic, the chapters also offer a set of recommendations for optimal regulatory interventions. Therefore, this book will be of interest to academics, students and practitioners interested in technological and regulatory aspects of AI.

Rights, Regulation, and the Technological Revolution

This title provides panoramic commentary on the dynamics of regulation in the face of the last century's technological revolutions. It examines how rapid technological change has transformed the relationship between regulators and wider society.

Intellectual Property Perspectives on the Regulation of New Technologies

This book explores the challenges that emerging technologies and technology driven practices pose for traditional notions of intellectual property (IP) law and policy. Chapters offer perspectives from across the IP law spectrum and address questions such as; is the law evolving in the right direction and is the regulation of emerging technology supported by sound policy objectives? Covering a diverse range of topics, this book exposes the intimate relationship between IP and technology.

Financial Regulation and Technology

This important book analyses recurring issues within financial services regulation relevant to the use of technology, at a time when competition is moving towards greater use of technology in the financial services sector. Iain Sheridan assumes no advanced knowledge of computers and related technology topics, but where necessary encapsulates the essential aspects to offer a comprehensive yet accessible guide to the regulation of finance and technology. Key features include: Cutting-edge coverage of topics within technology Drawing together the different strands of financial regulation and technology Succinctly encapsulating the essence of complex topics, including machine learning, artificial intelligence, intellectual property, and quantum computing Furthering readers' understanding of the key case law, regulation, authoritative financial services regulator guidance and international standards governing these specific themes. Financial Regulation and Technology will be crucial reading for legal counsel and compliance officers in asset managers, banks, platforms and FinTech SMEs looking to consolidate their knowledge of financial regulation and technology issues.

FinTech

FinTech has developed rapidly in recent years, and with these developments new challenges arise, particularly for regulators: how do you apply current law to these ever-changing concepts in a world of continual technological advancement?

Regulating New Technologies in Uncertain Times

This book deals with questions of democracy and governance relating to new technologies. The deployment and application of new technologies is often accompanied with uncertainty as to their long-term (un)intended impacts. New technologies also raise questions about the limits of the law as the line between harmful and beneficial effects is often difficult to draw.0The volume explores overarching concepts on how to regulate new technologies and their implications in a diverse and constantly changing society, as well as the way in which regulation can address differing, and sometimes conflicting, societal objectives, such as public health and the protection of privacy.0Contributions focus on a broad range of issues such as Citizen Science, Smart Cities, big data, and health care, but also on the role of market regulation for new technologies.

Artificial Intelligence

This timely book provides an extensive overview and analysis of the law and regulation as it applies to the technology and uses of Artificial Intelligence (AI). It examines the human and ethical concerns associated with the technology, the history of AI and AI in commercial contexts.

Regulation of Cryptocurrencies and Blockchain Technologies

The book highlights the rise of Bitcoin, which is based on blockchain technology, and some of the many types of coins and tokens that emerged thereafter. Although Bitcoin and other cryptocurrencies have made national and international news with their dramatic rise and decline in value, nevertheless the underlying technology is being adopted by both industry and governments, which have noted the benefits of speed, cost efficiency, and protection from hacking. Based on numerous downloaded articles, laws, cases, and other materials, the book discusses the digital transformation, the types of cryptocurrencies, key actors, and the benefits and risks. It also addresses legal issues of digital technology and the evolving U.S. federal regulation. The varying treatment by individual U.S. states is reviewed together with attempts by organizations to arrive at a uniform regulatory regime. Both civil and criminal prosecutions are highlighted with an examination of the major cases that have arisen. Whether and how to tax cryptocurrency transactions both in the U.S. and internationally are analyzed, and ends with a speculative narrative of future developments.

Coding Regulation

The collected essays in this book concern the intriguing matter of the interaction between law and technology and the normative role of information technology. More precisely, they focus on the way information and communication technologies regulate human behaviour. Can information technology be an alternative to legal regulation and, if so, what are the risks? In this book the question is addressed as to how law interacts with technology in general and whether software (‘code’) can be understood as law. Comparisons are made between different technologies of communication (fixed and mobile telephony and the Internet) from the angle of control of communications. A problem is that the tool becomes more and more intransparent: it becomes a means of controlling human behaviour that replaces instruments of law. The impact of this development in the domains of freedom of expression, privacy and property is therefore analysed in depth. The issues raised in this book were discussed during a conference entitled Code as Code, held in Amsterdam, The Netherlands. The report of the debate between leading experts who attended the Conference forms the round-up in the book, as do the proposals for a future agenda for research. Together and individually, the authors provide substantial and meaningful contributions to the lively debate on the relationship between ‘software code’ and ‘legal code’ as it was initiated by Lawrence Lessig’s book Code and other Laws of Cyberspace (1999). The book is therefore highly recommended to professionals in IT and law, legal scholars, government policy makers and – not to forget – students of IT and law. Coding Regulation is edited by Egbert J. Dommering, Professor of Information Law at the University of Amsterdam, and Lodewijk F. Asscher, researcher at the Institute for Information Law, University of Amsterdam, and Deputy Mayor for Economic Affairs of the City of Amsterdam. This is Volume 12 in the Information Technology and Law (IT&Law) Series

Regulating Artificial Intelligence

This book assesses the normative and practical challenges for artificial intelligence (AI) regulation, offers comprehensive information on the laws that currently shape or restrict the design or use of AI, and develops policy recommendations for those areas in which regulation is most urgently needed. By gathering contributions from scholars who are experts in their respective fields of legal research, it demonstrates that AI regulation is not a specialized sub-discipline, but affects the entire legal system and thus concerns all lawyers. Machine learning-based technology, which lies at the heart of what is commonly referred to as AI, is increasingly being employed to make policy and business decisions with broad social impacts, and therefore runs the risk of causing wide-scale damage. At the same time, AI technology is becoming more and more complex and difficult to understand, making it harder to determine whether or not it is being used in accordance with the law. In light of this situation, even tech enthusiasts are calling for stricter regulation of AI. Legislators, too, are stepping in and have begun to pass AI laws, including the prohibition of automated decision-making systems in Article 22 of the General Data Protection Regulation, the New York City AI transparency bill, and the 2017 amendments to the German Cartel Act and German Administrative Procedure Act. While the belief that something needs to be done is widely shared, there is far less clarity about what exactly can or

should be done, or what effective regulation might look like. The book is divided into two major parts, the first of which focuses on features common to most AI systems, and explores how they relate to the legal framework for data-driven technologies, which already exists in the form of (national and supra-national) constitutional law, EU data protection and competition law, and anti-discrimination law. In the second part, the book examines in detail a number of relevant sectors in which AI is increasingly shaping decision-making processes, ranging from the notorious social media and the legal, financial and healthcare industries, to fields like law enforcement and tax law, in which we can observe how regulation by AI is becoming a reality.

Emerging ICT Policies and Regulations

This book constructs both educational and research arguments on various dimensions of Information and Communication Technology (ICT) policy and regulation. There has been a paradigm shift in the ICT industry due to convergence of various technologies, the ubiquity of the Internet, the emergence of app economy and the pervasiveness of social media. These pose policy and regulatory challenges in the areas of industry structure, market power of firms, pricing of products and services, interconnection of networks, radio spectrum management, intellectual property rights, data privacy and security. The common thread throughout the different sections of the book is the massive adoption of digitization by individuals, enterprises, governments and societies and the critical role of associated regulation and policy for its success. The book addresses 13 important questions in the areas of: i) Telecom Regulation including bundling of products and services, interconnection, and radio spectrum; (ii) Internet Regulation including governance of the Internet, Net Neutrality, quality of service, and cyber security; (iii) App Economy Regulation including Over The Top communication and broadcast services, ICT platform intermediation, sharing economy, data protection and privacy; and (iv) Emerging Technology Regulation including Artificial Intelligence and Intellectual Property Rights. The book explains technology and related regulatory concepts in an easy-to-read format and includes brief case studies describing the regulatory approaches from different countries. Specific focus is given to the regulatory landscape in India surrounding these questions and the lessons for similar emerging countries. Written in the form of contemporary questions and answers, this unique book appeals to researchers in ICT policy and regulation, regulators and policymakers, as well as students interested in the subject area. "The book comprehensively covers the current and emerging policy and regulatory issues relating to ICT, especially as applicable to India. Further, it provides a theoretical framework for analysing each regulatory issue along with practical implications. A good reference for researchers, regulators and policy makers." - Dr R.S. Sharma, Chairman, Telecom Regulatory Authority of India. “This book by Professor Sridhar provides an excellent overview of the challenges that the world faces in coping with the dynamic new emerging digital technologies that affect the way we work, play and communicate with each other. As the internet and mobile telephony becomes more ubiquitous and accessible to everyone regardless of socio-economic class, ICT can be used for good or for mischief. The book lays out the issues of regulating global ICT and policies that governments should adopt to enable its productive and positive use.” - Dr G Anand Anandalingam, Ralph J. Tyser Professor of Management Science, Robert H. Smith School of Business, University of Maryland, U.S.A. “Using problem-centric approach successfully opens the complexity of ICT regulation to a wider audience. Through cleverly chosen topical case examples the book links the problems of Indian and international ICT markets.” - Dr Hämmäinen Heikki, Professor, Department of Communications and Networking, Aalto University, Finland. “Prof Sridhar is a Thought Leader in the Telecom space and I have enjoyed my interaction with him over the years. This book is an excellent compendium looking at the main regulations and policies with reference to the ICT sector. It serves as a ready reckoner for new entrants and professionals alike, providing global and local perspectives on topics that impact the growing Digital Economy.” - P Balaji, Chief Regulatory and Corporate Affairs Officer, Vodafone Idea Limited, India “Emerging ICT Policies and Regulations: Roadmap to Digital Economies is a must read for understanding essential questions regarding ICT Policy and Regulation as digitization develops locally and globally. With useful information on the case of India (and other countries), the book provides a clear, comprehensive, and cogent capture of relevant concepts and practices as well as emerging challenges. Powerful illustrations make concrete the nuance of regulatory approaches and provide added value for the reader.” - Dr. Nanette S. Levinson, Professor, Internet Governance Lab, School of International Service, American University, USA, “Reference books are usually an important source of information but they are often not very readable. I am glad to say that Prof. Sridhar has managed to produce a very-well written account of ICT regulation and policies with a focus on India, and the result is a comprehensive and interesting volume with a number of very useful chapters; many of them easily digested on their own.

The book is highly recommended for members of the internet and telecommunications industries, regulators and researchers.” - Dr Jairo Gutierrez, Professor and Deputy Head, Engineering Computer and Mathematical Sciences, Auckland University of Technology, New Zealand. “Professor Sridhar's book provides the required regulatory theory and framework on 13 most important issues of the digital economy and provides guidance for setting policies and rules. A comprehensive reference for students and practitioners in the area of ICT regulation.” - Dr S Sadagopan, Director and Professor, International Institute of Information Technology Bangalore, India "Emerging ICT Policies and Regulations puts together invaluable and timely research in mapping and analysing the various issues faced by digital economy in India. Prof Sridhar has captured the most pressing issues in it, pertaining to Competition Law and Policy, Intellectual Property Rights, net neutrality, data privacy, regulating OTT services etc., not just comprehensively, but in a reader friendly way. A must read for anyone wanting to get insights on the numerous challenges involved in optimally regulating ICT driven services". - Pradeep S Mehta, Secretary General, Consumer Unity & Trust Society International, India “The Book is a very exhaustive and excellent collection of contemporary issues & challenges on Policy & Regulation that the Digital Economy is likely to grapple with in the coming years. The research on each of these issues which precedes the suggested outcome (by the author) is very comprehensive and includes detailed analysis of the pros and cons, global best practices in the area of Policy Regulation in other Regimes , how the Indian context differs from the others and therefore , how it could possibly be addressed. " - TV Ramachandran, President, Broadband India Forum, India “Whether it is spectrum auction or license fee; net neutrality or interconnection; cybersecurity or privacy; Sridhar peels off layers and presents underlying tensions within the fast-paced technological revolution and rather slow evolution of policy & regulation.” - Deepak Maheshwari, Former Secretary - ISP Association of India, Co-Founder - National Internet eXchange of India, Former Chair - IEEE Internet Initiative, India. “An encyclopedic mapping of regulatory challenges and solutions for the sector by the always insightful Prof. Sridhar. Through a single book, he provides an accessible guide to a plurality of regulations impacting the various layers of the OSI model.” - Sunil Abraham, Executive Director, Centre for Internet & Society, India

Regulation of Information Technology in the European Union

Information technology is continuing to transform global communications and the world economy with innovative products and services. In this dynamic environment, events tend to be market-driven and it may be difficult for the regulators to keep up. At the same time, there is a need for public authorities to promote effective competition within a clear, coherent, and predictable framework. This useful reference work summarizes the major rules and policies for information technology at the European level. It describes the institutional framework and general policies for the `information society', examines the detailed rules for external trade, competition and intellectual property, and discusses the Internet and electronic commerce. It provides an excellent overview of the subject as well as a good starting point for additional research on particular issues. This unique work will be of great value for practising lawyers, corporate counsel, business executives, consultants, academics, and government or trade association officials.

Rethinking the Regulation of Cryptoassets

This thought-provoking book challenges the way we think about regulating cryptoassets. Bringing a timely new perspective, Syren Johnstone critiques the application of a financial regulation narrative to cryptoassets, questioning the assumptions on which it is based and whether regulations developed in the 20th century remain fit to apply to a technology emerging in the 21st.

Work in the Digital Age

The first of its kind, this coursebook examines the work of the future. Work in the Digital Age: A Coursebook on Labor, Technology, and Regulation focuses on certain technologies: the platform economy and gig work, big data and people analytics, gamification, artificial intelligence and algorithmic management, blockchain technology, drones, and 3D printing. The book provides perspectives on these new and emerging technologies from employers, unions, individual workers, national courts and governments, and international organizations. Altogether, the book questions whether current systems of labor and employment regulation are adequate and appropriate to respond to these new technologies. Finally, the book examines potential policy solutions to technological unemployment including universal basic income, shorter hours, and job guarantees. The best way to shape the future of work is to create the policy changes that we wish to see now, and this book provides a blueprint for thinking about a

future of work that is productive, efficient, equitable, and sustainable. Professors and student will benefit from: A focus on certain technologies: The platform economy and gig work Big data and people analytics Gamification Artificial intelligence and algorithmic management Blockchain technology Drones 3D printing Global perspectives on these new and emerging technologies from employers, unions, individual workers, national courts and governments, and international organizations Exploration of whether new systems of labor and employment regulation are necessary to better respond to these new technologies Discussion of potential policy solutions to technological unemployment including universal basic income, shorter hours, and job guarantees Notes and Questions, Problems, Exercises, and Examples, to help reinforce concepts and issues

The Content, Impact, and Regulation of Streaming Video

Along with its interrelated companion volume, The Technology, Business, and Economics of Streaming Video, this book examines the next generation of TV—online video. It reviews the elements that lead to online platforms and video clouds and analyzes the software and hardware elements of content creation and interaction, and how these elements lead to different styles of video content.

Enforcing Privacy

This book is about enforcing privacy and data protection. It demonstrates different approaches – regulatory, legal and technological – to enforcing privacy. If regulators do not enforce laws or regulations or codes or do not have the resources, political support or wherewithal to enforce them, they effectively eviscerate and make meaningless such laws or regulations or codes, no matter how laudable or well-intentioned. In some cases, however, the mere existence of such laws or regulations, combined with a credible threat to invoke them, is sufficient for regulatory purposes. But the threat has to be credible. As some of the authors in this book make clear – it is a theme that runs throughout this book – “carrots” and “soft law” need to be backed up by “sticks” and “hard law”. The authors of this book view privacy enforcement as an activity that goes beyond regulatory enforcement, however. In some sense, enforcing privacy is a task that befalls to all of us. Privacy advocates and members of the public can play an important role in combatting the continuing intrusions upon privacy by governments, intelligence agencies and big companies. Contributors to this book - including regulators, privacy advocates, academics, SMEs, a Member of the European Parliament, lawyers and a technology researcher – share their views in the one and only book on Enforcing Privacy.

Technology Regulation in the Digital Economy

Information and communication technologies allow us to bridge space and time. New services and industries are constantly being created. People no longer depend on the here and now for their development, but can tap into resources across the globe. Cloud computing, for instance, allows users to make use of remote services and store their data far from home. Increasingly, healthcare makes use of diagnosis and care at a distance. Drones and remote cameras are replacing the physical presence of police and other behavior monitors. In the future, robots will be deployed to act on our behalf. The mediation in space and time by technology also raises new questions. How will distance work out in daily life, in work, in friendships, and in care? How will people adjust to the paradoxical distance and closeness created by technologies? Will the distribution of responsibilities and liability change if activities take place at distances in space and time in complex systems and global environments? What are best practices in multi-level governance to address the rise of distant interconnectivity? This book, the result of a conference held in Spring 2013 at Tilburg University, brings together a collection of papers addressing the questions raised above.

Bridging Distances in Technology and Regulation

Democratizing Technology provides a much-needed fresh perspective on the regulation of chemicals, and an important contribution to green thinking about technology.Caroline Lucas, Green Party MEP. This book is an excellent critique of the current risk-based approach to technology. By exploring the philosophical underpinnings and the practical applications of current policy on science and technology, Chapman exposes the serious flaws in allowing economic considerations to dominate the agenda in this area. Her proposals for reform are expertly constructed and deserve urgent and serious consideration by policy-makers.Dr Stuart Parkinson, Executive Director, Scientists for Global Responsibility. In this important book Anne Chapman argues that decisions about technology should answer a republican question: what kind of public world should we create through technology? Democratizing Technology

deserves to be read widely. John ONeill, Professor of Political Economy, University of Manchester, UK A welcome addition to the new, more empirical and applied literature in philosophy of technology. This book will be essential reading for a variety of scholars and for the general reader intent on understanding, and criticizing, our chemically made world.Andrew Light, Interim Director, Program on the Environment, University of Washington, US What is technology? How do humans use it to build and modify the world? What are the relationships between technology, science, economics and democratic governance? What, if any, are our ethical and political responsibilities and choices in how we develop, deploy and control technology in democratic states? Democratizing Technology sets out to answer these questions. Focusing on the most widespread and pervasive technology - chemicals - this groundbreaking volume peels apart the critical technology debate to look at the relationship between humans, technology and the biological world. Attention is given to the immensely important new regulations, REACH (Registration, Evaluation, Authorization and restriction of Chemicals), the EUs largest ever legal framework, discussing the problems that are likely to occur in REACHs reliance on risk assessment methods and suggesting an alternative way forward for the regulation of chemicals. Providing much-needed clarity and insight into the heart of key debates in science and technology, risk analysis and mitigation, and domestic and international law, this volume arrives as a breath of fresh air.

Democratizing Technology

How should we proceed with advanced research of humanities and social sciences in collaboration? What are the pressing issues of this new trend in a cataclysmic time for civilization? This book, originated with a Japan Society for the Promotion of Science (JSPS) Topic-Setting Program, addresses these challenging questions in four parts for innovating twenty-first-century humanities and social sciences. It broadens the horizon for reviewing multi-disciplinary landscapes of risks and regulation of new technologies by focusing on paradigmatic cases from the fields of life and environment. Here, genome editing for reproductive treatment and renewable energy under the constraint of climate change in Japanese and global contexts are involved. The volume comprises a combination of topics and aspects such as public policy and philosophy of science, medicine and law, climate ethics, and the economics of electricity. This edited collection will thus motivate forward-thinking readers across the diverse spectrum of social sciences and humanities to survey themes of their own interests in multi-disciplinary studies. In so doing, they can explore the evolving frontiers of those disciplines and the depths of individual contributions by experts in philosophy, ethics, law, economics, and science, technology, and society (STS), including bioscience.

Risks and Regulation of New Technologies

Finck examines the emergence of blockchains (and other forms of distributed ledger technologies) and the implications for regulation and governance.

Blockchain Regulation and Governance in Europe

"The market size and strength of the major digital platform companies has invited international concern about how such firms should best be regulated to serve the interests of wider society, with a particular emphasis on the need for new anti-trust legislation. Using a normative innovation systems approach, this paper investigates how current anti-trust models may insufficiently address the value-extracting features of existing data-intensive and platform-oriented industry behaviour and business models. To do so, we employ the concept of economic rents to investigate how digital platforms create and extract value. Two forms of rent are elaborated: 'network monopoly rents' and 'algorithmic rents.' By identifying such rents more precisely, policymakers and researchers can better direct regulatory investigations, as well as broader industrial and innovation policy approaches, to shape the features of platform-driven digital markets"--

Regulating Big Tech

An exploration of how financial market laws and regulations can - and should - govern the use of artificial intelligence.

Algo Bots and the Law

What is the nature of the relationship between the fields of new technology and EU law? What challenges do new technologies pose for the internal market and the fundamental principles of the EU? The first part of the collection explores the EU's approach to the regulation of scientific and technological risk, and the link between the regulation of technology and the internal market. In detail, the chapters analyse the interaction between EU law, bioethics and medical and health technologies. The second part of the collection enhances on this, and the chapters scrutinize specific policy areas in order to explain the alternate ways in which EU policy and technology cooperate.

Law and Technology. The Challenge of Regulating Technological Developement

EU regulatory initiatives concerning technology-related topics have spiked over the past few years. On the basis of its Priorities Programme, which is focused on making Europe ‘Fit for the Digital Age’, the European Commission has been busily releasing new texts aimed at regulating a number of technology topics, including data uses, online platforms, cybersecurity, and artificial intelligence. This book identifies three phenomena which are common to all EU digital technologies-relevant regulatory initiatives: act-ification, GDPR mimesis, and regulatory brutality. These three phenomena serve as indicators or early signs of a new European technology law-making paradigm that now seems ready to emerge. They divulge new-found confidence on the part of the EU digital technologies legislator, who has now asserted for itself the right to form policy options and create new rules in the field for all of Europe. Bringing together an analysis of the regulatory initiatives for the management of technology topics in the EU for the first time, this book will be of interest to academics, policymakers, and practitioners, sparking academic and policymaking interest and discussion.

New Technologies and EU Law

The Regulation of Digital Technologies in the EU