

A Gentle Introduction To Blockchain Technology Web

The domain of eHealth faces ongoing challenges to deliver 21st century healthcare. Digitalization, capacity building and user engagement with truly interdisciplinary and cross-domain collaboration are just a few of the areas which must be addressed. This book presents 190 full papers from the Medical Informatics Europe (MIE 2018) conference, held in Gothenburg, Sweden, in April 2018. The MIE conferences aim to enable close interaction and networking between an international audience of academics, health professionals, patients and industry partners. The title of this year's conference is: Building Continents of Knowledge in Oceans of Data – The Future of Co-Created eHealth, and contributions cover a broad range of topics related to the digitalization of healthcare, citizen participation, data science, and changing health systems, addressed from the perspectives of citizens, patients and their families, healthcare professionals, service providers, developers and policy makers. The second part of the title in particular has attracted a large number of papers describing strategies to create, evaluate, adjust or deliver tools and services for improvements in healthcare organizations or to enable citizens to respond to the challenges of dealing with health systems. Papers are grouped under the headings: standards and interoperability, implementation and evaluation, knowledge management, decision support, modeling and analytics, health informatics education and learning systems, and patient-centered services. Attention is also given to development for sustainable use, educational strategies and workforce development, and the book will be of interest to both developers and practitioners of healthcare services. This book sets out to explain blockchain for the non-technical expert, to decipher the dense technicalities that dominate the field and to present the opportunities for busy professionals using practical applications and case studies. Presented in a clear and structured way and with documented real-world cases, the book is a practical reference guide that can be used across different industries. It offers both a constructive and critical review of the pain points blockchain is facing today, illustrates the pitfalls as well as the opportunities for business and describes the steps towards overcoming them. It also aims to provide a unique view of both the intersection and synergy of blockchain with other emerging technologies and the wider digital ecosystem, as we see increasingly that blockchain alone won't be able to deliver business solutions. Most important, the book identifies trends and a path for the future of blockchain and its impact on society as a whole. The book is written for business audiences across all sectors. It is not a technical guide to blockchain, but it enables businesspeople to be better informed and prepared to plan ahead and develop strategies using blockchain.

Handbook of Research on Blockchain Technology presents the latest information on the adaptation and implementation of Blockchain technologies in real world business, scientific, healthcare and biomedical applications. The book's editors present the rapid advancements in existing business models by applying Blockchain techniques. Novel architectural solutions in the deployment of Blockchain comprise the core aspects of this book. Several use cases with IoT, biomedical engineering, and smart cities are also incorporated. As Blockchain is a relatively new technology that exploits decentralized networks and is used in many sectors for reliable, cost-effective and rapid business transactions, this book is a welcomed addition on existing knowledge. Financial services, retail, insurance, logistics, supply chain, public sectors and biomedical industries are now investing in Blockchain research and technologies for their business growth. Blockchain prevents double spending in financial transactions without the need of a trusted authority or central server. It is a decentralized ledger platform that facilitates verifiable transactions between parties in a secure and smart way. Presents the evolution of blockchain, from fundamental theories, to present forms Explains the concepts of blockchain related to cloud/edge computing, smart healthcare, smart cities and Internet of Things (IoT) Provides complete coverage of the various tools, platforms and techniques used in blockchain Explores smart contract tools and consensus algorithms Covers a variety of applications with real world case studies in areas such as biomedical engineering, supply chain management, and tracking of goods and delivery

This book covers a very broad range of topics in marketing, communication, and tourism, focusing especially on new perspectives and technologies that promise to influence the future direction of marketing research and practice in a digital and innovational era. Among the areas covered are product and brand management, strategic marketing, B2B marketing and sales management, international marketing, business communication and advertising, digital and social marketing, tourism and hospitality marketing and management, destination branding and cultural management, and event marketing. The book comprises the proceedings of the International Conference on Strategic Innovative Marketing and Tourism (ICSIMAT) 2018, where researchers, academics, and government and industry practitioners from around the world came together to discuss best practices, the latest research, new paradigms, and advances in theory. It will be of interest to a wide audience, including members of the academic community, MSc and PhD students, and marketing and tourism professionals.

Are you looking to learn how you can cash in on the Bitcoin revolution? Have you been hearing about Bitcoin lately in the news and can't seem to wrap your head around what Bitcoin is? Do you wonder how you can start investing in Bitcoin but don't really know what it is and have hesitations around investing in something you don't understand? Do you wish you were able to understand Bitcoin but are afraid that it is too complex and complicated? Have you been searching for a resource to help you understand Bitcoin so you can start investing in cryptocurrencies without fear? If this sounds like you, then keep reading! Bitcoin is a fascinating new-age decentralized currency that is only available online and allows the user to be somewhat anonymous. It is a digital currency that can be used by anyone linked to the Internet and is independent of any region. You keep Bitcoin in a "electronic wallet", much like how you put your money in your wallet or a bank. This is all operated electronically and there is no fiat (paper) money involved. Understanding Bitcoin will help you achieve all of your goals with investing in the cryptocurrency, no matter how big or small they are. Regardless of who you are and what you

want to accomplish, the basis of Bitcoin is the same for everyone. This book will help you understand everything you need to know about Bitcoin, blockchain and cryptocurrencies including the benefits and challenges of the new technology, and I will provide you with a step by step guide for achieving a higher level of understanding so you can feel comfortable getting involved with Bitcoin and other cryptocurrencies. Never before has there been a book so gentle in its approach and so effective at understanding Bitcoin from a beginners level. Within these pages, you will discover: -What is Bitcoin In Depth -Why Bitcoin is Important -Comparision of Bitcoin to Fiat currencies -Bitcoin Features -Bitcoin Background / History / Main Highlights -Everything You Need to Know About Blockchain -Blockchain History -Blockchain Application -How Blockchain Works -Bitcoin Versus Blockchain -Bitcoin Mining: How It Works and Facts -How to Mine Bitcoin -Is Bitcoin Mining Profitable -How to Store Bitcoin -Wallet Concept & Cryptocurrency Custody Solutions -How to Invest in Bitcoin -Bitcoin vs Other Assets -Understanding Bitcoin Exchanges AND MUCH MORE! No matter how young or old, how inexperienced or experienced, or what education level you have, this book will be able to help you strengthen your understanding of Bitcoin so you can utilize it in your daily life to achieve the things you want to achieve. The things you want to achieve don't have to be huge goals like building a multi-million dollar investment portfolio (although this book can certainly help), but you can use it to start understanding what all the talk and excitement is about with this new technology. If you're ready to start understanding about Bitcoin, blockchain and cryptocurrency and learn how you can get involved in this groundbreaking opportunity - then look no further. Don't waste another minute, scroll up and hit "BUY NOW" to get started today!

A simple introduction to Bitcoin. This book is a simple introduction to Bitcoin and assumes minimal technical knowledge. Shorter companion pieces to this are: Bitcoin's network in one infographic Inside bitcoin's blockchain (infographic) A gentle introduction to Bitcoin mining In the popular media, you will often read comments like "Bitcoins are stored in a digital wallet", or "You can send money using blockchain technology". These comments can be misleading and can confuse. By the end of this, you should understand enough to participate in a dinnertime conversation about bitcoin, and not be mystified by the topic. Bitcoin Although people refer to bitcoin as a decentralized digital currency, I prefer to think of it as an electronic asset, to sidestep questions around which government backs it and who sets the interest rate, which is often a mental block in understanding Bitcoin. As an electronic asset, you can buy bitcoins, own them, and send them to someone else. Currently (Sep 2015) there are around 14 million bitcoins that have been created, increasing by 25 bitcoins every 10 minutes or so, with an agreed limit of 21 million, the last of which should be created a little before the year 2140.

This collection of essays explores the history, implications, and usefulness of phenomenology for the study of real and virtual places. While the influence of phenomenology on architecture and urban design has been widely acknowledged, its effect on the design of virtual places and environments has yet to be exposed to critical reflection. These essays from philosophers, cultural geographers, designers, architects, and archaeologists advance the connection between phenomenology and the study of place. The book features historical interpretations on this topic, as well as context-specific and place-centric applications that will appeal to a wide range of scholars across disciplinary boundaries. The ultimate aim of this book is to provide more helpful and precise definitions of phenomenology that shed light on its growth as a philosophical framework and on its development in other disciplines concerned with the experience of place.

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This book constitutes the refereed proceedings of the Second International Conference on Blockchain, ICBC 2019, held as part of the Services Conference Federation, SCF 2019, in San Diego, CA, USA, in June 2019. The 13 full papers and 2 short papers presented were carefully reviewed and selected from 29 submissions. The papers cover a wide range of topics in blockchain technologies, platforms, solutions and business models such as new blockchain architecture, platform constructions, blockchain development and blockchain services technologies, as well as standards, and blockchain services innovation lifecycle including enterprise modeling, business consulting, solution creation, services orchestration, services optimization, services management, services marketing, business process integration and management.

Besides love, money and health are the most valuable human yearnings. Therefore, blockchain technology is paramount: a new foundation of confidence for human valuable transactions. Like information sharing was catalyzed on the pre-blockchain internet, transactions are now triggered on the new internet of value. In this second digital inflection point, economic media encompasses value beside information, and individuals can privately transact digital assets for the first time in history. Decentralized but structured organizations running on blockchain networks reduce transaction costs and are particularly competitive insofar as they guarantee data authenticity, confidentiality, and integrity, providing functional autonomy with disintermediation and smart contracts. Everything changed after user data were made public on the internet and privately traded by big tech companies, and nothing will be the same once that data is made private on the internet and publicly transacted by their rightful owners. While the internet of information reshaped

the world, the internet of value will reform it, and everything will depend politically on this being done freely. Political and Economic Implications of Blockchain Technology in Business and Healthcare provides relevant theoretical frameworks on the civilizational impact of blockchain technology, which redesigns human interactions concerning value transactions. It gives ideas, concepts, and instruments to advance the knowledge on cryptoeconomics and decentralized governance in the new distributed trust paradigm. The chapters explore the ethical repercussions and profound political-economic consequences to society, providing insights into business applications focusing on the healthcare sector. In a blockchain era affected by the post-COVID-19 new normal, which mixes politics, economics, and health, this book is essential for students and researchers in social and life sciences; professionals and policymakers working in the fields of public and business administration; and healthcare workers and researchers, academicians, and students interested in blockchain technology and its political and economic impacts in the industry and society.

Blockchain has the potential to disrupt and transform the social media business space. Nitin Upadhyay in this book delves into an insightful discussion of the pertinent and potential implications of blockchain technology on the social media business model in a uniquely accessible way.

The book entitled "Advancements in Smart City and Intelligent Building" is the Proceedings of the International Conference on Smart City and Intelligent Building (ICSCIB 2018) held in Hefei, China, September 15-16, 2018. It contains 58 papers in total categorized into 8 different tracks, on Building Energy Efficiency, Construction Robot and Automation, Intelligent Community and Urban Safety, Intelligentization of Heating Ventilation Air Conditioning System, Information Technology and Intelligent Transportation Systems, New Generation Intelligent Building Platform Techniques, Smart Home and Utility, and Smart Underground Space, which cover a wide range areas of smart cities and intelligent buildings. ICSCIB2018 provided an international forum for professionals, academics, and researchers to present the latest developments from interdisciplinary theoretical studies, computational algorithm developments and engineering applications in smart cities and smart buildings. This academic event featured many opportunities to network with colleagues from around the world in a wonderful environment. Its program covered invitation and presentations from scientists, researchers, and practitioners who have been working in the related areas to establish platforms for collaborative research projects in these fields. The conference invited leaders from industry and academia to exchange and share their experiences, present research results, explore collaborations and to spark new ideas, with the aim of developing new projects and exploiting new technology in these fields, and bridge theoretical studies and emerging applications in various science and engineering branches. This book addresses the recent development and achievement in the field of smart city and intelligent building. It is primarily intended for researchers and students for undergraduate and postgraduate programs in the background of multiple disciplines including computer science, information systems, information technology, automatic control and automation, electrical and electronic engineering, and telecommunications who wish to develop and share their ideas, knowledge and new findings in smart city and intelligent building.

This book presents the proceedings of the 3rd International Conference on Wireless Intelligent and Distributed Environment for Communication (WIDECOM 2020), sponsored by Ryerson University, Toronto, Canada, May 6-8, 2020. The WIDECOM conference solicits papers addressing issues related to new dependability paradigms, design, and performance of dependable network computing and mobile systems, as well as issues related to the security of these systems. The goal of the conference is to provide a forum for researchers, students, scientists and engineers working in academia and industry to share their experiences, new ideas and research results in the above-mentioned areas. Presents the proceedings of the International Conference on Wireless Intelligent and Distributed Environment for Communication (WIDECOM 2020), Ryerson University, Toronto, Canada, May 6-8, 2020; Includes an array of topics networking computing, mobile/ubiquitous systems, cloud systems, and IoT systems; Addresses issues related to protecting information security and establishing trust in the digital space.

This book focuses on the innovation of blockchain technology and the advantages it offers. It provides a clear and comprehensive overview of blockchain technology and its possibilities, and thereby helps readers to form an opinion and draw their own conclusions about its potential exploitations. The book begins with a chapter on the topic of decentralized networks, which familiarizes readers with their challenges by using the example of an online trading platform. Hereinafter, it is then detailed what blockchain technology is, where it comes from, and how it works. The necessary underlying technologies are explained, and various individual approaches as well as their composition are presented. Using well-known examples such as Bitcoin and Ethereum as an illustration, the book looks at the architecture of blockchain technology and focuses on the challenges such as security and scalability. The options available when introducing blockchain technology are also outlined, and best-practice examples are presented to get a better idea of what areas benefit from this technology. Numerous examples and detailed explanations will accompany the readers throughout the book. By the time they have reached the end, they will be able to decide for themselves what is truly innovative about blockchain technology and what is nothing more than hype.

Understand Bitcoin, Blockchains, and Cryptocurrency "Antony helps us all clearly understand the mechanics of bitcoin and blockchain." ?Rob Findlay, Founder, Next Money #1 Best Seller in Investing Derivatives and Natural Resource Extraction Industry Learn the history and basics of cryptocurrency and blockchains. There's a lot of information on cryptocurrency and blockchains out there. But, for the uninitiated, most of this information can be indecipherable. The Basics of Bitcoins and Blockchains provides a guide to this new currency and the revolutionary technology that powers it. Bitcoin, Ethereum, and other cryptocurrencies. Gain an understanding of a broad spectrum of Bitcoin topics including the history of Bitcoin, the Bitcoin blockchain, and Bitcoin buying, selling, and mining. And, learn how payments are made, and how one puts a value on cryptocurrencies and digital tokens. Blockchain technology. What exactly is a blockchain, how does it work, and why is it important? The Basics of Bitcoins and Blockchains answers these

questions and more. Learn about notable blockchain platforms, smart contracts, and other important facets of blockchains and their function in the changing cyber-economy. Things to know before buying cryptocurrencies. The Basics of Bitcoins and Blockchains offers trustworthy and balanced insights into Bitcoin investing or investing in other cryptocurrency. Discover the risks and mitigations, learn how to identify scams, and understand cryptocurrency exchanges, digital wallets, and regulations. Learn about: Blockchain technology and how it works The workings of the cryptocurrency market The evolution and potential impacts of Bitcoin and blockchains on global businesses You may have read books such as Blockchain Bubble or Revolution, Cryptoassets, Blockchain Technology Explained, Blockchain Revolution, The Bitcoin Standard, Mastering Bitcoin, or Bitcoin For Dummies, but to really understand the technology it's time to read The Basics of Bitcoins and Blockchains.

"This book investigates the blockchain technology, its adoption and effectiveness in banking and other industry, and in general, for IoT based applications"--

Like many other scientific innovations, scientists are looking to protect the internet of things (IoT) from unfortunate losses, theft, or misuse. As one of the current hot trends in the digital world, blockchain technology could be the solution for securing the IoT. Blockchain Applications in IoT Security presents research for understanding IoT-generated data security issues, existing security facilities and their limitations and future possibilities, and the role of blockchain technology. Featuring coverage on a broad range of topics such as cryptocurrency, remote monitoring, and smart computing, this book is ideally designed for security analysts, IT specialists, entrepreneurs, business professionals, academicians, researchers, students, and industry professionals seeking current studies on the limitations and possibilities behind competitive blockchain technologies.

This book constitutes the refereed proceedings of the 17th International Conference on Information Security, ISSA 2018, held in Pretoria, South Africa, in August 2018. The 13 revised full papers presented were carefully reviewed and selected from 40 submissions. The papers are dealing with topics such as authentication; access control; digital (cyber) forensics; cyber security; mobile and wireless security; privacy-preserving protocols; authorization; trust frameworks; security requirements; formal security models; malware and its mitigation; intrusion detection systems; social engineering; operating systems security; browser security; denial-of-service attacks; vulnerability management; file system security; firewalls; Web protocol security; digital rights management; distributed systems security.

A comprehensive guide to understanding the theory and practice of digital entrepreneurship.

This book examines the legal and regulatory aspects of cryptocurrency and blockchain and the emerging practical issues that these issues involve. The analysis covers a range of advanced economies across the world, in America, Europe and Asia. The book describes, explains and analyses the nature of cryptocurrencies and the blockchain systems they are constructed on in these major world economies and considers relevant law and regulation and their shortcomings. It will be of use and interest to academics, lawyers, regulators and anyone involved with cryptocurrencies and blockchain.

The internet was envisaged as a decentralised global network, but in the past 25 years it has come to be controlled by a few, very powerful, centralised companies. Blockchain is a technological paradigm shift that allows secure, reliable, and direct information transfer between individuals, organisations, and things, so that we can manage, verify, and control the use of our own data. Blockchain also offers a new opportunity for humanity to fix some major problems. It can authenticate data, manage its analysis, and automate its use. With better data comes better decision-making. In this way, Blockchain can contribute to solving climate change, reduce voting fraud, fix our identity systems, improve fair trade, and give the poor an opportunity to improve their lives by monetising their (digital) capital. A world built upon peer-to-peer transactions and smart contracts can empower individuals and communities. This book offers a fresh perspective with which to consider this transformative technology. It describes how Blockchain can optimise the processes that run our society. It provides practical solutions to global problems and offers a roadmap to incorporate Blockchain in your business. It offers a blueprint for a better world. Filled with easy-to-understand examples, this book shows how Blockchain can take over where the internet has fallen short.

The Basics of Bitcoins and BlockchainsAn Introduction to Cryptocurrencies and the Technology That Powers Them (Cryptography, Crypto Trading, Derivatives, Digital Assets)Mango Agricultural Waste Diversity and Sustainability Issues: Sub Saharan Africa as Case Study presents solutions for overcoming limitations, guiding developmental processes, and improving knowledge transfer in agricultural waste management and development. The book gives considerable attention to treatment and conversion, with best management practices involving the reduction and elimination of waste volume in its various forms, sectors and streams. Sections cover waste management in the agriculture and food sector, including methodological approaches in waste preparation and processes, the most important energy generation techniques and strategies, and best practices, management, sustainability, associated technologies, accountability, communications, and involvement surrounding diverse stakeholders. Finally, the book illustrates the use of mathematical models to minimize operational cost in agro-waste management processes and discusses the application of eco-efficiency. Ultimately, the book focuses on the prospect of agro-wastes management and risk associated in the sub-Saharan African region, including Nigeria, Uganda and South Africa as case studies. Captures a solutions-based assessment that redresses the challenges created by a poor biodiversity strategy in Sub-Saharan Africa to meet present needs in SSA and around the world Provides foundational information for agricultural diversity, food waste elimination, clean energy production, and technology emergence Enables a greater understanding of the state-of-the-art approach for effective biodegradable waste management Inspires further research into sustainable and cost-effective biowaste operations, wastes management models, methodologies for utilization and nascent technologies that are capable of bolstering clean energy generation

The aim of this book is to understand the technological and business potential of the blockchain technology and to reflect on its legal challenges, providing an unparalleled critical analysis of the disruptive potential of this technology for the economy and the legal system.

This book includes selected papers presented at International Conference on Computational Intelligence, Data Science and Cloud Computing (IEM-ICDC) 2020, organized by the Department of Information Technology, Institute of Engineering & Management, Kolkata, India, during 25-27 September 2020. It presents substantial new research findings about AI and robotics, image processing and NLP, cloud computing and big data analytics as well as in cyber security, blockchain and IoT, and various allied fields. The book serves as a reference resource for researchers and practitioners in academia and

industry.

There's a lot more to the blockchain than mining Bitcoin. This secure system for registering and verifying ownership and identity is perfect for supply chain logistics, health records, and other sensitive data management tasks. Blockchain in Action unlocks the full potential of this revolutionary technology, showing you how to build your own decentralized apps for secure applications including digital democracy, private auctions, and electronic record management. Summary There's a lot more to the blockchain than mining Bitcoin. This secure system for registering and verifying ownership and identity is perfect for supply chain logistics, health records, and other sensitive data management tasks. Blockchain in Action unlocks the full potential of this revolutionary technology, showing you how to build your own decentralized apps for secure applications including digital democracy, private auctions, and electronic record management. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Blockchain is more than just the tech behind Bitcoin—much more! Combining impenetrable security, decentralized transactions, and independently verifiable supply chains, blockchain applications have transformed currency, digital identity, and logistics. Platforms such as Ethereum and Hyperledger make it easy to get started by using familiar programming languages. About the book Blockchain in Action teaches you how to design and build blockchain-based decentralized apps, and is written in a clear, jargon-free style. First, you'll get an overview of how blockchain works. Next, you'll code your first smart contract using Ethereum and Solidity, adding a web interface, trust validation, and other features until your app is ready for deployment. The only thing you need to get started is standard hardware and open source software. What's inside Blockchain compared with other distributed systems Development in Solidity Identity, privacy, and security On-chain and off-chain data and operations About the reader For programmers who know JavaScript. About the author Bina Ramamurthy has thirty years of experience teaching distributed systems, data science, peer-to-peer networking, and blockchain. Table of Contents PART 1 - GETTING STARTED WITH BLOCKCHAIN PROGRAMMING 1 Blockchain basics 2 Smart contracts 3 Techniques for trust and integrity 4 From smart contracts to Dapps PART 2 - TECHNIQUES FOR END-TO-END DAPP DEVELOPMENT 5 Security and privacy 6 On-chain and off-chain data 7 Web3 and a channel Dapp 8 Going public with Infura PART 3 - A ROADMAP AND THE ROAD AHEAD 9 Tokenization of assets 10 Testing smart contracts 11 A roadmap to Dapp development 12 Blockchain: The Road ahead The growth of Blockchain technology presents a number of legal questions for lawyers, regulators and industry participants alike. Primarily, regulators must allow Blockchain technology to develop whilst also ensuring it is not being abused. This book addresses the challenges posed by various applications of Blockchain technology, such as cryptocurrencies, smart contracts and initial coin offerings, across different fields of law. Contributors explore whether the problems posed by Blockchain and its applications can be addressed within the present legal system or whether significant rethinking is required.

Even though blockchain technology was originally created as a ledger system for bitcoin to operate on, using it for areas other than cryptocurrency has become increasingly popular as of late. The transparency and security provided by blockchain technology is challenging innovation in a variety of businesses and is being applied in fields that include accounting and finance, supply chain management, and education. With the ability to perform such tasks as tracking fraud and securing the distribution of medical records, this technology is key to the advancement of many industries.

The **Research Anthology on Blockchain Technology in Business, Healthcare, Education, and Government** is a vital reference source that examines the latest scholarly material on trends, techniques, and uses of blockchain technology applications in a variety of industries, and how this technology can further transparency and security. Highlighting a range of topics such as cryptography, smart contracts, and decentralized blockchain, this multi-volume book is ideally designed for academics, researchers, industry leaders, managers, healthcare professionals, IT consultants, engineers, programmers, practitioners, government officials, policymakers, and students.

Become an Ethereum Blockchain developer using a blend of concepts and hands-on implementations Key Features Understand the Ethereum Ecosystem and its differences from its rich cousin Bitcoin Explore the Solidity programming language and smart contract optimizations Get a developer's perspective of Blockchain-as-a-technology with exposure to common challenges faced while building decentralized applications Book Description Ethereum is a public, blockchain-based distributed computing platform featuring smart contract functionality. This book is your one-stop guide to blockchain and Ethereum smart contract development. We start by introducing you to the basics of blockchain. You'll learn about hash functions, Merkle trees, forking, mining, and much more. Then you'll learn about Ethereum and smart contracts, and we'll cover Ethereum virtual machine (EVM) in detail. Next, you'll get acquainted with DApps and DAOs and see how they work. We'll also delve into the mechanisms of advanced smart contracts, taking a practical approach. You'll also learn how to develop your own cryptocurrency from scratch in order to understand the business behind ICO. Further on, you'll get to know the key concepts of the Solidity programming language, enabling you to build decentralized blockchain-based applications. We'll also look at enterprise use cases, where you'll build a decentralized microblogging site. At the end of this book, we discuss blockchain-as-a-service, the dark web marketplace, and various advanced topics so you can get well versed with the blockchain principles and ecosystem. What you will learn Know how to build your own smart contracts and cryptocurrencies Understand the Solidity language Find out about data types, control structure, functions, inheritance, mathematical operations, and much more See the various types of forks and discover how they are related to Ethereum Get to know the various concepts of web3.js and its APIs so you can build client-side apps Build a DAO from scratch and acquire basic knowledge of DApps on Ethercast Be guided through the project so you can optimize EVM for smart contracts Build your own decentralized applications (DApps) by taking a practical approach Who this book is for If you want to know the ins and outs of the Ethereum network and build your own decentralized applications, then this book is what you need! This book is for anyone who is interested in blockchain and wants to become an Ethereum developer. It's ideal for existing Ethereum developers who want to develop Ethereum using smart contracts. Basic knowledge of cryptography is expected but is not mandatory.

Choice is a key concept of our time. It is a foundational mechanism for every legal order in societies that are, politically, constituted as democracies and, economically, built on the market mechanism. Thus, choice can be understood as an atomic structure that grounds core societal processes. In recent years, however, the debate over the right way to theorize choice - for example, as a rational or a behavioral type of decision making - has intensified. This collection provides an in-depth discussion of the promises and perils of specific types of theories of choice. It shows how the selection of a specific theory of choice can make a difference for concrete legal questions, in particular in the regulation of the digital economy or in choosing between market, firm, or network. In its first part, the volume provides an accessible overview of the current debates about rational versus behavioral approaches to theories of choice. The remainder of the book structures the vast landscape of theories of choice along with three main types: individual, collective, and organizational decision making. As theories of choice proliferate and become ever more sophisticated, however, the process of choosing an adequate theory of choice becomes increasingly intricate. This volume addresses this selection problem for the various legal arenas in which individual, organizational, and collective decisions matter. By drawing on economic,

technological, political, and legal points of view, the volume shows which theories of choice are at the disposal of the legally relevant decision-maker, and how they can be operationalized for the solution of concrete legal problems. The editors acknowledge the kind support of the Fritz Thyssen Foundation for an exploratory conference on the subject of the book.

Recent innovations have created significant developments in data storage and management. These new technologies now allow for greater security in databases and other applications. Decentralized Computing Using Blockchain Technologies and Smart Contracts: Emerging Research and Opportunities is a concise and informative source of academic research on the latest developments in block chain innovation and their application in contractual agreements. Highlighting pivotal discussions on topics such as cryptography, programming techniques, and decentralized computing, this book is an ideal publication for researchers, academics, professionals, students, and practitioners seeking content on utilizing block chains with smart contracts.

In 25 concise steps, you will learn the basics of blockchain technology. No mathematical formulas, program code, or computer science jargon are used. No previous knowledge in computer science, mathematics, programming, or cryptography is required. Terminology is explained through pictures, analogies, and metaphors. This book bridges the gap that exists between purely technical books about the blockchain and purely business-focused books. It does so by explaining both the technical concepts that make up the blockchain and their role in business-relevant applications. What You'll Learn What the blockchain is Why it is needed and what problem it solves Why there is so much excitement about the blockchain and its potential Major components and their purpose How various components of the blockchain work and interact Limitations, why they exist, and what has been done to overcome them Major application scenarios Who This Book Is For Everyone who wants to get a general idea of what blockchain technology is, how it works, and how it will potentially change the financial system as we know it

This textbook focuses on distributed ledger technology (DLT) and its potential impact on society at large. It aims to offer a detailed and self-contained introduction to the founding principles behind DLT accessible to a well-educated but not necessarily mathematically oriented audience. DLT allows solving many complicated problems arising in economics, banking, and finance, industry, trade, and other fields. However, to reap the ultimate benefits, one has to overcome some of its inherent limitations and use it judiciously. Not surprisingly, amid increasing applications of DLT, misconceptions are formed over its use. The book thoroughly dispels these misconceptions via an impartial assessment of the arguments rooted in scientific reasoning. Blockchain and Distributed Ledgers: Mathematics, Technology, and Economics offers a detailed and self-contained introduction to DLT, blockchains, and cryptocurrencies and seeks to equip the reader with an ability to participate in the crypto economy meaningfully.

An introduction to cryptocurrencies and blockchain technology; a guide for practitioners and students. Bitcoin and blockchain enable the ownership of virtual property without the need for a central authority. Additionally, Bitcoin and other cryptocurrencies make up an entirely new class of assets that have the potential for fundamental change in the current financial system. This book offers an introduction to cryptocurrencies and blockchain technology from the perspective of monetary economics.

Cryptocurrency market has been growing fast since its emergence in recent years. Moreover, digital finance has forged the convergence of profit motives with social objectives creating a class of large FinTech companies. In addition, the underlying technology innovation may be applied to a wide range of industries, not limited to financial sector. Yet, few researches have been done to study these phenomena. Hence, it is the task of this book to shed light on the introduction and trends in FinTech, blockchain and token sales. Richly illustrated with original lecture slides taught by the authors, Inclusive FinTech: Blockchain, Cryptocurrency and ICO hopes to dispel the many misconceptions about blockchain and cryptocurrencies (especially bitcoin, Initial Crypto-Token Offering or ICO), as well as the idea that businesses can be sustainable without a social dimension going forward. With comprehensive coverage given to the FinTech scene in Asia, it is targeted at those who are searching for business opportunities. Most important of all, this book seeks to change the mindset of a whole new generation that is familiar with digital economy and yearns for a more just and equitable world.

This transdisciplinary volume puts forward proposals for wiser, socially just and sustainable socio-economic systems in transition. There is growing support for the view that the end of capitalism is around the corner, but on which conceptual and ethical basis can we interpret these times? With investigations into feminist economics, post-growth environmentalism, socio-technical digital design, collaborative and commons economics, the editors create a dialogue between radical knowledge/practices and contemplative social sciences to transgress disciplinary boundaries and implement new visions of reality. This important book challenges our ways of thinking and outlines a pathway for new research. Chapter 13 of this book is available open access under a CC BY 4.0 license at link.springer.com

Maritime Supply Chains breaks the maritime chain into components, consistently relating them to the overall integrated supply chain. The book not only analyzes and provides solutions to frequently encountered problems and key operational issues, it also applies cutting-edge scientific techniques on the maritime supply chain. Sections consider shipping, ports and terminals, hinterland and the issues that intersect different parts of the chain. Readers will find discussions of the various actors at play and how they relate to the overall function of the supply chain. Finally, the book offers solutions to the most pressing problems, thus providing a unique, well-balanced account. Provides a comprehensive and integrative account of the maritime supply chain, from shipping, to port, to hinterland Cuts through the maritime supply chain to offer a transversal picture on how the chain functions Applies rigorous analytical techniques to give solutions to the most frequent and pressing challenges facing maritime supply chains Considers advances, such as blockchain, that are set to transform maritime supply chains

Fourth International Conference on Information and Communication Technology for Competitive Strategies targets state-of-the-art as well as emerging topics pertaining to information and communication technologies (ICTs) and effective strategies for its implementation for engineering and intelligent applications.

This book offers a multidisciplinary resource on digital government, while specifically focusing on its role within the emerging market of India. The Government of India (GoI) is concentrating on transforming India under the Digital India initiative. In order to do so, it has emphasized three core areas: (1) Computing infrastructure as a utility to every citizen; (2) Governance and services on demand; and (3) Digital empowerment of citizens. The chapters in this book address issues surrounding these areas, highlighting concepts such as knowledge societies, urban operations and logistics, issues in managing emergent Information Communication Technologies (ICTs), and also smart analytics for urbanization. The chapters contribute to the theory, practice and policy for a "Digital India." The book captures lessons, knowledge, experiences (about challenges, drivers, antecedents, etc.) and best practices emerging from implementation of various projects. While the book is dedicated to a "Digital India," this book can also be valuable resource for public administrators, government officials and researchers in other emerging markets and developing countries in Asia, Africa and Latin America where similar socio-political and economic conditions exist.

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