Harnessing Green It Principles And Practices

Our world has changed, probably for good. Until now, the shift from brick-and-mortar to the smartphone has been about service, cost, and convenience. Now, it's also a matter of public health. How do we win this uncertain new game? How do we prosper in a digital world? In a cool, readable style Harnessing Digital Disruption: How Companies Win with Design Thinking, Agile, and Lean Startup tells the story of a major multi-national organization facing digital disruption and looming irrelevance. In a compelling novel format, the book demonstrates how to harness the power of digital technology, methods and thinking on the path to revival and prosperity. It illustrates the situations, characters, and blockers you'll likely face as you progress through your journey. The setting is Singapore and the heady world of international banking, but the prescription, methods and lessons apply equally to manufacturers, utilities, hospitals, insurers, and government agencies. You will learn how to: · Develop your Digital Transformation strategy and Innovation Portfolio · Reform customer journeys, launch new digital offerings, and validate new beta businesses · Develop senior leader digital literacy, and understanding of growth leadership · De-risk your journey using a proven overall approach based on proven principles · Cultivate a network of pragmatic entrepreneurs practicing a structured scalable innovation process This book offers clear and compelling guidance on what it takes to transform your organization for a digital world.

Each chapter includes Study Questions to facilitate learning and discussion in workshop and classroom settings. .

State-of-the-Art Approaches to Advance the Large-Scale Green Computing Movement Edited by one of the founders and lead investigator of the Green500 list, The Green Computing Book: Tackling Energy Efficiency at Large Scale explores seminal research in large-scale green computing. It begins with low-level, hardware-based approaches and then traverses up the software stack with increasingly higher-level, software-based approaches. In the first chapter, the IBM Blue Gene team illustrates how to improve the energy efficiency of a supercomputer by an order of magnitude without any system performance loss in parallelizable applications. The next few chapters explain how to enhance the energy efficiency of a large-scale computing system via compiler-directed energy optimizations, an adaptive run-time system, and a general prediction performance framework. The book then explores the interactions between energy management and reliability and describes storage system organization that maximizes energy efficiency and reliability. It also addresses the need for coordinated power control across different layers and covers demand response policies in computing centers. The final chapter assesses the impact of servers on data center costs. This final volume in the Eco-technology series deals with generation of energy using Nature's enormous potential.

Concerns surrounding environmental sustainability have led to an increase of interest in

environmentally-friendly systems. In the ICT realm, attention has been largely paid to green aspects of hardware; however, it is equally necessary to address this issue from the software perspective. Green Services Engineering, Optimization, and Modeling in the Technological Age is a valuable reference source of the latest scholarly research on the implementation of green processes into software systems, contributing novel principles, methodologies, and tools to improve software development. Featuring comprehensive and timely coverage on various areas in service strategy and modeling, engineering, and sustainability, this publication is a pivotal reference source for researchers, practitioners, advanced-level students, and end users in the software development realm.

A guide to maximizing the impact of work done at public research institutions and universities to boost innovation and growth.

Harnessing Complexity will be indispensable to anyone who wants to better comprehend how people and organizations can adapt effectively in the information age. This book is a step-by-step guide to understanding the processes of variation, interaction, and selection that are at work in all organizations. The authors show how to use their own paradigm of "bottom up" management, the Complex Adaptive System-whether in science, public policy, or private commerce. This simple model of how people work together will change forever how we think about getting things done in a group. "Harnessing Complexity distills the managerial essence of current research on

complexity. "A very valuable contribution to the emerging theory of competition and competitive advantage."-C.K. Prahalad, University of Michigan, coauthor of Competing for the Future "A brilliant exposition that demystifies both the theory and use of Complex Adaptive Systems."-John Seely Brown, Xerox Corporation and Palo Alto Research Center

Killian knows all about vampires and aliens. They're not real. But when a handsome swimmer climbs into her storm-tossed boat an hour from her summer destination, the worlds of fantasy and reality suddenly collide… Cuttylea Island has no mall, no social scene, and no action. But it does have a mysterious stone tower, ageless islanders, and a secret as astonishing as a mermaid's tale… Before the summer is through, Killian will find the truth of her family's past…and the role she is destined to play in a centuries-old curse.

"This guide can be downloaded from: www.eere.energy.gov/femp/technologies/renewable%5Fpurchasepower.cfm, www.epa.gov/greenpower/buygreenpower.htm, www.thegreenpowergroup.org/publications.html, www.resource-solutions.org."--Verso. t.p.

With the increasing awareness that mere economic and production-based explanations do not adequately describe the motivations for governance, researchers have focused on the behavioral side of the firm performance to justify the economic rationale of their

typical behaviours. This book describes the concept of corporate governance, its emergence and the contemporary thinking around it. With emphasis on "conflicts of interests" assumed to be related to the theory of separation of ownership and control, the book delves into topics such as insider trading, excessive executive compensation, managerial, expropriation of shareholders' wealth, false reporting, accounting non-disclosures and self dealing.

Axiom Business Book Award Silver Medalist in Business Technology The indispensable guide to data-powered marketing from the team behind the data management platform that helps fuel Salesforce?the #1 customer relationship management (CRM) company in the world A tectonic shift in the practice of marketing is underway. Digital technology, social media, and e-commerce have radically changed the way consumers access information, order products, and shop for services. Using the latest technologies?cloud, mobile, social, internet of things (IoT), and artificial intelligence (AI)?we have more data about consumers and their needs, wants, and affinities than ever before. Data Driven will show you how to: ?Target and delight your customers with unprecedented accuracy and success?Bring customers closer to your brand and inspire them to engage, purchase, and remain loyal?Capture, organize, and analyze data from every source and activate it across every channel?Create a data-powered marketing

strategy that can be customized for any audience?Serve individual consumers with highly personalized interactions?Deliver better customer service for the best customer experience?Improve your products and optimize your operating systems?Use AI and IoT to predict the future direction of markets You'll discover the three principles for building a successful data strategy and the five sources of data-driven power. You'll see how top companies put these data-driven strategies into action: how Pandora used second- and third-hand data to learn more about its listeners; how Georgia-Pacific moved from scarcity to abundance in the data sphere; and how Dunkin' Brands leveraged CRM data as a force multiplier for customer engagement. And if you're wondering what the future holds, you'll receive seven forecasts to better prepare you for what may come next. Sure to be a classic, Data Driven is a practical road map to the modern marketing landscape and a toolkit for success in the face of changes already underway and still to come.

Knowledge is a valuable resource that must be managed well for any organization to thrive. Proper knowledge management practices can improve business processes by creating value, however, the available tools meant to aid in the creation, collection, and storage of information have drastically changed since the emergence of social media. By using this collaborative online

application for engaging with information, organizations are able to precisely disseminate knowledge to the correct audience. Harnessing Social Media as a Knowledge Management Tool explores the usage of social media in managing knowledge from multiple dimensions highlighting the benefits, opportunities and challenges that are encountered in using and implementing social media. This publication endeavors to provide a thorough insight into the role of social media in knowledge management from both an organizational and individualistic perspective. This book elucidates emerging strategies perfect for policy makers, managers, advertisers, academics, students, and organizations who wish to effectively manage knowledge through social media.

ICT Innovations for Sustainability is an investigation of how information and communication technology can contribute to sustainable development. It presents clear definitions of sustainability, suggesting conceptual frameworks for the positive and negative effects of ICT on sustainable development. It reviews methods of assessing the direct and indirect impact of ICT systems on energy and materials demand, and examines the results of such assessments. In addition, it investigates ICT-based approaches to supporting sustainable patterns of production and consumption, analyzing them at various levels of abstraction – from end-user devices, Internet infrastructure, user behavior, and social practices

to macro-economic indicators. Combining approaches from Computer Science, Information Systems, Human-Computer Interaction, Economics, and Environmental Sciences, the book presents a new, holistic perspective on ICT for Sustainability (ICT4S). It is an indispensable resource for anyone working in the area of ICT for Energy Efficiency, Life Cycle Assessment of ICT, Green IT, Green Information Systems, Environmental Informatics, Energy Informatics, Sustainable HCI, or Computational Sustainability.

"This handbook coalesces worldwide investigations, thoughts, and practices in the area of Green ICT, covering the technical advances, methodological innovations, and social changes that result in enhancements and improvements in business strategies, social policies, and technical implementations"--Provided by publisher.

Chemical processes provide a diverse array of valuable products and materials used in applications ranging from health care to transportation and food processing. Yet these same chemical processes that provide products and materials essential to modern economies, also generate substantial quantities of wastes and emissions. Green Chemistry is the utilization of a set of principles that reduces or eliminate the use or generation of hazardous substances in design. Due to extravagant costs needed to managing these wastes, tens of

billions of dollars a year, there is a need to propose a way to create less waste. Emission and treatment standards continue to become more stringent, which causes these costs to continue to escalate. Green Chemistry and Engineering describes both the science (theory) and engineering (application) principles of Green Chemistry that lead to the generation of less waste. It explores the use of milder manufacturing conditions resulting from the use of smarter organic synthetic techniques and the maintenance of atom efficiency that can temper the effects of chemical processes. By implementing these techniques means less waste, which will save industry millions of dollars over time. Chemical processes that provide products and materials essential to modern economies generate substantial quantities of wastes and emissions, this new book describes both the science (theory) and engineering (application) principles of Green Chemistry that lead to the generation of less waste This book contains expert advise from scientists around the world, encompassing developments in the field since 2000 Aids manufacturers, scientists, managers, and engineers on how to implement ongoing changes in a vast developing field that is important to the environment and our lives

Considering the increasing importance of renewable energy for climate change mitigation, this book provides an overview of how renewable energy sources are

integrated into the grid to promote better understanding among students and business professionals in the utility sector and across industries. Following an overview of the technical and historical development of the electric grid in the U.S. and Europe, this guide reviews hydropower, solar photovoltaics, wind energy, fuel cell, and battery technologies. The author also presents models for the connection of these renewable energy sources from large-scale to on-site and community power/microgrids. The models are explained through case studies in the developed and developing worlds that explore how technical evaluations are conducted, policy incentives implemented, and project finance applied. Considering the increasing importance of renewable energy for climate change mitigation, this book provides an overview of how renewable energy sources are integrated into the grid to promote better understanding among students and business professionals in the utility sector and across industries. Most literature on grid interconnection is highly technical, assuming an in-depth understanding of electrical engineering. With the rise of clean technologies and the diversity of interconnection models, this guide fills a gap in the existing literature by equipping non-technical business managers with the salient information they need to make critical decisions for their organizations. "Ultimately, this is a remarkable book, a practicaltestimonial, and a

comprehensive bibliography rolled into one. Itis a single, bright sword cut across the various murky green ITtopics. And if my mistakes and lessons learned through the green ITjourney are any indication, this book will be used every day byfolks interested in greening IT." — Simon Y. Liu, Ph.D. & Ed.D.,Editor-in-Chief, IT Professional Magazine, IEEEComputer Society, Director, U.S. National AgriculturalLibrary This book presents a holistic perspective on Green IT bydiscussing its various facets and showing how to strategicallyembrace it Harnessing Green IT: Principles andPractices examines various ways of making computing andinformation systems greener – environmentally sustainable -,as well as several means of using Information Technology (IT) as atool and an enabler to improve the environmental sustainability.The book focuses on both greening of IT and greening by IT –complimentary approaches to attaining environmental sustainability. In a single volume, it comprehensively covers severalkey aspects of Green IT - green technologies, design, standards,maturity models, strategies and adoption -, and presents a clearapproach to greening IT encompassing green use, green disposal,green design, and green manufacturing. It also illustrates how tostrategically apply green IT in practice in several areas. Key Features: Presents a comprehensive coverage of key topics of importanceand practical relevance - green technologies, design,standards,

maturity models, strategies and adoption Highlights several useful approaches to embracing green IT inseveral areas Features chapters written by accomplished experts from industryand academia who have first-hand knowledge and expertise inspecific areas of green IT Presents a set of review and discussion questions for eachchapter that will help the readers to examine and explore the greenIT domain further Includes a companion website providing resources forfurther information and presentation slides This book will be an invaluable resource for IT Professionals,academics, students, researchers, project leaders/managers, ITbusiness executives, CIOs, CTOs and anyone interested in Green ITand harnessing it to enhance our environment.

"Foreword by John G. Peluso, JR, president, Wells Fargo Advisors Financial Network, LLC."--Jacket cover.

Web 2.0 and Beyond: Principles and Technologies draws on the author's iceberg model of Web 2.0, which places the social Web at the tip of the iceberg underpinned by a framework of technologies and ideas. The author incorporates research from a range of areas, including business, economics, information science, law, media studies, psychology, social informatics and sociology. This multidisciplinary perspective illustrates not only the wide implications of computing but also how other areas interpret what computer science is doing.

After an introductory chapter, the book is divided into three sections. The first one discusses the underlying ideas and principles, including user-generated content, the architecture of participation, data on an epic scale, harnessing the power of the crowd, openness and the network effect and Web topology. The second section chronologically covers the main types of Web 2.0 services—blogs, wikis, social networks, media sharing sites, social bookmarking and microblogging. Each chapter in this section looks at how the service is used, how it was developed and the technology involved, important research themes and findings from the literature. The final section presents the technologies and standards that underpin the operation of Web 2.0 and goes beyond this to explore such topics as the Semantic Web, cloud computing and Web Science. Suitable for nonexperts, students and computer scientists, this book provides an accessible and engaging explanation of Web 2.0 and its wider context yet is still grounded in the rigour of computer science. It takes readers through all aspects of Web 2.0, from the development of technologies to current services.

Now a Netflix film starring and directed by Chiwetel Ejiofor, this is a gripping memoir of survival and perseverance about the heroic young inventor who brought electricity to his Malawian village. When a terrible drought struck William Kamkwamba's tiny village in Malawi, his family lost all of the season's crops, leaving them with nothing to eat and nothing to sell. William

began to explore science books in his village library, looking for a solution. There, he came up with the idea that would change his family's life forever: he could build a windmill. Made out of scrap metal and old bicycle parts, William's windmill brought electricity to his home and helped his family pump the water they needed to farm the land. Retold for a younger audience, this exciting memoir shows how, even in a desperate situation, one boy's brilliant idea can light up the world. Complete with photographs, illustrations, and an epilogue that will bring readers up to date on William's story, this is the perfect edition to read and share with the whole family. This volume provides a comprehensive state of the art overview of a series of advanced trends and concepts that have recently been proposed in the area of green information technologies engineering as well as of design and development methodologies for models and complex systems architectures and their intelligent components. The contributions included in the volume have their roots in the authors' presentations, and vivid discussions that have followed the presentations, at a series of workshop and seminars held within the international TEMPUS-project GreenCo project in United Kingdom, Italy, Portugal, Sweden and the Ukraine, during 2013-2015 and at the 1st - 5th Workshops on Green and Safe Computing (GreenSCom) held in Russia, Slovakia and the Ukraine. The book presents a systematic exposition of research on principles, models, components and complex systems and a description of industry- and society-oriented aspects of the green IT engineering. A chapter-oriented structure has been adopted for this book following a "vertical view" of the green IT, from hardware (CPU and FPGA) and software components to complex industrial systems. The 15 chapters of the book are grouped into five sections: (1) Methodology and Principles of Green IT Engineering for Complex Systems, (2) Green Components and Programmable Systems, (3) Green Internet

Computing, Cloud and Communication Systems, (4) Modeling and Assessment of Green Computer Systems and Infrastructures, and (5) Green PLC-Based Systems for Industry Applications. The chapters provide an easy to follow, comprehensive introduction to the topics that are addressed, including the most relevant references, so that anyone interested in them can start the study by being able to easily find an introduction to the topic through these references. At the same time, all of them correspond to different aspects of the work in progress being carried out by various research groups throughout the world and, therefore, provide information on the state of the art of some of these topics, challenges and perspectives.

Can we solve big public problems anymore? Yes, we can. This provocative and inspiring book points the way. The huge challenges we face are daunting indeed: climate change, crumbling infrastructure, declining public education and social services. At the same time, we've come to accept the sad notion that government can't do new things or solve tough problems—it's too big, too slow, and mired in bureaucracy. Not so, says former public official, now Harvard Business School professor, Mitchell Weiss. The truth is, entrepreneurial spirit and savvy in government are growing, transforming the public sector's response to big problems at all levels. The key, Weiss argues, is a shift from a mindset of Probability Government—overly focused on safe solutions and mimicking so-called best practices—to Possibility Government. This means public leadership and management that's willing to boldly imagine new possibilities and to experiment. Weiss shares the three basic tenets of this new way of governing: Government that can imagine: Seeing problems as opportunities and involving citizens in designing solutions Government that can try new things: Testing and experimentation as a regular part of

solving public problems Government that can scale: Harnessing platform techniques for innovation and growth The lessons unfold in the timely episodes Weiss has seen and studied: the US Special Operations Command prototyping of a hoverboard for chasing pirates; a heroin hackathon in opioid-ravaged Cincinnati; a series of experiments in Singapore to rein in Covid-19; among many others. At a crucial moment in the evolution of government's role in our society, We the Possibility provides inspiration and a positive model, along with crucial guardrails, to help shape progress for generations to come.

With the growing awareness and popularity of environmental preservation, research on green computing has gained recognition around the world. Information technology must adopt initiatives in making computers as energy-efficient as possible, as well as design algorithms and systems for efficiency-related computer technologies. International and Interdisciplinary Studies in Green Computing provides coverage on strategic green issues and practices for competitive advantages and cost-cutting in modern organizations and business sectors in order to reach environmental goals.

The Industrial Revolution, powered by oil and other fossil fuels, is spiraling into a dangerous endgame. The price of gas and food are climbing, unemployment remains high, the housing market has tanked, consumer and government debt is soaring, and the recovery is slowing. Facing the prospect of a second collapse of the global economy, humanity is desperate for a sustainable economic game plan to take us into the future. Here, Jeremy Rifkin explores how Internet technology and renewable energy are merging to create a powerful "Third Industrial Revolution." He asks us to imagine hundreds of millions of people producing their own green energy in their homes, offices, and factories, and sharing it with each other in an "energy

internet," just like we now create and share information online. Rifkin describes how the five-pillars of the Third Industrial Revolution will create thousands of businesses, millions of jobs, and usher in a fundamental reordering of human relationships, from hierarchical to lateral power, that will impact the way we conduct commerce, govern society, educate our children, and engage in civic life. Rifkin's vision is already gaining traction in the international community. The European Union Parliament has issued a formal declaration calling for its implementation, and other nations in Asia, Africa, and the Americas, are quickly preparing their own initiatives for transitioning into the new economic paradigm. The Third Industrial Revolution is an insider's account of the next great economic era, including a look into the personalities and players — heads of state, global CEOs, social entrepreneurs, and NGOs — who are pioneering its implementation around the world.

This book gathers contributions from scientists and industry representatives on achieving a sustainable bioeconomy. It also covers the social sciences, economics, business, education and the environmental sciences. There is an urgent need to optimise and maximise the use of biological resources, so that primary production and processing systems can generate more food, fibre and other bio-based products with less environmental impacts and lower greenhouse gas emissions. In other words, we need a "sustainable bioeconomy" – a term that encompasses the sustainable production of renewable resources from land, fisheries and aquaculture environments and their conversion into food, feed, fibre bio-based products and bio-energy, as well as related public goods. Despite the relevance of achieving a sustainable bioeconomy, there are very few publications in this field. Addressing that gap, this book illustrates how biological resources and ecosystems could be used in a more sustainable,

efficient and integrated manner – in other words, how the principles of sustainable bioeconomy can be implemented in practice. Given its interdisciplinary nature, the field of sustainable bioeconomy offers a unique opportunity to address complex and interconnected challenges, while also promoting economic growth. It helps countries and societies to make a transition and to use resources more efficiently, and shows how to rely less on biological resources to satisfy industry demands and consumer needs. The papers are innovative, cross-cutting and include many practice-based lessons learned, some of which are reproducible elsewhere. In closing, the book, prepared by the Inter-University Sustainable Development Research Programme (IUSDRP) and the World Sustainable Development Research and Transfer Centre (WSD-RTC), reiterates the need to promote a sustainable bioeconomy today.
In the age of corporate responsibility, green technology and sustainability continue to grip the consciousness of businesses. However, the development of appropriate business-driven green computing applications requires an awareness of the best practices of the green agenda. Green Computing Strategies for Competitive Advantage and Business Sustainability provides emerging research on maintaining an eco-friendly environment regarding cloud computing and promoting reusability. While highlighting competitive advantages, power consumption, and project evaluation, readers will learn about various techniques for reducing energy consumption in cloud performance and information technology systems. This book is a vital resource for academics, researchers, students, professionals, and managers interested in novel trends in green computing applications and technology.
"...fascinating. Like Malcolm Gladwell on speed." —THE GUARDIAN "HERD is a rare thing: a book that transforms the reader's perception of how the world works". —Matthew D'Ancona,

THE SPECTATOR "This book is a must. Once you have read it you will understand why Mark Earls is regarded as a marketing guru." —Daniel Finkelstein, THE TIMES This paperback version of Mark Earls' groundbreaking and award winning book comes updated with new stats and figures and provides two completely revised chapters that deal with the rise of social networking. Since the Enlightenment there has been a very simple but widely held assumption that we are a species of thinking individuals and human behaviour is best understood by examining the psychology of individuals. It appears, however, that this insight is plain wrong. The evidence from a number of leading behavioural and neuroscientists suggests that our species is designed as a herd or group animal. Mark Earls applies this evidence to the traditional mechanisms of marketing and consumer behaviour, with a result that necessitates a complete rethink about these subjects. HERD provides a host of unusual examples and anecdotes to open the mind of the business reader, from Peter Kay to Desmond Tutu, Apple to UK Sexual Health programmes, George Bush to Castle Lager, from autism to depression to the real explanation for the placebo effect in pharmaceutical testing.
NATIONAL BESTSELLER • An award-winning psychologist reveals the hidden power of our inner voice and shows how to harness it to combat anxiety, improve physical and mental health, and deepen our relationships with others. LONGLISTED FOR THE PORCHLIGHT BUSINESS BOOK AWARD • "A masterpiece."—Angela Duckworth, bestselling author of Grit • Malcolm Gladwell, Susan Cain, Adam Grant, and Daniel H. Pink's Next Big Idea Club Winter 2021 Winning Selection One of the best new books of the year—The Washington Post, BBC, USA Today, CNN Underscored, Shape, Behavioral Scientist, PopSugar • Kirkus Reviews, Publishers Weekly, and Shelf Awareness starred reviews Tell a stranger that you talk to

yourself, and you're likely to get written off as eccentric. But the truth is that we all have a voice in our head. When we talk to ourselves, we often hope to tap into our inner coach but find our inner critic instead. When we're facing a tough task, our inner coach can buoy us up: Focus—you can do this. But, just as often, our inner critic sinks us entirely: I'm going to fail. They'll all laugh at me. What's the use? In Chatter, acclaimed psychologist Ethan Kross explores the silent conversations we have with ourselves. Interweaving groundbreaking behavioral and brain research from his own lab with real-world case studies—from a pitcher who forgets how to pitch, to a Harvard undergrad negotiating her double life as a spy—Kross explains how these conversations shape our lives, work, and relationships. He warns that giving in to negative and disorienting self-talk—what he calls "chatter"—can tank our health, sink our moods, strain our social connections, and cause us to fold under pressure. But the good news is that we're already equipped with the tools we need to make our inner voice work in our favor. These tools are often hidden in plain sight—in the words we use to think about ourselves, the technologies we embrace, the diaries we keep in our drawers, the conversations we have with our loved ones, and the cultures we create in our schools and workplaces. Brilliantly argued, expertly researched, and filled with compelling stories, Chatter gives us the power to change the most important conversation we have each day: the one we have with ourselves.

The issues of sustainability and corporate social responsibility have become vital discussions in many industries within the public and private sectors. In the business realm, incorporating practices that serve the overall community and ecological

wellbeing can also allow businesses to flourish economically and socially. Green Business: Concepts, Methodologies, Tools, and Applications is a vital reference source for the latest research findings on the challenges and benefits of implementing sustainability into the core functions of contemporary enterprises, focusing on how green approaches improve operations. Highlighting a range of topics such as corporate sustainability, green enterprises, and circular economy, this multi-volume book is ideally designed for business executives, business and marketing professionals, business managers, academicians, and researchers actively involved in the business industry. Biotechnology for Beginners, Second Edition, presents the latest information and developments from the field of biotechnology—the applied science of using living organisms and their by-products for commercial development—which has grown and evolved to such an extent over the past few years that increasing numbers of professionals work in areas that are directly impacted by the science. For the first time, this book offers an exciting and colorful overview of biotechnology for professionals and students in a wide array of the life sciences, including genetics, immunology, biochemistry, agronomy, and animal science. This book also appeals to the lay reader without a scientific background who is interested in an entertaining and informative introduction to the key aspects of biotechnology. Authors Renneberg and Demain discuss the opportunities and risks of individual technologies and provide historical data in easy-to-reference boxes, highlighting key topics. The book covers all major aspects

of the field, from food biotechnology to enzymes, genetic engineering, viruses, antibodies, and vaccines, to environmental biotechnology, transgenic animals, analytical biotechnology, and the human genome. This stimulating book is the most user-friendly source for a comprehensive overview of this complex field. Provides accessible content to the lay reader who does not have an extensive scientific background Includes all facets of biotechnology applications Covers articles from the most respected scientists, including Alan Guttmacher, Carl Djerassi, Frances S. Ligler, Jared Diamond, Susan Greenfield, and more Contains a summary, annotated references, links to useful web sites, and appealing review questions at the end of each chapter Presents more than 600 color figures and over 100 illustrations Written in an enthusiastic and engaging style unlike other existing theoretical and dry-style biotechnology books

"A clear and crisply written account of machine intelligence, big data and the sharing economy. But McAfee and Brynjolfsson also wisely acknowledge the limitations of their futurology and avoid over-simplification." —Financial Times In The Second Machine Age, Andrew McAfee and Erik Brynjolfsson predicted some of the far-reaching effects of digital technologies on our lives and businesses. Now they've written a guide to help readers make the most of our collective future. Machine | Platform | Crowd outlines the opportunities and challenges inherent in the science fiction technologies that have come to life in recent years, like self-driving cars and 3D printers, online platforms for

renting outfits and scheduling workouts, or crowd-sourced medical research and financial instruments.

In a technology-driven world, it is essential that enterprises develop reliable and rapid flows of knowledge to distribute evenly across organizations, time and place, and individuals in order to sustain a competitive advantage. However, most leaders and managers are unacquainted with effective knowledge flow practices. Harnessing Dynamic Knowledge Principles in the Technology-Driven World provides actionable principles of Knowledge Flow Theory to identify and solve problems for implementing these principles into practice. With emerging developments and widespread applicability, this book is a practical guide for scholars, business managers, and enterprise leaders and managers interested in understanding the dynamics of knowledge flows for competitive advantage in a technology-driven world.

This book examines various ways of making computing and information systems greener -- environmentally sustainable -- as well as several means of using Information Technology (IT) as a tool and an enabler to improve the environmental sustainability. The book focuses on both greening of IT and greening by IT -- complimentary approaches to attaining environmental sustainability. This book comprehensively covers several key aspects of Green IT - green technologies, design, standards, maturity models, strategies and adoption -, and presents a clear approach to greening IT encompassing green use, green disposal, green design, and green manufacturing. It

also illustrates how to stratgically apply green IT in practice in several areas. Artificial Intelligence Medicine: Technical Basis and Clinical Applications presents a comprehensive overview of the field, ranging from its history and technical foundations, to specific clinical applications and finally to prospects. Artificial Intelligence (AI) is expanding across all domains at a breakneck speed. Medicine, with the availability of large multidimensional datasets, lends itself to strong potential advancement with the appropriate harnessing of AI. The integration of AI can occur throughout the continuum of medicine: from basic laboratory discovery to clinical application and healthcare delivery. Integrating AI within medicine has been met with both excitement and scepticism. By understanding how AI works, and developing an appreciation for both limitations and strengths, clinicians can harness its computational power to streamline workflow and improve patient care. It also provides the opportunity to improve upon research methodologies beyond what is currently available using traditional statistical approaches. On the other hand, computers scientists and data analysts can provide solutions, but often lack easy access to clinical insight that may help focus their efforts. This book provides vital background knowledge to help bring these two groups together, and to engage in more streamlined dialogue to yield productive collaborative solutions in the field of medicine. Provides history and overview of artificial intelligence, as narrated by pioneers in the field Discusses broad and deep background and updates on recent advances in both medicine and artificial intelligence that enabled the

application of artificial intelligence Addresses the ever-expanding application of this novel technology and discusses some of the unique challenges associated with such an approach

The future will bring change for Australia. But whether that change is for the better or worse largely depends on the decisions we make today as individuals and as a nation. Recognising rapid changes in the global economy, environment and policy, the Australian Government engaged the Australian Council of Learned Academies (ACOLA) to undertake detailed interdisciplinary research to help guide Australian thinking and policy decisions. Dozens of Australia's finest minds assessed the opportunities available to the nation globally and domestically, charting a course for the future. The resulting findings can prepare Australia to address the challenges ahead and make the most of the opportunities. Securing Australia's Future synthesises the major themes that emerge from ACOLA's reports. Each chapter includes key findings designed to optimise Australia's prosperity and place in the region. The future is a long game but its base must be built now. This book provides a vision for the nation, for its politicians, public servants and industry leaders – a sound footing for securing Australia's future. It is a vital resource for Members of Federal and State parliaments, senior public servants, industry leaders, universities and the interested public.

"This book is a breakthrough, a lyrical, powerful, science-based narrative that actually shows us how to get better (much better) at the things we care about."—Seth Godin,

author of Linchpin "Anyone who wants to get better at anything should read [Peak]. Rest assured that the book is not mere theory. Ericsson's research focuses on the real world, and he explains in detail, with examples, how all of us can apply the principles of great performance in our work or in any other part of our lives."—Fortune Anders Ericsson has made a career studying chess champions, violin virtuosos, star athletes, and memory mavens. Peak distills three decades of myth-shattering research into a powerful learning strategy that is fundamentally different from the way people traditionally think about acquiring new abilities. Whether you want to stand out at work, improve your athletic or musical performance, or help your child achieve academic goals, Ericsson's revolutionary methods will show you how to improve at almost any skill that matters to you. "The science of excellence can be divided into two eras: before Ericsson and after Ericsson. His groundbreaking work, captured in this brilliantly useful book, provides us with a blueprint for achieving the most important and life-changing work possible: to become a little bit better each day."—Dan Coyle, author of The Talent Code "Ericsson's research has revolutionized how we think about human achievement. If everyone would take the lessons of this book to heart, it could truly change the world."—Joshua Foer, author of Moonwalking with Einstein The definitive introduction to the behavioral insights approach, which applies evidence about human behavior to practical problems. Our behavior is strongly influenced by factors that lie outside our conscious awareness, although we tend to underestimate

the power of this "automatic" side of our behavior. As a result, governments make ineffective policies, businesses create bad products, and individuals make unrealistic plans. In contrast, the behavioral insights approach applies evidence about actual human behavior—rather than assumptions about it—to practical problems. This volume in the MIT Press Essential Knowledge series, written by two leading experts in the field, offers an accessible introduction to behavioral insights, describing core features, origins, and practical examples. Since 2010, these insights have opened up new ways of addressing some of the biggest challenges faced by societies, changing the way that governments, businesses, and nonprofits work in the process. This book shows how the approach is grounded in a concern with practical problems, the use of evidence about human behavior to address those problems, and experimentation to evaluate the impact of the solutions. It gives an overview of the approach's origins in psychology and behavioral economics, its early adoption by the UK's pioneering "nudge unit," and its recent expansion into new areas. The book also provides examples from across different policy areas and guidance on how to run a behavioral insights project. Finally, the book outlines the limitations and ethical implications of the approach, and what the future holds for this fast-moving area.
• New York Times bestseller • The 100 most substantive solutions to reverse global warming, based on meticulous research by leading scientists and policymakers around the world "At this point in time, the Drawdown book is exactly what is needed; a

credible, conservative solution-by-solution narrative that we can do it. Reading it is an effective inoculation against the widespread perception of doom that humanity cannot and will not solve the climate crisis. Reported by-effects include increased determination and a sense of grounded hope." —Per Espen Stoknes, Author, What We Think About When We Try Not To Think About Global Warming "There's been no real way for ordinary people to get an understanding of what they can do and what impact it can have. There remains no single, comprehensive, reliable compendium of carbon-reduction solutions across sectors. At least until now. . . . The public is hungry for this kind of practical wisdom." —David Roberts, Vox "This is the ideal environmental sciences textbook—only it is too interesting and inspiring to be called a textbook." —Peter Kareiva, Director of the Institute of the Environment and Sustainability, UCLA In the face of widespread fear and apathy, an international coalition of researchers, professionals, and scientists have come together to offer a set of realistic and bold solutions to climate change. One hundred techniques and practices are described here—some are well known; some you may have never heard of. They range from clean energy to educating girls in lower-income countries to land use practices that pull carbon out of the air. The solutions exist, are economically viable, and communities throughout the world are currently enacting them with skill and determination. If deployed collectively on a global scale over the next thirty years, they represent a credible path forward, not just to slow the earth's warming but to reach drawdown, that

point in time when greenhouse gases in the atmosphere peak and begin to decline. These measures promise cascading benefits to human health, security, prosperity, and well-being—giving us every reason to see this planetary crisis as an opportunity to create a just and livable world.

Powerful ideas to transform hiring into a massive competitive advantage for your business Talent Makers: How the Best Organizations Win through Structured and Inclusive Hiring is essential reading for every leader who knows that hiring is crucial to their organization and wants to compete for top talent, diversify their organization, and build winning teams. Daniel Chait and Jon Stross, co-founders of Greenhouse Software, Inc, provide readers with a comprehensive and proven framework to improve hiring quickly, substantially, and measurably. Talent Makers will provide a step-by-step plan and actionable advice to help leaders assess their talent practice (or lack thereof) and transform hiring into a measurable competitive advantage. Readers will understand and employ: A proven system and principles for hiring used by the world's best companies Hiring practices that remove bias and result in more diverse teams An assessment of their hiring practice using the Hiring Maturity model Measurement of employee lifetime value in quantifiable terms, and how to increase that value through hiring The Talent Makers methodology is the result of the authors' experience and the ideas and stories from their community of more than 4,000 organizations. This is the book that CEOs, hiring managers, talent practitioners, and human resources leaders

must read to transform their hiring and propel their organization to new heights.
Harnessing Green ITPrinciples and PracticesJohn Wiley & Sons
Harnessing the Power of Viruses explores the application of scientific knowledge about viruses and their lives to solve practical challenges and further advance molecular sciences, medicine and agriculture. The book contains virus-based tools and approaches in the fields of: i) DNA manipulations in vitro and in vivo; ii) Protein expression and characterization; and iii) Virus- Host interactions as a platform for therapy and biocontrol are discussed. It steers away from traditional views of viruses and technology, focusing instead on viral molecules and molecular processes that enable science to better understand life and offer means for addressing complex biological phenomena that positively influence everyday life. The book is written at an intermediate level and is accessible to novices who are willing to acquire a basic level of understanding of key principles in molecular biology, but is also ideal for advanced readers interested in expanding their biological knowledge to include practical applications of molecular tools derived from viruses. Explores virus-based tools and approaches in DNA manipulation, protein expression and characterization and virus-host interactions Provides a dedicated focus on viral molecules and molecular processes that enable science to better understand life and address complex biological phenomena Includes an overview of modern technologies in biology that were developed using viral components/elements and knowledge about viral processes

As society continues to experience increases in technological innovations, various industries must rapidly adapt and learn to incorporate these advances. While there are benefits to implementing these technologies, the sociological aspects still need to be considered. Technology Adoption and Social Issues: Concepts, Methodologies, Tools, and Applications is an innovative reference source for the latest academic material on the various effects of technology adoption, implementation, and acceptance. Highlighting a range of topics, such as educational technology, globalization, and social structure, this multi-volume book is ideally designed for academicians, professionals, and researchers who are interested in the latest insights into technology adoption.
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