Case Study Mit

A practical guide to neural data analysis techniques that presents sample datasets and hands-on methods for analyzing the data. As neural data becomes increasingly complex, neuroscientists now require skills in computer programming, statistics, and data analysis. This book teaches practical neural data analysis techniques by presenting example datasets and developing techniques and tools for analyzing them. Each chapter begins with a specific example of neural data, which motivates mathematical and statistical analysis methods that are then applied to the data. This practical, hands-on approach is unique among data analysis textbooks and guides, and equips the reader with the tools necessary for real-world neural data analysis. The book begins with an introduction to MATLAB, the most common programming platform in neuroscience, which is used in the book. (Readers familiar with MATLAB can skip this chapter and might decide to focus on data type or method type.) The book goes on to cover neural field data and spike train data, spectral analysis, generalized linear models, coherence, and cross-frequency coupling. Each chapter offers a stand-alone case study that can be used separately as part of a targeted investigation. The book includes some mathematical discussion but does not focus on mathematical or statistical theory, emphasizing the practical instead. References are included for readers who want to explore the theoretical more deeply. The data and accompanying MATLAB code are freely available on the authors' website. The book can be used for upper-level undergraduate or graduate courses or as a professional reference.

MIT and the Rise of Entrepreneurial Science is a timely and authoritative book that analyses the transformation of the university's role in society as an expanded one involving economic and social development as well as teaching and research. The Massachusetts Institute of Technology invented the format for university-industry relations that has been copied all over America and latterly the rest of the world. This excellent book shows that the ground-breaking university-industry-government interactions have become one of the foundations of modern successful economies.

The process of user-centered innovation: how it can benefit both users and manufacturers and how its emergence will bring changes in business models and in public policy. Innovation is rapidly becoming democratized. Users, aided by improvements in computer and communications technology, increasingly can develop their own new products and services. These innovating users—both individuals and firms—often freely share their innovations with others, creating user-innovation communities and a rich intellectual commons. In Democratizing Innovation, Eric von Hippel looks closely at this emerging system of user-centered innovation. He explains why and when users find it profitable to develop new products and services for themselves, and why it often pays users to reveal their innovations freely for the use of all. The trend toward democratized innovation can be seen in software and information products—most notably in the free and open-source software movement—but also in physical products. Von Hippel's many examples of user innovation in action range from surgical equipment to surfboards to software security features. He shows that product and service development is concentrated among "lead users," who are ahead on marketplace trends and whose innovations are often commercially attractive. Von Hippel argues that manufacturers should redesign their innovation processes and that they should systematically seek out innovations developed by users. He points to businesses—the custom semiconductor industry is one example—that have learned to assist user-innovators by providing them with toolkits for developing new products. User innovation has a positive impact on social welfare, and von Hippel proposes that government policies, including R&D subsidies and tax credits, should be realigned to eliminate biases against it. The goal of a democratized user-centered innovation system, says von Hippel, is well worth striving for. An electronic version of this book is available under a Creative Commons license.

Scholars from across law and internet and media studies examine the human rights implications of today's platform society. Today such companies as Apple, Facebook, Google, Microsoft, and Twitter play an increasingly important role in how users form and express opinions, encounter information, debate, disagree, mobilize, and maintain their privacy. What are the human rights implications of an online domain managed by privately owned platforms? According to the Guiding Principles on Business and Human Rights, adopted by the UN Human Right Council in 2011, businesses have a responsibility to respect human rights and to carry out human rights due diligence. But this goal is dependent on the willingness of states to encode such norms into business regulations and of companies to comply. In this volume, contributors from across law and internet and media studies examine the state of human rights in today's platform society. The contributors consider the "datafication" of society, including the economic model of data extraction and the conceptualization of privacy. They examine online advertising, content moderation, corporate storytelling around human rights, and other platform practices. Finally, they discuss the relationship between human rights law and private actors, addressing such issues as private companies' human rights responsibilities and content regulation. Contributors Anja Bechmann, Fernando Bermejo, Agnès Callamard, Mikkel Flyverbom, Rikke Frank Jørgensen, Molly K. Land, Tarlach McGonagle, Jens-Erik Mai, Joris van Hoboken, Glen Whelan, Jillian C. York, Shoshana Zuboff, Ethan Zuckerman Open access edition published with generous support from Knowledge Unlatched and the Danish Council for Independent Research.

Sharing Cities

How to Transform Your Organization and Make Hybrid Work for Everyone

The Open Handbook of Linguistic Data Management

Secondary Analysis of Electronic Health Records

Histories and Futures of Urban Ecologies
Designed for Digital
Modern Architecture Through Case Studies 1945 to 1990
The Good Jobs Strategy
Recounts the story of how a notorious gang of MIT blackjack savants devised and received backing for a system for winning at the world's most sophisticated casinos, an endeavor that earned them more than three million dollars. Originally published as Bringing Down the House. Reissue. (A Columbia Pictures film, written by Peter Steinfeld & Allan Loeb, directed by Robert Luketic, releasing March 2008, starring Kevin Spacey, Kate Bosworth, Laurence Fishburne, Jim Sturgess, & others) (Current Affairs)
How companies can adapt in an era of continuous disruption: a guide to responding to such acute crises as COVID-19. When COVID-19 hit, businesses had to respond almost instantaneously--shifting employees to remote work, repairing broken supply chains, keeping pace with dramatically fluctuating customer demand. They were forced to adapt to a confluence of multiple disruptions inextricably linked to a longer-term, ongoing digital disruption. This book shows that companies that use disruption as an opportunity for innovation emerge from it stronger. Companies that merely attempt to "weather the storm" until things go back to normal (or the next normal), on the other hand, miss an opportunity to thrive. The authors, all experts on business and technology strategy, show that transformation is not a one-and-done event, but a continuous process of adapting to a volatile and uncertain environment. Drawing on five years of research into digital disruption--including a series of interviews with business leaders conducted during the COVID-19 crisis--they offer a framework for understanding disruption and tools for navigating it. They outline the leadership traits, business principles, technological infrastructure, and organizational building blocks essential for adapting to disruption, with examples from real-world organizations. Technology, they remind readers, is not an end in itself, but enables the capabilities essential for surviving an uncertain future: nimbleness, scalability, stability, and optionality.
Introduces the International Regimes Database (IRD), which enables scholars to study international regimes quantitatively; includes a description and demonstration of the database as well as a CD with the data protocol and current data.
Case studies, personal accounts, and analysis show how to recognize and combat pseudoscience in a post-truth world. In a post-truth, fake news world, we are particularly susceptible to the claims of pseudoscience. When emotions and opinions are more widely disseminated than scientific findings, and self-proclaimed experts get their expertise from Google, how can the average person distinguish real science from fake? This book examines pseudoscience from a variety of perspectives, through case studies, analysis, and personal accounts that show how to recognize pseudoscience, why it is so widely accepted, and how to advocate for real science. Contributors examine the basics of pseudoscience, including issues of cognitive bias; the costs of pseudoscience, with accounts of naturopathy and logical fallacies in the anti-vaccination movement; perceptions of scientific soundness; the mainstream presence of "integrative medicine," hypnosis, and parapsychology; and the use of case studies and new media in science advocacy. Contributors David Ball, Paul Joseph Barnett, Jeffrey Beall, Mark Benisz, Fernando Blanco, Ron Dumont, Stacy Ellenberg, Kevin M. Folta, Christopher French, Ashwin Gautam, Dennis M. Gorman, David H. Gorski, David K. Hecht, Britt Marie Hermes, Clyde F. Herreid, Jonathan Howard, Seth C. Kalichman, Leif Edward Ottesen Kennair, Arnold Kozak, Scott O. Lilienfeld, Emilio Lobato, Steven Lynn, Adam Marcus, Helena Matute, Ivan Oransky, Chad Orzel, Dorit Reiss, Ellen Beate Hansen Sandseter, Kavin Senapathy, Dean Keith Simonton, Indre Viskontas, John O. Willis, Corrine Zimmerman
The Constitution of Algorithms
Learning to Communicate in Science and Engineering
Redesigning Work
Ground-Truthing, Programming, Formulating
IT Governance
Learning with Cases
A Case Study
How Singapore and MIT Created a New University
Case studies and pedagogical strategies to help science and engineering students improve their writing and speaking skills while developing professional identities. To many science and engineering students, the task of writing may seem irrelevant to their future professional careers. At MIT, however, students discover that writing about their technical work is important not only in solving real-world problems but also in developing their professional identities. MIT puts into practice the belief that "engineers who don't write well end up working for engineers who do write well," requiring all students to take "communications-intensive" classes in which they learn from MIT faculty and writing instructors

how to express their ideas in writing and in presentations. Students are challenged not only to think like professional scientists and engineers but also to communicate like them.This book offers in-depth case studies and pedagogical strategies from a range of science and engineering communication-intensive classes at MIT. It traces the progress of seventeen students from diverse backgrounds in seven classes that span five departments. Undergraduates in biology attempt to turn scientific findings into a research article; graduate students learn to define their research for scientific grant writing; undergraduates in biomedical engineering learn to use data as evidence; and students in aeronautic and astronautic engineering learn to communicate collaboratively. Each case study is introduced by a description of its theoretical and curricular context and an outline of the objectives for the students' activities. The studies describe the on-the-ground realities of working with faculty, staff, and students to achieve communication and course goals, offering lessons that can be easily applied to a wide variety of settings and institutions.

Firms with superior IT governance have more than 25% higher profits than firms with poor governance given the same strategic objectives. These top performers have custom designed IT governance for their strategies. Just as corporate governance aims to ensure quality decisions about all corporate assets, IT governance links IT decisions with company objectives and monitors performance and accountability. Based on a study of 250 enterprises worldwide, IT Governance shows how to design and implement a system of decision rights that will transform IT from an expense to a profitable investment.

The use of case studies to build and test theories in political science and the other social sciences has increased in recent years. Many scholars have argued that the social sciences rely too heavily on quantitative research and formal models and have attempted to develop and refine rigorous methods for using case studies. This text presents a comprehensive analysis of research methods using case studies and examines the place of case studies in social science methodology. It argues that case studies, statistical methods, and formal models are complementary rather than competitive. The book explains how to design case study research that will produce results useful to policymakers and emphasizes the importance of developing policy-relevant theories. It offers three major contributions to case study methodology: an emphasis on the importance of within-case analysis, a detailed discussion of process tracing, and development of the concept of typological theories. Case Studies and Theory Development in the Social Sciences will be particularly useful to graduate students and scholars in social science methodology and the philosophy of science, as well as to those designing new research projects, and will contribute greatly to the broader debate about scientific methods.

The second edition of a comprehensive introduction to machine learning approaches used in predictive data analytics, covering both theory and practice. Machine learning is often used to build predictive models by extracting patterns from large datasets. These models are used in predictive data analytics applications including price prediction, risk assessment, predicting customer behavior, and document classification. This introductory textbook offers a detailed and focused treatment of the most important machine learning approaches used in predictive data analytics, covering both theoretical concepts and practical applications. Technical and mathematical material is augmented with explanatory worked examples, and case studies illustrate the application of these models in the broader business context. This second edition covers recent developments in machine learning, especially in a new chapter on deep learning, and two new chapters that go beyond predictive analytics to cover unsupervised learning and reinforcement learning.

Blueprints for Modern Living
Civic Media
How MIT Nurtured Pioneering Entrepreneurs Who Built Great Companies
Case Studies in Neural Data Analysis
Human Rights in the Age of Platforms
A First Course
Individual and Collective Memory Consolidation

Examinations of civic engagement in digital culture—the technologies, designs, and practices that support connection through common purpose in civic, political, and social life. Countless people around the world harness the affordances of digital media to enable democratic participation, coordinate disaster relief, campaign for policy change, and strengthen local advocacy groups. The world watched as activists used social media to organize protests during the Arab Spring, Occupy Wall Street, and Hong Kong's Umbrella Revolution. Many governmental and community organizations changed their mission and function as they adopted new digital tools and practices. This book examines the use of "civic media"—the technologies, designs, and practices that support connection through common purpose in civic, political, and social life. Scholars from a range of disciplines and practitioners from a variety of organizations offer analyses and case studies that explore the theory and practice of civic media. The contributors set out the conceptual context for the intersection of civic and media; examine the pressure to innovate and the sustainability of innovation; explore play as a template for resistance; look at civic education; discuss media-enabled activism in communities; and consider methods and funding for civic media research. The case studies that round out each section range from a "debt resistance" movement to government service delivery ratings to the "It Gets Better" campaign aimed at combating suicide among lesbian, gay, bisexual, transgender, and queer youth. The book offers a valuable interdisciplinary dialogue on the challenges and opportunities of the increasingly influential space of civic media.

Learning to Communicate in Science and EngineeringCase Studies from MITMIT Press

A laboratory study that investigates how algorithms come into existence. Algorithms--often associated with the terms big data, machine learning, or artificial intelligence--underlie the technologies we use every day, and disputes over the consequences, actual or potential, of new algorithms arise regularly. In this book, Florian Jaton offers a new way to study computerized methods, providing an account of where algorithms come from and how they are constituted, investigating the practical activities by which algorithms are progressively assembled rather than what they may suggest or require once they are assembled.

Once again, new interpretations are presented of some of the most famous architecture of the period. Work by lesser-known architects, whose influence and role have been overlooked by conventional histories of the subject, is discussed. The case study structure allows each example to be discussed and used as a springboard to explore different theoretical approaches. Filled with beautiful photographs, plans and architect's drawings, this is a clear and accessible discussion on a period of architecture that engages many questions still under debate in architecture today.

Management
Case Studies and Theory Development in the Social Sciences

Business Dynamics: Systems Thinking and Modeling for a Complex World with CD-ROM
How the Smartest Companies Invest in Employees to Lower Costs and Boost Profits
The Transformation Myth
A Case Study of Implementing Change
Inventing and Delivering Its Future
Case Studies from MIT

This book is a firsthand account of the past, present, and future of entrepreneurship at MIT from the man who has led those endeavorssince the beginning, and the stories of the entrepreneurs nurtured by MIT.

A practice-based guide to applying the principles of human-centered design to real-world health challenges; updated and expanded with post–COVID-19 innovations. This book offers a practice-based guide to applying the principles of human-centered design to real-world health challenges that range from drug packaging to breast cancer detection. Written by pioneers in the field—Bon Ku, a physician leader in innovative health design, and Ellen Lupton, an award-winning graphic designer—the book outlines the fundamentals of design thinking and highlights important products, prototypes, and research in health design. This revised and expanded edition describes innovations developed in response to the COVID-19 crisis, including an intensive care unit in a shipping container, a rolling cart with intubation equipment, and a mask brace that gives a surgical mask a tighter seal. The book explores the special overlap of health care and the creative process, describing the development of such products and services as a credit card–sized device that allows patients to generate their own electrocardiograms; a mask designed to be worn with a hijab; improved emergency room signage; and a map of racial disparities and COVID-19. It will be an essential volume for health care providers, educators, patients, and designers who seek to create better experiences and improved health outcomes for individuals and communities.

The MIT Sloan School of Management, as conceived by the legendary General Motors chairman Alfred P. Sloan, was founded in 1952 to draw on the scientific and technical resources of MIT and approach the problems of management with the rigorous research practices for which MIT was famous. Fifty years later, the Sloan School gathered international leaders in business and management, MIT faculty, students, and alumni to address again the basic principles that should guide business and management. This book presents the papers prepared by student-faculty teams, speeches by business and world leaders, and summaries of the discussions from this special convocation; taken together, they offer a guide to the future of management based on the hallmarks of MIT and Sloan—creativity and innovation. The topics considered coalesced around three main themes. First, and paramount, is the necessity of building and maintaining trust by means of openness, transparency, and accountability; this was addressed in speeches by Kofi Annan and Carly Fiorina and exemplified by the case study presented of Nike?s efforts to rebuild the trust of customers. The increasingly complex conditions of the modern global economy emerged as another recurring theme, as the participants considered the effect of the growing spectrum of stakeholders on issues of corporate governance. The third common theme was the inescapability of technological and scientific change, from the Internet as a marketing tool to the organizational impact of information technology.

How cities can build on the "sharing economy" and smart technology to deliver a "sharing paradigm" that supports justice, solidarity, and sustainability.
Conflict and Negotiation over Public Space
Celebrating Entrepreneurs
A Case for Truly Smart and Sustainable Cities
From Case Study to Database
Shakespeare and Digital Pedagogy
21: Bringing Down the House - Movie Tie-In
Ivory Bridges
Analogous Processes on Different Levels

Explains how today's workers are a company's greatest asset and should be treated as such and discusses the flaws in the trend that sent service, manufacturing and retail sector jobs overseas in an effort to stay competitive through reduced wages and benefits. 25,000 first printing.

Includes eight main essays as well as contributions from Elizabeth A.T. Smith, this volume documents the Case Study House Progam, carried out between 1945 and 1966 where 36 experimental prototype houses were built by leading Californian architects.

This book trains the next generation of scientists representing different disciplines to leverage the data generated during routine patient care. It formulates a more complete lexicon of evidence-based recommendations and support shared, ethical decision making by doctors with their patients. Diagnostic and therapeutic technologies continue to evolve rapidly, and both individual practitioners and clinical teams face increasingly complex ethical decisions. Unfortunately, the current state of medical knowledge does not provide the guidance to make the majority of clinical decisions on the basis of evidence. The present research infrastructure is inefficient and frequently produces unreliable results that cannot be replicated. Even randomized controlled trials (RCTs), the traditional gold standards of the research reliability hierarchy, are not without limitations. They can be

costly, labor intensive, and slow, and can return results that are seldom generalizable to every patient population. Furthermore, many pertinent but unresolved clinical and medical systems issues do not seem to have attracted the interest of the research enterprise, which has come to focus instead on cellular and molecular investigations and single-agent (e.g., a drug or device) effects. For clinicians, the end result is a bit of a "data desert" when it comes to making decisions. The new research infrastructure proposed in this book will help the medical profession to make ethically sound and well informed decisions for their patients.

Today's leading authority on the subject of this text is the author, MIT Standish Professor of Management and Director of the System Dynamics Group, John D. Sterman. Sterman's objective is to explain, in a true textbook format, what system dynamics is, and how it can be successfully applied to solve business and organizational problems. System dynamics is both a currently utilized approach to organizational problem solving at the professional level, and a field of study in business, engineering, and social and physical sciences.

Case Studies in Common Lisp

Health Design Thinking, second edition

Grounding Urban Natures

The Inside Story of Six M.I.T. Students Who Took Vegas for Millions

The MIT Leaders for Manufacturing Program

Managing Organizational Change at the MIT Sloan School of Management

Thinking as Computation

Theory, Econometrics, and an Application to Automobile Demand

An argument that individuals and collectives form memories by analogous processes and a case study of collective retrograde amnesia. We form individual memories by a process known as consolidation: the conversion of immediate and fleeting bits of information into a stable and accessible representation of facts and events. These memories provide a version of the past that helps us navigate the present and is critical to individual identity. In this book, Thomas Anastasio, Kristen Ann Ehrenberger, Patrick Watson, and Wenyi Zhang propose that social groups form collective memories by analogous processes. Using facts and insights from neuroscience, psychology, anthropology, and history, they describe a single process of consolidation with analogous—not merely comparable—manifestations on any level, whether brain, family, or society. They propose a three-in-one model of memory consolidation, composed of a buffer, a relator, and a generalizer, all within the consolidating entity, that can explain memory consolidation phenomena on individual and collective levels. When consolidation is disrupted by traumatic injury to a brain structure known as the hippocampus, memories in the process of being consolidated are lost. In individuals, this is known as retrograde amnesia. The authors hypothesize a "social hippocampus" and argue that disruption at the collective level can result in collective retrograde amnesia. They offer the Chinese Cultural Revolution (1966–1976) as an example of trauma to the social hippocampus and present evidence for the loss of recent collective memory in mainland Chinese populations that experienced the Cultural Revolution.

Case studies from cities on five continents demonstrate the advantages of thinking comparatively about urban environments. The global discourse around urban ecology tends to homogenize and universalize, relying on such terms as "smart cities," "eco-cities," and "resilience," and proposing a "science of cities" based largely on information from the Global North. Grounding Urban Natures makes the case for the importance of place and time in understanding urban environments. Rather than imposing a unified framework on the ecology of cities, the contributors use a variety of approaches across a range of of locales and timespans to examine how urban natures are part of—and are shaped by—cities and urbanization. Grounding Urban Natures offers case studies from cities on five continents that demonstrate the advantages of thinking comparatively about urban environments. The contributors consider the diversity of urban natures, analyzing urban ecologies that range from the coastal delta of New Orleans to real estate practices of the urban poor in Lagos. They examine the effect of popular movements on the meanings of urban nature in cities including San Francisco, Delhi, and Berlin. Finally, they explore abstract urban planning models and their global mobility, examining real-world applications in such cities as Cape Town, Baltimore, and the Chinese "eco-city" Yixing. Contributors Martín Ávila, Amita Baviskar, Jia-Ching Chen, Henrik Ernstson, James Evans, Lisa M. Hoffman, Jens Lachmund, Joshua Lewis, Lindsay Sawyer, Sverker Sörlin, Anne Whiston Spirn, Lance van Sittert, Richard A. Walker

The chronicle of a ten-year partnership between MIT and Singapore's Education Ministry that shows cross-border collaboration in higher education in action. In this book, Dara Fisher chronicles the decade-long collaboration between MIT and Singapore's Education Ministry to establish the Singapore University of Technology and Design (SUTD). Fisher shows how what began as an effort by MIT to export its vision and practices to Singapore became an exercise in adaptation by actors on the ground. As cross-border higher education partnerships become more widespread, Fisher's account of one such collaboration in theory and practice is especially timely.

Practical advice for redesigning "big, old" companies for digital success, with examples from Amazon, BNY Mellon, LEGO, Philips, USAA, and many other global organizations. Most established companies have deployed such digital technologies as the cloud, mobile apps, the internet of things, and artificial intelligence. But few established companies are designed for digital. This book offers an essential guide for retooling organizations for digital success. In the digital economy, rapid pace of change in technology capabilities and customer desires means that business strategy must be fluid. As a result, the authors explain, business design has become a critical management responsibility. Effective business design enables a company to

quickly pivot in response to new competitive threats and opportunities. Most leaders today, however, rely on organizational structure to implement strategy, unaware that structure inhibits, rather than enables, agility. In companies that are designed for digital, people, processes, data, and technology are synchronized to identify and deliver innovative customer solutions—and redefine strategy. Digital design, not strategy, is what separates winners from losers in the digital economy. Designed for Digital offers practical advice on digital transformation, with examples that include Amazon, BNY Mellon, DBS Bank, LEGO, Philips, Schneider Electric, USAA, and many other global organizations. Drawing on five years of research and in-depth case studies, the book is an essential guide for companies that want to disrupt rather than be disrupted in the new digital landscape. Five Building Blocks of Digital Business Success Shared Customer Insights Operational Backbone Digital Platform Accountability Framework External Developer Platform

Fundamentals of Machine Learning for Predictive Data Analytics, second edition

How Top Performers Manage IT Decision Rights for Superior Results

The Conspiracy Against Science

Leading Your Organization through Uncertain Times

A Case Study of the TEAM Seminar

Sidewalks

Technology, Design, Practice

Education Crossing Borders

Examines the evolution of an undervalued urban space and how conflicts over competing uses—from the right to sit to the right to parade—have been negotiated. Urban sidewalks, critical but undervalued public spaces, have been sites for political demonstrations and urban greening, promenades for the wealthy and the well-dressed, and shelterless shelters for the homeless. On sidewalks, decade after decade, urbanites have socialized, paraded, and played, sold their wares, and observed city life. These many uses often overlap and conflict, and urban residents and planners try to include some and exclude others. In this first book-length analysis of the sidewalk as a distinct public space, Anastasia Loukaitou-Sideris and Renia Ehrenfeucht examine the evolution of the American urban sidewalk and trace conflicts that have arisen over its competing uses. Drawing on historical and contemporary examples as well as case study research and archival data from five cities—Boston, Los Angeles, New York, Miami, and Seattle—they discuss the characteristics of sidewalks as small urban public spaces, and such related issues as the ambiguous boundaries of their "public" status, contestation over specific uses, control and regulations, and the implications for First Amendment speech and assembly rights.

How do we make the most of the greatest global shift in the world of work for a century and radically redesign the way we work—forever? Professor Lynda Gratton is the global thought-leader on the future of work. Drawing on thirty years of research into the technological, demographic, cultural, and societal trends that are shaping work and building on what we learned through our experiences of the pandemic, Gratton presents her innovative four-step framework for redesigning work that will help you: Understand your people and what drives performance Reimagine creative new ways to work Model and test these approaches within your organization Act and create to ensure your redesign has lasting benefits Gratton presents real-world case studies that show companies grappling with work challenges. These include the global bank HSBC, which built a multidisciplinary team to understand the employee experience; the Japanese technology company Fujitsu, which reimagined three kinds of "perfect" offices; and the Australian telecommunications company Telstra, which established new roles to coordinate work across the organization. Whether you're working in a small team or running a multinational, Redesigning Work is the definitive book on how to transform your organization and make hybrid working work for you.

This book addresses two significant research areas in an interdependent fashion. It is first of all a comprehensive but concise text that covers the recently developed and widely applicable methods of qualitative choice analysis, illustrating the general theory through simulation models of automobile demand and use. It is also a detailed study of automobile demand and use, presenting forecasts based on these powerful new techniques. The book develops the general principles that underlie qualitative choice models that are now being applied in numerous fields in addition to transportation, such as housing, labor, energy, communications, and criminology. The general form, derivation, and estimation of qualitative choice models are explained, and the major models - logit, probit, and GEV - are discussed in detail. And continuous/discrete models are introduced. In these, qualitative choice methods and standard regression techniques are combined to analyze situations that neither alone can accurately forecast. Summarizing previous research on auto demand, the book shows how qualitative choice methods can be used by applying them to specific auto-related decisions as the aggregate of individuals' choices. The simulation model that is constructed is a significant improvement over older models, and should prove more useful to agencies and organizations requiring accurate forecasting of auto demand and use for planning and policy development. The book concludes with an actual case study based on a model designed for the investigations of the California Energy Commission. Kenneth Train is Visiting Associate Professor in Economics at the University of California, Berkeley, and Director of Economic Research at Cambridge Systematics, Inc., also in Berkeley. Qualitative Choice Analysis is included in The MIT Press Transportation Studies Series, edited by Marvin L. Manheim.

A guide to principles and methods for the management, archiving, sharing, and citing of linguistic research data, especially digital data. "Doing language science" depends on collecting, transcribing, annotating, analyzing, storing, and sharing linguistic research data. This volume offers a guide to linguistic data management, engaging with current trends toward the transformation of linguistics into a more data-driven and reproducible scientific endeavor. It offers both principles and methods, presenting the conceptual foundations of linguistic data management and a series of case studies, each of which demonstrates a concrete application of abstract principles in a current practice. In part 1, contributors bring together knowledge from information science, archiving, and data stewardship relevant to linguistic data management. Topics covered include implementation principles, archiving data, finding and using datasets, and the valuation of time and effort involved in data management. Part 2 presents snapshots of practices across various subfields, with each chapter presenting a unique data management project with generalizable guidance for researchers. The

Open Handbook of Linguistic Data Management is an essential addition to the toolkit of every linguist, guiding researchers toward making their data FAIR: Findable, Accessible, Interoperable, and Reusable.

Qualitative Choice Analysis

Pseudoscience

How to Architect Your Business for Sustained Success

Analyzing International Environmental Regimes

Financial Reporting at the MIT Formula SAE Team

Case Studies and Strategies

History and Legacy of the Case Study Houses

Democratizing Innovation

Paradigms of AI Programming is the first text to teach advanced Common Lisp techniques in the context of building major AI systems. By reconstructing authentic, complex AI programs using state-of-the-art Common Lisp, the book teaches students and professionals how to build and debug robust practical programs, while demonstrating superior programming style and important AI concepts. The author strongly emphasizes the practical performance issues involved in writing real working programs of significant size. Chapters on troubleshooting and efficiency are included, along with a discussion of the fundamentals of object-oriented programming and a description of the main CLOS functions. This volume is an excellent text for a course on AI programming, a useful supplement for general AI courses and an indispensable reference for the professional programmer.

A case study was performed on the financial reporting at the MIT Formula SAE team. For each section of the car it was necessary to provide three main financial documents: Bill of Materials, Process Descriptions, and Fasteners. Additionally, the team had to adhere to specific guidelines for preparing these documents and for compiling them all together to create the team's cost report. The purpose of the case study was threefold. First, it was intended to improve upon the quality and score of the cost report from previous years. Second, it was intended to alleviate some of the pressure from the team managers by not having to worry about preparing the cost report themselves. Finally, the case study was intended to help facilitate the preparation of the cost report in future years, so it does not have to be overshadowed by the completion of the vehicle. Therefore, the trend of increasing performance of the cost report can be maintained. In the end, the study proved to increase the team's cost report score, allowed the team managers to focus more on the production of the vehicle, and yielded templates and instructions, as well as a standard, for preparing future cost reports.

Students explore the idea that thinking is a form of computation by learning to write simple computer programs for tasks that require thought. This book guides students through an exploration of the idea that thinking might be understood as a form of computation. Students make the connection between thinking and computing by learning to write computer programs for a variety of tasks that require thought, including solving puzzles, understanding natural language, recognizing objects in visual scenes, planning courses of action, and playing strategic games. The material is presented with minimal technicalities and is accessible to undergraduate students with no specialized knowledge or technical background beyond high school mathematics. Students use Prolog (without having to learn algorithms: "Prolog without tears!"), learning to express what they need as a Prolog program and letting Prolog search for answers. After an introduction to the basic concepts, Thinking as Computation offers three chapters on Prolog, covering back-chaining, programs and queries, and how to write the sorts of Prolog programs used in the book. The book follows this with case studies of tasks that appear to require thought, then looks beyond Prolog to consider learning, explaining, and propositional reasoning. Most of the chapters conclude with short bibliographic notes and exercises. The book is based on a popular course at the University of Toronto and can be used in a variety of classroom contexts, by students ranging from first-year liberal arts undergraduates to more technically advanced computer science students.

A study of two bridges between science and society: governmental science policy and scientists' voluntary public-interest associations. According to a widespread stereotype, scientists occupy an ivory tower, isolated from other parts of society. To some extent this is true, and the resulting freedom to pursue curiosity-driven research has made possible extraordinary scientific advances. The spinoffs of "pure" science, however, have also had powerful impacts on society, and the potential for future impacts is even greater. The public and many policymakers, as well as many researchers, have paid insufficient attention to the mechanisms for interchange between science and society that have developed since World War II. Ivory Bridges examines two such mechanisms: governmental science policy (often involving the participation of "scientist administrators") and scientists' voluntary public-interest associations. The examination of science policy is guided by the notion of "Jeffersonian science"—-defined as basic research on topics identified as being in the national interest. The book illustrates the concept with a historical case study of the Press-Carter Initiative of the late 1970s and proposes that a Jeffersonian approach would make a valuable addition to future science policy. The book also looks at the activities of citizen-scientists who have organized themselves to promote the welfare of society. It shows that their numerous and diverse organizations have made major contributions to the commonweal and that they have helped to prevent science from becoming either too subservient to government or too autonomous. An extensive appendix profiles a wide variety of these organizations.

Creating Products and Services for Better Health

MIT and the Rise of Entrepreneurial Science

Managing Change--a Case Study of the Implementation of the TEAM Program at the MIT Sloan School of Management

A Guide for the Practicing Neuroscientist

Connecting Science and Society

Paradigms of Artificial Intelligence Programming
Algorithms, Worked Examples, and Case Studies
Shakespeare and Digital Pedagogy is an international collection of fresh digital approaches for teaching Shakespeare. It describes 15 methodologies, resources and tools recently developed, updated and used by a diverse range of contributors in Great Britain, Australia, Asia and the United States. Contributors explore how these digital resources meet classroom needs and help facilitate conversations about academic literacy, race and identity, local and global cultures, performance and interdisciplinary thought. Chapters describe each case study in depth, recounting needs, collaborations and challenges during design, as well as sharing effective classroom uses and offering accessible, usable content for both teachers and learners. The book will appeal to a broad range of readers. College and high school instructors will find a rich trove of usable teaching content and suggestions for mounting digital units in the classroom, while digital humanities and education specialists will find a snapshot of and theories about the field itself. With access to exciting new content from local archives and global networks, the collection aids teaching, research and reflection on Shakespeare for the 21st century.