

Book of Abstracts

Qualitative and Quantitative
Methods in

Libraries QQML2011

International Conference



Editor

Anthi Katsirikou

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Contents

Preface	v
Committees	1
Workshops	7
Special Sessions	9
Papers	13
Author index	156

Preface

Dear Colleagues,

We welcome you in Athens for the QQML 2011 International Conference. As for the first and the second, the 3rd Qualitative and Quantitative Methods in Libraries International Conference includes research papers and applied works from all over the world. It is a pleasure for us to know that the conference implies to the dialogue between librarians and other professionals on the management problems and their alternative solutions, in a more cost-effective manner. As librarianship is a field that is enriched by other scientific disciplines more and more, library professionals must advance their ability to change, share their sources and improve their effectiveness. The most important factor to improvement of organization is the systematic and thorough study of methodologies by knowledge and information workers, who are charged to manage change.

That's why we pay great attention on the workshops and accepted very important workshops that are scheduled in this conference. It is among our ambitions to continue this practice in the future QQML conferences as a tool to everyday life of library professionals.

Anthi Katsirikou
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Conference Chair

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Keynote Speakers

Dr. Carol Tenopir: *Beyond Usage: Measuring Library Outcomes and Value.*

Chancellor's Professor School of Information Sciences, Director of Research and Director of the Center for Information and Communication Studies, College of Communication and Information, University of Tennessee, USA

Short Biography. Carol Tenopir is a professor at the School of Information Sciences at the University of Tennessee, Knoxville and the Director of Research for the College of Communication and Information, and Director of the Center for Information and Communication Studies. Her areas of teaching and research include: information access and retrieval, electronic publishing, the information industry, online resources, and the impact of technology on reference librarians and scientists. She is the author of five books, including, *Communication Patterns of Engineers*, (IEEE/Wiley InterScience, 2004) with Donald W. King. Dr. Tenopir has published over 200 journal articles, is a frequent speaker at professional conferences, and since 1983 has written the «Online Databases» column for *Library Journal*. She is the recipient of the 1993 Outstanding Information Science Teacher Award from the American Society for Information Science/Institute for Scientific Information and the 2000 ALISE Award for Teaching Excellence. She also received the 2002 American Society for Information Science & Technology, Research Award and the 2004 International Information Industry Lifetime Achievement Award. Dr. Tenopir holds a PhD degree in Library and Information Science from the University of Illinois.

Ioannis Trohopoulos: *The story of Veria Library, creativity and innovation: providing adding value services to the citizen.*

Director of Veria Central Public Library ([2010 Access to Learning Award Recipient](#)), Greece

Short Biography. Ioannis Trohopoulos, BA in Law, (University of Thessaloniki, 1982), MA in Public Law (University of Thessaloniki, 1985) and MLib in Library and Information Studies (University of Wales, Great Britain, 1990). He has been the director of Veria Central Public Library since 1990. From 1991 to 1996 he was also a lecturer (part-time) on Library Automation and Management at the Library school of the Technical University of Thessaloniki. In 1996, he received a scholarship from the United States Information Agency and worked for four months in the Clermont County Public Library in Ohio, U.S.A. From 1994 to 2004 he has been the national coordinator for six EU projects, namely the MOBILE

(under the Libraries program), the PLDP (under the Phare program), Publica (under Libraries program) the ISTAR project (EU funded under Directorate-General XVI), the PULMAN Project (under the FP5 program) and the CALIMERA Project (under the FP6 program). From 2004 to 2007 he coordinated the Light Project, which was funded under Interreg III C East. From 2007 to 2009 he managed the European projects ENTITLE and UNTOLD, both funded under Grudvtiq programs. Currently he is the national coordinator of the EDLocal and AccessIT EU projects, both related with the development of digital libraries. In June 2010, he has been appointed as vice president of the National committee for Libraries, Archives and Educational Television at the ministry of Education. In August 2010 during the IFLA conference in Gothenburg, Sweden he received on behalf of Veria Central Public Library the award *Access to Knowledge 2010* by the Bill and Melinda Gates Foundation.

Professor Kereti G. Rautangata: Knowledge Discovery and Knowledge Creation. A Cultural and Universal Perspective

Short Biography. Professor Kereti G. Rautangata is of Maori heritage from Waikato in the north island of New Zealand. He has worked for Te Wananga o Aotearoa (TWOA), (Maori Tertiary Teaching Institute) for approximately 15 years as Lecturer and Head of Department for Whakairo (Maori wood carving), where he was instrumental, along with Tohunga (expert) Master wood carving magnate, Dr Paakaariki Harrison, in developing the first ever Bachelors degree for Whakairo. This milestone achievement was acknowledged with the first 18 *foundational* graduates being honoured in the inaugural graduation, 2004. In August 2000, Kereti was accorded *Pouwhenua* status (Supreme Carver. The highest level of priesthood) by the most senior fraternity of Master Carvers of New Zealand. He was also honoured by Te Wananga o Aotearoa as Adjunct Professor in April 2003. Then in August 2005 he was awarded the NZQA Tertiary Teaching Excellence Award for *Excellence in Innovation* for his many diverse life-time achievements. He is accomplished in Maori performing arts and Maori cultural ambassadorships to various countries and events. Kereti has spent the past three years as a Whakairo researcher for TWOA, to investigate the most effective way to develop *Higher Consciousness* within humanity, via the profound art of Whakairo, and to assist sincere aspirants amongst our people to attain to EXPERIENTIAL TRANSCENDENTAL KNOWLEDGE. Currently, he oversees the national delivery for the Whakairo (wood carving) programme in TWOA. His primary passion is Whakairo. His other passion, equal to that, is as an Architectural Designer, in which he is qualified. He is also Director of his own Spiritual Warrior School, He Tua Toatanga, which he developed several years ago. As well, he is an accomplished composer of waiata (Maori songs). Some of his Publications include: Maori Architecture. A Carver's Point of View, Auckland 1977; Te Papa Hono

Tutaki, Poupou, 2004; Waharoa, 2004; Te Moko Tukupu Wananga a Rua i Te Wheke Rangi, 2003; Report on International Master Carver's Wood Art Festival, Putten, The Netherlands, November 2003; Report on International Master Carvers Wood Symposium', Lichtenstein, Germany, November 2003. He has presented nationally and internationally at conferences in Hungary, Canada, The Netherlands, USA, Micronesia, Sth Africa, and many more.

Dr Teresa S. Welsh: Information Literacy in the Digital Age: An Evidence-Based Approach

Associate Professor, Library & Information Science, University of Southern Mississippi, USA

Short Biography. Dr. Welsh is a native Mississippian who graduated summa cum laude from the University of Southern Mississippi with a B.A. degree in anthropology and minors in social studies and classical studies. While at Southern Miss, she was a member of the Honors College as well as Phi Kappa Phi, Phi Theta Kappa, Lambda Alpha, Gamma Beta Phi, and Golden Key Honor Societies. She earned an M.L.I.S. and later a Ph.D. in communication and information from the University of Tennessee with a specialty in information sciences. She was a member of Kappa Tau Alpha Honor Society and awarded the Hilton A. Smith Graduate Fellowship from UTK as well as Best Technical Project Award and Best Doctoral Paper Award from the School of Information Sciences. She has taught at Southern Miss since summer 2003 and has received the 2007 Excellence in Teaching Award from the College of Education and Psychology, was one of 12 faculty chosen for the 2007-08 Learning Enhancement Center Podcasting Pilot Project, served as an assistant director for the Katrina Research Center, and served on the University of Tennessee School of Information Sciences Advisory Board. In addition to being published in scholarly journals and conference proceedings, she has authored several book chapters and is currently co-authoring a book on information literacy. Teaching and research interests include historical research, bibliometric research, information literacy, information retrieval, international librarianship, museum studies and archival studies.

Workshops

Information Literacy (IL) in the curriculum.

IL Workshop contents will be based on **UNESCO Training The Trainers in Information Literacy (TTT) workshops** (<http://albertkb.nl/unesco-ttt.html>) and at the end of the day the participants are able to start formulating an IL policy for their organizations.

Workshop instructor: **Albert K. Boekhorst** (www.albertkb.nl)

Universiteit van Amsterdam, Netherlands, Media Studies

University of Pretoria, South Africa, Dept. Information Science

IL Workshop is organized in cooperation between **QOML International Conference** and the **IFLA-Information Literacy Section** (<http://www.ifla.org/information-literacy>).

Workshop “Information Literacy (IL) in the curriculum” contents:

1. Introduction participants
2. IL, why, what, how, when
3. Developing an IL policy:
Why (what problems do participants encounter),
Description present situation,
Description desired situation,
Transition project (Vision, Mission, Partners, etc)
4. Feedback
5. Conclusion

The participants will several times, in small groups, prepare a part of the IL Policy document and report to the whole group. The actual content will be attuned according to the wishes/needs of the participants.

EMPATHIC WORKSHOPS

Information Literacy Policies: methodological aspects

Coordinator: Prof. Carla Basili, The National Research Council, Italy, The European network on Information Literacy (EnIL), co-ordinator

Scope & rationale: Aim of the session is to point out the strategic role of methodological approaches in Information Literacy Policy Analysis. Policy formulation and implementation is a complex process, deeply rooted in awareness of problems and prediction of impacts. The latter element constitutes the most fragile side of the process, since even the best model of prediction cannot cope against unexpected events. A vast amount of «policy theory» literature has been produced, which proposes different models for predicting realistic system behaviours, without ever reaching a common consensus. Alternatively, a major trend towards effective policy formulation is a pragmatic approach based on evidence: policies are adopted on the basis of «what works» rather than ideology or intuition. Despite its more pragmatic positioning with respect to

policy theories, the evidence-based approach privileges data and data structures, which are analysed through a systematic process of enquiry. The methodological dimension is evidently crucial in this approach, as a way to perform policy analysis by applying scientific criteria.

Chair: Carla Basili, National Research Council, Rome, Italy
Models of Information Literacy Policies in Higher Education

Rapporteurs: Sabina Cisek – Maria Próchnicka, Jagiellonian University in Krakow, Poland
Selected methodological issues in creating the Information Literacy development strategies

Rapporteur: Armando Malheiro da Silva, Faculty of Humanities, University of Porto, Portugal
Information Literacy in the European Higher Education Area: epistemological and theoretical aspects

Panel on *Strategic and Interdisciplinary Approaches to Information Literacy Skills*

Panelists: Angela Repanovici, Transilvania University Brasov, Romania
Ane Landoy, Bergen University Library, Norway
Manolis Koukourakis, Crete University Library, Greece

EMPATIC Worskhop: Information Literacy in Adult Education

Coordinator: Anthi Katsirikou

Workshop Description: The workshop's target groups are the stakeholders on the adult education, who are the decision makers on the Continuing education, Librarians, General Secretaries of Ministries, Presidents of the Board of professional organizations, Presidents of the Board of relevant to LLL organizations, governmental and non- governmental organizations, university professors, LIS professors.

Keynote Speaker: Myrsini Morelleli Kakouris: *Information Literacy the Core of Lifelong Learning.*

Assistant Prof. Myrsini Morelleli- Kakouri, TEI of Thessaloniki Greece.
(kakouri@libd.teithe.gr)

Round table discussion: E. Mamma, S. Kurbanoglu, G. Zachos et al.

SPECIAL SESSIONS

SESSION TITLE: Using qualitative and quantitative methods in digital library education and research

Coordinators: **Sirje Virkus**, Lecturer, sirvir@tlu.ee & **Aira Lepik**, Associate professor, aira.lepik@tlu.ee, Tallinn University, Institute of Information Studies, Estonia

Scope & rationale:

This session aims to encourage the discussions and provide examples of usage of qualitative and quantitative methods in digital library research. This session comprises eight papers, each of them will be presented by individual authors. Eight students explore in their papers social, economic, educational and organizational aspects of digital libraries and related issues in the different regions of the world - Africa, Asia, Latin-America, and Europe - using a quantitative and qualitative inquiry. The students' papers of this session are based on research done within their Master Thesis projects in the Digital Library Learning (DILL) programme at Tallinn University. DILL is a two-year Master Programme for information professionals who intend to work in the complex world of digital libraries. DILL is offered in cooperation between Oslo University College (Norway), Tallinn University (Estonia), and Parma University (Italy).

Students of the Digital Library Learning (DILL) Master programme:

Marcial R. Batiancila, *The Digital Library Professionals' Learning Culture: A Qualitative Study of the Community of Practice in Europe*

Danijel Cuturic, *European Navigator: Users' Expectations for the European Library*

Nithin Lakshmana, *Access to Knowledge in India*

Ezerea Kulisooma, *Cost Factors/Financial Implications of KM in Business Organisations*

Andrew Wabwezi, *The Correlation between Knowledge Sharing and Innovation in Higher Education: A Case Study of Tallinn University*

Juan Daniel Machin Mastromatteo, *Exploring Users' Information Behavior in Social Networks*

Mehrnoosh Vahdat, *A Study of Image Quality, Authenticity, and Metadata Characteristics of Photogrammetric Three-Dimensional Data in Cultural Heritage Domain.*

Getaneh Alemu, Brett Stevens, Penny Ross, *A Constructivist Grounded Theory Approach to Semantic Metadata Interoperability in Digital Libraries: Preliminary Reflections*

SESSION TITLE: Library management and marketing

Coordinator: Dr. **Angela Repanovici**, Transilvania University of Brasov, Romania

Scope & rationale:

Leadership in managing services for diverse and complex groups of patrons
In this session we are looking to learn from best practices from libraries that

have demanding, diverse and complex groups of patrons. How will academic libraries balance between demands from scholars from different traditions; the bookish humanities and the more journal-oriented Social Sciences? Is there anything to learn about catering for the different emphasis placed on bibliometrics as a tool for funding agencies? On what basis will the academic libraries that are in this kind of situation act and make decisions?

Performance indicators

Libraries, as well as other organizations, are under close scrutiny from patrons and funding agencies. The library manager needs some tools for assessing the performance of the library, both as itself and benchmarked with others. In this session we are looking for papers on best practice on performance indicators. What are good and useful indicators for performance for different kinds of libraries? How can library leaders and managers utilize the information derived from such indicators to improve the library services? Can performance indicators be used to market the library to stake holders?

Evaluation

Library leaders have to find some ways of gaining systematic information about the activities in their libraries. Staff meets users every day, so there is no shortage of impressions, ideas and mental images, if one as a leader can find a way to utilize this. Often, though, this information will be ad hoc and qualitative rather than systematic and quantitative, and as such less useful for improvement and bench marking in a library. What are efficient ways of evaluation for libraries? What examples of best practice can we find of different evaluation methods for different purposes?

User education

The traditional approach to library patron education is being challenged by several factors. One is the enormous amount of information that is available from libraries; so much, that it is not possible for anyone, not even the librarians themselves, to keep abreast of the development. Another challenge is the growing concern from stake holders and funding bodies that the population should become more computer literate and information literate, and seeing libraries as useful tools for this purpose. In this session we will look for papers describing best practises within the field of user education.

SESSION TITLE: Organizing Libraries for Effective Decision Making: the Role of Library Assessment through Four Case Studies

Convenor: **Martha Kyrillidou**

Scope & rationale:

This set of four presentations will focus on how libraries are organized for assessment and how they capture and articulate their value proposition. Case studies from Columbia University, Cornell University, the University of Manitoba, and the University of York (UK) will inform this panel and provide perspectives on how libraries are managing change in a strategic way using data to support their decision making activities.

- *Library Assessment at Columbia University* by **Damon Jaggars** and **Jennifer Rutner**
- *Qualitative assessment at Cornell University* by **Kornelia Tancheva**
- *Library Assessment at the University of Manitoba* by **Betty Braaksma** and **Pat Nicholls**
- *Performance Measurement and Metrics at the University of York, UK*, by **Stephen Town**

Martha Kyrillidou is Senior Director of ARL Statistics and Service Quality Programs at the Association of Research Libraries (ARL), USA

Damon E. Jaggars is Associate University Librarian for Collections and Services at the Columbia University Libraries, USA

Jennifer Rutner is the Assessment & Marketing Librarian at Columbia University, USA

Kornelia Tancheva is the Director of Olin and Uris Libraries at Cornell University, USA

Betty Braaksma is the Coordinator of Information Literacy and Virtual Reference at the University of Manitoba Libraries, USA

Pat Nicholls is the Coordinator responsible for the integrated library system installed at the University of Manitoba (SirsiDynix' Symphony), USA

Stephen Town is Director of Information and University Librarian at the University of York, UK

SESSION TITLE: Managing Change in Academic Libraries in a Strategic Way: The nature of evidence for change management

Convenor: Stephen Town

This set of presentations will focus on how libraries are managing change in a strategic way by highlighting the ARL Scenarios activity, how this activity can inform performance measurement and metrics and how value based propositions can be derived in the form of a value based scorecard for libraries. For example we will examine how a library scorecard would look like for the library in 2030 assuming different scenarios for the future of scholarly communication and information transfer. The concept of the value scorecard has been articulated before in papers by Stephen Town; ARL has recently embarked in articulating four different scenarios for 2030 that have implications for the future of research libraries. This set of presentations will articulate different value metrics for research libraries under the different scenarios and also will highlight what libraries are doing nowadays in terms of assessment activities that could point to their future viability and sustainability. Last, an examination of the ClimateQUAL assessment protocol used to assess organizational climate and diversity is also discussed.

- *The ARL User Guide on Scenario Planning and its value in relation to assessment activities* by Martha Kyrillidou
- *Libraries values as emerging in the four scenarios articulated in the ARL User Guide on Scenario Planning and their relation to the*

Transcendent Value of Libraries by Stephen Town and Martha Kyrillidou

- *Organizational Climate and Diversity Assessment: A Value-based Approach Manifested through the ARL ClimateQUAL assessment protocol* by Paul Hanges and Martha Kyrillidou

SESSION TITLE: Research tendencies in Ibero-American countries

Focus group: access and information policy - Egbert J. Sanchez Vanderkast (egbert@servidor.unam.mx)

Documentary Reading Model for indexing of scientific texts and books: a cognitive approach with verbal protocol in the indexer's education - Mariângela Spotti Lopes Fujita (fujita@marilia.unesp.br)

The socio-cognitive context of the subject cataloger and his professional experience - Mariângela Spotti Lopes Fujita (fujita@marilia.unesp.br); Franciele Marques Redigolo (franbiblio@gmail.com); Noemi Oliveira Martinho (gleanom@yahoo.com); Paula Regina Dal' Evedove (sud_dove@yahoo.com.br)

The Quadripolar Method and information literacy research: the elit.pt project - Armando Malheiro da Silva (malheiro@letras.up.pt)

Access and information behaviour of European Documentation Centres users in Portugal and Spain: a comparative study - Yolanda Martín González (ymargon@usal.es); Ana Lúcia Terra (anaterra@eu.ipp.pt)

Abstracts of the Papers

About the differences between communication networks and cognitive networks

Contribution to Research of Bibliometric methods in Information Science

Dr. Đilda Pečarić¹ and prof. Dr. Miroslav Tuđman²

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Department of Information Sciences, Croatia, mtudman@ffzg.hr

Abstract: In this paper we advocate thesis that cohesion and coherence of scientific field should be conceptual framework, i.e. criterion for the research of scientific development. With such an approach we can research scientific development realized through social networks, institutional networks, communicational networks and cognitive networks. All these forms of scientific collaboration, i.e. all these networks can influence the structure and dynamics of the development of (information) sciences. In that context, bibliometric data used as indicators of cohesion and coherence of information science are not only quantitative indicators, but could also be used as quantitative data of qualitative indicators that we could define by new conceptual framework.

We believe that it is possible to advocate following hypothesis: a) two scientific communities can use (generate) two **different** communication networks (that can be identified by co-citation analysis, that is, clusters of most cited authors); b) two scientific communities can generate **same** or **similar** cognitive networks (that can be identified by co-word analysis). These postulate the difference between communication and cognitive networks. That means that “knowledge maps” and “intellectual structure” as the product of bibliometric analysis from 1980s on are not precise enough today.

Keywords: Social networks, institutional networks, communicational networks and cognitive networks, cohesion, coherence, bibliometric analysis, scientific development

Access and information behaviour of European Documentation Centres users in Portugal and Spain: a comparative study

Yolanda Martín González, University of Salamanca, Spain,
ymargon@usal.es

Ana Lúcia Terra, School of Industrial Studies and Management, Oporto
Polytechnic Institute, Portugal, anaterra@eu.ipp.pt

Abstract: The aim of this study was to undertake a comparative analysis of the practices and information behaviour of European information users who visit information units specialising in European information in Portugal and Spain.

The study used a quantitative methodology based on a questionnaire containing closed questions and one open question. The questions covered the general sociological profile of the respondents and their use of European Document Centres, in addition to analysing aspects associated with information behaviour relating to European themes. The study therefore examined data on the preferred means and sources for accessing European information, types of documents and the subjects investigated most. The use of European databases and the Internet to access material on Europe was also studied, together with the reasons which users considered made it easy or difficult to access European information, and the aspects they valued most in accessing this information.

The questionnaire was administered in European Document Centres in 2008 and 2010.

Keywords: European Union, European information, Portugal, Spain, information behaviour

Achievements and Pitfalls when Introducing PR and Marketing in Developing Library Systems

Evgeniya Rusinova

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Abstract: Over the past 20 years libraries have undergone transformations as a result of two factors: a change in the social and political system and the advent of information technologies. This has necessitated a change in the management policy and the need to take advantage of technologies of PR and Marketing. Libraries have had to prove their existence in a new competitive environment or run the risk of closing down.

It was the educational system that responded first. Since 1992 Library Studies in Bulgaria have expanded with subjects like “PR”, “Sociological Research Methods” and “Marketing”.

In library practices the opportunities that these new approaches and technologies are not consistently used. The reasons could be seen in the following: borrowing practices that are in unbalance with certain conditions in Bulgaria; marketing has been considered mainly as a mechanism for financial gain, and not as a function of management; the formal similarities between PR and different presentation activities applied so far has led to its strong underestimation.

Gradually, various libraries have introduced in their activities some research of the patron database, library event advertising, increased media contacts, different culture programs, co-operation with other cultural institutions, voluntary work. Special attention has been paid to the work with children and schoolchildren. Efforts have been made to attract minority groups.

Libraries in Bulgaria are poorly financed and find their place outside priority areas, which does not allow for the full use of PR mechanisms and marketing. To a great extent, the use of technologies comes as a result of enthusiasm and personal endeavor on the part of certain librarians. This situation has highlighted the need to offer qualification courses aiming to take proper advantage of sociological methods and PR and Marketing technologies.

Keywords: Library, PR, marketing, sociological methods

Adding Rigor to Program Evaluation: A Mixed Methods Approach to Evaluating Library Leadership Development Programs

Mary-Jo Romaniuk¹, and Ernest B. Ingles²

¹Chief Librarian (Acting), Adjunct Professor – School of Library and Information Studies, University of Alberta, Canada

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²FRSC, Vice Provost, & Director of the School of Library and Information Studies, University of Alberta, Canada, Ernie.Ingles@ualberta.ca

Abstract. Recently, libraries have been concerned about management succession and a future leadership deficit. Precipitated by research as well as demographic data, much has been written both about the shortage of qualified library leaders and about the need for training and development programs to mitigate a leadership crisis. Libraries and the library profession have responded with a wide variety of leadership training and development programs. Traditionally, most of these programs have not undertaken a rigorous and formal evaluation such that the results or outcomes of the interventions are not always clear. Leadership development programs outside of libraries share the void of formal program evaluation. A more rigorous evaluation methodology is required if we are to determine whether these programs meet their objectives and result in better library leaders. Furthermore, a more robust evaluation framework would permit insights as to why programs work or why they fail to achieve their desired outcomes. With the right evaluation framework, and a clear presentation of the evaluation methodology, program evaluation can provide intelligence not only for the program being evaluated but for a myriad of other existing and potential programs.

The session explores the use of a mixed methods research methodology and design to conduct program evaluation. In particular, the application of this approach and the accompanying evaluation for a library leadership development program will be presented. The session will outline the weaknesses in traditional evaluation methods and contrast and compare these to the benefits of the more robust design. The session will also review the implementation challenges and costs associated with this mixed methods

approach. The session will conclude by demonstrating the transferability of this evaluation framework to the evaluation of other library programs.

The amount of citing of articles in ISI Web of Science to open access articles in DOAJ in two areas Health & Medical Sciences and Pure Sciences: A survey study

Dr. Ahmad, Shabani, University of Isfahan, Iran, af_asemi@yahoo.com
Ahmad Shabani, Asefeh Asemi, Rasul Saadat

Abstract: The present research, the rate of citing of articles in ISI Web of Science to open access articles in DOAJ in two areas Health & Medical Sciences and Pure Sciences during the years 2003-2008, as well as it is a significant difference between the amounts of citations made to the DOAJ journals in these two areas.

In this study, the bibliometrics method and citation analysis techniques has been seek, as the 1337 English-language journal, without sampling in the DOAJ was investigated. For collecting data from the tool Cited Reference Search in the ISI Web of Science is used. Ultimately, data analysis using SPSS software was performed.

Keywords: Open Access journals, free journals, DOAJ, ISI Web of Science, citing, bibliometrics

Application of the European Foundation Quality Management (EFQM) Excellence Model in Central Library of Medical university of Tabriz (Iran)

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Abstract: Introduction: Today, in the discussion of quality management in organizations (whether industrial or services), various models are considered to evaluate performance and excellence in them. Model of the European Foundation for Quality Management (EFQM) is one of the most famous and valuable models in this regard.

Methodology: The present study is analysis of the survey. The research society includes 10 managers and officials working in Central Library in

Medical university of Tabriz. These people were selected by the census. The Tools for data collection was an explanatory interview and questionnaire. The questionnaire was approved by the European Foundation Quality Standards in Europe (EFQM) which consist of a set of methods and tools to evaluate the excellence of organization. Strengths and weaknesses of 9 fields of managements at Central Library of Tabriz Medical University Identified and eventually weaknesses of these fields were analyzed for improving. Scores calculated using the European Quality Model Special Voting. In order to analyze research findings, descriptive statistics (frequency and percentage) used and for this purpose the software applications such as SPSS and EXCELL is also applied.

Findings: Findings of research reveal that the rate of management quality at central library of medical university of Tabriz is scoring 446/07 points out of a total of 1000, is on a fairly middle level of quality of management that 240/36 and 205/71 of this score belong to empower and result fields respectively. The highest points belong to shares and resources and lowest points belong to human resources results. Between Libraries studied, except the criteria and component, processesB , in none of the fields related to other criteria, no significant difference is observed. However, strengths and weaknesses are identified in detail.

Conclusion: By using the excellence model of EFQM in Tabriz University of Medical Sciences libraries. The results of the study reveal that: first, the model (with some modifications) is applicable in library environment; second, it identifies the strengths and weaknesses of 9 fields of managements at the libraries under study. Consequently, weaknesses of these fields can be analyzed for improving.

Keywords: European Foundation Quality Management Model, public libraries, public libraries affiliated to the institution of public libraries, Iran, Tehran

An analysis of research strategies of articles published in Library Science journals

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Abstract: The aim of the present study is to investigate the general trends of LIS research, using as source material the articles published in "Library and Information Science Research" in a five-year period (2005-2010). "Library & Information Science Research" was chosen because is a cross-disciplinary and refereed journal, which focuses on the research process in library and information science, covers a wide range of topics within the field, reports research findings and provides work of interest to both academics and practitioners. The authors review the findings from an examination of research articles published in the journal, giving emphasis on articles that used quantitative and/or qualitative research methods as an integral part of

the author's work. The paper examines the major topics and problems addressed by LIS researchers, the research approaches and the types of quantitative and qualitative research methods used in articles published during this period, in an effort to understand the characteristics of LIS research activities and to get an insight into the research perspectives of the field.

Keywords: Library and information science, research methods, Library and information science periodicals

An analysis of service quality in Mashhad University of Medical Sciences (MUMS) using LIBQUAL scale

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Abstract: Measuring the library service quality given in academic libraries have special importance, because having high quality libraries will facilitate the process of permanent development in library services. Although, in traditional research methods, factors such as “ rich collection”, “ material variation”, and “number of users” were seen as effective factors for quality control. But today is a new tool for measuring service quality named LibQual which developed by Vicki Coleman, Collen Cook and Fred Heath in 1999 based on SERVQUAL Model. In order to clarify strengths and weaknesses and to improve decisions affecting the quality of services in Mashhad University of Medical Sciences (MUMS) fourteen libraries, this method is used in this study. Specific objectives include level of members' satisfaction of services in libraries; level of members' expectations of services in libraries; level of gap between current and expected condition of services in libraries based on LibQual dimensions. Two types of LibQual standard questionnaires used as a data collection tool.

Anxiety among Reference Librarians (RLs) in Digital Environment (DE) and Traditional Environment (TE)

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Abstract: Purpose of the study is to determine anxiety thoughts among traditional and digital RLs and indicate what factors are causes of this effect. In the other word, this study is to determine metacognitive factors that can explain the causes of more prevalence anxiety among RLs.

This Study is conducted with traditional and digital RLs who were working in academic libraries in Iran and were affected by anxiety thoughts. Instruments were concluded: Metacognitive Thought Control Questionnaire (TCQ), Generalized Anxiety Disorder (GAD), and Anxiety Thoughts

Inventory (AnTI). So some items added or changed to these questionnaires based on reference work in the library.

Keywords: Metacognitive Thought Control (MTC), Anxiety Thoughts Inventory (AnTI), Reference Librarians (RLs), digital reference services, traditional reference services, Iran

Application of the European Foundation Quality Management (EFQM) Excellence Model in Central Library of Medical university of Tabriz (Iran)

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Introduction: Today, in the discussion of quality management in organizations (whether industrial or services), various models are considered to evaluate performance and excellence in them. Model of the European Foundation for Quality Management (EFQM) is one of the most famous and valuable models in this regard.

Methods: The present study is analysis of the survey. The research society includes 10 managers and officials working in Central Library in Medical university of Tabriz. These people were selected by the census. The Tools for data collection was an explanatory interview and questionnaire. The questionnaire was approved by the European Foundation Quality Standards in Europe (EFQM) which consist of a set of methods and tools to evaluate the excellence of organization. Strengths and weaknesses of 9 fields of managements at Central Library of Tabriz Medical University Identified and eventually weaknesses of these fields were analyzed for improving. Scores calculated using the European Quality Model Special Voting. In order to analyze research findings, descriptive statistics (frequency and percentage) used and for this purpose the software applications such as SPSS and EXCELL is also applied.

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criteria, no significant difference is observed. However, strengths and weaknesses are identified in detail.

Conclusion: By using the excellence model of EFQM in Tabriz University of Medical Sciences libraries., the results of the study reveal that: first, the model (with some modifications) is applicable in library environment; second, it identifies the strengths and weaknesses of 9 fields of managements at the libraries under study. Consequently, weaknesses of these fields can be analyzed for improving.

Keywords: European Foundation Quality Management Model, public libraries, public libraries affiliated to the institution of public libraries, Iran, Tehran.

**Ascertaining the dimensions of emotional intelligence amongst
Malaysian public librarians: a critical incident technique approach**

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Abstract: When the topic of emotional intelligence started to emerge in the mid 80s, the interest amongst psychologist and social researchers became intensified. Since then, various studies have been conducted involving diverse professions including doctors, teachers, lawyers etc. Accordingly, various models and frameworks have been developed depicting the dimensions of emotional intelligence. However, among the many models, the one developed by Goleman (1995, 1998) is considered as one of the most successful model as it is considered very comprehensive and has been adopted or cited by many researchers investigating the topic. This study is another attempt to validate the dimensions of emotional intelligence identified by Goleman in the context of Malaysian public librarians. Adopting the critical incident technique as the research method, findings of the study suggest that all dimensions and sub-dimensions of the emotional intelligence model by Goleman are indeed applicable amongst Malaysian public librarians. Hence, this study further strengthened the Goleman's model and provides avenue for prospective researchers to further validate the model in the context of Malaysian public librarians using the survey method.

Keywords: Emotional intelligence, public librarians, critical incident techniques, Malaysia

Aspects regarding the application of the quality principles in the university library

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Abstract: Providing a wealth of documents and appropriate information in support of the university curriculum and research syllabus represents the ultimate goal of all the efforts made by university libraries. The quality of the services provided to users constitutes one of the main elements in the library-user relation. The “quality” function may be considered the strong point of each library. This function should identify organizational deficiencies and promote the improvement of service provision. The role of the “quality” function is that of turning quality into an inseparable aspect of the performance and responsibility of each librarian. The challenge for the quality field is represented not so much by the implementation of changes (within the library), but rather by the recognition of the need for professional change at staff level.

Key words: quality of services, information, use, university library, performance.

Assessment of Information Literacy Education in Collaboration

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Abstract: Linköping University, a two-campus university, offers postgraduate studies and research in more than 100 scientific areas within 17 multidisciplinary departments and around 26 000 students. Interdisciplinarity is a keyword for the university’s research, most notably within the Faculty of Arts and Sciences.

All subject librarians at Linköping University Library are encouraged to lobby for the inclusion of information literacy concepts into different curriculums. Our belief is that information literacy enables individuals to engage in all kinds of learning situations using information sources critically in optimal ways. We also strongly believe that information literacy must be a natural and inclusive part of the educational process in any curriculum, any discipline, and reinforced both within and outside of the educational setting to become the paradigm of lifelong learning (Brage & Lantz, 2002). All learners irrespective of educational level at the university need to be taught information literacy skills, both for their current academic program and for lifelong learning.

We would like to present and discuss two out of many successful implementations of information literacy education and assessment procedures into curriculum at different educational levels. When teaching information literacy we must determine the effectiveness of the learning activities employed and the real outcomes of our work (Lantz & Brage, 2006) hence the assessment procedures. In the literature there are a rich plethora of articles that provide examples on how to assess information literacy, assessment plans and assessment methodology, see for example (Brown & Krumholz, 2002; Dunn, 2002; Maughan, 2001; Diller & Phelps, 2008). However, the assessment methods that Linköping University Library uses have developed during the years through the cooperation between the library and staff from different faculties and naturally through inspiration from the literature. We also try to link our assessment tools to our learning outcomes according to the Bologna process.

Firstly we would like to present how we assess medical students' information literacy skills and how this is done in cooperation with university professors at the medical faculty. The key concept to this successful implementation is problem-based learning and a faculty that believes in the total integration of the library into the curriculum. When this collaboration started the students were presented to different real-world cases collected from different health care centres. Nowadays the cases are still fetched from the real world but not directly from health care centers. Careful and thoughtful work is needed here to ensure that the cases require high level thinking skills and that they will challenge students and engage their interest and curiosity. The students work with their cases for one week and then they have to explain and defend their information seeking procedures and what they have done in order to solve the problem. The librarian and the university professor assess the students through qualitative interviews (approximately 30 min) and the questions asked revolve around e. g. sources; are they reliable or trustworthy; are they likely to be accurate; are they timely; the likelihood of bias; authority of the authors and also that conclusions are based on supporting evidence.

In order to accurately evaluate what an individual has learned an assessment method must examine his or her collective abilities (Lantz & Brage, 2006). This is often referred to as authentic assessment which presents students with real-world challenges that require them to apply their relevant skills and knowledge (Guba & Lincoln, 1989), which is the case with the medical students. The use of real cases is central because people learn from acting in authentic contexts (Lantz & Brage, 2006). The case may either illustrate a point or serve as a basic reference point, and students should be able to employ their knowledge and practice in ways that enable them to make a connection between the curriculum and real-world demands, and test their abilities in meaningful work-related contexts (Lantz & Brage, 2006). In this way the students acquire information literacy skills as they work on their academic tasks. Assessment strategies must of course be related to the course material but most of all it must be relevant to the students and the assessment method ought to measure how students apply knowledge to real-time tasks.

Secondly we would like to present another successful integration of the library into an international master's degree program for sustainable development. A program that for some time had noticed a cultural clash regarding different academic styles and this has in some cases ended in severe plagiarism. The program director together with the librarian thought that with enhanced training and assessment of the information seeking process this cultural clash would decrease. In this program the librarian now teaches advanced information literacy skills, academic writing, citing and referencing and how to avoid plagiarism according to Swedish academic style and standards. The librarian also assess the information seeking process in papers and essays written by the students and report grades to the university professor who finally decides if the students pass or fail. One of the key concepts here is that the librarian's office is situated at the institution and that she is actively involved in the department's research and teaching.

Keywords: Information literacy assessment, faculty-librarian collaboration

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Assessment of public libraries inclusion strategies in developing social capital. Comparative case study based on the experience of two European public libraries: the Manchester City Library, Great Britain and the Bov Village Library, Bulgaria

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Introduction. It is proved that individuals as well as neighbourhoods, cities, countries and regions rich in social capital show lower crime rates, better

health indexes, higher educational achievements, improved child welfare, enhanced employment rates, stronger economic results and active civic participation. From the other side one of the main functions of the public libraries as the most inclusive, accessible, safe and democratic public spaces is to develop social capital by attracting diverse communities on their territory through their collections and services. The latter indicates the expanding role of the public libraries in the context of globalization and information society where meeting of cultural and social diversification of the local communities is becoming one of the biggest challenges libraries face today.

Goal. To bridge the social capital concept and the public libraries practices; to attract attention to the topic; to open a debate and to launch the evaluation of the existing international experience; to showcase two examples of two diverse library strategies.

Theory. Presentation will give a short introduction to the social capital theories in regard to power and inequality/ Bourdieu, P./,civil engagement/ Gramsci; Putnam, R./, immigrant communities and ethnic groups/ Portes, A.; Martin, R./, disabled/ Ivlov, B./, social networks/ Castells, M./, labour markets/ Granouvetter, M./, economic behaviour/ Coleman, J./, etc. The theory then will be adjusted to the public libraries field in general and then to the proposed research, focused on the libraries inclusion strategies, and a set of indicators will be developed. 'Politics of difference' concept will be also integrated in regard to libraries reaching specific communities. The 'festival culture' will be discussed in brief as the most powerful tool for inclusion and social capital, as relevant to the evaluation of one of the case studies.

Methods. The two libraries have been chosen as being rich in social capital. Both have developed innovative services for their specific local communities: Manchester City Library mainly in regard to youth and immigrant population, and Bov Village Library - to the marginalized village dwellers. The presentation is based on comparative case study research, including fieldwork, in-dept interviews with libraries' managers and surveys with users and non-users. Relevant articles and secondary data have also been used. A set of qualitative and quantitative indicators developed in the theory has been applied in the evaluation.

Conclusions/ Indicators.

- The researched city and village both show high level of social capital and social cohesion linked to their active and flexible approaches to diverse communities.
- Both 'politics of difference' and 'festival culture' appear applicable means for libraries creation of social capital.
- Strong conversion from social to economic capital in regard to the communities involved is being observed in the two cases.
- Win-win situation: both libraries have increased their public trust and support.

Keywords: Libraries, social capital, inclusion, politics of difference, festival culture

Assessment of Search Features and Their Consequences on Iranian Digital Libraries

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Abstract: This study which was carried out to assess the search features and their consequences on Iranian digital libraries, examined 32 search features and 29 display features in 8 Iranian digital libraries (which include Deed, University of Science and Technology, Pars Azarakhsh, Noor, Astan-e Qods-e Razavi, Tebian, National Library, and Alal-Bait). Results revealed that as far as search and display features are concerned, Pars Azarakhsh, Astan-e Qods-e Razavi, and National Library were respectively the first to third qualified digital libraries; and Alal-Bait digital library was the least.

Keywords: Digital library, search feature, display feature, Iranian libraries

**Author name ambiguity problem in biomedical research fields:
Implications for bibliographic databases and bibliometric studies**

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Abstract: Author information plays an important role in bibliographic databases both for information retrieval and for bibliometrics. Author name ambiguity is a well known problem in both cases, however, especially in biomedical research fields and in the era of globalization in science, and has caused increasing attention in the scientific communities as shown from the recently started consolidated Open Researcher and Contributor ID (ORCID) group (orcid.org) supported by major science publishers and professional organizations.

In the field of bibliometrics, although various methods for automatic author name disambiguation (AND) have been proposed and explored, few studies have so far applied sophisticated automatic AND in actual analyses. In fact, except for a few hand-disambiguated cases, practically all actual author ranking or mapping studies to date have simply used last name plus first initial approach for AND.

In the present paper, we study the degree to which AND affects author-based citation analysis studies, in particular, author citation rankings and author co-citation mappings. Since automatic AND continues to be a complex and

expensive process, we also explore whether we can identify conditions under which the traditional last name plus first initial approach to AND may continue to suffice in practice.

To this end, we compare citation ranking and co-citation mapping results based on two different views of a single bibliographic dataset comprising the literature of the stem cell research field 2004-2009 and references cited in that literature. The first view identifies author oeuvres using surnames and first initials and the second using a sophisticated AND computer algorithm we have developed instead.

We find that both first- and all-author based analyses especially citation rankings are extremely affected by the author name ambiguity problem partly due to the large number of extremely ambiguous Chinese and Korean author names in this field. Last-author-based analyses appear immune to the author name ambiguity problem in this field where lab heads are traditionally listed as last authors, likely because few Chinese or Korean researchers consistently publish as last authors. Simple workarounds thus exist, but at the price of largely filtering out Chinese and Korean contributions to the field.

Results from this study should help improve author-based bibliometric studies and inform the design of bibliographic databases in an era of globalization in science and research.

Behavior Evolution of Users Searching Multimedia Documents in Internet Library Catalogues and Internet Search Engines

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Abstract: With the dynamic development and strong progress of the people communication in the Internet we observe the rapid development of information retrieval systems in networks like library catalogues or Internet search engines that is of the retrieval systems enabling the quick retrieval of textual and multimedia documents or links to the Web pages with relevant information. Nowadays, new technologies applied in retrieval systems allow the storage of a very huge amount of digital not only textual data but also any multimedia data. Also video data have become publicly and relatively easy available. However, the easy and efficient access to desired videos will be possible when appropriate indexing and retrieval methods of video data are applied.

The methods well-known in textual retrieval systems are not satisfactory solutions in this case because users want to query not only technical data of videos which are indexed in traditional ways, but also the content of video clips. Manual indexing is unfeasible for large video collections. Unfortunately, the content-based automatic indexing and retrieval of video data are still processes difficult to be effectively performed. The content is very subjective to be characterized completely. It is related to main objects,

second plan, background, domain, context, etc. In consequence content-based access to large video archives is still largely unsolved. So, it is necessary to develop methods to organize, index, browse, and retrieve videos in library archives using high-level semantic features. The use of Internet search engines has created the need to know indexing procedures and information-retrieval languages. But people using Internet are in majority not well formed specialists, so, the computer system designers look for more and more sophisticated and intelligent procedures easy for the user. But, on the other hand and at the same time, people formulate less and less precise queries expecting that the system automatically corrects and completes their queries linguistically as well as semantically.

The paper discusses analogies of text and video structures as well as textual and visual retrieval systems. The juxtaposition is also presented of two indexing processes, i.e. of text and video indexing based on the content analysis of their structure units. Then the evolution of the user behavior is analyzed, which is stimulated by the changes in requirements of search engine users, by the refinements in information-retrieval languages applied in library catalogues and search engines, as well as by the extreme growth of the number of Web pages in the Internet network.

Keywords: User behavior, library catalogues, Internet search engines, text and video structures, textual and visual retrieval systems, information-retrieval languages, content-based indexing and retrieval

Best practices and policies in institutional repositories development: The Ktisis case

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Abstract: Libraries worldwide have realized the importance of institutional repositories in the intellectual life and output of an institution. Institutional repositories are now clearly recognized as essential infrastructure in the digital world. This study focuses on presenting and explaining the best practices and policies to use when developing an institutional repository. It provides information about the steps needed to be taken in order to design and create a repository properly. Additionally it answers questions like “why do we need to create policies” for the development of an institutional repository. The study continues with the presentation of Ktisis, the open access institutional repository of the Cyprus University of Technology. It provides detailed information of how Ktisis was created using the practices described before and how the team defined the policies of its use.

Keywords: Institutional repositories, digital libraries, DSpace, open access

A Bibliometric Analysis of Malaysian Authorship Pattern in the Field of Engineering, 2000 -2010

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Abstract: Purpose. This paper reports an analysis of Malaysian authorship characteristics and trends in engineering. The investigation of the papers written by Malaysian scholars clearly reveals the productivity as well as co-authorship pattern of Malaysian researchers in engineering.

Method. This study uses bibliometrics method which examines patterns of Malaysian authorship in engineering publications from 2000 to 2010. The bibliographic records were gathered from *Scopus* and complemented by the printed and electronic version of the journals.

Results. The findings indicate Malaysian researchers have considerably enhanced their influence especially since the period of 2006 onwards. The main types of publication produced are conference paper and journal article. Most authors in this field are not one time contributors and 71 authors produced 30 or more publications each. 99.95 % of the publication was written in English.

Conclusion. This study indicates that engineering research in Malaysia has moved toward internationalization, and Malaysian researchers have made significant contributions to global engineering study.

Keywords: Authorship pattern, authorship, bibliometrics, bibliometric analysis, publication productivity, research productivity, Malaysian authors, Malaysia

Bibliometric practices and activities at the University of Vienna

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Abstract: The first bibliometric analyses ever have been carried out by librarians (Cole and Eales, 1917; Gross and Gross, 1927). As a new discipline of library and information sciences, bibliometrics developed as a challenge of measuring and monitoring scientific output and gradually transformed into scientometrics.

There is a constant need to adapt to the ongoing changes and new demands of today's information environment, and the increasing importance of bibliometrics certainly presents a great opportunity for modern scientific libraries (Gerritsma et al., 2010). Not only by the use of bibliometric methods as an instrument to support library-oriented decisions, but also to provide whole institutions or universities with high-quality bibliometric data (Ball and Tunger, 2004).

Why should libraries offer bibliometric services?

- Librarians are information specialists and know how to use the major databases efficiently

- Librarians have experience in coding and categorizing diverse types of documents
- Libraries are independent and interdisciplinary institutions
- Libraries do not have any scientific self-interest

On the initiative of the Vienna University Library, the inter-institutional working group “Scientometrics” was founded in 2007. The aim of this working group was the coordination of all organisational university units dealing with scientometric tasks in order to bundle the existing competences. Apart from the production of several scientometric reports one of the most significant achievements was the organization of the 10th International S&T Indicators Conference 2008 at the University of Vienna, Austria in cooperation with the Austrian Institute of Technology. The event was so successful that the same organizers have been assigned to host the prestigious ISSI (International Society for Scientometrics and Informetrics) Conference in 2013.

All these efforts finally resulted in the implementation of the Vienna University Bibliometrics Department at the Vienna University Library, which is now providing a portfolio of services:

- service-oriented website on bibliometrics (<http://bibliometrie.univie.ac.at/>)
- Development and performance of expert searches in bibliometric databases
- Data processing (acquisition, analysis, structuring)
- Production of systematic expert reports that allow an efficient use of bibliometric methods
- Scrutinizing value, fitness for use and compatibility of research assessment concepts including recommendations regarding their appropriate deployment and use
- Consulting function for Austrian science policy makers and academic management
- Engaging in development partnerships („early adopter“ collaborations) and international projects
- Expanding (inter)national networking (event hosting, talks at conferences, publications)

Responding to the lack of a pertinent scientometrics education (especially in Central Europe) and to the increasing demand (particularly of research quality managers), the University of Vienna (AT), the Humboldt University of Berlin (DE), the Institute for Research Information and Quality Assurance – iFQ – (DE) and the Katholieke Universiteit Leuven (BE) joined cooperatively to launch the European Summer School for Scientometrics (esss) (<http://www.scientometrics-school.eu/>) in June 2010 in Berlin (Gorraiz et al., 2011).

esss 2011 will be hosted by the University of Vienna.

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A Bibliometric Study: The Historiography of the Jewish National Movement

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Abstract: The aim of this paper is to present a bibliometric study which analyses the research literature published in the last sixty years on the Jewish National movement prior to the establishment of the State of Israel.

The main research issues in the present study are the rate of growth of the related research literature from 1948 to 2005 by decades; main publication types and their segmentation; languages, countries of publication and the leading universities where the research was performed.

The presentation will also compare the compatibility of the findings of the bibliometric study with the conclusions of historiographic and bibliometric literature, and the factors that influenced the study of the topic during six decades.

Keywords: Bibliometrics, historiography, literature growth

Bibliometrics for proactive and innovative library and information services: Demands, potentials and approaches

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Abstract: Bibliometrics can effectively assist in the discovery of new knowledge, and in the management and use of existing knowledge resources. Bibliometrics, especially citation analysis, has long been used effectively in libraries, mostly in the area of collection development and evaluation, such as using journal citation data along with circulation data to help select journals

to subscribe to. More demand and more opportunities for utilizing bibliometric tools and techniques to develop and provide proactive and innovative information services at libraries are provided by the increasingly available digital bibliographical information and computing facilities for analyzing and visualizing vast networks of information. This paper analyzes these demands and potentials as well as approaches to the provision of these services.

There are two main types of bibliometric studies that can directly be used by these communities: impact ranking and relationship mapping of publications, journals, researchers, departments, and universities. Information services can be developed in both areas and offered regularly at libraries.

Ranking by number of citations or number of publications or various indicators derived from them is apparently useful for the purpose of evaluation, and has been increasingly used in the past decades to inform science policy and research administration such as tenure, promotion, allocation of research funds, and recruitment of students and faculty.

Possible information services in this area that libraries can offer include: (a) maintain a complete list of publications by faculty members of the home university; (b) provide annual impact ranking of publications by faculty members of the home university and its change over time; (c) offer targeted impact evaluation for faculty members who go for tenure, promotion or funding opportunities or for academic units that need to evaluate their faculty members; (d) provide comparative analysis of impact between academic units of the home university and those of its peers, on demand or/and regularly (e.g., annually).

Relationship mapping of research fields on a regular basis allows research and academic librarians to proactively help researchers, administrators and students obtain quick overviews of research fields and their evolution over time. These overviews are useful in many ways. For example, they can help understand the interrelationships of research areas within a research field, position research of the home university in the larger national and international research landscapes, and identify strong and weak research areas to tackle, potential areas and partners to collaborate with, and key researchers and publications to read in a given research area. There are tools available for creating these types of maps.

Building a university library web site for Victor - an example of the persona method

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1. Introduction

This paper describes the development of a new university library website, undertaken using user-centred design principles (Gould and Lewis, 1985) and incorporating the innovative ‘personas’ method (Grudin and Pruitt, 2002). This facilitated consideration of the needs and attitudes of a wide spectrum of potential users. Personas are different to demographic statistics, being instead the qualitative aspects of users – their motivations, constraints, needs etc. (Sarah Burton-Taylor, 2006). An extensive usability evaluation also formed part of the development process.

2. Methods

Depth interviews (19), which included informants demonstrating their typical library site usage, were undertaken to explore needs, motivations and behaviour. Librarian focus groups and transaction log analysis were also undertaken. Based on the overall findings, a set of ‘personas’, or ‘archetypal’ users was created, which assisted the planning of the optimum layout, prioritising library asset visibility and generally meeting information needs. Set tasks were undertaken on a mock-up site, involving the accessing both of services and information resources. Participants provided a running commentary or ‘protocol analysis’ (Ericsson and Simon, 1993) on their actions (Rosenbaum et al, 2008; Williams et al, 2004), enabling further site refinement.

3. Results

Five distinct personas were formulated. These ranged from the ambitious ‘Emma’, prepared to spend time to learn about effective searching, to ‘Victor’, who expects the library website to work ‘like Google’. We quickly found – echoing the principle of Universal Design – that what worked for Victor generally served the other user-types also.

Thus, we put the search function in a more prominent position, and gave easier access to subject guides - shown to be underused in interviews and logs, but considered a vital resource by librarians. Many critical services were also made more visible, such as inter-library loans and librarian help. Lesser valued resources were demoted to other pages – unlike on the former site, where everything was given the same priority.

4. Conclusions

User-testing of this was very positive, with many seeing the Subject Guides for the first time and declaring how useful they would be. There was also much praise for the new search interface and layout generally. The study made the team much more aware of user needs and behavior than previously, and highlighted how choices made on the website make a real difference for users. In short, the persona method turned out to be an extremely valuable tool in creating a site catering for the widest possible spectrum of users.

Case Study: Covidien Hellas A. E. Filing: An Archive Library

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Abstract: Different archive formats have different needs. Many ways exist for designing a good archiving system. In general, archives constitute a profession, which in principle requires much thinking and planning, rather following a set of predefined rules. The paper herein reports on work conducted for the construction of a complete archiving (filing) system, based on the company's needs. The main archive requirements include: (a) a customer archiving service, considering also the company's employees as customers, (b) the archiving of the company's invoices and documents, (c) a database creation for the invoices status, and (d) the regular communication with the company's courier partner for receiving back the invoices of the external customers. Finally, information protection and storage is of paramount importance. For this reason, Iron Mountain Hellas S. A., an information management company, was recruited in order to reduce the cost and risk of information protection, by providing comprehensive protection and storage as well as services for facilitating the access to the information stored.

Keywords: Archive, archiving system, information management, information storage

A Case Study of Pattern Recognition Techniques Embedded in Mobile Devices Applied to Library Retrieval System in Taiwan

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Abstract: With the rapid progress of digital image technology, more and more images are stored and displayed on the Internet. Using powerful computing capability to help image processing has become one of the most important researches in web-based applications. There are a lot of techniques which aim at character recognition have been published, but these techniques usually focus on character recognition or the function of translation. They do not widely apply in our daily life. People are getting used to searching information through the Internet. Facing the kind of competition, librarians have tried their best to offer more and better services to attract readers during the past decades. However, readers are not familiar with every different mode of shelving in libraries, they are always lost in looking for what they want. Concerning this, we propose a project, "BooksEasy", to tackle this problem. This mobile-based project plans to combine the techniques of photography, pattern recognition, Optical Character Recognition, and 3D Virtual Reality with a current library system. Under this design concept, the title of a physical book will be captured when a user presses a photograph button and

it will be converted to a textual query for searching the nearby library instantly. It is expected that users will be able to visualize the shelving location of the needed book from the screen of their mobile phone wherever they are. To realize the design, we selected the library of National Yunlin University of Science and Technology in Taiwan as our test case in this study. To facilitate the design process, we adopt the theory and practice of software engineering in every aspect of project development. It is hoped that our novice design will open a new page of library usage both in theory and application.

Keywords : Pattern recognition, Optical Character Recognition (OCR), digital images, mobile library

Choosing e-books in academic libraries

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Abstract: E-books are an important and growing category of digital resource. Academic libraries have traditionally had a major role in selecting books and making them available to learners, scholars, and researchers. Therefore, the processes and criteria that they apply in the selection and acquisition of e-books may potentially have significant consequences for the future viability of e-books as a product. This paper, then, reports on research into the criteria and processes that academic libraries use to choose e-books. Semi-structured interviews were conducted with 27 academic librarians, in seven case study libraries in the UK. The findings revealed that academic libraries purchase e-books from a number of different vendors. In order to select individual e-book titles and e-book packages they apply a number of general criteria, criteria applied during trials, and criteria relating more specifically to business models for purchase, licences and DRM, and e-book formats. High on the list of librarians' concerns are: the variation in and complexity of business models for purchasing, licence variety and DRM restrictions, high prices, and issues related to the trial process.

This study is among the very few studies which focus directly and in-depth on the buying and selection processes and criteria for e-books. Insights offered by this study may be of value to publishers, aggregators and librarians.

Keywords: E-books, academic libraries, digital resources, acquisition, selection criteria, buyer decision-making

Citation Analysis of World Biomedical Literature (1990-2010)

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Abstract: Positive sciences have been growing day by day in the changing world. One of the developing areas is biomedicine. The main aim of this study is to evaluate the papers on biomedicine using bibliometric techniques. There are many studies in literature about biomedicine. However it is the first study that includes whole world. ISI Web of Science has been used as data tool for this study. Searches were carried out on February 14, 2011. The terms, "biomedical" or "biomedicine" were entered in the topic field. We identified the total of 36,221 papers that appeared in Science Citation, Social Science Citation and Art and Humanities Citation Indexes. Over 90% of all studies on biomedical were published between 1990 and 2010 and consequently that time interval is chosen for this study. Over 25% of the publications haven't been cited yet. 746 publications were cited more than 100 times. The review written by 222 authors ("Initial sequencing and comparative analysis of the mouse genome") is the most cited publication with 2,699 times. 24,352 of the papers are articles. Over 2% of articles (674) published in "Annals of Biomedical Engineering" journal. USA ranks 1st generating nearly 40% of articles. It follows by China and England. The most productive university is Harvard with its 376 articles. Citations of 20 years reflect the rapid pace of advances in the biomedical field. It is showed that biomedicine will be one of the major areas on the scientific community.

Keywords: Citation analysis, biomedical

Civilizations conditions of the motivating process in The Main Library of Jan Kochanowski University in Kielce

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Abstract: In 1989, a radical series of Eastern Bloc political changes occurred associated with the liberalization of the Eastern Bloc's authoritarian systems and the erosion of political power in the pro-Soviet governments. The Autumn of Nations which became a symbol of the Polish Trade Union "Solidarity", The fall of the Berlin Wall, The Velvet Revolution in Czechoslovakia has led to the collapse of the Soviet Union political dominance in Central and Eastern Europe, and ultimately to disintegration of

the country in 1991. It started deep political, economic and cultural life conducive to the democratization process in this part of the area. In 2004-2007, former Soviet-bloc countries included in the European Union.

These all events contributed to make a fast leap of civilization. The process quickly covered the institutions participating in the creation, storage and dissemination of information. Libraries were at the forefront. The main condition for changes were to modernize the technology infrastructure for collecting, saving and giving information. It was necessary to improve the management of human resources in libraries.

The last problem is presented for example of The Main Library of Jan Kochanowski University in Kielce. It is a young University but it growing rapidly. At present the new seat for Library of UJK is being built (European Union funds). Management team of the Library have to find and put into practice new organizational ways and prepare library team for work with new system in the new conditions. We ask ourselves: how useful can be previous management system in new circumstances and what new solutions will we have to use?

Keywords: Personnel management, motivation process, motivational system, occupational needs, transformation, globalization

Classification of the Data

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Abstract: The given report is devoted a problem on information ordering and classification. For the above-stated item it is offered to use information processing statistical techniques. Certain parameters and metrics are considered for criterion on selection of steady classes to ordering of the information. Necessity of a multicriteria choice for optimal estimations is discussed.

Keywords: information, ordering, classification, statistical techniques, parameters, metric, criterion, steady classes.

Comparative Evaluation of Web Usability in Iran, Iraq and Turkey National Library Websites

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Abstract: Introduction: this research, deals with knowing the metrics of web usability, as well as evaluating national libraries websites of Iran in comparison with Iraq and Turkey.

Objectives: It is obvious that each information service exists for the sole purpose of satisfying its users. All its activities, services and products, ie., the totality of its functions are geared towards this purpose. How well this purpose is served is a measure of the effectiveness and usability of that information service. According to the value place of National Library as the golden gateway to access quick easy and unlimited information, considering its usability can be useful.

Methods: As mentioned above, in this comparative research, the web usability of Iran, Iraq and Turkey's National Library Websites was evaluated. So, the research society consists of 3 National Libraries (Iran, Iraq and Turkey). As many metrics affect website usability, a multitude of variables from different viewpoints were observed, studied and analyzed for achieving this purpose. In this regard, the research data were collected with the help of a checklist. This checklist was developed by the researchers, based on the review of the literature, a practical way with providing appropriate solutions deals, to measure the extent to which the three websites had the desired elements and features. This data collection tool consisted of 11 log evaluation criteria and 160 components, that all desired websites were measured by them.

Findings: In general, the results showed that in most of the websites, more than half of the relevant criteria of Website Usability, are respected. Findings showed that the web usability of Iran's National Library Website, (In comparison with the overall assessment of compliance of all criteria, in index website, with 663 points), is at the first class, 594 points (88/5 percent). Turkey with 485 points (70/5 percent) in second class and Iraq with 330 points (46/2 percent) was third.

Conclusion: However, the design of National Library Websites should be based on functions that support of National Library's major aims especially in rendering public information services, but there are some problems and drawbacks in this connection, particularly in the theoretical approaches of it. So, the aim of this study is to identify the elements that are important in the design of National Library Websites at one hand, and help to the users for using good websites and specialist for designing and implementing high qualified websites for National Libraries on the other hand. At the end, some of the recommendations have been suggested for the improving of the present situation of National Library Website in Iran.

Keywords: Comparative evaluation, national library and archives, website, Iran Turkey, Iraq

A Comparison of Three Library and Information Science Databases

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Abstract: A comparison of EBSCOhost's *Library, Information Science & Technology Abstracts (LISTA)* database and H.R. WilsonWeb's *Library Literature & Information Science Full Text (LLISFT)* database with Emerald *Insight* database using specific search strategies to retrieve scholarly LIS articles indicates a low level of overlap or repetition of scholarly articles that are available full-text.

Keywords: Database analysis, database comparison

The Concept of User Satisfaction in Archival Institutions

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Abstract: The customer is one of the most important elements that lies at the center of service organizations. Moreover, the customer has strategic importance for directing the service process and determining a final decision on this matter. Therefore, numerous studies have been carried out about the customer, in particular focusing on customer satisfaction.

Archival institutions provide an information and records service. As service organizations, the customers of archival institutions' can be defined as those who make use of the archival institutions for the purpose of research. In this context, the term customer or user must also be of importance for archival institutions, and thus, different strategies, methods and techniques should be developed and used in archival institutions to achieve and maintain user satisfaction.

By considering the needs mentioned above, the concept of user satisfaction in archival organizations is emphasized in this study; in addition "Archives Users Satisfaction Norms", which are essential to satisfy users, have been determined.

In this study, the concept of user satisfaction in archival organizations is discussed as follows:

60 users of the Ottoman Archives were interviewed in order to determine the archives users' satisfaction norms. In this process, a special survey was created. With the answers that were provided in this survey, it was possible to determine the satisfaction criteria for the users of the Ottoman Archives. Finally, by using the satisfaction criteria, the "Archives Users' Satisfaction Norms" were developed.

In conclusion, in order to ensure customer satisfaction, in addition to being familiar with the customer, it is important to listen to the customer. By

listening to the customer, it is easy to determine what the customer really desires from the service. In this context, by listening to the users, that is the customers, of archival institutions, the satisfaction criteria and norms can be determined and updated from time to time; as the famous management guru Peter F. Drucker said: “There is only one profit center. It is the customer.”

Keywords: Archival institution, user satisfaction, Ottoman Archives, archives users, archives users satisfaction norms

A Constructivist Grounded Theory Approach to Semantic Metadata Interoperability in Digital Libraries: Preliminary Reflections

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Abstract: This paper highlights the problems of semantic metadata interoperability in digital libraries. It argues that the prevalence of the plethora of standards and the lack of semantic interoperability is partly attributed to the absence of theoretical foundations to underpin current metadata approaches and solutions. The absence of such theories is a general problem in the library and information domain (Andersen & Skouvig, 2006; Floridi, 2000; Hjørland, 2000; Lehmann, 2010). The paper emphasises that present metadata interoperability approaches are mainly top-down and hierarchical which fail to take into account the diversity of cultural, linguistic and local perspectives. In this regard, the paper argues that a social constructivist approach should be adopted as libraries and cultural heritage institutions house information objects which need to be enriched with metadata that reflects diversity of views and perspectives of their users. In this paper, following on Charmaz (2006), a constructivist grounded theory method is adopted. The method allows an active interplay between the researcher and the participants who are library and information science researchers, librarians and actual library users. >From the first phase of data collection, preliminary analysis is presented on how library and information science professionals view current metadata practises especially as used in academic library contexts.

Keywords: Metadata, digital libraries, semantic interoperability, constructivist grounded theory, social constructivism

“Continuous Education for a Common End” Information Literacy and Life-long Learning in the Digital Era

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Abstract: In our globalized society life-long learning plays a crucial role for the education of citizens and their fruitful incorporation in the modern economic structures. The constantly changing working environments require that current or future employees are prepared to accept continuous education in order to be able to adaptable to new positions or further developments in their occupation. Information Literacy is considered to be one of the key factors of modern life-long education, since it “teaches people how to learn”. Although it thus seems that life-long learning is a demand of the times, mainly related to the imperatives of modern economy, the idea of continuous education is a rather old one, tracing back to ancient Greek philosophy. In this paper we will examine Aristotle’s views on the issue of continuous education, and try to draw some conclusions in relation to modern LLL practices, with special reference to IL and its contribution to the deepening of the democratization of our multi-scattered society. We will also elaborate on the role of higher education institutions and academic libraries in the development and promotion of IL education.

Keywords: Information literacy, life-long learning, higher education, academic libraries, digital society, globalized economy

Copyright and Access Management of E-resources in Digital Libraries in Universities in India

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Abstract: University libraries in India presently in transition phase from analog to digital. Most of the university libraries contain print publications as well as e-resources i.e. e-journal, e-books, e-databases etc. General awareness for copyright is lacking among the faculties, students, researchers and as a result access to these e-resources is non-conforming to access licenses and agreement between the publishers and the Universities. That is why managing access to e-resources has become a challenging task. Access to the e-resources have been achieved by the libraries primarily in 2 ways-as a member of consortium or through UGC-Infonet Program of INFLIBNET (Information and Library Network) of the University Grants Commission, Govt. of India or through individual licensing with the publishers. Present study has been carried by online surveys and physically visits to the libraries to three types of users of e-resources-faculties, librarians, researchers and students. Study reveals a disturbing trend which is not conducive to proper access management of e-resources to the digital library. It is not only inviting unnecessary litigation for the universities that may impede future digital

library development but also as a whole it has a distinct negative impact on the propagation of scholarship by the universities. Thus a well defined copyright and access management policy is a crying need of the hour.

Keywords: E-resources, copyright, access, access management, digital library, copyright management

Culture of assessment in Croatian academic and public libraries

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Abstract: The paper presents a part of the findings of the research project entitled *Evaluation of library services: academic and public libraries*. The main hypothesis of the project states that libraries in Croatia do not give enough attention to the evaluation of their service quality, and that library staff are, consequently, not enough prepared (neither trained nor motivated) for conducting measuring activities.

The project collects data from Croatian public and academic librarians through online surveys and through individual interviews with library directors. This paper presents the findings of online surveys.

Results show that Croatian librarians are not satisfied enough with services their libraries offer, but they do acknowledge the need for evaluation, especially those coming from academic environment.

Keywords: Culture of assessment, academic libraries, public libraries, Croatia

Data collection process and technique to determine the image characteristics of photogrammetry in cultural heritage domain

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Abstract: This paper discusses the data collection techniques, sampling and process of identifying the population in a study to determine the image quality, authenticity, and metadata characteristics of photogrammetric three-dimensional (3D) data in cultural heritage domain. The study was carried out as the researcher's master's thesis conducted at Tallinn University. This paper presents a brief overview of significant issues regarding methodology applied in this study and justifications for the decisions made. Details of sampling techniques and sources of the population are described along with the procedure of conducting semi-structured interviews. A discussion of advantages and disadvantages of applying text-based synchronous and asynchronous interviews as data collection technique are explored.

Keywords: Online synchronous interviews, online asynchronous interviews, chat, semi-structured interviews, sampling techniques, identifying the population, photogrammetry

Digital Library Management for Academic Staff in universities

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Abstract: In this work Digital Library is explained and established for the Administrative Staff of the International Ataturk Alatoo University. The aim of the project is to develop the system that every academic personal can enter the pdf version of the material for the students and they can access to documents without any difficulties. After finishing this work all the Academic Staff and student will be able to access the digital resources from anywhere they want.

Keywords: Digital library, library automation, electronic resources

Digitalization of Istanbul University Rare Book Library: A Contract for Serving

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Abstract: Istanbul University Rare Book Library has rare materials such as books, maps, manuscripts, pictures, etc. in different languages and alphabets. Especially, about 36.000 pictures, collected by Sultan Abdulhamid 2nd, are very important materials. This project aimed that digitalization of them high resolution to archival purposes with a sponsor and made an act with a sponsor for it. I would like to share this process.

Keywords: Digital libraries, library sponsorship

Digitization of Microfilms and Microfiches at Indian Council of Historical Research: Share my experience

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Abstract: Establishing digital repository at any organization having large volume of these is really a challenging task. As the Indian Council Historical Research had started its collection a way back 1974 onwards, we have over 3800 of Microfilms and Microfiches in different areas of monographs, manuscripts, government publications, New papers and other types of source materials, both retrospective and current, in many languages, and from most parts of the world. We have initiated the digitization of program. In this paper, we clearly explain the need of digitization, added benefits and share the experiences we are gaining from the digitization of Microfilms and Microfiches and the challenges we facing, enhancements we incorporated with special emphasis on technical developments, and the lessons we have learning during the various stages of development of our digitization .And also this paper cover, proposed plan of web access of our microfilm and microfiches digital repository powered by DSpace open source software.

Keywords: Information technology, digital repositories, metadata, digitization

Design and development of Institutional Digital Repository: a case study

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Abstract: Institutional repositories have become an indispensable component for information and knowledge sharing in the scholar world. Institutional repositories offer a strategic response both to the opportunities of the digital networked environment and the systemic problems in the today's scholarly journal system. This paper discusses about the concept of Institutional Repository (IR), its relevance, merits, software requirements, with special reference to the initiatives at Indian Institute of Technology (IIT) Kharagpur.

Keywords: IDR, Institutional Digital Repository, IIT Kharagpur

Digital libraries in Senegal: case of Dakar University library and IFAN

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Abstract: The XXth century is marked by the advent of electronic libraries and archives in most of the developed countries. In these days, Librarians and Information specialists are challenged to manage and organize digital

libraries. How appears the situation of digital libraries in Senegal in terms of preservation and usages?

In this presentation, we'll try to answer to that question, by analyzing some experiences of digital libraries in Senegal: the digital library of University Cheikh Anta Diop of Dakar, the digital library of Institut Fondamental d' Afrique Noire.

Keywords: Digital libraries, preservation, usages, Senegal, Dakar

The Digital Library Professionals' Learning Culture: A Qualitative Study of Digital Libraries' Community of Practice in Europe

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Abstract: This study emerged from the author's interest on the concept of community of practice (CoP) and on how this community influence learning and knowledge sharing among its stakeholders. The development of such communities in the realm of digital librarianship may provide a forum for discussion on specific issues related to digital libraries and also serves as an avenue for sharing knowledge, exchanging best practices and resources, thereby enhancing stakeholders' learning experience and fond of knowledge. In the context of knowledge management (KM) in digital library (DL) environment, CoP is one of the unexplored areas of interests for research as compared with those in the fields of business and management, education, engineering, medical sciences and the like. Greater importance is being placed on those communities on their ability to share knowledge and facilitate knowledge transfer and most importantly in providing the proper context for learning to take place.

Thus, this research is conducted in an attempt to indentify the existence of CoPs in DL environment and how it contributes to the development of a learning culture among DL professionals. And furthermore to investigate the factors affecting the development of such culture and to analyze the perception of DL professionals on how they see their culture of learning.

This study will employ a mixed method or both quantitative and qualitative methods in gathering the data. However, the quantitative method is used here in mapping out the respondents of the study and in identifying the existence of DL-related CoPs in Europe. The study leans towards the collection of qualitative data through semi-structured interviews. It is hoped that this study may yield a better understanding on the role of CoPs in the learning process and offering insights on the structure of engagement, learning behavior of DL professionals and on capturing the knowledge within these communities.

Keywords: Community of practice, CoPs, learning culture, knowledge management, digital libraries, DL professionals, Europe, digital librarianship

Documentary Reading Model for indexing of scientific texts and books: a cognitive approach with verbal protocol in the indexer's education

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Abstract: The context of documentary reading in the indexer's education in cognitive approach needs theoretical and methodological support, based on the knowledge of Information Science and interdisciplinary areas for the development of strategies of teaching that provide to the learner the view of a context demand in socio-cognitive approach that includes the content treatment, by means of the indexing along with the processes of organization and retrieval of information. Thus, in order to adapt a Documentary Reading Model and to work out a teaching manual in documentary reading with indexing procedures, and to observe wider professional contexts, it was carried out the searching of the content treatment context of university libraries focusing the documentary reading for the indexing of books, from the analysis of procedures of subject cataloguing based on the transcription of the cataloguers' individual verbal protocol of a sample of nine university libraries in three areas of knowledge – Dentistry, Civil Engineering and Education. The use of the introspective methodology of Individual Verbal Protocol was carried out in the first stage with cataloguers from each one of the three areas of knowledge and in the second stage with students of Librarianship. The results provided an adaptation of the Documentary Reading Model for the indexing of books as well as to work out a methodology of study for the teaching of indexing.

Keywords: Documentary Reading Model, indexing, verbal protocol

Effect of Information Literacy (IL) Group Training on Information Seeking Behavior (ISB)

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Abstract: The main purpose of present research is to compare the effects of IL group training on ISB of postgraduate students at University of Isfahan (UI), Isfahan, Iran. Purposing to approach this goal, 30 students of UI were selected through voluntary sampling, and then randomly divided into two groups (one as experimental and one as control). The experimental groups were separately under IL training for a period of 6 sessions. The instruments of the research are Information Literacy L Test (ILT) and Choo and

colleagues' Model of Information Seeking Behaviors on Web which their reliability and validity are confirmed.

Keywords: Information Seeking Behavior, information literacy, group education, University of Isfahan, Iran

Effectiveness of Embedded Information Literacy Program

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Abstract: “Information Literacy” has been an important topic of much interest both nationally and internationally during the past two decades. Being information literate is essential for citizens in information age; especially information literacy has been seen as one of the important factors of improving students’ learning outcomes. This has been especially significant due to the rise of the Internet. As we rely on more and more information in the electronic environment, it is necessary to obtain appropriate information, technology expertise, and instruction.

Information literacy competency, program design, and teaching techniques have been discussed in significant amount of studies. In this study the author tries to integrate information literacy course into curriculum program to design a user-oriented, embedded bibliographic instruction. By implementing such program, the author further investigates the information literacy competency of students and effectiveness of the embedded teaching method. The author takes qualitative research approach, work with faculty member from College of Management and enters the field as teaching assistant. In one semester course, the author gives two lectures and one-to-one session on information resources, information retrieval and information use. The contents of lectures are designed based on the Information literacy competency standard, the knowledge status of students and expectation of faculty member. Learning log, in-depth interview and unstructured observation are used for data collection in this study and assessment tools are also developed to test students’ information literacy competency.

The curriculum program chosen for this study is a graduate course offered in College of Management, two competency tests are conducted before and after the course. 19 students participate in this study and each student needs to hand-in research proposal at the end of this course. The author studies the changes of students’ information literacy competency while giving lectures on various topics throughout the semester. The results show that the graduate students acquire the information literacy competencies of identifying types of information resources, obtaining knowledge of searching and acquiring

information, evaluating information, and managing information. With the embedded program, the students are more confident during the learning process and feel the course is designed based on their learning needs. Both faculty and students appreciate the integrated information literacy program and show positive attitude toward the program design.

Keywords: Embedded information literacy program

The efficiency of ontology and thesaurus in knowledge representation and concept retrieval: a comparison

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Abstract: This paper aims to compare the capabilities of a thesaurus and ontology for representation of domain knowledge and retrieval of concepts. The present work by applying the domain analysis approach developed a prototype ontology named ASFAONTO in the domain of Indexing by re engineering a current thesaurus in Persian language named ASFA. The ontology was evaluated by a retrieval test in which the usability and the performance of the ontology were investigated with the ASFA thesaurus. In order to gather more validated data on users' performance and satisfaction, the experimental retrieval test in the usability test was followed by a questionnaire survey.

The result of the study indicates that ontology structure is useful and provides valuable inspiration for the user. Fundamental differences of domain knowledge representation between them were then identified: formality of language in the ASFAONTO ontology, logical consistency of concepts and relationships in the ASFAONTO ontology, and ambiguity of relationships among terms in the ASFA. Relationships such as broader term (BT) and narrower term (NT) in the ASFA could support a capacity for reasoning based on generation and specification, assuming the relationships themselves are valid. However, ASFAONTO ontology supports the deduction of conclusion based on domain knowledge described in the ontology, the search for information resulting from logical inference, and the automated validation

consistency. We conclude that ontology can provide a better representation of the domain knowledge and more advanced power of reasoning based on the underlying knowledge representation, which could improve searching.

This is the first to focus on the construction of ontology in Library and Information Science (LIS), in the domain of Indexing and in Persian language. The paper also develops the methodology of ontology construction by implementing domain analysis methodology.

Keywords: Ontology, Asfaonto, thesaurus, domain analysis, Asfa, information retrieval

An empirical analysis of Strable's Dissemination Model using Brazilian data

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Abstract: Edward G. Strable is an American librarian mostly known for his work on Special Libraries. He has been professionally involved in many important associations such as ALA - *American Library Association*, RUSA - *Reference and User Services Association* and SLA - *Special Libraries Association* (president in 1972-73), whose *Hall of Fame* he has been included in.

In the now classical book (three editions, several reprints) on special libraries management he edited, Strable proposed a normative, three level (minimum, medium, maximum) and hierarchical model for the dissemination functions of a special library. The model is essentially qualitative and results from reasoning on both the accumulation and the complexity of functions along levels.

In the literature we reviewed it has not been possible to find any attempt at empirically testing Strable's model. The present paper therefore has two main objectives.

First we *a priori* accepted the model as true so that the dissemination functions in a system of Brazilian academic libraries be described accordingly. This direct application allows to rank dissemination activities among sampled libraries.

Second we apply multivariate statistics techniques in order to create "empirically determined groups" of dissemination functions, as well as to rank libraries according to their activity levels.

Data have been collected on a survey sample of 37 libraries pertaining to a Federal University in Rio de Janeiro; this sample amounts to more than 90% of the population. The survey employs a questionnaire where Strable assertions have been changed into five-point items belonging to a Likert scale; some demographic data have also been collected.

The resulting “empirical hierarchy” shows that Strable’s model persists as a good explanation on how sampled libraries disseminate information. Departures from the model may be due to time elapsed since the original ideas emerged as well as to specific demographics relating to individual units.

Our empirical application suggests that managerial focus concerning dissemination issues may be shifted whenever a better balance is either needed or desired among the three activity levels.

Keywords: Information dissemination, Strable model, special libraries, special libraries-Brazil, multivariate statistics

Employee Retention in Indonesia’s Libraries

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Abstract: In the new paradigm, library is told as something life, dynamic, and fresh that offers new things, in which the library services has become more attractive, interactive, and educative. Excellence competitive of an organization in global era is much depending especially on how human resource is managed. The human resources in a library is one of very important pillars and determines the efficacy of a library in running its function, so that’s way it must be developed according to the requirement. Besides having good /high quality human resource, the institution also has to maintain it to keep it in the institute (retention). The human resource in library should be managed professionally to create balance among requirement of human resource with the demand and also library progression.

Some research about employee retention in library conclude that high level of retention is influenced by employees which have sense of belonging to their duties, career prospect in the next period, consideration of the job contract, and organizational characteristic.

A survey allotted to former librarian to ask why they leave the librarian area. The result of the survey express that being unsatisfied with the administration, salary and image is factor making them leave the area. With the image, there is argumentation which less profit which patches in Librarian profession. During the time Librarians are assumed as a lower level profession that unable to penetrate with work competition. From a research done in Croatia shows how in fact Librarian position is placed on course which less profit if compared to the other similar profession. In general, society perception for this profession is still minor (Soewarno, 2009)

This research is expected to be able to solve the any factors that influencing Librarian retention and what their expectation is. The research is being done using qualitative approach to understand the phenomenon. The Result of the research is expected to be useful library and information science development, especially in the field of management of human resource in library.

Keywords: Human Resources, libraries, retention

Establishing culture of assessment: what do we need to strengthen ties between academic library and study process

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Abstract: Academic librarians need to frame their partnerships within the larger context of the institution's mission, the expectations and assumptions of teaching faculty and the library's program. Working with faculty often is challenging for both sides especially for library because the areas of expertise that librarians bring to this partnership are often misunderstood. Both sides are looking for ways to harmonise and synchronise their activities attempting to find ways of strengthening their ties. Academic library performance measurement and evaluation could be treated as one of the most important activities of strengthening ties between academic library and study process and eliminate already existing and newly emerging misunderstandings.

The *aim* of the paper is to present some expertise and results of examination of possibilities of academic library performance evaluation using special methods and to find out how it could influence partnership between academic library and study process. This time *method* BIX – the Library Index, benchmarking tool to measure the performance of academic libraries – was chosen. Vilnius University Library served as the base of investigation and research.

Results got in the process of evaluation are treated as tool of improving management of the library seeking to contribute to improving communication among library and faculties as well as to show library performance evaluation as the way of strengthening ties between study process and academic library, their funders and the policymakers through transparency of services.

Keywords: Academic library, study process, evaluation, BIX – the Library Index

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Estimating the size of the target population for the library service for people with print disabilities

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Abstract: The library service for the blind and the visually impaired is fully embedded in the public library service of the Netherlands. The underlying thought being that with an aging population there will be more people with visual disabilities who need to be served adequately. In the past, the blind and the visually impaired were the only target group of the public library's service or the so-called National Service-point for Adapted Reading. This target group has, however, been widened to all people who are physically handicapped to such a degree that their impairment makes it difficult or impossible for them to hold a book, turn the pages, or read standard print.

One of the goals of the Netherlands Institute for Public Libraries is to extend the range of the Adapted Reading service so that more people can benefit from it. In order to be able to do so, more insight is needed in these groups. The specific aim of this study is to shed light on the size of the (potential) target groups for the Adapted Reading service, so that realistic goals concerning reach and coverage can be set.

A desk research was performed in which a variety of information sources was consulted, including statistics from the National Compass of Public Health (based on registrations from general medical practices) and research findings from population studies executed by the Dutch Central Bureau of Statistics (CBS) and the Netherlands Institute for Social research (SCP), among others. The physical handicaps were categorised into the following groups: blind and visually impaired, dyslectics, people with a cognitive or mental disability, people with a motor disability.

Because the research population consists of very diverse groups with various handicaps, limitations and disabilities, it proved difficult to make a definite and reliable size-estimation for all of the groups together. In some cases figures were just not available because of a lack of registration and/or

measurement. In other cases figures were available, but due to differences in the definition and/or measurement methods, the estimated figures varied from source to source. Therefore, for every group a bandwidth was estimated, based on the most recent and most reliable findings. Findings were extrapolated to the Dutch population in 2010 to come to an up-to-date estimation of the group sizes.

Keywords: Public libraries, print disabilities, group size, The Netherlands

The Ethicsweb European Project: towards a common digital platform in the field of Bioethic

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Abstract: ETHICSWEB - www.ethicsweb.org - is a European project, started in June 2008 and including 15 partners, among which one international organisation (UNESCO). It is aimed at developing a unique European reference focal point for information available in different European member states, regional providers and centres, and by international organisations, in order to promote critical debate on issues of major significance in ethics and science, as required by the FP 7.

The Ethicsweb partners, among which the Istituto Superiore di Sanita, have been working together at the establishment of a digital platform with common standards and protocols, connecting existing resources and activities in the field, in order to integrate them into a reference portal.

The development of the portal has the purpose of providing:

- easy access to reliable, up-to-date and comprehensive information
- promotion of transnational access to exchange and training programmes in Europe
- public visibility of institutions, experts and projects involved in this subject area.

The Work Package Four Semantics, led by the Istituto Superiore di Sanita, has developed a series of advanced tools in order to integrate the different resources (documents, news and events, experts, educational resources and training programmes). Such tools include:

application profiles (set of metadata elements, policies, and guidelines defined for a particular application); crosswalks (tables that show equivalent in more than one database, with the purpose of mapping the elements in one metadata scheme to the equivalent elements in another scheme); XML schemas; each XML schema has been used for data integration among Ethicsweb partners according to the OAI (Open Access Initiative) Paradigm. To identify these XML schemas, a new namespace named Ethicsweb (ETS) was specially created; collection of existing thesauri or ontologies in the field of ethics and science (thesauri, ontologies, glossaries, term lists) in order to release a registry of Knowledge Organization Systems in this area.

The use of common protocols and standards to integrate existing databases and resources into a common reference portal will ensure the sustainability of Ethicsweb beyond the project funding. Its modular, dynamic platform was designed to allow the participation of future partners.

Keywords: Documentation, bioethics, information architecture, metadata

Evaluating the impact of libraries in low-income neighborhoods: the case of the Network of Public Community Libraries in Cali, Colombia

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Abstract: The Network of Public Community Libraries (NPCL) is a program from the Secretary of Culture of Cali that improves the cultural development of the society and its free access to information. Through 55 libraries located in low-income neighborhoods, the NPCL offers educational, cultural and recreative services, placing libraries at the center of community life. Since 1989 the Carvajal Foundation has supported the design and operation of the network, with a special emphasis on building a tool to evaluate the performance of the libraries and to better understand the characteristics of users (*Llave del Saber* software). In 2009, an impact evaluation study was developed, building on a preliminary study from 2002, with two basic research questions: “Are library users able to develop better reading skills than non- users?” and “Do libraries contribute to improve users’ social skills and to further their level of involvement with community activities? This conference presents the *Llave del Saber* software as a tool for the management of libraries and the methodology and results of the impact evaluation study from 2009. Results confirmed the first hypothesis for the NPCL overall, although it was not the case for some libraries in the sample. The second hypothesis was confirmed for all libraries evaluated.

Keywords: Performance indicators, impact evaluation, information systems, library management

**Every User his/her book & Every book its user” User attitude for using
library resources in Modern era with special reference to Indian
academic user community**

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Abstract: This paper presents the results of a large scale survey designed and conducted to investigate usage patterns and user attitude about the library resources in multidimensional view. The fear came in librarians mind whether the users are avoiding to come the library or they satisfied themselves by sitting at their places and access of the electronic resources. The survey was conducted by the Library people among the academic group like undergraduate, Post graduate, research scholars and faculty members. Interesting results were found during the analysis at each level of users and it is very important to rectify the mistake in the system for future generation. Under graduate and post graduate students are the frequent visitors to the university library as compared to the research scholars and faculty members and these users are visiting the library for accessing the text books for examination purpose and they are less interested in other valuable resources like moral ,ethics and other life learning resources. The result is that they can succeed the goal by passing the exam and getting better job but fail in being a good citizen with great moral values. The result shows that more than 80 percent of the library resources are not touched by the students as they are fully dependent on text books. Therefore, it is felt that mass awareness programmes from the school level onward are necessary to develop the reading habit of life learning resources.

In India most of the universities are having a number of research centers specifically to focus on the sustainable areas in all fields. In olden days, identifying the resources in the particular field of research was a difficult job in the library, but due to tremendous growth of technology, scholars are getting the information in the desk top itself by clicking the button. The research users are very less in visiting the library and they are very happy in accessing information at their own place itself.

The faculties are the backbone of the university and the Indian educational system fully depend on them for train the generation. Our survey indicates that the teachers are not frequent users of the library or they use library resources seldomly in comparison to other users.

When the comparison of the print and online resource was made it was found that, most of the users wanted to access the online resources because of easy to retrieve within few seconds, 24 hours, need not come to library and no rules, no reservation, no late fee etc.. It is indicating, downsize to purchase the print resources and to increase the electronic resources. It was found that most of the users were in favour of print version as they get pleaser in reading which is soothing to the eyes, whereas it is not possible to read through computer for more than half an hour. Finally, we conclude that the

print and electronic resources are the parallel line to the “library train” to run. Creating awareness about each and every document of the library and also awareness about the reading habit from the childhood onwards or at least in the higher education for reading life learning resources, for “being a good citizen”.

**Excellence and Quality in National Libraries through the use of the
EFQM model:
Case Study of National Library & Archives of IR of Iran (NLAI) - 2010**

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Abstract: To describes the implementation of the European Foundation for Quality Management (EFQM) model as a quality framework for excellence at NLAI. In order to self-assessment, the questionnaire approach was used by making appropriate. This questionnaire during face to face meetings with NLAI managers was completed. According to the scores given to the nine major criteria for the model, the total score of NLAI in the year 2010 was 496 points of 1000. Among all the criteria of the model, criteria's partnership and resources have achieved the highest score (62 points of 90) and criteria's process lowest score (41 points of 140). Therefore NLAI should be improving the process to meet the complete satisfaction and added value for users and other stakeholders.

The results also show that the EFQM was a good framework for self-assessment on of the EFQM model at NLAI and a good system for identifying strengths and areas for improvement.

The main difficulties faced by this project were: the difficulty in understanding the EFQM model by the managers and the difficulty in the EFQM terminology.

Keywords: National Library & Archives of IR of Iran, European Foundation for Quality Management, self-assessment, excellence

**Exploring Graduate Students' Information Use Behavior in the Context
of Knowledge Construction**

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Abstract: The earliest study of information behavior was dated in 1940s. Since then, theoretical and empirical issues attracted researchers from both academic and practitioner communities to devote their efforts into researches, significant amount of studies were carried out. Those researches were information behavior centered, but with various focus, from information needs, relevant concept, information seeking behavior, to information selection. However, even with major amount of information behavior studies, it is found that there are limited researches reveal the insights of how users use information obtained and what impact of the information has on knowledge structure.

In this study the author applies sense-making methodology proposed by Dervin to reveal how users use information obtained and how the information bridges the knowledge gap. The author takes qualitative research approach, collects data through interviewing, observing of and analyzing learning log from students of graduate course to enclose students' information use behavior and knowledge construction to learn how the information is used and how the knowledge is structured during the learning process.

Nine graduate students of Graduate Institute of Library and Information Science are invited to participating in this study. Each student is asked to fill out two questionnaires, which contain the questions regarding the main themes that will be taught in this class, write a learning diary to record the information found and used for the class, and is interviewed during the semester. The copies of assignments are collected and the presentations given by students are also observed to further investigate how the students represent the information and knowledge obtained.

The preliminary results showed that the students will decide how much information to obtain and how the information would be handled based on the complexities and importance of tasks, the knowledge will be shaped differently depends on how the information is handled. The typical handled methods observed in this research including read thorough and repeatedly, notes taking, scanning and set aside. The information used might insert to, replace, no impact on the knowledge that the students originally acquired.

Keywords: Information use behavior, knowledge construction

Exploring the Impact of the Rural Village Library in Africa

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Abstract: This paper will focus on the body of qualitative and quantitative research conducted since 2004 to explore the impact of several rural libraries in Uganda and Burkina Faso, in Africa. The research is being used to support the development of a rural village library framework in Uganda, and perhaps elsewhere on the continent, as well as generate support for these village libraries in Africa. Areas of impact that have been studied include impact of the libraries on student academic achievement, impact on teaching, impact on local literacy practices, impact on mother/child literacy practices, impact on learning readiness of young children, and impact on local economic development.

Keywords: Rural village library, Africa, impact, literacy, students

First steps in the digitalization of the Oriental Heritage preserved in the Bulgarian National Library

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Abstract: The paper presents the Oriental Heritage preserved in the Bulgarian National Library: archives in Ottoman Turkish language and manuscript books in Arabic, Ottoman Turkish and Persian languages. A part of this heritage has been digitalized according the Project DAPIS. Some manuscripts and documents entry in the European Digital Library. Nowadays the attention is giving to the Sijill Collection according to another project sponsored by three european countries.

Keywords: Bulgarian National Library, Ottoman Turkish Archives, Oriental Manuscript books, European Digital Library DAPIS

Focusing of the human resources in Academic Librarianship: An outlook from Serbia

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Abstract: Although we live in the Information Society, human resources are the most important out of all library resources. The information cannot be collected, analyzed and presented without the work of the employed. The vast majority of library activities cannot be performed without professional staff. Human potentials are to be prepared for the implementation and the use of new technologies in the contemporary society.

Serbian academic librarians in all ranks may use e-catalogues, free access to World Wide Web, as well as the aggregated databases with e-journals in full text. Academic environment in the librarianship of Serbia is ready for setting up institutional repositories. The development of human resources in libraries is to be planned. It is also the case in university libraries.

This paper concentrates on human resources in the academic librarianship of Serbia. Librarians who participate in creating the *Bibliography of Researchers* contribute to the development of collaboration among scientists. These librarians are to be qualified, trained well and experienced in order to perform their tasks in an expected way.

Keywords: Human resources, development, librarianship, e-information resources, marketing, Serbia, globalisation, planning, training

From Marciana Library to Open Access: the Desire for a Universal Library, Information Needs and the Role of Information Scientists

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Abstract: Nowadays, new information technologies have transformed libraries. Digital publications, open access, web.2, on line catalogues and the Google project lead to the universal library, free to all, open to all. In a changing era, when printed and electronic publications co-exist, historic libraries that assumed a leading role in the past are now expected to review their strategies and continue their offer in a quite different environment. This paper focuses on the case of the Marciana library in Venice founded during the Renaissance with the vision of a library open to all after a donation from the Greek cardinal Bessarion in 1468. The Marciana library in Venice was one of the first public libraries that did not belong either to the church or the universities and the noblemen. The Democracy of Venice was responsible for the operation and administration of the library. The Marciana was thus the library of Venice, typographic capital of the era, and, according to the 1603 act every printer-publisher had the obligation to send a copy of each edition to the Marciana. This paper aims at studying the development of that library putting emphasis on the Renaissance and the Industrial Revolution when the reading audience was widened with new “dynamic” readers, such as women, operators and children. The printing revolution, the role of the printed book, economic and cultural factors, the impact of science and influences from the French Revolution are taken into consideration. Certain issues that concern the publishing industry are also pointed out. “Free to all, open to all” was the vision of that library and its founders whereas the desire for access to all books and information urged them to embrace new technologies. Librarians, the information scientists of that era, were the protagonists who constantly tried to satisfy the information needs of readers; printed catalogues,

collaboration with other libraries and seminars were part of their attempts for a “universal” library providing access to information for all readers. Currently, the Marciana Library plays an important role as a historical library taking advantage of new technologies and constituting a universal, free to all, library just as its donators, librarians and scholars of the Renaissance had dreamed of and strived for. Considering this framework, some of this paper conclusions may enlighten the social and scientific role of historic libraries nowadays, the use of printed and cultural heritage, and the impact of tradition and new information technologies.

Keywords: Library, Marciana library, access, information, reader, librarian

Function of Information resources of learning process Islamic Azad University, Bojnourd branch

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Abstract: As a result of inappropriate educational methods, Iranian students are not quiet familiar with study skills. While some achieve incredible successes in their studies, the majority are not able to wisely and correctly use the potential. There is not doubt that using libraries and information centers is an important factor in the educational success of students. In this paper the writer, using reliable research methods, examines the significance of information centers for learning as experienced by the students of IAU, city of Bojnourd

Keywords: Function of information center, learning process

Features of developing an international digital library for children and young adults in Iran

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Purpose: With regard to the value of digital libraries and the importance of having access to suitable books for children and young adult, this research considers feasibility study and necessity of developing an international digital library for children and young adult in Iran.

Design / methodology: Methodology used in this applied study is survey / descriptive. Needed data were collected using a research developed questionnaire. Statistical population of research includes all of the managers' libraries of children and young adult, all across Iran, consist of 89 people.

Findings: The results showed the lack of having specialist managers and librarians with the average rank of 4.08, the lack of financial supports by managers and policy makers from libraries with the average rank of 4.79, and the lack of collaboration between libraries in the field of sharing sources with the average rank of 4.26 are considered as the most important current problems.

The easy access and distribution of sources for children, with the average rank 4.58 are recognized as the main advantages of developing digital libraries. Other problems, such as, high cost of hiring specialist staff in the field of information technology and communication and the habit using printed sources by people with the average of rank of 6.08 are considered as the main difficulties in developing digital libraries.

Practical implications: According to researches' findings the development of international digital for children and young adult is necessary in Iran.

Originality / value: This paper studies, features of developing an international digital library for children and young adult which have not been studied, yet.

Keywords: Digital library, children, young adult Iran

Gaining a sustainable IR: thinking SWOT

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Abstract: This paper aims to reflect about the next steps and challenges to gain sustainably to our Institutional Repositories (IR's).

We first reference the earlier stage of creating and getting start in the IR: what was needed to do, how we make it and how we are right now.

As most of the universities have an IR, now we are starting to think about what is going next.

The objective is to reflect, in a practical and objective way, what we need to do. We purpose to present a brief and concise vision SWOT analysis to each step of the way.

Our goal is to reflect about our challenges and prepare ourselves to what will it require.

We are finishing the "era of experimental repositories," where we had many challenging ideas that could revolution the scientific community and their way to publish and research, and now we are entering a new phase: the "era of sustainability".

First we faced many challenges and obstacles in order to create, implement, configure and organize an IR. Then, we needed to promote the concept and purposes of the repositories and of Open Access. Finally, we had to find competences and human resources in our small teams in the library to populate the repository with content in order to motivate the authors to continue that with self-archiving.

Now, most of the universities have an IR, with all the past content and we are still promoting the self-archiving and figuring out what more we can do with the IR towards the user's needs – authors and the institution.

We are exploring the IR's possible and meaningful functionalities and services and we thinking in new ways to promote and advertise in our community.

This paper will present the essential steps in order to retrieve gains from the IR and will also be presented a SWOT analysis of each one so we can reflect and prepare strategies to face it.

The strategies that follow in the sustainability of the IR are concerned about populating the repository with scientific content that will require promotion and training to self-archive.

One of the biggest author's concerns is about copyright issues that still are a mystic problem.

The training planning will need human resources in the library's team and the development of strong competences. To accomplish these goals is essential financial support and budget to libraries, so they can play the new roles required.

After this, one big step is the enrichment of the metadata to provide quality information and retrieval.

The university's commitment is essential to empower human and technical competences in the libraries services. By otherwise, we have to provide some results at first.

Finally, it will be given a SWOT analysis about the referred strategies. Although not being new, we still need to discuss how we are going to become successful and how we are will be able to change the research culture.

Keywords: Library, higher education, information management, challenges, Institutional Repository, Open Access, SWOT

The Global Patent landscape in White LED Phosphors

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Abstract: LED (Light emitting diode) is a new-type solid state lighting, which is environmental-friendly, efficient and energy-saving. Its superior advantages lead that LED will replace the existing lighting as the next generation lighting. Currently, LED, especially white LED, has been widely used in such fields as cellphone, digital camera, computer monitors, and indicator light and so on, nevertheless, its long-term growth point focuses on entering into general illuminating area with the increase of luminous efficiency.

At present, the most popular white LED lighting is fabricated by the combination of single chip and phosphor. The characteristics of luminescence of phosphor determine directly the luminous efficiency, colour rendering index and colour temperature of white LED. Therefore, phosphor has become one of key technologies in the process of LED manufacture and has attracted wide attention.

In order to safeguard profits and occupy international market, major companies in the field of phosphor and LED has hold a number of core patented technology, continuously grow intellectual property portfolio up, and will potentially monopolize LED market. The development of phosphor materials plays a key role on the expansion of white LED industry, and phosphor patent technology and its distribution greatly affect the growth pattern of white LED industry. Therefore, in order to clearly understand the emerging trends and research frontlines of phosphor technology, to discover patent strategies and technological protection measures of major phosphor companies, and to compare mutual preponderances of competitors, etc., it is quite necessary for us to make a detail statistics analysis on the global patent landscape in white LED phosphors.

The analyses are adopted bibliometrics methods and performed by using web-based Derwent World Patents Index, combined with Microsoft Excel, Thomson Data Analyzer and Aureka, so as to produce visualizations of the results. Citespace, a document visualized analysis tool and other Social network analysis tools are also tried to introduced, so as to achieve appropriate analyzing results. We have consulted research experts in order to identify searching strategy, subject keywords and Derwent Class Codes, and then with data scrubbing, we clarified 6000 patents as analyzing objects.

In order to comprehensively disclose white LED phosphors patent outputs, over ten kinds of quantitative and qualitative analytical methods are adopted, mainly including patent output statistics, patent country statistics, patent assignees ranking, patent family analysis, patent technology correlation analysis, patent competitors comparison, technology life cycle analysis, cluster analysis, patent map description, invalid patent analysis, citing patents, cited patents analysis, etc.

Useful results and conclusions are discovered by our in-depth analysis, including detail patent distribution research output of some major companies. We hope our work would give helpful strategic references for scientific researchers and enterprise decision makers.

Keywords: White LED Phosphors, patent analysis, statistics analysis, bibliometrics methods, patent technology trends

Greek libraries and service evaluation: Library statistics, a necessary tool for the effective management and marketing of libraries

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Abstract: In our days, statistics in the libraries are an important tool, not only for the effective management, but also for the important promotion of the library's services. Libraries should organize their services aiming at an effective access to them by actual or potential users. The librarian of the 21st century, as an Information Science professional, because of the abundance and the diversity of the informative sources, has to learn how to promote effectively library's services. Data from Library statistics reveal a wealth of knowledge that contributes to the decision making procedure for the improvement of the provided services, as well as for the definition of a future policy and planning for a library, regardless of the category to which the library belongs. The libraries have undertaken new responsibilities in a continuously changing information world and they need new statistical studies for the management and promotion of their new duties.

The aim of this paper is to present the utility of Library statistics as a basic tool of marketing and management through cases that result from the Greek active libraries environment using questionnaires, to present the problems that come out and suggest solutions and to present the profits that arise through Library statistics.

Keywords: Greek libraries, library marketing and management, statistics, quality of services provided, strategic planning

Higher Education E-learning and YouTube EDU: A LIS Collection Development Approach

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Abstract: Higher education worldwide has adopted web-based technologies to enhance the teaching and learning practice. YouTube, a free video-sharing web site, is one of the web-based technologies which has been widely used by individual users and organizations. On March 25, 2009, over 300 universities and colleges around the world launched YouTube EDU, a branch of YouTube, on which learners can view free videos in seven languages from these universities and colleges. Within a year, the number of videos has grown to over 65,000. The purpose of this project is to investigate the currently available educational videos and the usage and collection of those videos. A timely analysis of those videos within a library and information science (LIS) context is valuable to the development of the YouTube EDU project.

As of October 15, 2010, out of the 50 most viewed video clips on YouTube EDU, 23 video clips are identified as academically oriented; 11 as university media press; 14 as special events/guest presentations; 1 as student services; and 1 as student or faculty creations. Furthermore, 49 out of the 50 video clips are in English, even though some of the contributing institutions were

non-English-speaking universities. Similar results have been observed since August 2010. This indicates that English dominates the contributions to YouTube EDU. Institutions speaking languages other than English may need to increase their contributions. The dominance of videos in English may also be related to the greater number of universities from English-speaking countries. In order to promote a global, open, approach to higher education worldwide, this project will provide essential feedback on collection development processes in an open-access format at YouTube EDU.

Keywords: Collection development, social media, higher education, Open Access, e-learning, YouTube EDU

A Holistic Indicator for Evaluating Service Quality in Academic Libraries based on an Expert's Opinion using a Neural Network

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Abstract: In response to the challenges posed by modern information technology, the Academic Library has managed to transform itself into a fully integrated centre, enjoying a role as the core of the institution's educational and research activities. The library's functions and services assessment has become an imperative necessity. There are several statistical methods for the assessment of a library; however, there is no single and all-inclusive method for such an assessment and respective scoring. The scope of this study is to define a theoretical model for the combination of all individual assessment indicators into one single number-indicator. The tool proposed for the achievement of such an aim is a well-fitted neural network which shall undertake to formulate the weighting relations between indicators, as per the expert's classification. The methodology used is articulated into four (4) stages. a) The normalization of single values, b) the setting of the indicator weighting according to the expert's opinion, c) the construction of the a well-fitted neural network and d) the training and testing procedure of the neural network.

Keywords: Indicator assessment library, formulation of expert opinion, neural network

Hot topics, citation networks of papers, and centroids authors: a spectrum study a spectrum study

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Abstract: Hot topics come to the fore when there is a turn in research area. This in turn leads to citation networks. Using this network reaction centroid authors emerge, this paper explores the implications of hot papers
Keywords: Citation networks, centroid authors, citation network analysis

How to Evaluate Digital Library Projects: A critical report from practical experience

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Abstract: This contribution will report on two intensive years of evaluating a wide range of digital library projects and reflect critically the choice of methods, the realization of the corresponding tests as well as the succeeding knowledge transfer and the implementation of the test results. It will also speak about the issues that concern the difference between the evaluation of a system's *usability* and the *usefulness* of its content.

1. Introduction

Theoretically, the range of methods that are at disposal to evaluate the usability of software in general or digital libraries in specific are vast, but whenever it comes to practical evaluations, the choice is on the usual suspects (Kantner et al. 2003): focus groups, heuristic walkthroughs, online-questionnaires, and certainly usability tests.

Things are a little different and less easy when the usefulness of digital content has to be evaluated and it is not decided yet, whether the evaluation of usefulness needs specific methods of its own, whether the methods developed so far have to be adapted or simply can be used without methodological change (Tsakonas, Papatheodorou 2009).

In this contribution we will give an overview of the E-lib.ch evaluation process (www.e-lib.ch), the Swiss project to create a single-point-of-access for digital library content. During this process, we evaluated so far more than seven different projects, ranging from a meta-catalogue (www.swissbib.ch) over digitized manuscript platforms (www.e-codices.ch; www.e-rara.ch) to several information portals. (www.infoclio.ch; www.infonet-economy.ch; www.e-lib.ch).

Since most of the evaluations were done directly with users, we will put them into context with to eminent questions: how to integrate pro-actively evaluation methods in the process of user centered design and how far test results correspond to general assumptions about user search behavior.

Keywords: Digital libraries, evaluation, usability, usefulness

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Identifying group-based information behaviour in multicultural virtual mobility education

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Abstract: The paper presents results of case study conducted in order to identify the group information behavior as well as the impact from social, contextual and affective factors. The aim was to explore what extent group-based information behaviour compared to the individual modelled by Kuhlthau's Information Search Process model and Chatman's concept on online grounds small world. A study was carried out amongst group of participants (50 students of bachelor, masters, doctoral study programs in education as well information and library science bachelor students from Jagiellonian University and academic staff), participating in *Virtual Learning in Higher Education* course module. The course was a part of TeaCamp (*Virtual Campus Teacher: Research, Practice, Apply*) project that increase virtual mobility into higher education area. In the research were used the qualitative and quantitative methods, the data were collected through process survey, observation, participating observation, questionnaires, and interviews. The findings revealed similarities and differences in group-based information behavior and Kuhlthau's or Chatman's models, with the impact on social and affective factors. It will help understand information behavior in e-learning or virtual environment.

Keywords: Information behaviour, users, collaborative information behaviour, social and affective factors, virtual mobility, e-learning community, online environment

Impact of educational changes on digital libraries

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Abstract: Libraries both traditional and digital libraries are profoundly affected by the changes now taking place. In the light of these educational changes, this paper will describe in several categories what are the principal issues for digital libraries. There have been drastic changes in the curriculum, in methods of study and teaching, in sheer numbers of students. Digital libraries are constantly evolving to meet the needs of users who grow and learn and technologies that advance exponentially. Design and evaluation

efforts must be embedded into the overall digital library management culture and applied on an ongoing basis.

The purpose of this paper is threefold: (1) to comment briefly on the efforts made by schools and universities to redefine their educational objectives and procedures; (2) to review the studies which have been made of the status and functions of the digital libraries in educational institutions and (3) to suggest ways and means by which the digital library may be more effectively utilized in achieving the educational objectives of the modern educational institutions. This study explores insightful information regarding the current status and suggests major areas for future planning and development. We believe, that beginning in the 2000s is seeing an educational revolution, then there must be a library revolution related to it.

The Impact of ANKOS in Development of Turkish Academic Librarians as a Social and Professional Communication Platform

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Abstract: The aim of this study is to discuss the Anatolian Universities Library Consortium (ANKOS) from a different dimension, which was founded to provide access of academic libraries to electronic resources in more economic conditions. 42 librarians work voluntarily in ANKOS organization, which today has 152 members. More than 100 librarians have worked in ANKOS organization since its foundation. In the last 12 years, ANKOS organization has become a social and professional communication platform in addition to its task to provide access to electronic resources at low cost for academic librarians in Turkey. Thanks to its electronic communication channels (webpage, announcement lists) as well as printed-written communication, ANKOS has become an efficient professional social communication platform. Also, the events (annual meetings, workshops, training and introduction meetings) organized by ANKOS have offered new opportunities for face-to-face communication and professional development for academic library employees.

- This study will address the following headings in details:
- What is ANKOS?
- Historical Overview of ANKOS (1999-2011)
- Organization Structure of ANKOS
- Meetings organized by ANKOS (annual meetings, workshops, training meetings etc.)
- Online communication channels of ANKOS

- Contributions of ANKOS to training of librarians (information about the participants in meetings and training programmes abroad)
- Translated materials, publications etc. by ANKOS
- General Evaluation and Conclusion.

The impact of telecentres in bridging the digital divide in townships in South Africa: the case of Mamelodi Township

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Abstract: This paper discusses initiatives made in South Africa on the use of telecentres to bridge the digital divide in townships. Recent developments in information and communication technology and telecentres have made it easy for people to access, retrieve and disseminate information everywhere in the country. Telecentres are believed to be a powerful tool to bridge the digital divide that exists in South Africa, as they can allow the township communities to have access to timely and relevant information like their counterparts in urban area. South Africa is experiencing an uneven distribution of the basic telecommunication infrastructure between the townships and urban areas, and that has created a digital divide between these communities. Digital divide is defined as the growing gap between those parts of the world or country which have easy access to knowledge, information, ideas and works of information through information and communication technology and those who do not.

Since the government cannot provide enough Library services in the townships, residents of these communities have been given access to information through telecentres. Telecentres have been established in various townships around the country in order to help bridge the digital divide. The paper looks at how two telecentres located in Mamelodi Township in Pretoria have been used to ensure that township residents have access to relevant and updated information to meet their needs like their counterparts in urban areas. The study was conducted over a period of one week, and data was collected using a questionnaire. This paper ends with action plans that may be used by library and information services professionals in other townships to take advantage of telecentres in order to bridge the digital divide.

Implementing of Total Quality Management Model (TQM) in Public Libraries: A case study of TQM Model in Public Libraries affiliated to the institution of public libraries in Tehran (Iran)

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Abstract: Introduction: Libraries and information centers, as service organizations, need standard methods to measure and evaluate their services in order to enhance the quality of their services in support of improving the performance of their mother organizations. Hence, the achievement of excellence is the challenge facing the Public Library in the 21st Century. The present article describes the application of the Total Quality Management (TQM) to study the Quality Management in Public Libraries affiliated to the institution of public libraries in Tehran (Iran).

Methodology: This research is an applied descriptive survey. The population of this research includes all managers and at least one of the employees of the 20 studied libraries (80 people in total) based in Tehran. Data gathering tool in this research is the standard TQM questionnaire. This questionnaire, which is designed based on ISO 9000 quality management standard principles, includes a sector for personal information, and seven sectors each containing questions based on ISO standards. To conduct accurate statistical analysis, questions have four options (very much-much-little-very little) and the "medium" option is omitted. 72 of the respondents have filled the questionnaire properly. The deficient filled forms have been disregarded in the analysis. In order to analyze research findings, descriptive statistics (frequency and percentage) used and the software applications such as SPSS and EXCELL applied.

Findings: The results reveal that customer focus (31.5), leadership (50.2), people involvement (33.6), process approach (46.7), system approach (45.3), continuous improvement (35.0) and fact-based decision-making (49.3). The research findings show that the highest scored principle is leadership (50.2 percent), and the lowest principal is customer focus (31.5).

Conclusion: In dealing with this type of research that led to better understanding the status of management systems in organizations such as the Library (as a form of organizational unit), many problems in managing of these libraries (including, the strengths and weaknesses of management principles governing in such institutions) was determined and it can help to plan more substantial steps to strengthen the strengths and remove weaknesses. This research has suggested some solutions.

Keywords: Total quality management, public libraries, public libraries, Tehran, Iran

**The Importance of Digitisation Process in Cultural Heritage
Repositories: Example of Shamil Education and Cultural Foundation
Library
Berat Bir Bayraktar**

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Abstract. The best way of preserve a cultural heritage is having an rich and qualified information centre As a researcher or end user, you should access a right information, at the right time and of course by using high technology. If this centre becomes different among its services specially bringing updated practices like digitization, then it will be a valuable vehicle for users to reach the information about cultural heritage.,

Specially in the age of Information Society, many libraries, information and document centres started to deveolop their services from the point of technology view in order to be customer oriented. Digitization is the most important process in this development period. Because, the use of computers is changing forever the way information is being created, managed and accesed. And also, for users, to search texts and databases; and to transmit information rapidly via networks world-wide can be done without hindrance. By digitization, libraries, make access easily comparing with the past where the information and documents are bounded by some rules, procedures and limits and open only for limited number of users or researchers.

Digital information is also an increasingly large part our intellectual and cultural heritage and offer significant benefits to users.

In this study, the importance and steps of digitization process will be analyzed by giving the example from Shamil Education and Cultural Foundation Library. Besides, the problems come across with in this process will be coated as well.

The content of the article can be summarized as follows;

- A literature review about digitization(aim, importance and process)
- Information about research study particularly about Shamil Education and Cultural Foundation Library
- General review and conclusion

Key Words: Cultural heritage, digitisation, scanning, library

The Importance of Information Literacy for Multicultural Societies

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Abstract: As the key for life-long learning and success, not only in school and the work place but also in daily life, information literacy skills must be developed by immigrants, refugees and foreign residents in order for them to integrate into their adopted country. Knowing how to access, use and communicate information effectively will enable social inclusion of newcomers. Therefore, developing special information literacy programs to

equip such groups with information literacy skills should be among the priorities of libraries (especially public libraries).

In this study, a survey will be conducted to ascertain the specific information needs of the foreign residents/inhabitants of Didim. Didim, a small town located in southern Turkey, has been selected as the location for this study due to its large foreign (mainly European) population.

The findings of the research will be used to outline and develop an information literacy program which addresses the specific information needs of this culturally and linguistically diverse population. Such an information literacy program will set an example for the development of similar programs for foreign residents of other countries.

Keywords: Information literacy, multicultural society, multilingual society, European residents, Turkey

Increasing Awareness and Use of the Library's Resources and Facilities Through Relationship Marketing Strategies

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Abstract: In an effort to increase the usage of its resources, the Rizal Library of the Ateneo de Manila University embarked on a relationship marketing program targeted at three segments of the market, namely, the faculty and administrators, the graduate students and the undergraduate students. This paper will present the marketing and promotion activities conducted by the Rizal library to increase awareness of users about the library and its services. Success indicators include: the establishment of a new library building designed to be a scholarly hub of the community; increase in the use of the e-resources; establishment of a library club called Book Bench which is a student initiative; and the approval of the request for an Assistant Director for Programs and Events who will take care of all marketing and promotion activities of the Library.

Keywords: Relationship marketing, Rizal Library, Ateneo de Manila University, library clubs, marketing

Information Communication Technology (ICT) and Knowledge Management: Enabler versus Oxymoron

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Abstract: Knowledge is the source of sustainable competitive advantage for any organization. The other forms of competitive advantages are replicable and transient. Knowledge Management is an integration of numerous endeavors and fields of study. This paper provides a frame work for characterizing the various tools, methods, practices and technologies available for Knowledge Management practioners. It provides a high level overview of a number of key terms and concepts, describes the framework, provides example of how to use it and explore variety of potential organizational application through Information Communication Technology (ICT). This paper attempts to suggest that knowledge management processes and artifacts can be redesigned and used in an organization context, to give sustainable competitive advantages. The processes of identification of strategic knowledge resources and building a knowledge framework have been suggested through the use of Information Communication Technology (ICT). The challenges and opportunities for various communities has been identified. The article tries to compare the similarities and differences of educational institute, business communities and government organizations. Issues have been brought forward and discussed. The applicability, the knowledge transfer and the usability of the available knowledge artifacts have been compared these three types of organizations in a broad scope. The close interaction and the community of practice framework had been indicated.

Keywords: Knowledge management, information communication technology, educational institute, business communities, governments

Information literacy for law students. Challenges for academic law libraries

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Abstract: The information needs of students at all levels. The nature and extent of the information needed. The role of academic law library in developing the skills to use information. Definition of different types and formats of potential sources of legal information. The ability to create the search strategy in various legal information retrieval systems, including the development of the information literacy strategy, an information skills training manual for law students and library staff. Economic, legal and social

issues related to the use of information. Using ACRL (Association of College & Research Libraries) Information Literacy Competency Standards document and guidelines developed by the Law & Political Science Section of ACRL (designed to illustrate the application of information literacy standards to research in political science and related disciplines, including law) as a basis for the initial development Information Literacy Standards for law students, through a partnership between academic staff, law librarian and computer officer.

Keywords: Information literacy, law students, law libraries, ACRL, legal information

Information Search Process of High School Students in the Context of Writing Competition

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&

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Abstract: Information behavior is a long time concerned issue in Library and Information Science Study. Information needs, retrieval behavior, and information use are all the insights that the researchers try to reveal and provide better and more efficient information service. There are significant amount of studies on information behavior that were conducted (from different perspective, such as information theories, different types of users, and various contexts, etc. In this study, the author observes the information seeking behavior of high school students who work as a group on a research project to reveal the possible impact of team-work on information behavior of individuals.

Writing research papers is chosen as study context for this research. Working log, in-depth interviews and final outcomes are used for data collection. Ground theory is the base for data analysis. The author recruits 8 groups, 21 participants for this study. The participants work as team and each group has a teacher to give guidance during the writing process, 8 high school teachers take part in this study. All the students are asked to keep a working log and interviewed as a group after finishing the paper. The advisors are also interviewed to provide information on their observations. The transcription of working logs and interviews are analyzed by following open coding-axial coding-selective coding process. The final reports are used as supportive evidence for information use and representation.

The results show that the individuals and groups go through 6 different stages and experience different emotion while trying to finish the research reports. The styles of groups have major impact on how the participants feel during the process if the project tasks could be accomplished successfully. Members

have strong will and are highly motivated will dominate the progress and expect to accomplish the tasks successfully even they might experience difficulties during the process. The positive thinking influences other teammates to be willing to continue the tasks. On the contrary, if there is no strong leader, the group tends to quit the project easily or has difficulties to finish the project and to write the report. It is also shown that the topics chosen for the papers and the level of pre-acquired knowledge about the topics have impact on the complexity of information seeking. The advisors communication skills, attitude, and viewpoints toward the topics have impact on the students as well.

Keywords: Information search process, information seeking, high school students

Innovative Approach to Global Information Services in Tata Consultancy Services, Information Resource Centre, India

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Abstract: Innovation is the core of the knowledge economy society. Today, our libraries are in the process of re-inventing and adapting to the new challenges and opportunities developed by the changing needs of the users due to technological advancements. Libraries are now trying to become flexible as per the requirement of the users and the presence of libraries is varying from physical to virtual. Thus, they have to shift their role from collection to connection. They have to develop an environment of innovation/inquisitiveness, and work towards dissemination and transformation of knowledge into products/services that add value to the organization in particular and society in general. In the knowledge economy era, libraries will carry out researches on development and application of customized information resources, construction of virtual libraries, and protection of intellectual property, thus founding the base for knowledge innovation. Based on the premise that one must not focus on knowing how but on knowing why and knowing what, new model of library services ought to be created where innovation and value added services can be initiated. This paper presents the innovative approach to global information services attempted by TCS IRC (Information Resource Centre) India.

Keywords: Innovation, Knowledge Management Portal, Information Resource Centre, product and services, Domain Information Services, measurement tool

An integrated methodology for using Multicriteria Analysis and Data Mining to evaluate and improve Library Services

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Abstract: This paper proposes a methodology that tries to evaluate offered Library Services using data from different resources. It describes all these resources and gives the guidelines about analysis of collected data using multicriteria analysis and Data Mining methods in order to improve the services.

It uses several criteria like Users' Satisfaction, Costs, Indexes from specific data resources and proposes a framework of combining them in order to give useful results to the decision makers about Library's strategic planning and improvement of offered services.

This improvement has to be done not by increasing dramatically the cost of offered services but by a rational way of re-organizing them according to specific important criteria. The proposed methodology explains these criteria and proposes a way of using and analyzes them in order to help Library's managers not only to improve offered services but also to make a rational and productive strategic plan.

The methodology is focused in Users' Satisfaction about offered services (ways of estimation, evaluation and explanation), in collection of useful and necessary data for several resources in order to estimate important indexes that express the situation on a Library and finally in ways about Library's Collection Improvement that can be done efficiently without spending large amounts of resources but using a rational way.

Keywords: Users' Satisfaction, multicriteria analysis, library's collection evaluation, strategic planning, quality management

Intercultural Communication at the Library Desk

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Abstract: Within the last thirty decades, the scope and depth of globalization has been phenomenal. Globalization not only has brought about dramatically deep effects in the so-called third world, but also it has introduced new intercultural communication problems to more prosperous nations as well. Although many people try to find a way to migrate to the developed world in looking for a better life, there are some other people who are more interested in another property of the prosperous nations, namely science. Therefore, the

number of third world students in the West has been ever increasing by the recent years.

But, these students are not necessarily acquainted to the destination culture. Nor, destination culture is interested in knowing deeply about their high context cultures.

This study delineates the intercultural strategies the universities in the developed countries should adopt in order to prevent misunderstandings between the university staff and foreign students. It particularly focuses on the libraries and their fine duty in working with students from other cultures. Finally it gives general instructions helping library staff to work better in an intercultural environment.

Keywords: Intercultural communication, librarianship, foreign students, Third World

Interoperability of Collections in the Finnish National Digital Library Public Interface

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Abstract: The Finnish National Digital Library (NDL) project is a national project which improves online accessibility and usability of digital cultural heritage resources held by libraries, museums and archives by combining the services and collections of different organisations to a versatile user interface. One of the principles is to keep cataloguing data and digital objects in the back-end systems and harvest, normalize and index the metadata into the public interface for easy and fast information retrieval. To make the harvesting and normalization feasible, each sector has agreed to provide standardized data. MARC for libraries and EAD for archives. For the museums, providing a unified and harvestable data for the public interface was a challenge.

We present the Finnish museum sector schema of harmonizing and providing standardized data from heterogeneous collections stored in various types of collection management systems by using a national unified LIDO XML schema for the whole Finnish museum sector.

Keywords: Digital libraries, museum digital objects, digital content, XML schemas

Internal auditing as a tool of estimation of library work

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Abstract: The definitions of auditing, the principles and criteria of auditing have been given; the methodology of auditing of quality management system has been presented.

Modern auditing is a special organization form of control covering a wide range of different aspects of organization activity. The certificates about information that can be quantitatively estimated are assessed. It helps to identify the coincidence of this information with all set criteria. Formal requirements to auditing are specified in standards accepted by all economically developed countries.

Due to the standards of the International Organization for Standardization internal auditing and company managers' analysis are imposed.

The process of internal auditing in the library works as a management means when independently estimating any process or activity. Internal auditing provides the library managers with the information about the effectiveness and productivity of the whole management system, maintains the quality system improving it and has regular character.

Keywords: Quality audit, internal auditing, standardization, quality management system, audit criteria

An intervention to increase books borrowing and internet searches in a Nutrition-Dietetics department library

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Abstract: An initial assessment, concerning books circulation in the library of the Nutrition-Dietetics department of T.E.I Crete, Greece, within 2009 was previously presented (Kampouraki et al., QQML2010 proceedings). A second assessment was carried out within December 2010, following a one year intervention that included an informative campaign to teachers, students, and clerks, concerning services offered by the library. The intervention resulted in a 64.5% increase of the titles loaned by the teachers within 2010, and an almost 100% in those borrowed by department's clerks. However, the number of the titles loaned by the students and the categories of these titles did not change significantly. On the other hand, we managed, for the first time, to record and compare the internet searches in the main scientific

databases the library offers: A significant increase, ranging between 5-15%, was recorded in the usage of relevant scientific electronic-journals, when comparing the year 2009 with 2010.

Keywords: Books borrowing, Internet searches, intervention, assessment, library

**Investigating Information Use and Literature Searching Skills of Nurses
for
Implementing Evidence Based Practice**

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Abstract: Medical and healthcare is one of the most dynamic human disciplines, and large amounts of money are spent annually on high quality and sophisticated research, resulting in an exponential growth in healthcare literature. In addition to using traditional and well-established procedures and practices, healthcare practitioners are adopting innovative interventions that are based on best practices as well as solid research-based evidence. Evidence Based Practice (EBP) is one of such techniques, and is quickly gaining popularity due to its potential to effectively handle clinical issues and provide better patient care. The objective of this study was to investigate Singapore nurses' awareness and attitude towards adopting EBP, information source preferred by them and their literature searching skills.

An expert-reviewed and pre-tested questionnaire was used to collect data from two public hospitals in Singapore. Some 2100 copies of the questionnaire were distributed at *National University Hospital and Alexandra Hospital* and 1486 filled in questionnaires were returned. The overall response rate for the survey was 70.8%.

Over 64% of the nurses expressed a positive attitude towards EBP. However, they pointed out that due to heavy workload, they cannot keep up-to-date with all new evidences. Regarding self-efficacy of EBP skills, the nurses perceived themselves to possess moderate level of skills. The nurses also felt that EBP training, time availability, and mentoring by nurses with EBP experience would encourage them to implement EBP. The top three barriers to adopting EBP were lack of time, inability to understand statistical terms, and inadequate understanding of the jargon used by research articles.

The ability to search and retrieve relevant information is crucial for implementing EBP. Access to relevant, accurate and current information is becoming crucial for nurses to keep their knowledge up-to-date and adopt EBP. Hence, it was considered desirable to explore how frequently nurses use different information sources for fulfilling their information needs, and how are their literature searching skills.

Human sources were found to be most frequently consulted among the three broad categories of information sources, i.e. print, electronic and human sources. Medical reference sources, Internet websites providing information about a specific disease, medicine or treatment, and nursing supervisors were ranked as most used sources for each category respectively. The use of professional journals and medical databases was quite low though they are considered more reliable for accessing quality information. It was a matter of concern that the use of electronic information sources was the lowest among the nurses as currently a considerable amount of the latest research information is only available in electronic format.

For literature searching, nurses were using basic search features more often than advanced search option, and less than one-quarter of them were familiar with Boolean and proximity operators. Among various search features provided by electronic databases, 'Index browsing' was used comparatively more often followed by the 'Search limits'. However, the use of 'Medical Subject Headings (MeSH)', 'truncation/ wildcards' and 'proximity operators' was quite low. This means nurses may not be able to retrieve relevant and high quality evidence.

Although nurses showed a positive attitude towards EBP, certain barriers including limited literature searching skills were hindering their smooth adoption. This paper suggests certain measures for improving information literacy skills of nurses which will help them in undertaking their responsibilities more effectively.

A joint university library: vision and reality

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Abstract: One library, owned jointly by several independent universities, is that a possible model for the future university libraries? Such a library has already existed for a decade, and have experienced and learned how to manage the demands of the universities, the customers and the staff. The library is the academic library Tritonia in Vaasa, in Finland, founded 2001. Problems have been identified, and will be analyzed in a SWOT. Is this a rational and economic solution? Can this be a model for others?

Keywords: Joint library, university libraries, Finland, co-operation experiences

The Journal Usage Statistics Portal (JUSP): a simpler way to measure use and impact

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Abstract: The Journal Usage Statistics Portal (JUSP) is designed to provide a single point of access to journal usage statistics reports for higher education libraries in the UK. JUSP provides a number of benefits for libraries. It avoids the need to visit multiple publisher sites and allows libraries to quickly and easily compare usage across various publishers and years. It also includes data from gateways and hosts to provide a truer picture of usage.

This presentation will outline recent qualitative research conducted with librarians and users of JUSP in the UK. The research highlighted the benefits of using JUSP to help librarians analyse journal usage, and establish value for money to help in purchasing and renewal decisions. Implications for the wider library and information community will be discussed.

Keywords: Journal usage, measurement, metrics, value analysis, cost benefit analysis

Key elements for designing EIS online educational resources: a case of European NAVigator (ENA)

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Abstract: The use of Web has provided educators with a variety of opportunities to incorporate the use of online educational resources (OER) into their teaching, providing a wide range of new and exciting teaching possibilities that are not possible in the traditional classroom. But the literature suggests that users are often frustrated, because OERs don't meet their expectations, mostly because they've been developed by people with high technical expertise, but without sufficient knowledge of users' needs. Therefore, this paper aims at developing a crucial set of elements needed when designing an OER for tertiary level students in the field of European Integration Studies (EIS). European NAVigator (ENA), a digital library, developed by CVCE, specialized in bringing resources related to the history of European integration, was analyzed. Framework of crucial elements was developed, based on literature review, EIS related curriculum analysis and interviews conducted with experts in the field of EIS.

Keywords: Online educational resources, European Integration Studies, European Navigator, digital library

Knowledge sharing through open archives repository: a case study of IISc, Bangalore, India

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Abstract: A knowledge organization must necessarily become a learning organization so that the entire institution will be able to adapt quickly to changing environment. The centralized knowledge repository information place knowledge, allowing it to be searched and retrieved with maximum efficiency and accuracy. Organizational open archives create repository of their knowledge. Indian Institute of Science library created the repository will act as a tool for knowledge dissemination sharing and transfer. It is worthwhile to bring new information through resource sharing. This paper explores such possibility. Open archives repository increase the overall project knowledge sharing reactivity and achieves the objective. i.e. reduce time, improve decision making, increase productivity and reliability. Cross archive search services for Indian repositories is a knowledge sharing repository. The service will harvest metadata as per the OAI-PMH protocol from the organization and sharing repositories in India. It also provides a web based search/browse functionality over the harvested metadata.

Open Source Institutional Repository Software help collect, preserve, index and distribute the research material and scholarly publications, that is, the intellectual output of the Faculty and Academic Institution

Keywords: Institutional repository, knowledge sharing, open archives repositories

Librarians' pedagogy: A phenomenographic study

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Abstract: An investigation of two higher education academic libraries was carried out, as part of a PhD research, in order to map out the qualitatively different ways librarians describe their role, pedagogy and information literacy. The chosen method for carrying out the study was developmental phenomenography.

Phenomenography is a qualitative approach which describes the ways in which people experience the world around them. In that sense, phenomenography is not about the world or about human beings, but the combined outcome of those two. It is a relation between the individual and aspects of the world.

The study is significant for educational and methodological reasons. Most studies in the area of librarianship are limited to the study of information literacy and how it can best serve the students'/users' needs. Research shows that the educational framework of information literacy concentrates on cognitive and transferable skills, such as problem solving, evaluation and communication skills. However, as the study shows, that framework lacks a deep understanding of how librarians consider learning and teaching processes. This study will contribute to filling this gap in understanding.

The outcomes of the study are significant not only for librarians with teaching responsibilities but also for the development of information literacy. By exploring the pedagogical conceptions of librarians, the study investigates important issues which have not been addressed until now. There are implications that arise from the study for the principles of learning and teaching as applied by librarians. Additionally, there are implications for the role of librarians at institutional level.

Keywords: Pedagogy, phenomenography, academic librarians, information literacy, learning and teaching

Libraries does make a difference: Common principles in showing the impact of different types of libraries

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Abstract: In this paper, we describe a method for a common presentation of the statistics of different types of libraries, scientific and public, in easy to understand and illustrative way to be used as a tool for obtaining information as a basis for showing the impact and value of libraries. We compared the statistics of public and scientific libraries and defined the common data sets for them. These data sets represent the essential key figures of the libraries and give a uniform picture of different types of libraries. We combined the statistical data with data obtained from customer surveys from both library sectors and we built a web site for presenting this data. Our experience is that it will be necessary to improve data collection further by opening the interfaces between the two different statistic databases (public and scientific libraries) so that the library managers, other decision makers and stakeholders can define even more versatile searches to combine the information. A combined view of library statistics and customer surveys is valuable for all decision makers to grasp the impact of libraries in society in its entity.

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**Library Intervention Strategies for Doctoral Students in the Humanities:
Collaborative User Needs Study at Cornell University Library and
Columbia University Library**

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Abstract: In recent years there have been a number of major, large-scale studies in the United States on the high attrition rates for Ph. D. students in the humanities, including the Council of Graduate Schools Ph.D. Completion Project, the Andrew W. Mellon Foundation's Graduate Education Initiative, and the latest National Research Council Assessment of Research Doctoral Programs. The results of these studies reveal a significant gap between the humanities and other disciplines: the number of doctorates awarded in the humanities has declined by 12% between 1998 and 2008, while those in science and engineering have increased by 20.4% since 1998; the mean registered time to degree is the longest in the humanities (9 years in 2003 compared to 6.9 in engineering and the life sciences, and 6.8 in the physical sciences); the completion rate within a ten-year period is the lowest in the humanities (49%), compared to 55% for mathematics and physical sciences, 56% for the social sciences, 63% for the life sciences, and 64% for engineering; and the cumulative attrition rates at year 10 in the humanities are 32% compared to 27% in engineering and 26% in the life sciences.

The oft-cited factors that influence the time to completion and the retention rates are varied: discipline specificity, institutional characteristics, availability of financial aid, quality of advising, clarity of program requirements, quality of family life, job prospects, lack of community, etc.

None of the studies we consulted has specifically considered the role of the library, even though it is often characterized as the humanist's equivalent to the scientific laboratory.

Our collaborative study (which received external funding from Council on Library and Information Resources and the Delmas Foundation) consisted of focus groups and interviews with graduate students in the humanities at both Cornell and Columbia. We investigated whether the library could positively impact the completion and retention rates in doctoral work in the humanities, and specific strategies it might employ. Our research questions included:

- At what points in their programs are graduate students in the humanities particularly vulnerable and can the library intervene during those crucial moments to offer graduate students useful services or spaces?
- How does regular use of library services and collections impact attrition and completion rates?
- Which library services could be envisioned as part of an intervention strategy to reverse these trends? How would such intervention be implemented and measured? What potential partnerships with other campus entities might be beneficial?
- How can the library re-conceive its physical space to provide graduate students from across disciplines with an intellectual sense of community?

Our paper will describe the methods and results of our joint study.

Library Quality, Measures and Metrics in Greece: The Role of TQMU (MOPAB)

Dr. George Zachos

Abstract: The present and future activities of Total Quality Management Unit of Greek Academic Libraries (TQMU or MOPAB in Greek) will be given on this presentation.

Quality measures were unknown to Greek Academic Libraries until the previous decade. Hellenic Statistical Authority (EL.STAT.) for years collected statistical data on Libraries. However, the questionnaires it uses mainly focus on the library branches, the education of the library staff and collections.

TQMU is established by the consortium of Greek Academic Libraries ([Hellenic Academic Libraries Link - HEALLINK](#)). One of its main objectives is the collection, analysis, interpretation and dissemination of statistical data concerning the Greek Academic Libraries in a standardized way using its own questionnaire, which is based on the ISO 2789 standard International Library Statistics (2003) and the ISO 11620 (Library Performance Indicators). In order to facilitate the collection and interpretation procedures of statistical data, TQMU created a database, through which all

Greek Academic Libraries complete every year TQMU's statistical questionnaire. The data is validated, analyzed and shown on the web.

MOPAB uses performance measurement procedures and implements quality management rules to the Greek Academic Libraries. It analyses statistical data and has created a thematic portal that offers electronic access to information related to statistical data for the Greek Academic Libraries, methods of data analysis,

A specific number of Performance Indicators have been set up for the evaluation of the Greek Academic Libraries. Starting from the year 2004 the annual reports of MOPAB are based on these Performance Indicators. Nowadays, Total Quality Management Unit is the first and only service in Greece that has created and uses performance indicators for the Greek Academic Libraries. Moreover, the use of new technologies in the Academic Libraries has created the need of new measures of assessment of provided services. Thus, the unit renewed its questionnaire and has already included e-metrics in its annual surveys in order to assess electronic sources and services of Libraries. Furthermore, it has started User Satisfaction Electronic Surveys that are to be expanded in other Academic Libraries that have shown interest in such surveys. MOPAB has also adjusted the Common Assessment Framework to the standards of Greek Academic Libraries and will apply it to the University of Ioannina Central Library. The Unit publishes guides about Total Quality Management in Greek Academic Libraries and annual surveys on the average price of greek books etc.

Library Use and the Rank-Size Law: the Case of a Public University in Brazil

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Abstract: In graphic terms the Law of Rank-Size (LRS) simply states the log-linear form of the curve that relates any size variable to the respective ranks, when observed units are increasingly ordered. In algebraic terms this means that the product of rank times size is (essentially) constant. This Law and some of its variants have a long history in Mathematics and Statistics, as well as have brought about several applications in many other subject areas. In his textbook on quantitative methods in Library Science, while acknowledging some common features between the three basic bibliometric laws – namely, Lotka, Zipf and Bradford - Ravichandra Rao also mentioned their links and relationships to the LRS. However when he later examined previous work on library use and circulation data, in the fifth section (§§ 5.2 and 5.3), there is no further mention to the LRS.

The objective of this paper is to provide an empirical test of the LRS with respect to four (size) variables – User Registers; User Traffic; Consultations and Loans – that are related to either library use or to circulation data.

Secondary data available at the library system database were collected for a convenience sample of libraries pertaining to a public university in Rio de Janeiro, Brazil. The time period includes the eight years between 2000 and 2007.

Data were analysed via regression analysis by means of uniequational model specifications. To keep the exercise simple only zipfian or quasi-zipfian functional forms have been tested, so that non-unity exponents are absent in both the size and the rank variables. Following Gabaix and Ibragimov (2006), we use their correction in the dependent variable (rank) to improve the OLS estimation.

Results largely show that the LRS holds (approximately) true for the sampled system of libraries, both in individual years and along the whole period. Tentative interpretation of our findings in terms of substantive evolution will be offered.

Keywords: Law of rank-size, library use, circulation data, academic libraries – Brazil, linear regression

Maieutics as a specific form of information literacy in infobrokering

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Abstract: By the allusion to the Socratic art of revealing someone's inner knowledge and scrutinizing its gaps, maieutics is defined in this article as the dialogic art that infobrokers should use in order to easily and painlessly deliver the information need of their clients. It is argued that the task of identifying the client's actual information need requires from infobrokers to master a complex set of conversational rules that enable them to skillfully steer the dialogue and to defuse the cognitive and emotional tension which is inherent to it. In fact, following the French philosopher Michel de Certeau, the author assumes that, from the client's viewpoint, the first contact with infobrokering professional is always, although unconsciously, perceived as a confrontation or a sort of rivalry. Thus, the specific infobroker's conversational competence should include three crucial abilities, i.e. (1) the ability to assess and interpret client's verbal behaviour in terms of unconscious attempt to gain a position of power, (2) the ability to avoid any counterproductive speech act which might disrupt the dialogical exchange and diminish the client's confidence, (3) the ability to extract, from client's speech, all implicit or hidden content relevant to his information need. The aim of the methodological project exposed in this article is to introduce a new component to the core competences forming infobrokers' information /

communication literacy, i.e. (1) to formulate a global set of maieutic rules for infobrokering professionals, using the assets of conversation analysis (CA), speech acts theory and conversational grammar, (2) to submit a proposal of long-lasting empirical research program based on linguistic analyses of authentic verbal exchanges between infobrokers and their clients.

Keywords: Maieutics, infobrokering, information literacy, dialogue, conversational competency

Management methods, Operating Practices and Information Technologies in Archives and Libraries

Eleni Mamma

Abstract: The cultural heritage organizations like libraries and archives face new challenges in a period of difficult public financing and increased importance for the promotion of their usefulness and their services provided in the society. In particular, they need to find new ways to define and deal with the cost from the introduction of new services. In this framework, they focus even closer on the dispersion of an approach of the collection, where the end user or the visitor is the centre, looking for developing more effective ways in the internal resource and funds management and the providing of better services and values addressed to their audience.

In addition, the Communication and Information Technologies become more and more essential to the culture heritage foundations. The use of Communication and Information Technologies to organizations is identified as an important lever for the improvement of resources and funds management. The information systems can help rationalize and improve all the aspects of the relations between organizations in their core and in their contacts with external bodies, as modern organizations function in the framework of a networked information society.

Furthermore, libraries and archives dispose central sending which focuses on the care and use of their collections in favour of the final users. In order to achieve the best use of information technologies and to take advantage of the opportunities offered, effective ways of providing and installing the necessary technological infrastructure and services need to be searched. It is vital that new ways of cooperation and integration through the larger operational and technical environment (for example, the government with other cultural heritage organizations and technology providers) are inaugurated.

The main aim of the paper is to spotlight the human centred role and the development of new services in cultural heritage institutions through the use of practices and the cooperation of new communication and information technologies, which consist one of the most important planning methods for the archive' and library' communities in the bosom of knowledge management.

Merging publishers' and libraries' institutional interests through business modelling

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Abstract: This paper describes the outcomes of business modelling research negotiations employed during the initial negotiations between Flemish publishers and librarians, and introduces the process of public-private 'procurement of innovation'. Through the use of business modelling methodology, a compromise is introduced between the contrasting institutional interests of private publishers and public libraries.

1. Introduction

This paper describes the results of strategic industry-level business modelling workshops with representatives from the library sector and the book publishing industry. The aim was to merge the specific institutional interests of book publishers as private, profit-oriented actors with those of the public libraries as public-value oriented actors into a common business framework for a Flemish E-book platform. Since the end-services libraries and publishers offer to customers are inherently different, the platform comprises of different distribution channels, each with unique service, financial and technical design characteristics.

Interactive workshops with key decision makers from both industries produced a detailed value network depicting a) business roles, b) business actors, c) services delivered, and d) financial values exchanged. Value network analysis is a generally accepted technique from organization science, the roots of which can be traced back to Porters value chains (Porter 1980), combined with the more recent insights from the schools of Industrial Organisation and Resource Based Management (Normann & Ramirez 1993, Stabell & Fjeldstad 1998). Christensen (1997) defines a value network as "the context in which an organization identifies the needs of the customer, and responds to these needs by means of problem solving decisions, through the purchase of resources, by reacting on competitors, and by striving for profits."

Additionally, three other design dimensions were expanded. Firstly, service design characteristics described the specific characteristics of the envisioned services. Secondly, financial design characteristics inferred the different payment formulas from the service design choices. Thirdly, the technical design requirements were deduced. These steps follow the business modelling methodology, as expanded by Ballon (2005).

The E-book platform will serve as a go-between that receives all full-text e-books from publishers, and then distributes these to bookstores or libraries at its front-end via five different sub-collections: a separate collection for a) borrowing books to library visitors, b) renting out books to paying customers, c) selling books, d) browsing full-text books and e) browsing fragments of

books. Each sub-collection implies unique service design properties and financial design characteristics. The platform acts as a clearing house, keeping precise statistics of how many and at what frequency books are borrowed or browsed by library visitors, and how many books are hired, bought or browsed by book store visitors. The dynamics of two-sided markets and platform economics are taken into account (Rochet & Tirole 2003, Parker & Van Alstyne 2005).

Based on these outcomes, a process of 'procurement of innovation' was initiated, a demand driven tool that attempts to bring companies and government together to cooperate on innovative solutions for major societal challenges.

Keywords: Business modelling, public-private cooperation, e-books, digital libraries, digital publishing

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Methodological Issues in Evaluating Digital Reference Services: an introspection

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Abstract: In the last one decade the most interesting and interactive service which has been implemented and being practiced in different forms and formats in the libraries, is the digital reference service. Guidelines of IFLA and RUSA, protocol (NISO TR04-2006) and standard (ANSI/NISO Z39.7-

2004) have covered the different aspects for the better implementation of this service. Substantially good number of literatures have also been published which addressed issues like the question taxonomies, effects of librarians' behavioural performance on user satisfaction, evaluation of the services provided, etc. Several methods like, unobtrusive evaluation, evaluability assessment, statistical analysis of data collected through questionnaires, etc. were applied for such studies. This article intends to review such literature, introspect and explore the possibilities of implementing more grounded methods so that more contexts related outcomes can be derived which will eventually help to develop less human intermediate quality digital reference service.

Keywords: Digital reference service, virtual reference service, grounded methods, NISO-TR04-2006, research methodology, library services

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Model and scale for libraries: CMML and CMML-CS

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Abstract: Change management, while having a structure that is suitable to be adapted to all kinds of institutions, does not have the character of a standard process. For this reason, it is necessary that each institution adapt the process to its own structural characteristics and areas of activity, and manage it accordingly. Thus it is necessary that this management process is realised within a definite framework which will take into consideration the dynamics that trigger change during the period in which this change takes place.

The change model set out for libraries is known as the CMML. The CMML consists of 5 main components, 17 sub-components, 31 factors and 235 criteria. The components of the CMML have been awarded points, with a total of 1,000 points. The points to be awarded to each component have been awarded by taking into consideration sub-components, factors and criteria. When awarding points to the criteria, two separate surveys, collected from users, who are students and academics, and information forms collected from library personnel, as well as points awarded by experts are all taken into account as the scale of competency. The scale of change management competency analysis, known as CMML-CS, is one that supports the CMML components. In this way, the components that make up the model allow one to examine the factors and criteria that will serve as a scale for analysis. With the CMML and CMML-CS it is then possible to determine what the level of change in the following of a library is and this determination can show any weaknesses in that library.

Keywords: Change, change management, library, model, CMML

A model for a library-management toolbox: data warehousing as a tool for filtering and analyzing statistical information from multiple sources

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Abstract: The quality management, as well as, the evidence based ideology has affected the library management at least from the beginning of the 1990's. They both emphasize the importance of fact based decision making. The libraries have a long history in the statistical data collection based on international agreements and standards. Although there is a lot of data available from the libraries, perhaps this data collected has not been utilized as effectively as possible.

Thus the traditional way of showing library's results has been statistically oriented: the more you have - in terms of books, journals, premises, etc. - the better you are. This rhetoric is changing towards the need for effectiveness, cooperation and allocating resources to top-level research and their strategic focus areas. Today it is not enough for the library to show how much it has resources or how they are used, one must also be able to show that this investment and use of the resources acquired produce better results in research and education in the university and that these services are provided in an efficient manner.

This paper discusses the possibilities of combining different types of statistical data in order to show the efficiency of the work libraries do and what possible impact they have in their parent organizations. Here the concept of datawarehousing is used as a tool for joining different types of statistical data in the analysis.

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Modeling and simulation of digital repositories, terms of implementation of effective management tools in modern libraries

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Abstract: The paper is dealing with a new modelling method of a digital repository, similar to an electric transformer. At the same time, the new notion of information transformer is defined for the conceptual model of digital repository. Based on the analogy suggested, it is studied the penetration and distribution of digital information into the digital repository similarly to penetration and distribution of an overvoltage of atmospheric origin (Ghz frequency order waves) along an electric transformer coil. The study is performed considering both the case when there are no users and the case when there are such users connected to the exit gate of the digital repository.

It is suggested an effective information management method within the digital repository based on this model.

Keywords: Digital repositories, modeling, management of digital repositories

Necessity of public library in Muslim community: Islamic perspective

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Abstract: Public library is a very much essential institution for any society. The Muslim community is lagging far behind in this respect. Other nations are much advanced in their relations with public libraries. The developed countries have given much importance to the developments of their libraries which in turn enriched their nations and helped them reach the peak of glory. If we look at the developed countries we find that they have established public libraries within a kilometer. If the Muslim countries and societies follow this model, no doubt, there will come a radical change in the arena of knowledge and learning in Muslim community which will play a vital role in their overall development and will help them regain their lost glory.

Keywords: Library, Islamic mission and responsible society

Open Educational Resources for Indian urban schools: An Action Research Approach

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Abstract: After being around for a decade now, Open educational resources are here to stay. They are seen as the answer for ever increasing demand in the higher education. This study tries to apply the advantages of OER in urban low cost school in India. This study concentrates on the action research

method and hence an OER online course is developed for teachers. This course is carried on these teachers and then they are given some assignments to develop a lesson plan using the help of any OER. The final step of the study is to evaluate the lesson plans and then have a focus group discussion with the teachers to learn if this adaptability method has helped them and will this method work for schools in India.

Keywords: Open Educational Resources, adaptability, India, urban low cost schools

Open to all? Researchers' engagement with open working and web 2.0

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Abstract: Traditionally, researchers have shared their findings at the end of a research project through publication in an academic journal or presentation at a conference. In recent years, however, researchers have begun to share earlier phases of their work, including processes, data and initial findings. This is prompted in part by an increased interest in openness in research, and in part by the new web 2.0 technologies which make communication easier. This presentation will explore the findings of two recent pieces of research which investigate the extent of, and motivations for, openness and web 2.0 usage within the academic community, considering the implications of these changes for librarians and library services. It will also evaluate the efficacy of the research methods employed for the projects.

The two research projects to be presented are a survey of researchers' use of web 2.0 tools, supplemented by interviews (RIN, 2010a) and a set of six case studies in open research (RIN, 2010b). Both reports suggest that, while some researchers have adopted these new working methods with enthusiasm, others remain to be convinced. Even the most enthusiastic open researchers and users of web 2.0 are not able to integrate these techniques and methods into every area of their working lives. The degree of engagement appears to be correlated with the level of support that is offered by institutions and research teams, and there is a clear role for librarians in encouraging use of these new approaches. Librarians can also act as guides for researchers who are unclear on how to apply open approaches to their work, and unaware of how these approaches could affect their work (for example, via the UK Freedom of Information Act).

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On The Feasibility Of A Flemish Horizontal Aggregator For Cultural Heritage

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Abstract: Libraries, museums, archives: what is the difference between these types of institutions in a digital environment? The boundaries between institutions seem to become blurred and new possibilities to link data and metadata with different roots emerge. In theory, all digital heritage objects become ‘equal’ as they are being processed and displayed in a similar way. However, in practice, differences between objects, texts, documents, immaterial heritage remain and it is a major challenge to make cross-references. Therefore, the need for cross-sector metadata aggregators is growing. In the European context, the Europeana project acts like a catalyst for initiating national aggregator platforms for cultural heritage. However, organising a national, horizontal aggregator that links metadata of libraries, museums and archives is a non-trivial task. In a digital world the convergence between these different cultural heritage institutions and cultural heritage objects might theoretically be occurring, the question remains whether it can actually be successfully accomplished taking into account technological issues on the one hand and more in particular organisational and political issues on the other?

We tried to find answers to these questions in a feasibility study focusing on the opportunities, conditions and operating procedures of a horizontal or cross sectoral metadata aggregator for cultural heritage in Flanders (Belgium). In this study, we addressed four subjects. The first investigated the desirability of a Flemish aggregator, which will publish the content to the Europeana platform. Next to this, the study looked at how this aggregator could be organized in a sustainable manner, paying special attention to the question of cross-sector exchange of metadata and the political issues involved. Next to this we looked at the organization of this aggregator (in terms of infrastructure, resources, staff, etc), the financial aspects (potential revenue models), and the legal framework for this aggregator. A third topic of the study focused on the societal and economic valorization of the aggregator and on possible target audiences. Finally, we researched how this platform can be organized technically, which resulted in an extensible metadata harvester which aggregates, preserves and exchanges metadata of digital or digitised objects coming from a wide range of heritage databases. This aggregation is based on international standards and the harvester itself is open for external harvesting, in the first place by the Europeana platform. The aggregator will also deliver sustainable pointers to the

digital objects in the original database of the content provider, which will also increase the visibility of the content provider, especially in the case of Europeana.

At the organizational level we concluded that an aggregator can only succeed when policy makers at different policy levels in Flanders will support the initiative in terms of structures and subsidies. A strong project management is necessary to invest in dialogue between different cultural heritage sectors and individual institutions to reach a consensus on the preferable metadata model, standards, thesauri and the balance between large and small institutions. Finally an aggregator might be feasible at a technical level, but we have serious doubts that a convergence of institutions will ever really occur because of the difficulties of cross-sector cooperation.

Keywords: Aggregator, cross-sector, digital cultural heritage, Europeana, feasibility, Flanders

On the role of research deputies in the development of the academic libraries in the seventh region branches of the Islamic Azad University

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Abstract: The present research has been done by a descriptive survey method. The main purpose of the study is to study the role of the research deputies in development of libraries and information centers in the seventh region branches of the Islamic Azad University. Research population includes 22 research deputies of Islamic Azad University. In order to gather the required information a questionnaire with 31 questions was compiled by the researcher and it was sent to the research deputies.

The collected data have been analyzed using SPSS software. The results of the research show that about 80 percent of the research deputies have expressed their levels of understanding of library are high. The majority of the research deputies have two years back ground in their jobs which are not good enough for their responsibilities. All research deputies have expressed that they have necessary cooperation with the persons in charge of the libraries.

Keywords: Islamic Azad University, research deputies, libraries, information centers

Organization of access to the content of an encyclopedia

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Abstract: Encyclopaedias, despite their long presence in history, are still a useful tool towards general information retrieval. The paper in hand presents the methods of organization of access to the content of 3 widely used encyclopaedias; Encyclopedia Britannica, MedlinePlus and Wikipedia (English version). Despite the huge changes that have occurred by the transition from printed encyclopaedias to online ones, there is still the option of alphabetical browsing. However, the methods used by each encyclopaedia depend on its proprietary status. The growth of wiki-based encyclopaedias combined with the shrinkage of encyclopaedia market, have led (on behalf of publishers) to the adoption of less sophisticated organization techniques. If that is not the case, then proprietary status does not allow access to system's backbone encumbering research and causing lack of literature. This paper explores best practices used by the three encyclopedias above.

Keywords: Encyclopedia, content access, Britannica, MedlinePlus, Wikipedia, organization, semantics

Paradigms Shift of Library and Information Research in Taiwan

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Abstract: Bringing high quality information services to users is the core value of library professions. The core value draws attention of professionals from both practitioner and academic sites to invest efforts into researches to better understand the users and find more effective alternatives to provide information services. Besides the informal communications and invisible community, the practitioners and researchers tend to disseminate research results by publishing works in-print or online. The publications become valuable sources for the new comers to learn what happened in the past and for the strategic planners to foresee what should be done in the future.

In this study the author reviews 1,387 articles issued in the top four Library and Information Research Journals published in Taiwan, Journal of Library and Information Science Research, Journal of Library and Information Studies, Journal of Library & Information Science and Journal of Educational Media & Library Sciences, during the period from 1991 to 2010 to reveal the change of research paradigms over the last 20 years. The author takes bibliometrics approach to reveal the growth of publications, distributions of productivity of authors and research topics. Further investigation is achieved to enclose the theories and methodologies used in the researches. Based on the understandings of those issues, the author is able to draw a research map

of Library and Information Science Researches in Taiwan for the last two decades and to learn how the research paradigms shift over those years. The preliminary results show that “User Behavior”, “Information Literacy”, and “Information Retrieval” are the hot topics for researchers. With the development of information technologies, the scope of the discussion is expanded from local to cyberspace, and more researchers from the fields of “Information Management” and “Computer Science” devote to the Library and Information Studies and try to discuss the issues from different perspectives.

Keywords: Research paradigms, library and information researches

Performance and quality indicators in Bibliosan, the Italian Biomedical Research library network

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Abstract: Since the year 2006, the System Bibliosan reunites all fifty-six libraries of biomedical research institutions sponsored by the Ministry of Health.

Its aim is to create the ideal conditions for the condivision and the efficient distribution of scientific information among its researchers, through a politics of consortile acquisitions of on-line resources and a well-governed InterLibrary Loan (ILL) system.

Thanks to Ministerial funds, as of today, Bibliosan gives more than five-thousand journals on-line, a package of data bases and resources and computer science tools for ease in accessing scientific information on-line (such as Linksolver, Remote access tools, etc), available for its researchers.

According to the rules accepted by all the institutions involved, the standard criteria and qualifications enabling cooperation hence condivision and diffusion of bibliografic references have been settled. Essential components of this are: the presence of qualified personnel, of resources and instrumentation, the presence of a joint catalogue of journals in each library and the utilization of an Interlibrary Loan (ILL) system with a common denominator for all.

Each library has been asked to specifically comply to a qualitative standard based on minimum levels of performance. The inspection of the latter has symbolized the beginning of a control system on the institutions' activities, with the creation of an Evaluation Nucleus. The Nucleus employs an explicit database to survey catalogue data and its revision, the quantity of exchange between institutions, the means of document delivery and its answer time. The monitoring of the number of registered end-users for each library and the

ILL traffic thus created forms a good indicator for that same library's efficiency.

Taken as a whole, these data allow each library to be acquainted with the knowledge on how able it has been to satisfy, both qualitatively and quantitatively, the needs of information of the end-users within its institution, hence making it possible to ameliorate and increase in approachability thus confirming its strategic role in research activity and health-care treatment.

Data collected routinely by the Evaluation Nucleus, carefully prepared indicators and differences with the Regulations, are forwarded to the Ministry of Health and to the Scientific Directors of each institution allowing the analysis in time, of the evolution of Bibliosan and the consideration of appropriate corrections in view of a better operativeness. In this work the indicators used and the main results obtained through their observation and monitoring in time are described.

Keywords: Bibliosan, library, library performance

The perceived usefulness of Activity Based Costing (ABC) information in a non-profit multi-campus university system: a case of Universiti Teknologi MARA (UITM)

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Abstract: The study was motivated primarily by the notable void in the management accounting literature with respect to the application of contemporary cost management techniques, i.e., Activity Based Costing (ABC), to a nonprofits, service-oriented and higher education institutions settings. The purpose of this study is to develop a theoretical benchmark that can be used to evaluate competing cost assignment systems in Malaysian Public Higher Education Institutions (MPHEI). It intended to (i) develop the ABC model for the Universiti Teknologi MARA (UiTM), and, (ii) to examine the factors that may influence the the perceived usefulness of ABC information. An important element of this study is to consider the extent of the institution's Campus Type and Stakeholders as unique contextual factors in this setting. The relationship between the campus types and Stakeholders and the perceived usefulness of ABC information and the contribution of these factors to explain the perceived usefulness of ABC information are of key interest of the researcher.

This study utilized a mixed methods approach with the quantitative as the dominant approach, and treated the qualitative approach to complement and explain the why part. Using the professional software, ABM-SAS, the actual expenses figures of education Bachelor's of Accountancy (BAcc) in the year

2004 was used to develop ABC Model. In the second phase, the data collected using survey questionnaire to 153 respondents across twelve branch campuses including the main campus at Shah Alam, Selangor. This was followed by the post survey interviews with twelve selected personnel using a semi-structured interview.

The ABC Model showed lower cost (RM 10,777.11) as compared to the traditional (current) method (RM 15,302.54). The statistical analysis indicated that the respondents perceived of higher functionality and overall usefulness of costing information produced by the ABC system as compared to the traditional system. Furthermore, several environmental factors were associated with the perceived usefulness of ABC information in other settings, were also found to be significant in this setting. Other than that, there are positive relationship between the value for Distance Learning and perceived usefulness of costing information.

Two unique factors in the present study (namely Campus Types and Stakeholders) shown mixed results. The Campus Type had not shown any significant impact on the model ability to predict quality, functionality and overall usefulness of ABC information, the other factor, i.e., Stakeholders do bring some effect to predict the functionality of the ABC information. These findings were further confirmed by the interviews result in which they strongly agreed that the different Campus Type has led to different cost structure. The quantitative and qualitative findings support the argument on the Stakeholder affect on the functionality of the ABC information.

Keywords: Management accounting, New Public Management, Activity Based Costing, Multi-campus University system, mixed method

Performance management system as a strategy to maximize professional results

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Abstract: The current dynamics of information environment progress includes one certainty: that *tomorrow* will be an exciting day just like *today*. The organizational environment of the library requires the acceptance of a constant, rapid and random change. In this context, each library, regardless of its type, must take into account the contribution of each employee's performance to long-term success of the institution.

We can consider the success of the library in the outside depends on obtaining success on the inside, success being defined as obtaining the approval of all employees towards the goals and achieving them. This process can be difficult because of the large diversity of job positions in the

library, determined by the development of services offered to users and the large number of information resources.

The paper's purpose is the introduction/adaptation of terminology and *performance management* (PM) concept in library-like institutions, the presentation of the fundamental principles of PM, process followed by the description of the applicable system for libraries and the cycle of this system. In order to exceed theory limitations, the paper brings *a proposition for a way of implementing PM system* in a university library. Finally, key-factors and the advantages of system implementation in this kind of organisational structure are highlighted.

The practical approach is completed by a demonstration of the way of employees' evaluation, based on the suggested form (MS Excel), which includes employee's personal data, the evaluation of aspects that define performance (performance criteria and competences), setting the performance level for that employee, stressing his/her strong points, but also the areas where the performance must be perfected, development of a personal progress plan and other specifications (setting the performance indicators for the next period of time, the data for intermediate and annual evaluation, revising the goals etc.)

PM focuses on *here* and *now*. It is a precise scientific approach, which showed that it works and can be applied in a library.

If the suggested PM system fulfils all the imposed requirements, then success is possible. And even if it will not be easy, it is worth trying. It is worth trying for the reason that once correctly implemented, the performance management has a high contribution on the organisation's success. And vice-versa.

Keywords: Performance management, university library, library assesment, performance evaluation

Polish-Norwegian cooperation on strategies for regional libraries

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Abstract: What kind of challenges do the library environment face in Poland and Norway? What is the legal framework of their work? Why do libraries need a strategy? How to build it through participative management? How can and do library strategies interweave with national strategic thinking? These and other questions were discussed by participants, guests and experts of the project *Libraries in the knowledge society - Strategies for the future*.

Keywords: International cooperation, regional libraries, strategy development, management, library policy

Prepare to quality estimation of the certain library department work

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Abstract: Early our works were described the formulation problem and librarian processes technological maps built. In this work it will observe self estimate approach of certain library department.

To attain the aim it were selected quality factors and scaled it.

General quality factors suggested by R. Poll and P. Boekhorst are very general and allowed to estimate library work in general. Using such factors to estimate separate library departments is very difficult.

The quality factors to estimate the certain library department were defined using brain storm method. Using this method it's were defined 48 factors characterizing quality of certain library department work. Analyzing Ishikawa's diagram from 48 quality factors its were selected 12 the more main ones. These factors were allowed to make self estimation of the quality of certain library department work.

To estimate the quality of certain library department work we must made measurement scales. Next step is designed forms for data collection, analyzed methods of existing data mining and selected the best ones.

Preparing a Library Organization for Successful Accreditation

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Abstract: The presentation "Preparing a Library Organization for Successful Accreditation" describes the qualitative and quantitative assessment process the Maritime College Library, of the State University of New York (SUNY) is conducting to meet the requirements of the Middle States Commission on Higher Education. The Middle States Commission on Higher Education is the unit of Colleges and Schools in the United States that accredits degree-granting colleges and universities specifically in the Middle States region in the United States. The study demonstrates how the SUNY Maritime College Library delivers services, as one of the major learning and resource support centers of the College, which specific emphasis on information literacy skills. These skills relate to a student's competency in acquiring and processing information in the search for understanding, and whether that information is sought in or through the facilities of a library. In addition, the study addresses

collaboration among professional library staff, faculty, and administrators in fostering information literacy and technological competency skills across the curriculum.

Keywords: Information literacy, assessment, middle states commission for higher education accreditation

Preservation of Knowledge through Digitisation: a case study of Banaras Hindu University

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Abstract: India has a rich tradition of intellectual inquiry, and a textual heritage that goes back to several hundreds of years. India was magnificently advanced in intellectual activity during the ancient and medieval times. The intellectual achievements of Indian culture scattered across several fields of study in ancient Indian texts ranging from the Vedas and the Upanishads to a whole range of scriptural, gnostic, scientific and artistic sources. In India, there is wide variety and multiplicity of thoughts, languages, life styles and scientific, artistic and philosophical perceptions. The rich classical and regional languages of India, which are repositories of much of the ancient wisdom, emerge from the large stock of the shared wealth of a collective folklore imagination. In ancient India, the development of the six traditional branches of knowledge (Vedanga-s), and gradually other scientific disciplines like arithmetic, algebra, astronomy, medicine, chemistry, biology, astrology, logic and grammar are the result of painstaking, accurate observation of natural phenomena. A tradition like India that saw knowledge (Janana) as the only real wealth (dhana) can now legitimately take some pride in the fact that the world has come to recognize knowledge as the key resource for change—it has overtaken other factors of production like land, labour and capital as people talk today of a knowledge economy, or more appropriately, a knowledge society.

For centuries, the knowledge systems in India were passed down from generation to generation through schools called gurukula-s ("family of the guru") and transmitted entirely from mouth to ear in an unbroken oral tradition. Gradually, they came to be written down on different materials such as stones, copper plates, birch bark, palm leaves, parchments and paper. Even after the texts started to be written down, the oral teaching continued to be the means employed for the learning of the Vedas. The treasure of the wisdom containing the ancient knowledge systems has come down to us in the form of manuscripts. Composed in different Indian languages, these manuscripts are spread all over the country in different institutions, libraries, mutts, monasteries, temples and in several private collections spread across

the country. In fact, India has possibly the oldest and the largest collection of manuscripts anywhere in the world. However, India has possibly lost a vast amount of this wealth.

In this paper, the author emphasises on the process of preservation of manuscripts through digitations and dissemination of information in digital form to the end user. This paper presents a practical experience to digitize the manuscripts collection of Sayaji Rao Gaekwad Library (Central Library) Banaras Hindu University, Varanasi, India.

Keywords: Preservation, digitisation, manuscripts

The Quadripolar Method and information literacy research: the [elit.pt](#) project

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Abstract. Proposed in 1974 in a book published by the Presses Universitaires de France (PUF), and written by a professor at the University of Louvain, Paul De Bruyne, and two lecturers, Jacques Herman and Marc De Schoutheete, the *Dynamique de la recherche en sciences sociales: les poles de la pratique methodologique* was a very valuable initiative. It, in fact, enabled a balanced response to the epistemological possibilities of science to be constructed within the social sciences, free of the impractical influence of the principles of objectivity and experimental practice prevailing in the natural or hard sciences. It was a meretricious initiative, but one which was, incomprehensibly, condemned to obscurity and even scorn. Yet, since there are no rules without exceptions, the book was eventually translated into (Brazilian) Portuguese in 1991 and, more recently, in 2007. Two Brazilian professors constructed their proposal for a *Metodologia da Investigação Científica para Ciências Sociais Aplicadas* (scientific research methodology for the applied social sciences) on the basis of a polar perspective for research, only altering, unnecessarily, the number of poles (presenting six instead of the original four). In 1999, following a quadripolar scheme and logic, the authors of *Arquivística: teoria e prática de uma ciência da informação* introduced the Belgians' proposal into the debate and launched the quadripolar method as an archives method. Three years later, another book appeared *Das "Ciências Documentais" à Ciência da Informação: ensaio epistemológico para um modelo curricular* (2002) in which the quadripolar method was specifically integrated into the "emerging construct" of transdisciplinary information science which was being developed and tested at the University of Porto (Portugal).

This paper aims to demonstrate how the aforementioned method has been put into practice and how it has helped produce a model (eLit.pt) based on the results obtained from the research project *A Literacia Informacional no Espaço Europeu do Ensino Superior: Estudo das Competências da*

Informação em Portugal (Information literacy in higher education in Europe: a study of information skills in Portugal) (*eLit.pt*) (2007-2010), financed entirely by the *Fundação para a Ciência e Tecnologia de Portugal* (Portuguese Foundation for Science and Technology). This approach has helped ensure that the complexity of the method can be discussed within the field of Information Science without the usual reductionist formalisms, which are no more than distorted applications reflecting the human and social problems of methodological concepts created and designed within the universe of the exact and natural sciences.

Keywords: Quadripolar Method; social sciences research; information literacy; eLit.pt model

Qualitative and Quantitative Analysis of Practical Training Courses In Public Universities On The Basis Of Teachers and Students' Viewpoints

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Abstract: In this study, the viewpoints of university teachers and students of practical training courses about the quantity of these courses, in six more experienced State universities in teaching library science were studied. The students of these universities selected randomly and the intended questionnaires were distributed. Due to limited number of faculty members teaching staff intended for research universities were considered. After receiving the questionnaires, to analyze data Ferrule inferential statistics and Chi Square were used in the article, research findings are presented.

Key words: practical training ,university teacher, practicum

The qualitative evaluation of Social online networking service in library by Critical System Heuristics (CSH): A case study

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Abstract: Libraries can to provide numerous servicing opportunities to users on the use of Web 2.0 technology in promoting library services. In the interactive Web 2.0 environment; Online Social Networking (OSN) took hold. Purpose of this study is to discuss on the impact of social software and OSN on library services by the qualitative evaluation method. This study reviews literatures on the concepts of Web 2.0, library 2.0, Social software in libraries, OSN, Critical System Heuristics (CSH). Then evaluate using Facebook as a Web 2.0 technology tools by a framework that was introduced by Werner Ulrich in 1983 under name of CSH. The measurement of library services always is not possible by quantitative methods. Therefore this study

introduces and uses a qualitative method to measure the evaluation of social online networking services in library.

Keywords: Web2.0, library2.0, social software in libraries, Online Social Networking (OSN), Critical System Heuristics (CSH)

Quality and quantity of library practicum in state universities: An opinion survey of students and instructors of library practical courses

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Abstract: The present investigation intends to survey the opinion of students and instructors of practical courses toward the quantity of practicum in six state universities (include: Isfahan, Tehran, and Ahwaz. Shiraz, Tabriz and Meshad), which had a remarkable experience in library science taught courses.

The students of the mentioned universities were distributed among them. Because of the limited number of faculty members, all teaching personnel of the universities were considered in the investigation. Following the receipt of questionnaires inferential statistics and K Squers) formulas were used to analysis the data. The present paper focuses on the finding

Key words: Quantity practicum-universities Iranian – quality practicum

Quality Assessment of Electronic Information Services in Tezpur University Central Library in North-East, India

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Abstract: The academic libraries are confronted with three major types of challenges such as, (i) globalization of information due to Internet and (ii) increasing competition service quality and manifold information need of the users due to multidisciplinary research and these have become vital elements and challenging task for the librarians and information center managers to provide qualitative services. To improve the quality in libraries and information centers management attitudes are effectively focused and this approach calls for an assessment process that requires being highly customer-focused, engaging enriching and multidimensional. Among different models to measure the quality of library services, SERVQUAL (Serve Quality) Model primarily focuses on the consumer perception of service quality. Quality service determination through e-resources such as, variety of different publishing models, including online databases, sources from web

pages, OPACs, e-journal articles, e-books, e-reports, e-databases, internet sources, print-on-demand (POD), electronic personal papers, e-mail messages, newsgroup postings, newsletters, government publications, electronic theses and dissertations, e-newspapers, CDs/DVDs has become a positive parameter in library and information centers. The paper discusses on the quality assessment of electronic information services through a gamut of e-resources pertaining to Tezpur Central University in North-East, India along with its problems and prospects of quality of services.

Keywords: Quality assessment, SERVQUAL model, e-resources

Quantifying Interdisciplinarity: Connections at Illinois

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Abstract: Global problems require global solutions. Global solutions cannot be developed looking at a narrow set of disciplines, rather the concept of interdisciplinarity must become predominant in the area of problem-solving for successful policy development to treat the problems we are currently facing. Recent publications on the topic of interdisciplinary studies argue that we are seeing a type of expansion in these areas of research. What are interdisciplinary studies? Are they really becoming more common in academia? What tools can we use to determine whether scholars from disparate disciplines are working with one another? This paper explores several methods by which the librarian and information scientist can assess the growth of interdisciplinary studies, both at their institutions and in the academy as a whole. We will explore several recent studies in the area and introduce tools that we are using to determine who is publishing where and with whom to better understand the evolution of interdisciplinary studies.

Keywords: Globalization, problem-solving, interdisciplinary studies, Bibapps, visualization

Quantitative and qualitative measurements of user experience in interaction with library websites

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Abstract: Following current trends libraries are transforming their services in order to responding to the 21 century user needs. Questions on design and development of the website and its content can be analyzed from two aspects – of creators and users. Paper examines usability of web sites for children and youth. As part of the university course *Libraries for youth* at the Department

of Information Sciences, Faculty of Humanities and Social Sciences, University of Zagreb students were given tasks to research usage of library websites as part of their research coursework. Qualitative measurement of user experience during the interaction with product (i.e. website) is done in order to answer questions on visibility, organization, design, logical information architecture, site navigation, easiness of use and content usage/re-usage. In evaluation of interface usability parameters set by Large, A et al. (2004) were used. Furthermore, quantitative parameters such as time, speed, quantity as well as number of user errors were combined with qualitative aspects such as user satisfaction. Goal of our research is to determine library websites usefulness, diagnose most common mistakes as well as positive aspects which will all be used in creating guidelines for development of library websites. This research is part of more comprehensive study on quality and learning outcomes in information science education. Therefore, the results will also be used as evidence and guideline in improvement of our educational program and student i.e. future librarians' competencies.

Methodology: Paper is concentrated on research of relevant body of literature on designing and development of websites as well as research of library users and library staff attitudes on website development, design and usage. Paper will give concise overview of guidelines, standards and component which determine competencies needed in new educational concept.

Keywords: Evaluation, library websites, learning outcomes, curriculum

Literature:

Large, A et al. Designing Web Portals in Intergenerational Teams: Two prototype. 2004. Journal of the American Society for Information Science and Technology (2004) Volume: 55, Issue: 13, Pages: 1140-1154

Quantitative and qualitative methods in academic libraries

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Abstract: A changing user population, technology enhancement, transformation of scholarly communication system, digital libraries, new approaches to management, renewed commitment to planning and assessment, financial constraints, declining budget, information gluts, constant change in IT, web services, reader's expectations for 24 x 7 services, time shortage etc are compelling performance evaluations to be mandatory in libraries. The present Study offers measures to library effectiveness & automation, offers tools for better reader services through integrated & collaborative working of libraries, and projects Management

Information System as the tool for realizing expectations from libraries of modern world.

As per guidelines of National Knowledge Commission Report 2009, UGC and NAAC recommendations, creation of Knowledge Grid and resource sharing, impact of IT on libraries, exponential growth of information, applications of MIS in libraries, and its significance and performance measurement has been elaborated.

Living in an age of information burst, libraries are experiencing an unprecedented change. Introduction of tools like Internet and digital libraries has posed tough performance challenges before the librarians and their conventional library management systems. Continuous improvement remains the key to enhance the multi-dimensional & multi-determined library effectiveness.

The present study offers measurable performance parameters for effective planning and improvement of time tested library management systems ranging from resource utilization, asset management, competency building, and overall equipment effectiveness etc. The study also projects management information system as a vital tool to cater impact of IT on libraries, and exponential growth of information.

Keywords: Performance measurements, knowledge grid, NKC, Management Information System, library audit, library automation, library effectiveness

Re-engineering Change in Libraries for Value Added Information Services in 21st Century

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Abstract: 'Change is the only thing that will never change' is a well known premise. Change is the altered state of an individual or organizations produced by both purposeful and unintentional transformational forces. Over the past few decades large-scale change has become a norm in organizational life and the libraries are not exception to it. The information explosion and technology explosion have brought major changes to libraries in the way they collect, organize, process, store and retrieve information. This situation has been aggravated with the changes in the climate of higher education, multi-behavioural characteristics as well as complex needs of information users. Today our libraries are in the process of re-inventing and adapting the new challenges and opportunities developed by the changing needs of the users due to the technological advancements. Libraries are now trying to become flexible as per the requirement of the users and the shape of libraries is varying from physical to virtual. The changes that libraries and information services facing today are purely unpredictable and unquantifiable, where political, educational and socio-economic conditions worldwide have also

created a critical situation of uncertainty and it has become very difficult to anticipate the future. Any change in libraries and knowledge-based organizations in future will have to be handled effectively to make the library user oriented. Against this backdrop, the proposed paper intends to answer a set of interrelated questions: why is managing change in libraries important? What are the different types of changes and what are their associated characteristics which affect information services? What are the different forces of changes? What are the implications of these changes in information use behaviour? How to redesign the administrative services under the changed situation? What are the core competencies needed to meet the emerging changes in the libraries? The proposed paper will address all these questions for the development of some guiding principles of change management to tackle the resistance to change and to overcome the resistance to change in different functional areas in libraries. The proposed paper will also examine the extent to which the application of management of change can create new model of library services where libraries can create value added services based on emerging changes.

Keywords: Change management, core competency, change management in libraries, information services in 21st century

Reference Effort Assessment Data Scale (READScale) as complementary statistic tool to manage reference services: comparative analysis

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Abstract: The READScale is a six-point scale tool for recording complementary (supplemental) quantitative statistics gathered when reference staff assists users with their inquiries or research- related activities (information needs and requirement) by placing an emphasis on recording the effort, knowledge, skills, teaching etc. utilized by library staff during a reference transaction.

The purpose of the study is to document READ Scale implementation and analyze the recorded qualitative data, how useful it is managing reference services and planning the staff distribution in both institutions – University of Puerto Rico and Dominican University.

The paper describes the process of the local participants' preparation and implementation in two diverse academic environments: libraries of University of Puerto Rico, Río Piedras Campus and Dominican University (Illinois).

This research analyses and compares different topics related with reference efforts evaluation using READ Scale:

- Qualitative and quantitative statistics used by the libraries (what data provide us each of them)
- General and branch libraries reference services (existing differences between reference questions and efforts in both types of libraries)
- Traditional (face to face) and virtual reference services (asks our users the same in reference desk and virtually)
- Professional and paraprofessional experience with READScale (how both groups evaluates the tool and their own experience with the same)

The results will be presented both as a narrative and graphically. A survey will be applied to both library staff populations who have been using the READScale their library.

The work presents a comparative analysis between both institutions recorded data about mentioned topics and establishes the common and singular point in every institution reference services and answers the questions “How we could use the data supplied form READScale?, What are the differences and similarities? What did we learn from our experience?, What we learn from each other? and Does culture play a role in assessing/valuing reference?”

The relationship between academic library usage and educational performance in Kuwait

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Abstract: University libraries play an important role in contributing to student and faculty members’ academic achievement. This study examines perceptions of university library usage to consider factors that influence achievement of students, academics and administrators. A thorough review of relevant literature examined approaches to determining user satisfaction of students and faculty, and factors that influence library usage. It highlighted the value of usage on educational performance. It enabled development of a theoretical framework leading to the Factors of Academic Library Usage (FALU) model, which was developed to investigate the effect of usage factors. FALU was tested in Kuwait university libraries. The study used validated questionnaires from 792 students, 143 academics and 121 administrators to measure five library factors. Interviews were conducted across the three University libraries. The findings are useful in measuring the correlation between the current academic library usage and educational performance.

Keywords: Academic libraries, university students, academics, university administrators, library collections, information technology, academic performance, Kuwait, evaluation models

The relationship between organizational climate and organizational commitment in Iran Public Libraries

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Abstract: It is the goal of the ongoing research to study the relationship between the organizational climate and the organizational commitment of the Librarians that work in Iran public libraries. The information was gathered by means of a questionnaire which developed based on Halpin and Crafts organizational climate questionnaire and Allen & Meyer organizational commitment questionnaires. The statistical populations of this study all librarians that work in Mashhad public libraries. By using this method 117 questionnaires were collected. The data is analyzed upon the tests of moment correlation coefficient of Pierson, t test and descriptive statistics. The finding showed that: organizational climate has a positive and meaningful effect on organizational commitment of the librarians. Among the compilations of organizational climate, group spirit, intimacy, engagement, consideration and thrust has positive effect; and hindrance and production emphasis has negative impact on organizational commitment. All dimensions of the organizational commitment (affective, continuous and normative) also have positive and meaningful relation with organizational commitment. There isn't significant difference between organizational climate satisfaction of the librarians and their sex. Also there is significant difference between organizational climate satisfaction of the librarians and their type of education area. Based on the results of the ongoing research, improvement on the organizational climate causes a rise in the commitment of the librarians and managers to the organization and also can lead to protecting the abilities and continual competing advantages.

Keywords: Organizational commitment, organizational climate, public libraries, library personnel, librarians, Iran, Mashhad

Research Methods in Empirical Studies of Children's Information Behavior

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Abstract: This paper examines the research methodologies employed in empirical studies that investigated the information behavior of children, ages 6-13, in using selected web-based tools (i.e., search engines and digital libraries). Reviewed studies cover both fields of library and information science and human-computer interaction from 2005 to 2010. Included are studies that involved children in testing and designing interfaces. A critical analysis of the methodologies uncovered problems and limitations in the research designs. Results have implications for editors of scholarly publications regarding the peer review process as well as suggestions for researchers for improving research design to allow for its replication by other researchers.

Keywords: Research methodology, research design, children, search engines, web portals, digital libraries, human-computer interaction, interface design, peer review process, scholarly publications

**The role Knowledge sharing in fostering Innovation at Tallinn
University: a case study**
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Abstract: The paper discusses the methodology used in achieving the aim of this research which was to investigate the role of knowledge sharing in fostering innovation at Tallinn University. The study seeks to provide an answer to whether public universities are embracing knowledge sharing for its own sake or are using it to foster innovation and how this is realised. The study adopts the qualitative methodology and uses the case study method. Purposeful sampling was used in order to carry out an in-depth study of the case. The interview data collection technique was employed to collect as much data as possible to facilitate transferability of the findings.

Keywords: Knowledge Sharing, innovation, Tallinn University

**Scholarly Communication in the Digital Environment: Role of Academic
Librarians in Combating Plagiarism**

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Abstract: Because of the rapid uptake of information and communication technology (ICT), the widespread and easy access to information is

facilitating two transformations of scholarly communication. First, there is the conversion from print on paper to digital versions of journals and books. The second transformation is the emergence of the open access publishing which has facilitated the products of scholarly communication freely and easily available to 'anyone at anywhere in any time' with a Web connection. The central question of the proposed paper is: What are the implications of these changes for information use behaviour, with a particular focus on scholarly communication? Within this broad question, one particular area of interest is *plagiarism*. Within this area of interest, another framing question is: what roles librarians can play in combating plagiarism? Against this backdrop, the proposed paper will centre round on the use of digital information resources in studies and research among the world of academia and proliferation of plagiarism as a serious offence against scholarship. It is to be followed by the discussion on the definitional analysis, types and forms of plagiarism. Different strategies to be adopted for detecting plagiarism will be explained with reference to the use of websites and software packages that can equip academic librarians to fight back against this form of academic dishonesty. It is proposed that the detection should not become the main objective of the academic librarians in a campaign against plagiarism. Librarians should collaborate with the faculty members and concentrate on educating students, research scholars and aware other stakeholders in an academic setting as to what constitute plagiarism and how to avoid it. Librarians in academic libraries need to take active part in setting climate through undertaking various user education programme in the current digital environment where academic integrity is valued.

Keywords: Academic integrity, digital plagiarism, Internet plagiarism, plagiarism detection software, scholarly communication

Search strategies of library search experts

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1. Introduction

Search engines like Google, Yahoo or Bing are an excellent support for finding documents, but this strength also imposes a limitation. As they are optimized for document retrieval tasks, they perform less well when it comes to more complex search needs. Complex search tasks are usually described as open-ended, abstract and poorly defined information needs with a multifaceted character. In this paper we will present the results of an experiment carried out with information professionals from libraries and museums in the course of a search contest. The aim of the experiment was to analyse the search strategies of experienced information workers trying to

tackle search tasks of varying complexity under stressful conditions of a competition.

2. The experiment

The search contest consisted of two rounds: From 50 participants in the first open round, the ten best in terms of accuracy of their solutions (but only one representative per institution) were selected for the second round. We selected the second round to carry out our experiment. We used the Search-Logger framework as defined by Singer and Norbistrath (2009) to log the participants' search actions during the second round of search context. The experiment took place in a laboratory environment in class, where the Search-Logger was pre-installed and pre-activated on ten computers. We challenged the study participants with 15 search tasks of varying complexity and the experiment lasted three hours. Explicit quantitative information was gathered via a demographic form at the beginning of the experiment and via user feedback in the form of questionnaires before and after each search task. Search-Logger collects implicit user information by logging a number of significant user events like links clicked, queries entered, tabs opened and closed, bookmarks added and deleted and clipboard events, which were analysed for the results of our paper.

3. Expected results

In our paper we analyze and present selected search strategies of these library and museum professionals and relate them to the actual behavior carrying out the respective search tasks. We also show the relation between the observed behavior and their respective Internet user type classification as defined by Kalmus, Keller and Pruulmann-Vengerfeldt (2009). Further, we discuss the negative impact of stress on the users' search behavior in the context of a search contest.

Keywords: Information professionals, search strategies, library search contest

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Selected methodological issues in creating the Information Literacy development strategies

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Abstract: Information Literacy (IL) is a key competence enabling individuals (human beings) to participate efficiently in the knowledge society, and constitutes the basis for effective learning and successful professional development. The information literate society essentially determines the development of regions and local communities, and contributes to the welfare of nations. Consequently, Information Literacy has to be a matter of an organized, planned and rational action on the European and national levels. The governments and other authorities need to formulate and apply informed IL development strategies to ensure acquisition and progress of information competences throughout peoples' lifetime. But, at the moment, there is no established or commonly agreed-on methodology for working out the Information Literacy strategies, nor are there ready tools or techniques to be used for that purpose.

In this paper the selected research results of the EMPATIC project, connected with formulating strategies or strategic models for Information Literacy development, are described, with focus on the methodological aspects.

When creating such a strategy its two main dimensions have to be considered, that is its formal structure, e.g. components, frame, length, appendices, and its subject content related to the level and context of Information Literacy, formal and informal learning environments, implications for teaching.

During the designing process the crucial elements of strategic modeling:

1. context (meaning and dimensions of IL, role in the civic/knowledge society),
2. mission (mainstreaming of information literacy at the national and EU level),
3. vision (information literate citizens, business, government, society),
4. goals (raising society-wide IL awareness, institutionalization of IL , integrating IL in curricula in all levels and sectors of education system in Europe),
5. actions,
6. standards and performance indicators, and
7. Stakeholders have to be taken into account.

The analysis of 87 projects in the Information Literacy area from years 1994-2010, supported in most cases by the European Union, has been conducted. They are divided across four learning sectors (schools, higher education, vocational training and adult education). The findings of the investigation are used as the basis for developing generic strategic models for Information Literacy as well as defining its implications for training of teachers, IL standards and associated performance indicators.

Significance of E-books & digitalization of libraries in the 21st century

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Abstract: This paper highlights the significance of E-books and digitalization of libraries in the time to come. We are living in the 21st century where computers are defining the way we live our lives. Books and reading habits are not abreast from this change.

As a result, we are increasingly witnessing that a large majority of the coming generation prefers obtaining information online as opposed to searching for it in any other way.

Libraries, as we know of them today, will cease to exist if we do not change with changing times and adapt per the demands of the situation. Though physical appeal of a book and its storehouse, a library, cannot be undermined, we can also not afford to be ignorant of the impact e-books and digital content is having on the world. This paper is a study of the existing trends highlighting the various aspects and suggesting a way forward for librarians across the world.

The socio-cognitive context of the subject cataloger and his professional experience

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Abstract: Studies of human cognition have provided significant contributions about the mind and its understanding capacities. In the thematic treatment of information, particularly in the process of subject cataloging, the professional's performance may be influenced by various factors. In this paper, an attempt is made to characterize the cognitive context of the subject cataloger focusing on his prior knowledge built through interactions within the context of university libraries. References are made to some studies dealing with Verbal Protocol in order to highlight the importance of using this introspective technique of data collection in the professional subject cataloger's performance.

Keywords: Thematic treatment of information, subject cataloging, socio-cognitive context, verbal protocol

Social Science Research in India: a Scientometric Study of Publication output (1970-2000) vis-à-vis ranking in International perspective

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Abstract: Indian Social Science Research falls short of expectation as observed in several studies. The present discourse analyses Social Science Research literature generated from India by Indian scholars. The quantitative study depicting dispersion of research literatures in various forms ultimately aims to pin-point the qualitative ranking of Indian Social Science Research literature in international scenario. The study is primarily based on (but not limited to) normal Scientometric principles with National and International tertiary sources like bibliographic databases coupled with studies conducted by National and International Social Science Research Organizations. The article tries to exhibit an all pervading panoramic view of Social Science Research and discuss direct and indirect issues responsible for the prevailing state.

Keywords: Social science research, India, scientometric study, publication pattern, research output, research evaluation, quantitative analysis, research performance analysis

Strategy planning for Institutional Repositories

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Abstract: Institutional repositories (IRs) (almost) everyone has one! But what exactly are they trying to accomplish through them? What are those crucial factors that make any given IR equally important to the institution and to the users? What exactly is the plan that institutions follow in order to establish IRs and what are the exact factors that actually make an IR a success?

Every respectful academic and research institution tries to establish an IR in its effort to maximize visibility, enhance open access, and attract funding, students and faculty. All of the above have one thing in common: they are not a strategy. A strategic plan allows the institution to express the centrally integrated and externally orientated concept of how it will achieve its objectives (Hambrick and Fredrickson, 2001). Every commercial business knows the importance of strategic planning and tries to apply it with better or worse results. Non-profit organizations, on the other hand, usually ignore this process and the results are almost always bad for business. The fact is that a strategic plan is crucial, especially for non-profit organizations, because it

can be the tool that helps define the goals of every endeavor, plan the necessary steps in order to accomplish these goals and define the qualities that set the product or service offered apart from any other found in the market. A strategic plan can be a very useful tool of communication between the institution and its external (users, potential funding agencies, potential authors, affiliated institutions etc) and internal stakeholders (existing authors, board of administration, staff etc). a strategic plan is essentially This presentation will try to show why strategic planning is very important in the case in IRs, the way it may be applied, what are the necessary steps the institution has to take, and, ultimately, what it is that will be gained from the whole process. Open access may prove to be the answer to many problems observed in the scientific communication process but, if not planned wisely, then it is doomed to failure. Commercial businesses have created and systematically use many tools in order to ensure success. What research and educational institutions have to do, is try and take advantage of them and adapt them to their benefit.

Keywords: Institutional repositories, Open Access, strategic planning

Student Competitions Related to School Libraries in Japan

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Abstract: The school library has mainly been evaluated on the basis of input resources such as collection, facilities and services rather than outcomes obtained through its activities. However, recently school library outcomes are becoming a prominent issue concerning standardized test scores, performance appraisals, and related competition awards, etc.

This research explores school library outcomes and their roles, by focusing on student competitions related to libraries in Japan. We investigated the best established and most extensive student competitions, both held nationwide once a year: *Book Report Competition* and *Competition of Research Using Libraries*.

Japan School Library Association and the Mainichi Newspapers have co-hosted *Book Report Competition* since 1955. *Book Report* requires students to write about how they felt after they had read the book. In this case, the role of school library is to support students' reading for pleasure. It provides, for instance, high quality literature books, a relaxed reading space and reading promotion programs.

Competition of Research Using Libraries has been conducted by NPO Toshokan-no-Gakko since 1997. This competition requires students to create a portfolio presenting various information about a specific topic and

frequently including the students' own experiences regarding this topic. The key ability for completing the research is information literacy. Therefore, the role of school library is to highlight access to varied reference resources, an effective work space for investigation, and education programs, etc. to improve students' information literacy.

These competitions can be expected to encourage students to utilize the library, to inspire teachers in new teaching methods and to provide a useful benchmark for developing the school library. We suggest that, instead of simply supporting students to aim at such awards, the school library should be managed strategically to make full use of these competitions as an evaluation tool.

Student's experiences in multicultural virtual teams: An action research approach

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Abstract: The virtual team era has not only affected the workplace but also education, especially in universities. Therefore it is necessary to gain a detailed understanding of students' experiences in multicultural virtual teams using the action research approach.

Various data collection techniques such as interviews, questionnaires and participatory observations were used. This paper highlights how and why these techniques were used and what was achieved.

Keywords: Questionnaire survey, participatory observation, interviews, action research

The study of status of libraries and information centers in the seventh region branches of the Islamic Azad University

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Abstract: The present research has been done by a descriptive survey method. The main purpose of the study is to study the status of libraries and information centers in the seventh region of the Islamic Azad University. Research population includes 22 research deputies of Islamic Azad

University. In order to gather the required information a questionnaire with 31 questions was compiled by the researcher and it was sent to the research deputies.

The collected data have been analyzed using SPSS software. The results of the research show that 68.18 percent of requested libraries have duty reports for their staff. All research deputies expressed that they have necessary cooperation with the persons in charge of libraries. None of the libraries have enough proportional resources for their users. 72.73 percent of the libraries have up-to-date Persian journals and 68.18 percent of them have not up-to-date English journals. 72.73 percent of the libraries have not access to open systems. 86.36 percent of them are using the classification system of library of congress in America. 81.82 percent of the libraries have not natural light in their reading rooms. 54.55 percent of them have not independent budget and required equipment and buildings. 54.55 percent of the libraries at Islamic Azad University branches in the above mentioned regions have not access to adequate spaces for studying being used by their students and academic staff. 59.09 percent of the libraries don't make use of library selection committee for selection of their resources. 72.73 percent of them have not access to digital library equipment.

Keywords: Islamic Azad University, research deputies, libraries, information centers, librarians

Studying the Influence (or Mutual Shaping) of Social Networks in a Learning Experience

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Abstract: This paper summarizes the methods and preliminary findings from the pilot study of a doctoral thesis with the research aim of determining how users can experience learning using social networking tools and how their literacies may influence this experience. The instruments used for the collection of data were: observation, an online forum, questionnaires and semi structured interviews. These methods were all connected with a group of learning interventions that involved the use of social networking tools, within two master courses. The sample of this pilot study was a complete income of an international master course, divided in four teams. The participants interviewed were four team leaders, chosen by their own teams. The method for analyzing data was discourse analysis and a framework of categories was created to present the data in a certain order. The preliminary findings of this pilot study are related to: a) the identification of the most important issues of web 2.0 and social networks that are faced by users within a learning environment; b) some insights into what is the influence (or

mutual shaping) of social networking tools in a learning experience; and c) a look at some of the challenges and opportunities of using social networks in higher education instruction related to users' literacies (information literacies, digital literacies, new literacies). Finally, this paper indicates further refinements to be done on the methods prior continuing with the proper study.

Keywords: Web 2.0, Social Networks, higher education, learning, Information Literacy

A Stylized Model of Library Services Production with Empirical Application

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Abstract: The approach to library services by means of established frameworks originating in the literature on Service Operations and Management has long been acknowledged as a pathway enabling the Librarianship literature to take profit from an almost centennial body of knowledge. In particular the Services literature provides both normative and positive models, as well as both theoretical and empirical insights.

In this paper we take the generic view that library services production may be seen as the transformation of inputs into outputs in exactly the same way as previous authors have argued. To name a few we reviewed the “unidimensional blackbox” (Holt and Elliott, 2003), the Leontievan input-output analysis (Correa and Correa, 1996; Correa and Guajardo, 2001), the efficiency model (Emrouznejad, Parker and Tavares, 2008, Carvalho et al., 2009) and the process approach (Santos, Fachin and Varvakis, 2003).

The main objective of the paper is to empirically examine how does that transformation take place in the following sense: given a list of library inputs and of library outputs, is it possible to identify whether and how (a group of) the former combine to yield (a group of) the latter?

To answer the research question we collected data on a sample of library units pertaining to a federal university in Brazil during 2000-2007. We then applied the multivariate technique of Canonical Analysis to identify significant links among four selected inputs (area in m²; volumes; employees and “experience” as proxied by age) and four selected outputs (visits or “traffic”; consultations; registers, and loans). Our stylized model avoids the effort of having to specify several tentative functional forms, such as would have to be done in the econometric approach.

Preliminary results show that, for most years, two significant ($p < 5\%$) correlations are obtained out from four maximum possible. On average, the so-called measure of cross redundancy has equalled some 55%, indicating

that a good “explaining power” was attained since we are dealing with yearly cross sections of library units.

Another preliminary finding deserving mention relates to the fact that, among the input-output links that have been identified as significant, the quantitatively dominant effect comes from library-related inputs (volumes and employees) and outputs (consultations and loans). Although the evolution of the mixes along time still deserves further attention, this kind of result is unprecedented in the reviewed literature.

Keywords: Service operations, library services, academic libraries, academic libraries – Brazil, canonical analysis

Surveys in academic libraries at the University of Bologna: an experience

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Abstract: The academic libraries of the University of Bologna situated in Cesena, Forlì, Ravenna and Rimini carried out two surveys (Citti et al. 2009; Citti et al. 2010) about user satisfaction: one in 2007 and the second one in 2010. The questionnaire for both surveys adopted a structure analogous to the one created by the Interuniversity group for library quality assurance, in order to permit benchmarking with other Italian university libraries.

The method of questionnaire administration for the first questionnaire was interview-assisted administration, whereas the second one was online. In the second case the URL of the questionnaire has been sent to users' institutional e-address.

The online questionnaire had a higher number of answers from professors, but less from students, who rarely use institutional e-mail. Online questionnaire was shorter than the previous one (16 questions instead of 39), but data could be compared to the previous one.

2007 survey has been done to collect operational objectives to improve services, whereas 2010 survey wished:

- to verify whether the actions adopted following 2007 questionnaire had been appreciated.
 - to collect further information about user satisfaction
- The survey carried in 2010 focused on the efforts and actions made to respond to 2007 survey had been appreciated:
- working hours had been extended or modified to meet users' requests
 - new plugs for PCB's have been installed
 - wi-fi service had been provided
 - more copies of textbooks have been acquired.

Answers to such questions proved that users appreciated libraries' efforts.

2010 survey also showed the need to improve the quality of PCs. Libraries will try to improve this service. Libraries will also try to broaden the

knowledge of some advanced services such as Interlibrary loan, document delivery services and the use of e-resources.

We also noticed that professors and students use services in a different way, due to different needs. They both use the loan service, but ILL and DDS are used above all by professors, whereas students often use the library to study their books and also to meet other students.

Such results photograph library daily activities as users perceive them and they are crucial for decisions on levels of service and future strategic planning, as we can read in IFLA Library Statistics Manifesto (2010)

Keywords: User satisfaction, survey, online questionnaire

Taking Advantage of “Open Source” While Developing Web Based Information Literacy Tutorial

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Abstract: Web-based instruction refers to teaching and learning that is supported by the attributes and resources of the Internet. The instruction can be as simple as using the system as a "page turner" for information, to as complex as an integrated system which provides interactions with games, exercises, tests etc.

Web based instruction has numerous advantages. First of all, it allows learners to view, retrieve, and store information "any place" and "any time". A second major advantage is that it allows learners to progress at their own pace. Learners can explore material to whatever depth they desire. Using Internet technology makes it possible to use varying computer types to have access to the instructional material. It is possible to more closely track the progress of each learner. It is easy to update to keep information current. There are also potential cost benefits to administering a tutorial through the web.

Many libraries today have started to offer information literacy instruction via the Internet. Today, web based instruction packages which are designed to introduce students to general information literacy concepts and information resources have gained popularity. These tutorials, mostly open source, either replace or supplement face-to-face library instruction sessions. The reusable generic content of these tutorials help to eliminate obstacles such as inadequate personnel, resources and time.

In this paper, a web-based information literacy tutorial, HUBO, will be introduced as a working example. HUBO has been developed by Department of Information Management of Hacettepe University as an open source information literacy tutorial for other libraries to use, customize, expand, and share. HUBO is based on Western Michigan University web

based information literacy program, another open source tutorial, called Searchpath.

The main aim of this paper is to emphasize how to save time and resources of all kinds while developing web based information literacy tutorials just by adapting one of the readily available open source packages. “There is no need to reinvent the wheel” main approach will be underlined.

Keywords: Information literacy, web based instruction, web based tutorials, information literacy training, user education

Taking the library to users in the online specialized library of Tavanir organization: A case study

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Abstract: With the advent of the Internet and the proliferation of online resources and services, librarians have used Web-based resources to add an asynchronous dimension to traditional synchronic reference services. One of the new Web-based technologies that has been discussed by librarians in the past few years is the wiki.

Librarians have been using wikis for a variety of purposes, including research guides, knowledge-bases, and library Web sites. A Wiki is a collaboratively created and iteratively improved set of web pages, together with the software that manages the web pages. Because of their unique way of creating and managing knowledge, Wikis combine the best Elements of earlier conversational knowledge management technologies, while avoiding many of their disadvantages.

This article introduces Wiki technology, the behavioral and organizational Implications of Wiki use, and Wiki applicability as groupware and help system software in specialized library of Tavanir Organization.

The article concludes that library users of Tavanir organizations willing to embrace the “Wiki way” with collaborative, conversational knowledge management systems.

Keywords: Collaboration, Wikis, knowledge management, specialized library of Tavanir organization

Teaching Art in school libraries: High school students' views

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Abstract: Research presents the views of High school students about the school library material that is related to Art and also their attitudes towards library operation. The scope of the study was the school library of the High school of Ialysos, Rhodes. This library, established ten years ago, has a collection of over 5.500 titles and it is a key area for the school. The school libraries in Greece have excellent educational material in order to support Art teaching. Books, CDs, DVDs and comics help significantly the Art teacher's lesson plan implementation. A research with the use of questionnaire was conducted in the High school of Ialysos in which 271 students participated. The methods of Correspondence Analysis and Cluster Analysis have been used. These methods led to the formulation of differentiation and classification criteria of the students correlating all variables. The analysis showed that the majority of the students read books related to Art, especially graffiti books and comics. The students visit and use the school library and display positive aspects for the library operation and its personnel. In the frame of the research the students made suggestions for the library improvement. The suggestions were about the acquisition of more comics, picture books, newer computers and printers.

Keywords: School library, art teaching, factor analysis

Teaching Literacy: Methodologies for Studying and Improving Library Instruction

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Abstract: In an ongoing effort to assess the impact of bibliographic information literacy (IL) instruction sessions, librarians at The American

University of Cairo determined that the use of multiple methodologies would be the best way to study session effectiveness. In an effort to improve student learning, individual teaching skill and the overall IL program, three major assessment tools are to be implemented in Spring 2011 semester. Librarians will collect both quantitative and qualitative data by utilizing student plus/delta surveys, peer evaluation and faculty feedback, in order to draw overall conclusions about the effectiveness of one-shot IL sessions.

Currently, The American University of Cairo Research and Information Services faculty librarians teach approximately 40 to 50 IL instruction sessions per semester to both undergraduate and graduate students. Every IL session is designed to address predetermined student learning outcomes that are established through collaboration with the professors. However, until recently there is not a structured assessment program in place, and librarians could not be sure of the effectiveness of one-shot instruction sessions. By implementing a multi-methodology study, and gathering information from students, faculty, and teaching librarians, a great deal of data can be compiled and analyzed. The findings discussed in this paper, both practical and theoretical, will help other college and university librarians think critically about their own IL programs, and how they might be assessed and improved.

Keywords: Information literacy, library instruction, assessment, survey methodology, peer evaluation

Teaching retrieval competence for scientific search engines using case studies

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Abstract: Most of the courses and teaching materials for imparting retrieval competence for scientific search engines are focused on the research options of such services. This means, usually primarily the search operators and possibilities to limit a query on specific media types or domains are discussed. Furthermore, lists of such search engines and their corresponding thematic focus are provided, in order to allow users to find the most suitable service for their specific information needs.

Nevertheless, such approaches ignore an important aspect. A comparison between the search strategies of expert and novice users illustrates that real retrieval competence goes beyond such basic knowledge about the search engines. Only a combination of solid background knowledge in conjunction with a systematic search approach or respectively a suitable retrieval strategy allows for making the best use of internet search services. However, an appropriate retrieval strategy depends on the underlying information needs and therefore can vary from case to case. Because of that, the development of a suitable retrieval strategy is usually based on previous experience. Hence,

the benefits of teaching retrieval competences based solely on factual knowledge are limited.

This article describes how students can be empowered to develop systematic search strategies for the usage of scientific search engines by the means of case studies. By using this method students get the possibility “to look over an expert’s shoulder”. In the context of gathering data for complex information needs, in this manner the non-experts can be enabled to develop similar search strategies as experts do or at least they are pointed to new ways for retrieving suitable information. Moreover, case studies can also demonstrate exemplary how to use the various search services and their operators in a useful manner.

With regard to the application of case studies in teaching retrieval competence and developing search strategies this article introduces a model how the creation of such case studies can be systematized and how such case studies can be used for self-learning purposes as well as in an integrated teaching concept.

Theory, methods and applications of reliability analysis for Library Management

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Abstract: The role of reliability analysis for improving library and information service performance becomes crucial. Indeed, reliability considerations go beyond the quality issue since they incorporate the dimension of time, i.e. they involve a number of different activities and operations that take place throughout the life-cycle of a library system or service. The research question considered here is simple and can be stated as follows: “*How reliable is your library?*” Hence, we study efficient modeling methods which are valuable in estimating the reliability of information systems and services within a library setting: Inference modeling techniques based on both parametric and nonparametric methods are reviewed and presented together with illustrative examples. Indeed, from a wide number of non-parametric methods that have been made available for reliability estimation only the ones prevail are examined here, i.e. the Kaplan-Meier and the Cumulative-Hazard reliability estimators. Furthermore, parametric methods and applications are examined which are based on the Weibull distributional model. Weibull analysis is quite useful for a wide range of management and financial applications and we presented examples for modeling the user behavior as well as for modeling specific library services and systems, i.e. digital information systems etc.

Keywords: Library management, reliability analysis, Kaplan Meier estimator, Cumulative Hazard estimator, Weibull analysis

Toward a pro-active role of university libraries in entrepreneurial universities

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Abstract: The future of university libraries, librarians and information science professionals is associated with the need to develop new entrepreneurial universities promoting the knowledge transference between Universities-Industries&Firms-Governments.

The aim of this study is to offer a contribution to the assessment of functions of university libraries by means of a review of the current debates regarding the relationship between the different missions of universities.

The idea is to explore the new required functions for university libraries analysing the knowledge transference flow and sets out the core items on learning, teaching, scientific diffusion and production, applied research, commercial exploitation and social knowledge engagement.

Finally, the definition of the main items of this process allows the construction of a University-Libraries-Indicator-System (ULIS) aimed at improving the proactivity, the management and the assessment in higher education institutions.

Keywords: University Library, University assessment, Entrepreneurship, Knowledge Transference, Indicator System

Towards Knotworking in Academic Libraries

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Abstract: Librarians in academic libraries are currently facing major changes in their work due to e.g. the internet and digitalisation of material. Also, one of their most important customers, namely researchers and research groups, are increasingly using new digital channels for acquisition of information. This creates dual challenges for librarians to develop their work towards innovative work models. First, they have to find ways to deepen and use at full-scale their expertise in relation to meaningful work content. Second, they have to in cooperation with research groups discover services that researchers need and consider valuable.

In this paper we present a case study from the City Centre Campus Library of the University of Helsinki. There are two libraries at the university: Helsinki University Library for academic library services and National Library for national heritage services as well as services for the national library sector. Helsinki University Library consists of centralised services and four campus libraries. The City Centre Campus Library is in the process of creating a new organisation model, where smaller department libraries have emerged to create the new library. However, physically the units are still separated due to

the construction phase of a new building. In addition, the library is aiming to create a new division of labour and new ways of working which include developing the librarians' own work activities.

To overcome the acute challenges of retaining researcher customers and uniting themselves, the City Centre Campus Library started creating a vision for a new way of working: knotworking. By Knotworking we refer to a boundary crossing, collective problem-solving way of organising work, in which intensive collaborative periods vary according to the changing requirements of the current situation.

The empirical results of the innovation process were: 1) a shared service tray of services for researchers, and 2) a knotworking model for library employees and researchers. In the full paper we first qualitatively analyse, within the expansive learning framework, how the librarians and the pilot research groups created the knotworking model. Second, we analyse the character of the innovations and learning as part of new way of organising and doing library work.

Keywords: Academic libraries, service innovation, knotworking, expansive learning, change management

Towards the Development of Reference Framework for Performance Measurement of the University Libraries of India

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Abstract: The higher education system in India is currently faced with many issues of concern relating to the accountability and quality assessment in higher education institutions. The system of higher education in India has expanded rapidly during the last fifty years and there is, at present, a large network of 431 universities and more than 21,000 colleges in India. Quality, in the context of a higher education institution, is multi-dimensional and the functioning of a library can be said to manifest one such dimension. University libraries in India have long enjoyed their status as the "heart of the university" and they are taking up increasingly more academic space and time in the life of a learner. University libraries are now being pressed for greater accountability and improved attention to quality so that they can provide meaningful support services to achieve quality in teaching, research and extension activities.

Indian higher education programme during 11th plan (2007-2012) period mandates the universities to describe in specific terms their contribution towards the teaching, research and extension activities in fulfilling the national goal of the country. University Grants Commission (UGC) has been making proactive efforts to ensure values in maintaining standards in the

performance of the university libraries during 11th plan period. Information and Library Network (INFLIBNET), a national network of academic libraries established by the UGC, is involved in creating infrastructure for sharing of library and information resources and services among the Indian university libraries. One of the major recommendations on Higher Education submitted by the National Knowledge Commission (NKC) to the Prime Minister of India has emphasized on raising standards and promoting excellence in library and information service in higher education institutions. National Assessment and Accreditation Council (NAAC), an autonomous body established by the UGC, is continuously striving for promotion of quality in higher education through a combination of self and external quality assessment and accreditation. Internal Quality Assurance Cell (IQAC) has been established in all universities to take care of internal quality. University management is now demanding a more efficient use of scarce resources, and this leads to an urgent requirement for new management methods such as performance measurement based on performance indicators for all areas of the library. The Indian Library and Information Service (LIS) professionals engaged in higher education institutions are now facing minor or major decision-making on quality management issues. Therefore, a need for guidelines, self-appraisal tools, real-world experience, etc. has emerged.

Indian higher education system is to cater to wide varieties of needs and choices that make up for the diversity of its pluralistic society. The present paper is intended to provide a clear view of the current state of performance measurement of university libraries in India and suggestions for the demonstration of their value. It is proposed that university library's quality assurance approach should be supported by a meaningful and comprehensive reference framework on quality indicators which needs to be developed to measure all aspects of library operations keeping in mind the multi-dimensionality of differences that still persist among the university libraries in India. We have two international standards on performance measurement drafted by ISO and IFLA which cover different facets of library operations. At the national level, we have guidelines for quality indicators for university and college libraries developed by NAAC. This paper will be based on the central question: how far the efforts made by the ISO and IFLA at the international level and UGC, NAAC and NKC at the national level towards library value approaches are effective for the performance measurement of university libraries in India? Against this backdrop, other associated questions to be addressed in this paper are: What and how well does the library contribute to achieving the overall goals of the parent constituencies in the light of the multi-dimensionality of differences that still persist among the university libraries in India? What are the processes by which a university library will monitor its own standards, and activities to assure and enhance the quality of its support services to scholarship, learning, research and academic pursuits? The proposed paper aims to relate the performance of a university library system based on certain criteria reflecting innovative practice, where the collection, services and their outreaching capacity will be

monitored to a common reference framework. It will discuss the different phases of developing reference framework for performance indicators, 'input-process-output' link for assessing system efficiency, tools required to support the different phases, and resources used as points of references in the development performance framework in the library. Individuals and employers will be able to use this reference framework to better understand and compare the performance levels of different library systems.

Keywords: Accreditation, performance indicators, performance measurement, quality assurance, reference framework, university libraries-India

Traditional Maori Repository- Storehouse of Knowledge and Information Sharing for Life-long Learning

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Abstract: This presentation aims to share information on the preservation of Maori traditional knowledge including an overview on storage, protection and access issues of/to Maori information. The presentation will be imbued with how our ancestors traditionally imparted and preserved our sacred knowledge, and the importance of maintaining that.

We aim to primarily heighten awareness of the unique cultural traditions of the Maori people of New Zealand, and how we maintain our cultural preservation of literary and art forms. Maori knowledge was historically and traditionally embedded in cultural practices and only transmitted orally or visually through unique artforms. Such tradition maintained and protected the collective wisdoms of our people through the oral histories that were often stored only in the memories of our Sages. This knowledge is the traditional, cultural & intellectual property we have accumulated and which has been nurtured for generations, but has gradually come to the fore, to be passed on to our future generations.

Participants to this presentation workshop will be taken on a Maori cultural journey to explore ways to work together to nurture our environment, in harmony and unity, being of one mind, studious and diligent in obtaining, preserving and sharing our traditional indigenous knowledge. We propose that our son will join us to present an awesome Maori cultural experience that will be valuable and useful to all who attend.

We will share insights into our own knowledge and experiences, where it is our quest to prioritise the acquisition of, and to provide the largest collection of Maori resources in Tertiary Education. An overview on storage protection of Maori information, including access issues will be provided.

Te Wānanga o Aotearoa and its 7 libraries throughout the country, provide a uniquely Maori environment ensuring an inclusive, interactive and nurturing learning experience for students from all walks of life, on their journey towards achieving their goals and aspirations. We provide the resources and support to help achieve their full potential in tertiary education that will more than likely lead to career opportunities. Many of our courses are free of fees, therefore, access to knowledge is free. We ensure that knowledge is accessible for all, including the physical, visual and hearing impaired.

Keywords: Maori, literacy information, cultural traditions

Trends and developments in collection management of Greek academic libraries on harsh times

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Abstract. The collections of any Greek academic library should have sufficient size and content in order to be able to support all educational needs of the University and to facilitate all research projects according to Total Quality Management Unit of Greek Academic Libraries (TQMU or MOPAB in Greek). The question is, how Greek academic libraries comply with this role when their total purchase amount of books during the last decade was decreased, although the Postgraduate courses and the researchers are increased.

This paper emphasizes on the current trends in management and acquisitions policies of academic libraries in Greece under the current difficult financial conditions and proposes strategies for fund raising and finance supporting.

Nowadays, various cooperative services, consortia, organizational changes, open access or other alternative resources, etc have been adopted by the majority of academic libraries' managers in order to meet the information demands of their users.

Keywords: Academic libraries, cooperative services, open access, acquisitions

Twitter Use in Libraries: An Exploratory Analysis

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Abstract: Microblogging is a relatively new phenomenon in online social networking which has become prevalent in the last few years. The most popular microblogging service, Twitter, was launched on July 13, 2006 and has seen much growth since its launch. Various studies have so far researched Twitter. The current study explores the use of Twitter in libraries, focusing specifically on public and academic ones, with the purpose of understanding microblogging patterns. The four primary research questions are: 1. Do public libraries assign more or less tweets than academic libraries? 2. Is there a linguistic difference between tweets assigned by public libraries and those assigned by academic libraries? 3. Is the content of the tweets assigned by public libraries different from that of tweets assigned by academic libraries? 4. Are there more followers in academic libraries than in public ones? This paper presents an analysis of tweets produced by 30 libraries in between August and October, 2009. The first phase of the investigation involved choosing libraries using Twitter to be included in the sample. After reviewing 130 libraries that use Twitter, 15 public libraries and 15 academic libraries were selected, based on the following criteria: 1. The Library's Twitter account had to be active during the entire examination period (August-October 2009). 2. Only American libraries were included in the sample. 3. Libraries with a small number of tweets (20 or less) were excluded from the sample. The researcher examined the tweets, and conducted analysis in two phases: (1) statistical descriptive analysis and (2) content analysis. For both phases, the researcher examined all the tweets that appeared during the examined period.

Findings present that the total number of tweets in public libraries (2103) was larger than the total number of tweets in academic libraries (1812). Most of the tweets posted by academic libraries used formal language (11 out of 15). In contrast, only 3 public libraries used formal language. Moreover, 2 public libraries' tweets used informal language, while academic libraries did not use informal language at all. The content analysis of the public libraries tweets reveals that 51.64 % of the tweets were associated with the library, tweets that included "information about" accounted for 33.22%, miscellaneous tweets, general information tweets, general recommendations tweets, and technology tweets made up the remainder with 4.39%, 4.20 %, 3.78% and 2.81% respectively. Referring to academic libraries, 37.26% of the tweets were associated with the library, tweets that included "information about" accounted for 22.40%, miscellaneous tweets accounted for 15.98 % of the total, and technology tweets for almost as much (15.43 %); general information tweets made up the remainder with 8.93%. Concerning the followers' numbers it turns out that there are 12859 followers in public libraries and 7002 followers in academic ones. The average number of followers in each public library is 857.2 and 466 in each academic one.

The research findings show there are some differences in using Twitter in public and in academic libraries (amount of tweets, linguistic differences and content). However, it seems that using Twitter in libraries, enables both kinds of libraries to broadcast and share information about their activities, opinions, status and professional interests. The research findings are relevant for librarians and information scientists as they can help them to better understand and explore the phenomenon of library tweets.

Use of ICT in education in the Arab World with a special focus on Arabic digital content: Obstacles and perspectives

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Abstract: Information and communication technology (ICT) offers not only a wide range of opportunities to improve the quality of educational materials and programs, but also the means of delivery assistance and development, in addition to benefits in managing the educational process. Today, the available technology inputs include, to begin with, hardware, software for word processing, spreadsheets, and the preparation of slideshows and video clips as explanatory aids. On a more advanced level, they include the use of the Internet for communication between students and their teachers, and between educational institutions and official bodies concerned with overseeing educational activities. And on a yet more advanced level, it is possible to use smart programs to produce study materials and make use of virtual reality technology in order to raise the skills of students at a pace suitable to their capacity to absorb information and in conformity with other educational programs that they are following. Forthcoming telecommunications devices will permit access to asynchronous educational content via mobile telephones or operational digital organizers. Thus, students will soon be able to reach educational materials at any time and in any place. Students will also be able to follow lectures in real time delivered at universities thousands of miles away. Finally, native language discussion will become possible between lecturer and students thanks to expected advances in the field of simultaneous translation.

Developing digital content related to educational and training programs is considered a high priority for Arab countries that have already made some progress in laying infrastructure. Some Arab countries have taken initiatives to use ICT in the various stages of education. However, these efforts, in spite of their importance, remain less than what is required and possible.

Computer-per-student ratios in pre-university education are still low, and schools generally lack the ability to access the Internet. However, the main obstacle to the use of digital content for educational purposes in the Arab World is the result of the lack of Arabic digital content, both the quantitative and qualitative levels.

The proposed study aims to answer the following research questions:

1. What is the state of use of ICT in education in Arab countries?
2. What is the state of Arabic digital content?
3. What are the obstacles that hinder the development and use of Arabic digital content in education?
4. What are the solutions that could be proposed to overcome these obstacles to allow the development of Arabic digital content and the promotion of its use in education?

Keywords: ICT, digital content, education, Arab World

Use of Mixed Methods to Meet the Needs of Underserved Populations: A Reflective Analysis of My Research Efforts in the United States

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Abstract: This paper identifies five themes that have emerged in my use of mixed methods (qualitative and quantitative) to meet the needs of traditionally underserved populations. The narrative is based on a reflective analysis of my research experiences over a period of 16 years in academic universities in the United States. Implications are identified for library and information science educators and practitioners to play a new and extended role in better serving the needs of people on society's margins.

Keywords: Mixed methods, underserved populations, reflective analysis, research, library and information science

The Use of Semantic Analysis Technologies to Increase the Efficiency and Effectiveness of Access to Information

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Abstract: This presentation will report on the results of a study of 300 publications and reports which were (1) classified to both LCSH for inclusion in a standard Library Catalog and classified and indexed to an economic development related topic classification scheme and institution specific thesaurus; (2) both manually classified and automatically classified using natural language processing (NLP) semantic technologies. The focus of the comparison is (1) a direct comparison of the quality and quantity of access points across schemes, and (2) the effect of variations on the effectiveness of search (precision and recall). The research collection includes 300 digital publications and reports published by the World Bank which are accessible through the Library of Congress online catalogue, through WorldCat, and through the World Bank's external web faceted search system.

Keywords: Automated classification, automated indexing, semantic analysis technologies, Library of Congress Subject Headings, organizational thesauri, indexing granularity, subject specializations, search relevance, search precision, indexing productivity

A User-Centered Approach to Evaluation of Digital Libraries in the Research "National Identity in the Digital Environment"

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Abstract: The research "National Identity in the Digital Environment" is implemented as one of the subprojects of the state's research programme "National Identity" by the Advanced Social and Political Research Institute of the University of Latvia for a period of 4 years. The research's methodology was developed and the first procedures of data collection – representative survey of inhabitants in Latvia and focus group interviews were performed.

The methodology of the research was developed on basis of the interaction triptych model for research of digital libraries developed during the DELOS project. According to this model the research process of digital libraries should be based on three main components – "user", "system/technologies" and "content". The main three axes, combining the components are "usability", "usefulness" and "performance". The methodology of the research consists of all three directions of research but the main focus is on users and content, consequently – usefulness.

During the survey of inhabitants of December, 2010, the [questionnaire](#) included questions on information use habits, use and evaluation of digital collections created by memory institutions. It was also asked about the possibility of getting involved in developing of digital resources and supplementing them with their own materials. The focus group interviews are scheduled for February and March, 2011. They will include discussions on

availability of cultural heritage, its accessibility in digital format, use and evaluation of digital collections.

There were three focus group discussions organized with students of the Faculty of Social Sciences of the University of Latvia in November, 2010 that produced results that the digital collections are rarely used and used mainly for studying purposes.

The article “A User-Centered Approach to Evaluation of Digital Libraries in the Research “National Identity in the Digital Environment” will provide analysis of results obtained during the survey of inhabitants and focus group discussions.

Keywords: Digital libraries, memory institutions, cultural heritage, usefulness, a user-centered approach

Users’ knowledge, attitudes and practices regarding electronic resources and information literacy: a pilot study at Makerere University

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Abstract: This paper presents a pilot study of an on-going doctoral study, addressing the utilisation of electronic library resources by universities in Uganda. The study was a cross-sectional survey of graduate students, researchers, academic staff, heads of departments at the Makerere University School of Public Health, and librarians at the Makerere University College of Health Sciences. **Purpose:** To test data collection methods and gain pre-understanding of users’ perceptions, practices and use of electronic resources. **Conclusions:** Data collection instruments had to be adjusted in terms of selection and grouping of subjects, and the questionnaires had to be rephrased; users’ knowledge of available electronic resources is often inadequate, which means that they cannot utilize the e-resources fully. This in turn has a negative effect on learning, teaching and research. Most subjects had had no training in the use of electronic resources. **Recommendations:** All users should be encouraged to participate in information literacy training; more awareness of available resources should be done.

Keywords: Electronic health information resources, e-resource usage in Uganda, academic health libraries, health information use, information literacy

Using Actor-Network Theory to Understand Change in Academic Libraries

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1. Introduction

The aim is to demonstrate how Actor-Network Theory (ANT) can illustrate and explain the stages that might be expected in implementing virtual learning environments (learning management systems) in academic libraries. Such e-learning implementations affect the organisation of library services and interactions with teaching staff, and students.

2. Methods

Actor-Network theory (ANT) is a critical social theory which views social interactions in terms of networks. It was developed in the 19980s by Michael Callon, Bruno Latour and John Law (Law and Hassard, 1999). An actor may be a person, object, or organisation and ANT deals with the social/technical divide by denying that purely social or technical relations are possible (Mitev, 2009). By translation, ANT means all the negotiations, intrigues, calculations, and acts by which actors persuade others to support them. Translation involves four stages, problematisation (seeing something to be done as a problem for solution by a primary actor), intersement (obtaining awareness and persuasion of the importance of change), enrolment (getting roles in the network established), mobilisation (obtaining full buy-in by all those involved). Inscription refers to the way in which technical artifacts embody patterns of use. In the case of virtual learning environments, inscription would refer to the stage in which virtual learning environments are seen as the norm. The research examined, through interviews with key library staff (n=4), at one UK university, and complementary document analysis, how ANT illuminated the process of change

3. Results

The findings highlighted some of power struggles, the conflicting roles and responsibilities, and how these conflicts were, or could be resolved.

4. Conclusions

ANT provided a useful framework for analysing changes in working practice.

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Keywords: Actor-Network Theory, change management, academic libraries

Using mixed methods approaches in information access research

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Abstract: Information is regarded as a human rights issue, and every individual is entitled to information. Access to information is of great importance for individual and national development. It is the right of every individual to have access to information, especially the rural areas of developing countries, where the level of ignorance is substantial. Rural people face various barriers to finding useful health and agricultural information, and their use of information is different from the urban counterparts. Rural poor are deprived from accessing relevant information due to illiteracy, poverty, socio-economic factors, poor infrastructure and many other factors. This paper is based on findings from two studies in the rural areas of Tanzania, which used mixed methods to assess the access to, and use of information for the improvement of agriculture and health sectors. These studies employed a combination of qualitative, quantitative and participatory methodology for sampling, data collection and analysis. The first study assessed access to, and use of agricultural information in six rural regions of Tanzania. A total of 181 smallholder farmers participated in the semi-structured interviews, while 128 smallholder farmers attended the focus group discussions. Semi-structured interviews, non-participant observation, focus groups discussions and Participatory Rural Appraisal (PRA) tools (information mapping and linkage diagrams) were triangulated for completeness, comparison, and validation of the research findings. The second study assessed access to, and use of health information at the Kisarawe district in Tanzania. Fifteen rural villages were purposively involved into this study. The study employed interviews, observation, focus groups discussions, and questionnaires in order to triangulate, validate, elaborate, and confirm the study results. A total of 103 participants were selected for focus group discussion, while 33 participants were interviewed as key informants, and 409 respondents participated in the semi-structured interviews. The findings from both studies showed that information needs, and information seeking behaviour of the rural poor were location and gender specific. The findings also showed that deeper, richer and complete data can be collected through studies that deploy mixed methods approaches. The studies pointed the need for well managed rural information services that uses multiple sources of information to deliver information in order to meet the disparate rural poor information needs.

Keywords: Information, information and communications technologies, qualitative-quantitative-participatory methodology, mixed methods, rural areas, Tanzania

Using Online Communication Strategies to Capture Robust Management Metrics

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Abstract: Online social media software is a commonplace tool for interacting with library patrons. However, the same tools can be creatively wielded for communication, supervision and project management within a library department. This talk outlines in detail an innovative online management and communication system created by the Digital Services Department at the University of Houston. The system harnesses a suite of free online collaborative software and Web2.0 communication tools to create a streamlined managerial web presence. Some advantages of implementing an online management system include: remote workforce management, streamlined management responsibilities and robust capture of project data.

Keywords: Management, project management, Web 2.0, social media, metrics

Using Qualitative and Quantitative Methods in Cost Accounting Researches of Libraries

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Abstract: In library and information science cost accounting research, it is however quite common to measure the time spent by employees on various activities. Efficiency equals results divided by costs, in other words, the efficiency of employees means how much good quality work is being done in as short time as possible. Traditional cost accounting research as well as new cost accounting researches such as activity-based costing and time-driven activity-based costing in libraries have almost always combined both qualitative and quantitative methods, like analysis of statistical data (e.g. collecting all types of accounting data about the costs that occur in the production of library services), documents (e.g. job descriptions), time sheets and time diaries, observations, interviews or questionnaires.

Keywords: Cost accounting, costing, timing, activity-based costing, time-driven activity-based costing, work performance, efficiency, libraries

Using qualitative and quantitative methods in studying public sector records management practices in Tanzania

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Abstract: The management of public sector records is a critical aspect of the Public Service Reform Programme (PSRP), because such records enhance the efficiency and effectiveness of the public service. However, African governments face major challenges with regard to the management of records. The purpose of this paper is to explore the use of qualitative and quantitative methods in studying records management practices and the implementation of the Public Service Reform Programme (PSRP) in the government ministries of Tanzania. The study which the paper draws on employed multiple data gathering methods including interviews with senior ministerial officials and National Archives personnel and a questionnaire conducted to the registry personnel. An observation checklist was also used to verify data obtained from interviews and the questionnaire.

The paper described how qualitative and quantitative methods were integrated in the formulation of the research questions, in data collection, in data analysis and in data interpretation. By employing both quantitative and qualitative approaches, the study gained a fuller, richer and more complete understanding of both the current records management practices and the PSRP in the government ministries. The study ascertained that the combination of methods increased the scope and comprehensiveness of the overall findings of the study. The paper further describes that combination of methods that helped to obtain a variety of information on the same issue; used the strengths of each method to overcome the deficiencies of the other; achieved a higher degree of validity and reliability of the results; and overcame the deficiencies of single method. The study revealed that although the introduction of the PSRP had resulted in some efforts in reforming the records management practices in the government ministries, current records management practices in the government ministries were still weak. The paper established that it is important for records management studies to use both qualitative and quantitative methods in order to address a wider range of questions relating to various records management issues, such as records creation, maintenance and use, and records disposition. The use of mixed methods enhanced the findings of research by providing a fuller and more complete picture of the records management practices in the government ministries.

Keywords: Records, records management practices, qualitative methods and quantitative methods, mixed methods

Using specialist researcher librarians for entering information digital libraries

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Abstract: Digital libraries have important roles to play in teaching and learning. Existing physical universities and libraries will continue to exist since they serve scientific, cultural and social roles as well as informational roles. There will always be a need for physical objects and scientific communicating in learning; the vicarious is not enough. These demands will also be augmented by digital environments. Digital libraries will allow lecturer, teachers, students and special parents to share common information resources and communicate easily as needed. In special cases, research, work, school, and play may become one--novice and professional learners collaborating with common information resources to solve real problems. In many respects, digital libraries will become digital universities, digital schools, and digital research organizations. Learners of all types come together to share and explore information and expertise. The key feature of digital librarians is that collaborative problem solving between the researchers is no longer possible, as the library researcher has been removed from the process. This is good from the library's perspective, as it frees the researcher for other work. However, the scientific researcher is now expected to do the search on the Web site for her or himself. It seems for entering scientific data, example indexing, cataloging and... being done by specialist librarians (Biologist, Chemist, Economist and ect.). So, more information can be entered in a short time.

Keywords: Specialist librarians, explore information, spent seeking

Utilizing Grounded Theory to Explore the Information Seeking Behavior of Senior Nursing Students

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Abstract: Nursing student education requires a strong emphasis on evidence based knowledge, which means that nurses must acquire advanced information seeking skills. Nurses must identify, select and access quality health information to support patient care and deal effectively with a dynamic health care system. This interdisciplinary, grounded theory study draws from both nursing and library science disciplines, and explores how senior nursing students research the literature for a class assignment. Purposive sampling was used to recruit eleven participants. Students were asked to journal their

researching process while completing a class assignment; and semi-structured, open-ended, audiotaped interviews took place to discuss the students' journals and solicit additional data. Patterns of information seeking, strategies used to find information, and barriers to researching were identified and formed the basis of an information seeking model. Students' main barrier to searching was the challenge of choosing of words or phrases to query databases or resources. Other challenges included lack of opportunity and time to learn databases properly, difficulty retrieving the full text of journal articles, and retention of information presented at library orientation sessions. The information seeking model derived from the study has implications for improving the teaching of information seeking skills for students by nursing faculty and health sciences librarians.

Keywords: Grounded theory, information seeking, nursing students

Web 2.0 and Semantic Web perspective for Public Relations

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Abstract: Until recently, public relations were based on the personal relations of public relations executives but also on the use of traditional means of mass media. With the advent of new technologies such as the World Wide Web, a significant thrust of new opportunities and possibilities emerged. As internet technologies constitute cutting edge technologies, they naturally evolve and improve. The aim of this article is to examine how recent advances in web technology such as Web 2.0 and Semantic Web can facilitate public relations executives to accomplish their strategic tasks more effectively. An initial investigation of the definition of these two trends will contribute to answering questions such as: Do these technologies really help public relations executives or are they in fact much ado about nothing? Do the public relations executives continue to use the old practices or do they replace them with new ones?

Keywords: Public relations, Web 2.0, semantic Web

Webometric study of Malaysian public universities and private universities websites

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Abstract: The objective of this study is to determine whether there are differences in terms of visibility and accessibility of the public universities and private universities websites in Malaysia. The Times Higher Education

ranking of World Universities have shown that the top two rank of world universities are occupied by Harvard University and Yale University which are private universities. It has been shown that these two universities and other top notched universities are highly visible and accessible. It has also been shown that higher quality websites tend to attract more links and rendered those websites as highly visible. Linking is an extremely important way to increase visibility. Using a software, *Alexa* it is possible to gauge the volume of web traffic in order to determine the visibility of the website. In this study *Alexa* is applied to study the visibility of the public universities and private universities websites in Malaysia.

The development of any website has to comply with the existing accessibility guidelines. It is futile to have a website that is difficult to access by users owing to non compliance with the existing standards on accessibility. To check for such irregularities a software, *A-Prompt*, could be used. *A-Prompt* (Accessibility Prompt) is a software tool designed to help Web authors improve the usability of web pages created in HTML format. The tool's evaluation checklist is based on accessibility guidelines created and maintained by the Web Accessibility Initiative of the World Wide Web Consortium (W3C). The Web Accessibility Initiative (WAI) works with organizations around the world to develop strategies, guidelines and resources to help make the Web accessible to people with disabilities. By comparing the state of visibility and accessibility among the public universities and the private universities websites in Malaysia it is expected that the findings of the study will demonstrate that those top rank universities websites are more visible and accessible as compared to the others.

What authorities and libraries always wanted to know about public libraries, or: how to transform library statistics into an easily accessible web publication?

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Abstract: For almost 100 years statistics on public libraries have been produced in the Netherlands. The Dutch Central Bureau of Statistics (CBS) stores them in a database that is freely accessible via the internet. This database hosts statistics on almost each field of interest concerning Dutch public libraries. The database is renowned for its precision.

Managers and officials definitely need information about libraries, not in the least because of their need to economize, as a result of the debt crisis, which has hit Dutch municipalities and libraries hard.

However, it is difficult to interpret the information retrieved from the CBS database. Furthermore, there is a need to combine the derived information with information from other databases, e.g. about the amount of time spent

for leisure. Such tasks usually take more effort and time than managers and officials can spend. We perceived an urgent need for an easy accessible tool with facts, figures and interpretations.

The Netherlands Institute of Public Libraries designed and made such a tool. It is a website, the Library Monitor that monitors the situation and developments in the Dutch Public library sector. It describes in words and graphs the situation in libraries, the world of media and information, and wider society, and connects these three areas of interest by means of hyperlinks

Keywords: Public library, web publication, public library statistics, The Netherlands

What are they really doing in the library? Using an ethnographic approach in measuring patrons activities

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Abstract: The traditional library we have today might not be the library of the future. New generations of students is now entering our universities with new demands and new learning styles and we have to make the experience and services of the library transparent to them in one way or another. Understanding the use of space is increasingly important for libraries as they provide a space in which individuals may engage in a range of both social and informational activities. As librarians we are often forced to rely on anecdotal evidence alone when planning ahead but there is a need for us to really investigate changes in the use of academic libraries. We need to look at new paradigms for providing resources, reference and instruction and we also need to figure out how library space might be allocated in the future. In order to do so we have to gather qualitative information about how users behave, how they interact with the library space and what activities they pursue in the library.

The purpose of this paper is to present a study on how individuals use an academic library, although the library in itself is divided into four different branches. For us to explore and to develop an understanding of the situation at our different libraries we have used an ethnographic approach. Our hope was to develop a locally relevant interpretation of the space needs and expectations of our patrons by collecting data from unobtrusive observations and interviews. Unobtrusive observation as a method is effective in capturing the naturally occurring behavior of, in our case library users. The method used in this study, did not identify specific individuals. We observed who was present and what activities they were conducting at different times of the day in the libraries. We also annotated floor plans and maps in order to illustrate observed patterns in the use of space. Data collection took place

from March to May 2010. Over 48 hours of fieldwork was undertaken and recorded in field diaries. We looked at age and gender, possessions e.g. laptops that the patrons brought with them and activities conducted by the patrons within the library setting. Observations were conducted three times per day. The chosen time periods was evenly distributed across the day. The first, one hour shortly after opening, the second, one hour in the middle of operating hours, and the third, one hour during late afternoon. We thought it was necessary to use specific times that spread across the library's operating hours since patrons behavior could change over time. The interviews were undertaken outside the libraries and a total of 513 patrons were asked what they had been doing in the library. The majority answered that they had been studying or working on group assignments. A result similar to what the data from the observations gave.

Our study revealed an interesting visual picture of the libraries' patrons in terms of sex and age and we noticed that most library patrons were young. Most observed behaviours were studying or working behaviours, alone or in groups, but socializing behaviors, especially in group areas, were very prevalent. We noticed that sound level rose when patrons were socializing compared to when they talked about study-related issues but only on a few occasions we did notice that students were disturbed by that. The observers though, did notice that there was a lot of noise coming from the ventilation systems, from the stairs, from talk in the circulation and information desks, from alarm systems, from the book returning machine, from loud laughter and from the copying machines; noise that didn't seem to bother the patrons too much. Library study space was normally used constantly and always in demand and we saw that especially group spaces were heavily used. Surprisingly the quiet study spaces seemed not to be so after-sought. We also noticed that a number of patrons stayed at the library for many hours. Furthermore we found that students are continually remaking the library interior to their liking, moving tables and chairs around and maybe this indicates the level of comfort that individuals seem to feel within the libraries. We also found that students worked individually but also joined groups and then went back to working individually from time-to-time. Furthermore we noticed that different groups merged and helped each other on a study assignment and that the constitution of most groups appeared to be based on class assignments and/or friendships. Library patrons had several items in their possession while working in the library and especially mobile/cell phones and personal laptops were used extensively. There was generally a lot of pedestrian traffic in all of our libraries. The observers noticed couples kissing and embracing an activity that maybe demonstrates the social nature of the library space. Other activities in which patrons were engaged and that was observed included the following: talking to library staff; physically searching for materials on shelves; surfing on the net; eating; drinking and even sleeping.

Keywords: Use of library space, unobtrusive observations, interviews

What users do in the public library: Results from a 2007 Dutch survey

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Abstract: Public libraries in the Netherlands were, like elsewhere, originally reading rooms or halls where citizens could walk in to consult written sources freely and, in doing so, develop their knowledge and skills. Only later, from the 1920s onwards, did the lending of books gradually become the main “business”, with the 1960s and 1970s standing out as the expansion years of the book lending function. However, since the 1990s, the number of book loans has started to fall considerably. In the last decade this was followed by a sharp drop in the number of music cds borrowed by users. With the advent of Internet (second hand) book sales and peer-to-peer-exchange of e-books, one can safely predict that the lending function will become less important in the years to come. Little wonder, then, that public libraries have started to stress their original function of a place to read, study and consult (now also digital) sources in the last decade. But in advocating the importance of the public library as a “place to be”, estimates of the number of citizens actually using various services have hitherto been lacking.

In this paper, we reanalyse data from a representative Dutch survey (2007, >13,000 respondents) to paint a clearer picture of the uses citizens make of the public library while being there. The main question to be answered is: which groups of citizens (as to characteristics like gender, age, education level, ethnic background) use which combinations of possibilities with which intensity? The paper ends with a discussion of prospects for the public library in the years to come.

Keywords: Public libraries, library use, The Netherlands, reading room, survey research, libraries as place

The Wisdom of Many: Informing Website Design with LibQual+ and Usability Studies

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Abstract: The University of Manitoba Libraries has conducted LibQual+ surveys since 2003 and did a major web usability study in 2008/9. This session will outline how the Libraries Assessment Committee and Web Development team are working collaboratively to dovetail LibQual+ data with information from usability studies. Using this combined data we can monitor changes in user experience and expectations over time, identify patterns of use for different user groups and disciplines, and develop a model for continuous monitoring of user satisfaction with the website. In using both

qualitative and quantitative user feedback, the Libraries is creating a better web experience for our patrons.

Keywords: LibQual+, web design, usability, user experience, user-centred design, collaboration, academic libraries, Canada

Librarian Education in Information Literacy. Case study from the Romanian library Association

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Abstract. User education is a priority in the informational society. Information literacy becomes more than a user orientating course, it is a way for students to survive the explosion of information and every day changes of technology. For these reasons the Romanian Librarians' Association organised a 3-day information literacy course for 20 librarians, the representatives of the most important university and public libraries. The course structure was conceived and planned taking into consideration the changes imposed by open access to scientific information and new open sources of information, like institutional repositories. The 20 librarians trained their colleagues, between at least 5 and maximum 10 librarians in each library. A qualitative marketing research was done to see the results of this cascading instruction.

In this article the course structure, the organisation of the course, the participants, lectors and final results of marketing research will be presented.

Key words: information literacy, user education, open access principle, institutional repository and marketing research

Indicators as tool for managing a library

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Abstract: In a situation where libraries, as well as other organizations, are under close scrutiny from patrons and funding agencies, the library manager needs some tools for assessing the performance of the library, both as itself and bench-marked with others. Also, library leaders have to find some ways of gaining systematic information about the activities in their libraries. In this session we are looking at the practical use on performance indicators. We will be looking at the use of Norwegian national performance indicators for academic libraries through the four largest University libraries, through the libraries serving the humanities and social science faculties.

Keywords: Indicators, Academic Libraries, User statistics, Quality, Norway

How Are Use and Value of Electronic Access to Scientific Information Related to Production of Knowledge?

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Abstract: At the present time the Biblioteca do Conhecimento Online (b-on) provides unlimited access to research and academic institutions to the full texts of more than 16750 scientific publications, via Internet, at the national level. The Portuguese Government has been investing to improve the access to scientific knowledge so as to develop the country. It is important to know the return on the investments in university libraries. This paper explores the following issues: (i) how does the Portuguese academic community value the b-on services in monetary terms?; (ii) what is the correlations between the use of the b-on services and the Portuguese production of knowledge (published papers), and between the use of the b-on services and the average user willingness to pay to access the b-on services, in the various academic institutions?

In order to investigate these questions we use a sample of 1930 responses from a questionnaire sent via e-mail to the academic community. The Contingent Valuation Method, using a willingness to pay (WTP) scenario is used to estimate, in monetary terms, the value for the users of the b-on services. The methodology is based on statistical calculations of the WTP values and correlation analysis with data use and bibliometrics.

Keywords: Information Economic; Digital Libraries; Academic Libraries; Libraries Evaluation; Contingent Valuation.

Usability of Makula among Makerere University Library users: a case study

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Abstract. This study explored the extent to which Makula [Makerere University Library Access (Name for the Online Public Access Catalog)] can be used by Mulib [Makerere University Library] users to achieve their teaching, research and information needs with effectiveness, efficiency, and satisfaction. The research considered the impact of five usability factors as outlined by usability consultant Jakob Nielsen and computer science professor Ben Shneiderman: 1) how easy is it for Makula users to accomplish basic tasks the first time they encounter Makula (learnability); 2) how

quickly they use and continue to use Makula following the first information literacy instruction class (Efficiency); 3) how easily users re-establish proficiency of Makula after a period of not using it (Memorability); 4) how many errors Makula users make, how severe are the errors, and how easily they recover from these errors (Errors); 5) how pleasant and satisfactory it is to use Makula (Satisfaction). A qualitative study was conducted involving Makula users with poor skills in using Web search engines and the Internet in general. The participants included first-time and experienced undergraduate and graduate students, researchers, and academic staff. The participants responded to a questionnaire, a think-after interview, and exploratory observation of Makula. The results revealed that all participants agreed that Makula strongly meets the purpose it serves (effectiveness). It further showed that Makula is accessible all the time (efficient) and satisfied the users needs (satisfaction). Librarians and library science graduate students from other universities who had never used Makula were used as a control measure and confirmed Jef Raskin's conclusion: "easy to use interfaces are often easy because of the user's exposure to previous similar systems".

The hidden forces that positively shape library consortia: addressing the gap between developed and developing countries

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Abstract. With diminishing finances, it is rarely possible for a library or information center to have enough resources to fulfill the needs of its clients. Libraries working under effective collaborative initiatives in developed countries have registered tremendous success compared to libraries in developing countries. There is a growing need for libraries in developing countries to redefine their resource sharing strategies so as to benefit from library collaboration that can result in a more effective means of meeting the needs of their library users. This paper looks at issues surrounding the factors that have led to successful resource sharing among academic and research libraries in developed countries and how to practically apply such success factors to improve collaboration among academic and research libraries in developing countries. Consortium of Academic and Research Libraries in Illinois (CARLI) and Consortium of Uganda University Libraries (CUUL) are the focus in this research. This research has showed that subscription to and continued participation in a consortium is a result of a calculated return on investment by different stakeholder. Research has demonstrated that there factors considered more important by consortium membership, those that are more important to consortium staff, while other factors influence libraries to join and continue to participate in a single consortium. More so, there are

those most influential consortium values and different factors that lead to the success of a consortium.

The library's role in the quality and excellence in higher education: a Portuguese case study

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Abstract: This paper aims to present the work done by a library of higher education in the promotion of research and knowledge. They are the identified projects, initiatives, strategies and methodologies adopted in the creation of value added services provided, particularly with regard to teaching and research community. The major objective relates to the specific demonstration of how the skills of information can be exploited and profited for collaboration in the organization's mission through a study case.

Keywords: Library. Higher education. Information management. Research. Quality. Bibliometric analysis. Evaluation. Institutional repository. Open Access. Curriculum vitae platform online.

**Towards enhancing employability skills: Challenges and prospects
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A research report, produced by the World Bank in 2007, presents several years of analytical work and research on the knowledge economy in its client countries. The report is about economic development as a process of generating relevant knowledge and putting that knowledge to work to generate further growth and competitive advantage.

In many countries including South Africa, graduates from institutions of higher learning who venture into industry for the first time with qualifications, but lacking requisite employability skills and experience to provide the quality of service required by the customers. An employability skill refers to assets in terms of knowledge, skills and attitudes and the way the assets are used and deployed in a given setting. Unlike occupational or technical skills, employability skills are generic in nature rather than job specific and cut across all industry types, business sizes and job levels.

Employability skills are the basic skills necessary for getting, keeping and doing well on a job. These skills include attitudes and actions that enable workers to get along with their fellow workers and supervisors and to make sound critical decisions.

For organizations to remain competitive there is a huge need for a labor force of critical thinkers who will have the ability to link knowledge management

processes and the business strategy that is more often than not ignored in practice but constantly spoken about. Thinking is a way of life and yet a complex phenomenon which the quality of our live and the quality of our thought precisely depends on. The knowledge economy requires people with soft skills as a wide range of abilities including the ability to communicate effectively and to think critically. In today's global labor market employers are not looking for employees with just technical skills but also those who have demonstrated an ability to think logically and analytically to communicate the results of their work in a multitude of settings, to work both independently and in teams and to be real problem solvers.

In an effort to address this, Tshwane University of Technology, appoints senior students in various units including libraries. This paper's focus seeks to assess the students level of understanding regarding the value of critical thinking skills vis-a-vis technical skills as per expectation by employers from new graduates . It is envisaged that the outcome of the study will be indicative of the short-comings as expected by both the employers and prospective employees.

The paper seeks to answer the question

To what extent does the exposure to a work environment enhance the student's critical thinking skills?

In answering this question, the findings will ensure the development of a properly managed skill enhancement program at institutions of higher learning. It will further impress on the fact that no matter how skilled one may think they are, critical thinking and reasoning abilities are of paramount importance in our lives and most importantly in our workplace and that there is a need to continuously improve on these skills.

Author Index

Abazari, Zahra	60	Chun, Wang	62
Abdullah, Salmah	28	Çimen, Ertuğrul	68
Abidi, Hasan Jamal	119	Cisek, Sabina	117
Abu Bakar, Ahmad Bakeri	147	Citti, Alessandra	125
Aharony, Noa	136	Click, Amanda	128
Ahmadi, Samaneh	107	Collins, Ellen	95
Ahmed, Mohammed Imtiaz	110	Constantinou, Constantia	104
Alemu, Getaneh	39	Conyers, Angela	81
Alharbi, Awadh	113	Coppens, Sam	96
Albu, Ch.	21	Curti, Moreno	99
Amanatidis, Dimitrios	146	Cuturic, Danijel	81
Asemi, Ad.	18, 46	Da Silva, Armando	105
	16, 18, 46,	Malheiro	
Asemi, As.	107	Dal' Evedove, Paula	119
Autere, Riitta	77	Regina	
Axelsson, Marie-Louise	148	Dash, Bedarata	72
Azadeh, Feridon	56	David, Lourdes T.	72
Badurina, Boris	41		49, 86.
Banek Zorica, Mihaela	110	De Carvalho, Frederico A.	124
Banou, Christina	59	Della Seta, Maurella	53
Baptista Melo, Luiza	152	Dent, Valeda	57
Batiancila, Marcial R.	44	Di Benedetto , Corrado	53
Bedford, Denise A. D.	139	Dini-Kounoudes, Alexia	27
Behzadi, Hassan	113	Dragija Ivanović, Martina	41
Bekavac, Bernard	129	Duncan, Vicky	146
Bidhan , Chandra Biswas	111	Duzyol, Guleda	35
Bilal, Dania	114	Ebrahimi, Nayer	16, 19
Bir Bayraktar, Berat	70	Erdolatov, Sanjar	42
Bokos, George	65	Farkhari, Fatemeh	25
Bonarou, Angeliki	141	Fathian, Akram	48
Bouazza, Abdelmajid	137	Fernandes, Sofia	61, 154
Braaksma, Betty	151	Fitriyah Mannan, Endang	50
Braet, Olivier	89	Flemming, Christina	80
Brage, Christina	21, 148	Foo, Schubert	79
Cavaller, Victor	131	Fragkiadakis, Georgios A.	78
Chande-Mallya, Rehema	142	Fragkou, Afroditi	98
Chen, Hsin-liang	64	Fruttini, Luisa	99
Cho, Shu-lin	74	Fujita, Mariângela Spotti	45, 119
Choroś, Kazimierz	26	Lopes	
Chou, Chih-wen	56	Ghavami Ghanbarabadi, V.	18
Christian, A.	21	Ghavidel, Somayeh	69
Chuang, Yi-Ling	33	Gilchrist, Sarah	64
Chudaman, K. S.	82	González, Yolanda Martín	13
		Goodman, Geoff	57
		Gorraiz, Juan	28

Gracy, Karen	139	Korycińska-Huras, Agnieszka	87
Grischenko, T. B.	103	Kostagiolas, P.A.	130
Gumpenberger, Christian	128	Koukourakis, Manolis	40
Gundersen, Arne	103	Koycheva, Romyana	24
Gustafsson Aman, Kajsa	148	Krakowska, Monika	67
Hartley, Richard	34	Kubecka, Magdalena	103
Hassani, Hossein	76	Kulisooma, Ezerea	122
Hassanzadeh, Elaheh	56	Kumar Chaudhuri, Sabuj	41
Helmi Hashim, Jamalludin	100	Kumar Guha, Tamal	91
Hosseini, Mohammadreza	145	Kumar Pathak, Sandeep	44
Houlihan, Meggan	128	Kuppahalli, Chudamani	65
Huang, Chuen-Min	33	Kurbanoglu, Serap	71, 126
Huysmans, Frank	150	Kyrillidou, Martha	11
Inci Önal, H.	67	Lahikainen, Johanna	131
Ingles, Ernest B.	15	Laitinen, Anne	131
Islam, Rafikul	100	Laitinen, Markku	83, 93
Jaggars, Damon	84	Lakshmana, Nithin	95
Jamaludin, Adnan	20	Lambert, Jo	81
Jamili, Shahla	145	Landoy, Ane	152
Jantson, Signe	143	Lavrenov, Alexandre	36
Jin, Li	62	Lazić, Nikolaj	110
João Pinto, Maria	61, 154	Leone, Luisa	53
Johansson, Paola	32	Lepik, Krista	116
Jubb, Michael	95		46, 56, 74,
Kaatrakoski, Heli	131	Lo, Szu-chia	98
Kaiponen, Pälvi	131	Lorentzi, Mattias	32
Kakirman Yildiz, Asiye	92	Lugya, Fredrick Kiwuwa	153, 154
Kampouraki, Maria	78	Luyt, Brendan	79
Kampouropoulou, Maria	127	Lwoga, Edda Tandi	142
Kanık, Leyla	68	Machin Mastromatteo, Juan Daniel	123
Kapidakis, Sarantos	98	Majid, Shaheen	79
Karr Gerlich, Bella	112	Makgahlela, Lefose	69
Katsirikou, Anthi	135	Malliari, Afrodite	17
Kazemi Kohbanani, Somaye	37	Mamma, Eleni	88
Kenderova, Stoyanka	58	Martín González, Yolanda	
Khoondabi, Fatemeh Bahrami	18	Martinho, Noemi Oliveira	119
Kim, So-Young	120	Masrek, Mohamad	20
Kinengyere, Alison Annet	140	Noorman	
Konstantopoulou, Maria	63	Mayekiso, Nozzi	69
Kont, Kate-Riin	143	Mehmood, Khalid	
Konya, Umit	43	Mehra, Bharat	138
Korobili, Stella	17	Meletiou, Aristeidis	76
		Mhinga, Rirhandzu Sharon	155

Middleton, Micheal	113	Pires, Cesaltina	152
Minzu, Viorel	94	Pistol, N.	21
Mishra, A.	108	Pizzarelli, Scilla	53
Mishra, R. N.	108	Politi, Angela Maria	125
Modiramani, P.	18	Politi, Matina	33
Mohamadesmaeil, Sedigheh	16, 19, 37 69, 97,	Poulos, Marios	65
Mohsenzadeh, Faranak	122	Prochnicka, Maria	117
Molodtsova, Nadezhda	78	Pruulmann-Vengerfeldt, Pille	116
Mosavi, Maryam	113	Quevedo, Jaime	54
Motta, Saba	99	Rahman, Masudur	24
Movahedi, Farideh	16, 19	Ranjan, Manish	75
Murugan, Ananda	54	Rantavuori, Juhana	131
Mustigman, Hava	30	Rautangata, Kereti G.	5, 134
Myllys, Heli	131	Rautangata, Maria	134
Mylona, Ifigeneia	146	Raychoudhury, Nitai	132
Nagarathna, H. C.	82	Redigol, Franciele Marques	119
Nakhaie, Zahra	25	Repanovici, Angela	151
Nbawaki, I.	153	Riahinia, Nosrat	46
Ndenje-Sichalwe, Esther	144	Romaniuk, Mary-Jo	15
Neshat, Narges	56	Rosell, Mikael	148
Ngulube, Patrick	144	Ross, Penny	39
Nicholls, Pat	151	Rost, Luc	148
Nik Ahmad, Nik Nazli	100	Rowley, Jennifer	34
Nikitenko, O. M.	103	Rudasill, Lynne Marie	108
Norbisrath, Ulrich	116	Rudžionienė, Jurgita	51
Nowkarizi, Mohsen	25	Rusinova, Evgeniya	14
Oikonomou, Ageliki	135	Russo, Mariza	49
Olander, Birgitta	140	Sá, Nysia	49
Olariu, Ivona	102	Saadat, Rasul	16
Oomes, Marjolein	52	Saarti, Jarmo	93
Ostrom, Magdalena	148	Sabattini, Fulvia	125
Pakalna, Daina	139	Sagun, Karryl Kim A.	72
Panagiotopoulou, Polyxeni	128	Salgado, Stéphanie S.	49, 86 60, 106,
Papapostolou, Irini	128	Samanian, Mossayyeb	107
Papathanasaki, Aikaterini	78	Sanatjoo, Azam	48
Papavlasopoulos, Sozon	65	Sanchez Vanderkast, Egbert J.	12
Pečarić, Đilda	13	Sani, Mad Khir Johari	20
Pedramnia, S.	18	Abdullah	
Penkova, Snejanka	112	Sanji, Majideh	113
Petr Balog, Kornelija	41	Sarchami, Ali	97, 122
Petropoulou, Katerina N.	63	Sarkhel, Juran Krishna	115
Pietruch-Reizes, Diana	73	Schneider, René	66

Semenzato, Chiara	125	Vinson, Thomas Corey	38
Şentürk, Burçak	38	Voncila, Ion	94
Seppänen, Antti-Pekka	83	Voncila, Mioara	94
Shabani, Ahmad	16	Wabwezi, Andrew	115
Shaghasemi, Ehsan	76	Welsh, Teresa S.	6, 38
Shankar Ray, Siddhartha	119	Westbrook, R. Niccole	143
Sharma, Sneha Lata	75	Westerlundand, Joakim	148
Shebalkina, I.	78	Wicha, Karolina	36
Shen, Pei-chin	46	Wieland, Martin	28
Shreeves, S	108	Williams, Peter	32
Singer, Georg	116	Yernagula, Ramesh	43
Singer, Kristiina	116	Yin Leng, Theng	79
Singh, D. K.	104	Yun-Ke, Chang	79
Sotiriou, Mina	82	Zachos, George	85
Sow, Mody	44	Zaker, Mina	60
Špiranec, Sonja	110	Zakerhamidi, Maryam	127
Stefos, Efstathios	127	Zervas, Marios	27
Stevens, Brett	39	Zhang, Xue	79
Stilwell, Christine	144	Zhao, Dangzhi	25, 31
Stropanik, Alka	110	Župan, Vesna	58
Strotmann, Andreas	25		
Suchojad, Henryk	36		
Sultan Oguz, Esin	71		
Svensson, Eva Sofia	21		
Tancheva, Kornelia	84		
Taskin, Zehra	35		
Tenopir, Carol	4		
Terra, Ana Lucia	12		
Thalassinos, Nikolaos	78		
Thapliyal, Kusum	75		
Theodorou, Roxana	120		
Tobler, Laura	129		
Togia, A.	17		
Toni, Franco	99		
Tonta, Yasar	35		
Town, Stephen	11		
Trohopoulos, Ioannis	4		
Tuđman, Miroslav	13		
Urquhart, Christine	141		
Vahdat, Mehrnoosh	42		
Vakkari, Mikael	77		
Van Oost, Olga	96		
Vasileiou, Magdalini	34		
Veljković, Miljko			

