# *Augmented Data Discovery Resources 2018*

Decision support systems (DSS) are widely touted for their effectiveness in aiding decision making, particularly across a wide and diverse range of industries including healthcare, business, and engineering applications. The concepts, principles, and theories of enhanced decision making are essential points of research as well as the exact methods, tools, and technologies being implemented in these industries. From both a standpoint of DSS interfaces, namely the design and development of these technologies, along with the implementations, including experiences and utilization of these tools, one can get a better sense of how exactly DSS has changed the face of decision making and management in multi-industry applications. Furthermore, the evaluation of the impact of these technologies is essential in moving forward in the future. The Research Anthology on Decision Support Systems and Decision Management in Healthcare, Business, and Engineering explores how decision support systems have been developed and implemented across diverse industries through perspectives on the technology, the utilizations of these tools, and from a decision management standpoint. The chapters will cover not only the interfaces, implementations, and functionality of these tools, but also the overall impacts they have had on the specific industries mentioned. This book also evaluates the effectiveness along with benefits and challenges of using DSS as well as the outlook for the future. This book is ideal for decision makers, IT consultants and specialists, software developers, design professionals, academicians, policymakers, researchers, professionals, and students interested in how DSS is being used in different industries.

This two-volume set LNCS 10907 and 10908 constitutes the refereed proceedings of the 12th International Conference on Universal Access in Human-Computer Interaction, UAHCI 2018, held as part of HCI International 2018 in Las Vegas, NV, USA, in July 2018.The total of 1170 papers and 195 posters included in the 30 HCII 2018 proceedings volumes was carefully reviewed and selected from 4373 submissions. The 48 papers presented in this volume were organized in topical sections named: virtual and augmented reality for universal access; intelligent assistive environments; and access to the web, social media, education, culture and social innovation.

This book constitutes the refereed proceedings of the 16th Ibero-American Conference on Artificial Intelligence, IBERAMIA 2018, held in Trujillo, Peru,in November 2018. The 41 papers presented were carefully reviewed and selected from 92 submissions. The papers are organized in the following topical sections: Knowledge Engineering, Knowledge Representation and Reasoning under Uncertainty., Multiagent Systems., Game Theory and Economic Paradigms, Game Playing and Interactive Entertainment, Ambient Intelligence, Machine Learning Methods, Cognitive Modeling,General AI, Knowledge Engineering, Computational Sustainability and AI, Heuristic Search and Optimization and much more.

Fibre2Fashion magazine—the print venture of Fibre2Fashion.com since 2011—is circulated among a carefully-chosen target audience globally, and reaches the desks of top management and decision-makers in the textiles, apparel and fashion industry. As one of India's leading industry magazines for the entire textile value chain, Fibre2Fashion Magazine takes the reader beyond the mundane headlines, and analyses issues in-depth.

Augmented Intelligence: Deep Learning, Machine Learning, Cognitive Computing, Educational Data Mining

Machine Learning and Knowledge Discovery in Databases

Optimizing Data and New Methods for Efficient Knowledge Discovery and Information Resources Management: Emerging Research and Opportunities

The Business Power of Human–Machine Collaboration

Handbook of Industry 4.0 and SMART Systems

European Conference, ECML PKDD 2018, Dublin, Ireland, September 10–14, 2018, Proceedings, Part III

The three volume proceedings LNAI 11051 – 11053 constitutes the refereed proceedings of the European Conference on Machine Learning and Knowledge Discovery in Databases, ECML PKDD 2018, held in Dublin, Ireland, in September 2018. The total of 131 regular papers presented in part I and part II was carefully reviewed and selected from 535 submissions; there are 52 papers in the applied data science, nectar and demo track. The contributions were organized in topical sections named as follows: Part I: adversarial learning; anomaly and outlier detection; applications; classification; clustering and unsupervised learning; deep learningensemble methods; and evaluation. Part II: graphs; kernel methods; learning paradigms; matrix and tensor analysis; online and active learning; pattern and sequence mining; probabilistic models and statistical methods; recommender systems; and transfer learning. Part III: ADS data science applications; ADS e-commerce; ADS engineering and design; ADS financial and security; ADS health; ADS sensing and positioning; nectar track; and demo track.

This book is written for librarians, by librarians: understanding that diverse communities use libraries, museums, and archives for a variety of different reasons. It makes augmented reality, virtual reality, and mixed reality applications much more accessible to professionals in libraries, museums, and archives.

Establishment of a normal phenotype involves dynamic epigenetic regulation of gene expression that when affected contributes to human diseases. On a molecular level, epigenetic regulation is marked by specific covalent modifications (acetylation, methylation, phosphorylation, sumoylation, PARylation and ubiquitylation) of DNA and its associated histones. Studies also suggest the influence of such epigenetic modifications on non-coding RNA expression implicated in normal and diseased phenotypes. Epigenetic control of genetic expression is a reversible process essential for normal development and function of an organism. Alteration of epigenetic regulation leads to various disease forms such as cancer, diabetes, inflammation and neuropsychiatric disorders. Assessing these alterations provides a deeper insight into the changes induced in the genome, which is often informative for identifying disease subtypes or developing suitable treatments. Therefore, epigenetics proves to be a key area of clinical investigation in diagnosis, prognosis, and treatment of complex diseases. Genetic mutations, environmental stress, pathogens and drugs of abuse are some of the predominant factors that induce and impact changes on chromatin, which directly dictate a diseased phenotype. It is essential to consider the interaction between genetic and epigenetic factors to understand the molecular mechanisms of complex human diseases for safer and efficient drug development. Furthermore, genetic variation in absorption, distribution, metabolism, and excretion (ADME) genes is insufficient to account for interindividual variability of drug response. Therefore, current efforts aim to identify epigenetic components of ADME gene regulation, which include phase-I and phase-II enzymes, uptake transporters, efflux transporters and nuclear receptors involved in regulation of ADME genes. Monitoring circulatory epigenetic biomarkers in liquid biopsies (blood, saliva, urine, cerebrospinal fluid) of disease-associated and drug-associated epigenetic alterations may prove useful for decision support for routine clinical treatment and drug discovery. Hence, recent drug discovery efforts on targeting the epigenome, has emerged an area of interest with several new drugs being developed, tested and some already approved by the US Food and Drug Administration (FDA). These new insights into the complexities of epigenetic regulation are key contributors to our basic understanding of this process in human health and disease, which will provide scope for innovative drug therapies. It is of urgency to aid the present understanding of epigenomics driven diseased outcomes, with the expectation that further studies will identify early markers of disease and targets for therapeutics.

"The field of Biomarkers and Precision Medicine in drug development is rapidly evolving and this book presents a snapshot of exciting new approaches. By presenting a wide range of biomarker applications, discussed by knowledgeable and experienced scientists, readers will develop an appreciation of the scope and breadth of biomarker knowledge and find examples that will help them in their own work." -Maria Freire, Foundation for the National Institutes of Health Handbook of Biomarkers and Precision Medicine provides comprehensive insights into biomarker discovery and development which has driven the new era of Precision Medicine. A wide variety of renowned experts from government, academia, teaching hospitals, biotechnology and pharmaceutical companies share best practices, examples and exciting new developments. The handbook aims to provide in-depth knowledge to research scientists, students and decision makers engaged in Biomarker and Precision Medicine-centric drug development. Features: Detailed insights into biomarker discovery, validation and diagnostic development with implementation strategies Lessons-learned from successful Precision Medicine case studies A variety of exciting and emerging biomarker technologies The next frontiers and future challenges of biomarkers in Precision Medicine Claudio Carini, Mark Fidock and Alain van Gool are internationally recognized as scientific leaders in Biomarkers and Precision Medicine. They have worked for decades in academia and pharmaceutical industry in EU, USA and Asia. Currently, Dr. Carini is Honorary Faculty at Kings's College School of Medicine, London, UK. Dr. Fidock is Vice President of Precision Medicine Laboratories at AstraZeneca, Cambridge, UK. Prof.dr. van Gool is Head Translational Metabolic Laboratory at Radboud university medical school, Nijmegen, NL.

Discovery, Depletion, and Renewal

Applications in Education and Industry

Information Retrieval and Management: Concepts, Methodologies, Tools, and Applications

Advances in Artificial Intelligence - IBERAMIA 2018

European Conference, ECML PKDD 2020, Ghent, Belgium, September 14–18, 2020, Proceedings, Part II

Advances in Natural Computation, Fuzzy Systems and Knowledge Discovery

Augmented Reality (AR) has many advantages that include increased engagement and interaction as well as enhanced innovation and responsiveness. AR technology has applications in almost all domains such as medical training, retail, repair and maintenance of complex equipment, interior design in architecture and construction, business logistics, tourism, and classroom education. Innovating with Augmented Reality: Applications in Education and Industry explains the concepts behind AR, explores some of its application areas, and gives an in-depth look at how this technology aligns with Education 4.0. Due to the rapid advancements in technology, future education systems must prepare students to work with the latest technologies by enabling them to learn virtually in augmented ways in varied platforms. By providing an illusion of physical objects, which takes the students to a new world of imagination, AR and Virtual Reality (VR) create virtual and interactive environments for better learning and understanding. AR applications in education are covered in four chapters of this book, including a chapter on how gamification can be made use of in the teaching and learning process. The book also covers other application areas of AR and VR. One such application area is the food and beverage industry with case studies on virtual 3D food, employee training, product-customer interaction, restaurant entertainment, restaurant tours, and product packaging. The application of AR in the healthcare sector, medical education, and related devices and software are examined in the book's final chapter. The book also provides an overview of the game development software, Unity, a real-time development platform for 2D and 3D AR and VR, as well as the software tools and techniques used in developing AR-based apps.

This book presents the latest research on computational approaches to learning. It includes high-quality peer-reviewed papers from the "Intelligent and Interactive Computing Conference (IIC 2018)" organized by the Universiti Teknikal Malaysia, Melaka. It uses empirical studies, theoretical analysis, and comparisons with psychological phenomena to show how learning methods can be employed to solve important application problems. The book also describes ongoing research in various research labs, universities and institutions, which may lead to the development of marketable products.

A rigorous mathematical problem-solving framework for analyzing the Earth's energy resources GeoEnergy encompasses the range of energy technologies and sources that interact with the geological subsurface. Fossil fuel availability studies have historically lacked concise modeling, tending instead toward heuristics and overly-complex processes. Mathematical GeoEnergy: Oil Discovery, Depletion and Renewal details leading-edge research based on a mathematically-oriented approach to geoenergy analysis. Volume highlights include: Applies a formal mathematical framework to oil discovery, depletion, and analysis Employs first-order applied physics modeling, decreasing computational resource requirements Illustrates model interpolation and extrapolation to fill out missing or indeterminate data Covers both stochastic and deterministic mathematical processes for historical analysis and prediction Emphasizes the importance of up-to-date data, accessed through the companion website Demonstrates the advantages of mathematical modeling over conventional heuristic and empirical approaches Accurately analyzes the past and predicts the future of geoenergy depletion and renewal using models derived from observed production data Intuitive mathematical models and readily available algorithms make Mathematical GeoEnergy: Oil Discovery, Depletion and Renewal an insightful and invaluable resource for scientists and engineers using robust statistical and analytical tools applicable to oil discovery, reservoir sizing, dispersion, production models, reserve growth, and more.

The three-volume set LNCS 10860, 10861 and 10862 constitutes the proceedings of the 18th International Conference on Computational Science, ICCS 2018, held in Wuxi, China, in June 2018. The total of 155 full and 66 short papers presented in this book set was carefully reviewed and selected from 404 submissions. The papers were organized in topical sections named: Part I: ICCS Main Track Part II: Track of Advances in High-Performance Computational Earth Sciences: Applications and Frameworks; Track of Agent-Based Simulations, Adaptive Algorithms and Solvers; Track of Applications of Matrix Methods in Artificial Intelligence and Machine Learning; Track of Architecture, Languages, Compilation and Hardware Support for Emerging ManYcore Systems; Track of Biomedical and Bioinformatics Challenges for Computer Science; Track of Computational Finance and Business Intelligence; Track of Computational Optimization, Modelling and Simulation; Track of Data, Modeling, and Computation in IoT and Smart Systems; Track of Data-Driven Computational Sciences; Track of Mathematical-Methods-and-Algorithms for Extreme Scale; Track of Multiscale Modelling and Simulation Part III: Track of Simulations of Flow and Transport: Modeling, Algorithms and Computation; Track of Solving Problems with Uncertainties; Track of Teaching Computational Science; Poster Papers

Systems Modeling: Approaches and Applications

The Insights You Need from Harvard Business Review

Research Anthology on Big Data Analytics, Architectures, and Applications

Epigenetic Approaches in Drug Discovery, Development and Treatment

Social Media Marketing: Breakthroughs in Research and Practice

Innovating with Augmented Reality

*Industry 4.0 refers to fourth generation of industrial activity characterized by smart systems and internet-based solutions. This book describes the fourth revolution based on instrumented, interconnected and intelligent assets. The different book chapters provide a perspective on technologies and methodologies developed and deployed leading to this concept. With an aim to increase performance, productivity and flexibility, major application area of maintenance through smart system has been discussed in detail. Applicability of 4.0 in transportation, energy and infrastructure is explored, with effects on technology, organisation and operations from a systems perspective.*

*Companies that don't use AI to their advantage will soon be left behind. Artificial intelligence and machine learning will drive a massive reshaping of the economy and society. What should you and your company be doing right now to ensure that your business is poised for success? These articles by AI experts and consultants will help you understand today's essential thinking on what AI is capable of now, how to adopt it in your organization, and how the technology is likely to evolve in the near future. Artificial Intelligence: The Insights You Need from Harvard Business Review will help you spearhead important conversations, get going on the right AI initiatives for your company, and capitalize on the opportunity of the machine intelligence revolution. Catch up on current topics and deepen your understanding of them with the Insights You Need series from Harvard Business Review. Featuring some of HBR's best and most recent thinking, Insights You Need titles are both a primer on today's most pressing issues and an extension of the conversation, with interesting research, interviews, case studies, and practical ideas to help you explore how a particular issue will impact your company and what it will mean for you and your business.*

*With the increased use of technology in modern society, high volumes of multimedia information exists. It is important for businesses, organizations, and individuals to understand how to optimize this data and new methods are emerging for more efficient information management and retrieval. Information Retrieval and Management: Concepts, Methodologies, Tools, and Applications is an innovative reference source for the latest academic material in the field of information and communication technologies and explores how complex information systems interact with and affect one another. Highlighting a range of topics such as knowledge discovery, semantic web, and information resources management, this multi-volume book is ideally designed for researchers, developers, managers, strategic planners, and advanced-level students.*

*Semantic web technologies (SWTs) offer the richest machine-interpretable (rather than just machine-processable) and explicit semantics that are being extensively used in various domains and industries. This book provides a roadmap for semantic web technologies (SWTs) and highlights their role in a wide range of domains including cloud computing, Internet of Things, big data, sensor network, and so forth. It also explores the prospects of these technologies including different data interchange formats, query languages, ontologies, Linked Data, and notations. The role of SWTs in 'epidemic Covid-19', 'e-learning platforms and systems', 'block chain', 'open online courses', and 'visual analytics in healthcare' is described as well. This book: Explores all the critical aspects of semantic web technologies (SWTs) Discusses the impact of SWTs on cloud computing, Internet of Things, big data, and sensor network Offers a comprehensive examination of the emerging research in the areas of SWTs and their related domains Provides a template to develop a wide range of smart and intelligent applications Includes latest applications and examples with real data This book is aimed at researchers and graduate students in computer science, informatics, web technology, cloud computing, and Internet of Things.*

*Breakthroughs in Research and Practice*

*Artificial Intelligence for Knowledge Management*

*Augmented Intelligence*

*Intelligent and Interactive Computing*

*Semantic Web Technologies*

*Tools and Applications*

This book consists of papers on the recent progresses in the state of the art in natural computation, fuzzy systems and knowledge discovery. The book is useful for researchers, including professors, graduate students, as well as R & D staff in the industry, with a general interest in natural computation, fuzzy systems and knowledge discovery. The work printed in this book was presented at the 2020 16th International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (ICNC-FSKD 2020), held in Xi'an, China, from 19 to 21 December 2020. All papers were rigorously peer-reviewed by experts in the areas.

This book features a selection of extended papers presented at the 6th IFIP WG 12.6 International Workshop on Artificial Intelligence for Knowledge Management, AI4KM 2018, held in Stockholm, Sweden, in July 2018, in the framework of the International Joint Conference on Artificial Intelligence, IJCAI 2018. The 11 revised and extended papers were carefully reviewed and selected for inclusion in this volume. They present new research and innovative aspects in the field of knowledge management such as machine learning, knowledge models, KM and Web, knowledge capturing and learning, and KM and AI intersections.

The increasingly pervasive use of digital technology has catapulted society into an interconnected world where the natural boundaries between humankind and machine, virtual and real, individual and community have become less perceptible. As individuals interact with different digital technologies, they must build a digital intelligence, which must be further cultivated as it is a key competency for the future of school and work. Digital intelligence includes understanding the mutual strengths between people and technology, as well as developing an awareness in the use of digital tools in order to avoid common threats such as cyberbullying, addiction to video games, techno-stress, and more. As adolescents continue to engage with virtual reality and 3D virtual worlds where the online and offline overlap and coincide, it is important to build this intelligence as well as utilize these technologies to promote successful learning. The Handbook of Research on Teaching With Virtual Environments and AI explores the new personalized educational opportunities that are available with digital technology and virtual environments that can be used within education. This book focuses on the use of these tools and how to navigate the use of new technologies such as AI and virtual environments for educational practices. While highlighting topics such as virtual worlds, game-based learning, intelligent tutoring, augmented reality, and more, this book is ideal for teachers, administrators, technologists, educational software developers, IT specialists, practitioners, researchers, academicians, and students interested in how virtual environments and AI are being implemented in teaching practices.

The 5-volume proceedings, LNAI 12457 until 12461 constitutes the refereed proceedings of the European Conference on Machine Learning and Knowledge Discovery in Databases, ECML PKDD 2020, which was held during September 14-18, 2020. The conference was planned to take place in Ghent, Belgium, but had to change to an online format due to the COVID-19 pandemic. The 232 full papers and 10 demo papers presented in this volume were carefully reviewed and selected for inclusion in the proceedings. The volumes are organized in topical sections as follows: Part I: Pattern Mining; clustering; privacy and fairness; (social) network analysis and computational social science; dimensionality reduction and autoencoders; domain adaptation; sketching, sampling, and binary projections; graphical models and causality; (spatio-) temporal data and recurrent neural networks; collaborative filtering and matrix completion. Part II: deep learning optimization and theory; active learning; adversarial learning; federated learning; Kernel methods and online learning; partial label learning; reinforcement learning; transfer and multi-task learning; Bayesian optimization and few-shot learning. Part III: Combinatorial optimization; large-scale optimization and differential privacy; boosting and ensemble methods; Bayesian methods; architecture of neural networks; graph neural networks; Gaussian processes; computer vision and image processing; natural language processing; bioinformatics. Part IV: applied data science: recommendation; applied data science: anomaly detection; applied data science: Web mining; applied data science: transportation; applied data science: activity recognition; applied data science: hardware and manufacturing; applied data science: spatiotemporal data. Part V: applied data science: social good; applied data science: healthcare; applied data science: e-commerce and finance; applied data science: computational social science; applied data science: sports; demo track.

European Conference, ECML PKDD 2018, Dublin, Ireland, September 10–14, 2018, Proceedings, Part I

Big Data, IoT, and Machine Learning

Artificial Intelligence

Handbook of Research on Teaching With Virtual Environments and AI

Adapting to Technological and Societal Disruption

*We are living at the dawn of what has been termed 'the fourth paradigm of science,' a scientific revolution that is marked by both the emergence of big data science and analytics, and by the increasing adoption of the underlying technologies in scientific and scholarly research practices. Everything about science development or knowledge production is fundamentally changing thanks to the ever-increasing deluge of data. This is the primary fuel of the new age, which powerful computational processes or analytics algorithms are using to generate valuable knowledge for enhanced decision-making, and deep insights pertaining to a wide variety of practical uses and applications. This book addresses the complex interplay of the scientific, technological, and social dimensions of the city, and what it entails in terms of the systemic implications for smart sustainable urbanism. In concrete terms, it explores the interdisciplinary and transdisciplinary field of smart sustainable urbanism and the unprecedented paradigmatic shifts and practical advances it is undergoing in light of big data science and analytics. This new era of science and technology embodies an unprecedentedly transformative and constitutive power—manifested not only in the form of revolutionizing science and transforming knowledge, but also in advancing social practices, producing new discourses, catalyzing major shifts, and fostering societal transitions. Of particular relevance, it is instigating a massive change in the way both smart cities and sustainable cities are studied and understood, and in how they are planned, designed, operated, managed, and governed in the face of urbanization. This relates to what has been dubbed data-driven smart sustainable urbanism, an emerging approach based on a computational understanding of city systems and processes that reduces urban life to logical and algorithmic rules and procedures, while also harnessing urban big data to provide a more holistic and integrated view or synoptic intelligence of the city. This is increasingly being directed towards improving, advancing, and maintaining the contribution of both sustainable cities and smart cities to the goals of sustainable development. This timely and multifaceted book is aimed at a broad readership. As such, it will appeal to urban scientists, data scientists, urbanists, planners, engineers, designers, policymakers, philosophers of science, and futurists, as well as all readers interested in an overview of the pivotal role of big data science and analytics in advancing every academic discipline and social practice concerned with data-intensive science and its application, particularly in relation to sustainability.*

*The fast-paced world created by the accessibility of consumer information through internet-generated data requires improved information-management platforms. The continuous evaluation and evolution of these systems facilitate enhanced data reference and output. Optimizing Data and New Methods for Efficient Knowledge Discovery and Information Resources Management is a critical research publication that provides insight into the varied and rapidly changing fields of knowledge discovery and information resource management. Highlighting a range of topics such as datamining, artificial intelligence, and risk assessment, this book is essential for librarians, academicians, policymakers, information managers, professionals, and researchers in fields that include artificial intelligence, knowledge discovery, data visualization, big data, and information resources management.*

*The AI revolution is moving at a breakneck speed. Organizations are beginning to invest in innovative ways to monetize their data through the use of artificial intelligence. Businesses need to understand the reality of AI. To be successful, it is imperative that organizations understand that augmented intelligence is the secret to success. Augmented Intelligence: The Business Power of Human–Machine Collaboration is about the process of combining human and machine intelligence. This book provides business leaders and AI data experts with an understanding of the value of augmented intelligence and its ability to help win competitive markets. This book focuses on the requirement to clearly manage the foundational data used for augmented intelligence. It focuses on the risks of improper data use and delves into the ethics and governance of data in the era of augmented intelligence. In this book, we explore the difference between weak augmentation that is based on automating well understood processes and strong augmentation that is designed to rethink business processes through the inclusion of data, AI and machine learning. What experts are saying about Augmented Intelligence "The book you are about to read is of great importance because we increasingly rely on machine learning and AI. Therefore, it is critical that we understand the ability to create an environment in which businesses can have the tools to understand data from a holistic perspective. What is imperative is to be able to make better decisions based on an understanding of the behavior and thinking of our customers so that we can take the best next action. This book provides a clear understanding of the impact of augmented intelligence on both society and business."—Tsvi Gal, Managing Director, Enterprise Technology and Services, Morgan Stanley "Our mission has always been to help clients apply AI to better predict and shape future outcomes, empower higher value work, and automate how work gets done. I have always said, 'AI will not replace managers, but managers who use AI will replace managers who don't.' This book delves into the real value that AI promises, to augment existing human intelligence, and in the process, dispels some of the myths around AI and its intended purpose."—Rob Thomas, General Manager, Data and AI, IBM*

*Augmented intelligence is an alternate approach of artificial intelligence (AI), which emphasizes AI's assistive role. Augmented intelligence enhances human skills of reasoning in a robotic system or software by simulating expectancy, educational mining, problem solving, recollection, sequencing, and decision-making capabilities. It is based on a combination of techniques such as machine learning, deep learning and cognitive computing. This book explains artificial intelligence models that support assistive processes in different situations. The contributors aim to provide information to a diverse audience with groundbreaking developments in mathematical computing. The book presents 8 chapters on these topics: - Educational data mining in augmented reality virtual learning environment - Brain and computer interfaces - Tree-based tools for chemometric analysis of infrared spectra - Applications of deep learning in medical engineering - Bankruptcy prediction model using an enhanced boosting classifier - Reputation systems for mobile agent security - The crow search algorithm - COVID-19 diagnosis and treatment The contents attempt to integrate various facets of augmented Intelligence, by describing recent research developments and advanced topics of interest to academicians and researchers working on machine learning problems and AI.*

*Research and Applications*

*Emerging Research and Opportunities*

*History of Philosophy and the Reflective Society*

*Handbook of Biomarkers and Precision Medicine*

*Explainable Intelligent Processing of Biological Resources Integrating Data, Information, Knowledge, and Wisdom*

*16th Ibero-American Conference on AI, Trujillo, Peru, November 13-16, 2018, Proceedings*

*The three volume proceedings LNAI 11051 – 11053 constitutes the refereed proceedings of the European Conference on Machine Learning and Knowledge Discovery in Databases, ECML PKDD 2018, held in Dublin, Ireland, in September 2018. The total of 131 regular papers presented in part I and part II was carefully reviewed and selected from 535 submissions; there are 52 papers in the applied data science, nectar and demo track. The contributions were organized in topical sections named as follows: Part I: adversarial learning; anomaly and outlier detection; applications; classification; clustering and unsupervised learning; deep learning; ensemble methods; and evaluation. Part II: graphs; kernel methods; learning paradigms; matrix and tensor analysis; online and active learning; pattern and sequence mining; probabilistic models and statistical methods; recommender systems; and transfer learning. Part III: ADS data science applications; ADS e-commerce; ADS engineering and design; ADS financial and security; ADS health; ADS sensing and positioning; nectar track; and demo track.*

*The OECD Science, Technology and Innovation Outlook 2018 is the twelfth edition in a series that biennially reviews key trends in science, technology and innovation (STI) policy in OECD countries and a number of major partner economies. The 14 chapters within this edition look at a range of ...*

*In the digital age, numerous technological tools are available to enhance business processes. When these tools are used effectively, knowledge sharing and organizational success are significantly increased. Social Media Marketing: Breakthroughs in Research and Practice contains a compendium of the latest academic material on the use, strategies, and applications of social media marketing in business today. Including innovative studies on email usage, social interaction technologies, and internet privacy, this publication is an ideal source for managers, corporate trainers, researchers, academics, and students interested in the business applications of social media marketing.*

*New Solutions for Smart Grids With High-Penetration Distributed Energy Resources*

*Mathematical Geoenergy*

*Fibre2Fashion - Textile Magazine - Jan 2018*

*Research Anthology on Decision Support Systems and Decision Management in Healthcare, Business, and Engineering*

*12th International Conference, UAHCI 2018, Held as Part of HCI International 2018, Las Vegas, NV, USA, July 15-20, 2018, Proceedings, Part II*

*6th IFIP WG 12.6 International Workshop, AI4KM 2018, Held at IJCAI 2018, Stockholm, Sweden, July 15, 2018, Revised and Extended Selected Papers*

Artificial Intelligence and Big Data Analytics for Smart Healthcare serves as a key reference for practitioners and experts involved in healthcare as they strive to enhance the value added of healthcare and develop more sustainable healthcare systems. It brings together insights from emerging sophisticated information and communication technologies such as big data analytics, artificial intelligence, machine learning, data science, medical intelligence, and, by dwelling on their current and prospective applications, highlights managerial and policymaking challenges they may generate. The book is split into five sections: big data infrastructure, framework and design for smart healthcare; signal processing techniques for smart healthcare applications; business analytics (descriptive, diagnostic, predictive and prescriptive) for smart healthcare; emerging tools and techniques for smart healthcare; and challenges (security, privacy, and policy) in big data for smart healthcare. The content is carefully developed to be understandable to different members of healthcare chain to leverage collaborations with researchers and industry. Presents a holistic discussion on the new landscape of data driven medical technologies including Big Data, Analytics, Artificial Intelligence, Machine Learning, and Precision Medicine Discusses such technologies with case study driven approach with reference to real world application and systems, to make easier the understanding to the reader not familiar with them Encompasses an international collaboration perspective, providing understandable knowledge to professionals involved with healthcare to leverage productive partnerships with technology developers

This book is about innovation, reflection and inclusion. Cultural innovation is something real that tops up social and technological innovation by providing the reflective society with spaces of exchange in which citizens engage in the process of sharing their experiences while appropriating common goods content. We are talking of public spaces such as universities, academies, libraries, museums, science-centres, but also of any place in which co-creation activities may occur. The argument starts with the need for new narratives in the history of philosophy, which can be established through co-creation, the motor of cultural innovation. The result is redefining the history of philosophy in terms of a dialogical civilization by ensuring continuous translations, individual processes of reflection and collective processes of inclusion. Readers will grasp the effectiveness of the history of philosophy in societies that are inclusive, innovative and reflective.

In the last few years, there has been an increased advancement and evolution in semantic web and information systems in a variety of fields. The integration of these approaches to ontology engineering, sophisticated methods and algorithms for open linked data extraction, and advanced decision-making creates new opportunities for a bright future. Innovations, Developments, and Applications of Semantic Web and Information Systems is a critical scholarly resource that discusses integrated methods of research and analytics in information technology. Featuring coverage on a broad range of topics, such as cognitive computing, artificial intelligence, machine learning, data analysis, and algorithms, this book is geared towards researchers, academicians, and professionals seeking current information on semantic web and information systems.

This book provides an introduction to the mathematical and algorithmic foundations of data science, including machine learning, high-dimensional geometry, and analysis of large networks. Topics include the counterintuitive nature of data in high dimensions, important linear algebraic techniques such as singular value decomposition, the theory of random walks and Markov chains, the fundamentals of and important algorithms for machine learning, algorithms and analysis for clustering, probabilistic models for large networks, representation learning including topic modelling and non-negative matrix factorization, wavelets and compressed sensing. Important probabilistic techniques are developed including the law of large numbers, tail inequalities, analysis of random projections, generalization guarantees in machine learning, and moment methods for analysis of phase transitions in large random graphs. Additionally, important structural and complexity measures are discussed such as matrix norms and VC-dimension. This book is suitable for both undergraduate and graduate courses in the design and analysis of algorithms for data.

Innovations, Developments, and Applications of Semantic Web and Information Systems

Artificial Intelligence and Big Data Analytics for Smart Healthcare

Big Data Science and Analytics for Smart Sustainable Urbanism

OECD Science, Technology and Innovation Outlook 2018 Adapting to Technological and Societal Disruption

The Impact of Virtual and Augmented Reality on Individuals and Society

18th International Conference, Wuxi, China, June 11–13, 2018 Proceedings, Part III

The idea behind this book is to simplify the journey of aspiring readers and researchers to understand Big Data, IoT and Machine Learning. It also includes various real-time/offline applications and case studies in the fields of engineering, computer science, information security and cloud computing using modern tools. This book consists of two sections: Section I contains the topics related to Applications of Machine Learning, and Section II addresses issues about Big Data, the Cloud and the Internet of Things. This brings all the related technologies into a single source so that undergraduate and postgraduate students, researchers, academicians and people in industry can easily understand them. Features Addresses the complete data science technologies workflow Explores basic and high-level concepts and services as a manual for those in the industry and at the same time can help beginners to understand both basic and advanced aspects of machine learning Covers data processing and security solutions in IoT and Big Data applications Offers adaptive, robust, scalable and reliable applications to develop solutions for day-to-day problems Presents security issues and data migration techniques of NoSQL databases

Society is now completely driven by data with many industries relying on data to conduct business or basic functions within the organization. With the efficiencies that big data bring to all institutions, data is continuously being collected and analyzed. However, data sets may be too complex for traditional data-processing, and therefore, different strategies must evolve to solve the issue. The field of big data works as a valuable tool for many different industries. The Research Anthology on Big Data Analytics, Architectures, and Applications is a complete reference source on big data analytics that offers the latest, innovative architectures and frameworks and explores a variety of applications within various industries. Offering an international perspective, the applications discussed within this anthology feature global representation. Covering topics such as advertising curricula, driven supply chain, and smart cities, this research anthology is ideal for data scientists, data analysts, computer engineers, software engineers, technologists, government officials, managers, CEOs, professors, graduate students, researchers, and academicians.

Universal Access in Human-Computer Interaction. Virtual, Augmented, and Intelligent Environments

Foundations of Data Science

Unprecedented Paradigmatic Shifts and Practical Advancements

Augmented Intelligence in Healthcare: A Pragmatic and Integrated Analysis

Concepts, Methodologies, Tools, and Applications

Computational Science – ICCS 2018

*Cognitive Multitasking – Towards Augmented IntelligenceFrontiers Media SAAugmented Intelligence in Healthcare: A Pragmatic and Integrated AnalysisSpringer NatureArtificial IntelligenceThe Insights You Need from Harvard Business ReviewHBR Insights*