Minds Machines Ge

Original essays by world-leading researchers reveal Alan Turing's lasting contributions to modern research.

The two-volume set LNICST 169 and 170 constitutes the thoroughly refereed post-conference proceedings of the Second International Internet of Things Summit, IoT 360° 2015, held in Rome, Italy, in October 2015. The IoT 360° is an event bringing a 360 degree perspective on IoT-related projects in important sectors such as mobility, security, healthcare and urban spaces. The conference also aims to coach involved people on the whole path between research to innovation and the way through to commercialization in the IoT domain. This volume contains 62 revised full papers at the following four conferences: The International Conference on Safety and Security in Internet of Things, SaSeIoT, the International Conference on Smart Objects and Technologies for Social Good, GOODTECHS, the International Conference on Cloud, Networking for IoT systems, CN4IoT, and the International Conference on IoT Technologies for HealthCare, HealthyIoT.

The development of cognitive science is one of the most remarkable and fascinating intellectual achievements of the modern era. It brings together psychology, neuroscience, artificial intelligence, computing, philosophy, linguistics, and anthropology in the project of understanding the mind by modelling its workings. Oxford University Press now presents a masterful history of cognitive science, told by one of its most eminent practitioners.

This book includes a collection of standards-specific case studies. The case studies offer an opportunity to combine the teaching preferences of educators with the goals of the SEC (Standards Education Committee); providing students with "real-world" insight into the technical, political, and economic arenas of engineering. Encourages students to think critically about standards development and technology solutions Reinforces the usage of standards as an impetus for innovation Will help understand the dynamics and impacts of standards A curriculum guide is available to instructors who have adopted the book for a course. To obtain the guide, please send a request to: ieeeproposals@wiley.com.

The Legacy of Alan Turing, Volume 1

Simple Minds

Toward a Philosophy of Human-Technology Symbiosis

Interviews with Twenty Eminent Cognitive Scientists

Architectures for Cognition and Affect

An Introduction

Digital War

This tells the story of Douglas Engelbart's revolutionary vision, reaching beyond conventional histories of Silicon Valley to probe the ideology that shaped some of the basic ingredients of contemporary life.

This Guide provides an ambitious state-of-the-art survey of the fundamental themes, problems, arguments and theories constituting the philosophy of computing. A complete guide to the philosophy of computing and information. Comprises 26 newly-written chapters by leading international experts. Provides a complete, critical introduction to the field. Each chapter combines careful scholarship with an engaging writing style. Includes an exhaustive glossary of technical terms. Ideal as a course text, but also of interest to researchers and general readers.

In this book readers will find technological discussions on the existing and emerging technologies across the different stages of the big data value chain. They will learn about legal aspects of big data, the social impact, and about education needs and requirements. And they will discover the business perspective and how big data technology can be exploited to deliver value within different sectors of the economy. The book is structured in four parts: Part I "The Big Data Opportunity" explores the value potential of big data with a particular focus on the European context. It also describes the legal, business and social dimensions that need to be addressed, and briefly introduces the European Commission's BIG project. Part II "The Big Data Value Chain" details the complete big data lifecycle from a technical point of view, ranging from data acquisition, analysis, curation and storage, to data usage and exploitation. Next, Part III "Usage and Exploitation of Big Data" illustrates the value creation possibilities of big data applications in various sectors, including industry, healthcare, finance, energy, media and public services. Finally, Part IV "A Roadmap for Big Data Research" identifies and prioritizes the cross-sectorial requirements for big data research, and outlines the most urgent and challenging technological, economic, political and societal issues for big data in Europe. This compendium summarizes more than two years of work performed by a leading group of major European research centers and industries in the context of the BIG project. It brings together research findings, forecasts and estimates related to this challenging technological context that is becoming the major axis of the new digitally transformed business environment.

Traces the history of the computer from its beginnings in the nineteenth century to the present and describes the development of the computer industry

Mind as Machine

Case Studies at the Crossroads of Technology, Economics, and Politics

The Software Society

Connectionism and the Philosophy of Mind

Multiplicity and Interdisciplinarity

Philosophy, Mind, and Cognitive Inquiry

From Literature to Biterature is based on the premise that in the foreseeable future computers will become capable of creating works of literature. Among hundreds of other questions, it considers: Under which conditions would machines become capable of creative writing? Given that computer evolution will exceed the pace of natural evolution a million-fold, what will such a state of affairs entail in terms of art, culture, social life, and even nonhuman rights? Drawing a map of impending literary, cultural, social, and technological revolutions, Peter Swirski boldly assumes that computers will leap from mere syntax-driven processing to semantically rich understanding. He argues that acknowledging biterature as a species of literature will involve adopting the same range of attitudes to computer authors (computhors) as to human ones and that it will be necessary to approach them as agents with internal states and creative intentions. Ranging from the metafiction of Stanislaw Lem to the "Turing test" (familiar to scientists working in Artificial Intelligence and the philosophers of mind) to the evolutionary trends of culture and machines, Swirski's scenarios lay the groundwork for a new area of study on the cusp of literary futurology, evolutionary cognition, and philosophy of the future.

This is the first of two volumes of essays in commemoration of Alan Turing, whose pioneering work in the theory of artificial intelligence and computer science continues to be widely discussed today. A distinguished international cast of contributors focus on the three seminal ideas associated with his name: the Turing test, the Turing machine, and the Church-Turing thesis.

Within the past ten years, the discussion of the nature of folk psychology and its role in explaining behavior and thought has become central to the philosophy of mind. However, no comprehensive account of the contemporary debate or collection of the works that make up this debate has yet been available. Intending to fill this gap, this volume begins with the crucial background for the contemporary debate and proceeds with a broad range of responses to and developments of these works -- from those who argue that "folk theory" is a misnomer to those who regard folk theory as legitimately explanatory and necessary for any adequate account of human behavior. Intended for courses in the philosophy of mind, psychology, and science, as well as anthropology and social psychology, this anthology is also of great value in courses focusing on folk models, eliminative materialism, explanation, psychological theory, and -- in particular -- intentional psychology. It is accessible to both graduate students and upper-division undergraduate students of philosophy and psychology as well as researchers. As an aid to students, a thorough discussion of the field and the articles in the anthology is provided in the introduction; as an aid to researchers, a complete bibliography is also provided.

Specifically designed to make the philosophy of mind intelligible to those not trained in philosophy, this book provides a concise overview for students and researchers in the cognitive sciences. Emphasizing the relevance of philosophical work to investigations in other cognitive sciences, this unique text examines such issues as the meaning of language, the mind-body problem, the functionalist theories of cognition, and intentionality. As he explores the philosophical issues, Bechtel draws connections between philosophical views and theoretical and experimental work in such disciplines as cognitive psychology, artificial intelligence, linguistics, neuroscience, and anthropology.

Douglas Engelbart, Coevolution, and the Origins of Personal Computing

The Evolution of the Computer from Mainframes to Microprocessors

Internet of Things. IoT Infrastructures

Modern Standardization

Hot Seat

The Conscious Mind

Lem, Turing, Darwin, and Explorations in Computer Literature, Philosophy of Mind, and Cultural Evolution

Drawing on philosophy, neuroscience, and artificial intelligence, Simple Minds explores the construction of the mind from the matter of the brain.

This is a collection of eleven original essays in analytical philosophy by British and American philosophers, centring on the connection between mind and language. Two themes predominate: how it is that thoughts and sentences can represent the world; and what having a thought - a belief, for instance - involves. Developing from these themes are the questions: what does having a belief require of the believer, and of the way he or she relates to the environment? In particular, does having a belief require speaking a language? The volume concludes the informal series stemming from the meetings sponsored by the Thyssen Foundation. It will interest analytical philosophers, students doing courses in philosophy of mind within the analytical tradition and philosophically interested researchers in cognitive psychology.

A fascinating and candid memoir about successful leadership from the former CEO of General Electric, named one of the "World's Best CEOs" three times by Barron's, and the hard-won lessons he learned from his experience leading GE immediately after 9/11, through the devastating 2008–09 financial crisis, and into an increasingly globalized world. In September 2001, Jeff Immelt replaced the most famous CEO in history, Jack Welch, at the helm of General Electric. Less than a week into his tenure, the 9/11 terrorist attacks shook the nation, and the company, to its core. GE was connected to nearly every part of the tragedy—GE-financed planes powered by GE-manufactured engines had just destroyed real estate that was insured by GE-issued policies. Facing an unprecedented situation, Immelt knew his response would set the tone for businesses everywhere that looked to GE—one of America's biggest and most-heralded corporations—for direction. No pressure. Over the next sixteen years, Immelt would lead GE through many more dire moments, from the 2008–09 Global Financial Crisis to the 2011 meltdown of Fukushima's nuclear reactors, which were designed by GE. But Immelt's biggest challenge was inherited: Welch had handed over a company that had great people, but was short on innovation. Immelt set out to change GE's focus by making it more global, more rooted in technology, and more diverse. But the stock market rarely rewarded his efforts, and GE struggled. In Hot Seat, Immelt offers a rigorous and raw interrogation of himself and his tenure, detailing for the first time his proudest moments and his biggest mistakes. The most crucial component of leadership, he writes, is the willingness to make decisions. But knowing what to do is a thousand times easier than knowing when to do it. Perseverance, combined with clear communication, can ensure progress, if not perfection, he says. That won't protect any CEO from second-guessing, but Immelt explains how he's pushed through even the most withering criticism: by staying focused on his team and the goals they tried to achieve. As the business world continues to be rocked by stunning economic upheaval, Hot Seat "takes you into the office, head, and heart of the man who became CEO of GE on the eve of 9/11, and then led the iconic behemoth for sixteen fascinating, and often turbulent, years. A handbook on leadership—and life" (Stanley A. McChrystal, General, US Army [Retired], CEO and Founder, McChrystal Group).

Writing in a rigorous, thought-provoking style, the author takes us on a far-reaching tour through the philosophical ramifications of consciousness, offering provocative insights into the relationship between mind and brain.

The Future of the Artificial Mind

Folk Psychology and the Philosophy of Mind

A Dialogue

A Decision Model for Optimizing and Implementing Analytics

Bootstrapping

Machines and Thought

Philosophy of Mind

Minds, Machines and EvolutionCUP Archive

This series will include monographs and collections of studies devoted to the investigation and exploration of knowledge, information, and data-processing systems of all kinds, no matter whether human. (other) animal, or machine. Its scope is intended to span the full range of interests from classical problems in the philosophy of mind and philosophical psychology through issues in cognitive psychology and sociobiology (concerning the mental capabilities of other species) to ideas related to artificial intelligence and computer science. While primary emphasis will be placed upon theoretical, conceptual, and epistemological aspects of these problems and domains, empirical, experimental, and methodological studies will also appear from time to time. No problem within the field of cognitive inquiry is more difficult than that of developing an adequate conception of the nature of mind and of its mode of operation. Our purpose in compiling the present volume has been to contribute to the pursuit of this objective by bringing together a repre sentative cross-section of the principal approaches and the primary players who are engaged in contemporary debate on these crucial issues. The book begins with a comprehensive introduction composed by David Cole, the senior editor of this work, which provides a background for understanding the major problems and alternative solutions, and ends with a selected bibliography intended to promote further research. If our efforts assist others in dealing with these issues, they will have been worthwhile. J. H. F. David J. Cole et at. (eds.), Philosophy, Mind, and Cognitive Inquiry, ix.

Throughout human history, technological advancements have been made for the ease of human labor. With our most recent advancements, it has been the work of scholars to discover ways for machines to take over a large part of this labor and reduce human intervention. These advancements may become essential processes to nearly every industry. It is essential to be knowledgeable about automation so that it may be applied. Research Anthology on Cross-Disciplinary Designs and Applications of Automation is a comprehensive resource on the emerging designs and application of automation. This collection features a number of authors spanning multiple disciplines such as home automation, healthcare automation, government automation, and more. Covering topics such as human-machine interaction, trust calibration, and sensors, this research anthology is an excellent resource for technologists, IT specialists, computer engineers, systems and software engineers, manufacturers, engineers, government officials, professors, students, healthcare administration, managers, CEOs, researchers, and academicians.

The Reaching for Mind workshop, held at AISB 95, explicitly addressed itself to the current crisis in Cognitive Science. In particular, the issue of how this discipline can address consciousness was a leitmotiv in the workshop. The conclusion seems inescapable that there is a need for two sciences in this area. Cognitive Science can be freed to become a fully-fledged experimental epistemology by the creation of a science of consciousness also encompassing subjectivity. This exciting collection of papers indicates where both these sciences may be heading. (Series B)The programme committee of the workshop included: Mike Brady (Oxford); Daniel Dennett (Tufts); Jerry Feldman (Berkeley); John Macnamara (McGill) and Zenon Pylyshyn (Rutgers).

Decision Economics: Minds, Machines, and their Society

Resources for Understanding Mental Processes

A History of Cognitive Science

Mind, Man, and Machine

Language Mind and Logic

Mind, Machine and Morality

Security and Privacy Issues in Sensor Networks and IoT

The Future of the Artificial Mind is about the social and technological challenges posed by the new wave of artificial intelligence, both from a technical and a cognitive perspective. Deep neural networks have brought about tremendous technological improvements. This renaissance in artificial intelligence, after decades of stagnation, has enabled new technologies capable of surpassing human performance, as in the case of visual recognition. The book also considers some of the ethical and social challenges that the future development of artificial intelligence will face. Will humans fall in love with future android dolls? What will artificial sex be like? And what will it be like to travel in cars that will treat us as passengers instead of drivers? But predicting the future appears more magic than science. But when it comes to artificial intelligence, it is a constant temptation. Since it is well known that "the only way to get rid of a temptation is to enjoy it!", the hypothesis considered in the last chapter is that emerging trends point to a near future in which intelligence will be ubiquitous, but it will be difficult to identify its bearer. We may be heading towards an era of widespread intelligence, but an intelligence without accountability.

Sustainable production automation, as an effective way to enable and expedite transitions to sustainability and enhance resource utilizations, attracts substantial efforts from researchers in both academy and industry. This book presents the recent development of innovative algorithms, models, heuristics, hardware and software in broad areas of sustainable production systems. It focuses on design, analysis and management of the processes involved in the product life cycle (from design to delivery to return) to have the minimal negative impacts on society (including environmental, economic and social). The contributors are experts from both universities and industrial research centers.

Original essays written by philosophers and scientists and dealing with philosophical questions arising from work in evolutionary biology and artificial intelligence.

This series will include monographs and collections of studies devoted to the investigation and exploration of knowledge, information and data processing systems of all kinds, no matter whether human, (other) animal, or machine. Its scope is intended to span the full range of interests from classical problems in the philosophy of mind and philosophical psychology through issues in cognitive psychology and sociobiology (concerning the mental capabilities of other species) to ideas related to artificial intelligence and to computer science. While primary emphasis will be placed upon theoretical, conceptual and epistemological aspects of these problems and domains, empirical, experimental and methodological studies will also appear from time to time. One of the most, if not the most,

exciting developments within cognitive science has been the emergence of connectionism as an alternative to the computational conception of the mind that tends to dominate the discipline. In this volume, John Tienson and Terence Horgan have brought together a fine collection of stimulating studies on connectionism and its significance. As the Introduction explains, the most pressing questions concern whether or not connectionism can provide a new conception of the nature of mentality. By focusing on the similarities and differences between connectionism and other approaches to cognitive science, the chapters of this book supply valuable resources that advance our understanding of these difficult issues. J.H.F.

Second International Summit, IoT 360° 2015, Rome, Italy, October 27-29, 2015. Revised Selected Papers, Part I

On the Origin of Knowledge by Means of Natural Selection

An Overview for Cognitive Science

The Essential Role of Communication in a Volatile World

A Roadmap for Usage and Exploitation of Big Data in Europe

Two Sciences of Mind

Minds and Machines

Few developments in the intellectual life of the past quarter-century have provoked more controversy than the attempt to engineer human-like intelligence by artificial means. Born of computer science, this effort has sparked a continuing debate among the psychologists, neuroscientists, philosophers,and linguists who have pioneered--and criticized--artificial intelligence. Are there general principles, as some computer scientists had originally hoped, that would fully describe the activity of both animal and machine minds, just as aerodynamics accounts for the flight of birds and airplanes? In the twenty substantial interviews published here, leading researchers address this and other vexing questions in the field of cognitive science. The interviewees include Patricia Smith Churchland (Take It Apart and See How It Runs), Paul M. Churchland (Neural Networks and Commonsense), Aaron V. Cicourel (Cognition and Cultural Belief), Daniel C. Dennett (In Defense of AI), Hubert L. Dreyfus (Cognitivism Abandoned), Jerry A. Fodor (The Folly of Simulation), John Haugeland (Farewell to GOFAI?), George Lakoff (Embodied Minds and Meanings), James L. McClelland (Toward a Pragmatic Connectionism), Allen Newell (The Serial Imperative), Stephen E. Palmer (Gestalt Psychology Redux), Hilary Putnam (Against the New Associationism), David E. Rumelhart (From Searching to Seeing), John R. Searle (Ontology Is the Question), Terrence J. Sejnowski (The Hardware Really Matters), Herbert A. Simon (Technology Is Not the Problem), Joseph Weizenbaum (The Myth of the Last Metaphor), Robert Wilensky (Why Play the Philosophy Game?), Terry A.Winograd (Computers and Social Values), and Lotfi A. Zadeh (The Albatross of Classical Logic). Speaking Minds can complement more traditional textbooks but can also stand alone as an introduction to the field. Originally published in 1995. The Princeton Legacy Library uses the latest print-on-demand technology to again make available previously out-of-print books from the distinguished backlist of Princeton University Press. These editions preserve the original texts of these important books while presenting them in durable paperback and hardcover editions. The goal of the Princeton Legacy Library is to vastly increase access to the rich scholarly heritage found in the thousands of books published by Princeton University Press since its founding in 1905.

This book introduces the methods for predicting the future behavior of a system's health and the remaining useful life to determine an appropriate maintenance schedule. The authors introduce the history, industrial applications, algorithms, and benefits and challenges of PHM (Prognostics and Health Management) to help readers understand this highly interdisciplinary engineering approach that incorporates sensing technologies, physics of failure, machine learning, modern statistics, and reliability engineering. It is ideal for beginners because it introduces various prognostics algorithms and explains their attributes, pros and cons in terms of model definition, model parameter estimation, and ability to handle noise and bias in data, allowing readers to select the appropriate methods for their fields of application.Among the many topics discussed in-depth are:• Prognostics tutorials using least-squares• Bayesian inference and parameter estimation• Physics-based prognostics and algorithms including nonlinear least squares, Bayesian method, and particle filter• Data-driven prognostics algorithms including Gaussian process regression and neural network• Comparison of different prognostics algorithms divThe authors also present several applications of prognostics in practical engineering systems, including wear in a revolute joint, fatigue crack growth in a panel, prognostics using accelerated life test data, fatigue damage in bearings, and more. Prognostics tutorials with a Matlab code using simple examples are provided, along with a companion website that presents Matlab programs for different algorithms as well as measurement data. Each chapter contains a comprehensive set of exercise problems, some of which require Matlab programs, making this an ideal book for graduate students in mechanical, civil, aerospace, electrical, and industrial engineering and engineering mechanics, as well as researchers and maintenance engineers in the above fields.

This book is the result of a multi-year research project led and sponsored by the University of Chieti-Pescara, National Chengchi University, University of Salamanca, and Osaka University. It is the fifth volume to emerge from that international project, held under the aegis of the United Nations Academic Impact in 2020. All the essays in this volume were (virtually) discussed at the University of L'Aquila—as the venue of the 2nd International Conference on Decision Economics, a three-day global gathering of approximately one hundred scholars and practitioners—and were subjected to thorough peer review by leading experts in the field. The essays reflect the extent, diversity, and richness of several research areas, both normative and descriptive, and are an invaluable resource for graduate-level and PhD students, academics, researchers, policymakers and other professionals, especially in the social and cognitive sciences. Given its interdisciplinary scope, the book subsequently delivers new approaches on how to contribute to the future of economics, providing alternative explanations for various socio-economic issues such as computable humanities; cognitive, behavioural, and experimental perspectives in economics; data analysis and machine learning as well as research areas at the intersection of computer science, artificial intelligence, mathematics, and statistics; agent-based modelling and the related. The editors are grateful to the scientific committee for its continuous support throughout the research project as well as to the many participants for their insightful comments and always probing questions. In any case, the collaboration involved in the project extends far beyond the group of authors published in this volume and is reflected in the quality of the essays published over the years.

Technology is our conduit of power. In our modern world, technology is the gatekeeper deciding who shall have and who shall have not. Either technology works for you or you work for technology. It shapes the human race just as much as we shape it. But where is this symbiosis going? Who provides the directions, the intentions, the goals of this human-machine partnership? Such decisions do not derive from the creators of technology who are enmeshed in their individual innovations. They neither come from our social leaders who possess only sufficient technical understanding to react to innovations, not to anticipate or direct their progress. Neither is there evidence of some omnipotent 'invisible hand,' the simple fact is that no one is directing this enterprise. In Mind, Machine and Morality, Peter Hancock asks questions about this insensate progress and has the temerity to suggest some cognate answers. He argues for the unbreakable symbiosis of purpose and process, 'and examines the dangerous possibilities that emerge when science and purpose meet. Historically, this work is a modern-day child of Bacon's hope for the 'Great Instauration.' However, unlike its forebear, the focus here is on human-machine systems. The emphasis centers on the conception that the active, extensive face of modern philosophy is technology. Whatever we are to become is bound up not only in our biology but critically in our technology also. And to achieve rational progress we need to articulate manifest purpose. This book is one step along the purposive road. Drawing together his many seminal writings on human-machine interaction and adapting these works specifically for this collection, Peter Hancock provides real food for thought, delighting readers with his unique philosophical perspective and outstanding insights. This is theoretical work of the highest order and will open minds accordingly.

Cultural and Economic Impact

Philosophical Darwinism

In Search of a Fundamental Theory

New Horizons for a Data-Driven Economy

A Critical Introduction

From Literature to Biterature

Readings in Cognitive Science and Consciousness

"What is mind?" "Can we build synthetic or artificial minds?" Think these questions are only reserved for Science Fiction? Well, not anymore. This collection presents a diverse overview of where the development of artificial minds is as the twenty first century begins. Examined from nearly all viewpoints, Visions of Mind includes perspectives from philosophy, psychology, cognitive science, social studies and artificial intelligence. This collection comes largely as a result of many conferences and symposiums conducted by many of the leading minds on this topic. At the core is Professor Aaron Sloman's symposium from the spring 2000 UK Society for Artificial Intelligence conference. Authors from that symposium, as well as others from around the world have updated their perspectives and contributed to this powerful book. The result is a multi-disciplinary approach to the long term problem of designing a human-like mind, whether for scientific, social, or engineering purposes. The topics addressed within this text are valuable to both artificial intelligence and cognitive science, and also to the academic disciplines that they draw on and feed. Among those disciplines are philosophy, computer science, and psychology.

Explores the ideas of Turing, Lucas, Scriven, Putnam, and Searle, and presents the complex Godel-Church-Lucas argument. This title contains a section dealing with the problem of qualitative features of experience, such as color properties.

Philosophers have not taken the evolution of human beings seriously enough. If they did, argues Peter Munz, many long standing philosophical problems would be resolved. One of philosophical concequences of biology is that all the knowledge produced in evolution is a priori , i.e., established hypothetically by chance mutation and selective retention, not by observation and intelligent induction. For organisms as embodied theories, selection is natural and for theories as disembodied organisms, it is artificial. Following Popper, the growth of knowledge is seen to be continuous from the amoeba to Einstein'. Philosophical Darwinism throws a whole new light on many contemporary debates. It has damaging implications for cognitive science and artificial intelligence, and questions attempts from within biology to reduce mental events to neural processes. More importantly, it provides a rational postmodern alternative to what the author argues are the unreasonable postmodern fashions of Kuhn, Lyotard and Rorty.

Digital War offers a comprehensive overview of the impact of digital technologies upon the military, the media, the global public and the concept of ⊡warfare⊡ itself. This introductory textbook explores the range of uses of digital technology in contemporary warfare and conflict. The book begins with the 1991 Gulf War, which showcased post-Vietnam technological developments and established a new model of close military and media management. It explores how this model was reapplied in Kosovo (1999), Afghanistan (2001) and Iraq (2003), and how, with the Web 2.0 revolution, this informational control broke down. New digital technologies allowed anyone to be an informational producer leading to the emergence of a new mode of ⊡participative war⊡, as seen in Gaza, Iraq and Syria. The book examines major political events of recent times, such as 9/11 and the War on Terror and its aftermath. It also considers how technological developments such as unmanned drones and cyberwar have impacted upon global conflict and explores emerging technologies such as soldier-systems, exo-skeletons, robotics and artificial intelligence and their possible future impact. This book will be of much interest to students of war and media, security studies, political communication, new media, diplomacy and IR in general.

The Once and Future Turing

Essays in Honor of Eliano Pessa

Prognostics and Health Management of Engineering Systems

Engines of the Mind

AgExporter

What I Learned Leading a Great American Company

The Legacy of Alan Turing, Volume I

This is the first of two volumes of essays in commemoration of Alan Turing, whose pioneering work in the theory of artificial intelligence and computer science continues to be widely discussed today. A group of prominent academics from a wide range of disciplines focus on three questions famously raised by Turing: What, if any, are the limits on machine 'thinking'? Could a machine be genuinely intelligent? Might ourselves be biological machines, whose thought consists essentially in nothing more than the interaction of neurons according to strictly determined rules? The discussion of these fascinating issues is accessible to non-specialists and stimulating for all readers. Also available in paperback is the companion volume: Connectionism, Concepts, and Folk Psychology, edited by Andy Clark and Peter Millican. While Volume 1 concentrates on Turing's main innovations in artificial intelligence, Volume 2 looks more broadly at his intellectual legacy in philosophy and cognitive science.

The role of the chief communication officer (CCO) in today's enterprise has dramatically changed over the past 30 years. Once focused on getting news out to media outlets, today's CCO has become an integral part of any enterprise—company, corporation, governmental, and nongovernmental entity. Today's CCO is responsible for internal and external communication, with creating and implementing communication strategies that help mold enterprise mission, vision, value, and character, and with building enterprise reputation through stakeholder engagement. As a part of the "C-Suite," the CCO must understand not only the psychology and sociology of the business, but also the role that she has in informing the C-Suite and the chief executive officer what internal and external stakeholders are thinking and how this may affect corporate image in terms of credibility, confidence, trust, relationship, and reputation. In short, the new CCO must understand both the science and the art of communication and apply that knowledge to advancing her enterprise's goals and objectives through a faster and ever-larger-reaching set of media.

This book presents the human, cultural, and scientific contributions of professor Eliano Pessa, who recently passed away. His research interests and activities were varied, some of which included quantum physics, cognitive science and psychology, systems science, artificial intelligence, and alpinism. They were never disciplinary-separated issues, but rather some coherent dimensions of his interests in life. He lived and not only practiced interdisciplinarity and multiple dimensions; he considered it unacceptable to do only one thing in life. The contributors in this volume consider, discuss, interpret, and represent the multiplicity and interdisciplinarity experienced, lived and applied by Pessa. The chapters are inspired by, rebuild, and retrace such networked interests lived by him from the personal, cultural, and scientific points of view of the authors. This is true interdisciplinarity and usage of non-equivalences, honoring the richness of Pessa's contributions.

Software is driving most technology today, from PCs to mobile phones to thermostats. Software can evolve quickly, and that factor is driving an accelerating pace of change in technology. Software is also becoming more tightly connected to humans through advances in dealing with speech and human language, as well as being always available through mobile devices. As our connection to technology tightens, it drives rapid cultural evolution, in effect changing what it means to be human. Technological change driven by software also impacts our economy in basic ways, as computer technology drives more aspects of production, marketing, services, and sales. Software advances allow technology to do more tasks formerly requiring humans, creating efficienciesproductivity enhancementsthat can grow the economy. On the other hand, the rapid changes are affecting the economy at a pace that is overcoming human abilities to adapt to the job opportunities available and companies ability to adapt to rapid market changes. We are seeing today the impact of that fundamental economic change in persistent unemployment and in stress on some major companies that have historically been solid performers. The Software Society digs into these fundamental trends of softwares impact on our culture and our economy. It explains the trend to use computer intelligence to enhance our human intelligence and discusses its potential and limitations. The book digs into the economic risk caused by automation moving faster than peoples ability to adapt to the change, and suggests solutions to address this danger.

Speaking Minds

The Blackwell Guide to the Philosophy of Computing and Information

Research Anthology on Cross-Disciplinary Designs and Applications of Automation

Mind, Machines, and Human Consciousness

Visions of Mind

Minds, Machines and Evolution

Mind+Machine

As technology continues to expand and develop, the internet of things (IoT) is playing a progressive role in the infrastructure of electronics. The increasing amount of IoT devices, however, has led to the emergence of significant privacy and security challenges. Security and Privacy Issues in Sensor Networks and IoT is a collection of innovative research on the methods and applications of protection disputes in the internet of things and other computing structures. While highlighting topics that include cyber defense, digital forensics, and intrusion detection, this book is ideally designed for security analysts, IT specialists, software developers, computer engineers, industry professionals, academicians, students, and researchers seeking current research on defense concerns in cyber physical systems. Cut through information overload to make better decisions faster Success relies on making the correct decisions at the appropriate time, which is only possible if the decision maker has the necessary insights in a suitable format. Mind+Machine is the guide to getting the right insights in the right format at the right time to the right person. Designed to show decision makers how to get the most out of every level of data analytics, this book explores the extraordinary potential to be found in a model where human ingenuity and skill are supported with cutting-edge tools, including automations. The marriage of the perceptive power of the human brain with the benefits of automation is essential because mind or machine alone cannot handle the complexities of modern analytics. Only when the two come together with structure and purpose to solve a problem are goals achieved. With various stakeholders in data analytics having their own take on what is important, it can be challenging for a business leader to create such a structure. This book provides a blueprint for decision makers, helping them ask the right questions, understand the answers, and ensure an approach to analytics that properly supports organizational growth. Discover how to: Harness the power of insightful minds and the speed of analytics technology Understand the demands and claims of various analytics stakeholders Focus on the right data and automate the right processes · Navigate decisions with confidence in a fast-paced world The Mind+Machine model streamlines analytics workflows and refines the never-ending flood of incoming data into useful insights. Thus, Mind+Machine equips you to take on the big decisions and win.

Sustainable Production Automation

The New Era of the CCO