Symbolic Data Analysis and the SODAS Software

Description: Classical statistical techniques are often inadequate when it comes to analysing some of the large and internally variable datasets common today. Symbolic Data Analysis (SDA) has evolved in response to this problem and is a vital tool for summarizing information in such a way that the resulting data is of a manageable size. Symbolic data, represented by intervals, lists, histograms, distributions, curves and the like, keeps the "internal variation" of summaries better than standard data. SDA therefore plays a key role in the interaction between statistics and data processing, and has established itself as an important tool for analysing official statistics.

Through an extension of the concepts employed in data mining, the Editors provide an advanced guide to the techniques required to analyse symbolic data. Contributions from leading experts in the field enable the reader to build models and make predictions about future events.

The book:

Provides new graphical tools for the interpretation of large data sets.

Extends standard statistics, data analysis, data mining and knowledge discovery to symbolic data.

Introduces the SODAS software, which is complementary to existing data analysis software (e.g. SAS, SPSS, SPAD) that are unable to work on symbolic data.

Induces, exports, and compares knowledge from one database to another.

Features a supporting website hosting the software, and user manual.

Symbolic Data Analysis and the SODAS Software is primarily aimed at practitioners of symbolic data analysis, such as statisticians and economists, within both the public and private sectors. There is also much of interest to postgraduate students and researchers within web mining, text mining, and bioengineering.

Contents:

Contributors.

Foreword.

Preface.

ASSO Partners.

Introduction.

1. The state of the art in symbolic data analysis: overview and future (Edwin Diday).

PART I. DATABASES VERSUS SYMBOLIC OBJECTS.

2. Improved generation of symbolic objects from relational databases (Yves Lechevallier, Aicha El Golli and George Hébrail).

3. Exporting symbolic objects to databases (Donato Malerba, Floriana Esposito and Annalisa Appice).

4. A statistical metadata model for symbolic objects (Haralambos Papageorgiou and Maria Vardaki).

5. Editing symbolic data (Monique-Noirhomme-Frature, Paula Brito, Anne de Baenst-Vandenbroucke and Adolphe Nahimana).

6. The normal symbolic form (Marc Csernel and Francisco de A.T. de Carvalho).

7. Visualization (Monique-Noirhomme-Frature and Adolphe Nahimana).
PART II. UNSUPERVISED METHODS.

8. Dissimilarity and matching (Floriana Esposito, Donato Malerba and Annalisa Appice).


11. Clustering methods in symbolic data analysis (Francisco de A.T. de Carvalho, Yves Lechevallier and Rosanna Verde).


13. Validation of clustering structure: determination of the number of clusters (André Hardy).


15. Principal component analysis of symbolic data described by intervals (N.Carlo Lauro, Rosanna Verde and Antonio Irpino).


PART III. SUPERVISED METHODS.

17. Bayesian decision trees (Jean-Paul Rasson, Pascale Lallemand and Séverine Adans).

18. Factor discriminant analysis (N.Carlo Lauro, Rosanna Verde and Antonio Irpino).


20. Multi-layer perceptrons and symbolic data (Fabrice Rossi and Brieuc Conan-Guez).

PART IV. APPLICATION AND THE SODAS SOFTWARE.

21. Application to the Finnish, Spanish and Portuguese data of the European Social Survey (Soile Mustjärvi and Seppo Laaksonen).

22. People’s life values and trust components in Europe: symbolic data analysis for 20-22 countries (Seppo Laaksonen).

23. Symbolic analysis of the Time Use Survey in the Basque country (Marta Mas and Haritz Olaeta).

24. SODAS2 software: overview and methodology (Anne de Baenst-Vandenbroucke and Yves Lechevallier).

Index.

Ordering:  
Order Online - [http://www.researchandmarkets.com/reports/2170337/](http://www.researchandmarkets.com/reports/2170337/)
Order by Fax - using the form below
Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit
http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct.

Product Name: Symbolic Data Analysis and the SODAS Software
Web Address: http://www.researchandmarkets.com/reports/2170337/
Office Code: SCD2RBIW

Product Format
Please select the product format and quantity you require:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Hard Copy (Hard Back)</th>
<th>USD 171 + USD 29 Shipping/Handling</th>
</tr>
</thead>
</table>
* Shipping/Handling is only charged once per order.

Contact Information
Please enter all the information below in BLOCK CAPITALS

Title:       Mr [ ] Mrs [ ] Dr [ ] Miss [ ] Ms [ ] Prof [ ]
First Name: ___________________________ Last Name: ___________________________
Email Address: * ___________________________
Job Title: ___________________________
Organisation: ___________________________
Address: ___________________________
City: ___________________________
Postal / Zip Code: ___________________________
Country: ___________________________
Phone Number: ___________________________
Fax Number: ___________________________

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:
Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:
Account number 833 130 83
Sort code 98-53-30
Swift code ULSBIE2D
IBAN number IE78ULSB98533083313083
Bank Address Ulster Bank,
27-35 Main Street,
Blackrock,
Co. Dublin,
Ireland.

If you have a Marketing Code please enter it below:

Marketing Code: ____________________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:
(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World