

Emerging Pervasive Information And Communication Technologies Pict Ethical Challenges Opportunities And Safeguards Law Governance And Technology Series

International statistical comparisons of nations have become commonplace in the contemporary landscape of education policy and social science. This book discusses the emergence of these international comparisons as a particular style of reasoning about education, society and science. By examining how international educational assessments have come to dominate much of contemporary policymaking concerning school system performance, the authors provide concrete case studies highlighting the preminent role of numbers in furthering neoliberal education reform. Demonstrating how numbers serve as 'rationales' to shape and fashion social issues, this text opens new avenues for thinking about institutional and epistemological factors that produce and shape educational policy, research and schooling in transnational contexts.

This book describes a new class of computing devices which are becoming omnipresent in every day life. They make information access and processing easily available for everyone from anywhere at any time. Mobility, wireless connectivity, di- versity, and ease-of-use are the magic keywords of Pervasive and Ubiquitous Computing. The book covers these front-end devices as well as their operating systems and the back-end infrastructure which integrate these pervasive components into a seamless IT world. A strong emphasis is placed on the underlying technologies and standards applied when building up pervasive solutions. These fundamental topics include commonly used terms such as XML, WAP, UMTS, GPRS, Bluetooth, Jini, transcoding, and cryptography, to mention just a few. Voice, Web Application Servers, Portals, Web Services, and Synchronized and Device Management are new in the second edition. Besides a comprehensive state-of-the-art description of the Pervasive Computing technology itself, this book gives an overview of today's real-life applications and accompanying service offerings. M-Commerce, e-Business, networked home, travel, and finance are exciting examples of applied Ubiquitous Computing.

"This book reports accounting and other information about business processes to assess performance. It discusses the impact of the IT revolution on the accounting function, and indicates the process of IT investment, its advantages and limitations. It is a revolutionary explanation of the purpose of IT investment and its role in organizations" --Provided by publisher.

Edward Snowden's leaks exposed fundamental differences in the ways Americans and Europeans approach the issues of privacy and intelligence gathering. Featuring commentary from leading commentators, scholars and practitioners from both sides of the Atlantic, the book documents and explains these differences, summarized in these terms: Europeans should 'grow up' and Americans should 'obey the law'. The book starts with a collection of chapters acknowledging that Snowden's revelations require us to rethink prevailing theories concerning privacy and intelligence gathering, explaining the differences and uncertainty regarding those aspects. An impressive range of experts reflect on the law and policy of the NSA-Affair, documenting its fundamentally transnational dimension, which is the real location of the transatlantic dialogue on privacy and intelligence gathering. The conclusive chapters explain the dramatic transatlantic differences that emerged from the NSA-Affair with a collection of comparative cultural commentary.

Concepts, Methodologies, Tools, and Applications

Delivering Pervasive, Real-time and Secure Services

Spotify Teardown

A Dangerous Master

The Application of Pervasive ICT

Supporting People with Dementia Using Pervasive Health Technologies

Pervasive Information Systems

Information technology is transforming the practices of medicine, nursing, and biomedical research. Computers can now render diagnoses and prognoses more accurately than humans. The concepts of privacy and confidentiality are evolving as data moves from paper to silicon to clouds. Big data promises financial wealth, as well as riches of information and benefits to science and public health. Online access and mobile apps provide patients with an unprecedented connection to their health and health records. This transformation is as unsettling as it is exhilarating. This unique new book is essential for anyone who uses computers in health care, biomedical research or public health, and cares about the ethical issues that arise in their work. With chapters spanning issues from professionalism and quality to mobile health and bioinformatics, it establishes what will become the 'core curriculum' in ethics and health informatics, a growing field which encourages truly inter- and multidisciplinary inquiry.

The rapid development of information communication technologies (ICTs) is having a profound impact across numerous aspects of social, economic, and cultural activity worldwide, and keeping pace with the associated effects, implications, opportunities, and pitfalls has been challenging to researchers in diverse realms ranging from education to competitive intelligence.

Big data, surveillance, crisis management. Three largely different and richly researched fields, however, the interplay amongst these three domains is rarely addressed. In this enlightening title, the link between these three fields is explored in a consequential order through a variety of contributions and series of unique and international case studies. Indeed, whilst considering crisis management as an "umbrella term" that covers a number of crises and ways of managing them, the reader will also explore the collection of "big data" by governmental crisis organisations. However, this volume also addresses the unintended consequences of using such data. In particular, through the lens of surveillance, one will also investigate how the use and abuse of big data can easily lead to monitoring and controlling the behaviour of people affected by crises. Thus, the reader will ultimately join the authors in their debate of how big data in crisis management needs to be examined as a political process involving questions of power and transparency. An enlightening and highly topical volume, Big Data, Surveillance and Crisis Management will appeal to postgraduate students and postdoctoral researchers interested in fields including Sociology and Surveillance Studies, Disaster and Crisis Management, Media Studies, Governmentality, Organisation Theory and Information Society Studies.

Artificial Intelligence to Solve Pervasive Internet of Things Issues discusses standards and technologies and wide-ranging technology areas and their applications and challenges, including discussions on architectures, frameworks, applications, best practices, methods and techniques required for integrating AI to resolve IoT issues. Chapters also provide step-by-step measures, practices and solutions to tackle vital decision-making and practical issues affecting IoT technology, including autonomous devices and computerized systems. Such issues range from adopting, mitigating, maintaining, modernizing and protecting AI and IoT infrastructure components such as scalability, sustainability, latency, system decentralization and maintainability. The book enables readers to explore, discover and implement new solutions for integrating AI to solve IoT issues. Resolving these issues will help readers address many real-world applications in areas such as scientific research, healthcare, defense, aeronautics, engineering, social media, and many others. Discusses intelligent techniques for the implementation of Artificial Intelligence in Internet of Things Prepared for researchers and specialists who are interested in the use and integration of IoT and Artificial Intelligence technologies

New Realities, Mobile Systems and Applications

The Mobile World

The Expertise of International Assessments

First International IFIP Workshop, WAC 2004, Berlin, Germany, October 18-19, 2004, Revised Selected Papers

Conflict Resolution and its Context

A Transatlantic Dialogue in the Shadow of the NSA-Affair

New Trends in Disruptive Technologies, Tech Ethics and Artificial Intelligence

"The co-author of Moral Machines explores accountability challenges related to a world shaped by such technological innovations as combat drones, 3-D printers and synthetic organisms to consider how people of the near future can be protected, "--Novelist.

Learn all about the major trends and future advancements in ICT! ICT Futures provides an insightful introduction to the major technology trends in Information and Communication Technologies (ICT), and to the economic, commercial and societal environment which is shaping them. The experienced author-team, consisting of experts from both industry and academia, addresses: The interaction between people and technology - how ICT affects every day social practices; the rise of social computing; how the way we interact with information and the devices we use are changing; and how trust can be assured over the Internet. The underlying ICT infrastructure - the semantic web and the semantic intranet; the real-time service-oriented infrastructure; the future optical network; self-managing networks and agents; P2P technologies; pervasiveness; mobility and wireless technology; and how all this infrastructure can be made secure. ICT technology and how it is affecting industries as diverse as health, finance, retail and law. The book covers a vast wealth of material, with a strong focus upon the impending changes to the way ICT operates.This reference is a valuable tool for people in managerial roles, CIOs, CTOs, business and technology strategists, and students undertaking technology MBAs, or technology modules in general MBAs. Professionals working in ICT will also find this book valuable.

The physicist Neils Bohr allegedly wrote that " Prediction is very difficult, especially about the future ". Many academics believe that serious scholars should never attempt to write about the future, but some awareness of the ways in which the future of e-government may evolve is needed if well-grounded long-term decisions about issues such as infrastructures, institutions and educational programs are to be made. In addition, future-oriented research is of the utmost importance for informed public debate about technological developments with far reaching societal implications. This book marks the 25th anniversary of the permanent study group on e-government of the European Group for Public Administration, and the papers here were first presented at their 2012 meeting in Bucharest, Romania. The invited authors were not asked for rigorous analyses based on systematic empirical research or deeply rooted in a theoretical framework; instead they were challenged to write thoughtful and measured, but provocative, essays about ICT and public administration in the coming decade. Their contributions are reflections on the nature of new and emerging technologies in the public sector and their impact on government and on democracy itself. The book is divided into three sections: the past and present as starting point for thinking about the future of e-government, imagining the future of government, and implications for research and practice. The many questions raised by developments in ICT for future public administration are presented in a clear and thought-provoking manner, and merit more debate. This volume represents a departure from the normal run of academic publications. It is intended both to provoke academics and administrators to think about questions which will affect all of our futures and to offer a range of creative ideas about how the opportunities presented by technology can be exploited to provide better government and governance.

This book presents state-of-the-art research on architectures, algorithms, protocols and applications in pervasive computing and networks With the widespread availability of wireless and mobile networking technologies and the expected convergence of ubiquitous computing with these emerging technologies in the near future, pervasive computing and networking research and applications are among the hot topics on the agenda of researchers working on the next generation of mobile communications and networks. This book provides a comprehensive guide to selected topics, both ongoing and emerging, in pervasive computing and networking. It contains contributions from high profile researchers and is edited by leading experts in this field. The main topics covered in the book include pervasive computing and systems, pervasive networking security, and pervasive networking and communication. Key Features: Discusses existing and emerging communications and computing models, design architectures, mobile and pervasive wireless applications, technology and research challenges in pervasive computing systems, networking and communications Provides detailed discussions of key research challenges and open research issues in the field of autonomic computing and networking Offers information on existing experimental studies including case studies, implementation test-beds in industry and academia Includes a set of PowerPoint slides for each chapter for instructors adopting it as a textbook Pervasive Computing and Networking will be an ideal reference for practitioners and researchers working in the areas of communication networking and pervasive computing and networking. It also serves as an excellent textbook for graduate and senior undergraduate courses in computer science, computer engineering, electrical engineering, software engineering, and information engineering and science.

Ethical Issues in an Age of Information and Communication Technology

Pervasive and Mobile Sensing and Computing for Healthcare

ICT Futures

Ethics, Medicine, and Information Technology

Technological and Social Issues

ICT, Public Administration and Democracy in the Coming Decade

Exploring Boundaries, Expanding Connections

The classical concept of organizations as solitary 'walled-in' actors with clear operational boundaries is increasingly being challenged. This volume examines why, examines the impact of these changes on organizations and offers conceptual and empirical insights.

We tell stories about who we are. Through telling these stories, we connect with others and affirm our own sense of self. Spaces, be they online or offline; private or public; physical, augmented or virtual; or of a hybrid nature, present the performative realms upon which our stories unfold. This volume focuses on how digital platforms support, enhance, or confine the networked self. Contributors examine a range of issues relating to storytelling, platforms, and the self, including the live-reporting of events, the curation of information, emerging modalities of journalism, collaboratively formed memories, and the instant historicification of the present.

This book contributes to illustrating the methodological and technological issues of data management in Pervasive Systems by using the DataBenc project as the running case study for a variety of research contributions: sensor data management, user-originated data operation and reasoning, multimedia data management, data analytics and reasoning for event detection and decision making, context modelling and control, automatic data and service tailoring for personalization and recommendation. The book is organized into the following main parts: i) multimedia information management; ii) sensor data streams and storage; iii) social networks as information sources; iv) context awareness and personalization. The case study is used throughout the book as a reference example.

The pervasive healthcare system focus towards achieving two specific goals: the availability of eHealth applications and medical information anywhere and anytime and the invisibility of computing. Furthermore, pervasive health system encompasses new types of sensing and communication of health information as well as new type of interactions among health providers and people, among patients, among patients and researchers and corporations. This book aims at promoting the discussion on current trends in technologies and concepts that help integrate health monitoring and healthcare more seamlessly to our everyday lives, regardless of space and time, but also present cutting edge perspectives and visions to highlight future development. The book presents not only the state of the art technologies and solutions to tackle the critical challenges faced by the building and development of the pervasive health system but also potential impact on society at social, medical and technological level.

Emerging Pervasive Information and Communication Technologies (PICT)

Intelligent Spaces

Education by the Numbers and the Making of Society

Pervasive Computing

From the Analysis of Behavioural Patterns to Efficient Decision-Making

Ubiquitous and Pervasive Commerce

Ethics and Technology

The future of gene editing in humans will involve the use of CRISPR. How we think about the combination of the scientific, ethical, and moral aspects of this technology is paramount to the success or failure of CRISPR in humans. Unfortunately, the current scientific discussion around CRISPR in humans has left ethics trailing behind due to the rapid pace of innovation. New modes of ethics and stakeholder participation are needed to keep pace with rapid scientific advances and provide the necessary policy and ethical frameworks necessary to help CRISPR flourish as an important health care tool to treat human disease. This requires intense interdisciplinary collaboration and discussion between scientists and philosophers, policymakers and legal scholars, and the public. Dr. Michael W. Nestor (a neuroscientist who actively uses CRISPR in pre-clinical research) and Professor Richard Wilson (a philosopher who focuses on anticipatory ethics) set out to develop a new ethical approach considering the use of CRISPR in human targeted therapies. The field of anticipatory ethics is uniquely poised to tackle questions in fast-evolving technical areas where the pace of innovation outstrips traditional philosophical approaches. Furthermore, because of its " anticipatory " nature, this type of analysis provides the opportunity to look ahead and into the future concerning potential uses of CRISPR in humans, uses that are not currently possible. Nestor and Wilson collaborate both scientifically and philosophically in this book to forecast potential outcomes as the scientific and medical community goes beyond using CRISPR to correct genes that underlie diseases where a single gene is involved. Instead, Nestor and Wilson envision CRISPR in complex, multigenic disorders with a specific focus on the use of CRISPR to edit genes involved in mental traits like IQ or other cognitive characteristics. They argue that the use of CRISPR to modify genes that are potentially important for mental traits represents a particular category for special consideration from scientists, policymakers, the public, and other stakeholders. Nestor and Wilson explain why using CRISPR to alter mental states is very different from treating a disease like cancer by combining the latest scientific advancements with anticipatory ethics and philosophical phenomenology. Their analysis considers the role that mental states play in personhood and the lived experience-as genes that can change mental/cognitive attributes like IQ have wide-ranging effects on the lived experience in ways that are categorically different from other attributes. This book was written to set a non-exhaustive framework for shared understanding and discussion across disciplines and appeal to scientists and non-scientists alike. This appeal is made inclusively, inviting all stakeholders to engage in active dialogue about the appropriate context for using CRISPR and other gene-editing technologies in humans. It provides policy analysis and recommendations for assuring the most inclusive, equitable, and ethically sound use of CRISPR in humans, concerning its positive potential to treat mental conditions like depression, schizophrenia, Alzheimer ' s disease, autism, and the potential to induce other cognitive enhancements.

In Crisis Vision, Torin Monahan explores how artists confront the racializing dimensions of contemporary surveillance. He focuses on artists ranging from Kai Wiedenhöfer, Paolo Cirio, and Hank Willis Thomas to Claudia Rankine and Dread Scott, who engage with what he calls crisis vision—the regimes of racializing surveillance that position black and brown bodies as targets for police and state violence. Many artists, Monahan contends, remain invested in frameworks that privilege transparency, universality, and individual responsibility in ways that often occlude racial difference. Other artists, however, disrupt crisis vision by confronting white supremacy and destabilizing hierarchies through the performance of opacity. Whether fostering a recognition of a shared responsibility and complicity for the violence of crisis vision or critiquing how vulnerable groups are constructed and treated globally, these artists emphasize ethical relations between strangers and ask viewers to question their own place within unjust social orders.

Intelligent Data Sensing and Processing for Health and Well-being Applications uniquely combines full exploration of the latest technologies for sensor-collected intelligence with detailed coverage of real-case applications for healthcare and well-being at home and in the workplace. Forward-thinking in its approach, the book presents concepts and technologies needed for the implementation of today's mobile, pervasive and ubiquitous systems, and for tomorrow ' s IoT and cyber-physical systems. Users will find a detailed overview of the fundamental concepts of gathering, processing and analyzing data from devices disseminated in the environment, as well as the latest proposals for collecting, processing and abstraction of data-sets. In addition, the book addresses algorithms, methods and technologies for diagnosis and informed decision-making for healthcare and well-being. Topics include emotional interface with ambient intelligence and emerging applications in detection and diagnosis of neurological diseases. Finally, the book explores the trends and challenges in an array of areas, such as applications for intelligent monitoring in the workplace for well-being, acquiring data traffic in cities to improve the assistance of first aiders, and applications for supporting the elderly at home. Examines the latest applications and future directions for mobile data sensing in an array of health and well-being scenarios Combines leading computing paradigms and technologies, development applications, empirical studies, and future trends in the multidisciplinary field of smart sensors, smart sensor networks, data analysis and machine intelligence methods Features an analysis of security, privacy and ethical issues in smart sensor health and well-being applications Equips readers interested in interdisciplinary projects in ubiquitous computing or pervasive computing and ambient intelligence with the latest trends and developments

"Herman Tavani has written an excellent introduction to the field of cyberethics. . . . We need a good book in cyberethics to deal with the present and prepare us for an uncertain future. Tavani's Ethics and Technology is such a book." --from the foreword by James Moor, Dartmouth College Is there privacy in a world of camera phones and wireless networking? Does technology threaten your civil liberties? How will bioinformatics and nanotechnology affect us? Should you worry about equity and access in a globalized economy? From privacy and security to free speech and intellectual property to globalization and outsourcing, the issues and controversies of the information age are serious, complex, and pervasive. In this new edition of his groundbreaking book, Herman Tavani introduces computer professionals to the emerging field of Cyberethics, the interdisciplinary field of study that addresses these new ethical issues from all perspectives: technical, social, and philosophical. Using fascinating real-world examples—including the latest court decisions in such cases as Verizon v. RIAA, MGM v. Grokster, Google versus the Bush Administration, and the Children's Online Pornography Act (CIPA) --as well as hypothetical scenarios, he shows you how to understand and analyze the practical, moral, and legal issues that impact your work and your life. Tavani discusses such cutting-edge areas as: * Globalization and outsourcing * Property rights and open source software * HIPAA (privacy laws) and surveillance * The Patriot Act and civil liberties * Bioinformatics and genomics research * Converging technologies--pervasive computing and nanocomputing * Children's online pornography laws Updating and expanding upon the previous edition, Ethics and Technology, Second Edition provides a much-needed ethical compass to help computer and non-computer professionals alike navigate the challenging waters of cyberspace. About the Author Herman T. Tavani is Professor of Philosophy at Rivier College and Co-Director of the International Society for Ethics and Information Technology (INSEIT). He is the author, editor, or co-editor of five books on ethical aspects of information technology. www.wiley.com/college/tavani

Intelligent Machines and the Transformation of Health Care

Implementing Pervasive Information and Communications Technologies

Intelligent Data Sensing and Processing for Health and Well-being Applications

11th International Conference on Current and Future Trends of Information and Communication Technologies in Healthcare

Pervasive Computing and Networking

Toward Permeable Boundaries of Organizations?

How to Keep Technology from Slipping Beyond Our Control

This Handbook aims to heighten our awareness of the unique and delicate interplay between 'Culture' and 'Society' in the age of globalization. With particular emphasis on the role of culture in the field of "non-traditional" security, and seeking to define what 'being secure' means in different contexts, this Handbook explores the emerging concept of cultural security, providing a platform for future debates in both academic and policy fields.

This book sets out a vision of pervasive IT through intelligent spaces and describes some of the progress that has been made towards its realisation. The context for intelligent spaces (or iSpaces) is the world where information and communication technology (ICT) disappears as it becomes embedded into physical objects and the spaces in which we live and work. The ultimate vision is that this embedded technology provides us with intelligent and contextually relevant support, augmenting our lives and our experience of the physical world in a benign and non-intrusive manner. The enormous advances in hardware, system design, and software that are being achieved enable this vision. In particular, the performance advances and cost reductions in hardware components - processors, memory, storage, and communications - are making it possible to embed intelligence and communications ability into lower cost objects. The Internet is a living experiment in building complex, distributed systems on a global scale. In software, there have been solid advances in creating systems that can deal with complexities on the scale required to interact with human activity, in limited domains at least. The ultimate vision is challenging, and there are many obstacles to its realisation.

An innovative investigation of the inner workings of Spotify that traces the transformation of audio files into streamed experience. Spotify provides a streaming service that has been welcomed as disrupting the world of music. Yet such disruption always comes at a price. Spotify Teardown contests the tired claim that digital culture thrives on disruption. Borrowing the notion of "teardown" from reverse-engineering processes, in this book a team of five researchers have playfully disassembled Spotify's product and the way it is commonly understood. Spotify has been hailed as the solution to illicit downloading, but it began as a partly illicit enterprise that grew out of the Swedish file-sharing community. Spotify was originally praised as an innovative digital platform but increasingly resembles a media company in need of regulation, raising questions about the ways in which such cultural content as songs, books, and films are now typically made available online. Spotify Teardown combines interviews, participant observations, and other analyses of Spotify's "front end" with experimental, covert investigations of its "back end." The authors engaged in a series of interventions, which include establishing a record label for research purposes, intercepting network traffic with packet sniffers, and web-scraping corporate materials. The authors' innovative digital methods earned them a stern letter from Spotify accusing them of violating its terms of use: the company later threatened their research funding. Thus, the book itself became an intervention into the ethics and legal frameworks of corporate behavior.

Across the world, most people are well aware of ordinary criminal harms to person and property. Often committed by the powerless and poor, these individualized crimes are catalogued in the statistics collected annually by the FBI and by similar agencies in other developed nations. In contrast, the more harmful and systemic forms of injury to person and property committed by powerful and wealthy individuals, groups, and national states are neither calculated by governmental agencies nor annually reported by the mass media. As a result, most citizens of the world are unaware of the routinized "crimes of the powerful", even though they are more likely to experience harms and injuries from these types of organized offenses than they are from the atomized offenses of the powerless. Research on the crimes of the powerful brings together several areas of criminological focus, involving organizational and institutional networks of powerful people that commit crimes against workers, marketplaces, taxpayers and political systems, as well as acts of torture, terrorism, and genocide. This international handbook offers a comprehensive, authoritative and structural synthesis of these interrelated topics of criminological concern. It also explains why the crimes of the powerful are so difficult to control. Edited by internationally acclaimed criminologist Gregg Barak, this book reflects the state of the art of scholarly research, covering all the key areas including corporate, global, environmental, and state crimes. The handbook is a perfect resource for students and researchers engaged with explaining and controlling the crimes of the powerful, domestically and internationally.

Work and Labour Relations in Global Platform Capitalism

12th International Conference on Emerging Ubiquitous Systems and Pervasive Networks

Artificial Intelligence to Solve Pervasive Internet of Things Issues

Inside the Black Box of Streaming Music

Handbook of Cultural Security

Proceedings of the 14th IMCL Conference

Philosophy and Engineering

This volume, the result of an ongoing bridge building effort among engineers and humanists, addresses a variety of philosophical, ethical, and policy issues emanating from engineering and technology. Interwoven through its chapters are two themes, often held in tension with one another: "Exploring Boundaries" and "Expanding Connections." "Expanding Connections" highlights contributions that look to philosophy for insight into some of the challenges engineers face in working with policy makers, lay designers, and other members of the public. It also speaks to reflections included in this volume on the connections between fact and value, reason and emotion, engineering practice and the social good, and, of course, between engineering and philosophy. "Exploring Boundaries" highlights contributions that focus on some type of demarcation. Public policy sets a boundary between what is regulated from what is not, academic disciplines delimit themselves by their subjects and methods of inquiry, and professions approach problems with unique goals and by using concepts and language in particular ways that create potential obstacles to collaboration with other fields. These and other forms of boundary setting are also addressed in this volume. Contributors explore these two themes in a variety of specific contexts, including engineering epistemology, engineers' social responsibilities, engineering and public policy-making, engineering innovation, and the affective dimensions of engineering work. The book also includes analyses of social and ethical issues with emerging technologies such as 3-D printing and its use in medical applications, as well as social robots. Initial versions of the invited papers included in this book were first presented at the 2014 meeting of the Forum on Philosophy, Engineering, and Technology (FPET), held at Virginia Tech in Blacksburg, Virginia, USA. The volume furthers FPET's intent of extending and developing the philosophy of engineering as an academic field, and encouraging conversation, promoting a sense of shared enterprise, and building community among philosophers and engineers across a diversity of cultural backgrounds and approaches to inquiry. Written for both scholars and practitioners, this book provides an in-depth review of the state-of-the-art practices and research opportunities in a new era where information technology resides in everyday objects from cars to clothes to shipping containers. Mobil Computing: Implementing Pervasive Information and Communication Technologies is designed to address some of the business and technical challenges of pervasive computing that encompass current and emerging technology standards, infrastructures and architectures, and innovative and high impact applications of mobile technologies in virtual enterprises. The various articles examine a host of issues including: the challenges and current solutions in mobile connectivity and coordination; management infrastructures; innovative architectures for fourth generation wireless and Ad-hoc networks; error-free frequency assignments for wireless communication; cost-effective wavelength assignments in optical communication networks; data and transaction modeling in a mobile environment, and bandwidth issues and data routing in mobile Ad-hoc networks.

Information and communication technologies can provide new paradigms in healthcare provision. In particular, new Pervasive Healthcare technologies can revolutionise the dynamics of healthcare, enabling people to remain at home for longer, at lower costs to health and welfare organisations. This book reveals how pervasive healthcare technologies can be designed in conjunction with users and carers, as well as exploring the application of novel methods and technologies.

Privacy and Power

Crisis Vision

Mobile Computing

Civic Engagement and Social Media

Data Management in Pervasive Systems

New Frontiers for Electronic Business

The DITTET Collection

Emerging Pervasive Information and Communication Technologies (PICT) Ethical Challenges, Opportunities and Safeguards Springer Science & Business Media

This book includes recent research on disruptive technologies, tech ethics, and artificial intelligence. Due to the important advances in technologies such as artificial intelligence, big data, the Internet of Things or bioinformatics produced in recent years, it is necessary to conduct a thorough review of current ethical patterns. One of the research fields that is in full expansion and with a broad future is technology ethics or tech ethics. Just a few years ago, this type of research was a small part, and they did not have too many technology researchers involved. At present, due to the explosion of new applications of artificial intelligence, their problems and their legal barriers have flourished innumerable initiatives, declarations, principles, guides and analyses focused on measuring the social impact of these systems and on the development of a more ethical technology. It is, therefore, a problem that needs to be addressed from an academic and multidisciplinary point of view, where experts in ethics and behavior work together with experts in new and disruptive technologies. The international conference Disruptive Technologies Tech Ethics and Artificial Intelligence (DITTET 2021) provides a forum to present and discuss the latest scientific and technical advances and their implications in the field of ethics. It also provides a forum for experts to present their latest research in disruptive technologies, promoting knowledge transfer. It provides a unique opportunity to bring together experts in different fields, academics and professionals to exchange their experience in the development and deployment of disruptive technologies, artificial intelligence and their ethical problems. DITTET intends to bring together researchers and developers from industry, humanities and academia to report on the latest scientific advances and the application of artificial intelligence as well as its ethical implications in fields as diverse as climate change, politics, economy or security in today's world. This book constitutes the refereed proceedings selected by an expert panel through a peer-review process. All these works will be presented by the experts in the different sessions organized at the DITTET congress to be held at the Pontifical University of Salamanca (Salamanca, Spain) on September 15, 26 and 17, 2021.

Natural disasters and cholera outbreaks. Ebola, SARS, and concerns over pandemic flu. HIV and AIDS. E. coli outbreaks from contaminated produce and fast foods. Threats of bioterrorism. Contamination of compounded drugs. Vaccination refusals and outbreaks of preventable diseases. These are just some of the headlines from the last 30-plus years highlighting the essential roles and responsibilities of public health, all of which come with ethical issues and the responsibilities they create. Public health has achieved extraordinary successes. And yet these successes also bring with them ethical tension. Not all public health successes are equally distributed in the population; extraordinary health disparities between rich and poor still exist. The most successful public health programs sometimes rely on policies that, while improving public health conditions, also limit individual rights. Public health practitioners and policymakers face these and other questions of ethics routinely in their work, and they must navigate their sometimes competing responsibilities to the health of the public with other important societal values such as privacy, autonomy, and prevailing cultural norms. This Oxford Handbook provides a sweeping and comprehensive review of the current state of public health ethics, addressing these and numerous other questions. Taking account of the wide range of topics under the umbrella of public health and the ethical issues raised by them, this volume is organized into fifteen sections. It begins with two sections that discuss the conceptual foundations, ethical tensions, and ethical frameworks of and for public health and how public health does its work. The thirteen sections that follow examine the application of public health ethics considerations and approaches across a broad range of public health topics. While chapters are organized into topical sections, each chapter is designed to serve as a standalone contribution. The book includes 73 chapters covering many topics from varying perspectives, a recognition of the diversity of the issues that define public health ethics in the U.S. and globally. This Handbook is an authoritative and indispensable guide to the state of public health ethics today.

This book constitutes the thoroughly refereed post-proceedings of the First International IFIP Workshop on Autonomic Communication, WAC 2004, held in Berlin, Germany in October 2004. The 18 revised full papers presented together with 2 invited papers and 3 panel summaries were carefully reviewed and selected from 45 submissions. The papers are organized in topical sections on network management; models and protocols; network composition; negotiation and deployment; immunity and resilience; and meaning, context, and situated behaviour.

Anticipatory Ethics and The Use of CRISPR in Humans

Autonomic Communication

Information Communication Technologies: Concepts, Methodologies, Tools, and Applications

Ethical Challenges, Opportunities and Safeguards

Race and the Cultural Production of Surveillance

Big Data, Surveillance and Crisis Management

The Oxford Handbook of Public Health Ethics

The Occupy movement and the Arab Spring have brought global attention to the potential of social media for empowering otherwise marginalized groups. This book addresses questions like what happens after the moment of protest and global visibility and whether social media can also help sustain civic engagement beyond protest.

This engaging and timely book provides an in-depth analysis of work and labour relations within global platform capitalism with a specific focus on digital platforms that organise labour processes, known as labour platforms. Well-respected contributors thoroughly examine both online and offline platforms, their distinct differences and the important roles they play for both large transnational companies and those with a smaller global reach.

At the core of this book is the interplay between technological and business innovation and social practice. Although the benefits of 50 years of rapid advances in digital telecommunications and computing technology have not benefited everyone equally, they have nevertheless transformed almost every aspect of the way we live. One area where technology has had a clear impact is in the way we conduct business. The rate of change that brings about modernity has been considerably strengthened by technological advances applied to product manufacturing, distribution, financing, and management, which arguably form the substrate for globalization and consumerism. It is thus no surprise that businesses closely monitor advances in technology and invest considerable resources in exploring possible new applications and market opportunities. Yet, consumers' acceptance of new ways of buying and selling depends as much on business and technology as on our society's culture and the culture of the material environment that defines our values, sensibilities, and thus our commitments. Moreover, the rate of technological innovation is such that to the consumer, technology implementation is fully opaque. Nonetheless, opportunities to carry out commerce in novel ways also introduce risk to established social structures, conventions, and institutions. In modernity, risk management is one of the core functions of society and to be successful in this, societies depend on their trust of experts. Experts take risks on behalf of society and are responsible for evaluating the full extent of a particular set of hazards including those associated with a particular technology.

This book studies how technological solutions can be used to alleviate the current state of legal systems, with their clogged up courtrooms and inefficient conflict resolution methods. It reviews the shortcomings and disadvantages of traditional and alternative conflict resolution methods and turns to Artificial Intelligence for problem-solving techniques and solutions. The book is divided into four parts. The first part presents a general and systematic analysis of the current state of the legal systems, identifying the main problems and their causes. It then moves on to present UM Court: a framework for testing and prototyping conflict resolution services. This framework was developed with the objective of using Artificial Intelligence techniques to build a service environment for conflict resolution. The third part of the book takes a step into the future by analyzing the use of Intelligent Environments in the support of conflict management and resolution. It describes the approach taken and the experiments performed in the Intelligent Systems Lab of the University of Minho. The final part of the book contains the conclusions and shows the potential advantages of the use of Intelligent Environments as a way to implement better conflict resolution procedures (virtual or real), in which all the participants have access to more and better information and are able to take better informed decisions.

Managing Information Communication Technology Investments in Successful Enterprises

A Networked Self and Platforms, Stories, Connections

The Routledge International Handbook of the Crimes of the Powerful

Political Participation Beyond Protest

This book provides a wide and deep perspective on the ethical issues raised by pervasive information and communication technology (PICT) – small, powerful, and often inexpensive Internet-connected computing devices and systems. It describes complex and unfamiliar technologies and their implications, including the transformative potential of augmented reality, the power of location-linked information, and the uses of "big data," and explains potential threats, including privacy invaded, security violated, and independence compromised, often through widespread and lucrative manipulation. PICT is changing how we live, providing entertainment, useful tools, and life-saving systems. But the very smartphones that connect us to each other and to unlimited knowledge also provide a stream of data to systems that can be used for targeted advertising or police surveillance. Paradoxically, PICT expands our personal horizons while weaving a web that may ensnare whole communities. Chapters describe particular cases of PICT gone wrong, but also highlight its general utility. Every chapter includes ethical analysis and guidance, both specific and general. Topics are as focused as the Stuxnet worm and as broad as the innumerable ways new technologies are transforming medical care. Written for a broad audience and suitable for classes in emerging technologies, the book is an example of anticipatory ethics – "ethical analysis aimed at influencing the development of new technologies" (Deborah Johnson 2010). The growth of PICT is outpacing the development of regulations and laws to protect individuals, organizations, and nations from unintended harm and malicious havoc. This book alerts users to some of the hazards of PICT; encourages designers, developers, and merchants of PICT to take seriously their ethical responsibilities – if only to "do no harm" – before their products go public; and introduces citizens and policy makers to challenges and opportunities that must not be ignored.