

Data Visualization and Statistical Literacy for Open and Big Data

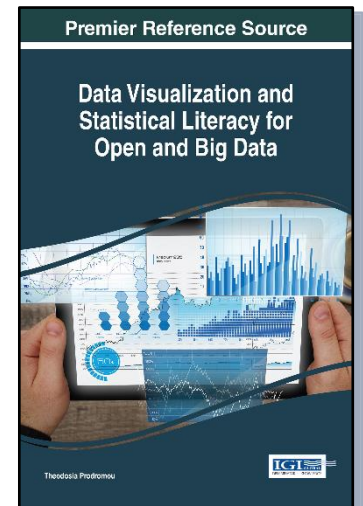
Part of the Advances in Data Mining and Database Management Book Series

Theodosia Prodromou (University of New England, Australia)

Description:

Data visualization has emerged as a serious scholarly topic, and a wide range of tools have recently been developed at an accelerated pace to aid in this research area. Examining different ways of analyzing big data can result in increased efficiency for many corporations and organizations.

Data Visualization and Statistical Literacy for Open and Big Data highlights methodological developments in the way that data analytics is both learned and taught. Featuring extensive coverage on emerging relevant topics such as data complexity, statistics education, and curriculum development, this publication is geared toward teachers, academicians, students, engineers, professionals, and researchers that are interested in expanding their knowledge of data examination and analysis.



ISBN: 9781522525127

Release Date: June, 2017

Copyright: 2017

Pages: 260

Topics Covered:

- Conventional Statistics
- Curriculum Development
- Data Complexity
- Data Sets
- Language Analysis
- Statistics Education
- Student Development
- Text Visualization

Hardcover: **\$205.00**

E-Book: **\$205.00**

Hardcover + E-Book: **\$245.00**

Order Information

Phone: 717-533-8845 x100

Toll Free: 1-866-342-6657

Fax: 717-533-8661 or 717-533-7115

Online Bookstore: www.igi-global.com

Table of Contents

Preface

Section 1: Teaching Big and Open Data

Chapter 1

Data Visualisation and Statistics Education in the Future
Theodosia Prodromou & Tim Dunne

Chapter 2

Open Data in Australian Schools—Statistical Literacy, the Practice of Statistics and the Curriculum
Jane M Watson

Chapter 3

Visual Criminology: Making sense of crime data and analysis for criminology students
Elaine M Barclay

Chapter 4

Opportunities and Challenges of Visualisations and Open Data in food Security Analysis
Thida Chaw Hlaing, Julian Prior

Section 2: Using Big Data

Chapter 5

Teaching Visualisation in the Age of Big Data - Adopting Old Approaches to Address New Challenges
Belinda A Chiera, Malgorzata W Korolkiewicz

Chapter 6

Comparison of Graduates' and Academics' Perceptions of the Skills required for Big Data Analysis

Busayasachee Puang-Ngern, Ayse A Bilgin, Timothy J Kyng

Chapter 7

Excel-lence in Data Visualization? The use of Microsoft Excel for data visualization and the analysis of Big Data
Jacques Raubenheimer

Chapter 8

Teachers Analyzing Sampling with TinkerPlots
Niedja Martins, Carlos Monteiro, Theodosia Prodromou

Section 3: Gathering and Processing Big Data

Chapter 9

Visualising Big Data for Official Statistics – the ABS Experience
Frederic Clark, Chien-Hung Chien

Chapter 10

Big Data Techniques for Supporting Official Statistics - the Use of Web Scraping for Collecting Price Data
Antonino Virgillito, Federico Polidoro

Chapter 11

Big data in official statistics
Kees Zeelenberg, Barteld Braaksma

Chapter 12

Linked Open Statistical Metadata
Daniel W Gillman, Franck Cotton

Theodosia Prodromou is a Cypriot-Australian mathematician, statistician and mathematics educator, who joined the University of New England in July 2009 to lecture in Mathematics Education. She taught primary and secondary Mathematics in different countries of Europe, and Australia. She has experience of teaching mathematics education to pre-service teachers and in-service teachers within primary and secondary and post-graduate programs. She is involved in European and International funded or unfunded projects. She is a chair of the Australian GeoGebra Institute.