

Truthful Art Data Charts Communication

NOW IN FULL COLOR! Written by sought-after speaker, designer, and researcher Stephanie D. H. Evergreen, *Effective Data Visualization* shows readers how to create Excel charts and graphs that best communicate their data findings. This comprehensive how-to guide functions as a set of blueprints—supported by both research and the author’s extensive experience with clients in industries all over the world—for conveying data in an impactful way. Delivered in Evergreen’s humorous and approachable style, the book covers the spectrum of graph types available beyond the default options, how to determine which one most appropriately fits specific data stories, and easy steps for building the chosen graph in Excel. Now in full color with new examples throughout, the Second Edition includes a revamped chapter on qualitative data, nine new quantitative graph types, new shortcuts in Excel, and an entirely new chapter on *Sharing Your Data With the World*, which provides advice on using dashboards. New from Stephanie Evergreen! *The Data Visualization Sketchbook* provides advice on getting started with sketching and offers tips, guidance, and completed sample sketches for a number of reporting formats. Bundle *Effective Data Visualization, 2e*, and *The Data Visualization Sketchbook*, using ISBN 978-1-5443-7178-8!

"This is a book about what the science of perception can tell us about visualization. There is a gold mine of information about how we see to be found in more than a century of work by vision researchers. The purpose of this book is to extract from that large body of research literature those design principles that apply to displaying information effectively"--

Systems programming provides the foundation for the world's computation. Writing performance-sensitive code requires a programming language that puts programmers in control of how memory, processor time, and other system resources are used. The Rust systems programming language combines that control with a modern type system that catches broad classes of common mistakes, from memory management errors to data races between threads. With this practical guide, experienced systems programmers will learn how to successfully bridge the gap between performance and safety using Rust. Jim Blandy, Jason Orendorff, and Leonora Tindall demonstrate how Rust's features put programmers in control over memory consumption and processor use by combining predictable performance with memory safety and trustworthy concurrency. You'll learn: Rust's fundamental data types and the core concepts of ownership and borrowing How to write flexible, efficient code with traits and generics How to write fast, multithreaded code without data races Rust's key power tools: closures, iterators, and asynchronous programming Collections, strings and text, input and output, macros, unsafe code, and foreign function interfaces This revised, updated edition covers the Rust 2021 Edition.

One of the "six best books for data geeks" - Financial Times With over 200 images and extensive how-to and how-not-to examples, this new edition has everything students and scholars need to understand and create effective data visualisations. Combining 'how to think' instruction with a 'how to produce' mentality, this book takes readers step-by-step through analysing, designing, and curating information into useful, impactful tools of communication. With this book and its extensive collection of online support, readers can: - Decide what visualisations work best for their data and their audience using the chart gallery - See data visualisation in action and learn the tools to try it themselves - Follow online checklists, tutorials, and exercises to build skills and confidence - Get advice from the UK's leading data visualisation trainer on everything from getting started to honing the craft. Explore more resources about data visualisation and Andy Kirk.

No matter what your actual job title, you are—or soon will be—a data worker. Every day, at work, home, and school, we are bombarded with vast amounts of free data collected and shared by everyone and everything from our co-workers to our calorie counters. In this highly anticipated follow-up to *The Functional Art*—Alberto Cairo’s foundational guide to understanding information graphics and visualization—the respected data visualization professor explains in clear terms how to work with data, discover the stories hidden within, and share those stories with the world in the form of charts, maps, and infographics. In *The Truthful Art*, Cairo transforms elementary principles of data and scientific reasoning into tools that you can use in daily life to interpret data sets and extract stories from them. *The Truthful Art* explains: • The role infographics and data visualization play in our world • Basic principles of data and scientific reasoning that anyone can master • How to become a better critical thinker • Step-by-step processes that will help you evaluate any data visualization (including your own) • How to create and use effective charts, graphs, and data maps to explain data to any audience *The Truthful Art* is also packed with inspirational and educational real-world examples of data visualizations from such leading publications as *The New York Times*, *The Wall Street Journal*, *Estado de São Paulo* (Brazil), *Berliner Morgenpost* (Germany), and many more.

Impossible ideas, invisible patterns, hidden connections—visualized Deepen your understanding of the world with these mind-blowing infographics from the bestselling author of *The Visual Miscellaneum*

Transform your marketing efforts through the power of visualcontent In today's fast-paced environment, you must communicate yourmessage in a concise and engaging way that sets it apart from thenoise. Visual content—such as infographics and datavisualization—can accomplish this. With DIY functionality, *Infographics: The Power of Visual Storytelling* will teachyou how to find stories in your data, and how to visuallycommunicate and share them with your audience for maximumimpact. Infographics will show you the vast potential to usingthe communication medium as a marketing tool by creatinginformative and shareable infographic content. Learn how to explain an object, idea, or process using strongillustration that captures interest and provides instantclarity Discover how to unlock interesting stories (in previouslyburied or boring data) and turn them into visual

communication that will help build brands and increase sales Use the power of visual content to communicate with and engage your audience, capture attention, and expand your market.

A new way of thinking about data science and data ethics that is informed by the ideas of intersectional feminism. Today, data science is a form of power. It has been used to expose injustice, improve health outcomes, and topple governments. But it has also been used to discriminate, police, and surveil. This potential for good, on the one hand, and harm, on the other, makes it essential to ask: Data science by whom? Data science for whom? Data science with whose interests in mind? The narratives around big data and data science are overwhelmingly white, male, and techno-heroic. In *Data Feminism*, Catherine D'Ignazio and Lauren Klein present a new way of thinking about data science and data ethics—one that is informed by intersectional feminist thought. Illustrating data feminism in action, D'Ignazio and Klein show how challenges to the male/female binary can help challenge other hierarchical (and empirically wrong) classification systems. They explain how, for example, an understanding of emotion can expand our ideas about effective data visualization, and how the concept of invisible labor can expose the significant human efforts required by our automated systems. And they show why the data never, ever “speak for themselves.” *Data Feminism* offers strategies for data scientists seeking to learn how feminism can help them work toward justice, and for feminists who want to focus their efforts on the growing field of data science. But *Data Feminism* is about much more than gender. It is about power, about who has it and who doesn't, and about how those differentials of power can be challenged and changed.

This second edition is a practical step-by-step guide to improving skills in analysis, critical thinking, and the effective communication of arguments and explanations.

Influence action through data! This is not a book. It is a one-of-a-kind immersive learning experience through which you can become—or teach others to be—a powerful data storyteller. *Let's practice!* helps you build confidence and credibility to create graphs and visualizations that make sense and weave them into action-inspiring stories. Expanding upon best seller *storytelling with data's* foundational lessons, *Let's practice!* delivers fresh content, a plethora of new examples, and over 100 hands-on exercises. Author and data storytelling maven Cole Nussbaumer Knaflic guides you along the path to hone core skills and become a well-practiced data communicator. Each chapter includes: ? Practice with Cole: exercises based on real-world examples first posed for you to consider and solve, followed by detailed step-by-step illustration and explanation ? Practice on your own: thought-provoking questions and even more exercises to be assigned or worked through individually, without prescribed solutions ? Practice at work: practical guidance and hands-on exercises for applying storytelling with data lessons on the job, including instruction on when and how to solicit useful feedback and refine for greater impact The lessons and exercises found within this comprehensive guide will empower you to master—or develop in others—data storytelling skills and transition your work from acceptable to exceptional. By investing in these skills for ourselves and our teams, we can all tell inspiring and influential data stories!

An expert on presenting information visually provides a step-by-step guide to executing clear, concise and intelligent graphics and charts for everyone from the average PowerPoint user to the sophisticated professional. Reprint.

Dataviz—the new language of business A good visualization can communicate the nature and potential impact of information and ideas more powerfully than any other form of communication. For a long time “dataviz” was left to specialists—data scientists and professional designers. No longer. A new generation of tools and massive amounts of available data make it easy for anyone to create visualizations that communicate ideas far more effectively than generic spreadsheet charts ever could. What's more, building good charts is quickly becoming a need-to-have skill for managers. If you're not doing it, other managers are, and they're getting noticed for it and getting credit for contributing to your company's success. In *Good Charts*, dataviz maven Scott Berinato provides an essential guide to how visualization works and how to use this new language to impress and persuade. *Dataviz* today is where spreadsheets and word processors were in the early 1980s—on the cusp of changing how we work. Berinato lays out a system for thinking visually and building better charts through a process of talking, sketching, and prototyping. This book is much more than a set of static rules for making visualizations. It taps into both well-established and cutting-edge research in visual perception and neuroscience, as well as the emerging field of visualization science, to explore why good charts (and bad ones) create “feelings behind our eyes.” Along the way, Berinato also includes many engaging vignettes of dataviz pros, illustrating the ideas in practice. *Good Charts* will help you turn plain, uninspiring charts that merely present information into smart, effective visualizations that powerfully convey ideas.

Foreword by Rob Sheffield Filled with stunning full-color infographics, a unique, album-by-album visual history of the evolution of the Beatles that examines how their style, their sound, their instruments, their songs, their tours, and the world they inhabited transformed over the course of a decade. Combining data, colorful artwork, interactive charts, graphs, and timelines, *Visualizing the Beatles* is a fresh and imaginative look at the world's most popular band. Meticulously examining the songs on every Beatles' album from *Please Please Me* to *Let It Be*, UK-based graphic artists John Pring and Rob Thomas deconstruct: lyrical content songwriting credits inspiration for the songs instruments used cover designs chart position and more They also break down the success of Beatles' singles across the world, their tour dates, venues, and cities, their hairstyles, fashion choices and favorite guitars, and a wealth of other Beatles' minutiae. *Visualizing the Beatles* also includes illustrations involving the conspiracy theories of the “Paul is dead” hoax as well as A-to-Z lists of every artist or performer who has ever covered a Beatles' song. Comprehensive, entertaining, and packed with fun facts, *Visualizing the Beatles* is a wonderful introduction for new fans and a must-have for devotees, offering a new way to think about this extraordinary band whose influence continues to shape music.

Mapping has been one of the most fertile areas of exploration for architecture and landscape in the past few decades. While documenting this shift in representation from the

material and physical description toward the depiction of the unseen and often immaterial, Cartographic Grounds takes a critical view toward the current use of data mapping and visualization and calls for a return to traditional cartographic techniques to reimagine the manifestation and manipulation of the ground itself. Each of the ten chapters focuses on a single cartographic technique—sounding/spot elevation, isobath/contour, hachure/hatch, shaded relief, land classification, figure-ground, stratigraphic column, cross-section, line symbol, conventional sign—and illustrates it through beautiful maps and plans from notable designers and cartographers throughout history, from Leonardo da Vinci to James Corner Field Operations. Mohsen Mostafavi, dean of the Harvard Graduate School of Design, introduces the book.

Every enterprise application creates data, whether it's log messages, metrics, user activity, outgoing messages, or something else. And how to move all of this data becomes nearly as important as the data itself. If you're an application architect, developer, or production engineer new to Apache Kafka, this practical guide shows you how to use this open source streaming platform to handle real-time data feeds. Engineers from Confluent and LinkedIn who are responsible for developing Kafka explain how to deploy production Kafka clusters, write reliable event-driven microservices, and build scalable stream-processing applications with this platform. Through detailed examples, you'll learn Kafka's design principles, reliability guarantees, key APIs, and architecture details, including the replication protocol, the controller, and the storage layer. Understand publish-subscribe messaging and how it fits in the big data ecosystem. Explore Kafka producers and consumers for writing and reading messages Understand Kafka patterns and use-case requirements to ensure reliable data delivery Get best practices for building data pipelines and applications with Kafka Manage Kafka in production, and learn to perform monitoring, tuning, and maintenance tasks Learn the most critical metrics among Kafka's operational measurements Explore how Kafka's stream delivery capabilities make it a perfect source for stream processing systems

Effective visualization is the best way to communicate information from the increasingly large and complex datasets in the natural and social sciences. But with the increasing power of visualization software today, scientists, engineers, and business analysts often have to navigate a bewildering array of visualization choices and options. This practical book takes you through many commonly encountered visualization problems, and it provides guidelines on how to turn large datasets into clear and compelling figures. What visualization type is best for the story you want to tell? How do you make informative figures that are visually pleasing? Author Claus O. Wilke teaches you the elements most critical to successful data visualization. Explore the basic concepts of color as a tool to highlight, distinguish, or represent a value Understand the importance of redundant coding to ensure you provide key information in multiple ways Use the book's visualizations directory, a graphical guide to commonly used types of data visualizations Get extensive examples of good and bad figures Learn how to use figures in a document or report and how employ them effectively to tell a compelling story

Explore different perspectives and approaches to create more effective visualizations #MakeoverMonday offers inspiration and a giant dose of perspective for those who communicate data. Originally a small project in the data visualization community, #MakeoverMonday features a weekly chart or graph and a dataset that community members reimagine in order to make it more effective. The results have been astounding; hundreds of people have contributed thousands of makeovers, perfectly illustrating the highly variable nature of data visualization. Different takes on the same data showed a wide variation of theme, focus, content, and design, with side-by-side comparisons throwing more- and less-effective techniques into sharp relief. This book is an extension of that project, featuring a variety of makeovers that showcase various approaches to data communication and a focus on the analytical, design and storytelling skills that have been developed through #MakeoverMonday. Paging through the makeovers ignites immediate inspiration for your own work, provides insight into different perspectives, and highlights the techniques that truly make an impact. Explore the many approaches to visual data communication Think beyond the data and consider audience, stakeholders, and message Design your graphs to be intuitive and more communicative Assess the impact of layout, color, font, chart type, and other design choices Creating visual representation of complex datasets is tricky. There's the mandate to include all relevant data in a clean, readable format that best illustrates what the data is saying—but there is also the designer's impetus to showcase a command of the complexity and create multidimensional visualizations that "look cool." #MakeoverMonday shows you the many ways to walk the line between simple reporting and design artistry to create exactly the visualization the situation requires.

The MATLAB® programming environment is often perceived as a platform suitable for prototyping and modeling but not for "serious" applications. One of the main complaints is that MATLAB is just too slow. Accelerating MATLAB Performance aims to correct this perception by describing multiple ways to greatly improve MATLAB program speed. Packed with thousands of helpful tips, it leaves no stone unturned, discussing every aspect of MATLAB. Ideal for novices and professionals alike, the book describes MATLAB performance in a scale and depth never before published. It takes a comprehensive approach to MATLAB performance, illustrating numerous ways to attain the desired speedup. The book covers MATLAB, CPU, and memory profiling and discusses various tradeoffs in performance tuning. It describes both the application of standard industry techniques in MATLAB, as well as methods that are specific to MATLAB such as using different data types or built-in functions. The book covers MATLAB vectorization, parallelization (implicit and explicit), optimization, memory management, chunking, and caching. It explains MATLAB's memory model and details how it can be leveraged. It describes the use of GPU, MEX, FPGA, and other forms of compiled code, as well as techniques for speeding up deployed applications. It details specific tips for MATLAB GUI, graphics, and I/O. It also reviews a wide variety of utilities, libraries, and toolboxes that can help to improve performance. Sufficient information is provided to allow readers to immediately apply the suggestions to their own MATLAB programs. Extensive references are also included to allow those who wish to expand the treatment of a particular topic to do so easily.

Supported by an active website, and numerous code examples, the book will help readers rapidly attain significant reductions in development costs and program run times. In *Data Sketches*, Nadieh Bremer and Shirley Wu document the deeply creative process behind 24 unique data visualization projects, and they combine this with powerful technical insights which reveal the mindset behind coding creatively. Exploring 12 different themes – from the Olympics to Presidents & Royals and from Movies to Myths & Legends – each pair of visualizations explores different technologies and forms, blurring the boundary between visualization as an exploratory tool and an artform in its own right. This beautiful book provides an intimate, behind-the-scenes account of all 24 projects and shares the authors' personal notes and drafts every step of the way. The book features: Detailed information on data gathering, sketching, and coding data visualizations for the web, with screenshots of works-in-progress and reproductions from the authors' notebooks Never-before-published technical write-ups, with beginner-friendly explanations of core data visualization concepts Practical lessons based on the data and design challenges overcome during each project Full-color pages, showcasing all 24 final data visualizations This book is perfect for anyone interested or working in data visualization and information design, and especially those who want to take their work to the next level and are inspired by unique and compelling data-driven storytelling. The success of a piece of communication has always been dependent on the connection between content, form, audience and context – what the message is, who it's aimed at, what it looks like, and how and where it's communicated. In recent years the balance between these elements has shifted. This book bridges the gap between education and emerging practices to provide students and practitioners with the information they need to understand the new skillsets required to succeed in this changing communication environment. Organized into themes of brand, experience, conversation, participation, navigation, advocacy and critique, it explores the core ideas shaping contemporary practice. Alongside case studies of game changing projects, it uses analysis of historical context and interviews with key thinkers and practitioners to provide a relevant and contemporary guide to the creative employment landscape.

Scientific progress depends on good research, and good research needs good statistics. But statistical analysis is tricky to get right, even for the best and brightest of us. You'd be surprised how many scientists are doing it wrong. *Statistics Done Wrong* is a pithy, essential guide to statistical blunders in modern science that will show you how to keep your research blunder-free. You'll examine embarrassing errors and omissions in recent research, learn about the misconceptions and scientific politics that allow these mistakes to happen, and begin your quest to reform the way you and your peers do statistics. You'll find advice on: –Asking the right question, designing the right experiment, choosing the right statistical analysis, and sticking to the plan –How to think about p values, significance, insignificance, confidence intervals, and regression –Choosing the right sample size and avoiding false positives –Reporting your analysis and publishing your data and source code –Procedures to follow, precautions to take, and analytical software that can help Scientists: Read this concise, powerful guide to help you produce statistically sound research. Statisticians: Give this book to everyone you know. The first step toward statistics done right is *Statistics Done Wrong*.

The visualization process doesn't happen in a vacuum; it is grounded in principles and methodologies of design, cognition, perception, and human-computer-interaction that are combined to one's personal knowledge and creative experiences. *Design for Information* critically examines other design solutions –current and historic– helping you gain a larger understanding of how to solve specific problems. This book is designed to help you foster the development of a repertoire of existing methods and concepts to help you overcome design problems. Learn the ins and outs of data visualization with this informative book that provides you with a series of current visualization case studies. The visualizations discussed are analyzed for their design principles and methods, giving you valuable critical and analytical tools to further develop your design process. The case study format of this book is perfect for discussing the histories, theories and best practices in the field through real-world, effective visualizations. The selection represents a fraction of effective visualizations that we encounter in this burgeoning field, allowing you the opportunity to extend your study to other solutions in your specific field(s) of practice. This book is also helpful to students in other disciplines who are involved with visualizing information, such as those in the digital humanities and most of the sciences. This book focuses on animated information graphics that have a linear structure and are not influenced by the user. Information graphics are used in moving images for TV, internet, mobile devices, and public media.

Whether you are a university professor, researcher at a think tank, graduate student, or analyst at a private firm, chances are that at some point you have presented your work in front of an audience. Most of us approach this task by converting a written document into slides, but the result is often a text-heavy presentation saddled with bullet points, stock images, and graphs too complex for an audience to decipher—much less understand. Presenting is fundamentally different from writing, and with only a little more time, a little more effort, and a little more planning, you can communicate your work with force and clarity. Designed for presenters of scholarly or data-intensive content, *Better Presentations* details essential strategies for developing clear, sophisticated, and visually captivating presentations. Following three core principles—visualize, unify, and focus—*Better Presentations* describes how to visualize data effectively, find and use images appropriately, choose sensible fonts and colors, edit text for powerful delivery, and restructure a written argument for maximum engagement and persuasion. With a range of clear examples for what to do (and what not to do), the practical package offered in *Better Presentations* shares the best techniques to display work and the best tactics for winning over audiences. It pushes presenters past the frustration and intimidation of the process to more effective, memorable, and persuasive presentations.

Practical data design tips from a data visualization expert of the modern age Data doesn't decrease; it is ever-increasing and can be overwhelming to organize in a way that makes sense to its

intended audience. Wouldn't it be wonderful if we could actually visualize data in such a way that we could maximize its potential and tell a story in a clear, concise manner? Thanks to the creative genius of Nathan Yau, we can. With this full-color book, data visualization guru and author Nathan Yau uses step-by-step tutorials to show you how to visualize and tell stories with data. He explains how to gather, parse, and format data and then design high quality graphics that help you explore and present patterns, outliers, and relationships. Presents a unique approach to visualizing and telling stories with data, from a data visualization expert and the creator of flowingdata.com, Nathan Yau Offers step-by-step tutorials and practical design tips for creating statistical graphics, geographical maps, and information design to find meaning in the numbers Details tools that can be used to visualize data-native graphics for the Web, such as ActionScript, Flash libraries, PHP, and JavaScript and tools to design graphics for print, such as Adobe Illustrator Contains numerous examples and descriptions of patterns and outliers and explains how to show them Visualize This demonstrates how to explain data visually so that you can present your information in a way that is easy to understand and appealing.

Now more than ever, content must be visual if it is to travel far. Readers everywhere are overwhelmed with a flow of data, news, and text. Visuals can cut through the noise and make it easier for readers to recognize and recall information. Yet many researchers were never taught how to present their work visually. This book details essential strategies to create more effective data visualizations. Jonathan Schwabish walks readers through the steps of creating better graphs and how to move beyond simple line, bar, and pie charts. Through more than five hundred examples, he demonstrates the do's and don'ts of data visualization, the principles of visual perception, and how to make subjective style decisions around a chart's design. Schwabish surveys more than eighty visualization types, from histograms to horizon charts, ridgeline plots to choropleth maps, and explains how each has its place in the visual toolkit. It might seem intimidating, but everyone can learn how to create compelling, effective data visualizations. This book will guide you as you define your audience and goals, choose the graph that best fits for your data, and clearly communicate your message.

As the world grows more complex, some of the best stories are told through visuals - infographics. From election results to catastrophes to wars to scientific discoveries: the stream of data we are exposed to daily becomes ever more complicated. Infographics help make sense of it, transforming difficult to grasp facts and figures into accessible visualizations. Print media are increasingly making successful use of them. Visual Journalism reveals the masters of this discipline and their finest works. The portraits of studios and individuals within this compendium illustrate how the world of infographics continues to evolve as it informs data and graphic trends. A visual revolution showcases the myriad possibilities of non-verbal communication.

The definitive reference book with real-world solutions you won't find anywhere else The Big Book of Dashboards presents a comprehensive reference for those tasked with building or overseeing the development of business dashboards. Comprising dozens of examples that address different industries and departments (healthcare, transportation, finance, human resources, marketing, customer service, sports, etc.) and different platforms (print, desktop, tablet, smartphone, and conference room display) The Big Book of Dashboards is the only book that matches great dashboards with real-world business scenarios. By organizing the book based on these scenarios and offering practical and effective visualization examples, The Big Book of Dashboards will be the trusted resource that you open when you need to build an effective business dashboard. In addition to the scenarios there's an entire section of the book that is devoted to addressing many practical and psychological factors you will encounter in your work. It's great to have theory and evidenced-based research at your disposal, but what will you do when somebody asks you to make your dashboard 'cooler' by adding packed bubbles and donut charts? The expert authors have a combined 30-plus years of hands-on experience helping people in hundreds of organizations build effective visualizations. They have fought many 'best practices' battles and having endured bring an uncommon empathy to help you, the reader of this book, survive and thrive in the data visualization world. A well-designed dashboard can point out risks, opportunities, and more; but common challenges and misconceptions can make your dashboard useless at best, and misleading at worst. The Big Book of Dashboards gives you the tools, guidance, and models you need to produce great dashboards that inform, enlighten, and engage.

Don't simply show your data—tell a story with it! Storytelling with Data teaches you the fundamentals of data visualization and how to communicate effectively with data. You'll discover the power of storytelling and the way to make data a pivotal point in your story. The lessons in this illuminative text are grounded in theory, but made accessible through numerous real-world examples—ready for immediate application to your next graph or presentation. Storytelling is not an inherent skill, especially when it comes to data visualization, and the tools at our disposal don't make it any easier. This book demonstrates how to go beyond conventional tools to reach the root of your data, and how to use your data to create an engaging, informative, compelling story. Specifically, you'll learn how to: Understand the importance of context and audience Determine the appropriate type of graph for your situation Recognize and eliminate the clutter clouding your information Direct your audience's attention to the most important parts of your data Think like a designer and utilize concepts of design in data visualization Leverage the power of storytelling to help your message resonate with your audience Together, the lessons in this book will help you turn your data into high impact visual stories that stick with your audience. Rid your world of ineffective graphs, one exploding 3D pie chart at a time. There is a story in your data—Storytelling with Data will give you the skills and power to tell it!

A leading data visualization expert explores the negative—and positive—influences that charts have on our perception of truth. We've all heard that a picture is worth a thousand words, but what if we don't understand what we're looking at? Social media has made charts, infographics, and diagrams ubiquitous—and easier to share than ever. We associate charts with science and reason; the flashy visuals are both appealing and persuasive. Pie charts, maps, bar and line graphs, and scatter plots (to name a few) can better inform us, revealing patterns and trends hidden behind the numbers we encounter in our lives. In short, good charts make us smarter—if we know how to read them. However, they can also lead us astray. Charts lie in a variety of ways—displaying incomplete or inaccurate data, suggesting misleading patterns, and concealing uncertainty—or are frequently misunderstood, such as the confusing cone of uncertainty maps shown on TV every hurricane season. To make matters worse, many of us are ill-equipped to interpret the visuals that politicians, journalists, advertisers, and even our employers present each day, enabling bad actors to easily manipulate them to promote their own agendas. In How Charts Lie, data visualization expert Alberto Cairo teaches us to not only spot the lies in deceptive visuals, but also to take advantage of good ones to understand complex stories. Public conversations are increasingly propelled by numbers, and to make sense of them we must be able to decode and use visual information. By examining contemporary examples ranging from election-result infographics to global GDP maps and box-office record charts, How Charts Lie demystifies an essential new literacy, one that will make us better equipped to navigate our data-driven world.

Make information memorable with creative visual design techniques Research shows that visual information is more quickly and easily understood, and much more likely to be remembered. This innovative book presents the design process and the best software tools for creating infographics that communicate. Including a special section on how to construct the increasingly popular infographic resume, the book offers graphic designers, marketers, and business professionals vital information on the most effective ways to present data. Explains why infographics and data visualizations work Shares the tools and techniques for creating great infographics Covers online infographics used for marketing, including social media and search engine optimization (SEO) Shows how to market your skills with a visual, infographic resume Explores the many internal business uses of infographics, including board meeting presentations, annual reports, consumer research statistics, marketing strategies, business plans, and visual explanations of products and services to your customers With Cool Infographics, you'll learn to create infographics to successfully reach your target audience and tell clear stories with your data.

Talk. Sketch. Prototype. Repeat. You know right away when you see an effective chart or graphic. It hits you with an immediate sense of its meaning and impact. But what actually makes it clearer, sharper, and more effective? If you're ready to create your own "good charts"--data visualizations that powerfully communicate your ideas and research and that advance your career--the Good Charts Workbook is the hands-on guide you've been looking for. The original Good Charts changed the landscape by helping readers understand how to think visually and by laying out a process for creating powerful data visualizations. Now, the Good Charts Workbook provides tools, exercises, and practical insights to help people in all kinds of enterprises gain the skills they need to get started. Harvard Business Review Senior Editor and dataviz expert Scott Berinato leads you, step-by-step, through the key challenges in creating good charts--controlling color, crafting for clarity, choosing chart types, practicing persuasion, capturing concepts--with warm-up exercises and mini-challenges for each. The Workbook includes helpful prompts and reminders throughout, as well as white space for users to practice the Good Charts talk-sketch-prototype process. Good Charts Workbook is the must-have manual for better understanding the dataviz around you and for creating better charts to make your case more effectively.

Information Design provides citizens, business and government with a means of presenting and interacting with complex information. It embraces applications from wayfinding and map reading to forms design; from website and screen layout to instruction. Done well it can communicate across languages and cultures, convey complicated instructions, even change behaviours. Information Design offers an authoritative guide to this important multidisciplinary subject. The book weaves design theory and methods with case studies of professional practice from leading information designers across the world. The heavily illustrated text is rigorous yet readable and offers a single, must-have, reference to anyone interested in information design or any of its related disciplines such as interaction design and information architecture, information graphics, document design, universal design, service design, map-making and wayfinding.

The Truthful Art is an introduction to data reasoning and statistical and cartographical representation written for anyone who wishes to communicate effectively, including journalists, graphic designers, scientists, and business professionals. A follow-up to The Functional Art, it goes into the specifics of how to design appealing, credible, and informative infographics and data visualizations. Part 1 in The Truthful Art provides a broad introduction to statistics, written with journalists and designers in mind. Cairo avoids using jargon and formulas, focusing instead on how to manage and interpret data sets, and how to extract stories from them. In Part 2, Cairo gets down to business giving specific advice on how to use charts and maps in infographics and visualization. Readers will learn what kind of statistical charts exist and how to use them correctly; how to talk about maps, with an introduction to cartography terms such as projection, scale, and symbolization; the basics of making maps, including how to create locator maps; and the main kinds of thematic maps (choropleth, isopleth, proportional symbol, etc.) and how to use them. In Part 3, Cairo leaves the classroom and enters the real world with an in-depth look at how information graphics and visualization teams are organized at publications around the world including The New York Times, La Nación (Costa Rica), Estado de São Paulo (Brazil), and more. He also explains how to develop a successful style book for graphics using sample pages from several real style books as examples. Part 4, the last section of the book, features interviews with leading designers of charts and maps including the talented Jer Thorp, Amanda Cox, Ben Fry, and more.

The Truthful Art Data, Charts, and Maps for Communication New Riders

Unlike any time before in our lives, we have access to vast amounts of free information. With the right tools, we can start to make sense of all this data to see patterns and trends that would otherwise be invisible to us. By transforming numbers into graphical shapes, we allow readers to understand the stories those numbers hide. In this practical introduction to understanding and using information graphics, you'll learn how to use data visualizations as tools to see beyond lists of numbers and variables and achieve new insights into the complex world around us. Regardless of the kind of data you're working with--business, science, politics, sports, or even your own personal finances--this book will show you how to use statistical charts, maps, and explanation diagrams to spot the stories in the data and learn new things from it. You'll also get to peek into the creative process of some of the world's most talented designers and visual journalists, including Condé Nast Traveler's John Grimwade, National Geographic Magazine's Fernando Baptista, The New York Times' Steve Duenes, The Washington Post's Hannah Fairfield, Hans Rosling of the Gapminder Foundation, Stanford's Geoff McGhee, and European superstars Moritz Stefaner, Jan Willem Tulp, Stefanie Posavec, and Gregor Aisch. The book also includes a DVD-ROM containing over 90 minutes of video lessons that expand on core concepts explained within the book and includes even more inspirational information graphics from the world's leading designers. The first book to offer a broad, hands-on introduction to information graphics and visualization, The Functional Art reveals:

- Why data visualization should be thought of as "functional art" rather than fine art
- How to use color, type, and other graphic tools to make your information graphics more effective, not just better looking
- The science of how our brains perceive and remember information
- Best practices for creating interactive information graphics
- A comprehensive look at the creative process behind successful information graphics
- An extensive gallery of inspirational work from the world's top designers and visual artists

On the DVD-ROM: In this introductory video course on information graphics, Alberto Cairo goes into greater detail with even more visual examples of how to create effective information graphics that function as practical tools for aiding perception. You'll learn how to: incorporate basic design principles in your visualizations, create simple interfaces for interactive graphics, and choose the appropriate type of graphic forms for your data. Cairo also deconstructs successful information graphics from The New York Times and National Geographic magazine with sketches and images not shown in the book. All of Peachpit's eBooks contain the same content as the print edition. You will find a link in the last few pages of your eBook that directs you to the media files. Helpful tips: If you are able to search the book, search for "Where are the lesson files?" Go to the very last page of the book and scroll backwards. You will need a web-enabled device or computer in order to access the media files that accompany this ebook. Entering the URL supplied into a computer with web access will allow you to get to the files. Depending on your device, it is possible that your display settings will cut off part of the URL. To make sure this is not the case, try reducing your font size and turning your device to a landscape

view. This should cause the full URL to appear.

Do you want to use R to tell stories? This book was written for you—whether you already know some R or have never coded before. Most R texts focus only on programming or statistical theory. *Practical R for Mass Communication and Journalism* gives you ideas, tools, and techniques for incorporating data and visualizations into your narratives. You'll see step by step how to: Analyze airport flight delays, restaurant inspections, and election results Map bank locations, median incomes, and new voting districts Compare campaign contributions to final election results Extract data from PDFs Whip messy data into shape for analysis Scrape data from a website Create graphics ranging from simple, static charts to interactive visualizations for the Web If you work or plan to work in a newsroom, government office, non-profit policy organization, or PR office, *Practical R for Mass Communication and Journalism* will help you use R in your world. This book has a companion website with code, links to additional resources, and searchable tables by function and task. Sharon Machlis is the author of *Computerworld's Beginner's Guide to R*, host of InfoWorld's *Do More With R* video screencast series, admin for the R for Journalists Google Group, and is well known among Twitter users who follow the #rstats hashtag. She is Director of Editorial Data and Analytics at IDG Communications (parent company of Computerworld, InfoWorld, PC World and Macworld, among others) and a frequent speaker at data journalism and R conferences.

The colorful charts, graphs, and maps presented at the 1900 Paris Exposition by famed sociologist and black rights activist W. E. B. Du Bois offered a view into the lives of black Americans, conveying a literal and figurative representation of "the color line." From advances in education to the lingering effects of slavery, these prophetic infographics—beautiful in design and powerful in content—make visible a wide spectrum of black experience. W. E. B. Du Bois's *Data Portraits* collects the complete set of graphics in full color for the first time, making their insights and innovations available to a contemporary imagination. As Maria Popova wrote, these data portraits shaped how "Du Bois himself thought about sociology, informing the ideas with which he set the world ablaze three years later in *The Souls of Black Folk*."

An accessible primer on how to create effective graphics from data This book provides students and researchers a hands-on introduction to the principles and practice of data visualization. It explains what makes some graphs succeed while others fail, how to make high-quality figures from data using powerful and reproducible methods, and how to think about data visualization in an honest and effective way. *Data Visualization* builds the reader's expertise in ggplot2, a versatile visualization library for the R programming language. Through a series of worked examples, this accessible primer then demonstrates how to create plots piece by piece, beginning with summaries of single variables and moving on to more complex graphics. Topics include plotting continuous and categorical variables; layering information on graphics; producing effective "small multiple" plots; grouping, summarizing, and transforming data for plotting; creating maps; working with the output of statistical models; and refining plots to make them more comprehensible. Effective graphics are essential to communicating ideas and a great way to better understand data. This book provides the practical skills students and practitioners need to visualize quantitative data and get the most out of their research findings. Provides hands-on instruction using R and ggplot2 Shows how the "tidyverse" of data analysis tools makes working with R easier and more consistent Includes a library of data sets, code, and functions

This full colour reproduction, with new explanatory information, makes Playfair's wisdom widely available for the first time in centuries.

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