Visualizing The Environment Canadian Edition

Environmental applications have long been a core use of GIS. However, the effectiveness of GIS-based methods depends on the decision-making frameworks and contexts within which they are employed. GIS for Environmental Decision-Making takes an interdisciplinary look at the capacities of GIS to integrate, analyze, and display data on which decisions must be based. It provides a broad prospective on the current state of GIS for environmental decision-making and emphasizes the importance of matters related to data, analysis, and modeling tools, as well as stakeholder participation. The book is divided into three sections, which effectively relate to three key aspects of the decision-making process as supported by GIS: data required, tools being developed, and aspects of participation. The first section stresses the ability to integrate data from different sources as a defining characteristic of GIS and illustrates the benefits that this can bring in the context of deriving land-use and other information. The second section discusses a range of issues concerning the use of GIS for suitability mapping and strategic planning exercises, through illustrative examples. The last section of the book focuses on the use of GIS-based techniques to facilitate public participation in decision-making processes. In particular, it provides an overview of developments in this area, concentrating on how GIS, modeling, and 3D landscape visualization techniques are gradually achieving closer integration. Given the complex challenges presented by

global environmental change, GIS for Environmental Decision-Making provides a clear illustration of how the use of GIS can make significant contributions to trans-disciplinary initiatives to address environmental problems. The TOOLS EE (Technology of Object-Oriented Languages and Systems Eastern Europe) conference series combines the experience with object technology and its applications in industrial environments, with an academically-oriented vision. They offer a meeting place for Eastern European experts and practitioners, and their colleagues from all over the world. Technology of Object-Oriented Languages, Systems and Architectures is a compilation of contributing papers presented at TOOLS Eastern Europe 2000 and 2002, respectively, second and third conference in this series. Both conferences were held in Eastern Europe, more specifically in Sofia, Bulgaria. Technology of Object-Oriented Languages, Systems and Architectures is designed to meet the needs of a professional audience composed of in computer science and engineering. The field of Artificial Intelligence in Education has continued to broaden and now includes research and researchers from many areas of technology and social science. This study opens opportunities for the cross-fertilization of information and ideas from researchers in the many fields that make up this interdisciplinary research area, including artificial intelligence, other areas of computer science, cognitive science, education, learning sciences, educational technology, psychology, philosophy,

sociology, anthropology, linguistics, and the many domain-specific areas for which Artificial Intelligence in Education systems have been designed and built. An explicit goal is to appeal to those researchers who share the perspective that true progress in learning technology requires both deep insight into technology and also deep insight into learners, learning, and the context of learning. The theme reflects this basic duality. A comprehensive overview of environmetric research and its applications... Environmetrics covers the development and application of quantitative methods in the environmental sciences. It provides essential tools for understanding, predicting, and controlling the impacts of agents, both man-made and natural, which affect the environment. Basic and applied research in this area covers a broad range of topics. Primary among these are the quantitative sciences, such as statistics, probability and applied mathematics, chemometrics, and econometrics. Applications are also important, for example in, ecology and environmental biology, public health, atmospheric science, geology, engineering, risk management, and regulatory/governmental policy amongst others. * Divided into 12 sections, the Encyclopedia brings together over 600 detailed articles which have been carefully selected and reviewed through the collaborative efforts of the Editors-in-Chief and the appropriate Section Editor * Presented in alphabetical order all the articles will include an explanatory introduction, extensive cross-referencing and an up-to-date bibliography providing literature references for further reading. Presenting state of the art information

in a readable, highly accessible style, the scope and coverage provided by the Encyclopedia of Environmetrics will ensure its place as the landmark reference for the many scientists, educators, and decision-makers working across this multidisciplinary field. An essential reference tool for university libraries, research laboratories, government institutions and consultancies concerned with the environmental sciences, the Encyclopedia of Environmetrics brings together for the first time, comprehensive coverage of the full range of topics, techniques and applications covered by this multidisciplinary field. There is currently no central reference source which addresses the needs of this multidisciplinary community. This new Encyclopedia will fill this gap by providing a comprehensive source of relevant fundamental concepts in environmetric research, development and applications for statisticians, mathematicians, economists, environmentalists, ecologist, government officials and policy makers.

Natural and human activities change the environment we are living in and consequently impact the quality of life. Analysing these dynamics leads to a better understanding of urban change and facilitates urban development. Research related to the management of urban data has a long tradition. Through the years a variety of challenging research quest

The two-volume set LNCS 10297 + 10298 constitutes the refereed proceedings of the Third International Conference on Human Aspects of IT for the Aged Population, ITAP 2017, held as part of HCI International 2017 in Vancouver, BC, Canada. HCII 2017

received a total of 4340 submissions, of which 1228 papers were accepted for publication after a careful reviewing process. The 83 papers presented in the two volumes of ITAP 2017 were organized in topical sections as follows: Part I: aging and technology acceptance; user-centred design for the elderly; product design for the elderly; aging and user experience; digital literacy and training. Part II: mobile and wearable interaction for the elderly; aging and social media; silver and intergenerational gaming; health care and assistive technologies and services for the elderly; aging and learning, working and leisure.

An illustrated narrative that interweaves the shifting seasons of the Northwest Coast with the experiences of a conservation biologist surveying thousands of kilometres of open ocean in order to uncover the complex relationships between humans, marine birds and the realities of contemporary biodiversity. At Sea with the Marine Birds of the Raincoast combines the natural and human histories of Pacific Northwest marine birds with Caroline Fox's personal story of her life as a conservation scientist. Accompanied by vivid images, drawings and both archival and modern photography, the narrative follows the author as she sails the coast, documenting marine bird diversity and seasonal shifts in community assemblages. This unique story captures the natural splendour and rich variety of marine birds feeding, breeding and undertaking spectacular, often trans-equatorial migrations along the Northwest Coast. Introducing some of the most fascinating yet poorly understood species, including albatrosses,

puffins and cranes, this compelling read calls attention to the urgent conservation challenges faced by marine birds and their ecosystems, as well as their historically complex relationship with human society.

Digital soil assessments and beyond contains papers presented at the 5th Global Workshop on Digital Soil Mapping, held 10-13 April 2012 at the University of Sydney, Australia. The contributions demonstrate the latest developments in digital soil mapping as a discipline with a special focus on the use of map products to drive policy decisions particularly on climate change and food, water and soil security. The workshop and now this resulting publication have better united formerly disparate subdisciplines in soil science: pedology (study of the formation, distribution and potential use of soils) and pedometrics (quantitative and statistical analysis of soil variation in space and time). This book compiles papers covering a range of topics: digital soil assessment, digital soil modelling, operational soil mapping, soil and environmental covariates, soil sampling and monitoring and soil information modelling, artificial intelligence and cyber-infrastructure, and GlobalSoilMap. Digital soil assessments and beyond aims to encourage new mapping incentives and stimulate new ideas to make digital soil mapping practicable from local to national and ultimately global scales.

Risk, Power, and Inequality in the 21st Century provides a groundbreaking new analysis of the increasingly important relationship between risk and widening inequalities. The massive, and often unequal, impacts of contemporary risks are recognized widely in popular discussions –

be it the fall-out from the 2008 financial crisis or Hurricane Katrina – yet there is a distinct neglect in social science of the overall systemic impacts of these risks for increasing inequalities. This book moves beyond this lacuna to identify novel intersections of risk and inequalities. It shows how key processes associated with risk society – the social production and distribution of risks as side-effects – are intensifying inequalities in fundamental ways. In articulating how risk is intensifying both the social sources of suffering of the least advantaged and the power of the most advantaged, this book realizes a significant rethinking of risk, power, and inequalities in contemporary society.

Business Statistics continues the tradition of presenting and explaining the wonders of business statistics through a clear, complete, student-friendly pedagogy. In this 10th edition, author Ken Black uses current real-world data to equip students with the business analytics techniques and quantitative decision-making skills required to make smart decisions in today's workplace.

Modelling is an important tool for understanding the complexity of forest ecosystems and the variety of interactions of ecosystem components, processes and values. This book describes the hybrid approach to modelling forest ecosystems and their possible response to natural and management-induced disturbance. The book describes the FORECAST family of ecosystem management models at three different spatial scales (tree, stand and landscape), and compares them with alternative models at these three spatial scales. The book will help forest managers to understand what to expect from ecosystem-based forest models; serve as a tool for use in teaching about sustainability, scenario analysis and value trade-offs in natural resources management; and assist policy makers, managers and researches working in

assessment of sustainable forest management and ecosystem management. Several real-life examples of using the FORECAST family of models in forest management and other applications are presented from countries including Canada, China, Spain and the USA, to illustrate the concepts described in the text. The book also demonstrates how these models can be extended for scenario and value trade-off analysis through visualization and educational or management games.

This book offers a selection of the best papers presented at the 13th International Symposium on Location Based Services (LBS 2016), which was held in Vienna (Austria) from November 14 to 16, 2016. It provides an overview of recent research in the field, including the latest advances in outdoor/indoor positioning, smart environment, spatial modeling, personalization and context awareness, cartographic communication, novel user interfaces, crowd sourcing, social media, big data analysis, usability and privacy.

Mobile agents refer to self-contained and identi?able computer programs that can move within the network and can act on behalf of the user or another entity. Most of the current research work on the mobile agent paradigm has two general goals: reduction of network traf?c and asynchronous interaction. These two goals stem directly from the desire to reduce information overload and to ef?ciently use network resources. There are certainly many motivations for the use of a mobile agent paradigm; h- ever, intelligent information retrieval, network and mobility management, and network services are currently the three most cited application targets for a mobile agent system. The aim of the workshop is to provide a unique opportunity for researchers, software and application developers, and computer network technologists to discuss new dev- opments in the mobile agent technology and applications. After last year's

very successful workshop in Ottawa, Canada (110 attendees), this year's workshop will focus on mobile agent issues across the areas of network m- agement, mobile applications, nomadic computing, e-commerce, ad-hoc networks and applications, feature interactions, Internet applications, QoS management, policybased management, interactive multimedia, and computer–telephony integration.

Visualizing the Environment, Canadian Edition follows a fresh approach to Environmental Science. Wiley, in partnership with National Geographic, has created a visually-focused text designed to uniquely address the processing style of today?s student by making material accessible and engaging without sacrificing content. Visualizing the Environment focuses on environmental sustainability and teaches students the principles of understanding the biological, physical, and socioeconomic attributes of the environment. It centres on problems that have resulted from human activities, and most importantly looks at a diversity of solutions and actions that can be taken to ensure the future well-being of our Earth.

"Notwithstanding their differing approaches—digital, archival, historical, iterative, critical, creative, reflective—the essays gathered here articulate new ways of seeing, investigating, and apprehending literature and culture." – From the Preface This collection of essays enriches digital humanities research by examining various Canadian cultural works and the advances in technologies that facilitate these interdisciplinary collaborations. Fourteen essays—eleven in English and three in French—survey the helix of place and space. Contributors to Part I chart new archival and storytelling methodologies, while those in Part II venture forth to explore specific cultural and literary texts. Cultural Mapping and the Digital Sphere will serve as an indispensable road map for researchers and those interested in the digital humanities,

women's writing, and Canadian culture and literature. Contributors: Jeffery Antoniuk, Susan Brown, Constance Crompton, Ravit H. David, Patricia Demers, Shawn DeSouza-Coelho, Cecily Devereux, Teresa M. Dobson, Sandra Gabriele, Isobel Grundy, Andrea Hasenbank, Paul Hjartarson, Kathleen Kellett, Sasha Kovacs, Vanessa Lent, Margaret Mackey, Breanna Mroczek, Bethany Nowviskie, Ruth Panofsky, Mariana Paredes-Olea, Harvey Quamen, Jennifer Roberts-Smith, Omar Rodriguez-Arenas, Mary-Jo Romaniuk, Stan Ruecker, Lori Saint-Martin, Michelle Schwartz, Stéfan Sinclair, Mireille Mai Truong, Stéphanie Walsh Matthews, Heather Zwicker.

This book critically examines the public participation processes in urban planning and development by evaluating the operations of Planning Advisory Committees (PACs) through two meta-criteria of fairness and effectiveness. Traditional models of public participation in planning have long been criticized for separating planners from the public. This book proposes a novel conceptual model to address the gaps in existing practices in order to encourage greater public involvement in planning decisions and policymaking. It assesses the application of the evaluative framework for PACs as a new approach to public participation evaluation in urban planning. With a case study focused on the PACs in Inner City area of Canberra, Australia, the book offers a conceptual framework for evaluating fairness and effectiveness of the public participation processes that can also be extended to other countries such as the United States, the United Kingdom, New Zealand, Canada, Scandinavian countries, the European Union, and some Asian countries such as India. Offering valuable insights on how operational processes of PACs can be re-configured, this book will be a useful guide for students and academics of planning and public policy analysis, as well as the planning

professionals in both developed and developing countries.

Biochemistry and ecology of biofilms from industrial, medical and other viewpoints.

This book constitutes the refereed proceedings of the 13th International Workshop on Groupware, CRIWG 2007, held in Bariloche, Argentina. The 17 revised full papers and 10 revised work-in-progress papers are organized in topical sections on group awareness and social aspects, groupware design and development, computer supported collaborative learning, groupware applications and studies, group negotiation and knowledge management, and groupware activities and evaluation.

As virtual reality approaches mainstream consumer use, new research and innovations in the field have impacted how we view and can use this technology across a wide range of industries. Advancements in this technology have led to recent breakthroughs in sound, perception, and visual processing that take virtual reality to new dimensions. As such, research is needed to support the adoption of these new methods and applications. Cases on Immersive Virtual Reality Techniques is an essential reference source that discusses new applications of virtual reality and how they can be integrated with immersive techniques and computer resources. Featuring research on topics such as 3D modeling, cognitive load, and motion cueing, this book is ideally designed for educators, academicians, researchers, and students seeking coverage on the applications of collaborative virtual environments.

(WCS CAN) Set: University of Toronto: Visualizing the Environment, Canadian Edition with Botkin: Environmental Change CustomVisualizing the EnvironmentJohn Wiley & Sons Incorporated

Rethinking Nature brings the voices of leading Continental philosophers into discussion about

what is emerging as one of our most pressing and timely concerns—the environmental crisis facing our planet. The essays featured in this volume embrace environmental philosophy in its broadest sense and include topics such as environmental ethics, environmental aesthetics, ontology, theology, gender and the environment, and the role of science and technology in forming knowledge about our world. Here, philosophy goes out into the field and comes back with rich insights and new approaches to environmental problems. This far-reaching and lively volume affords firm ground for thinking about the multiple ways that humans engage nature. Contributors are David Abram, Edward S. Casey, Daniel Cerezuelle, Ron Cooper, Bruce V. Foltz, Robert Frodeman, Trish Glazebrook, James Hatley, Robert Kirkman, Irene J. Klaver, Alphonso Lingis, Kenneth Maly, Diane Michelfelder, Elaine P. Miller, Robert Mugerauer, Stephen David Ross, John Sallis, Ingrid Leman Stefanovic, Bruce Wilshire, David Wood, and Michael E. Zimmerman.

An Updated Guide to the Visualization of Data for Designers, Users, and Researchers Interactive Data Visualization: Foundations, Techniques, and Applications, Second Edition provides all the theory, details, and tools necessary to build visualizations and systems involving the visualization of data. In color throughout, it explains basic terminology and concepts, algorithmic and software engineering issues, and commonly used techniques and high-level algorithms. Full source code is provided for completing implementations. New to the Second Edition New related readings, exercises, and programming projects Better quality figures and numerous new figures New chapter on techniques for time-oriented data This popular book continues to explore the fundamental components of the visualization process, from the data to the human viewer. For developers, the book offers guidance on designing

effective visualizations using methods derived from human perception, graphical design, art, and usability analysis. For practitioners, it shows how various public and commercial visualization systems are used to solve specific problems in diverse domains. For researchers, the text describes emerging technology and hot topics in development at academic and industrial centers today. Each chapter presents several types of exercises, including review questions and problems that motivate readers to build on the material covered and design alternate approaches to solving a problem. In addition, programming projects encourage readers to perform a range of tasks, from the simple implementation of algorithms to the extension of algorithms and programming techniques. Web Resource A supplementary website includes downloadable software tools and example data sets, enabling hands-on experience with the techniques covered in the text. The site also offers links to useful data repositories and data file formats, an up-to-date listing of software packages and vendors, and instructional tools, such as reading lists, lecture slides, and demonstration programs. Although health equity and diversity-focussed research has begun to gain momentum, there is still a paucity of research from health geographers that explicitly explores how geographic factors, such as place, space, scale, community, and location, inform multiple axes of difference. Such axes can include residential location, age, sex, gender, race/ethnicity, culture, religion, socio-economic status, marital status, sexual orientation, education level, and immigration status. Specifically focussing on Canada's rapidly changing society, which is becoming increasingly pluralized and diverse, this book examines the place-health-diversity intersection in this national context. Health geographers are well positioned to offer a valuable contribution to diversity-focussed research because place is inextricably linked to differential

experiences of health. For example, access to health care and health promoting services and resources is largely influenced by where one is physically and socially situated within the web of diversity. Furthermore, applying geographic concepts like place, in both the physical and social sense, allows researchers to explore multiple axes of difference simultaneously. Such geographic perspectives, as presented in this book, offer new insights into what makes diverse people, in diverse places, with access to diverse resources (un)healthy in different ways in Canada and beyond.

Handbook of Approximation Algorithms and Metaheuristics, Second Edition reflects the tremendous growth in the field, over the past two decades. Through contributions from leading experts, this handbook provides a comprehensive introduction to the underlying theory and methodologies, as well as the various applications of approximation algorithms and metaheuristics. Volume 1 of this two-volume set deals primarily with methodologies and traditional applications. It includes restriction, relaxation, local ratio, approximation schemes, randomization, tabu search, evolutionary computation, local search, neural networks, and other metaheuristics. It also explores multi-objective optimization, reoptimization, sensitivity analysis, and stability. Traditional applications covered include: bin packing, multi-dimensional packing, Steiner trees, traveling salesperson, scheduling, and related problems. Volume 2 focuses on the contemporary and emerging applications of methodologies to problems in combinatorial optimization, computational geometry and graphs problems, as well as in large-scale and emerging application areas. It includes approximation algorithms and heuristics for clustering, networks (sensor and wireless), communication, bioinformatics search, streams, virtual communities, and more. About the Editor Teofilo F. Gonzalez is a professor emeritus of

computer science at the University of California, Santa Barbara. He completed his Ph.D. in 1975 from the University of Minnesota. He taught at the University of Oklahoma, the Pennsylvania State University, and the University of Texas at Dallas, before joining the UCSB computer science faculty in 1984. He spent sabbatical leaves at the Monterrey Institute of Technology and Higher Education and Utrecht University. He is known for his highly cited pioneering research in the hardness of approximation; for his sublinear and best possible approximation algorithm for k-tMM clustering; for introducing the open-shop scheduling problem as well as algorithms for its solution that have found applications in numerous research areas; as well as for his research on problems in the areas of job scheduling, graph algorithms, computational geometry, message communication, wire routing, etc. The third edition of this well-received textbook delivers a concise overview of global and individual environmental pollution for undergraduate courses, presenting students with the tools to assess environmental issues. With more than thirty percent new material, Hill assesses pollution from an international perspective, including air and water pollution, global warming, energy, solid and hazardous waste, and pollution at home. Both the sources and impacts of pollution are addressed, as well as governmental, corporate, and personal responsibility for pollution, and pollution prevention is emphasized throughout. Non-technical language encourages greater understanding of these often complex issues, and thought-provoking 'Delving Deeper' exercises are included, increasing engagement with the text and enabling students to apply what they have learned. A new chapter on the chemistry basics of pollution links to sections on toxicology and risk assessment, helping students understand concerns over chemicals and their regulation. An essential review of environmental pollution for

environmental science students.

"This book addresses existing solutions for data mining, with particular emphasis on potential real-world applications. It captures defining research on topics such as fuzzy set theory, clustering algorithms, semi-supervised clustering, modeling and managing data mining patterns, and sequence motif mining"--Provided by publisher.

American territorial borders have undergone significant and unparalleled changes in the last decade. They serve as a powerful and emotionally charged locus for American national identity that correlates with the historical idea of the frontier. But the concept of the frontier, so central to American identity throughout modern history, has all but disappeared in contemporary representation while the border has served to uncomfortably fill the void left in the spatial imagination of American culture. This book focuses on the shifting relationship between borders and frontiers in North America, specifically the ways in which they have been imaged and imagined since their formation in the 19th century and how tropes of visuality are central to their production and meaning. Rodney links ongoing discussions in political geography and visual culture in new ways to demonstrate how contemporary American borders exhibit security as a display strategy that is resisted and undermined through a variety of cultural practices.

The 5th Edition of Visualizing Environmental Science provides students with a valuable opportunity to identify and connect the central issues of environmental science through a visual approach. Beautifully illustrated, this fifth edition shows students what the discipline is all about—its main concepts and applications—while also instilling an appreciation and excitement about the richness of the subject. This edition is thoroughly refined and expanded; the visuals

utilize insights from research on student learning and feedback from users.

This volume presents the proceedings of the International Workshop on Database Issues for Data Visualization, held in conjunction with the IEEE Visualization '93 conference in San Jose, California in October 1993. The book contains 13 technical contributions organized in sections on datamodels; system integration issues; and interaction, user interfaces, and presentation issues. In addition there are three introductory section surveys and an overall workshop description summarizing the whole event. In total, the reader is presented with a thoroughly refereed and carefully edited state-of-the-art report on the hot interdisciplinary topic of database issues and data visualization.

Nowhere on Earth is the challenge for ecological understanding greater, and yet more urgent, than in those parts of the globe where human activity is most intense - cities. People need to understand how cities work as ecological systems so they can take control of the vital links between human actions and environmental quality, and work for an ecologically and economically sustainable future. An ecosystem approach integrates biological, physical and social factors and embraces historical and geographical dimensions, providing our best hope for coping with the complexity of cities. This book is a first of its kind effort to bring together leaders in the biological, physical and social dimensions of urban ecosystem research with leading education researchers, administrators and practitioners, to show how an understanding of urban ecosystems is vital for urban dwellers to grasp the fundamentals of ecological and environmental science, and to understand their own environment.

This book constitutes the thoroughly refereed post-conference proceedings of the 23rd International Symposium on High Performance Computing Systems and Applications, HPCS

2009, held in Kingston, Canada, in June 2009. The 29 revised full papers presented - fully revised to incorporate reviewers' comments and discussions at the symposium - were carefully selected for inclusion in the book. The papers are organized in topical sections on turbulence, materials and life sciences, bringing HPC to industry, computing science, mathematics, and statistics, as well as HPC systems and methods.

The explosion of public interest in the natural environment can, to a large extent, be attributed to greater public awareness of the impacts of global warming and climate change. This has led to increased research interest and funding directed at studies of issues affecting sensitive, natural environments. Not surprisingly, much of this work has required the innovative application of GIS and has led to a crucial research question: How should the environment be represented, modeled, analyzed, and visualized within a GIS? With contributions from recognized international experts, Representing, Modeling, and Visualizing the Natural Environment explores the interplay between data representation, modeling, and visualization in environmental studies. It reviews state-of-the-art GIS applications for the natural environment and presents them in the context of a range of recent studies. This focus identifies analytical challenges and illustrates broader opportunities for applying GIS within other areas of the sciences and social sciences. The integrated approach reflects the need for a single volume covering all aspects While many texts cover aspects of GIS application within an environmental context, few of these books focus specifically on the natural environment nor do they integrate the questions that encompass the full process of enquiry associated with GIS application in studies of the environment. The thirteenth volume in the widely recognized Innovations of GIS series, this book investigates each of these questions in turn, explicitly

addressing all aspects of GIS application in the natural environment.

First published in 1999, this volume is drawn from a 1992-1996 study and seeks to explain the news process used to identify a newsworthy issue and its application to understanding the construction of environmental news. Drawing upon information retrieval and dissemination via journalists, newspapers, television and radio stations, Fiona Campbell examines the co-existence of two extreme, different professions for a common aim. She argues that environmental information is pluralistic and complex, holding information meanings inherent in it, and that environmental news is a version of interpreted environmental information. Campbell discusses the idea that information changes as journalists gather, interpret and disseminate environmental information. A model is included, which describes the flow of environmental information in the media and shows that journalists retrieve information from a complex range of sources and repackage it in a simplified format. Campbell investigates the ways in which reporters routines their work procedures and how they apply the rules implicit in the news process. It examines the techniques used by journalists to evaluate news potential in environmental issues, the practices used to gather information and the methods employed to construct the news.

The perseveration of our natural environment has become a critical objective of environmental scientists, business owners, and citizens alike. Because we depend on natural resources to survive, uncovering methods for preserving and maintaining these

resources has become a focal point to ensure a high quality of life for future generations. Natural Resources Management: Concepts, Methodologies, Tools, and Applications emphasizes the importance of land, soil, water, foliage, and wildlife conservation efforts and management. Focusing on sustainability solutions and methods for preserving the natural environment, this critical multi-volume research work is a comprehensive resource for environmental conservationists, policymakers, researchers, and graduate-level students interested in identifying key research in the field of natural resource preservation and management.

Visualization in Modern Cartography explores links between the centuries-old discipline of cartography and today's revolutionary developments in scientific visualization. The book has three main goals: (1) to pass on design and symbolization expertise to the scientific visualization community - information that comes from centuries of pre-computer visualization by cartographers, and their more recent experiences with computerizing the discipline; (2) to help cartographers cope with the dramatic shift from print cartography to a dynamic virtual cartography for which their role is changing from that of map designer to one of spatial information display (and/or interface) designer; (3) to illustrate the expanded role for cartography in geographic, environmental, planning, and earth science applications that comes with the development of interactive geographic visualization tools. To achieve these goals, the book is divided into three parts. The first sets the historical, cognitive, and technological context for

geographic/cartographic visualization tool development. The second covers key technological, symbolization, and user interface issues. The third provides a detailed look at selected prototype geographic/cartographic visualization tools and their applications.

The three-volume set LNCS 10433, 10434, and 10435 constitutes the refereed proceedings of the 20th International Conference on Medical Image Computing and Computer-Assisted Intervention, MICCAI 2017, held inQuebec City, Canada, in September 2017. The 255 revised full papers presented were carefully reviewed and selected from 800 submissions in a two-phase review process. The papers have been organized in the following topical sections: Part I: atlas and surface-based techniques; shape and patch-based techniques; registration techniques, functional imaging, connectivity, and brain parcellation; diffusion magnetic resonance imaging (dMRI) and tensor/fiber processing; and image segmentation and modelling. Part II: optical imaging; airway and vessel analysis; motion and cardiac analysis; tumor processing; planning and simulation for medical interventions; interventional imaging and navigation; and medical image computing. Part III: feature extraction and classification techniques; and machine learning in medical image computing.

DATA ENGINEERING: Mining, Information, and Intelligence describes applied research aimed at the task of collecting data and distilling useful information from that data. Most of the work presented emanates from research completed through collaborations

between Acxiom Corporation and its academic research partners under the aegis of the Acxiom Laboratory for Applied Research (ALAR). Chapters are roughly ordered to follow the logical sequence of the transformation of data from raw input data streams to refined information. Four discrete sections cover Data Integration and Information Quality; Grid Computing; Data Mining; and Visualization. Additionally, there are exercises at the end of each chapter. The primary audience for this book is the broad base of anyone interested in data engineering, whether from academia, market research firms, or business-intelligence companies. The volume is ideally suited for researchers, practitioners, and postgraduate students alike. With its focus on problems arising from industry rather than a basic research perspective, combined with its intelligent organization, extensive references, and subject and author indices, it can serve the academic, research, and industrial audiences.

Copyright: c2d6b75a31b3274f6da7afc1e5151722