DOWNLOAD TELECOMMUNICATIONS LAW IN THE INTERNET AGE MORGAN KAUFMANN SERIES IN NETWORKING HARDCOVER HARDBACK COMMON

Telecommunications Law in the Internet Age

For companies in and around the telecommunications field, the past few years have been a time of extraordinary change-technologically and legally. The enacting of the Telecommunications Act of 1996 and the development of international trade agreements have fundamentally changed the environment in which your business operates, creating risks, responsibilities, and opportunities that were not there before. Until now, you'd have had a hard time finding a serious business book that offered any more than a cursory glance at this transformed world. But at last there's a resource you can depend on for in-depth analysis and sound advice. Written in easy-to-understand language, Telecommunications Law in the Internet Age systematically examines the complex interrelationships of new laws, new technologies, and new business practices, and equips you with the practical understanding you need to run your enterprise optimally within today's legal boundaries. * Offers authoritative coverage from a lawyer and telecommunications authority who has been working in the field for over three decades. * Examines telecommunications law in the U.S., at both the federal and state level. * Presents an unparalleled source of information on international trade regulations and their effects on the industry. * Covers the modern telecommunications issues with which most companies are grappling: wireless communication, e-commerce, satellite systems, privacy and encryption, Internet taxation, export controls, intellectual property, spamming, pornography, Internet telephony, extranets, and more. * Provides guidelines for preventing inadvertent violations of telecommunications law. * Offers guidance on fending off legal and illegal attacks by hackers, competitors, and foreign governments. * Helps you do more than understand and obey the law: helps you thrive within it.

Digital Crossroads, second edition

A thoroughly updated, comprehensive, and accessible guide to U.S. telecommunications law and policy, covering recent developments including mobile broadband issues, spectrum policy, and net neutrality. In Digital Crossroads, two experts on telecommunications policy offer a comprehensive and accessible analysis of the regulation of competition in the U.S. telecommunications industry. The first edition of Digital Crossroads (MIT Press, 2005) became an essential and uniquely readable guide for policymakers, lawyers, scholars, and students in a fast-moving and complex policy field. In this second edition, the authors have revised every section of every chapter to reflect the evolution in industry structure, technology, and regulatory strategy since 2005. The book features entirely new discussions of such topics as the explosive development of the mobile broadband ecosystem; incentive auctions and other recent spectrum policy initiatives; the FCC's net neutrality rules; the National Broadband Plan; the declining relevance of the traditional public switched telephone network; and the policy response to online video services and their potential to transform the way Americans watch television. Like its predecessor, this new edition of Digital Crossroads not only helps nonspecialists climb this field's formidable learning curve, but also makes substantive contributions to ongoing policy debates.

Digital Crossroads

A clear, objective, and accessible analysis of competition policy issues in the telecommunications industry that analyzes the big picture of the field as well is its technological, economic, and legal intricacies.

Big Data

This revelatory exploration of big data, which refers to our newfound ability to crunch vast amounts of information, analyze it instantly and draw profound and surprising conclusions from it, discusses how it will change our lives and what we can do to protect ourselves from its hazards. 75,000 first printing.

Cognitive Hyperconnected Digital Transformation

Cognitive Hyperconnected Digital Transformation provides an overview of the current Internet of Things (IoT) landscape, ranging from research, innovation and development priorities to enabling technologies in a global context. It is intended as a standalone book in a series that covers the Internet of Things activities of the IERC-Internet of Things European Research Cluster, including both research and technological innovation, validation and deployment. The book builds on the ideas put forward by the European Research Cluster, the IoT European Platform Initiative (IoT-EPI) and the IoT European Large-Scale Pilots Programme, presenting global views and state-of-the-art results regarding the challenges facing IoT research, innovation, development and deployment in the next years. Hyperconnected environments integrating industrial/business/consumer IoT technologies and applications require new IoT open systems architectures integrated with network architecture (a knowledge-centric network for IoT), IoT system design and open, horizontal and interoperable platforms managing things that are digital, automated and connected and that function in real-time with remote access and control based on Internet-enabled tools. The IoT is bridging the physical world with the virtual world by combining augmented reality (AR), virtual reality (VR), machine learning and artificial intelligence (AI) to support the physical-digital integrations in the Internet of mobile things based on sensors/actuators, communication, analytics technologies, cyber-physical systems, software, cognitive systems and IoT platforms with multiple functionalities. These IoT systems have the potential to understand, learn, predict, adapt and operate autonomously. They can change future behaviour, while the combination of extensive parallel processing power, advanced algorithms and data sets feed the cognitive algorithms that allow the IoT systems to develop new services and propose new solutions. IoT technologies are moving into the industrial space and enhancing traditional industrial platforms with solutions that break free of device-, operating system- and protocol-dependency. Secure edge computing solutions replace local networks, web services replace software, and devices with networked programmable logic controllers (NPLCs) based on Internet protocols replace devices that use proprietary protocols. Information captured by edge devices on the factory floor is secure and accessible from any location in real time, opening the communication gateway both vertically (connecting machines across the factory and enabling the instant availability of data to stakeholders within operational silos) and horizontally (with one framework for the entire supply chain, across departments, business units, global factory locations and other markets). End-to-end security and privacy solutions in IoT space require agile, context-aware and scalable components with mechanisms that are both fluid and adaptive. The convergence of IT (information technology) and OT (operational technology) makes security and privacy by default a new important element where security is addressed at the architecture level, across applications and domains, using multi-layered distributed security measures. Blockchain is transforming industry operating models by adding trust to untrusted environments, providing distributed security mechanisms and transparent access to the information in the chain. Digital technology platforms are evolving, with IoT platforms integrating complex info

Computer Networks

Computer Networks: A Systems Approach, Fifth Edition, explores the key principles of computer networking, with examples drawn from the real world of network and protocol design. Using the Internet as the primary example, this best-selling and classic textbook explains various protocols and networking technologies. The systems-oriented approach encourages students to think about how individual network

components fit into a larger, complex system of interactions. This book has a completely updated content with expanded coverage of the topics of utmost importance to networking professionals and students, including P2P, wireless, network security, and network applications such as e-mail and the Web, IP telephony and video streaming, and peer-to-peer file sharing. There is now increased focus on application layer issues where innovative and exciting research and design is currently the center of attention. Other topics include network design and architecture; the ways users can connect to a network; the concepts of switching, routing, and internetworking; end-to-end protocols; congestion control and resource allocation; and end-to-end data. Each chapter includes a problem statement, which introduces issues to be examined; shaded sidebars that elaborate on a topic or introduce a related advanced topic; What's Next? discussions that deal with emerging issues in research, the commercial world, or society; and exercises. This book is written for graduate or upper-division undergraduate classes in computer networking. It will also be useful for industry professionals retraining for network-related assignments, as well as for network practitioners seeking to understand the workings of network protocols and the big picture of networking. Completely updated content with expanded coverage of the topics of utmost importance to networking professionals and students, including P2P, wireless, security, and applications Increased focus on application layer issues where innovative and exciting research and design is currently the center of attention Free downloadable network simulation software and lab experiments manual available

Foundations of Analog and Digital Electronic Circuits

Unlike books currently on the market, this book attempts to satisfy two goals: combine circuits and electronics into a single, unified treatment, and establish a strong connection with the contemporary world of digital systems. It will introduce a new way of looking not only at the treatment of circuits, but also at the treatment of introductory coursework in engineering in general. Using the concept of "abstraction," the book attempts to form a bridge between the world of physics and the world of large computer systems. In particular, it attempts to unify electrical engineering and computer science as the art of creating and exploiting successive abstractions to manage the complexity of building useful electrical systems. Computer systems are simply one type of electrical systems. +Balances circuits theory with practical digital electronics applications. +Illustrates concepts with real devices. +Supports the popular circuits and electronics course on the MIT OpenCourse Ware from which professionals worldwide study this new approach. +Written by two educators well known for their innovative teaching and research and their collaboration with industry. +Focuses on contemporary MOS technology.

Network Culture

A sophisticated argument about how the internet and communication networks impact on politics, democracy, and identity.

Reinforcement Learning, second edition

The significantly expanded and updated new edition of a widely used text on reinforcement learning, one of the most active research areas in artificial intelligence. Reinforcement learning, one of the most active research areas in artificial intelligence, is a computational approach to learning whereby an agent tries to maximize the total amount of reward it receives while interacting with a complex, uncertain environment. In Reinforcement Learning, Richard Sutton and Andrew Barto provide a clear and simple account of the field's key ideas and algorithms. This second edition has been significantly expanded and updated, presenting new topics and updating coverage of other topics. Like the first edition, this second edition focuses on core online learning algorithms, with the more mathematical material set off in shaded boxes. Part I covers as much of reinforcement learning as possible without going beyond the tabular case for which exact solutions can be found. Many algorithms presented in this part are new to the second edition, including UCB, Expected Sarsa, and Double Learning. Part II extends these ideas to function approximation, with new sections on such topics as artificial neural networks and the Fourier basis, and offers expanded treatment of off-policy learning and

policy-gradient methods. Part III has new chapters on reinforcement learning's relationships to psychology and neuroscience, as well as an updated case-studies chapter including AlphaGo and AlphaGo Zero, Atari game playing, and IBM Watson's wagering strategy. The final chapter discusses the future societal impacts of reinforcement learning.

Stand Out of Our Light

Argues that human freedom is threatened by systems of intelligent persuasion developed by tech giants who compete for our time and attention. This title is also available as Open Access.

Security, Privacy and Reliability in Computer Communications and Networks

Future communication networks aim to build an intelligent and efficient living environment by connecting a variety of heterogeneous networks to fulfill complicated tasks. These communication networks bring significant challenges in building secure and reliable communication networks to address the numerous threat and privacy concerns. New research technologies are essential to preserve privacy, prevent attacks, and achieve the requisite reliability. Security, Privacy and Reliability in Computer Communications and Networks studies and presents recent advances reflecting the state-of-the-art research achievements in novel cryptographic algorithm design, intrusion detection, privacy preserving techniques and reliable routing protocols. Technical topics discussed in the book include: Vulnerabilities and Intrusion DetectionCryptographic Algorithms and EvaluationPrivacy Reliable Routing Protocols This book is ideal for personnel in computer communication and networking industries as well as academic staff and collegial, master, Ph.D. students in computer science, computer engineering, cyber security, information insurance and telecommunication systems.

Data Mining: Concepts and Techniques

Data Mining: Concepts and Techniques provides the concepts and techniques in processing gathered data or information, which will be used in various applications. Specifically, it explains data mining and the tools used in discovering knowledge from the collected data. This book is referred as the knowledge discovery from data (KDD). It focuses on the feasibility, usefulness, effectiveness, and scalability of techniques of large data sets. After describing data mining, this edition explains the methods of knowing, preprocessing, processing, and warehousing data. It then presents information about data warehouses, online analytical processing (OLAP), and data cube technology. Then, the methods involved in mining frequent patterns, associations, and correlations for large data sets are described. The book details the methods for data classification and introduces the concepts and methods for data clustering. The remaining chapters discuss the outlier detection and the trends, applications, and research frontiers in data mining. This book is intended for Computer Science students, application developers, business professionals, and researchers who seek information on data mining. Presents dozens of algorithms and implementation examples, all in pseudo-code and suitable for use in real-world, large-scale data mining projects Addresses advanced topics such as mining object-relational databases, spatial databases, multimedia databases, time-series databases, text databases, the World Wide Web, and applications in several fields Provides a comprehensive, practical look at the concepts and techniques you need to get the most out of your data

Wireless Communications & Networking

This book provides comprehensive coverage of mobile data networking and mobile communications under a single cover for diverse audiences including managers, practicing engineers, and students who need to understand this industry. In the last two decades, many books have been written on the subject of wireless communications and networking. However, mobile data networking and mobile communications were not fully addressed in a unified fashion. This book fills that gap in the literature and is written to provide essentials of wireless communications and wireless networking, including Wireless Personal Area Networks

(WPAN), Wireless Local Area Networks (WLAN), and Wireless Wide Area Networks (WWAN). The first ten chapters of the book focus on the fundamentals that are required to study mobile data networking and mobile communications. Numerous solved examples have been included to show applications of theoretical concepts. In addition, unsolved problems are given at the end of each chapter for practice. (A solutions manual will be available.) After introducing fundamental concepts, the book focuses on mobile networking aspects. Four chapters are devoted on the discussion of WPAN, WLAN, WWAN, and internetworking between WLAN and WWAN. Remaining seven chapters deal with other aspects of mobile communications such as mobility management, security, cellular network planning, and 4G systems. A unique feature of this book that is missing in most of the available books on wireless communications and networking is a balance between the theoretical and practical concepts. Moreover, this book can be used to teach a one/two semester course in mobile data networking and mobile communications to ECE and CS students. *Details the essentials of Wireless Personal Area Networks(WPAN), Wireless Local Are Networks (WLAN), and Wireless Wide Area Networks (WWAN) *Comprehensive and up-to-date coverage including the latest in standards and 4G technology *Suitable for classroom use in senior/first year grad level courses. Solutions manual and other instructor support available

Psychology of Physical Activity

The positive benefits of physical activity for physical and mental health are now widely acknowledged, yet levels of physical inactivity continue to be a major concern throughout the world. Understanding the psychology of physical activity has therefore become an important issue for scientists, health professionals and policy-makers alike as they address the challenge of behaviour change. Psychology of Physical Activity provides comprehensive and in-depth coverage of the fundamentals of exercise psychology, from mental health, to theories of motivation and adherence, and to the design of successful interventions for increasing participation. Now publishing in a fully revised, updated and expanded fourth edition, Psychology of Physical Activity is still the only textbook to offer a full survey of the evidence base for theory and practice in exercise psychology, and the only textbook that explains how to interpret the quality of the research evidence. As the field continues to grow rapidly, the new edition expands the behavioural science content of numerous important topics, including physical activity and cognitive functioning, automatic and affective frameworks for understanding physical activity involvement, new interventions designed to increase physical activity (including use of new technologies), and sedentary behaviour. A full companion website offers useful features to help students and lecturers get the most out of the book during their course, including multiple-choice revision questions, PowerPoint slides and a test bank of additional learning activities. Psychology of Physical Activity is the most authoritative, engaging and up-to-date book on exercise psychology currently available. It is essential reading for all students working in behavioural medicine, as well as the exercise and health sciences.

Building Blocks for IoT Analytics Internet-of-Things Analytics

Internet-of-Things (IoT) Analytics are an integral element of most IoT applications, as it provides the means to extract knowledge, drive actuation services and optimize decision making. IoT analytics will be a major contributor to IoT business value in the coming years, as it will enable organizations to process and fully leverage large amounts of IoT data, which are nowadays largely underutilized. The Building Blocks of IoT Analytics is devoted to the presentation the main technology building blocks that comprise advanced IoT analytics systems. It introduces IoT analytics as a special case of BigData analytics and accordingly presents leading edge technologies that can be deployed in order to successfully confront the main challenges of IoT analytics applications. Special emphasis is paid in the presentation of technologies for IoT streaming and semantic interoperability across diverse IoT streams. Furthermore, the role of cloud computing and BigData technologies in IoT analytics are presented, along with practical tools for implementing, deploying and operating non-trivial IoT applications. Along with the main building blocks of IoT analytics systems and applications, the book presents a series of practical applications, which illustrate the use of these technologies in the scope of pragmatic applications. Technical topics discussed in the book include: Cloud Computing and

BigData for IoT analyticsSearching the Internet of ThingsDevelopment Tools for IoT Analytics ApplicationsIoT Analytics-as-a-ServiceSemantic Modelling and Reasoning for IoT AnalyticsIoT analytics for Smart BuildingsIoT analytics for Smart CitiesOperationalization of IoT analyticsEthical aspects of IoT analyticsThis book contains both research oriented and applied articles on IoT analytics, including several articles reflecting work undertaken in the scope of recent European Commission funded projects in the scope of the FP7 and H2020 programmes. These articles present results of these projects on IoT analytics platforms and applications. Even though several articles have been contributed by different authors, they are structured in a well thought order that facilitates the reader either to follow the evolution of the book or to focus on specific topics depending on his/her background and interest in IoT and IoT analytics technologies. The compilation of these articles in this edited volume has been largely motivated by the close collaboration of the co-authors in the scope of working groups and IoT events organized by the Internet-of-Things Research Cluster (IERC), which is currently a part of EU's Alliance for Internet of Things Innovation (AIOTI).

Distributed and Cloud Computing

Distributed and Cloud Computing: From Parallel Processing to the Internet of Things offers complete coverage of modern distributed computing technology including clusters, the grid, service-oriented architecture, massively parallel processors, peer-to-peer networking, and cloud computing. It is the first modern, up-to-date distributed systems textbook; it explains how to create high-performance, scalable, reliable systems, exposing the design principles, architecture, and innovative applications of parallel, distributed, and cloud computing systems. Topics covered by this book include: facilitating management, debugging, migration, and disaster recovery through virtualization; clustered systems for research or ecommerce applications; designing systems as web services; and social networking systems using peer-to-peer computing. The principles of cloud computing are discussed using examples from open-source and commercial applications, along with case studies from the leading distributed computing vendors such as Amazon, Microsoft, and Google. Each chapter includes exercises and further reading, with lecture slides and more available online. This book will be ideal for students taking a distributed systems or distributed computing class, as well as for professional system designers and engineers looking for a reference to the latest distributed technologies including cloud, P2P and grid computing. Complete coverage of modern distributed computing technology including clusters, the grid, service-oriented architecture, massively parallel processors, peer-to-peer networking, and cloud computing Includes case studies from the leading distributed computing vendors: Amazon, Microsoft, Google, and more Explains how to use virtualization to facilitate management, debugging, migration, and disaster recovery Designed for undergraduate or graduate students taking a distributed systems course—each chapter includes exercises and further reading, with lecture slides and more available online

Twenty Lectures on Algorithmic Game Theory

Computer science and economics have engaged in a lively interaction over the past fifteen years, resulting in the new field of algorithmic game theory. Many problems that are central to modern computer science, ranging from resource allocation in large networks to online advertising, involve interactions between multiple self-interested parties. Economics and game theory offer a host of useful models and definitions to reason about such problems. The flow of ideas also travels in the other direction, and concepts from computer science are increasingly important in economics. This book grew out of the author's Stanford University course on algorithmic game theory, and aims to give students and other newcomers a quick and accessible introduction to many of the most important concepts in the field. The book also includes case studies on online advertising, wireless spectrum auctions, kidney exchange, and network management.

A History of Communications

A History of Communications advances a theory of media that explains the origins and impact of different forms of communication - speech, writing, print, electronic devices and the Internet - on human history in the

long term. New media are 'pulled' into widespread use by broad historical trends and these media, once in widespread use, 'push' social institutions and beliefs in predictable directions. This view allows us to see for the first time what is truly new about the Internet, what is not, and where it is taking us.

Speculative Everything

How to use design as a tool to create not only things but ideas, to speculate about possible futures. Today designers often focus on making technology easy to use, sexy, and consumable. In Speculative Everything, Anthony Dunne and Fiona Raby propose a kind of design that is used as a tool to create not only things but ideas. For them, design is a means of speculating about how things could be—to imagine possible futures. This is not the usual sort of predicting or forecasting, spotting trends and extrapolating; these kinds of predictions have been proven wrong, again and again. Instead, Dunne and Raby pose “what if” questions that are intended to open debate and discussion about the kind of future people want (and do not want). Speculative Everything offers a tour through an emerging cultural landscape of design ideas, ideals, and approaches. Dunne and Raby cite examples from their own design and teaching and from other projects from fine art, design, architecture, cinema, and photography. They also draw on futurology, political theory, the philosophy of technology, and literary fiction. They show us, for example, ideas for a solar kitchen restaurant; a flypaper robotic clock; a menstruation machine; a cloud-seeding truck; a phantom-limb sensation recorder; and devices for food foraging that use the tools of synthetic biology. Dunne and Raby contend that if we speculate more—about everything—reality will become more malleable. The ideas freed by speculative design increase the odds of achieving desirable futures.

Between Empowerment and Manipulation

Popular health apps are commercial services. Despite the promise of empowerment they offer, the tensions introduced by their data-driven, dynamically adjustable digital environments engender a potential for manipulation to which their designers and operators can easily succumb. In this important book, the author develops an ethical framework to evaluate the commercial practices of for-profit health apps, proceeding to a detailed proposal of how to legally address the exploitation, for financial gain, of users’ need for health. Focusing on the intricate tracking of users over time, coupled with the possibility to personalize the environment based on knowledge gained from tracking, the book’s in-depth analysis of popular for-profit health apps engages with such particulars as the following: the strategic framing of health in health apps; the cultural tendency to presume we are unhealthy until we have proven we are healthy; the key concepts of autonomy, vulnerability, trust, and manipulation; how health apps develop ongoing profitable relationships with users; and use of misleading and aggressive commercial practices. The author argues that the European Union’s Unfair Commercial Practices Directive, when informed by ethical considerations, offers promising legal solutions to the manipulation concerns raised by popular for-profit health apps. The book will be welcomed not only for its incisive scrutiny of the health app phenomenon but also for the light it sheds on the wider problems inherent in the digital society—what digital environments know about their users, how they use that knowledge, and for which purpose. Its progress from an ethical approach to legal solutions will recommend the book to lawyers concerned with business practices, human resources professionals, policymakers, and academics interested in the intersection of ethics and law.

Logistics 4.0

Industrial revolutions have impacted both, manufacturing and service. From the steam engine to digital automated production, the industrial revolutions have conduced significant changes in operations and supply chain management (SCM) processes. Swift changes in manufacturing and service systems have led to phenomenal improvements in productivity. The fast-paced environment brings new challenges and opportunities for the companies that are associated with the adaptation to the new concepts such as Internet of Things (IoT) and Cyber Physical Systems, artificial intelligence (AI), robotics, cyber security, data analytics, block chain and cloud technology. These emerging technologies facilitated and expedited the birth

of Logistics 4.0. Industrial Revolution 4.0 initiatives in SCM has attracted stakeholders' attentions due to it is ability to empower using a set of technologies together that helps to execute more efficient production and distribution systems. This initiative has been called Logistics 4.0 of the fourth Industrial Revolution in SCM due to its high potential. Connecting entities, machines, physical items and enterprise resources to each other by using sensors, devices and the internet along the supply chains are the main attributes of Logistics 4.0. IoT enables customers to make more suitable and valuable decisions due to the data-driven structure of the Industry 4.0 paradigm. Besides that, the system's ability of gathering and analyzing information about the environment at any given time and adapting itself to the rapid changes add significant value to the SCM processes. In this peer-reviewed book, experts from all over the world, in the field present a conceptual framework for Logistics 4.0 and provide examples for usage of Industry 4.0 tools in SCM. This book is a work that will be beneficial for both practitioners and students and academicians, as it covers the theoretical framework, on the one hand, and includes examples of practice and real world.

Computer Networking

Original textbook (c) October 31, 2011 by Olivier Bonaventure, is licensed under a Creative Commons Attribution (CC BY) license made possible by funding from The Saylor Foundation's Open Textbook Challenge in order to be incorporated into Saylor's collection of open courses available at: http: //www.saylor.org. Free PDF 282 pages at https: //www.textbookequity.org/bonaventure-computer-networking-principles-protocols-and-practice/ This open textbook aims to fill the gap between the open-source implementations and the open-source network specifications by providing a detailed but pedagogical description of the key principles that guide the operation of the Internet. 1 Preface 2 Introduction 3 The application Layer 4 The transport layer 5 The network layer 6 The datalink layer and the Local Area Networks 7 Glossary 8 Bibliography

Digital Libraries - Current Issues

This volume is the first book coherently summarizing the current issues in digital libraries research, design and management. It presents, in a homogeneous way, thoroughly revised versions of 15 papers accepted for the First International Workshop on Digital Libraries, DL '94, held at Rutgers University in May 1994; in addition there are two introductory chapters provided by the volume editors, as well as a comprehensive bibliography listing 262 entries. Besides introductory aspects, the topics addressed are administration and management, information retrieval and hypertext, classification and indexing, and prototypes and applications. The volume is intended for researchers and design professionals in the field, as well as for experts from libraries administration and scientific publishing.

PGP: Pretty Good Privacy

Pretty Good Privacy, or \"PGP\

Speech & Language Processing

Since 2000, IOM has been producing world migration reports. The World Migration Report 2020, the tenth in the world migration report series, has been produced to contribute to increased understanding of migration throughout the world. This new edition presents key data and information on migration as well as thematic chapters on highly topical migration issues, and is structured to focus on two key contributions for readers: Part I: key information on migration and migrants (including migration-related statistics); and Part II: balanced, evidence-based analysis of complex and emerging migration issues.

World Migration Report 2020

Media Studies.

Structures of Participation in Digital Culture

The Handbook of Multimodal-Multisensor Interfaces provides the first authoritative resource on what has become the dominant paradigm for new computer interfaces— user input involving new media (speech, multi-touch, gestures, writing) embedded in multimodal-multisensor interfaces. These interfaces support smart phones, wearables, in-vehicle and robotic applications, and many other areas that are now highly competitive commercially. This edited collection is written by international experts and pioneers in the field. It provides a textbook, reference, and technology roadmap for professionals working in this and related areas. This first volume of the handbook presents relevant theory and neuroscience foundations for guiding the development of high-performance systems. Additional chapters discuss approaches to user modeling and interface designs that support user choice, that synergistically combine modalities with sensors, and that blend multimodal input and output. This volume also highlights an in-depth look at the most common multimodal-multisensor combinations—for example, touch and pen input, haptic and non-speech audio output, and speech-centric systems that co-process either gestures, pen input, gaze, or visible lip movements. A common theme throughout these chapters is supporting mobility and individual differences among users. These handbook chapters provide walk-through examples of system design and processing, information on tools and practical resources for developing and evaluating new systems, and terminology and tutorial support for mastering this emerging field. In the final section of this volume, experts exchange views on a timely and controversial challenge topic, and how they believe multimodal-multisensor interfaces should be designed in the future to most effectively advance human performance.

The Handbook of Multimodal-Multisensor Interfaces, Volume 1

In Technology as Experience, John McCarthy and Peter Wright argue that any account of what is often called the user experience must take into consideration the emotional, intellectual, and sensual aspects of our interactions with technology. We don't just use technology, they point out; we live with it. They offer a new approach to understanding human-computer interaction through examining the felt experience of technology. Drawing on the pragmatism of such philosophers as John Dewey and Mikhail Bakhtin, they provide a framework for a clearer analysis of technology as experience. Just as Dewey, in Art as Experience, argued that art is part of everyday lived experience and not isolated in a museum, McCarthy and Wright show how technology is deeply embedded in everyday life. The \"zestful integration\" or transcendent nature of the aesthetic experience, they say, is a model of what human experience with technology might become. McCarthy and Wright illustrate their theoretical framework with real-world examples that range from online shopping to ambulance dispatch. Their approach to understanding human computer interaction—seeing it as creative, open, and relational, part of felt experience—is a measure of the fullness of technology's potential to be more than merely functional.

Technology as Experience

Class-tested and coherent, this textbook teaches classical and web information retrieval, including web search and the related areas of text classification and text clustering from basic concepts. It gives an up-to-date treatment of all aspects of the design and implementation of systems for gathering, indexing, and searching documents; methods for evaluating systems; and an introduction to the use of machine learning methods on text collections. All the important ideas are explained using examples and figures, making it perfect for introductory courses in information retrieval for advanced undergraduates and graduate students in computer science. Based on feedback from extensive classroom experience, the book has been carefully structured in order to make teaching more natural and effective. Slides and additional exercises (with solutions for lecturers) are also available through the book's supporting website to help course instructors prepare their lectures.

Introduction to Information Retrieval

A Comprehensive coverage of Digital communication, Data Communication Protocols and Mobile ComputingCovers:\" Multiplexing & Multiple accesses\" Radio Communications- Terrestrial & Satellite\" Error Detection & Correction\" ISO/ OSI Protocol Architecture\" Wired Internet DNS, RADIUS, Firewalls, VPN\" Cellular Mobile Communication\" GPS, CTI, Wireless Internet\" Multimedia Communication over IP Networks

Principles Of Digital Communication System & Computer Network

The pamphlet here presented to the reader was written in the spring of 1916, in Zurich. In the conditions in which I was obliged to work there I naturally suffered somewhat from a shortage of French and English literature and from a serious dearth of Russian literature. However, I made use of the principal English work on imperialism, the book by J. A. Hobson, with all the care that, in my opinion, work deserves. This pamphlet was written with an eye to the tsarist censorship. Hence, I was not only forced to confine myself strictly to an exclusively theoretical, specifically economic analysis of facts, but to formulate the few necessary observations on politics with extreme caution, by hints, in an allegorical language—in that accursed Aesopian language—to which tsarism compelled all revolutionaries to have recourse whenever they took up the pen to write a “legal” work. It is painful, in these days of liberty, to re-read the passages of the pamphlet which have been distorted, cramped, compressed in an iron vice on account of the censor. That the period of imperialism is the eve of the socialist revolution; that social-chauvinism (socialism in words, chauvinism in deeds) is the utter betrayal of socialism, complete desertion to the side of the bourgeoisie; that this split in the working-class movement is bound up with the objective conditions of imperialism, etc.—on these matters I had to speak in a “slavish” tongue, and I must refer the reader who is interested in the subject to the articles I wrote abroad in 1914-17, a new edition of which is soon to appear. In order to show the reader, in a guise acceptable to the censors, how shamelessly untruthful the capitalists and the social-chauvinists who have deserted to their side (and whom Kautsky opposes so inconsistently) are on the question of annexations; in order to show how shamelessly they screen the annexations of their capitalists, I was forced to quote as an example—Japan! The careful reader will easily substitute Russia for Japan, and Finland, Poland, Courland, the Ukraine, Khiva, Bokhara, Estonia or other regions peopled by non-Great Russians, for Korea. I trust that this pamphlet will help the reader to understand the fundamental economic question, that of the economic essence of imperialism, for unless this is studied, it will be impossible to understand and appraise modern war and modern politics.

Imperialism

This entirely revised second edition of Engineering a Compiler is full of technical updates and new material covering the latest developments in compiler technology. In this comprehensive text you will learn important techniques for constructing a modern compiler. Leading educators and researchers Keith Cooper and Linda Torczon combine basic principles with pragmatic insights from their experience building state-of-the-art compilers. They will help you fully understand important techniques such as compilation of imperative and object-oriented languages, construction of static single assignment forms, instruction scheduling, and graph-coloring register allocation. In-depth treatment of algorithms and techniques used in the front end of a modern compiler Focus on code optimization and code generation, the primary areas of recent research and development Improvements in presentation including conceptual overviews for each chapter, summaries and review questions for sections, and prominent placement of definitions for new terms Examples drawn from several different programming languages

Engineering a Compiler

A PDF version of this book is available for free in open access via the OAPEN Library platform, www.oapen.org. This book presents a new model of accountability which ensures that public-private

partnerships don't erode public accountability. It defines concrete accountability standards for different types of partnerships.

Accountability in Public Policy Partnerships

The fundamentals and implementation of digital electronics are essential to understanding the design and working of consumer/industrial electronics, communications, embedded systems, computers, security and military equipment. Devices used in applications such as these are constantly decreasing in size and employing more complex technology. It is therefore essential for engineers and students to understand the fundamentals, implementation and application principles of digital electronics, devices and integrated circuits. This is so that they can use the most appropriate and effective technique to suit their technical need. This book provides practical and comprehensive coverage of digital electronics, bringing together information on fundamental theory, operational aspects and potential applications. With worked problems, examples, and review questions for each chapter, Digital Electronics includes: information on number systems, binary codes, digital arithmetic, logic gates and families, and Boolean algebra; an in-depth look at multiplexers, de-multiplexers, devices for arithmetic operations, flip-flops and related devices, counters and registers, and data conversion circuits; up-to-date coverage of recent application fields, such as programmable logic devices, microprocessors, microcontrollers, digital troubleshooting and digital instrumentation. A comprehensive, must-read book on digital electronics for senior undergraduate and graduate students of electrical, electronics and computer engineering, and a valuable reference book for professionals and researchers.

Digital Electronics

‘With clarity and sophistication, Antonios Broumas presents a bold new theory of intellectual commons and powerful arguments for a new body of supportive law. This book not only reveals the misleading logic of intellectual property law in our time; it reveals the rich possibilities for constructive change that legally protected commoning can bring. Highly recommended!’ — David Bollier, Director, Reinventing the Commons Program, Schumacher Center for a New Economics. ‘Liberating the Intellectual Commons from the fetters of capital accumulation and appropriation, would give us a renaissance of creative energies and empowered communities: exactly what the world needs to move away from the social and ecological devastations of our times. This book is a thoughtful and compelling argument for making this possible through the works of the law and the redesign of public domain as a common space.’ — Massimo De Angelis, Professor of Political Economy and Social Change, Co-director of the Centre for Social Justice and Change, University of East London. ‘In this pioneering book, Antonios Broumas argues that philosophically, morally, politically and economically we are in urgent need of a new legal regime that recognizes the intellectual commons, peer production and sharing as the primary practices of intellectual production, distribution and consumption. I cannot imagine a more urgent task today. A legally protected intellectual commons will lead to greater scientific and cultural innovation and creativity and will lead to an urgently needed second Enlightenment. This book should be read by lawyers, critical theorists, economists and the many professionals of science, culture and the academy.’ — Costas Douzinas, Professor of Law, Birkbeck, University of London. ‘Antonios Broumas’ book is an excellent critical analysis of the cultural commons and a must-read for everyone interested in understanding what the commons, the cultural commons, and the digital commons are all about. This work brilliantly outlines the foundations of an empirically grounded critical theory of the commons and the cultural commons in the context of the interactions of law and society.’ — Christian Fuchs, Professor of Media and Communication Studies, author of Communication and Capitalism: A Critical Theory (2020). ‘Broumas takes us on a spellbinding tour of how and why the law could and should change to accommodate the creative multitude, which engages into an emerging mode of production. He tells a vibrant story that makes us shout: “Lawmakers of the world, unite!”’ — Vasilis Kostakis, Professor of P2P Governance, Tallinn University of Technology, Faculty Associate at Harvard Law School. At the cutting edge of contemporary wealth creation people form self-governed communities of collaborative innovation in conditions of relative equipotency and produce resources with free access to all.

The emergent intellectual commons have the potential to commonify intellectual production and distribution, unleash human creativity through collaboration and democratise innovation with wider positive effects for our societies. Contemporary intellectual property laws fail to address this potential. We are, therefore, in pressing need of an institutional alternative beyond the inherent limitations of intellectual property law. This book offers an overall analysis of the moral significance of the intellectual commons and outlines appropriate modes for their regulation. Its principal thesis is that our legal systems are in need of an independent body of law for the protection and promotion of the intellectual commons, in parallel to intellectual property law. In this context, the author of the book proposes the reconstruction of the doctrine of the public domain and the exceptions and limitations of exclusive intellectual property rights into an intellectual commons law, which will underpin a vibrant non-commercial zone of creativity and innovation in intellectual production, distribution and consumption alongside commodity markets enabled by intellectual property law.

Intellectual Commons and the Law

The smartphone is often literally right in front of our nose, so you would think we would know what it is. But do we? To find out, 11 anthropologists each spent 16 months living in communities in Africa, Asia, Europe and South America, focusing on the take up of smartphones by older people. Their research reveals that smartphones are technology for everyone, not just for the young. The Global Smartphone presents a series of original perspectives deriving from this global and comparative research project. Smartphones have become as much a place within which we live as a device we use to provide ‘perpetual opportunism’, as they are always with us. The authors show how the smartphone is more than an ‘app device’ and explore differences between what people say about smartphones and how they use them. The smartphone is unprecedented in the degree to which we can transform it. As a result, it quickly assimilates personal values. In order to comprehend it, we must take into consideration a range of national and cultural nuances, such as visual communication in China and Japan, mobile money in Cameroon and Uganda, and access to health information in Chile and Ireland – all alongside diverse trajectories of ageing in Al Quds, Brazil and Italy. Only then can we know what a smartphone is and understand its consequences for people’s lives around the world.

The Global Smartphone

The Good Research Guidehas been a bestselling introduction to the basics of social research since it was first published in 1998. This new second edition of the book offers the same clear guidance on how to conduct successful small-scale research projects and adds even more value by including new sections on internet research, phenomenology, grounded theory and image-based methods. The book provides: a clear summary of the relevant strategies, methods and approaches to data analysis a jargon-free coverage of the key issues an attractive layout and user-friendly presentation checklists to guide good practice. Practical and comprehensive,The Good Research Guideis an invaluable tool for students of education, health studies, business studies and other social sciences, who need to conduct small-scale research projects as part of undergraduate, postgraduate or professional studies.

Good Research Guide

Academic E-Books: Publishers, Librarians, and Users provides readers with a view of the changing and emerging roles of electronic books in higher education. The three main sections contain contributions by experts in the publisher/vendor arena, as well as by librarians who report on both the challenges of offering and managing e-books and on the issues surrounding patron use of e-books. The case study section offers perspectives from seven different sizes and types of libraries whose librarians describe innovative and thought-provoking projects involving e-books. Read about perspectives on e-books from organizations as diverse as a commercial publisher and an association press. Learn about the viewpoint of a jobber. Find out about the e-book challenges facing librarians, such as the quest to control costs in the patron-driven acquisitions (PDA) model, how to solve the dilemma of resource sharing with e-books, and how to manage

PDA in the consortial environment. See what patron use of e-books reveals about reading habits and disciplinary differences. Finally, in the case study section, discover how to promote scholarly e-books, how to manage an e-reader checkout program, and how one library replaced most of its print collection with e-books. These and other examples illustrate how innovative librarians use e-books to enhance users' experiences with scholarly works.

Academic E-Books

In resource poor, cost saving times, this book provides practical advice on new methods and technologies involved in systematic searching and explores the role of information professionals in delivering these changes The editors bring together expert international practitioners and researchers to highlight the latest thinking on systematic searching. Beginning by looking at the methods and techniques underlying systematic searching, the book then examines the current challenges and the potential solutions to more effective searching in detail, before considering the role of the information specialist as an expert searcher. Systematic Searching blends theory and practice and takes into account different approaches to information retrieval with a special focus being given to searching for complex topics in a health-related environment. The book does not presume an in-depth prior knowledge or experience of systematic searching and includes case studies, practical examples and ideas for further research and reading. The book is divided into three parts: Methods covers theoretical approaches to evidence synthesis and the implications that these have for the search process, including searching for complex topics and choosing the right sources. Technology examines new technologies for retrieving evidence and how these are leading to new directions in information retrieval and evidence synthesis. People considers the future of the information specialist as an expert searcher and explores how information professionals can develop their skills in searching, communication and collaboration to ensure that information retrieval practice is, and remains, evidence-based. Systematic Searching will be essential reading for library and information service providers and information specialists, particularly those in a health-related environment. It will also be of interest to students of library and information science, systematic reviewers, researchers and practitioners conducting complex searches in settings including social care, education and criminal justice.

Systematic Searching