

# THE APPLICATION OF MICRO-COMPUTERS IN INFORMATION, DOCUMENTATION AND LIBRARIES

Proceedings of the Second International Conference on  
the Application of Micro-Computers in  
Information, Documentation and Libraries  
Baden-Baden, F.R.G., 17-21 March, 1986

*edited by*

Klaus-Dieter LEHMANN  
and  
Hilde STROHL-GOEBEL

*Deutsche Gesellschaft für Dokumentation e.V. (DGD)  
Frankfurt am Main, F.R.G.*



1987

NORTH-HOLLAND  
AMSTERDAM · NEW YORK · OXFORD · TOKYO

## LIST OF CONTENTS

Editors' Preface	v
Conference Committees	vii
Sponsors	viii

### OPENING

#### *Welcoming Addresses*

P.P. Canisius, Chairman, Organizing Committee, F.R.G.	3
H. Engler, Minister for Science and Arts, F.R.G.	7
W. Löhner, UNESCO Representative, France	8
M.W. Hill, FID President, U.K.	11
H.P. Geh, IFLA President, F.R.G.	13

#### *Keynote Address*

Information Technology and Cultural Diversity T. Yamamoto, Japan ( <i>only abstract available</i> )	17
--	----

### COMPLEX SYSTEMS

*Chairperson: C.-C. Chen, U.S.A.*

The Status and Development of Czechoslovak National Centre for Automated Data Exchange / NCADE Z. Vanek, Czechoslovakia	21
A Supplementary MIS to an Online Integrated Library System at the Université du Québec à Rimouski G. Mercure, Canada	27
MIKROPOLIS as Idea Processor and Textbase Management System B. Lutes-Schaab, R. McCall and W. Schuler, F.R.G.	35

<b>The Use of a Microcomputer as a User-Interface Manager in a Large Information Retrieval System</b> D. Matei and B. Teodorescu, Rumania	44
<b>The (IV+V) System Software Package: Technical Description</b> I. Mistrik, G. Kerschhackerl and H. Oberhuber, F.R.G.	52
<b>An Augmented Microcomputer for Relational Database Implementation</b> M.R. Muraszkievicz, Poland	62
<b>Computer-Generated Subject Oriented Data-Base</b> Z. Levy, Israel	71

## **SPECIFIC APPLICATION IN LIBRARIES 1**

*Chairperson: K.-D. Lehmann, F.R.G.*

<b>Microcomputers in Academic Libraries: Current Applications &amp; Future Impact</b> W.R. Converse, Canada	83
<b>SIAS-Siemens Library Lending System for the Siemens PC</b> A. Hahn, F.R.G.	91
<b>OCLC M300 in a Large Research Library</b> I. Morita, Japan	96
<b>The Online Information System of the University of Freiburg Library as Part of a Local Area Network. A Case Study</b> H.-A. Ruppert, F.R.G.	100
<b>A Survey on the Use of Micros in Special Libraries</b> T. Krieger, U.S.A.	106
<b>Using a Micro-Computer to Do Research and Keep Control of the Job</b> E. Nyang, U.S.A.	113
<b>Microcomputer Based Union Catalogue of Periodical Holdings: BHEL Experience</b> V.V.V. Satyanarayana, India	117

**APPLICATION SOFTWARE***Chairperson: R. Albrecht, Austria*

- Satisfying the Requirements of the Information Broker  
R. Makay, F.R.G. 123
- PERCICO, a New User-Friendly System for Periodicals Control and Circulation  
H.-E. Malmberg, Sweden 131
- Design of Personal Information Retrieval Systems  
M. Agosti and F. Spilotro, Italy 134
- A Software Package for In-House Searching of Downloaded Data  
J.A. Large and C.J. Armstrong, U.K. 142
- SOMA — A System for Personal Notes Retrieval  
B. Teodorescu and D. Matei, Rumania 147
- The Application of Mikro Polydoc in the International Reference Centre for Community Water Supply and Sanitation (IRC)  
C.H. Dietvorst, The Netherlands 153
- Use of Microcomputers in Australian and Nigerian Libraries  
J. Italia Sanober, India 160
- DATALIB: A Package on Personal Computer for Libraries  
S. Rovagnati, Italy 163
- EDP-Microfilm-Integrated-Retrieval (EMIR)  
J. Stillger, F.R.G. 168
- The Use of a Chinese Card in Multi-Language Information Processing  
R. Wong, Hong Kong 175

**EXISTING SYSTEMS***Chairperson: Z. Levy, Israel*

- Micro-Computer for Managing of Banana Bibliographical Information  
R. Beccera, Panama 185

<b>A Reference-Librarian Model for Computer-Aided Library Instruction</b> R.D. Binkley and J.R. Parrott, Canada	190
<b>Participation in Computer Conferencing from a Workstation</b> W. Krumholz, F.R.G.	197
<b>Using a Microcomputer for the Administration of the Interlibrary Loan, Mainly Requests for Photocopies</b> F. Noel-Lambot and A. Somville, Belgium	200
<b>Associative Retrieval System</b> Z. Yakubovitz, Israel	209
<b>Existing Systems – Experiences and Implications for Future Developments</b> W. Koch, Austria	215

## **SPECIFIC APPLICATION IN LIBRARIES 2**

*Chairperson: A. Wysocki, The Netherlands*

<b>Using Microcomputers to Provide Library Services to the Invisible User of an Academic Library</b> L. Wert, U.S.A.	221
<b>Retrospective Data Conversion with or without the Use of Micro-Computers</b> G.A. Kósa, Australia	229
<b>Improvements to Services and Access to Management Information Gained by Introduction of a Multi-User Microcomputer System</b> S. Hills, U.K.	237
<b>The Development of a Multi-User Microcomputer System for Small Libraries</b> H. Dyer and P. Leggate, U.K.	244
<b>The Development of the National Library Automation System – Requirements and Possibilities</b> L. Kovačević, Yugoslavia	251
<b>Microcomputers and Organisational Change – The UK Public Library Experience</b> C. Batt, U.K.	257

**ELECTRONIC PUBLISHING***Chairperson: R.L. Hunsucker, The Netherlands*

- Electronic Publishing and the Challenge of Microcomputers  
O. Standera, Canada 267
- Electronic Publishing of Technical and Scientific Texts  
W. Gewecke, F.R.G. 277
- Bibliographic Description of Articles in a Full-Text Database  
in No-Journal Era  
Y. Nakamura, Japan 285
- Floppy Discs — A New Publishing Experience  
G. Robbie and D. Barlow, U.K. 291
- Text Entry Systems for Scientific Authors  
M. Krüger, F.R.G. 295

**APPLICATION IN SPECIFIC DISCIPLINES 1***Chairperson: A. Helal, F.R.G.*

- Development of an Inter-Institution Cooperative Documentation System  
with a Minicomputer Network Structure  
D. Seydel, F.R.G. 299
- Factual-Type Online Databases. Downloading and Local Processing of  
Statistical Data with AREMOS  
J.L. Staud, F.R.G. 308
- Possibilities of Microcomputers Application in Czechoslovak Water  
Management Network  
P. Stančíková, Czechoslovakia 320
- A Project of Shared Cataloguing on Micro-Computers for Theological  
Libraries  
R.-F. Poswick and G. Servais, Belgium 327
- On the Way of Developing Knowledge-Based Systems in the  
Social Sciences  
H. Mueller, F.R.G. 330

- Microcomputers of Service to a Database System of Plant  
Genetic Resources  
M. Waldman and S. Weitz-Ingber, Israel (*only abstract available*) 335

## DECISION MAKING CRITERIA AND ECONOMIC ASPECTS

*Chairperson: P. Simmons, Canada*

- Automation Support for the Management Function in Libraries and  
Information Centres  
J.E. Rush, U.S.A. 339
- Obtaining Qualified and Up-to-Date Information on Microcomputers  
in Information, Documentation and Libraries  
H.G. Koerner, F.R.G. 347
- Man Power Planning for a Library or an Information Centre:  
A Microcomputer Based Operational and Instructional System  
F.J. Devadason, India 354
- Micro-Computers in Information Management: A Sectoral Study in  
Portuguese Industry  
J.T. Castro, A.M.R. Correia and R. Magalhaes, Portugal 362
- Automation of a University Medical Library on a Micro-Computer  
Network: The Beer Sheva Experience  
L. Frenkiel and B. Aronson, Israel 366

## EDUCATION AND TRAINING 1

*Chairperson: D.B. Cleveland, U.S.A.*

- Microcomputer Programming in the Information Science Curriculum  
D.B. Cleveland and A.D. Cleveland, U.S.A. 373
- Online Databases and the Application of Micro-Computers in  
Secondary Schools  
P. Tieleman and Ch. Wolf, The Netherlands 379
- Microcomputers in the Curricula of the Africa Regional Centre for  
Information Science (ARCIS)  
W.O. Aiyepoku and G.A. Alabi, Nigeria 388

- Micro-Computer Laboratories in Library Schools: A Case Study  
T. Crowley, U.S.A. 397

## IMAGE PROCESSING

*Chairperson: D.J. Watson, U.K.*

- The Substitutibility of Images for Textual Description of Archival  
Materials in an MS-DOS Environment  
M.E. Rorvig, U.S.A. 407
- Transmission and Display of Text and Graphics Illustrated by the  
Example of Patent Information  
W. Niedermeyr, F.R.G. 416

## EXPERT SYSTEMS

*Chairperson: R. Kuhlen, F.R.G.*

- KOFIS: An Expert System for Information Retrieval in Offices  
H.-J. Appelrath, M. Ester, H. Jasper and A. Ultsch, Switzerland 427
- Graphical Interaction with a Full-Text Oriented Information System:  
The Retrieval Component of the End User Interface TOPOGRAPHIC  
U. Thiel and R. Hammwoehner, F.R.G. 434
- Software Tools for Information and Library Microcomputer  
Expert Systems  
M. Muraszkiwicz and H. Rybiński, Poland 445

## *Keynote Address*

- Between Networks and Independent Solutions within a World of  
Open Systems  
N. Szyperski, F.R.G. (*abstract and paper not available*) 454

## NETWORKS

*Chairperson: J. Michel, France*

- Local Area Network or Multi-User System: Two Approaches to Library  
Automation Using Micro-Computers  
M. Grieves, U.K. (*only abstract available*) 457



<b>Infolink and Dialout – For Information Retrieval</b> B. Stanley, Sweden	458
<b>A Technological Information Project in Argentina</b> D.A. Freschi, Argentina	463
<b>Computerization of Libraries and Documentation Centres: The ESAMI Case</b> A. Musana and M. Lewanika, Tanzania	466
<b>A Network of Personal Documentation Systems</b> V.H. Haase, Austria	473

## **SYSTEMS REQUIREMENTS**

*Chairperson: H.-J. Schneider, F.R.G.*

<b>Planning, Implementing and Managing the Electronic Library, or The Electronic Library Manager's Guide to Life</b> D.I. Raitt, The Netherlands	479
<b>Selecting Database Management Software for Micro-Computers in Libraries and Information Units</b> K.A.O. Pieskä, Finland	490
<b>ALLEGRO – Handling Bibliographic Data on Microcomputers</b> B. Eversberg, F.R.G.	497
<b>Problems with Information Systems on Small Computers</b> M. Kozarinsky and M. Khalepski, Israel	503
<b>The Structure and Usage of a "Referation" Database on Microcomputers for Personal Document Management</b> I. Asai, Japan	510
<b>Storage and Retrieval of Text, Graphics and Images</b> W.-D. Guercke, F.R.G.	518
<b>Illusions of Grandeur</b> D. Shinnors-Kennedy and D. Tocher, Ireland	524
<b>Use of Microcomputer Software for Discipline Specific Searching</b> C. Mundy and D. Meyer, U.S.A.	531

## SPECIAL PROBLEMS IN DEVELOPING COUNTRIES

Chairperson: *M.H. Wali, Nigeria*

- Finding the Right Role for Microcomputers in Information Systems  
in Developing Countries  
T. Woodward, U.K. 537
- The Application of Micro-Computers in Libraries:  
A Case Study on Brazil  
N. Figueiredo, Brazil 543
- Problems and Possibilities of Computer Application in Library  
Automation and Information Work in Nigeria  
F.N. Ubogu and D.K. Gupta, Nigeria 549
- Micro-Computers and Libraries in Developing Countries:  
The Egyptian Experience  
U. El-Said Mahmoud Aly, Egypt (*only abstract available*) 556
- The Use of Microcomputers in Libraries with Special Reference  
to Problems Encountered in Developing Countries  
J. Lankage, Sri Lanka 557
- UNESCO's Regional Energy Information Networks and their  
Associated Computer Applications  
C.M. Gottschalk, France (*only abstract available*) 564
- Application of Microcomputers in Developing Countries:  
Some Problems  
I. Rua, Colombia 565
- Issues in the Application of Micro-Computers in Information,  
Documentation and Libraries in English-Speaking West Africa  
M. Adeyemi, Nigeria (*only abstract available*) 569
- Developing Countries and Library Networks: Dial-Up Facilities Using  
Microcomputers as an Alternative to Permanent Tie-Ins  
M. Matza and H. Roman, Venezuela 570
- Information Retrieval for Micro-Computers  
H. Vega Posada, Peru (*only abstract available*) 576

- Introducing Micro-Computers for National Bibliographic Control  
Activities in Developing Countries  
T.E. Mlaki, Tanzania 577

## EDUCATION AND TRAINING 2

*Chairperson: R. Kuhlen, F.R.G.*

- Development and Application of Micro-Computer Software in a  
Postgraduate Course for Information Transfer and Management  
R. Kuhlen, F.R.G. 587
- Microcomputers in Library Education  
N.S. Yaghmai, U.S.A. 605
- The Pan African Documentation and Information System's Experience  
in Education and Training for Libraries, Information Professionals  
and Users in Africa  
F. Inganji, Ethiopia 612
- Information Retrieval Methods Teaching for Everybody  
R. Coll-Vinent, Spain (*abstract*) 616
- Some Thoughts on Training Programmes for Modernising Library and  
Information Systems and Services in India  
T.N. Rajan, India 617
- Moving from Mainframe to Micros: Applications Programming  
for Library and Information Science  
C.H. Davis, U.S.A. (*only abstract available*) 622

### *Keynote Address*

- Microcomputer-Based Workstations: An Opportunity to Develop the  
European Information Market  
C. Jansen van Rosendaal, Luxemburg 623

## WORKSTATIONS

*Chairperson: P.L. Noerr, U.K.*

- Online Searching with Microcomputers – Advantages for the User  
C.-D. Siems, F.R.G. 637

Microcomputer Support for Retrospective Conversion K.M. Hays, U.S.A.	643
The Micro Work Station as an Information Tool D.H. Elazar, Israel	649
Interactive Videodisc Technology and Microcomputers: A Case Presentation on Project Emperor-I C.-C. Chen, U.S.A.	657

## APPLICATION IN SPECIFIC DISCIPLINES 2

*Chairperson: C. Keren, Israel*

National Feed Database in Australia H.T. Ostrowski-Meissner, N. Jackson and N.H. Westwood, Australia	665
Food and Nutrition Microcomputer Demonstration Center R.C. Frank, U.S.A.	672
ALPHA4000: The Input of Musicological and Musical Information in a Database C. Schnell, Switzerland	675
Microcomputers in Archives: Requirements and Consequences A. Menne-Haritz, F.R.G.	684
Serials Control and the Microcomputer in the Library T. Williams, U.S.A.	690
Micro-Computer for IFIC Activities L. Robles-Austriaco, Thailand	695
The Application of Micro-Computers in a Computerized Management Information System on Standardization P.V. Nesterov, U.S.S.R.	700
Development of a Prototype Network for the Exchange of Archival and Bibliographic Information between Holocaust Documentation Centers in the USA and Abroad B. Chamberlin, L.F. Karr and M. Courtot, U.S.A.	705

Application of Microcomputer in Systematic Biology: A Case Study  
C.C. Parmar, India 710

Frequency Distributions in Scientometrics and Bibliometrics  
A. Schubert and W. Glänzel, Hungary 715

## **DATA BASE MANAGEMENT**

*Chairperson: Y. Nakamura, Japan*

Using DBase III to Manage Continuations  
L.S. Jackson and R. Aluri, U.S.A. 723

TINman: Innovative Microcomputer Information Retrieval  
K.T. Bivins-Noerr and P.L. Noerr, U.K. 731

Application Development Using the IV+V System Software Package  
I. Mistrik, G. Kerschhacker, E. Bertha and H. Billing, F.R.G. 738

Microcomputers and Operational Necessity: The Experience of the  
National Photography Collection  
A.J. Birrell, Canada 746

CD-ROM a New Way of Information Transfer  
W. Müller, F.R.G. 752

Checking Rules with SNOBOL 4  
P. Bantzer, F.R.G. 756

Simple Information System Comprasing Abilities of IRS and DBMS  
Z.M. Nowicki and J.J. Solak, Poland 762

The Work of the Information Department of Central Technical  
Library at the University Edvard Kardelj of Ljubljana  
M. Ostanek, Yugoslavia 770

## ***Closing Address***

P.P. Canisius, Chairman, Organizing Committee, F.R.G. 773

<b>List of Participants (<i>Alphabetical Order</i>)</b>	<b>777</b>
<b>List of Participants (<i>Countries</i>)</b>	<b>797</b>
<b>Exhibitors</b>	<b>805</b>
<b>Author Index</b>	<b>809</b>
<b>Subject Index</b>	<b>811</b>