

# **Paradigm Shift in Technological Advancement in Librarianship**

## About the Editors

**Nirmal Kumar Swain** (M. Phil) Joined Banasthali University in 1997 as Assistant Professor, DLIS. He has edited two books and third one is in press. He has authored-book *IPRs and Contemporary Issues: Contex(ting) Information Intermediaries* which has just been released. He was Regional Secretary, IATLIS, 2003-2005 and 2006-2008. He bagged the *Best Paper Award* at National Seminar organized by Govt. Divisional Public Library, Ajmer, 2004. He submitted a funded project *biobibliographical approach to Indian women's writing in English*. Mr. Swain is pursuing his doctorate degree and has recently been commissioned to write a book for Chandos Publications, Oxford, UK.

**D.C. Ojha**, Ph.D., Ex Officer-in-Charge Library, CAZRI (ICAR), Jodhpur, has authored/edited around 22 books, published 60 professional papers and delivered more than 30 Radio Talks. Dr. Ojha completed three projects viz. ENVIS (MOEF) (1991-2008), ENVIS Sustainable Networking Prog. Indo-Canadian Environmental facility (2005-2007), NARZIC (ICAR) (1996-2008). Dr. Ojha was appointed chairman by ASRB (ICAR) (2004-2006) for DPC of ICAR Instt. Librarians. Dr. Ojha is recipient of Roonkh Bhayala Award (1998), Best Librarian Award (1992), Veer Durga Das Rathore Award (1994), Dr. C.D. Sharma Memorial Award (1999). Dr. Ojha's name appears in prestigious international Biographies viz., Asia-American who's who, Best Citizens of India, Reference Asia, American Bibliography, 20th Century Distinguished who's who.

**M.S. RANA** (PhD). Recipient of Fulbright, IFLA-ALP fellowships, ILA and IASLIC Awards, is having 17 years experience in wildlife librarianship and documentation work. Six PhD scholars are pursuing research with him. Presently he is holding a position of university librarian at Assam University (Central University), Silcher, India. Prior to this he was University Librarian, Banasthali, Rajasthan. His recent publication *Scientometric Study of Wild Mammal Research in India* is in-print from Lambert Academic Press (Germany).

**Paradigm Shift in  
Technological Advancement  
in Librarianship:  
Essays in Honour of Dr. P.K. Gupta**

*Editors*

N.K. Swain

D.C. Ojha, PhD

M.S. Rana, PhD

*Published by:*

Scientific Publishers

5A, New Pali Road, P.O. Box 91

Jodhpur 342 001, India

E-mail: [info@scientificpub.com](mailto:info@scientificpub.com)

Website: [www.scientificpub.com](http://www.scientificpub.com)

© Editors, 2011

All rights reserved. No part of this publication or the information contained herein may be reproduced, adapted, abridged, translated, stored in a retrieval system, computer system, photographic or other systems or transmitted in any form or by any means, electronic, mechanical, by photocopying, recording or otherwise, without written prior permission from the editors.

Disclaimer: Whereas every effort has been made to avoid errors and omissions, this publication is being sold on the understanding that neither the editors (or authors of chapters in edited volumes) nor the publishers nor the printers would be liable in any manner to any person either for an error or for an omission in this publication, or for any action to be taken on the basis of this work. Any inadvertent discrepancy noted may be brought to the attention of the publishers, for rectifying it in future editions, if published.

ISBN: 978-81-7233-745-2

eISBN: 978-93-87307-90-2

Typeset: Rajesh Ojha

Printed in India

## Foreword

Having known Dr. Pawan Kumar Gupta, Former Director, Central Library, University of Rajasthan for the past more than 35 years, I take this privilege and honour to write the foreword for the festschrift so lovingly brought out by his friends, colleagues, students and admirers. I first came in contact with Dr. Gupta when he joined my alma matter, i.e. Department of Library and Information Science, University of Rajasthan as Lecturer in 1976. In fact, Dr. Gupta would have been my teacher, had I not moved to University of Delhi to do my Master's degree.

I have shared an intimate relationship with Dr. Pawan Kumar Gupta ever since we met in 1976, first as a senior professional, later as friend, philosopher, and guide. The relationship was further strengthened with marriage of Dr. Gupta with Dr. Usha Pawan, *nee* Bhatnagar, who was my teacher in B. Lib. Sc. in the Department of Library and Information Science, University of Rajasthan and later guided me for my research work. Knowing Dr. Gupta for past more than 35 years, I am aware that the life for Dr. Gupta was a roller-coaster's ride with lots of ups and downs. His primary and secondary education was mostly in hostels or at homes of relatives, away from parents and on shoe-string budget. He had to earn not only to educate himself but also for self-sustenance. His early professional career witnessed a mercurial rise essentially because of his impeccable academic record. He became a Lecturer at Department of Library and Information Science, University of Rajasthan in the year 1976 soon after completing his Master's Degree in Library and Information Science from University of Delhi in I class with Gold Medal. He became Dy. Librarian at Central Library, University of Rajasthan in the year 1982 and took over additional charge of the Director of the Rajasthan University Library in 1991, because of sudden and untimely demise of Dr. C.D. Sharma, the then Director. He kept working as Dy. Librarian and de-facto

Director of the Library on and off, without actually getting the designation or perks for it. However, he never showed his anguish for this injustice in spite of his impeccable academic record and well-recognised professional standing. I have seen several professional colleagues complaining about positions that they deserved but did not get, Dr. Gupta is not one of them. He was always satisfied with whatever he got. In fact, he sacrificed a number of opportunities that came his way because of his own decision to stay with his family at the cost of career opportunities.

Dr. Gupta is well-read person and an extempore orator par excellence. I am highly impressed with his ability to articulate his ideas in multiple languages which include Hindi, English, Punjabi, and Urdu. He loves poetry, including Gazals, Dohas, traditional folklores, etc. I am amazed with his memory and his capacity to memorise poems, couplets, Dohas, etc. He comes out with the most appropriate couplets “impromptu”, as the occasion demands. The couplets, in his rich and husky voice, are simply mesmerising.

Dr. Gupta is a thorough gentleman, bubbling with inexhaustible energy, ideas, enthusiasm, and commitment to the profession. He had new ideas to offer every time I interacted with him regarding INFLIBNET's services and activities and modes and means to deliver them to the end-users in a most effective manner. He is endowed with clarity of thought and speech. Efficiency and efficacy are hallmarks of his personality that are reflected in activities and services he has been associated with. I am particularly aware of his contributions to Index India with which he was associated for a prolonged period of time. The publication was later discontinued because of reasons beyond his control. The user of Index India still miss that wonderful service brought out by Dr. Pawan Gupta for several years. Dr. Gupta is a role-model for many of his students, friends, and admirers. This is clearly reflected in the reminiscences of a large number of his admirers and well-wishers across the country who has generously contributed to his festschrift.

Dr. Gupta has scores of friends, followers, admirers, and well-wishers. I understand that when the call for contributions to the festschrift volume was made, the editors were flooded with contributions from his friends, colleagues, and students,

including several prominent LIS professionals. Since one volume was not sufficient to publish all the contributions, the festschrift is being published in two volumes.

The editors have done a commendable job in bringing out the festschrifts in an excellent format. It is a well thought out and planned volume including scholarly contributions of great relevance in each and every area of library and information science. All contributions are aptly organised into five categories under appropriate headings in the volume entitled “Paradigm Shift in Technological Advancement in Librarianship: Essays in Honour of Dr P.K. Gupta”. These contributions have effectively brought out the strength and weaknesses of library and information science profession in the knowledge society and look towards the future of library science in a global perspective. I am sure that the LIS professionals will find this volume as indispensable.

Lastly, my best wishes to Dr. Gupta and his family. I am sure, he will keep contributing to the LIS profession through his writings and interaction on various professional platforms.

08 June 2011

**Dr. Jagdish Arora**

Director

INFLIBNET Centre

Near Gujarat University Guest House

PB No.4116, Navrangpura

Ahmedabad 380 009



## Preface

Thomas Kuhn's revolutionary 'Paradigm Shift' describes a change in the basic assumptions or paradigms, within the ruling theory of a discipline(s) and Librarianship is no exception to this. Librarians must get away from thinking that libraries are about reference, cataloguing, acquisitions, preservation, interlibrary loan, and circulating materials - or even about managing physical facilities and print collections. Simply translating current library activities and tasks into electronic or digitized information will not even satisfy the needs of the library's customers, nor will it ensure its future. We are no longer just the "guardians" of books. We are information providers in an environment that is constantly changing and where information needs to be gathered quickly and effectively. Today our mission is to promote services for the ever increasing amount of information.

We have had to readjust to new situation and develop our skills. Because after all it is librarian/information manager that manages and operates the machines and we make up the organization and make it function successfully. The human resource in any organization is the key factor to its success or failure. To be successful, libraries must reshape the prevailing corporate culture with traditional values. Libraries must build into their organizational structures and their approaches to work, the ability to identify, anticipate, and quickly respond to constantly changing customer needs. They must be capable of leaps forward and breakthrough performance. And they must be ready to abandon formerly successful approaches to work, strategies, processing systems, services. Librarians in transition that want to consciously manage their change efforts need to help their staff understand the change process and how they can positively participate. Creating an overall framework that shows the considered changes are a natural evolution from current practices, assessing that the organization has the expertise and

climate to implement proposed changes. All these should be looked into globally as well as Indian context.

*Paradigm Shift in Technological Advancement in Librarianship: Essays in Honour of Dr. P.K. Gupta* is an attempt to justify the need of above changes and transformation of the librarianship profession.

The above said text contains 38 chapters in total with seven different sections arranged with different captions relating to all gathered chapters and their themes and sub-themes. The first Section I “*Dr. P.K Gupta: A Life*” covers a solo chapter by Nirmal Kumar Swain. In this chapter “through thick and thin with Dr P.K. Gupta”, the author narrates a decade long experience and acquaintances with him. In this brief semi-biographical write-up the readers will find Swain’s narrative account on Dr. Gupta’s personality which not only speaks his own rather assimilates with a general human nature.

The section II captioned as “*Current Practices of use of e-Resources*” comprised of eight chapters begins with Kanchan Kamila’s exposure to the literature of open archive initiatives followed by M.S. Rana’s opinion on quality enhancement in the academic libraries with possible practices with the support of technologies. P.K. Tripathy, while writing on a new area to the field ‘webometrics’ propounded the traditional bibliometrics applications into it and how the librarians could become the master of this area and its related field. In a chapter jointly authored by T.D. Tilwani and Arvind Sharma mentioned the preservation techniques for digital resources and information centres. The authors feel it as an important activity, which requires attention for 24 x 7. The paper focuses the conceptual aspects of digital preservation. Lata Suresh in a chapter showed the possibilities and consequences in near and far future about usefulness of social networking. In another chapter Ram Shay Kumawat explains the role of open source software as a tool for digital library development followed by a chapter jointly written by Dinesh Kumar and Arjun again on open source software.

The section III of the book runs as “*Technological Innovations*” in which six chapters were included. The first chapter by Nirmal Kumar Swain highlights the issues especially an issue related to ontology of cyberspace in which he presented a highlighting picture of almost forgotten issue the idea – expression debate. The next chapter is a joint authored venture by M.R.

Rawatani and J.P.S. Ahuja. The author duo came up with an integrated rural development system which can help in a numerous ways. This was in a form of proposal. Chandanvandan in the next chapter underlined some technical issues while developing a multilingual digital library. Rupak Chakravarty and Atasi Sinhababu discussed open content and its licensing with raising some vital issues related to the open content movement. The questions importantly raised that, do all kinds of literature exist in the Web or should there be some kind of censorship and authorization? Maitrayee Ghosh in her elaborative review chapter listed the important literature related to library resource sharing especially in the form of consortia. The next chapter being fourteenth in the list by Mangla Anil Hirwade and Mohini Bherwani listed some standards related to data sharing for e-resources.

“*Digital Library*” is the section IV of the book in which five chapters have listed. Anita Jain’s chapter provides a conceptual elaboration of digital library where as Ram Veer Sagar and Ram Chander enumerated the usefulness of Library 2.0. Their chapter was an extended version of the interactive media Web 2.0. The succeeding three chapters were also by joint authors. How e-resources are the proof of shifting from print form to electronic format, is the message of the chapter written by Manju Tomar and Lokesh Sharma followed by a chapter by G. Naga Ratna Mani and V. Surayanarayana in which the authors duo are convinced with the current scenario of library consortia practice in India. Surabhi Saini and Salekh Chand have come up with their observations how digital library (DL) has become a global challenge in respect its conceptual clarification, implementation and maintenance.

Section V “*New Shape of Academic Librarianship*” includes six chapters. In a chapter by Prem Chand, Suresh Chouhan and Surbhi Sahani evaluated the Indian consortia efforts and R.K. Chadha explained an overview of academic libraries and the challenges faced by these libraries especially in the context of India. Sanjay Kumar Karn and Basant Kumar Das jointly expressed a generalized orientation about the existing library consortia in India. The next chapter written by four authors Vishal Sharma *et al.* explained how electronic information resources are helpful for learning purposes followed by a chapter written on over viewing the library consortia especially a study in Indian case by Shyam Sunder Pandey, Sunita Pandey and

Anita Pandey. The last chapter of this section is by Geeta G. Gadhavi on Web-based information services in academic libraries and the chapter provided a picture of Gujarat State.

Open Source Movement is the culture of the days especially among the library professionals. By looking at the popularity this section VI "*Open Source Movement and Web Revolution*" is designed for the book. Further this includes four chapters. Sarika Sawant's being the first chapter covers a generalized view on open source software followed by a chapter by the joint authors R.K. Maharana and Subrat Pati in which they overviewed Web 2.0 as a new tool for the librarians. Sachin Vaidya's chapter is again about open source software but he narrowed down the coverage into its application for statistical purposes. Vaishali Khaparde highlighted how Internet brought a revolution in digital library (DL) operations.

The last section VII "*Case studies and Miscellaneous*" covers lengthy list of nine chapters in all. Manoj Kumar Sinha in his survey-based write up explained a status quo report of ICT awareness among the academics of North-East India. While studying the organizational functions of university libraries in Rajasthan, Anita Gangrade and B.P. Shrivastava together explained a detailed report of the above study. Another study on North-East part of India especially a district from Assam is offered by Apurba Jyoti Majumdar and Sharmila Bose Majumdar. In this study they assessed the application of library automation technology in the college libraries. M.P. Upadhya, Shankar Singh and R.R. Bajpayee together provided a status report and a proposal for developing knowledge centres (a new brand for libraries) for rural development in India. A new kind of orientation especially employing performance audit and in LIS centres is the subject matter of a chapter by Sada Bihari Sahu and Dilip Kumar Swain. Anil Agarwal and D.K. Singh in their joint paper forwarded with a case study of ICT applications in and among the libraries affiliated to Banaras Hindu University, Varanasi. The second last chapter by the authors Ramkesh Meena, Bindu Lodha and Iran Khan suggested and provided a careful opinion on information technology especially used for library operations. They used their observations with a pinch of salt whether these technologies are friends or enemies both for service providers and service users. To end with the chapters, two senior professionals revealed the much hidden and untouched area; the development of libraries in ancient and

medieval India. This epoch making chapter could gather few important chronologies achieved through the ancient past.

The current text *Paradigm Shift in Technological Advancement in Librarianship: Essays in Honour of Dr. P.K. Gupta* is now dedicated to the public and society, covering dozens of chapters with varied nature of areas by different kinds of professionals ranging from novice to old and teachers to practicing librarians. As the title goes the editors believed that the chapter contributors have justified the main title expounded and as the subtitle runs, the book is an honour to a legendary library professional of Rajasthan state in particular and India in general. The editors are thankful both to the authors who contributed as well as the Scientific Publishers, Jodhpur to bring out this historic document before the public. And rest to the readers.

**N.K. Swain**  
**D.C. Ojha**  
**M.S. Rana**



# Contributors

## **Anil Agrawal**

Assistant Librarian  
Central Library, BHU,  
Varanasi (U P)

## **Anita Gangrade**

Librarian, IILM-AHL, Jaipur  
Campus, 35/95 Sector – 10,  
Khumba Marg, Pratap Nagar  
Sanagner, Jaipur, Raj

## **Anita Jain**

Chief Librarian  
Jaipur Engineering College  
and Research Centre,  
Sitapura, Tonk Road,  
Jaipur (Rajasthan)

## **Anita Pandey**

EFL University, Lucknow  
Campus,  
Lucknow (U P)

## **Apurba Jyoti Majumder**

Rabindra Library  
Assam University  
(A Central University)  
Silchar-788011

## **Arvind Sharma**

Library Officer, Central Salt &  
Marine Chemicals Research  
Institute (CSIR),  
Bhavnagar 364 021, Gujarat

## **Arjun**

Rajiv Gandhi National  
University of Law, Patiala

## **Atasi Sinhababu**

Masters Student  
Department of Library &  
Information, Science  
Panjab University,  
Chandigarh

## **B.P. Shrivastava**

Coordinator, Library and  
Information Science,  
Institute of Distance  
Education  
Dr. H.S. Gaur University,  
Sagar, M.P.

## **Basanta Kumar Das**

Academic Counsellor & Staff,  
IGNOU Regional Centre,  
457/A, Ashok Nagar,  
Ranchi, Jharkhand -834002

## **Bindu Lodha**

Pacific Institute of  
Management & Technology,  
Pacific University  
Udaipur, 313001.

## **Chandanvandan Atul R.**

Librarian, Vidya Pratishthan's  
Polytechnic College, Indapur,  
Pune, India

## **D.C. Ojha**

Former Librarian  
CAZRI (ICAR),  
Jodhpur, Rajasthan

**D. K. Singh**

Deputy Librarian  
Central Library, BHU,  
Varanasi (U P)

**Dillip K Swain**

Asst. Librarian, KIIT  
University, Bhubaneswar

**Dinesh Kumar**

Library In-Charge, Pharmacy  
& Bio-Technology Department,  
Punjabi Univ., Patiala, Punjab

**G. Naga Ratna Mani**

Deputy Librarian  
Knowledge Resource Centre  
GITAM University  
Rushikonda,  
Visakhapatnam 45

**Geeta G. Gadhavi**

Asst. Professor & Co-ordinator  
Dept. of Library & Information  
Science, Gujarat University,  
Ahmedabad

**Iram Khan**

Dept of Banking & Financial  
Management,  
J.R.Nagar Vidhyapeeth  
University, Udaipur, 313001

**J.P.S. Ahuja**

Manager, Central Statistical  
Information Department,  
NABARD, Head Office.  
Bandra Kurla Complex,  
Mumbai- 400101.

**Kailash N. Vyas**

Librarian (Retd.), Divisional  
Library, Top Dara, Ajmer

**Kanchan Kamila**

Librarian, Uttar Banga Krishi  
Viswavidyalaya  
Pundibari,  
Cooch Behar – 736165 W.B.,  
INDIA

**Lata Suresh**

Manager-Library  
Institute of health  
Management Research  
1, Prabhu Dayal Marg,  
Sanganer Airport  
Jaipur -302020

**Lokesh Sharma**

Deputy Librarian  
The Ratan Tata Library  
Delhi School of Economics  
University of Delhi,  
Delhi - 110 007

**M.P. Upadhyay**

S P A, Desh Bandhu College  
(Evening),  
University of Delhi,  
Delhi

**M.R. Rawtani**

Assoc. Professor &  
Former Head  
Department of Library and  
Information Science,  
University of Rajasthan,  
Jaipur - 302004

**M.S. Rana**

University Librarian  
Assam University,  
Silcher (Assam)

**Maitrayee Ghosh**

University Librarian,  
Central Library,  
Banasthali University,  
Rajasthan, India.

**Mandeep Singh**

Assistant Librarian  
Surya World institutions of  
Academic Excellence  
NH-1, Bapror Teh. Rajpura,  
Distt Patiala (Pb.)

**Mangala Anil Hirwade**

Assistant Professor  
Deptt. of Library &  
Information Science, RTM  
Nagpur University, Nagpur

**Manju Tomar**

Junior Library and  
Information Assistant, The  
Ratan Tata Library, Delhi  
School of Economics,  
University of Delhi  
Delhi - 110 007

**Manoj Kumar Sinha**

Reader and Head, Dept. of  
Library and Information  
Science, Assam University  
(A Central University)  
Silchar-788011

**Mohini Bherwani**

Librarian  
Shri Binzani City College,  
Umrer Road, Nagpur

**Monika Sharma**

Library Assistant  
UIET, Panjab University,  
Chandigarh (Punjab)

**Nirmal Kumar Swain**

Assistant Professor  
DLIS, Banasthali University,  
Rajasthan - 304022

**P K Tripathy**

Librarian  
Regional Institute of  
Education, Bhopal

**Prem Chand**

Librarian, IIAS, Shimla

**R.P. Bajpai**

Senior Lecturer, MGCGV,  
Satna (M.P.)

**Rabindra K. Maharana**

Asst. Librarian,  
C. V. Raman College of Engee,  
Bidyanagar, Mahura,  
Bhubaneswar- 752054

**Rajesh Kumar Singh**

Assistant librarian,  
Central Library, Banaras  
Hindu University, Varanasi

**Ram Chander**

Librarian,  
Aggarwal P G College,  
Balabgarh, Faridabad

**Ram Shay Kumawat**

Librarian  
Institute of Technology &  
Management,  
Bhilwara, Rajasthan

**Ramkesh Meena**

University Central Library,  
Mohanlal Sukhadia  
University, Udaipur

**Ramveer Sagar**

Deputy Librarian  
Manav Rachna College of  
Engineering, Faridabad

**Ravinder Kumar Chadha**

Joint Secretary,  
Parliament of India,  
Lok Sabha Secretariat  
New Delhi 110001

**Rupak Chakravarty**

Assistant Professor,  
Department of Library &  
Information, Science,  
Panjab University,  
Chandigarh

**S. S. Pawar**

Former Dy. Librarian  
Department of Geology,  
Panjab University,  
Chandigarh

**Sachin Vaidya**

Librarian  
Sir Vithaldas Thackersey  
College of Home Science,  
S.N.D.T. Women's University,  
Juhu, Mumbai – 400049.

**Sada Bihari Sahu**

Manager, Central Library,  
Small Industries Bank of  
India, Lucknow

**Salek Chand**

Library & Information Officer  
Election Commission of India  
Ashok, New Delhi-110001

**Sanjay Kumar Karn**

Asst. University Librarian,  
Ranchi University, Morabadi,  
Ranchi, Jharkhand- 834008

**Sarika Sawant**

Assistant Professor,  
SHPT School of Library  
Science, SNDT Women's  
University, 1, NT Road,  
Churchgate, Mumbai 400 020

**Shankar Singh**

Senior Manger Library &  
Information Services  
Power Finance Corporation  
Ltd  
New Delhi

**Sharmila Bose Majumder**

Research Scholar  
DLIS, Gauhati University,  
Gauhati (Assam)

**Shyam Sundar Pandey**

Assistant Librarian, Rashtriya  
Sanskrit Sansthan,  
Ministry of HRD, Govt. of  
India, (Deemed University)  
G. N. Jha campus,  
Allahabad

**Subrat Pati**

Librarian, Rajdhani College of  
Engineering, Bhubaneswar

**Sunita Pandey**

Ex, Internee, IIT, Delhi

**Surbhi Sahni**

Project Assistant (Library),  
IIAS, Shimla

**Surbhi Saini**

Dept. of Lib. & Inf. Sc.  
School of Social Sciences  
(SOSS), Indira Gandhi  
National Open University,  
Maidhan Garhi,  
New Delhi-110068.

**Suresh Chauhan**

Librarian, Jaipuria Institute  
of Management, Noida

**T. D. Tilwani**

Head, Department of Library  
& Information Science,  
UCSSH, M.L.S. University,  
Udaipur (Raj.)- 313001

**V.V. Suryanarayana**

Assistant Librarian  
Knowledge Resource Centre  
GITAM Univ. Rushikonda,  
Visakhapatnam-45

**Vaishali Khaparde**

Associate Professor & Head,  
Department of Library &  
Information Science,  
Dr. Babasaheb Ambedkar  
Marathwada University,  
Aurangabad (Mah.) India

**Vishal Sharma**

Librarian  
Surya World Institutions of  
Academic Excellence  
NH-1, Bapror Teh. Rajpura,  
Distt Patiala (Pb.)

# Contents

<i>Foreword</i>	<i>v</i>
<i>Preface</i>	<i>ix</i>
<i>Contributors</i>	<i>xv</i>

## Dr P.K. Gupta: A Life

1	Dr P.K. Gupta: As I Know Him	— <i>Nirmal Kumar Swain</i>	1
---	------------------------------	-----------------------------	---

## Current Practices in use of E-Resources

2	Importance of Open Archives Initiatives – Protocol for Metadata Harvesting in Web based Searching and Retrieval Environment	— <i>Kanchan Kamila</i>	7
3	Achieving Quality Services in Academic Libraries by Using Best Practices and Technologies	— <i>M.S. Rana</i>	30
4	Webometrics: Application of Bibliometric Power Laws on Web Documents	— <i>P.K. Tripathy</i>	44
5	Preservation Management of Digital Resources in Libraries & Information Centres	— <i>T.D. Tilwani &amp; Arvind Sharma</i>	52
6	Social Networking: Possibilities and Consequences	— <i>Lata Suresh</i>	65
7	Role of Open Sources Software Tool for Digital Library Development	— <i>Ram Shay Kumawat</i>	77

- 8 Open Source Software in Digitizing Library Resources  
— *Dinesh Kumar & Arjun* 89

### **Technological Innovations**

- 9 Some Issues relating to Ontology of Cyberspace  
— *Nirmal Kumar Swain* 112
- 10 Towards an Integrated Rural Development Information  
System in India  
— *M.R. Rawtani & J.P.S. Ahuja* 127
- 11 Technical Issues in Development of Multi-Lingual Digital  
Libraries  
— *Chandanvandan Atul R.* 145
- 12 Open Content (Knowledge) & Licensing  
— *Rupak Chakravarty & Atasi Sinhababu* 153
- 13 Collaboration and Consortia: A Selected Review of  
Literature and Resource List  
— *Maitrayee Ghosh* 163
- 14 Data Standards for e-Resources  
— *Mangala Anil Hirwade & Mohini Bherwani* 191

### **Digital Library**

- 15 Concept of Digital Library: A Comprehensive Study  
— *Anita Jain* 201
- 16 Perspective of Library 2.0 concepts in the Current Era  
— *Ramveer Sagar & Ram Chander* 212
- 17 E-Resources : A Shift from Print to e-Format  
— *Manju Tomar & Lokesh Sharma* 223
- 18 Indian Scenario of Library Consortia  
— *G. Naga Ratna Mani & V.V. Suryanarayana* 241
- 19 Digital Library: Challenges in the Global World  
— *Surbhi Saini & Salek Chand* 257

### **New Shape of Academic Librarianship**

- 20 Evaluation of Consortia Efforts in India Study  
— *Prem Chand, Suresh Chauhan & Surbhi Sahni* 268

- 21 Academic Libraries in India: Challenges and Opportunities  
— *Ravinder Kumar Chadha* 281
- 22 India Library Consortia : A Study  
— *Sanjay Kumar Karn & Basanta Kumar Das* 296
- 23 Electronic Information Resources for Learning : A Study  
— *Vishal Sharma, Monika Sharma, Mandeep Singh & S. S. Pawar* 312
- 24 Library Consortia in India: An Overview  
— *Shyam Sundar Pandey, Sunita Pandey & Anita Pandey* 322
- 25 Web – based Information Services in Academic Libraries in Gujarat  
— *Geeta G. Gadhavi* 332

### **Open Source Movement and Web Revolution**

- 26 Open Source Softwares  
— *Sarika Sawant* 343
- 27 Web 2.0: New Tools for Libraries and Librarians  
— *Rabindra K. Maharana & Subrat Pati* 356
- 28 Open Source Softwares for Statistics: An Introduction  
— *Sachin Vaidya* 369
- 29 Digital Libraries: Impact of Internet on Libraries  
— *Vaishali Khaparde* 378

### **Case Studies & Miscellaneous**

- 30 ICT Literacy and Awareness Amongst University and College Teachers of North Eastern Region of India: A Survey  
— *Manoj Kumar Sinha* 387
- 31 A Study of Organisational Structure of University Libraries in Rajasthan  
— *Anita Gangrade & B.P. Shrivastava* 412
- 32 Copyright Issues and National Information Policy with Special Reference to Libraries in Digital Age  
— *Rajesh Kumar Singh* 426

- 33 Application of Modern Library Automation strategies in the College libraries of Dibrugarh District of Assam: An Evaluative study  
— *Apurba Jyoti Majumder & Sharmila Bose Majumder* 437
- 34 Developing Knowledge Centres for Rural Development in India: Status of Digital Divide in Knowledge Society  
— *M. P. Upadhyay, Shankar Singh & R.P. Bajpai* 450
- 35 Induction of Performance Audit in Library and Information Centres  
— *Sada Bihari Sahu & Dillip K Swain* 475
- 36 ICT Application in Academic Libraries : A Case Study of Banaras Hindu University Library System  
— *Anil Agrawal & D. K. Singh* 484
- 37 Library and Information Technology: Are they Friends or Foes?  
— *Ramkesh Meena, Bindu Lodha & Iram Khan* 493
- 38 Libraries in Ancient and Medieval India  
— *Kailash N. Vyas & D.C. Ojha* 500