A Literature Review Of Artificial Intelligence Sam

This book presents a compilation of the most recent implementation of artificial intelligence methods for solving different problems generated by the COVID-19. The problems addressed came from different fields and not only from medicine. The information contained in the book explores different areas of machine and deep learning, advanced image processing, computational intelligence, IoT, robotics and automation, optimization, mathematical modeling, neural networks, information technology, big data, data processing, data mining, and likewise. Moreover, the chapters include the theory and methodologies used to provide an overview of applying these tools to the useful contribution to help to face the emerging disaster. The book is primarily intended for researchers, decision makers, practitioners, and readers interested in these subject matters. The book is useful also as rich case studies and project proposals for postgraduate courses in those specializations.

Master's Thesis from the year 2020 in the subject Computer Sciences - Artificial Intelligence, grade: 1,3, Friedrich-Alexander University Erlangen-Nuremberg (Wirtschaftsinformatik), language: English, abstract: The thesis aims to analyze this field of tension between the benefits and risks caused by the introduction of AI into recruiting based on a systematic analysis of academic publications. To the knowledge of the author, neither a literature review on ethical challenges of AI-based recruiting tools nor an overview addressing application fields and the resulting ethical risks has been published so far. Consequently, this thesis aims to close this research gap by disclosing how AI technologies affect the recruiting process and how ethical challenges arising from the implementation of AI-based tools are addressed in the

same publications. Consequently, research question (RQ) one (RQ1) and RQ two (RQ2) can be derived: Which AI technologies are applied in the field of recruiting, and how do they influence the recruiting process? Which major ethical challenges arise from the introduction of AI into recruiting, and how are these challenges addressed by the proposed AI-based tools? Addressing these two RQs, the remainder of this thesis is structured as follows. Chapter 2 classifies recruiting and its subprocesses as a part of Human Resources (HR), establishes a common understanding of AI and machine learning (ML) algorithms relevant in AI-based recruiting tools, and derives major ethical challenges with a focus on the ethical principles fairness and transparency. In chapter 3, the methodical approach used for identifying and selecting relevant literature is described. Chapter 4 answers both RQs, based on the AI-based recruiting tools included in the literature set. In turn, the first part of the analysis focuses on analyzing how the needs raised through traditional recruiting means are addressed by AI-based recruiting tools, also touching base on the underlying technologies. The second part addresses if and, where applicable, how these publications incorporate fairness and transparency. Subsequently, chapter 5 discusses the main findings of the analysis of the literature set and provides implications for theory and practice, followed by a brief conclusion and the outlining of limitations and future research fields in chapter 6.

This volume is based on the research papers presented in the 4th Computer Science On-line Conference. The volume Artificial Intelligence Perspectives and Applications presents new approaches and methods to real-world problems, and in particular, exploratory research that describes novel approaches in the field of artificial intelligence. Particular emphasis is laid on modern trends in selected fields of interest. New algorithms or methods in a variety of fields

are also presented. The Computer Science On-line Conference (CSOC 2015) is intended to provide an international forum for discussions on the latest high-quality research results in all areas related to Computer Science. The addressed topics are the theoretical aspects and applications of Computer Science, Artificial Intelligences, Cybernetics, Automation Control Theory and Software Engineering.

Scientists have been perfecting artificial eyes for several centuries. From the most basic versions where artificial eyes were painted and worn over the eyelid, to todays versions that make it virtually impossible to tell a person has lost their eye. Correlates with STEM instruction. Includes glossary, websites, and bibliography for further reading. Correlations available on publisher's website.

The volume is a collection of high-quality peer-reviewed research papers presented in the International Conference on Artificial Intelligence and Evolutionary Computation in Engineering Systems (ICAIECES 2016) held at SRM University, Chennai, Tamilnadu, India. This conference is an international forum for industry professionals and researchers to deliberate and state their research findings, discuss the latest advancements and explore the future directions in the emerging areas of engineering and technology. The book presents original work and novel ideas, information, techniques and applications in the field of communication, computing and power technologies.

Awarded a 2014 Science Fiction and Technoculture Studies Prize Honourable Mention. This book explores the creation and use of artificially made humanoid servants and servant networks by fictional and non-fictional scientists of the early modern period. Beginning with an investigation of the roots of artificial servants, humanoids, and automata from earlier times,

LaGrandeur traces how these literary representations coincide with a surging interest in automata and experimentation, and how they blend with the magical science that preceded the empirical era. In the instances that this book considers, the idea of the artificial factotum is connected with an emotional paradox: the joy of self-enhancement is counterpoised with the anxiety of self-displacement that comes with distribution of agency.In this way, the older accounts of creating artificial slaves are accounts of modernity in the making—a modernity characterized by the project of extending the self and its powers, in which the vision of the extended self is fundamentally inseparable from the vision of an attenuated self. This book discusses the idea that fictional, artificial servants embody at once the ambitions of the scientific wizards who make them and society's perception of the dangers of those ambitions, and represent the cultural fears triggered by independent, experimental thinkers—the type of thinkers from whom our modern cyberneticists descend.

This book reports on the results of the third edition of the premier conference in the field of philosophy of artificial intelligence, PT-AI 2017, held on November 4 - 5, 2017 at the University of Leeds, UK. It covers: advanced knowledge on key AI concepts, including complexity, computation, creativity, embodiment, representation and superintelligence; cutting-edge ethical issues, such as the AI impact on human dignity and society, responsibilities and rights of machines, as well as AI threats to humanity and AI safety; and cutting-edge developments in techniques to achieve AI, including machine learning, neural networks, dynamical systems. The book also discusses important applications of AI, including big data analytics, expert systems, cognitive architectures, and robotics. It offers a timely, yet very comprehensive snapshot of what is going on in the field of AI, especially at the interfaces between philosophy,

cognitive science, ethics and computing.

A social robot is a robot that interacts and communicates with humans or other autonomous physical agents by following social behaviors and rules attached to its role. We seem to accept the use of robots that perform dull, dirty, and dangerous jobs. But how far do we want to go with the automation of care for children and the elderly, or the killin

A provocative attempt to think about what was previously considered unthinkable: a serious philosophical case for the rights of robots. We are in the midst of a robot invasion, as devices of different configurations and capabilities slowly but surely come to take up increasingly important positions in everyday social reality—self-driving vehicles, recommendation algorithms, machine learning decision making systems, and social robots of various forms and functions. Although considerable attention has already been devoted to the subject of robots and responsibility, the question concerning the social status of these artifacts has been largely overlooked. In this book, David Gunkel offers a provocative attempt to think about what has been previously regarded as unthinkable: whether and to what extent robots and other technological artifacts of our own making can and should have any claim to moral and legal standing. In his analysis, Gunkel invokes the philosophical distinction (developed by David

Hume) between “is” and “ought” in order to evaluate and analyze the different arguments regarding the question of robot rights. In the course of his examination, Gunkel finds that none of the existing positions or proposals hold up under scrutiny. In response to this, he then offers an innovative alternative proposal that effectively flips the script on the is/ought problem by introducing another, altogether different way to conceptualize the social situation of robots and the opportunities and challenges they present to existing moral and legal systems.

With the emergence of smart technology and automated systems in today’s world, artificial intelligence (AI) is being incorporated into an array of professions. The aviation and aerospace industry, specifically, is a field that has seen the successful implementation of early stages of automation in daily flight operations through flight management systems and autopilot. However, the effectiveness of aviation systems and the provision of flight safety still depend primarily upon the reliability of aviation specialists and human decision making. The Handbook of Research on Artificial Intelligence Applications in the Aviation and Aerospace Industries is a pivotal reference source that explores best practices for AI implementation in aviation to enhance security and the ability to learn, improve, and predict. While highlighting topics such as computer-aided design, automated

systems, and human factors, this publication explores the enhancement of global aviation security as well as the methods of modern information systems in the aeronautics industry. This book is ideally designed for pilots, scientists, engineers, aviation operators, air crash investigators, teachers, academicians, researchers, and students seeking current research on the application of AI in the field of aviation.

A concise but informative overview of AI ethics and policy. Artificial intelligence, or AI for short, has generated a staggering amount of hype in the past several years. Is it the game-changer it's been cracked up to be? If so, how is it changing the game? How is it likely to affect us as customers, tenants, aspiring home-owners, students, educators, patients, clients, prison inmates, members of ethnic and sexual minorities, voters in liberal democracies? This book offers a concise overview of moral, political, legal and economic implications of AI. It covers the basics of AI's latest permutation, machine learning, and considers issues including transparency, bias, liability, privacy, and regulation.

As industries are rapidly being digitalized and information is being more heavily stored and transmitted online, the security of information has become a top priority in securing the use of online networks as a safe and effective platform. With the vast and diverse potential of artificial intelligence (AI) applications, it has

become easier than ever to identify cyber vulnerabilities, potential threats, and the identification of solutions to these unique problems. The latest tools and technologies for AI applications have untapped potential that conventional systems and human security systems cannot meet, leading AI to be a frontrunner in the fight against malware, cyber-attacks, and various security issues. However, even with the tremendous progress AI has made within the sphere of security, it's important to understand the impacts, implications, and critical issues and challenges of AI applications along with the many benefits and emerging trends in this essential field of security-based research. Research Anthology on Artificial Intelligence Applications in Security seeks to address the fundamental advancements and technologies being used in AI applications for the security of digital data and information. The included chapters cover a wide range of topics related to AI in security stemming from the development and design of these applications, the latest tools and technologies, as well as the utilization of AI and what challenges and impacts have been discovered along the way. This resource work is a critical exploration of the latest research on security and an overview of how AI has impacted the field and will continue to advance as an essential tool for security, safety, and privacy online. This book is ideally intended for cyber security analysts, computer engineers, IT specialists, practitioners, stakeholders,

researchers, academicians, and students interested in AI applications in the realm of security research.

Prominent experts from science and the humanities explore issues in robot ethics that range from sex to war. Robots today serve in many roles, from entertainer to educator to executioner. As robotics technology advances, ethical concerns become more pressing: Should robots be programmed to follow a code of ethics, if this is even possible? Are there risks in forming emotional bonds with robots? How might society—and ethics—change with robotics? This volume is the first book to bring together prominent scholars and experts from both science and the humanities to explore these and other questions in this emerging field. Starting with an overview of the issues and relevant ethical theories, the topics flow naturally from the possibility of programming robot ethics to the ethical use of military robots in war to legal and policy questions, including liability and privacy concerns. The contributors then turn to human-robot emotional relationships, examining the ethical implications of robots as sexual partners, caregivers, and servants. Finally, they explore the possibility that robots, whether biological-computational hybrids or pure machines, should be given rights or moral consideration. Ethics is often slow to catch up with technological developments. This authoritative and accessible volume fills a gap in both scholarly literature

and policy discussion, offering an impressive collection of expert analyses of the most crucial topics in this increasingly important field.

Artificial Intelligence in Recruiting. A Literature Review on Artificial Intelligence Technologies, Ethical Implications and the Resulting Chances and RisksGRIN Verlag

Advances in artificial intelligence (AI) highlight the potential of this technology to affect productivity, growth, inequality, market power, innovation, and employment. This volume seeks to set the agenda for economic research on the impact of AI. It covers four broad themes: AI as a general purpose technology; the relationships between AI, growth, jobs, and inequality; regulatory responses to changes brought on by AI; and the effects of AI on the way economic research is conducted. It explores the economic influence of machine learning, the branch of computational statistics that has driven much of the recent excitement around AI, as well as the economic impact of robotics and automation and the potential economic consequences of a still-hypothetical artificial general intelligence. The volume provides frameworks for understanding the economic impact of AI and identifies a number of open research questions. Contributors: Daron Acemoglu, Massachusetts Institute of Technology Philippe Aghion, Collège de France Ajay Agrawal, University of Toronto Susan Athey, Stanford University James Bessen, Boston University School of Law Erik Brynjolfsson, MIT Sloan School of Management Colin F. Camerer, California Institute of Technology

Judith Chevalier, Yale School of Management Iain M. Cockburn, Boston University Tyler Cowen, George Mason University Jason Furman, Harvard Kennedy School Patrick Francois, University of British Columbia Alberto Galasso, University of Toronto Joshua Gans, University of Toronto Avi Goldfarb, University of Toronto Austan Goolsbee, University of Chicago Booth School of Business Rebecca Henderson, Harvard Business School Ginger Zhe Jin, University of Maryland Benjamin F. Jones, Northwestern University Charles I. Jones, Stanford University Daniel Kahneman, Princeton University Anton Korinek, Johns Hopkins University Mara Lederman, University of Toronto Hong Luo, Harvard Business School John McHale, National University of Ireland Paul R. Milgrom, Stanford University Matthew Mitchell, University of Toronto Alexander Oettl, Georgia Institute of Technology Andrea Prat, Columbia Business School Manav Raj, New York University Pascual Restrepo, Boston University Daniel Rock, MIT Sloan School of Management Jeffrey D. Sachs, Columbia University Robert Seamans, New York University Scott Stern, MIT Sloan School of Management Betsey Stevenson, University of Michigan Joseph E. Stiglitz. Columbia University Chad Syverson, University of Chicago Booth School of Business Matt Taddy, University of Chicago Booth School of Business Steven Tadelis, University of California, Berkeley Manuel Trajtenberg, Tel Aviv University Daniel Trefler, University of Toronto Catherine Tucker, MIT Sloan School of Management Hal Varian, University of California, Berkeley ?This book provides the reader with the most up-to-date knowledge of blockchain in

mainstream areas of security, trust, and privacy in the decentralized domain, which is timely and essential (this is due to the fact that the distributed and P2P applications is increasing day-by-day, and the attackers adopt new mechanisms to threaten the security and privacy of the users in those environments). This book also provides the technical information regarding blockchain-oriented software, applications, and tools required for the researcher and developer experts in both computing and software engineering to provide solutions and automated systems against current security, trust and privacy issues in the cyberspace. Cybersecurity, trust and privacy (CTP) are pressing needs for governments, businesses, and individuals, receiving the utmost priority for enforcement and improvement in almost any societies around the globe. Rapid advances, on the other hand, are being made in emerging blockchain technology with broadly diverse applications that promise to better meet business and individual needs. Blockchain as a promising infrastructural technology seems to have the potential to be leveraged in different aspects of cybersecurity promoting decentralized cyberinfrastructure. Blockchain characteristics such as decentralization, verifiability and immutability may revolve current cybersecurity mechanisms for ensuring the authenticity, reliability, and integrity of data. Almost any article on the blockchain points out that the cybersecurity (and its derivatives) could be revitalized if it is supported by blockchain technology. Yet, little is known about factors related to decisions to adopt this technology, and how it can systemically be put into use to remedy current CTP's

issues in the digital world. Topics of interest for this book include but not limited to: Blockchain-based authentication, authorization and accounting mechanisms Applications of blockchain technologies in digital forensic and threat hunting Blockchain-based threat intelligence and threat analytics techniques Formal specification of smart contracts Automated tools for outsmarting smart contracts Security and privacy aspects of blockchain technologies Vulnerabilities of smart contracts Blockchain for securing cyber infrastructure and internet of things networks Blockchain-based cybersecurity education systems This book provides information for security and privacy experts in all the areas of blockchain, cryptocurrency, cybersecurity, forensics, smart contracts, computer systems, computer networks, software engineering, applied artificial intelligence for computer security experts, big data analysts, and decentralized systems. Researchers, scientists and advanced level students working in computer systems, computer networks, artificial intelligence, big data will find this book useful as well.

These Guidelines are designed both for general users of patent information, as well as for those involved in producing Patent Landscape Reports (PLRs). They provide step-by-step instructions on how to prepare a PLR, as well as background information such as objectives, patent analytics, concepts and frameworks.

This book constitutes the refereed proceedings of the 21st IFIP WG 5.5 Working Conference on Virtual Enterprises, PRO-VE 2020, held in Valencia, Spain, in

November 2020. The conference was held virtually. The 53 full papers were carefully reviewed and selected from 135 submissions. They provide a comprehensive overview of major challenges and recent advances in various domains related to the digital transformation and collaborative networks and their applications with a strong focus on the following areas related to the main theme of the conference: collaborative business ecosystems; collaborative business models; collaboration platform; data and knowledge services; blockchain and knowledge graphs; maintenance, compliance and liability; digital transformation; skills for organizations of the future; collaboration in open innovation; collaboration in supply chain; simulation and analysis in collaborative systems; product and service systems; collaboration impacts; boosting sustainability through collaboration in Agri-food 4.0; digital innovation hubs for digitalizing European industry; and collaborative networks for health and wellness data management.

For decades, optimization methods such as Fuzzy Logic, Artificial Neural Networks, Firefly, Simulated annealing, and Tabu search, have been capable of handling and tackling a wide range of real-world application problems in society and nature. Analysts have turned to these problem-solving techniques in the event during natural disasters and chaotic systems research. The Handbook of Research on Artificial Intelligence Techniques and Algorithms highlights the cutting edge developments in this promising research area. This premier reference work applies Meta-heuristics Optimization (MO) Techniques to real world problems in a variety of fields including business, logistics,

computer science, engineering, and government. This work is particularly relevant to researchers, scientists, decision-makers, managers, and practitioners.

The Great Lakes Basin in North America holds more than 20 percent of the world's fresh water. Threats to habitats and biodiversity have economic, political, national security, and cultural implications and ramifications that cross the US-Canadian border. This multidisciplinary book presents the latest research to demonstrate the interconnected nature of the challenges facing the Basin. Chapters by U.S. and Canadian scholars and practitioners represent a wide range of natural science and social science fields, including environmental sciences, geography, political science, natural resources, mass communications, environmental history and communication, public health, and economics. The book covers threats from invasive species, industrial development, climate change, agricultural and chemical runoff, species extinction, habitat restoration, environmental disease, indigenous conservation efforts, citizen engagement, environmental regulation, and pollution.Overall the book provides political, cultural, economic, scientific, and social contexts for recognizing and addressing the environmental challenges faced by the Great Lakes Basin.

Technology-focused acquisitions are an important complement to the firm’s internal product development efforts. There is considerable heterogeneity when comparing individual technology-focused acquisitions – especially with respect to acquisition timing and the deal value. To resolve some of this heterogeneity the author introduces the

novel distinction between performance- and functionality-focused acquisitions. He characterizes this distinction based on a theoretical analysis, a qualitative study, and turns to a sample of acquisitions in the field of artificial intelligence for the quantitative study. There are two key findings. First, performance-focused acquisitions take place earlier in a target's life cycle than functionality-focused ones. Second, the deal value is – at a comparable stage in a target's life cycle – higher for performance-focused acquisitions. This thesis is relevant for management scholars and managers alike: Scholars learn about the implications of the distinction between performance- and functionality-focused acquisitions on markets for technology. Managers gain insights into how this distinction may guide their strategic decision making.

The contemporary world lives on the data produced at an unprecedented speed through social networks and the internet of things (IoT). Data has been called the new global currency, and its rise is transforming entire industries, providing a wealth of opportunities. Applied data science research is necessary to derive useful information from big data for the effective and efficient utilization to solve real-world problems. A broad analytical set allied with strong business logic is fundamental in today's corporations. Organizations work to obtain competitive advantage by analyzing the data produced within and outside their organizational limits to support their decision-making processes. This book aims to provide an overview of the concepts, tools, and techniques behind the fields of data science and artificial intelligence (AI) applied to business and industries. The Handbook of Research on Applied Data Science and Artificial Intelligence in Business and Industry discusses all stages of data science to AI and their application to real

problems across industries—from science and engineering to academia and commerce. This book brings together practice and science to build successful data solutions, showing how to uncover hidden patterns and leverage them to improve all aspects of business performance by making sense of data from both web and offline environments. Covering topics including applied AI, consumer behavior analytics, and machine learning, this text is essential for data scientists, IT specialists, managers, executives, software and computer engineers, researchers, practitioners, academicians, and students.

Through expanded intelligence, the use of robotics has fundamentally transformed a variety of fields, including manufacturing, aerospace, medicine, social services, and agriculture. Continued research on robotic design is critical to solving various dynamic obstacles individuals, enterprises, and humanity at large face on a daily basis. Robotic Systems: Concepts, Methodologies, Tools, and Applications is a vital reference source that delves into the current issues, methodologies, and trends relating to advanced robotic technology in the modern world. Highlighting a range of topics such as mechatronics, cybernetics, and human-computer interaction, this multi-volume book is ideally designed for robotics engineers, mechanical engineers, robotics technicians, operators, software engineers, designers, programmers, industry professionals, researchers, students, academicians, and computer practitioners seeking current research on developing innovative ideas for intelligent and autonomous robotics systems.

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

This book constitutes the refereed proceedings of the 8th International Conference on Neural Networks and Artificial Intelligence, ICNNAI 2014, held in Brest, Belarus, in June 2014. The 19 revised full papers presented were carefully reviewed and selected from 27 submissions. The papers are organized in topical sections on forest resource management; artificial intelligence by neural networks; optimization; classification; fuzzy approach; machine intelligence;

analytical approach; mobile robot; real world application.

In the context of Smart Government research, it is promised that the application Artificial Intelligence (AI) will disrupt and reinvent the way public services are created and delivered. While there is research that examines the theoretical capabilities of artificially intelligent technologies and discusses possible challenges to their implementation, there is yet no empirical research on the current state of practice. To close this gap, this paper has the aim to provide a review of cases which document AI-enabled Public Service Delivery Model Innovations (PSDMI) that are already in practice. In order to fulfill this aim, the research began with a comprehensive conceptual analysis that resulted in establishing PSDMI as an independent unit of analysis. Then, based on a systematic literature review, 31 cases of AI-enabled PSDMI were found and analyzed. The main findings of this study are an overview of the types of PSDMI that have been enabled by implementing artificially intelligent technologies, and the identification of eight policy areas in which AI is currently transforming public service delivery. From this research, it is concluded that there is still a long way to go before the promise of radical and disruptive public service delivery model innovations can be fulfilled.

Is human creativity a wall that AI can never scale? Many people are happy to admit that experts in many domains can be matched by either knowledge-based or sub-symbolic systems, but even some AI researchers harbor the hope that when it comes to feats of sheer brilliance, mind over machine is an unalterable fact. In this book, the authors push AI toward a time when machines can autonomously write not just humdrum stories of the sort seen for years in AI, but first-rate fiction thought to be the province of human genius. It reports on five years of effort devoted to building a story generator--the BRUTUS.1 system. This book was

written for three general reasons. The first theoretical reason for investing time, money, and talent in the quest for a truly creative machine is to work toward an answer to the question of whether we ourselves are machines. The second theoretical reason is to silence those who believe that logic is forever closed off from the emotional world of creativity. The practical rationale for this endeavor, and the third reason, is that machines able to work alongside humans in arenas calling for creativity will have incalculable worth.

Artificial intelligence has entered into the sphere of creativity and ingenuity. Recent headlines refer to paintings produced by machines, music performed or composed by algorithms or drugs discovered by computer programs. This paper discusses the possible implications of the development and adoption of this new technology in the intellectual property framework and presents the opinions expressed by practitioners and legal scholars in recent publications. The literature review, although not intended to be exhaustive, reveals a series of questions that call for further reflection. These concern the protection of artificial intelligence by intellectual property, the use of data to feed algorithms, the protection of the results generated by intelligent machines as well as the relationship between ethical requirements of transparency and explainability and the interests of rights holders. This report is based on a background paper to the JRC report "Artificial Intelligence: A European perspective" (2018).

Leveraging the knowledge gained from Knowledge Management and from the growing fields of Analytics and Artificial Intelligence (AI), this Research Agenda highlights the research gaps, issues, applications, challenges and opportunities related to Knowledge Management (KM). Exploring synergies between KM and emerging technologies, leading international scholars and practitioners examine KM from a multidisciplinary perspective, demonstrating the ways in

which knowledge sharing worldwide can be enhanced in order to better society and improve organisational performance.

Processing information and analyzing data efficiently and effectively is crucial for any company that wishes to stay competitive in its respective market. Nonlinear data presents new challenges to organizations, however, due to its complexity and unpredictability. The only technology that can properly handle this form of data is artificial neural networks. These modeling systems present a high level of benefits in analyzing complex data in a proficient manner, yet considerable research on the specific applications of these intelligent components is significantly deficient. Applications of Artificial Neural Networks for Nonlinear Data is a collection of innovative research on the contemporary nature of artificial neural networks and their specific implementations within data analysis. While highlighting topics including propagation functions, optimization techniques, and learning methodologies, this book is ideally designed for researchers, statisticians, academicians, developers, scientists, practitioners, students, and educators seeking current research on the use of artificial neural networks in diagnosing and solving nonparametric problems.

Artificial intelligence (AI) has grown in presence in asset management and has revolutionized the sector in many ways. It has improved portfolio management, trading, and risk management practices by increasing efficiency, accuracy, and compliance. In particular, AI techniques help construct portfolios based on more accurate risk and return forecasts and more complex constraints. Trading algorithms use AI to devise novel trading signals and execute trades with lower transaction costs. AI also improves risk modeling and forecasting by generating insights from new data sources. Finally, robo-advisors owe a large part of their success to AI

techniques. Yet the use of AI can also create new risks and challenges, such as those resulting from model opacity, complexity, and reliance on data integrity.

A guide to understanding the inner workings and outer limits of technology and why we should never assume that computers always get it right. In Artificial Unintelligence, Meredith Broussard argues that our collective enthusiasm for applying computer technology to every aspect of life has resulted in a tremendous amount of poorly designed systems. We are so eager to do everything digitally—hiring, driving, paying bills, even choosing romantic partners—that we have stopped demanding that our technology actually work. Broussard, a software developer and journalist, reminds us that there are fundamental limits to what we can (and should) do with technology. With this book, she offers a guide to understanding the inner workings and outer limits of technology—and issues a warning that we should never assume that computers always get things right. Making a case against technochauvinism—the belief that technology is always the solution—Broussard argues that it's just not true that social problems would inevitably retreat before a digitally enabled Utopia. To prove her point, she undertakes a series of adventures in computer programming. She goes for an alarming ride in a driverless car, concluding “the cyborg future is not coming any time soon”; uses artificial intelligence to investigate why students can't pass standardized tests; deploys machine learning to predict which passengers survived the Titanic disaster; and attempts to repair the U.S. campaign finance system by building AI software. If we understand the limits of what we can do with technology, Broussard tells us, we can make better choices about what we should do with it to make the world better for everyone.

This book constitutes the refereed proceedings of the 17th Conference on Artificial Intelligence

in Medicine, AIME 2019, held in Poznan, Poland, in June 2019. The 22 revised full and 31 short papers presented were carefully reviewed and selected from 134 submissions. The papers are organized in the following topical sections: deep learning; simulation; knowledge representation; probabilistic models; behavior monitoring; clustering, natural language processing, and decision support; feature selection; image processing; general machine learning; and unsupervised learning.

Proceedings of the 1996 WRI International Symposium held in New York City, September 11-13, 1996