

Book of Abstracts

**Qualitative and Quantitative Methods in
Libraries QQML2009**

International Conference

**Editor
Anthi Katsirikou**

**May 26 - 29, 2009
Chania Crete Greece**

Introduction

Chania, Crete (Greece) May 26-29, 2009

It is our pleasure to welcome the guests, participants and contributors to the International Conference (QQML 2009) on Qualitative and Quantitative Methods in Libraries. The study of social methodologies in LIS has emerged as a major area of interdisciplinary research and found very interesting applications. This conference is intended to provide a widely selected forum among Science and application to exchange ideas, methods, and techniques in these fields.

Qualitative and Quantitative Methods (QQM) are proved more and more popular tools for Librarians, because of their usefulness to the everyday professional life. QQM aim to the assessment and improvement of the services, to the measurement of the functional effectiveness and efficiency. QQM are the mean to make decisions on fund allocation and financial alternatives. Librarians use also QQM in order to determine why and when their users appreciate their services. This is the start point of the innovation involvement and the ongoing procedure of the excellent performance. Systematic development of quality management in libraries requires a detailed framework, including the quality management standards, the measurement indicators, the self-appraisal schedules and the operational rules. These standards are practice-oriented tools and a benchmarking result. Their basic function is to express responsibly the customer (library user) -supplier (library services) relationship and provide a systematic approach to the continuous change onto excellence. The indoor and outdoor relationships of libraries are dependent of their communication and marketing capabilities, challenges, opportunities and implementation programmes.

The principal aim of QQML2009 International Conference is to expand the development of the systemic and methodological work in LIS. QQML2009 Conference provides a forum for bringing the various groups working in this area for exchanging views and reporting research findings.

We thank all the contributors to the success of this conference and especially the authors of this *Book of Abstracts* of QQML2009.

Chania, May 2009



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Keynote Talks

Prof. Carla Basili

Consiglio Nazionale delle Ricerche - (Italian National Research Council), Rome, Italy
Lumsa University - Rome

Talk title: Measuring Information Literacy policies

Promoter and Co-ordinator of the European network on Information Literacy and of the European Observatory on Information Literacy Policies and Research. Research interests focus on scientific information diffusion and transfer and, since 2001, concentrate on Information Literacy policies in Higher Education. Selected books: Information Literacy at the crossroad of Education and Information Policies in Europe (2008), Information Literacy in Europe (2003), The European Observatory on Information Literacy Policies and Research (forthcoming)

Prof. Dr. Norbert Fuhr

Department of Computational and Cognitive Sciences, University of Duisburg-Essen, Germany

Talk title: Evaluation Approaches for Digital Libraries

Norbert Fuhr received a PhD (Dr.) in Computer Science from the Technical University of Darmstadt in 1986. He became Associate Professor in the computer science department of the University of Dortmund in 1991 and was appointed Full Professor for computer science at the University of Duisburg-Essen in 2002. His current research interests are retrieval models, networked digital library architectures, user-oriented retrieval methods and the evaluation of digital libraries.

Dr. Henk Harmsen

Vice-director of Data Archiving & Networked Services (DANS – KNAW/NWO)

Talk title: Guidelines for repositories assessment and review of the quality of operations for data repositories

Henk Harmsen (1958) studied computer linguistics at the University of Amsterdam (UvA). He wrote a PH.D at the Vrije Universiteit in Amsterdam (VU) about automatic syntactical and semantic text-parsing. He was head of the IT department (1993-1995) and interim manager (1996-1997) of an institute of the Netherlands Royal Academy of Arts and Sciences (KNAW). In 1998 he went to the UvA as the head of the Information Services and operational manager at the Faculty of Science. In 2000 he returned to the KNAW to become operational director at the Netherlands Institute of Scientific Information (NIWI-KNAW). He led a few reorganisations and was the primary 'booster' of various innovative IT-projects. Since 2005 Henk is vice-director of Data Archiving & Networked Services (DANS), a new digital archive and data infra-structural institute in The Hague. His expertise areas are: linguistics, text-corpora, informatics and development, audio.

Prof. Peter Hernon

Graduate School of Library and Information Science, Simmons College, Boston, MA, USA, Co-editor, Library and Information Science Research

Talk title: The Next Managerial Leadership: Continuation of a Research Agenda

Peter Hernon is a professor at Simmons College (Graduate School of Library and Information Science, Boston, Massachusetts), where he teaches course on government information policy and resources, evaluation of information services, research methods, and academic librarianship. He received his Ph.D. from Indiana University and has taught at Simmons

College, the University of Arizona, and Victoria University of Wellington (New Zealand). He has delivered keynote addresses in seven other countries: Canada, England, France, Finland, Portugal, Spain, and South Africa. He is the co-editor of *Library & Information Science Research*, founding editor of *Government Information Quarterly*, and past editor of *The Journal of Academic Librarianship*. He is the author of approximately 275 publications, 45 of which are books. Among these are *Improving the Quality of Library Services for Students with Disabilities* (2006), *Comparative Perspectives on E-government* (2006), *Revisiting Outcomes Assessment in Higher Education* (2006), *Outcomes Assessment in Higher Education* (2004), and *Assessing Service Quality* (1998), which received the Highsmith award for outstanding contribution to the literature of library and information science in 1999. He is the 2008 recipient of the Association of College and Research Libraries' (ACRL) award for Academic/Research Librarian of the Year.

Prof. Niels Ole Pors

Department of Library and Information Management, The Royal School of Library and Information Science, Copenhagen, Denmark (www.db.dk/nop)

Talk title: Measuring the Quality of Leadership and Service Provision in Libraries

Niels Ole Pors is Full Professor at the Department of Library and Information Management, The Royal School of Library and Information Science, Denmark. He is member of the Research Council of the Danish Ministry of Culture and Research Director of Norslis (The Nordic – Baltic Research School in Information Studies). He is also Library Advisor for Emerald Publishing Group and has since 2001 been active as an officer in IFLA. He has previously been Dean at the School with responsibilities for both research and education. He has published over 20 books and research reports on user studies and information behaviour, research methods and statistical analysis, organisational theories and leadership, quality management and educational questions concerning the profession. He has published more than 250 papers and articles in academic and professional journals. He is member of several editorial boards of academic journals. He also has a comprehensive international experience leading development projects in Eastern Europe and South Africa.

Special and contributed sessions

SESSION TITLE: Impact! IFLA and the grantees of the Global Libraries Initiative present reports from the front line of impact assessment

Coordinated by **Dr. Stuart Hamilton**

Senior Policy Advisor (International Federation of Library Associations)

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Scope & rationale

How can libraries best show decision makers and funding organisations the effect of their activities on users? We know that many library activities are evaluated in terms of quantity (number of books, number of library activities, number of people trained) but it is more difficult to assess the real impact of library services on users. This session discusses the way that organisations like IFLA grantees and the Bill and Melinda Gates Foundation's Global Libraries Initiative are using impact assessment techniques to examine the change caused by new programmes or training on library staff and, ultimately, users. By introducing the concept of impact assessment and then using case studies from Romania, Latvia and Lithuania, and from IFLA workshops around the world, the session aims to show that impact assessment is a powerful tool for changing attitudes and actions towards libraries as well as a tool for advocacy and fundraising.

The following papers will be presented in this session:

- Paper 1: Fiona Brandley: IFLA, sustainability and impact assessment
- Paper 2: David Streatfield: What is impact assessment and why is it important? (David to supply correct title)
- Paper 3: Kristine Paberza: Public Libraries Pulling Rank – Statistics on the Policy Makers' Agenda
- Paper 4: Marcel Chiranov: Real life impact of Public Access Computers' Centres in Global Libraries Romania
- Paper 5: Kristine Paberza and Ugne Rutkausiene: Outcomes based measurement of public access computing in public libraries: comparative analysis of studies in Latvia and Lithuania

Author Affiliations:

- Fiona Brandley, Programme Manager, International Federation of Library Associations and Institutions (IFLA), Netherlands
- David Streatfield, Principal, Information Management Associates, United Kingdom - Independent Impact Planning and Assessment Consultant to the Global Libraries Initiative.
- Kristine Paberza, Impact Assessment Specialist, public library development project "Father's Third Son" co-funded by the Government of Latvia and the Bill & Melinda Gates Foundation
- Ugne Rutkausiene, Institute of Library and Information Science, Faculty of Communication, Vilnius University, Project "Libraries for Innovation", Martynas Mazvydas National Library of Lithuania
- Marcel Chiranov, Impact Assessment Specialist, IREX Romania

SESSION TITLE Challenges for managing and measuring Quality in Libraries at the beginning of the 21st century

Scope & rationale

Quality management and measures of quality in libraries are indeed characterized by a plethora of qualitative and quantitative methods and attempts, following the Deming's suggestion for the need of a continuous theory evaluation in the area of quality management. The rapidly expanding socioeconomic role of libraries requires a reconsideration of quality

management practices as well as the establishment of novel quality measures. This session explores innovative quality management practices, in both conventional and digital library environments, as well as new quality measures, covering indicatively the following:

- ✓ Suitability of practices and/or standards such as ISO 9000:2000, EFQM accreditation etc. in the different library environments or within the wider organizations.
- ✓ Measures and metrics in regard to the library operations to the "worklines" and the "lifelines" of their users.
- ✓ Measures and metrics concerning library operations and investments to knowledge capital and the new economy
- ✓ Improving the quality through managing the disaster in libraries.

The interrelation of library services to the application of known quality management approaches in various economic fields.

SESSION TITLE Human resources and Knowledge Management

This session seeks the framework for intangible asset management in libraries and information centres. It is no longer impossible for libraries to compete in a knowledge-based economy without human resources' involvement. The most valuable equipment is the knowledge of their employees that produces new ideas, innovation, and technology. The session focuses to:

The strategy of revealing and identification of the intangible asset management.

The contribution of the intangible asset to the library processes and the financial improvement.

The monitoring of assets to functional departments of the organization and the consequential effectiveness,

The knowledge management concept and technology,

The connection of learning strategies to the organization's mission and strategic planning process.

SESSION TITLE Development and Assessment of Digital Repositories

Scope & rationale

Establishing quality control into digital libraries, institutional repositories, disciplinary repositories, learning object repositories or cultural heritage repositories meant various complex issues including technical support for quality evaluation, automation of quality assessment for log files or implementation of the their organisational framework. Nowadays, Librarians and Information specialists are challenged to manage and organize these digital libraries, storage, digital knowledge mining, digital reference services, electronic information services, and manage the archive and their access. The session is targeted shedding light on trusted digital repositories and their challenges, such as:

- ✓ Preservation of their records for the next generations.
- ✓ Demonstration on fiscal responsibility and sustainability.
- ✓ Development of new metrics of their usages.
- ✓ Evaluation and best practices.

SESSION TITLE: Obtaining Users Feedback: Evidence-based vs Perception-based Research

Coordinated by **Szarina Abdullah**

Professor, Faculty of Information Management

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Scope & rationale

This session comprises 4 papers, each of them will be presented by individual authors. This session calls our attention to the different methods we can use to collect data to indicate users needs and users feedback. In particular, advantages and disadvantages of using factual data and perception surveys will be demonstrated based on research done at libraries in Malaysia.

It is important for librarians and researchers alike to differentiate between evidence-based data and perception-based data. Certain unobtrusive methods can be used to collect factual evidences that indicate users needs and library performance without having to interview or get responses from people through conventional questionnaire surveys. Capable managers are known to use evidences or factual data for decision making objectively rather than relying on perception-based data. Using factual data in decision-making is also one of the eight principles in Quality Management Principles prescribed in the ISO 9004:2000, Quality Management Systems Guidelines for Performance Improvements.

The following papers will be presented in this session:

Paper 1: Evidence-Based Data versus Perception-based Data in Performance Measurement - by Szarina Abdullah

Paper 2: Users' Feedback and the Computer Logs by Nor Rashimahwati Tarmachi, Haslinda Abd Hamid, Azizah Mohd Nor, and Azman Ibrahim

Paper 3: The Relationship between Academic Performance and the Use of Library Services by Kamariah Nor Mohd Desa, Noraziah Sharuddin,

Paper 4: Measuring the effectiveness of Information Literacy programs by Szarina Abdullah and Nor Rashimahwati Tarmachi

Author Affiliations

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Kamariah Nor Mohd Desa: Chief Librarian, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia

Noraziah Sharuddin: Deputy Chief Librarian, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia

SESSION TITLE: Data Seal of Approval Quality guidelines for digital research data in the Netherlands

Scope & rationale

Objective of the Data Seal of Approval is to safeguard high-quality and reliable processing of research data for the future without it entailing new thresholds, regulations or high costs. Making data future-proof can be accomplished by ensuring that data sets and metadata meet certain requirements. In consultation with large data producers and managers, DANS laid down what those requirements need to be in its **Datakeurmerk (Data Seal of Approval)**, which will continue to be developed further. The 17 quality guidelines for digital research data formulated in Data Seal of Approval are of interest to researchers and institutions that establish digital research files, to organizations that archive research files, and to users of research data.

The seal of approval:

- Gives researchers the assurance that their research results will be stored in a reliable manner and can be reused.
- Provides research sponsors with the guarantee that research results will remain available for reuse.
- Enables researchers, in a reliable manner, to assess research data to be reused.
- Allows data repositories to archive and distribute research data efficiently.

The associated guidelines relate to the implementation of these criteria and focus on three operators:

- The data producer,
- The party responsible for the data repository and
- The data consumer.

SESSION TITLE: Digital Sustainability

Coordinated by: **Dr Gillian Oliver** (gillian.oliver@vuw.ac.nz) and **Professor G E Gorman**, (Gary.Gorman@vuw.ac.nz)

School of Information Management, Victoria University of Wellington
Wellington, New Zealand

Scope & rationale The compelling need to develop solutions to manage digital information in today's complex and dynamic environment has tended to focus the attention of researchers on technical problems. To ensure digital sustainability over the long term however, there is a need to explore social and cultural factors that influence the success of digital preservation initiatives. The purpose of this session is to report on research into the problems of digital preservation and access, to identify the major research questions and appropriate methodologies. Topics could include, but are not limited to:

- ✓ Attitudes of users to digital repositories
- ✓ Cultural differences in approach to digital preservation
- ✓ Collaborative activity between libraries, archives and museums
- ✓ End-user interface design

SESSION TITLE: Research Centres in Academic Libraries

Coordinated by: **Dr. Teresa Welsh**

University of Southern Mississippi
Hattiesburg, MS, USA

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Scope & rationale

Presentations of research related to academic research centres

- **Abstracts submitted:**
Dr. Teresa Welsh
Prof. Diana Pietruch-Reizes
University of Silesia, Institute of Library and Information Science, Polish Society of Scientific Information

SESSION TITLE: The Change of Libraries

Scope & rationale: Libraries are in a phase of continuing changes. The challenge of competitiveness and excellence guide to modern management strategies. In order to survive, libraries start re-thinking and redesigning their administrative services. It is a matter of research, how does organisational culture and structure effect on the choice and implementation of modern managerial processes. It is also researchable if libraries resist or not to the improvement of efficiency and the flexibility of organisational structure

- Human resources management
- Organizational challenges
- Strategic management
- Re-engineering change in higher education
- Fast-responded library
- Learning organization

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

Coordinated by: **Sirje Virkus**, lecturer, (e-mail: sirvir@tlu.ee) & **Aira Lepik**, associate professor, (e-mail: aira.lepik@tlu.ee)

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Type of session: **Presentation session**

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. Six students and two faculty members explore in their papers the issues of digital library education, social, economic, educational and organizational aspects of digital libraries, open access models, and social networking issues in the different regions of the world - Africa, Asia, Australia, 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). The faculty members explore in this session the digital library education from the information and knowledge management, and human resource management perspectives.

SESSION TITLE: Information literacy: Information sharing, Democracy and lifelong learning

Scope & rationale:

The session seeks the new trends in information literacy, the innovative ideas and the methods of the implementation and the assessment of information literate people. The session focuses on the following topics:

- Information Literacy and citizenship,
- Strategic approaches to Information Literacy,
- New pedagogic challenges for libraries
- Collaborative work between librarians and academic staff,
- Independent learning skills, online information skills and lifelong learning,
- Concepts of learning, teaching and the developments in networked technology,
- Staff development and Information Literacy,
- New areas of practice and research,
- Information literacy projects on special scientific disciplines,
- Advocacy, marketing and promotion,
- Benchmarking,
- Evaluation and assessment.

SESSION TITLE: Human resources and competencies for the 21st century

Scope & rationale: The qualities of library director and of the staff are crucial for the success of knowledge innovation. A variety of multilateral skills are requested for the achievement of the competitiveness. On the other hand, staff development is prerequisite in order that they fulfil innovative, flexible goals. Some topics are the following:

- Staff training,
- Creativity skills,
- Lessons learned,
- Ideas exchange,
- Core competencies,
- Fast response organisation,
- Reorganisation restructure,
- The impact of internal and external factors,
- Expectations satisfaction services system analysis,
- Advocacy of profession and professionals.

SESSION TITLE: Performance Measurement: Describing the Value of the Academic Libraries to the University

Session organizer: Martha Kyrillidou

Scope & rationale:

This session will focus on efforts to define the value of the academic library within the university. It will examine costing models that allow the determination of the impact of the library within the university in relation to the research and teaching missions of the parent institution (Franklin and Plum). It will discuss qualitative and quantitative approaches in defining library value and their evolution from input and output measures (Franklin, Cook, Kyrillidou, Thompson) to textual narrative descriptions (Cook and Kyrillidou). And it will conclude with an examination of the potential for international collaboration in library assessment and its relation to the globalization trends in higher education.

Papers:

Title: Indirect Cost Studies: Library Impact within the Academic Enterprise

Authors: Brinley Franklin, Vice Provost, University of Connecticut

<Brinley.Franklin@uconn.edu> and Terry Plum, Assistant Dean, Simmons College GSLIS
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Title: Describing the Research Library of the 21st Century: the Association of Research Libraries' (ARL) Profile

Authors: Colleen Cook and Martha Kyrillidou

Title: Library Investment Index – Why is it important?

Authors: Brinley Franklin, Colleen Cook, Martha Kyrillidou and Bruce Thompson

Title: ARL and SCONUL Assessment Initiatives: Synergies and Opportunities

Author: Stephen Town, Director of the University Library & Archives, J.B. Morrell and Raymond Burton Libraries, The University of York <jst504@york.ac.uk>

SESSION TITLE: LibQUAL+(R): Charting Library Service Quality and other assessment initiatives

Session organizer: Bruce Thompson

Scope & rationale:

This session is a broad overview of the research foundations of the development of LibQUAL+®, utilizing both qualitative and quantitative methods (Martha Kyrillidou). It traces the projects development and origins (Colleen Cook), as well as some of the most important recent research findings in developing a 'Lite' version of the LibQUAL+ protocol utilizing matrix sampling methods (Bruce Thompson). It will also examine the implications of LibQUAL+ within different international cultural contexts in terms of survey objectives/desired outcomes, internal processes followed implications for the larger organization, and the relationship of leadership and assessment on a global scale.

Papers:

Title: Item Sampling in Service Quality Assessment Surveys to Improve Response Rates and Reduce Respondent Burden: The LibQUAL+(R)-Lite Experiment

Authors: Martha Kyrillidou, Bruce Thompson, Colleen Cook

SESSION TITLE: A workshop on LibQUAL+(R) and Other Practical Assessment Applications in Libraries

Workshop organizer: Raynna Bowlby

Scope & rationale:

This session focuses on the practical applications library assessment with an emphasis on sustaining continuous improvement by guiding library staff to act on user survey results. Raynna Bowlby has been working closely with ARL as a consultant supporting an action agenda in this area. Libraries are increasingly investing in user needs assessment and there is a recent positive trend to designate an assessment librarian or coordinator. But while the availability of user survey data and the efforts of an assessment librarian can facilitate action,

these factors alone cannot sustain a process of continuous improvement. It is critical to engage staff throughout the organization in realizing their own responsibilities and potential contributions to deliver services “in ways that maximize positive outcomes and impacts for customers and stakeholders”. As further noted by Lakos & Phipps, “a Culture of Assessment exists in organizations where staff care to know what results they produce and how those results relate to customers’ expectations”. This workshop will present several techniques for developing the library staff to understand and utilize results from a user survey, using examples from LibQUAL+® and local surveys. Some take-away tools will be provided and participants will have the opportunity to share techniques used in their libraries. Practical examples will also be provided by Martha Kyrillidou from a variety of libraries, Brinley Franklin from the University of Connecticut, Colleen Cook from the University of Texas A&M, and Stephen Town from the University of York (UK) and Cranfield University.

Speakers: Raynna Bowlby, Martha Kyrillidou, Brinley Franklin, Colleen Cook and Stephen Town

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Raynna Bowlby serves as a Consultant to ARL’s Statistics & Service Quality Programs. Raynna develops and delivers consulting and training support for libraries in areas including organizational development, strategic planning, and assessment initiatives. Raynna is also affiliated with the Simmons College Graduate School of Library & Information Science as Adjunct Faculty teaching Principles of Management and is a recruiting coordinator. Formerly Raynna worked for twenty years in the Brown University Library, where she was responsible for library assessment activities and was an administrator of Brown’s LibQUAL+® surveys. Raynna has an MLS from Simmons College and an MBA from the University of Rhode Island.

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Evidence-Based versus Perception-Based Data in Library Performance Measurement

Szarina Abdullah and Dang Merduwati Hashim

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Abstract: This paper emphasizes the significance of using evidence-based data in measuring library performance. It highlights differences between data collected from evidences which are factual data based on action and behavior in reality as opposed to perception data which are what people believe them to be. Library performance can better be measured based on evidences rather than perception of users or stakeholders. Evidence-based data provide library managers with specific aspects for performance improvement and quality control.

Keywords: Evidence-based data, Perception-based data, Measuring Library Performance

Measuring the effectiveness of Information Literacy programs

Szarina Abdullah and Nor Rashimahwati Tarmachi

The study highlights differences obtained by two different instruments in data collection when researchers want to obtain users feedback on their information literacy programs conducted by most academic libraries. Findings indicate that data obtained from users' perception do not always indicate factual performance and students' ability in Information Literacy.

The librarian in the information society

Alina Aldea, Corina Pop, Gabriela Mailat

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Internet, CD-ROM, e-mail, electronic full-text documents, digital books and scientific online databases are only a few of the things that had changed the face of the contemporary society. We called it now information society, because the information is the most important resource of our time.

The information professions are changing too. The librarians must achieve new competencies and abilities, must learn how and where to find the information their users need for their work. The relation between the librarian and the user became more personal, thus they have to communicate more and better because they are involved in the same process of searching and finding the relevant information.

Key Words: information society, librarian, competencies, users, information

The Role of Open Access in Fostering Knowledge Sharing and Collaboration in Ethiopia: a case study

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In the 21st century where knowledge has been considered as the competitive edge to excel in what organizations envisioned to achieve, research and development is the a crucial endeavour for universities and research institutions. Government policy makers, industries and the public benefit from the continuum of knowledge creation through scientific research; knowledge sharing through conferences, journals, institutional repositories and other forms of scholarly communication. The current scholarly communication system mainly the subscription-based journal model has shown limitations to serve as an effective communication outlet for scholarly research results. What is called the ‘serials crisis’ has especially affected developing countries researchers.

The disparity in access to scientific publications between the scholars from developed and developing countries continues to expand. Open access would enable developing countries researchers to access and disseminate scholarly knowledge hence narrowing the knowledge divide. Currently, the uptake of open access initiatives in developing countries is very low and Ethiopia is no exception. This study answers the question how open access improves the access and dissemination of research results. In addition, how open access fosters collaboration and knowledge sharing among researchers in developing countries is also explored in this study.

This study adopts a qualitative approach and uses the case study method. Fourteen researchers and librarians were interviewed in four organizations in Addis Ababa, Ethiopia. The responses based on the semi-structured interviews provide information about the current status of scholarly communication, the awareness of researchers and librarians about open access and the actual and potential challenges in implementing open access strategies in Ethiopia. The results of the study are believed to influence universities and research institutions in Ethiopia to best harness open access initiatives through the adoption of institutional repositories and open access journal models.

Keywords: open access, knowledge sharing, case study, Ethiopia

Which educational role can Libraries play in assessing Information in a University learning environment?

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Objective – This study assesses the skills of students in information literacy through course work, embedded in the curriculum.

Methods – Data has been collected through five different modes:

1. From questionnaires and journals kept both by the participating students and teachers.
2. Classroom instruction and observation of skills and technology application proficiencies.
3. Face to face evaluating conversations with both the students and the faculty members involved in the program.

Description: The traditional way of assessing library service quality is to measure the numbers of users and resource materials purchased each year by the library users (Quantitative). But can this type of information help the Library to establish itself as an important educational component, meeting its role in the digital information world with a

high academic standard that can influence the research outcome of the faculty it serves. What will the future Library environment be, if one takes in consideration the technological change of the library in place to the library in “Space”? The aim should be to maximise not only the services in numbers as they are easy numeric figures to measure, but in quality that meets the academic requirements of a research Library with educational programs exerting influence on the learning experience of its users. It is consequent then that such a measurement will have to be empowered in order to increase academic literacy and research competence.

The University Library of Trondheim has been working the last 2 years in collecting data about the learning process of archaeology students trained in Information literacy workshops in collaboration with the Institute of Archaeology from the University of Trondheim.

The project is supervised by Prof. Vidar Gynnild from the Department of University Pedagogy, Trondheim. We are now in the process of trying to design courses and assessment tools of teaching information literacy to users of our academic library. We have been using both Quantitative and Qualitative analysis in analysing the data gathered and is interested in exchanging ideas about assessment tools that fit to the purposes of a library learning environment.

**From Quality to Innovation: experiences in EFQM Model at University of Cadiz
Library (Andalucía, Spain)**

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The University of Cadiz Library (UCAL) won the EFQM 400+ and European EFQM Recognition for Excellence 4* in November 2006. It's the only Spanish Academic Library that have a Business Excellence Award. This could have been the end of a process started in the mid 1990s with *Total Quality* Project.

The goals of this paper is to present the UCAL experience with EFQM Model adapted as Framework for Excellence and Innovation as support of a Total Quality System Management and how bridges to news management ways has been established to satisfy user's needs and expectations.

Based on Long Term Planning tools, implementation of Quality Programs and measure Information and data system, main steps of quality building will be described through long term program.

Change and Integration were two main pillars of the UCAL management in the 1990s. Change has been and is a permanent planning consideration, and integration is necessary in an IT scenario in any attempt at modernisation in any of 3 possible variables: systems, organisation and technologies.

In order to guarantee an optimal level of information and quality services to ours users, the UCA Library has developed and implemented, over the years, information technology strategies combined with management systems This combination leads us to develop innovative processes and the management of these processes requires new information technology. This virtuous circle is the start of the implantation of the TQM system.

This vision of excellence implies the total satisfaction of library users and stakeholder's needs and expectations by means of the deployment of the concept of continuous improvement. This includes aspects such as service quality, the environment, health and safety at work as well as financial, technical or human resources and ethnic and cultural integration.

Although the nature of quality is subjective and depends on user expectations, it can be evaluated by means of different management excellence factors if they are chosen adequately. For this, the TQMS in UCAL is based on three management models: the EFQM Excellence Model to support strategic planning and the ISO 9000:2000 standards for the

deployment of processes. Both of them are combined in a strategic vision that is measured and controlled by UCAL Balanced Score Card, as a part of University BSC.

In 2008, a process to adapt an innovation's framework for libraries was started recombining, integrating and redesign elements of BSC, ISO9000 and EFQM Model.

Keywords: EFQM Model, Quality, Excellence, University Libraries

Measuring Information Literacy policies

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Information Literacy (IL) is commonly conceived as a skill to be largely diffused in the so-called "Information Society". On a different set of assumptions, the paper identifies three perspectives of analysis of the Information Literacy issue, while focussing especially on a less explored aspect of the phenomenon: the policy dimension.

The approach is consistent with the research agenda of the European network on Information Literacy (EnIL), a network launched and co-ordinated by the author with the aim of investigating a number of open questions in the European Information Literacy academic context, such as: to what extent Information Literacy is conceived as a national policy issue in the different European countries; the academic policies related to the integration of IL into university curricula; the main barriers to an effective integration of IL into academic curricula; the level of IL competency among university students in Europe.

The design criteria and the results of the EnIL Observatory on IL Policies and Research, are used both as building blocks for measuring the IL policy dimension and as variables for comparing European academic policies on IL.

The role of supply chain relationships in maintaining library users satisfaction, loyalty and perception of the service quality.

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Purpose - Academic libraries are facing a decrease in the demand on their services as this demand transferred to the other competitors, despite all the efforts and resources allocated to provide the users with a service at a quality level that could meet their expectations. **The question is** : Could the different relationships that the libraries are experiencing with the suppliers, between the departments and the users, maintain the users satisfaction with the service quality?

The primary purpose of this study was to empirically examine the impact of the supply chain relationships on the quality of the services provided by the libraries of the Arab Academy for Science, Technology and Maritime Transport (AASTMT) and to identify the service quality dimensions that need improvement. The research aims as well at exploring the library users' perception of library service quality, their satisfaction and loyalty differ according to the user gender or position.

Design/methodology- Three questionnaires have been used to collect the required data. The first measures the relationship between the library and its' suppliers, the second measures the relationships between the library departments and the third measures the relationship between the library and its' users.

The library-suppliers relationship and the library departments' relationship were measured by six dimensions (communication, trust, commitment, reliability, responsiveness

and empathy) in addition to their satisfaction with the relationship and their future intentions, while library-users relationship was measured by three dimensions (communication, trust and commitment) in addition to their satisfaction with relationship, their future intentions and finally their perception of the library service quality was measured by four dimensions (library as place, service affect, personal control and information access).

Findings - After analyzing the collected data, results showed that the three relations (with the suppliers, between the departments and with the users) in AASTMT libraries need improvement. In addition, the library users hardly agree upon the service quality. Consequently, they were hardly satisfied and loyal to the library.

It was also shown that the relation with the suppliers, between the departments and with the users influence the users perception of the library service quality. So libraries have to work on these relationships to maintain their service quality.

The research proved as well that there is no difference according to the users' gender in their relationship with the library, their perception of the service quality, their satisfaction and loyalty. On the other side, there were differences according to the users position in AASTMT in their relationship with the library and their satisfaction and loyalty as well.

Research limitations/implications - The study is limited to only the libraries of AASTMT, as the academy have several libraries offering their services to different types of users (staff, graduate and undergraduate) in different fields (Engineering, Management and Maritime transport), thus generalization to academic libraries is premature at this stage.

Practical implications – This paper will be helpful to libraries planning to implement a quality management system, focusing on the three main relationships involved in the supply chain, with the suppliers between the departments and with the susers, to improve its quality service and increase customer satisfaction

Originality/Value of the paper- This research highlighted the necessity of AASTMT library service quality assessment on permanent basis, and using this assessment as an indicator to provide the users with service with quality that let the library gain their satisfaction and loyalty.

On the other side to maintain the library service quality the supply chain should be considered from its starting point with the suppliers till the end unlike most of the researches that focus only on the last part of the chain that concern the end users.

A New Perspective to E-resource Management

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Managing information sources and empowering large user communities to retrieve information from the organization's electronic resources have become key challenges to the information center -as ways of adding real value to the information used by scientists, researchers, healthcare professionals, managers & consultants, decision makers and information professionals.

Today, as librarians we are engaged not only with the task of building larger and richer library collections, but also with the task of providing the tools to formulate a search query, to choose adequate resources for the search, to know how to find and procure desired items, and above all the ability to evaluate information resources and to judge which of them are relevant and reliable for research or study. This is what makes our training as librarians so valuable to society and more important than ever as we contribute to the development of the information society. Our advocacy and our professional guidance are vitally necessary to ensure that the information society is competent to evaluate and use the huge quantity of resources.

Today's academic libraries face competition from alternative, cost-effective information providers. In light of this reality, it is imperative for libraries to seek means to ensure that their services meet and, preferably, exceed user expectations.

The lecture will present new tools based on a new perspective to e-resource management, as a direct result of a straight collaboration between librarians, software developers and information providers, focused on users' needs and trying to offer higher quality services in information centers.

Keywords: academic libraries services, information management, information communication technologies, library management

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Library and Information Science Professionals' Perception on Digital Libraries and its impact on LIS education in Ghana

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Inadequate technological advancement is a problem in developing countries including Ghana. This has coursed slow progress in all aspects of education including library and information science (LIS) education in Ghana. Digital libraries (DLs) thrive on computer technology. The concept of DLs has been given different meanings and definitions by different professionals. With the level of computer technology in Ghana, the country's libraries are yet to develop DLs.

The author was motivated to write this paper after reading one article from a renowned university librarian in Ghana. The article was about ICT use in distance education in Ghana. In his conclusions, mention was made of how to help DL students to use the Internet to look for information. This researcher therefore wanted to find out, who the author refers to as DL students in Ghana; knowing that there is no DL or its education in Ghana. Efforts were made to contact the author for him to explain what he meant by DL Students in his article and how he sees a DL to be.

The phenomenographic method was employed to investigate the problem. Expert views were solicited from some university librarians and lecturers from the Ghana library school as to what they perceive as DLs and what they think about the impact of the DL concept on LIS education in Ghana.

Keywords: Digital Libraries, higher education, Ghana, phenomenography

The Employment Status of Librarians at Canadian Universities

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In contrast to the proven utility of quantitative methods for the measurement and evaluation of library services, research exploring the employment status of librarians has employed primarily qualitative techniques. This paper presents a complementary effort, employing quantitative monetary indicators to compare the professional / academic / faculty status of librarians relative to that of university professors in sixty Canadian post-secondary degree-granting institutions. Examining salaries, professional development allowances and compensation during sabbatical leaves, the methodology is readily applicable to analogous comparisons in other national or local political jurisdictions.

Factors that influence self- assessment in altering library environment

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This paper describes the results of two consecutive EFQM- based self- assessments, which were performed in Meliusz County Library of Debrecen, Hungary in 2007 and 2008. In the time of the first self- assessment the library was functioned in many separated buildings, in bad conditions. Before the second self- assessment the library has moved to a new, modern building, where the ideal work environment was given. The focus of my examination was to determine how the positive change of environmental impacts influences the satisfaction of employees and users. Before evaluate of examination's result I had a preconception, which has predicted the results of second self- assessment more positive, because of the modern environment, than the results of the first. In one of my previous researches I developed a EFQM- based toolkit for library self- assessments which was the methodological base of these surveys. Borbely (2003) Enablers of organization- leadership, policy and strategy, people, partnerships and resources and processes- were evaluated and surveyed in both cases. Comparison of the two surveys' results led to unexpected achievements, because the employees deemed enablers in 2007 more positively, than in 2008. What can be the explanation of this astonishing deviation from the expected results? This study's goal is to response to this interesting dilemma.

Keywords: self-assessment, EFQM- based toolkit, human factor, environmental factor, satisfaction of organisation

Conclusions

Factors that influence the satisfaction of organisation compose a very complex system. Human factors exert more significant influence on feeling of satisfaction and excellence, than the objective environmental factors.

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Measuring user satisfaction with library system according to ISO/IEC 9126-4

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This paper describes recent research in subjective measure user satisfaction in University and National Library of the University of Debrecen according to ISO/IEC 9126-4. ISO/IEC (2004) The focus of our examination was the measure of user satisfaction with system during use of library integrated system's OPAC. In order to measure quality in use it is necessary to identify each component of the context of use: the users, their goals and the environment of use. Characteristic of user that may influence their performance when using the software product need to be specified. As result of our previous examination we defined user categories on the basis of user attitudes appeared during information research by analyse of log files of system's OPAC. We measured satisfaction in the each user categories by using an attitude scale based on a questionnaire. Lewis (1995) The different user types have shown different user satisfaction by Quality in use metrics using the selfsame software product.

Keywords: Quality in use, software quality, user satisfaction, measuring quality in libraries, quality of library systems, ISO/IEC 9126-4

Conclusions

The quality in use of software product is determined by user factors, by user types and the user's satisfaction with software product determined by the software ability to achieve specified goals in a specified context of use.

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Asking Both What and Why: Mixed-Methods Research in Information Behavior

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While proponents of qualitative and quantitative research methods often have differing epistemological assumptions, most researchers recognize the primacy of the research question as a basis for research design. This presentation will demonstrate that a mixed-methods design can allow researchers to discover varying facets of the problem under investigation. A case study will be presented that illustrates how quantitative survey methods allowed the researcher to diagnose patterns of behavior, or *what* students at the researcher's university were doing with web-based social networking technologies. The researcher then used qualitative interview methods to find out *why* students used these technologies in the ways reported in the survey. The presentation will conclude with lessons learned about mixed-methods research including how to propose mixed-methods research designs to human-subjects review boards and how to present mixed-methods research for publication.

A workshop on LibQUAL+(R) and Other Practical Assessment Applications in Libraries

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This workshop focuses on the practical applications library assessment with an emphasis on sustaining continuous improvement by guiding library staff to act on user survey results. Raynna Bowlby has been working closely with ARL as a consultant supporting an action agenda in this area. Libraries are increasingly investing in user needs assessment and there is a recent positive trend to designate an assessment librarian or coordinator. But while the availability of user survey data and the efforts of an assessment librarian can facilitate action, these factors alone cannot sustain a process of continuous improvement. It is critical to engage staff throughout the organization in realizing their own responsibilities and potential contributions to deliver services “in ways that maximize positive outcomes and impacts for customers and stakeholders”. As further noted by Lakos & Phipps, “a Culture of Assessment exists in organizations where staff care to know what results they produce and how those results relate to customers’ expectations”. This workshop will present several techniques for developing the library staff to understand and utilize results from a user survey, using examples from LibQUAL+® and local surveys. Some take-away tools will be provided and participants will have the opportunity to share techniques used in their libraries. Practical examples will also be provided by Martha Kyrillidou from a variety of libraries, Brinley Franklin from the University of Connecticut, Colleen Cook from the University of Texas A&M, and Stephen Town from the University of York (UK) and Cranfield University.

Keywords: ARL, SCONUL, LibQUAL+®, Peer comparisons, Longitudinal analysis

IFLA, sustainability and impact assessment

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As an international organisation dedicated to improving access to information through libraries, IFLA has a number of core activities dedicated to achieving this goal. The Action for Development through Libraries Programme (ALP), and the Freedom of Access to Information and Freedom of Expression (FAIFE) Committee are two such activities that have in recent years benefitted from substantial funding from the Swedish International Development and Co-operation Agency (Sida). Through Sida’s funding IFLA has been able to undertake training and education activities for librarians in all areas of librarianship – from cataloguing to Internet access in libraries. Since 2001 FAIFE’s programmes alone have reached over 2000 library workers around the world.

Sida’s funding for IFLA ends in December 2009. What do libraries and library organisations do when the money for activities runs out? How do they best persuade funders, potential funders and other stakeholders that the activities they carry out offer value for money, and have an impact beyond the numbers of people trained? How can libraries show exactly how important they are to their users and wider society? This paper talks briefly about IFLA’s experiences with funders’ evaluation requirements and the difficulties of finding an evaluation methodology that is appropriate for the type of international activities IFLA engages in. It discusses the need for success stories and best practice in IFLA’s advocacy work, and suggests that impact assessment offers a way to show the real value of library work to key partners and stakeholders.

Qualitative methodologies for determining the skills and competencies required of the hybrid information professional of the 21st century

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The topic for investigation is the boundaries and scope of the contemporary B“information professionB”, specifically in relation to (1) the differing skills and competencies within the profession, including any differentiation between the individual domains in relation to the skills and knowledge base; and (2) concepts of professionalism, particularly in relation to categorisation of areas of B“professionalB” expertise as opposed to B“non-professionalB” work and skills. Given a demonstrable lack of clarity and shared understanding of the concept of the term B“information profession (IP)B” (see Broady-Preston 2009) it is timely to map the contemporary profile of the IP and the skills required in practice. The research will be based within the British Library as the range and scope of its services are such that it is, in effect, a microcosm of the information profession as a whole. By embedding a researcher within the organisation, and s/he observing and participating!

g in all aspects of information related activity within the BL, a complex rich picture of information work and practice should be derived.

However, as Eisenhardt asserts, B“whilst early identification of the research question is helpful, it is equally important to recognise that both are tentative in this type of researchB...Also, the research question may shift during the researchB” (Huberman & Miles, 2002, 11). Thus, a more focused research question will emerge as the research develops. This paper will review and assess appropriate methodologies for the development of this rich picture of the contemporary IP.

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Key Words: Qualitative methodologies; Profession; Skills; Competencies

Exploring the Level of Information and Communication Technology Services and Use in Secondary School Library Media Centres in Kuwait: An Interpretive Case Study Research.

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The purpose of this research is to investigate the provision of information and communication technology (ICT) services and applications in secondary school library media centres (SLMC) in State of Kuwait. This study focuses on the school community (teachers and pupils) and their skill and knowledge of using ICT. There has been no previous research that has investigated the use of ICT in secondary school library media centres so this study aims to fill this gap. In order to thoroughly understand the phenomenon, an interpretive case study approach has been adopted, and therefore, multiple qualitative and quantitative data gathering techniques have been utilised. In order to research the subject within context, pertinent literature was reviewed from both developed and developing countries.

Initially, data gathering instruments showed remarkable findings. Both qualitative and quantitative data analysis approaches have been used to produce valid and reliable results. The findings indicated there was a significant lack of ICT related services in Kuwaiti school

libraries. The results also showed that integration of ICT services into SLMC was strongly advocated by teachers and pupils alike. To conclude, the results highlight the need to better understand the importance of new environments in education. The findings of this research also highlight the need for Kuwaiti policymakers to review and improve the current situation.

Digitizing Library Resources for new modes of use in Uganda

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Digital information has become seemingly ubiquitous as technology saturates all aspects of our lives. Consequently, people have become increasingly dependent on digital information and the Internet as a medium for gaining and exchanging information. However, all the data is in jeopardy of fading away, being trapped on deteriorating physical carriers or becoming inaccessible due to advances in technology, turning the necessary system environments obsolete. In order to counteract this danger, various strategies, including archiving digital materials into digital depositories have been developed. Despite promising developments, however, numerous challenges that are related to digital content and collection, interoperability, standards, knowledge organization systems, users and usability, legal, organizational and social issues, staff education; infrastructure; language barrier and technology remain. This paper concludes that digital libraries are a key technology especially for developing countries. An information strategy with a common network and digital depositories, based on common standards is a fundamental prerequisite for the librarians' work in the future. Digital depositories can assist human development by providing a non-commercial mechanism for distributing humanitarian information on topics such as health, agriculture, nutrition, hygiene, sanitation and water supply. Many other areas, ranging from disaster relief to medical education, also benefit from new methods of information distribution. Perhaps even more important than disseminating information originating in the developed world is the need to foster the ability for people in developing countries to build information collections locally. The paper recommends that adapting quickly to new digital technology is vital for success. **Keywords:** Information, Digital information, Digital depositories, Digital libraries, Technology

Assessment of Library Instruction Using Performance Based Software

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The purpose of our study was to provide an empirical analysis demonstrating the value of one-shot library instruction assessment and student learning. We developed software called Library Instruction Software for Assessment (LISA). LISA is performance based software that captures student navigation of the research skills taught in library instruction sessions. The methodology is an outcome-based quantitative study using LISA. Our software also captured student comments which gave us qualitative assessments of the instruction as well. We administered a pretest of at the beginning of the library instruction session for a baseline of student knowledge. At the end of the library instruction session, we administered the posttest to assess whether students learned the library skills taught in the library instruction sessions. At the end of the semester some classes returned for a post posttest to

measure if students had retained the skills taught in the library instruction session. During the two year study LISA provided us with 575 usable results of both quantitative and qualitative assessments of university student research skills taught in library instruction sessions.

Although 94.7% of university students report using online library resources of an average of once a month and 81.6% use social networking sites daily, only 3% of the students in our pretest could perform a successful subject search in the online catalog. Only 11% of students were successful after library instruction in the posttest. Librarians added an active learning component to the library instruction. In the posttest after addition of active learning, 38% of students were able to successfully perform a subject search in the online catalog. 64% of students successfully searched in a database in the posttest.

Users requirements for personalised virtual digital libraries

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This paper presents results of the survey which was performed in the frame of the European ENRICH (European Networking Resources and Information Concerning Cultural Heritage, <http://enrich.manuscriptorium.eu/>) project funded under the eContentPlus programme. The aim of the survey was to acquire users' preferences regarding various aspects of two digital library functions: individual static and dynamic collections and individual virtual documents. Overall number of the survey responses reached 459 responses gathered from digital library users from 12 European countries. The image of users' preferences formed on the basis of responses lead to the definition of requirements for the creation of personalised virtual digital libraries. In this paper we present adopted procedure for performing the survey, analysis of the responses and final conclusions regarding personalised virtual digital libraries.

Keywords: digital library, personalised virtual digital library, individual collection, individual virtual document, ENRICH project, digital objects aggregation

The Open Catalogue of Manuscripts and Other Information Systems for a new role of Libraries in education

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The experiences the authors had in the Faculty of Humanities they are employed in are reported. All of them are concerned with the creation of online information systems both for research and teaching in Latin Palaeography. The described information systems are used to store different data on ancient manuscripts and their bibliographies and they contributed in the creation of communities of practice, with the people involved in their use. What's more important, they showed the following features:

- a) they transformed the students attending the lessons of Latin Palaeography in communities of learners,
- b) they implemented the expert practices and helped students in building their knowledge,
- c) they assigned a special role to community knowledge, as the knowledge of the community working on the systems, with respect to individual and social knowledge.

Keywords: Ancient Library, Community of practice, Community of learners, ICT, Information System, Learning Organization, Manuscript, Script style, Web Technologies.

Citations of electronic resources in scientific publications : comparative analysis and strategy of links

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Libraries now spend a large part of their budget on acquiring electronic resources¹. While numerous actions have been taken in recent years to develop these at the french level, few studies have investigated the integration of these resources into researchers' citations, a possible indicator, among others, for appreciating the usages. At the international level, there are some studies² in specific contexts, but the results should be updated regularly.

As part of a study funded by the French Ministry of Research from June 2007 to February 2008, we conducted a comparative study of citations of electronic resources in scientific publications in three fields: Molecular Biology, Applied Physics and Economics-Management. In each field, the sample analyzed related to a recent issue of 4 or 5 major journals selected (9000 citations in all), 3 recent proceedings, texts from 4 to 5 thesis. The regularity of practices in the other issues of journals or thesis browsed leads us to believe that the conclusions that we draw from this sample could be extended. This paper will present the main results of the study.

A first type of results is related to the measurement of citations of electronic resources in the footnotes and bibliographies of publications compared both by scientific field and by publication type (journals, thesis, congress proceedings). We will characterize by field the type of electronic resources mentioned.

In addition, the very high rate of the links automatically generated by publishers or digital facilitators led us to appreciate the added value of these intermediaries on the bibliographic references. We will identify and quantify in our sample common generic models (Crossref, Isi, Scopus, Google scholar...), models specific to each area and associated with disciplinary reference databases (Pubmed, Chemport...), specific models to publishers. The study also identified initiatives for sharing platform of links between publishers from the same field (in the case of Applied Physics). Exploration of field Economy-Management has also pointed the current mismatch between francophone resources and anglophone resources on these mechanisms of links and a quality of service still low in some aggregators of journals. The development of linking mechanisms in the citations must therefore be assessed according to each context. Our study enriches other explorations already published on the topic³.

In conclusion, we will insist that the study has shown, in all three areas (slightly less in Economics-Management), and in all types of publications (journals, thesis, proceedings) a great normativity of citations on traditional resources (articles, books). Opening of web-specific resources is not very observable and automatic formatting links provided by on-line publishing intermediaries masks original writing of the author (citation of the print or electronic journal).

¹ See in particular the survey ERE of the sub-directorate of french university libraries, <http://www.sup.adc.education.fr/bib/Acti/Electro/accueil.htm>

² In particular: an article of 2006 (Dalbello) analyses citations in journals of english literature. It highlights the scarcity of electronic resources cited in relation to traditional sources and the persistence of traditional practices, http://dlist.sir.arizona.edu/1638/01/Dalbello_posterrev.pdf
One study (2005, De Groote) is related to the impact of electronic journals on the profiles of citations in medicine and shows that the citations in electronic journals have not increased at the expense of those in print journals, <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1082939>

³ Jacso (2004) analysed the establishment of the links associated with citations by publishers and aggregators (EBSCO, CSA) in psychology, <http://www.emeraldinsight.com/10.1108/14684520410553804> and JISC (2007), Link Resolvers and the Serials Supply Chain, <http://www.uksg.org/projects/linkfinal>

On another level, the study has helped to point the strategic dimension of the mechanisms of links between resources. The services in place are not built uniquely in a logical scientific strategy. Libraries must pay particular attention to the quality and completeness of these links which are now important in the practice of reading.

Combining quantitative and qualitative methods in ICT and sustainable livelihoods research

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The efficacy of information and communication technology (ICT) projects and initiatives in developing countries, and how they may contribute to sustainable livelihoods and improve the quality of life for communities is still a topic of much debate. This paper aims to further the debate in this field by discussing how quantitative and qualitative research methods were used to conduct a study on ICTs and sustainable livelihoods in the selected rural areas of Tanzania. The study utilized case study research design with the use of multiple data gathering methods including structured interviews, semi-structured interviews, focus group discussions and observation method.

The paper further discusses how the combined methodology approach was integrated in all aspects of the research such as in formulating the research design and the theoretical framework of the study, in data collection, in data analysis and in ensuring validity and reliability of the study.

The study established that both methods have strengths and that even greater strength came from their appropriate combination. A combined methods approach further provided a better understanding of the research problem than either of the approach used alone. The paper further demonstrates how the quantitative and qualitative methodological triangulation led to more rich data on the link between ICTs and rural livelihoods, access and use of ICTs by people in the rural areas, their ICTs use patterns and their information needs and seeking behavior.

Key words: ICTs, sustainable livelihoods, rural areas, quantitative methods, qualitative methods, research

Real life impact of Public Access Computers' Centres in Global Libraries Romania

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After about five months of operations some of the Global Libraries Public Access Computers Centres started to show positive impact on people life. Building an Impact Assessment Framework and implementing it in an effective and efficient way is looking like a tough and rewarding challenge.

Global Libraries program started in Romania in November 2007 with 12 pilot sites, located in 5 counties. During the pilot year IREX tested various implementing mechanisms and tools. Impact assessment, its connection with real life and delivering it in a friendly way were some of the major objectives during this pilot year.

The program started with two major studies: Library Capacity Analysis and Citizens Needs Assessment, both conducted with by a professional survey organization. Based on the findings and following a participatory process, including librarians and program consultants, IREX designed a simple easy to follow data collection method. After five operation months the librarians started to report how PAC helped improved people life. In a small community, based on library provided service, one public library user found the appropriate contact of

medical practice in county capital and had a successful kidney surgery. In other places some people got new jobs, following the assistance of a Global Libraries trained librarian.

The papers presents how Global Libraries Romania designed its impact assessment mechanism, how the librarians deal with and the structure of national program implementation which is expected to serve about 1,600 public libraries across Romania.

Keywords: metric, interview, result oriented approach, customer focus

A study on efficiency analysis about the public libraries using DEA/Window model and AHP.

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The supply of public libraries in Korea has been rapidly improving since 1997 because of the recent increase for cultural demands and interest. But the supply policy based quantity is imposing a heavy burden on fiscal of local governments.

So this paper aims to analyze the efficiency about the public library in Korea using DEA/Window model and Analytic Hierarchy Process (AHP). Non-parametric method such as DEA/Window model and AHP are efficiently used to measure efficiency of any organization in both quality and quantity. The 607 public libraries over the period 1997~2008 were selected to analyze the paper.

The results showed that average efficiency of the public library show a downward trend over the period. So this paper provides the alternative policies for the improvement of efficiency.

Keyword: public library, Efficiency, DEA/Window, AHP

Community Based Library in Zambia

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Community Based Library (CBL) is an offshoot project of the Community Based Monitoring System (CBMS). CBMS is a cost-effective and sustainable approach to confront the multi dimensional aspects of poverty, as has been evidenced by its successful implementation by the Zambia Research and Development Centre (ZRDC).

In order to provide library services to distance learning students, the National Archives of Zambia (NAZ) and CBMS Zambia partnered to pilot the CBL in Mungule, Central Zambia. The project involved digitisation of library material at the NAZ library and the Provision of content for the benefit of the university students in outlying communities. After needs assessment and stakeholder analysis, a centre at Mutakwa Basic School in Mungule was established to serve as a Library with internet access.

This paper looks at the CBL project and its future perspective in the provision of library services in rural Zambia in as far as distance learning is concerned. It discusses suitable IT infrastructure in knowledge acquisition, storage, transfer, and management. Further it reaffirms the widely acclaimed thought that the community library should identify the needs of the community, provide for those needs in a way that is best suited to the users. Participatory approaches are cardinal in the management of the CBL.

Describing the Research Library of the 21st Century: the Association of Research Libraries' (ARL) Profile

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For a decade the Association of Research Libraries has promoted novel methods of describing and evaluating the value of research libraries through its *New Measures Initiative*. During this time a suite of services including LibQUAL+, MINES, and ClimatQUAL have been developed that build upon the basic set of ARL descriptive statistics collected annually since 1907 for assessment and evaluation of North America's major research libraries. Taken together the historical ARL descriptive statistics and *New Measures* services provide a robust set of methods and tools available to assess research libraries today. However, when ARL directors were interviewed in 2005 and asked to describe a research library in the 21st century, there was general sentiment that even the ARL Statistics and the toolkit of services through *New Measures* together were insufficient in answering the question. There was a need for greater flexibility in describing the research library today in qualitative terms. Open ended descriptions of collections, services, programs and physical spaces were necessary if the essence of a research library today were to be described and evaluated. As a result the ARL community will now be submitting a qualitative, descriptive profile of their libraries in 2009. From the profiles, similarities and differences among libraries will be evaluated. If quantifiable, similarities may be candidates for additional descriptive variables in the ARL statistics set, e.g., virtual chat sessions. The paper will describe the profiles and discuss similarities and differences among research libraries emerging from the profile data. The viability of using profiles as an evaluative device will be discussed. Pros and cons of profiles will be discussed.

Keywords: Association of Research Libraries, Textual narratives, Profiles, Qualitative and Quantitative Methods

Bringing FRBR model into current cataloguing process via Liberty3, a library oriented software

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The improvement of cataloguing activities implies better ways of searching for information of any kind, as well as accessing to and exchanging of bibliographic and authority information. Analyzing the type of material or media for the benefit of all users and taking into account the developing electronic and networked environment, the new cataloguing rules must closely interconnect with ISBDs and FRBR standards and at the same time with the library oriented softwares.

ISBDs and cataloguing rules must keep their own specific terminology and must provide accurate definitions showing how each term in this specific terminology is conceptually related to the FRBR terminology. On the other hand, library oriented software must be understood and used accordingly.

That is why one of the most challenging issues of today knowledge and library management is bringing FRBR model into current cataloguing process. This also stands for the theme of the proposed paper.

Key Words: Cataloguing. ISBD. FRBR. Software. Case study

Citation Analysis-An Unobtrusive Method for Measuring Information Use by Engineering Students

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The study used citations as indicators of researchers' needs and use of information in Engineering at a university in Malaysia. It described the extent of the library's ability to fulfill doctoral students' needs for research information. A total of 14,179 citations from 95 doctoral dissertations from 2006-2008 were analysed and the results were compared with those obtained from earlier study by the library in 2005. The findings indicated that journal articles were referred to heavily for researching purposes, as opposed to books in the previous study. The availability rate for materials according to faculties increased to above 50% for all faculties, and more than 80% journal articles were available in the library. Unavailable materials were mostly grey literatures such as unpublished papers, lecture notes. The results gave evidences for library managers in terms of areas for future improvements.

Keywords: Citation analysis, Research Materials in Engineering, Information needs in Engineering

The Relationship between Academic Performance and the Use of Library Services

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This is another study using evidence-based data to prove the point that an academic library is deemed effective when it has brought impact and concrete benefits to its users.

Understanding the Qualitative and Quantitative Methods in the Context of Content Analysis

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The content analysis is increasingly employed as a means to facilitate data analysis of researchers in the field of marketing and media studies, to literature, ethnography and cultural studies, gender and age issues, sociology and political science, library, psychology and cognitive science and many other fields of inquiry. First of all this paper discusses of the theoretical background of content analysis; its conceptual and relational analysis. This paper analyses many theoretical considerations which are the main part of the data analysis. It analyses the concept of qualitative and quantitative methods in the content analysis as a data collection and analysis by different researchers in their respective field. It emphasizes in the content of the importance of the theoretical background of the understanding of qualitative and quantitative methods used by the researchers to analyze their data. It also depicts how the qualitative and quantitative data are interrelated and their current-status is highlighted. Again it emphasizes nature of inquiry of qualitative and quantitative in the data analysis; lastly the qualitative and quantitative validity are also sketched in this theoretical knowledge regarding the analysis of data of the respective study. In the concluding part it shows that qualitative and quantitative methods in the context of content analysis is very important is highlighted.

Key Words: qualitative, quantitative, relational, conceptual, content analysis.

Quantitative Evaluation of Greek Academic Libraries: Using Principal Components and Fuzzy Logic

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In this paper the Libraries of Greek Universities and Technological Institutions evaluated using their quantitative data (number of books, journals, e-books, digital documents, etc). Those data analyzed by Principal Components and then by Fuzzy Logic Approach using linguistic variables each library characterized and compared with the other libraries.

Key Words: Academic Library, Principal Components, Fuzzy Logic, Quantitative Data

Various Approaches towards Digital Preservation and Their Implications on User-Related Issues

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The current digital preservation (DP) landscape is dominated by the ISO standard 14721:2003 (Space data and information transfer systems – Open archival information system – Reference model), widely known as OAIS. It suggests the main functional components and identifies the basic data flows within a DP system. Having this reference framework for long-term digital preservation systems already played a positive role on the development of a common professional understanding and vocabulary, but there are still substantial differences between the approaches of different practitioner communities.

In this paper we will present a survey of current standards and projects in the DP field. We grouped them in several groups according to their approach: *policy-centric*, *functional*, *life-cycle management*, *constructivist*, *business-oriented*, *operational research*, as well as *highly specialised* approaches concentrating on one specific aspect of preservation. We will present examples of these approaches and will summarize the user roles they suggest and the basic characteristic of digital objects and DP system as a whole. This work is largely motivated by the need to understand what are the minimum requirements which every DP system needs to implement; what functions within the DP system can be automated and what properties of digital objects the DP system should be able to store and trace over time. A checklist of commonly accepted principles and requirements in digital preservation would help to understand better the object models and the basic transformations which need to be supported in a preservation system.

As a result of our analysis we identified the following needs for further research.

- Need to reach consensus on the essential characteristics of preservation systems and to find which of them guarantee a reliable and measurable preservation process.
- Need to define the connections between the essential properties of the digital objects and the preservation system as a whole which would help to implement preservation systems which support the storage and management over time of the essential properties.
- Need to define metrics for the essential properties of the digital objects.
- Need to address the case of preservation systems which are interoperable with legacy information systems.
- Need to achieve consensus on the basic policy elements in DP.
- Need to model in detail security-related components which take into account the specifics of DP.

- Need to address the difference between digital documents, records and data in the DP model.
- Need to define in detail the structure of preservation description information which is not specified in OAIS.
- Need to analyze the package information structure in the current information environments which would require to study in detail how to address the challenges of distributed storage and ‘big data’.

This paper is not suggesting a novel model which would provide a solution to these open areas for further research – this is a major undertaking which will require the cooperation of multiple professionals. Yet, we believe that the systematic presentation and discussion of the current state and differences in the professional points of view will be of benefit to the research community in the DP field.

Triage as a methodology for selecting and prioritising for digital preservation

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This paper examines the concept of triage as a methodology for selecting and prioritising for digital preservation. The concept of triage is borrowed from the field of medicine where it refers to the process of assigning priority or determining urgency to patients’ illnesses or wounds to decide the sequence or suitability of treatment. Triage has also been used in other fields such as for identifying and prioritising areas of need for continuing professional education (CPE), including CPE for academic librarians in developing countries. The author presents a model of triage process for digital preservation through an examination of the importance and interrelationship of factors ranging from the physical/virtual condition of the items being considered for selection, their significance, all relevant policies, strategies, and legislation, and resource considerations.

Adopting Qualitative Research in Information Systems Study: Issues and Challenges

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This paper discusses the issues and challenges faced in adopting a qualitative research methodology using an exploratory case study approach for an information systems study. The study was conducted as the fulfilment of a postgraduate degree aimed at developing an information audit framework for electricity companies in Malaysia by assessing the current practices of information management (IM), the role of IM practices in supporting organisational goals as well as the role of information or information technology related audits in the organisation. Six (6) middle-level management personnel from two (2) main electricity companies in Malaysia had been selected as the key respondents for this study. In the course of conducting this study, the research encountered several issues and challenges, which were mainly associated with the adopted methodology. This paper concludes by summarising the key issues and challenges as well as highlighting some opportunities that may benefit potential information systems researchers in conducting their studies using qualitative method particularly with a case study approach.

Keyword: Information system study, qualitative research, case study, exploratory research

Open Source Eminescu's Manuscripts : An Experiment in Literary Technology

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The project was developed by the Departments of Manuscripts and Informatics of the Romanian Academy Library under the coordination of the Romanian Academy and the Ministry of Culture. Mihai Eminescu is the greatest Romanian poet and his manuscripts consist of 48 notebooks, over 14,000 folios, without a strict chronological order and related topics. Principal goals: *create* exemplary digital collections of M. Eminescu's manuscripts in order to preserve the originals and prepare a facsimile edition; *design* a system of access to the text; *deliver* a variety of archival resources to users through special collections available online for the research, publications on CD-ROM or DVD-ROM, and the WWW.

Keywords: digital manuscripts collection; system of access; originals preservation; operating platform; archival resources; facsimile edition.

Public Management means Strategic Management – How can libraries fulfil the requirements of the New Public Management?

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New Public Management

New Public Management has the following consequences for different aspects of library management:

- ✓ the organizational structure (decentralization, group-work, team-building),
- ✓ the management (vision, strategic planning),
- ✓ the leadership (management by delegation, management by objectives),
- ✓ the customer-relationship (higher customer-satisfaction),
- ✓ and cooperation.

With the state, the civil society, and the market, there are three forces that put pressure on the libraries. Therefore a library has to be efficient, effective, and competitive. For this the German National Library of Science and Technology (TIB) has developed a strategy including a vision, implemented the Balanced Scorecard (BSC) as its strategic management system, plans yearly programme budgets based on cost and activity accounting, has carried out customer as well as employee surveys, and is implementing a quality management with process documentation and optimization. The TIB has also implemented group-work and found partners to build a longterm cooperation with.

BSC as a strategic management system for libraries

After developing a strategy with a vision and strategic goals, there was a need for a strategic management system to be able to fulfil this strategy. To revise the strategy, the top management of the TIB used the SWOT-analysis to find out, which strengths, weaknesses, opportunities, and threats the library has. The following goal-building process during the development of the BSC was not easy, but not as difficult as finding the right actions and projects to reach these goals. But the most difficult part was the definition of key performance indicators.

Influence of leadership and organizational culture on the use of the BSC as the libraries strategic management system

For my dissertation I did a quantitative research on the topic “How leadership and the culture of the public organization can influence the operation and use of a strategic management system (here the BSC)”. The TIB as a public institution, using the BSC as its strategic management system, took part in this study. I can offer some interesting results concerning the leadership-style (transformational and transactional) of the management as well as a basic idea about the need for a culture that is based on trust, participation, information, and lesser regulations to successfully implement the BSC in a library.

Keywords: New Public Management, strategic management system, Balanced Scorecard, leadership, organizational culture

The year of chaos followed by the year of communications

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What do you get when you combine an arts organization, a library technical team, and a software vendor (located in a different country) who only have one thing in common: a desire for a quality system to manage cultural assets? You get the development of unique communication methods and creative problem solving. These three entities propose a case study of their two-year project to implement a sophisticated collection information system that supports both archival and museum functions. The Center for Creative Photography (CCP), a special collections within the University Libraries at the University of Arizona, in collaboration with the Libraries’ technical service team (Digital Library and Information Services Team - DLIST) chose the Canadian company, MINISIS, Inc. to develop, migrate and implement a collection information system that would support the museum and archive functions of CCP including the digitization of their collection. CCP will discuss the quality standards that informed its selection of MINISIS, Inc. MINISIS will discuss the appeal of the Center for Creative Photography as a client and their methods for completing such a project. DLIST, will discuss their various levels of collaboration and methods used on the project.

After a brief background is given, the presentation will focus first on the fitful year of trying to establish a migration plan and a customized database for the digital assets at the Center for Creative Photography and issues in not following proven methodology. Finally, there will be a focus on the tools used during the second year, separately and collaboratively, that created an environment of success, so shared goals were accomplished. The quality tools discussed will include the quality standards used to inform decisions, issues tracking, preparing test documents, and the use of technologies like GO TO MEETINGS that made real time discussions of problem and problem solving possible.

Key Words: Digitization, Museum and art digital objects

Qualitative Approach and Grounded Theory for Assessing User Evaluation of Library Services: City Library Network of Perugia - a case study

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This paper presents the aims, the methodology and the preliminary results of an in-progress investigation into the users of four libraries belonging to the City Library Network (one main library and three satellite public libraries) in Perugia, a city in the centre of Italy with 160,000 inhabitants.

The main aim of the investigation is to explore the degree of satisfaction, the needs, the motivation and the perceptions of both real and potential users, by means of quantitative and qualitative research methods.

It also aims to be a reflection on the methodology used, accepting that the dichotomy “qualitative versus quantitative” has long been set aside and considers the two approaches in fact deeply complementary.

On an operational level, the investigation foresaw the use of questionnaires to evaluate user satisfaction, and face-to-face interviews and focus group sessions aimed at examining specific issues raised by the questionnaires, enquiring not only into the “how much” of the incidence of certain variables but more interestingly into the “why”.

Finally, the paper examines the relationship between empirical research and theoretical speculation. The investigation has attempted to ascertain the validity of the application of Grounded Theory Methodology and to establish whether the ATLAS.ti program is able to guarantee greater objectivity when applying qualitative research techniques.

Keywords: Grounded Theory, Qualitative Method, Interview, ATLAS.ti, Advocacy, Interpretation.

Library Investment Index – Why is it important?

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The Association of Research Libraries(ARL) has engaged in the implementation of the Task Force on New Ways of Measuring Collections’ recommendations and developed a new index, the Library Investment Index, originally called ‘Expenditures-Focused Index’ which was published in the *Chronicle of Higher Education* for the first time in 2007. The Expenditures-Focused Index was renamed in 2008 to the Library Investment Index to better reflect the notion that money spent on libraries is reflective of investments in intellectual, scholarly, and community capital. This paper offers a closer examination of the implications of the Library Investment Index (formerly known as Expenditures-Focused Index) and discusses its importance for the research and wider library community. It addresses both the methodological advantages and limitations as well as the political significance of the development of the Library Investment Index.

Keywords: Library investment index, Expenditures, Collections, Qualitative and Quantitative Methods

Indirect Cost Studies: Library Impact within the Academic Enterprise

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Academic research libraries support their educational institutions’ missions to conduct research, including sponsored (funded) research. In the United States, colleges and universities have performed cost analysis studies, typically employing user surveys, for at least thirty-five years to quantify the extent to which their libraries support sponsored research. The United States government allows educational institutions to seek reimbursement for library expenses related to funded research via the institution’s indirect cost rate. This has given American academic institutions an incentive to measure the extent to which their academic libraries support sponsored research. This paper reports on the results of statistically valid studies conducted since 1982 at more than 200 libraries measuring academic research library support of sponsored (funded) research in the United States and looks at some of the applications that have moved beyond the sponsored research component into teaching and studying for undergraduates. Studies like that have implications for library consortia and are

expandable internationally as recent experiences in Canada evaluating the Scholar's Portal at OCUL demonstrate.

Keywords: Indirect cost study, University support services, Survey methodology, Qualitative and Quantitative Methods

Evaluation Approaches for Digital Libraries

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Whereas there are established methods for other types of information systems like e.g. database or information retrieval systems, the evaluation of digital libraries (DL) still lacks such standards. In this talk, we give a survey over models for DL evaluation that can be regarded as frameworks for defining actual evaluation approaches. Saracevic & Covi distinguish between construct, context, criteria, measures and methods, and describes different levels of information context can be distinguished. For specifying criteria, the DELOS DL triptych model defines a simple DL component model distinguishing between information space, functionality and the user, and then defines usefulness, usability and performance as classes of criteria between each two of these components. Goncalves et al. classify criteria depending on the phase of the the information life cycle considered. These two models are integrated in the DL success model by Fox & Goncalves. The different concepts are illustrated by presenting some case studies.

Sharing Knowledge on Workplace: what factors motivate librarians to share their knowledge?

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Key feature in the development of any organization is knowledge sharing among its employees. There are various factors that motivate people to share their knowledge and managing its flow assists in its dissemination. The aim of this study is to investigate which intrinsic or extrinsic factors motivate librarians to share knowledge in the workplace. To be more specific, a research project was conducted in April 2008 which was based on a questionnaire instrument and semi-structured interviews. The participants were 34 librarians working in four academic and college libraries in Greece. The data collected were analyzed using the SPSS software. Apart from the descriptive statistics, a set of Spearman's correlations were used in order to check any connection between the values under research. The findings revealed that librarians appeared to value more intrinsic rather than extrinsic motivation for sharing knowledge. The mean values showed that the main factors motivating librarians to share knowledge was the fact that it was important for them to do so (6.59) and because they could benefit from other colleagues, by sharing knowledge (6.35). Of less importance was the fact that it might help them get promoted (2.24). The Spearman's correlations were performed in order to test any relationship between any of the four general knowledge sharing attitudes and the factors of intrinsic and extrinsic motivation. One example is that of the attitude "When I have knowledge that might be relevant for others in the library, I do what I can to make it available to them" and the intrinsic motivation factor "I enjoy doing so" ($r_s=0,479$, $N=34$, $p<0,01$, two-tailed). The results of this study suggest that librarians

acknowledge the importance of the role of intrinsic motivation in knowledge sharing and that team-based culture can benefit the success of knowledge sharing initiatives within libraries.

Keywords: Knowledge management, Sharing Knowledge, Knowledge flow, Motivational factors, Motivation, Academic librarians, Academic libraries

Copyright for databases and attack on scientific research and freedom of expression

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Database producers are equally anxious due to the fact that it is possible for virtually anyone to completely copy a database, process. This line of thinking seems initially, at least, quite right, but really consists of an attack to basic human freedoms, such as freedom of expression, information freedom, and exchange of ideas.

When copyright was first established, international law writers took seriously into consideration the freedom of information, trying to balance between personal interests and the interests of society as a whole. Is it possible though, that this delicate balance is now overturned by the technological revolution, which information science has brought upon society today? Database editors and producers both in Europe and the USA are equally anxious due to the fact that, because of the digital revolution, it is possible for virtually anyone to completely copy a database, process or not the contents and afterward proceed to the commercial exploitation of the product, without, of course, paying off any production costs to the initial developers. This line of thinking seems initially, at least, quite right, but really consists of an attack to basic human freedoms, such as freedom of expression, information freedom, and exchange of ideas. Because, ultimately, only someone of a certain financial standing can, legally and safely access information, which become more and more expensive to the end user. Future information creators will have to face this problem as, information products will become more costly to produce.

As a start, the exclusive rights destined to create incentives to information producers or to protect the investments, should only be granted to original works. It should be avoided to create such rights that restrict access to knowledge or information that were previously accessible to the public and no exclusive rights should be granted for mere facts or information. Second, private rights that control the use of information, either created in the matrix of copyright, or outside of it, consist of institutions related to the freedom of speech and expression. And we should wonder why there are people who seek to enforce private rights on information.

Ownership of information is a dimension of information law that allows some people, namely the owners of information, to affect the informational environment of others, which can then use to alter or determine views and behaviours, according to their plans. If and when that happens the ability of the owners to control the lives of others rises, and the self determination fades. Relinquishment of ownership rights on information has created a matrix where some are allowed to control the informational environment of others and finally, control their attitude and choices. Information management policies in our society should see that any person should have the opportunity to live life self sufficiently and fulfil in the highest possible degree the role they wish in society.

Private rights on information restrict scientific progress as well. Scientists will not have the right to reuse and copy DBs in order to create more up-to-date and complete products. Article databases are by far the most useful tool in the hands of scientists. DBs creators will not have the right to collect smaller DBs and unify them in order to create a new DB of increased value. Scientists and researchers will have to search through many DBs in order to detect the necessary information. It is therefore quite possible for them to ignore the existence of some of them and as a result miss essential scientific information that otherwise would promote scientific research and work.

Keywords: Database law, information law, database protection, freedom of expression, information freedom

Application of selected software tools for data collection and analysis in library management and their effectiveness assessment. Results of the research conducted at Polish academic libraries.

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Abstract: The aim of the paper is to present the results of the research on the use of software tools for data collection and analysis in strategic and current library management. Special attention has been paid to Performance Analysis for Polish Research Libraries (AFBN) and Status – the tools most frequently used by Polish academic librarians.

Status is dedicated software for library data collection. It is used by the academic libraries of Krakow Library Group (about 25,000 operations registered in 2008) and several other libraries in Poland. Performance Analysis of Polish Research Libraries (AFBN) in turn is a national project which main objective is to create standards for Polish libraries based on a set of performance indicators. The project has been realized by the Task Group for Standardization since 2002. AFBN consists of the e-survey, a database and special software for the collection and analysis of data. The surveys are submitted by academic and public research libraries once a year. Submitted data are subject to further calculations and analyses.

The research on the application of selected software tools for data collection and analysis in library management in Polish academic libraries was conducted in February and March 2009. Results of the research reflect attitudes of managers of Polish academic libraries towards usability of such tools to support various aspects of managerial processes. Significant differences in opinions of software users and non-users have been discussed in particular reference to background information from the AFBN. The authors' reflection on their several-years experience in library management based on performance measures and comparable data analysis is included.

Keywords: library management, library statistics, comparable measures, performance indicators, effectiveness assessment, research libraries, Poland

New life standard of the university library

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Total Quality Management (TQM) recognized that customer satisfaction and business objectives are inseparable. TQM should be the set of practices that enable an organization to deliver quality products or services. Since libraries are service organization dedicated to their users it's appropriate to apply the TQM in library functions and services. The level of quality cannot be defined once and for all, since both the criteria and evaluation methods, as well as the assessment of the results achieved, may change. Professional skills are acquired thanks to continuous staff training and development. These are obviously the factors that strengthen motivation and build up the prestige of library profession. Continuous training makes it easier for the staff to adapt to changes, including technological improvements. It also facilitates the use of various methods of and tools for data collection and analysis that enable the research and the assessment of the quality of functioning of libraries. Thus we perceive quality as a kind of a model that is being followed, and it is possible that it can never be attained. With the application of the TQM system in library the role and importance of users has considerably increased. Meeting user requirements and

needs has been set forth as a goal. The level of user satisfaction from services, resources and the ways of providing services began to be perceived as the indicator of the library services' quality of. Performing assessment of quality systems involves the necessity of conducting regular customer surveys. The concept of user – library's customer is widely defined in the TQM system. Implementing TQM means assigning new roles for librarians. According to the TQM principles, all the elements of the library system are coordinated in order to achieve a common goal. This approach calls for continuous library system improvement and optimisation of the management control function through monitoring the conformity of requirements, needs, and standards with the current indicators of activity, which proves to what extent the requirements and aims are fulfilled. Such as Ukraine today is the part of the European space the implementation of quality system are actual. Installation of the newest librarian information system in Science Library of the Kharkiv National University of RadioElectronics was assumed use new quality indicators to serve the library's customer.

Key Words: TQM, INDICATORS, LIBRARY

On the information retrieval model by citation analysis

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In this paper, we propose to study the problem of the information retrieval. A representation model of the scientific production will be presented. Some properties will be released from the structure of the model presented. Using some techniques of the graph theory, we will propose a method of information retrieval containing the citation analysis.

Guidelines for repositories assessment and review of the quality of operations for data repositories

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Data Archiving & Networked Services (DANS) is active in the area of data infrastructure, with two main themes, namely (digital) archiving and making research data available. The field of activity of DANS covers both the social sciences and the humanities. DANS also manages its own data repository of research data. In 2005, the founders of DANS, the Royal Netherlands Academy of Arts and Sciences (KNAW) and the Netherlands Organization for Scientific Research (NWO), gave DANS the formulation of a data seal of approval as one of its assignments. In February 2008, 17 guidelines were presented under the name data seal of approval, nationally at a KNAW symposium and internationally at the first African Digital Curation Conference. This article will explain more about the backgrounds of the seal of approval: what it is and what it isn't, which international seals of approval exist, how this seal of approval matches them, what its unique selling point is, and what the plans for the future are? There are several initiatives in the field of repository assessment: TRAC, DAF, DSA etc... This workshop could give an update of everything that is being done.

Key Words: quality assessment , data archives,

The New Basel Capital Accord and Emerging Countries Vulnerability: Implementation and Implication

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The aim of this paper is to review main features of the new Basel capital accord from the viewpoint of emerging countries, by discussing the problems faced by the emerging economies and the positive & negative impacts of implementation.

After a brief overview of the key features of the new Basel Capital Accord (Basel II), an analysis is conducted in order to identify the main implication arising out of implementation of the new Accord in both emerging and industrialized countries on emerging market.

Implementing the new Accord in industrialized countries is expected to have various consequences on a large scale, including some adverse impacts on emerging markets, such as increased costs of lending, enhancement of competitive advantages of large banks, increased pro cyclicalit . We find evidence that Basle I makes developed countries to reduce international capital flows to emerging markets. Then, we argument, with a simulation of the IRB models, that the foreign banking borrowing conditions for emerging debtors will not be improved by Basle II.

The third part sets out to examine the appropriateness for emerging countries to implement a new set of capital requirements as recommended by the Basel Committee. That due to pressure from the international financial community, prestige, lack of resources, the emerging economies are obliged to go in for Basel II norms sooner or later.

The paper in this part discusses the problems faced by the emerging countries and the positive & negative impacts of implementation with a focus on Tunisia.

JEL Classification: C82, G21, G28, G32, F33

Key Words: IRB, emerging countries, Bank regulation, Basel II

Benchmarking library web site usage

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Stuttgart Media University has developed a standardized method for libraries to measure the usage of their web sites. Its key characteristics are centralised data collection and easy implementation by libraries. The method has been applied in 2007 and 2008 by more than 80 academic libraries participating in the Germany national library benchmarking instrument BIX. The method as well as some results are presented.

Keywords: web usage; academic library; library statistic

2.0 Activities: Model and Metric

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1. Web 2.0 Constitutes a Paradigm Shift and Social Change

Users have never been so interconnected and so "organized" (Shirky, 2008). Web 2.0 redefined opinion-leading, group dynamics and the dimension of information exchange and sharing. In 1999 Tim Berners-Lee already referred to the world wide web as a "more social creation than a technical one" (Berners-Lee, 1999). In response to this social change induced by mass non-commercial sharing of information through distributed computing (Benkler, 2006) Time Magazine's "Person of the Year 2006" was called "You", reflecting the social impact that a large group of individuals can make on the web (Time, 2006), calling it a

revolution, stating that "we are so ready for it." The users were ready and apparently do engage in using the advantages.

The question posed with this paper is whether organizations are ready for this new style of communication and interaction.

Especially for organizations dealing with large numbers of clients (like library users) this paradigm change brings about a challenge not only regarding their marketing policies and communication strategies but may even change their portfolio of services by integrating users into the production process. Therefore, we developed a model and metric that sets out to measure the intensity of the Web 2.0 activities of organizations.

2. The Model and Metrics

Following a classification of Web2.0 applications a structure of clusters was developed. The tools and applications were grouped into the following clusters according to the form of interaction they represent: Cluster 1: Findability and Orientation, Cluster 2: Interactivity, Cluster 3: Community Building, Cluster 4: e-Learning 2.0, Cluster 5: e-Commerce 2.0

Only some limited knowledge has been acquired so far by studying the use and benefits of Web 2.0 in the external organizational context.

This paper discusses the following categories of positive impacts of Web 2.0 applications for the organizational goals: Impact 1: Community and Interest Group Building, Impact 2: Reciprocal Commitment, Impact 3: Generating Added Value to the Product and Service Portfolio, Impact 4: Social Proof, Impact 5: Liking.

The proposed metric is being generated in three steps: metric 1 (occurrence), metric 2 (quality), metric 3 (business impact).

3. Conclusions and Future Directions

The strategic participation in the Web 2.0 environment requires careful planning and the consideration of possible side effects. In order to arrive at a systematic approach for the implementation of Web2.0 strategies, this paper proposes a process model and a tool for auditing the Web2.0 landscape of an organization. Thus it provides a method for libraries for strategic integration of Web2.0 activities.

Keywords: Web2.0 Measures Metrics Communication Quality Marketing Process

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The Next Managerial Leadership: Continuation of a Research Agenda

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Increasingly there is interest in moving beyond a focus simply on management and to recognition that leadership is more than a subset of management. Management is the process of administering and coordinating resources to ensure that an organization accomplishes its mission and goals. It has been long recognized that leadership is not limited to a management context. Still, within library and information science (LIS), with its managerial focus, there is a desire to examine the interconnection between *management* and *leadership*, and to apply what is learned to challenge the status quo. As early as 1950s, the term *managerial leadership*

was coined but its definition was imprecise. “No defined of the phrase ‘managerial leadership’ has gained general acceptance. In fact, it is often referred to but left undefined” or merely equated to leadership theories and styles. [1]

This paper, which aligns with the program in managerial leadership in the information professions at Simmons College, [2] examines leadership with organizations (e.g., libraries). As such, managerial leadership encompasses an examination of leaders, followers, the interaction between the two groups, and leadership as a process whereby people influence others to develop, accept, and carry out a shared vision to guide future actions of the organization. As a result, that process is longitudinal and involves events (actions, impacts, and accomplishments), be they accomplishments or setbacks. There are shades of leadership, which means that leadership is not always positive. [3] Furthermore, this paper builds from the international research agenda that Candy Schwartz and I offered in 2008. [4]

LEADERSHIP

In addition to focusing on the shared vision, leadership is about giving people confidence to meet organizational expectations and serve as change agents. It also encourages them to seek, be given, and benefit from team coaching and mentoring aimed at enhancing their knowledge, skills, abilities, and effectiveness. The staff become both followers and leaders, and they collaborate with other institutional partners.

With so many libraries organized into teams or small groups and involved in managing change; with new staff members expected to work together to plan, implement, administer, and evaluate services; and with libraries forging partnerships at the institutional, local, and other levels, librarians are becoming increasingly interested in leadership theories, styles, traits, roles, and development. For instance, there is much interest in transformational leadership and emotional intelligence, which helps leaders move beyond basic “people skills” to understanding how one’s own reactions and feelings impact how one is perceived by others. Leaders and managers need to understand their own emotions and recognize and understand the feelings of those around them. Leaders are more successful when they pay attention to their social interactions with others in the workplace and the impact they as leaders have on those around them. It is also important for leaders to understand the impact that others’ emotions have on them. When leaders are aware of the emotional side of the workplace, they are better able to create a working environment that encourages excellence. [5]

Despite this general understanding of leadership, Peter Northouse points out that leadership has “many different meanings,” as is evident when people “finish the sentence ‘Leadership is’” [6] Their responses might ignore social influence or add new elements. They might also associate leadership with religion, politics, military figures, and other contexts. Each of these areas actually produce separate leadership theories that have been long investigated.

CONTEXT

Even though this paper focuses on topics (Figure 1) and methodologies (next section), it is important to remember that methodologies do not drive research. Research, which engages in problem solving, is shaped by the reflective inquiry, in particular the problem statement, objectives, research questions, and hypotheses. These components, as well as the study procedures and data quality, comprise a framework in which each component is bonded to the others through, what David R. Krathwohl calls, a “chain-of-reasoning.” That “chain is only as strong as its weakest link;” “all links ... should be build to about the same strength;” “as the work load is picked up by the first link [the problem statement] and passed to successive links, the work load—and therefore the nature of each link—is determined by the previous links;” and “where several links together join those above and blow them, there may be trade-offs to compensate for weaknesses. [8] It is beyond the scope of this paper, however, to present and relate the entire chain-of-reasoning.

THE PREVALENT METHDOLOGIES RESEARCH AGENDA

Figure 1, which focuses on people (leaders and followers) expands on the depiction presented in the recent article by Schwartz and me.

NOTES

1. See Peter Heron, "Leadership in Academic Libraries Is No Fad," in *Making a Difference: Leadership and Academic Libraries*, edited by Peter Heron and Nancy Rossiter (Westport, CT: Libraries Unlimited, 2007), p. 253.
2. Simmons College, Graduate School of Library and Information Science, Managerial Leadership in the Information Professions (Boston, MA). See <http://www.simmons.edu/gslis/academics/programs/doctoral/phdmliip/>
3. There is an emerging literature on bad, negative, or destructive leadership. See, for instance, Barbara Kellerman, *Bad Leadership: What Is It, How Does It Happen, and Why It Matters* (Boston: Harvard Business School Press, 2004).
4. Peter Heron and Candy Schwartz, "Leadership: Developing a Research Agenda for Academic Libraries," *Library & Information Science Research* 30, no. 4 (December 2008): 243-249.
5. Peter Heron, Joan Giesecke, and Camila A. Alire, *Academic Librarians as Emotionally Intelligent Leaders* (Westport, CT: Libraries Unlimited, 2008), pp. 8-9.
6. Peter G. Northouse, *Leadership: Theory and Practice*, 4th ed. (Thousand Oaks, CA: SAGE Publications, 2007), p. 2.
7. Heron and Schwartz, "Leadership," p. 247.
8. David R. Krathwohl, *Social and Behavioral Science Research: A New Framework for Conceptualizing, Implementing, and Evaluating Research Studies* (San Francisco: Jossey-Bass, 1985), p. 52. For an extended discussion of problem statements, see Peter Heron, *Statistics: A Component of the Research Process* (Norwood, NJ: Ablex, 1994), pp. 8-13; Peter Heron and Candy Schwartz, "What Is a Problem Statement?" *Library & Information Science Research*, 29 (2007): 307-309.

A boundary-crossing collaboration for knowledge creation and expertise: The CIP Project

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The paper proposes theoretical framework and an experimental case of a project CIP "Connecting Information Professionals Worklab 2006-2007" (CIP Work Lab) being developed at Turku University of Applied Sciences, Finland. The purpose of the CIP Project was set up in order to (1) examine and develop the relationships between the degree programme in library and information services and the practice field, and (2) to investigate the key knots of knowledge transfer network from the relevant participants' point of views: from regional innovation area's, from the employers' and from the university lecturers' point of views. The background of the project CIP Worklab is based on the concepts of open innovation and living lab cooperation.

The paper efforts to interpret prerequisites and challenges in the university-industry cooperation and get experience about the shared knowledge creation in the systematic mutual interaction between the university and the professional practice. In practice there is a target of deeper further collaborative development of both the university lecturers and the staff of the regional library sector, in order to set up a win-win collaboration model.

The question is: how to improve the collaboration on the practical individual and professional expertise level in order to act efficiently in knowledge creation and in a long run in order to generate innovations, thus to strengthen the quality and impact of the library service. Subquestions are: (1) what kinds of barriers the individual human actors, lecturers and the library partners, in practice see, such which diminish the interests and opportunities to build collaboration; (2) what kinds of new opportunities there opened during the collaboration

encouraging project CIP Work Lab; (3) what kinds of qualitative aspects should the effective cooperation model be composed of?

There are needed new models to improve and strengthen the lively link between higher education, professional practice and information research. Higher education institutions (HEIs) are considered as communities of information and know-how, which have an essential role in the regional development as producers and distributors of new knowledge and innovations. In addition, the task of the HEIs is not only to produce new knowledge and know-how but also to absorb creativity and talented people from the surrounding environment and this way to strengthen the capacity of the region.

Hazelkorn (2005) has recently illustrated the relationships and different tasks of the knowledge institutions as the nexus of research, education and practice. The mission of the traditional university is to promote free research and scientific education and to provide higher education based on research. Specialized research institutions have concentrated in combination of research and professional practice, while traditional vocational education has emphasized balance between education and professional practice. New generations' universities and polytechnics in Europe have pursued a new way to combine practical professional expertise, research based education and regional development activities ("the third mission") with high importance of collaboration with private sector. The knowledge economy emphasizes the importance of internal and external networking and transdisciplinary research in the organisations for supporting innovations. The task of national higher education policy and of each university is to merge research and development activities and regional development policy together in a rational and expedient way. The HEIs have to learn to act in the new context. (Hazelkorn 2005; Houghton 2005.)

The case CIP Work Lab asked questions as follows: How the library and information field could seize the opportunities of cooperation with the universities? What kind of differences there are considering between the internal communities of library practice and universities? How to measure the quality of the collaboration?

The background for the practical development project CIP Work Lab presented in the paper as an experimental action research is grounded on the Triple Helix approach, introduced by Henry Etzkowitz and Loet Leydesdorff (2000), which considers both enterprises and higher education institutions having the leading role in development and innovation. The regional research and development activities will be based on the three actors' collaboration and interplay: between industry, government and the higher education sector. This model of innovations emphasizes client driven development and applied research supported by the university resources. In this sort of systemic approach, based on the interactive learning model, innovation is seen as an evolutionary process of complex, interactive, non-linear external and internal learning inside the library organisations and between libraries and their environments.

Keywords: collaborative development, strategic partnership, quality of networking, knowledge creation, knowledge sharing, networking, learning regions, interaction between theory and practice

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One-Stop Learning: A text-mining-knowledge utilization process

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This report illustrates an alternative approach to document search, retrieval and self-learning. Pairs of informative terms (i.e., ideas) from the authors' sentences are employed in search statements. The sentences containing the identified thought are extracted and stored. The terms linked to the designated pair are classified and added to the evolving idea map. By sequentially expanding the network of terms and relationships making up the topic, the authors of the retrieved documents actually guide the learning process. The user builds an idea map using these data, thus developing an authors' view of the topic. This result gives the 'student' the benefit of having a subject specialist-derived guide to the topic.

Keywords: Search, information retrieval, self-learning, ideas, objective qualitative analysis, text mining, knowledge utilization

Using a free online questionnaire to determine the skills, competencies and knowledge required to work in a digital library environment in Australia

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This paper discusses the data collection technique used to determine the skills, competencies & knowledge required of academic librarians working in a digital library environment in Australia. The research was undertaken as part of the researcher's master's thesis conducted at Tallinn University. The data collection instrument used was a freely available online survey tool, and its advantages and disadvantages are discussed in terms of the desired outcomes and circumstances surrounding the thesis project. Decisions regarding the design of the questionnaire are also discussed.

Keywords: Digital Libraries, skills, competencies, knowledge, online survey, Australia

High School Librarians' Professional Competencies Influence Teachers' Lesson Preparation Process

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The study investigates what kinds of resources and services teachers use in their lesson preparation, and examines teachers' perceptions about what kinds of competencies high school librarians should possess to assist teachers in lesson preparation process. Finally, to make a synthesis of what competencies affect teachers using library resources in the lesson preparation process. The study uses both observation and interview as research methods to investigate seven teachers who usually use library resources during preparing teaching materials, six teachers who seldom use library resources during preparing teaching materials, and six high school librarians.

The major findings of teachers using library resources when they prepare teaching materials are listed below. (1) Collections of library, such as books, journals, reference books, and visual resources; (2) Equipment of library, such as photostat, audio-visual room, computers set in information retrieval area; (3) Services provided by librarians, such as searching and recommending collections of library, instructing teachers in using equipment; (4) The abundant, novel, and specific collections, the popularization of technology, the level of teachers' understanding the responsibility of librarians, the space and atmosphere of the library are the factors affect teachers using library resources for preparing teaching materials.

The major findings of the study in the part of what kinds of high school librarians' professional competencies affect teachers using library resources for preparing teaching materials are listed below. (1) Knowledge: education and subject knowledge belong to high school education; (2) Skills: the skill of selecting and acquiring resources depends on teachers' needs of teaching, the skill of organizing and managing collections logically, the skill of eliminating collection appropriately, the skill of assisting teachers to make teaching materials, the skill of introducing or recommending collections for teachers depends on teachers' needs of teaching, the skill of promoting library resources, the skill of familiar with location of collections and operation of equipment. (3) Attitude: the attitude of concerning teachers' needs of teaching actively, the attitude of enjoying help users, the attitude of enthusiasm for working in library, and the attitude of intellectual curiosity.

Keywords: Teachers, Librarians, Professional Competencies

Development of strategic performance indicators at the National Library of Scotland

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The paper explores the development of strategic performance indicators at the National Library of Scotland over the past two years. The chief influences on the need to change and develop indicators are:

- The introduction of a new corporate strategy for the organisation;
- The introduction, by the devolved Scottish Government, of an "outcome-based" performance framework for all public bodies.

The paper describes how NLS has reviewed its Key Performance Indicators (KPIs) in order to make them better aligned with the new goals of the revised strategy. The intention is that all strategic objectives have associated metrics or measurements. For some KPIs, (for example marketing and fundraising), such measures are relatively unproblematic, whilst

others (for example on research outputs, use of digital resources) present considerable challenges. The paper describes how NLS has tackled this spectrum of difficulty.

The paper also describes how NLS has at the same time attempted to embrace the new political agenda of the Scottish Government, following the election of the Scottish National Party minority administration in May 2007. The Government expects all public bodies to play a part in achieving a small number of social and economic ‘outcomes’. This requires public bodies to show the difference that they make to society, rather than using more traditional input or output measures. This has also stimulated NLS to devise measures which cover ‘cross-cutting’ themes such as environmental sustainability and equality.

Finally, the paper looks to future developments, particularly at the intention to introduce Business Intelligence software to enhance both the quality of information and also its use by managers throughout the organisation. The focus of the paper is on cultural, management and implementation issues as much as on technical aspects.

Infopragmatics: an efficient method for information retrieval

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Based on a linguistic algorithm, supported by an uncertainty theorem, the *infopragmatics* is a new method that offers an efficient solution, but not limited, to those Spanish speaking users who try to get the most useful information from academic databases which contents is in English. Presents a search analysis, an application of the language of levels understanding table, brief considerations on the ambiguity of the term “relevance” and statistical reasons to put *infopragmatics* into action at our National University Library System

Keywords: infopragmatics – information retrieval (IR) – algorithm – uncertainty theorem – pragmatics – linguistics – Spanish speakers.

A next generation distributed preservation framework for digital repositories: first results from the SHAMAN project

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How can we deliver infrastructure capable of supporting the preservation of data, as well as the services that can be applied to those data, in ways that future unknown systems will understand? How can we provide a characterization of services that can be applied to data within a rule-based (as opposed to primarily metadata-based) system?

SHAMAN, an EU-funded FP7 Integrated Project (http://cordis.europa.eu/fp7/ict/telearn-digicult/digicult-projects-shaman_en.html), aims to provide a tangible answer to these questions, investigating the long-term preservation of large volumes of digital data in a distributed environment and developing a next generation preservation framework. This framework will be verifiable, open and extensible, with corresponding application solution environments for analysing, ingesting, managing, accessing and reusing information objects and data across for memory institution (library and archives), design and engineering segments, and e-science domains. SHAMAN explores data grid, digital library, persistent archive, content representation technologies and all aspects of digital preservation, from ingestion to dissemination in an environment where the collections, producers, consumers, and curators are geographically distributed and the content of the collections is of a dynamic nature.

SHAMAN’s first major activity was to identify user and organisational requirements and suitable technologies for meeting them. This paper describes the outcomes of this

investigation, which was based on empirical research ensuring the requirements reflect ground truth. HATII at the University of Glasgow led this process.

Until recently, much research and thinking in digital preservation and curation has been based on a narrow and often single institution focus. These analyses often have not reflected the consistent application of proven data collection methodologies, and in particular the application of industrially established techniques for system analysis and design, although we found four counter examples and have noted these for comparative purposes (i.e. CASPAR, Planets, ERA, and National Library of New Zealand). The SHAMAN team, to ensure that we have the broadest understanding of what would characterise an efficient and effective preservation system, have looked more broadly by investigating the needs of communities across the three SHAMAN domains: libraries and archives, escience, and engineering. In conducting the fifteen case studies in representative organizations across Europe, we also followed practice that proved valuable in earlier research conducted by ERPANET of ensuring that in each institution in our target pool we interviewed a cross section of individuals including preservation experts, mediators, and end-users. In addition we aligned the interview questions with the elements of the OAIS functional model. This provided a breadth of understanding of user needs and expectations. It has made it possible for us to draw some conclusions about the conceptual requirements for the SHAMAN infrastructure which cut across institutional domains.

Through the interviews and their analysis we developed a picture of the types of digital objects (e.g. documents, databases) and kinds of representation information (e.g. metadata) that organisations use in their business operations and to understand the policies that govern their use within these contexts. We supplemented our empirical work with empirical work done elsewhere, such as BRICKS, CASPAR, ERA, Planets, ICSTI and CENDI, NDIPP and the National Library of New Zealand. In considering the use cases and requirements developed by these initiatives, we were able to validate some of our findings and to extend our understanding of the digital preservation arena, laying a solid foundation for subsequent work in the SHAMAN project. The SHAMAN requirements model that we have developed provides a framework for libraries, archives, and centres handling data will underpin the long term accessibility of digital materials in distributed and policy driven preservation environments.

Assessment and Sustainability of Repositories and Digital Libraries with DRAMBORA

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The preservation imperative pervades all aspects of digital repositories. Preservation applies to all types of resources but most importantly to information objects, and as such it can be seen as embedded within the digital repositories. Effective preservation demands that the provenance and authenticity of digital entities are secured, that their ‘interrelatedness’ is retained, and that information about the context of their creation and use continues to be available. At the most conceptual level, full understanding of an information object requires knowledge of the cultural context and of the meaning of the representation mechanism, such as term or graphic or sound elements, used by the creator of the object at the time of creation. Preservation might also be viewed as interoperability over time.

The Digital Curation Centre (DCC) in the UK and the EU-funded DigitalPreservationEurope (DPE) project jointly released the Digital Repository Audit Method Based on Risk Assessment (DRAMBORA, <http://www.repositoryaudit.eu/>) in early 2007, with the goal to provide a practical, evidence-based toolkit for assessing repositories and digital libraries.

Digital curation can be characterized as a process of transforming controllable and uncontrollable uncertainties into a framework of manageable risks. The DRAMBORA process focuses on risks, and their classification and evaluation according to individual repositories' activities, assets and contextual constraints. The methodological outcome is a determination of the repository's ability to contain and avoid the risks that threaten its ability to receive, curate and provide access to authentic and contextually, syntactically and semantically understandable digital information.

DRAMBORA successful bottom-up approach enables repositories to relate their benchmarks for success more explicitly to their own aims and contextual environment, enabling an increased granularity of understanding of preservation approaches and challenges. A key strength is that the toolkit is capable of being used both independently and in association with more objective guidelines.

The tool's development and ongoing evolution has been informed at all times by practical research. More than twenty international repositories have completed a assessment using the toolkit, enabling the validation of its primary methodology and offering insights into potential shortcomings and the extent of its applicability in a range of diverse preservation contexts. Subsequent iterative development has led to the refinement of its methodology, and the release of DRAMBORA Interactive, a freely available online tool aimed at streamlining the core risk assessment process and currently being used by multiple international repositories. A ISO working group has also been set up to move forward on the ISO/TC 46/SC 11 standard on risk assessment in records management, based on the DRAMBORA toolkit.

This paper will describe the DRAMBORA methodology, focusing on its benefits and developments, and introduces DRAMBORA Interactive. It will then go on to describe the results of some of the most successful pilot assessments.

Most notable is the work funded by the DELOS Digital Library project, which sought to identify core characteristics within a range of digital libraries (Gallica – National Library of France, CERN Document Server, Michigan Google Digitization Project and Digital Library of the National Library of Sweden) in order to conceive a repository profile that might form the basis for subsequent repository development and evaluation. A further overview of the repository landscape has been provided by the recent investigation of the applicability of DRAMBORA in libraries archives and data centres/repositories in Japan (Digital Library meeting of the National Diet Library in Kyoto; Digital Archive of the National Archives of Japan in Tokyo; HUSCAP repository - University of Hokkaido), with the support of the Great Britain Sasakawa Foundation.

Qualitative and Quantitative Methods in an 18th Century Romanian library.

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The Brukenthal Library, which is actually a department of the Brukenthal National Museum, Sibiu, Romania, is an 18th century cultural institution. The founder, Samuel Baron von Brukenthal (1721-1803), Governor of Transylvania between 1777 and 1787, was a man of Enlightenment, and he tried to "build" a modern library. During the Communist regime, the library was regarded as being of less importance, due of its origins. Having a new importance right now, the Brukenthal Library begins to improve not only its status, but also its methods: first steps in digitization etc. The new achievements represent a reflection, a local reflection of IFLA ideas and perspectives.

Libraries and Potential Users: Methodological approach, the case of Greek libraries

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The paper seeks the policies and strategies that apply Greek libraries in order to discover, communicate and attract potential users. Theoretically, every non- user is a potential user of a library and it is common sense that the most of people avoid to visit libraries. Being so, libraries undertake the responsibility to appeal their clients. The theme is relevant to the reading policies, as well as to the target groups' orientation, both of which belong to library's duties. There are easy-to-locate target groups (such as teachers and students for a school library) and hard-to -locate target groups, for example, the minorities in a city (target group for a public library).

Generally speaking, the paper insists that it is a matter of libraries to engage people to the library and persuade them that they need it. But that's a matter of communication, a matter beyond the marketing. What the paper examines is:

1. If libraries have a measure of the users' response to their efforts to promote services and events.
2. If libraries have a promotion programme and also a strategy to communicate people.
3. If libraries have statistical data of the users and non-users, if they research and study the attitude of people.
4. If libraries make decisions and find solutions.

As it is well known, the target groups vary to the characteristics and interesting, so vary to the communication means and methods. The methodological approach is a research survey, via questionnaires. The questionnaires will be disseminated to the libraries and will be filled in by the director and the information policy responsible person. The questionnaire will seek definite services and if necessary some interviews will add the survey.

Finally, some best practices and lessons learned, proper for Greek reality will be proposed.

Keywords: Qualitative and Quantitative Methods, strategic planning, marketing plan, communication channels, users and non users.

The cultural dimension of library's marketing: a methodological approach

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The paper focuses on the emblem **@your library®** that libraries or library associations think up in order to communicate with their public. This international campaign, which was a brilliant initiative of IFLA and continues to inspire the creativity of librarians, is based on the concept of the cultural diversity and the social mutual understanding. The project is a framework of initiatives, happenings, performances, and slogans with the message that libraries aim to every aspect of life. In this way, the term slogan takes its social and political meaning instead of the marketing one.

Libraries create their slogans relevant to their audit, taking into account the intangible values of groups, the social characteristics, the culture, the attitudes, the education, the language, the arts, the customs and beliefs. Acting so, libraries promote their ability to support not only their users, but mainly the potential users; consequently, libraries promote in fact their ability to support people and groups to develop themselves keeping their cultural diversity.

The paper is a methodological study that examines the slogans of three cultural communities, the American, the Spanish –American and the Greek one.

After a wide study on quantitative and qualitative analytical methods, the paper uses the subject analysis method, the content analysis method in order to reveal the intangible differences of the slogans and to interpret them according to the social context that created them. We create seven subject disciplines and relevant criteria to classify the slogans, under the concept: “Library operation in human’s everyday life and in social evolution. Slogans are difficult to be interpreted because of their form, because of the symbolic, abstractive and metaphorical expression of meanings.

The campaign includes text and non- text actions, it includes happenings, that means experiences and relations, interrelations and interactions. If so, the subjective dimension is involved, the campaign expresses conscious and subconscious messages, so the techniques of semiotics are the proper methodological tools to detect them.

As the cultural dialogue and understanding is the only way to cross-cultural coexistence and pluralism, the importance of this research originates from its methodological proposal, in deep analysis, functionality and interpretation of the whole happening.

Keywords: Cultural heritage, the Message and the Medium, Communication and Promotion, Libraries and readers, Strategies for potential users, qualitative and quantitative methods.

Focus Group Eye-Opener: What Users Want From Web-Based Library Services

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There is substantial lack in research relating to the uptake of electronic information services offered via digital libraries. Research in digital libraries has mostly focused on areas such as design, architecture and functionality. Often referred to as the ‘virtual’, ‘electronic’ or digital’ library, the academic libraries have experimented with technology innovations to provide seamless web-based library services to students and faculty members alike. Choi (2006), in his study on reference services in digital libraries, revealed that the availability of digital resources is not enough if not complimented by additional services to support other activities that occur during the information seeking process. Thus, this study is a description of how university students perceive digital library services, or the integration of digital library elements within the traditional or hybrid library services in academic libraries. These services were identified through a preliminary study that evaluated the digital services offered by twenty university libraries. Qualitative method of data collection using ten focus groups consisting of 81 postgraduate students was employed. Overall, the focus group discussions revealed many underlying issues that the users deemed important. These issues were rarely addressed by librarian mediated satisfaction surveys that are often employed to gauge customer feedback. Users almost unanimously request for more online help to assist in search for information and improve their information seeking skills. The results have implications for academic libraries providing digital services in a networked environment and recommendation made include providing better guidance to users, and solicit feedback to make evidence-based decisions on digital library service delivery.

Key words: Digital Library, academic library, web-based services, focus group interview

A Preliminary Assessment of the NASA Engineering Network: Enterprise

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This is an exploratory study that attempts to define an enterprise search evaluation paradigm that can be quickly deployed by any institutional librarian in the real world. The aim was to provide a framework that is repeatable over time in order to build a long-term view of search engine efficacy in a complex environment where many factors that contribute to user satisfaction (including including vendor tool upgrades or changes, new search utility tools, taxonomy updates, and user interface improvements) undergo constant change.

In particular, this study investigated the retrieval efficacy of the NASA Engineering Network (NEN) search engine. NEN provides access to more than 300,000 documents contained in 25 repositories. The NEN website serves more than 46,000 engineers who represent 25 distinct engineering disciplines.

Data was generated from three sources: surveys, observations and log data. Surveys were used as a preliminary step to gather background information about the user community in order to support subsequent observations and to poll the participating group for volunteers in those observations. Observations provided a rich set of qualitative data pertaining to the perceptions and feelings of engineers using NEN's Verity search facility. Retrieval exercises were conducted, comments collected and recommendations recorded. Log files provided more quantitative datasets.

It was found that retrieval could be enhanced with several modifications to the indexing vocabulary, including the addition of several new categories, the splitting of several categories, the mapping of some common equivalencies as well as one modification to the concept hierarchy. It was also found that improvements to the stemming and weight algorithms were needed. Finally, since the evaluated repositories are so large and could require significant effort to implement some of the recommendations proposed in this study, two target repositories are identified as good candidates for further indexing efforts based on usage data.

Keywords: digital repositories, enterprise search, evaluation, search, search engines, library, information retrieval, best practices

The Bulgarian university libraries in Internet

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The modern development to the university libraries and the function of Internet as a one communication circle for exchange of information. Bulgarian university libraries attendance in the world network. Comparison of their websites by means of quality and quantitative methods for analysis. Assessment of the quality of websites on base to their functionality, design, representing and opportunities for using the information, originality, professionalism and effectiveness. Relative analysis to the amount of information, reach to users and namely the access to the resources of the library (the electronic catalog, the other electronic information); Internet resources (open access in the network, subscribe databases); online services (web forms, audio and video conferences); feedback with the users (e-mail, ICQ, Chat sessions). Comparison of the got scores and describe perspectives before the Bulgarian university libraries of the conditions of the today's so-called "information age".

Key Words: Internet, information service, university libraries, Bulgaria, quality and quantitative methods for analysis, libraries websites.

Libraries in the Semantic Web Era.

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The upcoming era of Semantic Web (SW) domination gives the promise for autonomous machine reasoning. But before the promise becomes reality there are a lot of efforts to make public Web data semantically enriched. The semantic enrichment is believed to allow the Web be readable not only by humans, but also by the machines. As Tim Berners-Lee - the author of WWW idea - envisioned, the existence of SW would allow the existence of intelligent agents that can process information from the Web autonomously. Autonomously means that unlike today Web browsers these agents would only need a high level of abstraction commands. For example, getting a command “Find a drugstore that is closest to my way home” the agent would estimate optimal way home based on current GPS read, match it to search results for local drugstores and check whether they are open at the time of coming home. It may optionally create an event in user personal calendar with a reminder set after the scheduled work time. That automatic reasoning needs inferencing based on Web data. To make the Web machine readable the data should be described by easily accessible semantic metadata.

As far as libraries are concerned, metadata have always been a part of cataloguing. Today in digital libraries it is common to represent metadata using standard ontologies, such as Dublic Core (DC). There is also the idea of exposing the metadata for harvesting in order to create one central database, which would allow to search all the available metadata at once. The protocol for that purpose is Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH).

The OAI-PMH is RESTful, which means it fulfils Representational State Transfer (REST) principles. But even with that architecture, the idea of harvesting the metadata duplicates and a central storage is in a way with the SW idea. For the purpose of interoperability of SW services Berners-Lee created four rules of linking data on the Web. The main idea of Linked Data is to make each piece of information identified by dereferenceable URI and available via HTTP. When fulfilling the rules data can be easily accessed and processed by a query language. The query language used widely for this purpose is SPARQL.

This paper would focus on problems with exposing the digital libraries supporting OAI-PMH to the Semantic Web services. The most wanted thing for OAI-PMH metadata is being querable via SPARQL. This means the metadata in OAI-PMH formats must be converted and served as RDF. Another important shortcoming of OAI-PMH is grouping and linking the metadata for the purposes of more complex processing and inferencing. Some of those issues are addressed in Open Archives Initiative Object Reuse and Exchange (OAI-ORE), but the integration with SW is still a work in progress.

Keywords: Linked Data, OAI-PMH, Semantic Web, SPARQL

Balancing perceptions and quality approaches for managing and measuring Quality in Libraries at the beginning of the 21st century

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The consequences of the way by which the meaning of the word “quality” is perceived, are multifaceted, both at the collective and at the individual level. In the paper we analyse various aspects of quality in academic libraries following the division a. users (priorities: access, delivery, speed, work premises, personnel response, trustworthiness of service), b. management (priorities: cost, effectiveness, quality of planning, positive results for the users,

collaboration with other organizations – reputation) and c. personnel (priorities: good working conditions – quality of planning – reputation – systematic personnel development). In the paper we co-relate the four (4) different approaches to quality implementation (quality assurance & standards-total quality management-satisfaction measures & servqual-performance measures) with a number of dimensions of the consequences of the implementation of the approaches to the academic libraries. Despite the fact that none of the approaches mentioned should be put forward as a cure-all and that their combination is the common practice, quality assurance through the development and the implementation of international standards is a widely accepted approach.

Methodological challenges and innovations of a Thematic Web Oral History Project in Web.03

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“Thematic Web Collections for Social Sciences and the Humanities: The Oral History Project *“Migrant Women in the Greek City of Thessaloniki, 1990s-2000s”* (short title-Thematic Web) envisions a thematic web collection of selected materials, mainly based in archival sources, with quality of the semantic description online access. The goal is to create a new model for thematic digital collections that will benefit the academic communities and the general public around the world. Thematic Web, is a socially-driven project with the support of state-of-the-art digital archiving technologies that allows enhanced searching, bookmarking and semantic annotation.

Within the social-driven aspect, the target is to create an archival data base by documenting the experience of migrant women of current flows in the city of Thessaloniki, Northern Greece, a city with a long multicultural history, now becoming a new home for migrants primarily from East Europe and the Balkans. As to the technical aspects of the project, a review of oral history projects and digital libraries software has led to the selection of the JeromeDL platform for the development of this thematic web collection. Current oral history sites generally provide basic search features, access to transcripts and audio files. The Thematic Web, adds value to the oral history collection not only by semantic annotations made by the social research team, but also by using the JeromeDL platform, a Social Semantic Digital Library, developed by the National University of Ireland, Digital Enterprise Research Institute (DERI) (<http://www.jeromedl.org/>). The target is to combine reusability of resources concerning the specific topic to explore the medium’s research potential by a wide spectrum of user types, ranging from the inexperienced, novice user, to the highly proficient and advanced user of digital resources.

Self_Efficacy An Alternative Approach to the Evaluation of IL

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Societies of information age need independent learners equipped with lifelong learning skills. Information literacy is the key skill required for lifelong learning. However, acquiring information literacy skills is not enough by itself for success, individuals should also develop confidence in these skills. In other words, attainment of high sense of self-efficacy beliefs is as important as possessing information literacy skills.

Self-efficacy refers to a belief in one’s ability to successfully perform a particular behavior or task (Cassidy & Eachus, 1998).. Self efficacy influences human functioning. Although the knowledge and skills people possess play critical roles on the choices they

make, people's level of motivation, and actions are based more on what they believe than on what is objectively true. Self-efficacy beliefs provide the foundation for human motivation, well-being, and personal accomplishment. People have little incentive to act if they believe that the task in their hands exceed their capabilities, but they undertake and perform activities if they believe that their actions can produce the desired outcomes (Bandura, 1977; 1986; Pajares, 2002).

Self-efficacy beliefs also determine how long individuals will persevere and how resilient they will be in the face of difficulties and how much effort they will expend on an activity. Individuals with a high self-efficacy perception expect to succeed and will persevere in an activity until it is completed. On the contrary, individuals with low self-efficacy perception anticipate failure and are less likely to persist doing challenging activities. The higher the sense of efficacy, the greater the persistence, and resilience (Bandura, 1997, Pajares, 2002; Zimmerman, 1995).

Consequently, low self-efficacy beliefs may be a significantly limiting factor for individuals to use their information literacy skills. Measurement of self-efficacy for information literacy will enable individuals 'at risk' – who might need additional help - to be identified. In this paper, the importance of measuring individual's self-efficacy beliefs for information literacy as part of an overall evaluation strategy along with the necessity of mixing and matching it with variety of other assessing tools will be emphasized.

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The Use of Transaction Logs to Study the Effectives of Librarian Behaviors on User Satisfaction in a Virtual Setting

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Chat reference is becoming more common, so it is important to be able to effectively judge user satisfaction with the results that they receive and secondly what behaviors the reference librarian should use to help ensure that users are satisfied with chat reference sessions. In this research project, online transaction logs were obtained from the Southeastern Florida Library Information Network. At the time of the reference interview neither the librarians nor the users knew that these transactions logs would be used in a research project, so all the data gathered was in an unobtrusive manner. In an earlier article in *Reference and User Studies Quarterly* (Winter 2008), the Reference and User Services Association (RUSA) *Guidelines for Behavioral Performance of Reference and Information Service Providers (2004)* were tested against the transcripts to see if the behaviors for face-to-face reference could be used in

a virtual environment. Our research indicated that many of these behaviors could be mapped to the virtual environment with great success. The purpose of this paper will be to describe and explain the methodology, which is a mixture of qualitative and quantitative methods, so that others can adapt what we did to their own situations.

Item Sampling in Service Quality Assessment Surveys to Improve Response Rates and Reduce Respondent Burden: The LibQUAL+(R)-Lite Experiment

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Many libraries are engaged in collecting data on service quality perceptions and expectations from their users systematically both through locally developed surveys as well as through standardized survey protocols like LibQUAL+®. Survey protocols, and especially web surveys, have suffered from relatively low response rates due to perceived respondent burden. Some researchers have also suspected possible response bias as a result of low response rates.

Survey researchers often develop large pools of items about which they seek participants' views. As a general proposition, library users cannot reasonably be expected to respond to lengthy service quality assessment protocols when invited to participate to web based surveys. Especially with web surveys, response rates have historically been low and even a ten minute survey seems like a century to the participants.

To test whether a 'short' version of a survey results in higher response rates and whether it was completed in less time than the lengthier version of the survey, and whether it produces comparable results scores, we randomly presented two versions of the survey to survey respondents invited to participate to the web version of the survey. A survey method called "matrix sampling" was used (a) to collect data on all survey items (b) without requiring every participant to react to every survey question.

A series of randomized control trial experiments were set up so that each library presented a predefined proportion of the surveys to participants in the 'short' form. The long form of the LibQUAL+® survey includes the 22 core items that measure three dimensions: (a) affect of service, (b) information control, and (c) library as place. The short form, known as LibQUAL+® Lite, asks each participant to complete 8 core items. LibQUAL+® Lite is a survey methodology in which (a) all users answer a few, selected survey questions (i.e., 3 core items), but (b) the remaining survey questions (i.e., 5 core items randomly selected within dimensions) are answered ONLY by a randomly-selected subsample of the users. Every participant completes the same single Service Affect, single Information Control, and single Library as Place items, plus two of the remaining eight (i.e., 9 - the 1 core item completed by everyone) randomly-selected Service Affect items, two of the remaining seven (i.e., 8 - the 1 core item completed by everyone) randomly-selected Information Control, and one of the remaining four (i.e., 5 - the 1 core item completed by everyone) randomly-selected Library as Place items. Fixed randomization took place at determining the order of the dimension slots, and dynamic randomization took place at assigning the items in the dimension slots.

Preliminary analysis indicates that participation rates are higher, completion times are shorter, and that the results across the two administration protocols -- the short and the long versions -- are slightly different. Differences across (a) user groups, (b) disciplines, and (c) other demographic categories are explored for this paper. The matrix sampling procedure can be usefully applied with a variety of service quality assessments, including locally developed surveys involving numerous assessment items.

Keywords: LibQUAL+®, LibQUAL+® Lite experiment, Randomized-trial experiment, Matrix sampling, Response rates, Survey methodology, Web-based surveys

Performance Measurement of its cultural services and activities: The Case study of Public Library in Clermont-Ferrand.

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Measures of the library's impact on the community offers library management three opportunities: optimal assessment of the library's effectiveness; in-depth analysis of the library's own goals and objectives; and better insight into stakeholders' expectations. This area of qualitative research is more difficult to accomplish in France, than using more simple quantitative methodologies that deal mainly with results. Library staff needs to compare descriptive facts to the goals and objectives of the institution in order to best maximize positive outcomes. Yet impact and outcomes require more complex measures. Recently, the LOLF (Budget Reform and State Modernisation in France⁴) application demonstrates the crucial need of measuring all types of library activities and use to improve management decisions. However, it reveals actuality, some difficulties for librarians especially when it is about measuring services and activities for culture purpose. The paper focusing on the case study of Clermont-Ferrand public libraries, explains these difficulties due mainly to the meaning of Culture itself that cannot be easily measured with quantitative methods. The goals and objectives of this case will be presented and explained in detail in the paper, which reveals that linking actual results to the resources allocated is not obvious from librarians' points of view. Meanwhile, the paper demonstrates the feasibility of applying a set of performance indicators to measure cultural services and activities, basing on the finding of a survey held in Clermont-Ferrand Public libraries who are carrying out a real policy on this filed.

Knowing the needs. A system for evaluating the university library

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In the light of the digital library development and of the online communication development, the university education develops in its turn new educational instruments put at the students' disposal in order to improve their professional skills and their individual studies.

The University libraries, which have traditionally been focused on supporting the scholars' needs in research, have begun to play a more active role in this changing educational system, as a result of the Bologna process.

Incorporating the new technologies in the didactic process, accessing the electronic informational resources, using the web space for communication, all these imply qualitative research so as to determine and to optimize the students' learning methods, and we see a movement in the library world of libraries actively pursuing this.

However, to be able to play an active role in the students' acquiring of scholarly skills, libraries need to implement systems for uncovering the gaps in students' knowledge. We find that theories and practices from the fields of Market research and Marketing analysis provide a helpful perspective.

In this paper we will present a system for an university library to gain knowledge about their student's needs. This consists of several parts, and we will use examples of surveys, questionnaires and structured interviews.

⁴ http://www.finances.gouv.fr/lolf/16_1.htm

Also, we will present an analysis of data that have been acquired as part of our collaboration in European projects between the university libraries of Brasov, Romania and Bergen, Norway

Keywords: Marketing research, information behaviour, university library, students, survey,

Potential uses of Web 2.0 tools for library client communication and relationship development

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According to the recently introduced Library 2.0 concept “library makes information available wherever and whenever the user requires it, and seeks to ensure that barriers to use and reuse are removed” (Lepik, 2007). Library 2.0 is a reaction to the web-based developments in ICT and widespread use of social software (see Curran *et al.*, 2007). To improve communication with their users libraries can utilize Web 2.0 tools and services like wikies, blogs, RSS, mash-ups, or even Facebook (Alsbjer, 2008). Decision makers may find it important to include the use of such technologies in library services and develop Web 2.0 training programs for librarians (Al-Fadhli, 2008). In fact, such training programs have already been successfully implemented (Titangos and Mason, 2009). The use of Web 2.0 tools can enhance the conversation of the library with the public, the involvement of the community in the planning and evaluation of library services, the sharing of users’ knowledge, as well as the overall experience of the users (Stephens and Collins, 2007). Even though both large and small libraries tend to use Web 2.0 tools, in the United States they are more frequently used by successful libraries (see Lietzau, 2008). The use of the Web 2.0 tools may also better fulfil the expectations of the growing population of digital natives who “would want to create, remix and share content” (Titangos and Mason, 2009). This paper presents an overview of the potential uses of various Web 2.0 tools for the improvement of library services and online interaction of libraries with their clients. The data on the use of Web 2.0 tools by students of informatics is also provided to support the argument that library services based on Web 2.0 tools can find potential users.

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Interpretations of human resource management issues in digital library education

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This paper analyze the implementation of Human Resources Management (HRM) issues in digital library education models in general and further examine these issues through case study - module “Human Resource Management” as part of International Master in Digital Library Learning (DILL) programme at the Tallinn University.

The paper examines and summarises the content development and evaluation of course “Human Resource Management” (10 European Credit Transfer System/ECTS). The paper is based on courses evaluation study carried by course leader (author of this paper) as feedback from students. Data was gathered using survey and focus groups interview. Decisions regards course evaluation study will discussed on paper.

Keywords: Human resource management, International Master in Digital Library Learning, focus group interview, survey.

Tartu University Library as a medium between different patrons

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This paper introduces ongoing research about university library communication with university staff and students: besides being a supporting facility for Tartu University as a whole, Tartu University Library is seen as a medium between those two important patron groups. Nevertheless, there are hypothesises that:

- a faculty member does not expect much support from library staff while putting together a particular course and
- it is considered (among academic staff) that preparing a course’s syllabus requires the knowledge of an expert rather than knowledge of a librarian,
- but as the university and town libraries’ collections have their limits (both financial and physical), compulsory and/ or recommended reading materials may be hardly accessible among students.

In order to provide better supporting services for both academic staff and students, 10 unstructured interviews with faculty members will be conducted to find out:

- how much are faculty members counting on university library while providing students with lists of compulsory and/or recommended reading materials,
- how integrated is the compulsory reading material into particular courses; can or cannot students manage without it.

Additionally, the lists of reading materials of those particular faculty members will be juxtaposed with data from:

- ESTER (an OPAC that contains books of member libraries of ELNET Consortium),
- ÕIS (Study Information System of Tartu University where some digitized articles and chapters are preserved),
- available scientific databases for University of Tartu,

to find out the accessibility of the compulsory and recommended readings. The results of current research are expected by the end of April 2009. The sample of those data collections is small, though. Still, it might give us a pattern for further research in order to fill gaps in the communication between academic staff, students and library.

Filling gaps does not necessarily mean ordering more books or digitizing reading materials as we may be aware of those mentioned gaps, but low budget may be an obstacle

for doing so. Instead, university library might act here as a medium not only in academic staff – student communication, but also as a medium between different faculty members: helping to improve the “logistics” of lending books. Proper “logistics” helps us to avoid situation “first comes, first served” among students (largest group of patrons of the university library) and therefore provide peaceful learning environment and contentment with university library services.

The Cultural Events Service at the BPI (Public Information Library), or other tools for the acquisition of knowledge

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This study/paper will examine the role of library-based cultural activities in the acquisition of knowledge and skills. Over the last number of years, the Cultural Events Service of the Public Information Library in the Pompidou Centre has been organising exhibitions, lectures, round table discussions and performances. Through these programmes, we have complemented and enriched the library's written and electronic resources, while facilitating a range of ways of accessing knowledge, largely based on re-mediation, popularisation and broadening access in the widest sense. How do these different modes operate, according to the range of events provided and the diversity of the envisaged audience? How does the public perceive this cultural provision? What kind of tools can be used to evaluate this kind of activity?

This study will attempt to answer these questions with reference to our particular case study.

Key Words: Cultural activities - BPI (Public Information Library), oral events - exhibitions - digital debate archives - evaluation of cultural events - knowledge acquisition - on-line exhibitions

INIST-CNRS project's on the Usage Statistics of the portals.

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This session will focus on how usage statistics are collected and used by INIST. What data we collect and why, how we analyze and apply the data.

CNRS stands for "Centre National de la Recherche Scientifique" or "National Center for Scientific Research". It is a French government-funded research organization, under the administrative authority of France's Ministry in charge of Higher Education and Research.

INIST-CNRS, the Institute for Scientific and Technical Information of CNRS was created in 1989.

The advent of electronic journals and other resources has brought with it an increasing need for detailed usage statistics.

Publisher usage statistics were already available to us before we launched our usage statistics project, however, there are several drawbacks to publishers statistics.

The lack of data between resource usage (articles accessed) and resource users (the laboratories accessing these articles) is what prompted us to develop internal statistics.

By producing our own statistics, we are able to obtain data that is more homogeneous and more exhaustive and we can establish a link between resource usage and resource users.

We will explain how (and why) we:

- managed to produce our own statistics (methodology),
- formalized the obtained data in statistical usage reports and other tables and charts to be used as tools for decision making,
- are updating the access reports of the journals by integrating evolutions over time,

- are enhancing each report with qualitative data by comparing the number of accesses to a journal and the impact factor of that journal.

Conservation and digitization of collections in libraries

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Digitization, meaning conversion of information from analogue to digital form, has a great impact on library services, beginning with technological skills both for librarians and users, and understanding the idea of a library document.

Due to the complexity of this field, it is naturally to involve conceptual, operational and technical changes into the new processes.

The digitization initiatives and strategies are totally connected with users information and preservation conditions of the documents in every type of library.

Key Words: preservation, conservation, digital methods, digitization, special collections

Usage patterns in a Greek academic library catalogue: a follow up study

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The present research is focused on the searches made by the patrons of the Library of the TEI of Thessaloniki in its online catalogue during the spring semester of the academic year 2007/2008. A previous study had revealed that patrons experienced difficulties while searching the opac and did not make the most of the system capabilities. After the Library has re-examined specific aspects of its services, its user education programs and has updated its software, the present research has taken place in order to assess the impact of these changes and to study whether the patrons' searching behavior has been improved and system limitations persisted over time or not. The data, collected from the transaction logs kept by the system's software, were processed and analysed statistically by using multivariate techniques.

Keywords: Academic libraries, multivariate statistics, user studies, OPAC

Teaching Information Science students for the use of different methodologies

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The Information Science course of the University of Porto in Portugal has a learning unit designed Research Methodology. As a teacher of this discipline I encourage students to develop research studies using either qualitative or quantitative methods applied to possible future professional scenarios, namely when analyzing librarians' users satisfaction. The aim of this communication is to present some examples of those research essays and to discuss future ways for teaching and learning those issues as well as different professional frames where those methods are needed to solve problems.

Keywords: Librarian students; Information Science Students; Teaching quantitative methods; Teaching qualitative methods; librarians' users satisfaction.

Assessing faculty productivity and institutional research performance: Using publication and key citation performance indicators

Grace Maselli, Jeff Clovis

The Scientific Business of Thomson Reuters

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Increasingly, research institutions operate in a more and more competitive environment. To attract research funding, the best faculty, and top-notch students, for example, these institutions must provide evidence of their accomplishments and capacities and, increasingly, demonstrate their special capabilities to a variety of constituents. Part of this equation requires that an institution demonstrate return on investment in all areas, including sponsored research as an overall part of its strategic mission. Using bibliometric indicators to measure research performance is a lynchpin in the institution's ability to objectively demonstrate research performance as a means to establish and authenticate standing relative to peers.

This workshop will cover these various bibliometric indicators including article output, citation count, h-index, citation impact, etc. Institutional researchers seeking guidance on augmenting their current research performance measures will learn best practices regarding annual reporting, strategic planning, faculty review, and performance review. Assessment at the institutional, as well as researcher level will be discussed. A case study will be presented, including use in re-accreditation and benchmarking against peers. We will work with a customer in Greece and co-present.

Presenter(s):

Jeff Clovis, Senior Director, Research Evaluation and Bibliometric Data, Thomson Reuters

DULCINEA: Copyright policies and self-archiving of Spanish scientific journals

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Dulcinea is a portal created as part of the objectives of a Spanish National Project entitled: Open access to scientific outputs in Spain: Current status, open access advocacy and implementation of open access policies. The name of Dulcinea was given due to the relationship with SHERPA/ROMEO project (<http://www.sherpa.ac.uk/about.html>), which analyses publisher copyright policies and self-archiving terms of most international journals, but in which databases Spanish Journals are underrepresented. The aim of Dulcinea is to identify the policies of publishers and Spanish journals with respect to self-archiving, and to analyze how these policies can affect the re-use of papers and their deposit in subject or institutional repositories. Dulcinea's portal (<http://www.accesoabierto.net/dulcinea/>) is hosted under a bigger one (<http://accesoabierto.net>), which will contain sources and tools related to institutional repositories and open access journals in Spain and also general information about open access. Dulcinea not only aims to facilitate information but also provides some guidelines for good practice for the statement of clear and concise copyright policies of journals that could help authors' self-

archiving. These guidelines will also include how to use specific licences to avoid any ambiguities. Dulcinea provides the following journal information:

1. Bibliographic data (Title, ISSN, Publisher name, URL)
2. Type of access through Internet (free, free after an embargo or restricted to subscribers) and copyright policies
3. Information about self-archiving conditions, if any, to deposit the articles in digital archives.
4. Offer a classification of the journals according SHERPA/ROMEIO colours taxonomy for policy archiving:
 - Green can archive pre-print and post-print
 - Blue can archive post-print (i.e. final draft post-refereeing)
 - Yellow can archive pre-print (i.e. pre-refereeing)
 - White archiving not formally supported

Information about journals was collected from their websites and from an online survey sent to the editors of journals previously selected from different publications directories. From those who did not respond to the survey, information was interpreted according the general information and instructions to authors provided in their web pages. The survey was launched in September and is still open. Responses to the survey so far allow us to draw some qualitative conclusions. Editors and publishers are not familiar with some terms like self-archiving and confuse open access with free or gratis access. Their web pages do not define copyright terms clearly. Sometimes, even when editors declare the journal to be an open access one, then they say “all rights reserved by the publisher”, which means they are only “gratis”.

The evaluation of Library Services Methods: Cost per Use and Users' satisfaction.

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In these competitive years of continuing change, Libraries engage their Services using modern technologies and applying innovative approaches to satisfy users' standards. This engagement increases significantly the effect on Library's budget, as new technology's application demands a lot of money and new organization schemes also. Consequently, the annual budget has to be increased to a large extent and a lot of difficulties arise about its efficient allocation. This paper describes a methodology of evaluating offered services by using specific important factors like Users Satisfaction of a Service, Usage and Cost of this service. New indicators are defined for evaluating a service and interrelation of Cost, also Usage and Users Satisfaction of an established service are examined. The goal of proposed methodology is to help Library decision makers to choose the most appropriate services they will provide according to user needs and allocated budget.

Keywords: Decision making, library decisions, cost- effectiveness, user satisfaction, library innovation.

The impact of the electronic sources in Portuguese academic libraries: results of a qualitative survey

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In the last 10 years there have been big changes in the Portuguese academic libraries services as academic libraries over the world. These changes include the adoption of automatic catalogues and the electronic access to bibliographic data bases and scientific journals in full text.

Nowadays physical and digital sources are together. Professors, students and researchers are able to access simultaneous to a great amount of quality information pay and open access.

The Portuguese Government has been investing to improve the access to the production of knowledge so as to develop the country. It is important to know the return on the investments in university libraries. The purpose of this paper is to identify the impact of the electronic sources in the Portuguese academic libraries. This paper describes an ongoing project to assess:

- The use of electronic scientific information and the correlation to the scientific production of the Portuguese academic community according to standard performance measures indicators and bibliometrics data.
- The economic value of these library services. In order to estimate in monetary terms the value of these services for end-users we use the contingent valuation method (CVM). This study reports the results of a qualitative e-survey of academic community.

Keywords: Academic libraries, Electronic sources, Impact evaluation, Bibliometrics, Contingent valuation.

Focus groups: the application of qualitative research to give support for quantitative research in Sistema de Bibliotecas/USP

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The article demonstrates how a methodology called focus groups provides solid results to supplement a quantitative evaluation performed by the Sistema de Bibliotecas da Universidade de São Paulo (SIBi/USP). Experiments performed in national and international universities libraries were selected and reported to build a diversified reference in this subject. It is also described one experiment headed by this researcher in some Libraries that constitutes the SIBi/USP. In this way the focus group methodology may help the libraries to improve their services and develop a essential skill for librarians: the art of listen to their users.

A Study on the Application Level and the Difficulties of the Use of Information Technology at Academic Libraries of Kerman in Iran

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The present research has been planned to determine the level of IT application, investigate the problems and difficulties resulted from lack of IT usage and also the statue of librarian training courses related to IT in Kerman academic libraries. The survey has covered seventeen libraries belonging to Shahid Bahonar University, Kerman Medical University and Islamic Azad University. Two kinds of questionnaires were distributed to libraries – one for librarians and the other for library staff. The findings of the survey have been analyzed using SPSS software. Results show that the level of application of information technology in Kerman academic libraries is acceptable but they should improve their status to match with ever increasing demand for better librarian services at universities; the most important problem and serious difficulty is the lack of educated librarians, which needs a suitable investment and planning; and although about 70% of librarians in Kerman academic libraries have participated in related training courses, the most serious difficulty in using information technology is still the lack of uneducated librarians. Based on research findings, some suggestions are here indicated as follow: Recruitment of multi-skillful librarians familiar with information technologies related to mechanism of work in academic libraries; Planning and designing ongoing courses of information technology and related skills; Promotion and introduction of various academic library services through compiling and publishing manuals and guides; Equipping academic libraries with more information technology facilities; Considering a special budget for development of information technology infrastructure; Overcoming telecommunication barriers and shortcomings to better use of information technology fruits; and Mechanization of all academic library departments to provide information services more optimally and speedily. This research studies rate of using information technologies in Iran as a developing country. Hopefully, uncovering and understanding some unknowns based on such investigations can help to address digital divide within universities and countries governing them.

Keywords Academic libraries, Information technology, Internet, Librarians, Kerman, Iran

How many elephants make a herd? determining staffing levels in a multi-campus library service: a case-study of the Cape Peninsula University of Technology (CPUT) Libraries

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Determining staffing levels in a multi-site library system has always been a matter of concern. In the newly merged Cape Peninsula University of Technology this was even more important due to the possible perception of bias. In a process involving staff from all campuses formulae were developed that, when applied, enabled the library management to measure the staffing of one branch against another, and apply this strategically both for Workforce planning, and staff performance enhancement.

Keywords: Staffing, Human resources, Perfomance management, Univeristy libraries; Branch libraries, staffing formulae.

The quality of information as basis of library management quality

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In the article the role of document information in the process of library management is indicated. The organization of work with documents is a very important part of the management processes and taking managerial decisions, it influences the efficiency and the quality of management. The development of new technologies implies the system approach to the process of taking decisions on the basis of flexible informational analytical integrated system of management.

The processing project of the service database of regulating information in the scientific medical library of Siberian State Medical University (Tomsk, Russia) is presented.

Key Words library management, document information, efficiency, quality, regulating information, informational system, database

The Cactus Project

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The Cactus project started about 3 years ago, in support of the historic archaeological research of San Juan, a large plantation on the Caribbean island of Curaçao (Dutch Antilles). The basis was a collection of about 800 digital images of 17th and 18th century documents concerning San Juan. These documents are a part of the archives of the Dutch West India Company (WIC) that operated from early 17th century until 1794 when it finally went broke. The Cactus computer system was envisaged as a handy tool to guide the user quickly through the available documents. However, the material appeared to be so interesting that the scope of the project was widened, and currently the database contains over 5000 digital documents (20000 pages). These have all been indexed (15000 names of persons, ships and places, over 120000 index entries). It is probably the largest digital database of WIC documents available.

The documents are letters from the governor and the council of the island Curaçao to their bosses in Holland. But apart from these, there are cash books, legal documents, inventories, reports, witness statements, military orders, official notifications, complaints, application letters, slave death lists, tax documents and much more. Slave trade is one important subject, but also the wars with France and Spain play an important role. Pirates and privateers populate the pages and violence and cruelty are everyday phenomena, clearly reflected in the material.

The extensive index data and query facilities enable users not only to retrieve relevant documents quickly, but also provide means to generate social networks, based on the fact that if two names appear in the same document, there somehow must be a link between them.

The first phase of the project (dates between 1700 and 1780) was recently concluded and the system was installed at the Dutch National Archives for a trial period, after which the data will be available through the Internet. In the next phase, the dataset will be enhanced with documents from the period 1675 -1700.

Keywords: digital documents, indexing, data mining, social networks, WIC

Presentation: A short introduction, followed by a live demonstration of the Cactus system.

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Quality Cost requirements and their economic impact

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The competitive pressures facing firms in today's environment have led to increasing reliance on quality-oriented, results-based improvements. As a way of meeting the challenges they're facing today, organizations throughout the world have made quality a priority in the form of total quality management (TQM), continuous improvement (CI), and similar initiatives. Organizations' ability to measure costs related to quality has, thus, become a necessity. However, the quality concept is still somewhat vague to many people and many companies. One way to make it more concrete is to calculate quality costs in order to understand quality and to see which areas should be prioritized in the quality improvement work.

This project was born from the need of the management in knowing the quality costs and was developed in the Faculty for Factory (FFF) program. This study was carried out over a three months period in a facility located in the southern Jordan. Chemical & Mining Industries Co., Ltd. (CheMiCo) produces 12 different products essential to industrial, construction and mining applications and is sold locally and regionally. This project makes an attempt to map out the quality costs of a local company and seeks to illustrate some of the issues which emerged from a study in a manufacturing environment. During the course of the study it became evident that the company's quality maturity was relatively low. Based on the calculated quality costs, areas of potential improvement are suggested to the management. Company's improvement efforts can be directed to where they make the best use and where they should focus ongoing efforts. Experienced benefits and difficulties are then discussed.

Key findings have been selected to illustrate the changes made throughout the study and the main conclusions of the research. These include: evidence of a growing awareness of the importance of the "customer", internal as well external; the study showed that changes made had improved the overall performance and quality of the case company. Quality costing can be a very successful method to influence the management of the company to give quality more attention and is a way for people who never worked with quality matters to understand the benefit of working preventive and not only repairing problems that arise.

The major learning outcome was that it is not enough to concentrate on either processes or human resource issues: both are interrelated and should be dealt with concurrently. These issues should be linked to broader business goals for improvement. The business goals might be lower costs, improved profitability or increased market share. This study provides a new insight into company practice, useful not only for academic research, but also for use by industry.

Key Words: Quality cost, total quality management), continuous improvement

Evaluation of higher education libraries: the case of the Durban University of Technology Library

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Evaluation of Higher education libraries is not a new concept. Numerous tools are available to higher education libraries to measure their levels of quality and service (ARCL 1979,1989; Poll & Boekhorst 2007). In order to measure these effectively, according to the Lancaster's (1973) timeless text on evaluation and measurement of libraries, "measurement tools which are easy to apply and adequate for the purpose, are needed". In South Africa, as the impetus on quality provision in Higher Education Institutions (HEI) grows, the need for appropriate tools for measurement and evaluation of HEI libraries, becomes critical. Higher education libraries are expected to adequately support teaching and learning needs; help give effect to teaching and learning objectives; and, undergo a regular review of their support services for the core functions of the institution (CHELSA 2006). The Committee for Higher Education Libraries (CHELSA) was mandated by the Higher Education Committee on Quality (HECQ) to produce a "guide" to evaluate individual higher education libraries in South Africa. The main purpose of the CHELSA guide is to provide a framework and indicators for libraries to conduct self reviews on the management of quality processes. This involves is a detailed self review of all processes, as well as a peer review from colleagues in the profession. The Durban University of Technology (DUT) Library has recently undergone the review process and would be subject to further reviews. This paper will critically examine the DUT's application of CHELSA's "self review" guide as a tool for evaluation of higher education libraries. The intention is to draw out preliminary findings on the appropriateness of the "self review" evaluation tool to the broader process of evaluation and measurement of quality in higher education libraries in the hope of informing this important and ongoing process in all contexts.

Keywords:

CHELSA self review guide; Evaluation in higher education libraries; Measurement in higher education libraries; Quality in higher education libraries

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A case study of strategic planning of the Main Library and 23 Research Academic Libraries of the Faculty of Philosophy and Letters at the University of Buenos Aires, Argentine: 2008-2010

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The need for a strategic plan for the main library and the academic research libraries of the Faculty of Philosophy and Letters at the University of Buenos Aires to respond to new demands and challenges that modern society require. We are immersed in a changing society which requires daily continuously adapting to new emerging processes. In this increasingly

competitive environment, will help formulate a plan that takes the necessary actions for this faculty, set in the coming years as an entrepreneurial, technologically advanced and socially open.

Therefore, this document aims to guide us on the road to a Faculty of prestige, which has the goal to achieve excellence in meeting their teaching and research functions and provide services to society. We want to bring up competent and educated people, contribute to the dissemination of knowledge and the scientific-technological progress of mankind and promote the socioeconomic development of Buenos Aires and with the assurance and confidence that you know walking in the right direction.

To achieve this strategic plan is working with the SWOT Analysis (Strengths, Weaknesses, Opportunities and Threats) that identified the opportunities and threats in the external environment and strengths and weaknesses within the context of internal Institution. De thus identified and offensive strategies and adaptive strategies reactive and defensive, which emerged in the strategic priorities, should work. We consider that the strategic analysis is the heart of the strategic planning process.

This Strategic Plan focuses on seven strategic areas :User Services, Collections, Information System, Communication and Broadcasting Services, Integration and participation of the library systems, Networks and consortia of libraries and their projection in the external environment, Personal and Institutional policies, which represent our basic pillars of which appear to meet the objectives in the coming years. These objectives, we are emerging as institutional challenges are broken down into strategies that will achieve the proposed goals. The degree of implementation of these strategies will in turn marked by the implementation of actions that each one entails.

Compliance with these actions, which control mechanisms will be established jointly with the schedule of activities, will confirm our daily aspirations and reformulated in the light of experience gained

Key Words: STRATEGIC PLANNING, SWOT ANALYSIS

A mixed qualitative–quantitative–participatory methodology: a study of the agricultural knowledge and information system (AKIS) of small-scale farmers in Kirinyaga district, Kenya

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Agriculture and rural development form the bedrock for effective development in Kenya, where about 80% of the farmers are smallholders. Small-scale farmers face many challenges in harnessing knowledge and information from appropriate sources. To help address the problems, and facilitate participation, sharing and exchange of knowledge and information, there is a need to understand the agricultural knowledge and information systems of small-scale farmers. This paper examines how key agricultural actors in Kirinyaga district, Kenya support sharing and exchange of agricultural knowledge and information. The paper is based on a study that adopts a triangulation of qualitative, quantitative and participatory methodologies and methods for sampling, data collection and data analysis. The methods combine Relaxed Appraisal of Agricultural Knowledge Systems and Participatory Rural Appraisal; questionnaires, interviews and focus group discussions; case studies; observation and analysis of secondary data. Preliminary results suggest that richer and deeper data is collected through mixed methodologies and methods. The study points to the need to strengthen and formalise linkages between farmers, researchers, extensionists, educators, farmers' groups, private sector, input stockists, microfinance institutions, media and civil society organisations.

Keywords: Agricultural knowledge and information system (AKIS); information behavior; qualitative-quantitative-participatory methodology; Kenya

Intellectual Capital and Public University Libraries: a knowledge sharing perspective

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Knowledge economy is resulting into competition which increases the demand for innovation. The wave has urged libraries which faced no competition before to think of ways to add and show more value to its users. The coming of digital libraries and other information providers challenges traditional libraries to improve its practices before doomed obsolete. This paper is based on the findings from the research for the Master thesis focused on establishing the relationship between intellectual capital and knowledge sharing. It is an explanatory survey addressing the issue of intangible assets as unseen value in public libraries. The research intended to use both a questionnaire and interview to ensure validity. A questionnaire was designed in such a way that key questions were asked alternatively in the same questionnaire to compensate the interview. The questionnaire was then administered to six different universities to ensure reliability of the findings. As a consequence of distance and difficulties in selecting respondents, snowball sampling was used. Descriptive narrative and mapping were then used to explain the findings. Due to time and distance constraints the research focused only on the aspect of human capital and structural capital and leaves such aspects as customer capital, renewal capital and process capital to be covered by other researchers.

Keywords: intellectual capital, knowledge sharing, university libraries, questionnaire

Access and use of information by primary health care providers in rural Uganda: a qualitative approach.

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The article summarises findings from a qualitative study that was conducted in rural Uganda, East Africa. The main aim of the study was to investigate the accessibility and use of health information in the lower echelons of Primary Health Care (PHC). Women, as PHC providers in an African family, were focussed on, as well as health workers. An interview schedule that consisted of open questions and one relating to health information critical incidents was used. A holistic inductive paradigm was adopted with a grounded theory analysis. The findings highlight a model of information behaviour that was driven by the value and impact of information unlike previous information models, which have been driven by information needs. The value and effect of information on PHC was as experienced and reported by the interviewees. For example, information was valuable in the prevention and detection of diseases, management of illnesses, decision-making, improving knowledge and promoting health, administration, behavioural change, overcoming misconceptions, and community support. In some critical situations, however, it was difficult to access the required information or information source at the right time in rural Uganda, which sometimes resulted in loss of lives. Unmet health information needs therefore remain a challenge to the health of Ugandans. The need for and value of information in rural Uganda led to the institution of an informal mechanism of health information provision. It was, therefore, recommended that the local capacity should be built or strengthened to enable it to sustain health information provision, a participatory and multi-sectoral approach involving all stakeholders was suggested, more repackaging of information to suit the needs of rural health workers and women, the need for health workers to provide more information to patients, and further research were recommended.

Keywords: Information models; Value of information; Information use; Information behaviour; Primary health care; Women; Information activities in rural Africa.

Digital Library Collection Development

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This paper begins with an understanding of digitization, the meaning, the selection of materials, the collection development, the preservation, the access digital information and some issues involved in the digitization. The collection service is an independent mechanism for introducing structure into a distributed information space. At the preliminary stage it addresses the issues of organizational motivation, possible content, target audience, long term support and funding. For planning, about staff and resources, creation and maintenance delivery methods, charging policy and long term support and funding. During the process of creation aspects to be considered are, available technology, in-house or out-source, project management, design, testing, unveiling and long-term support and funding. Preserve the integrity of and ensure the persistence. Each of the functions enumerated in the working definition of B“digital libraryB” select, structure, offer intellectual access, interpret, distribute, preserve integrity, and ensure persistence is subject to the special constraints and requirements of operating in a rapidly evolving electronic and network environment.

Key Words: Digital Library, Digital Collections, Policies, Digital Materials

A Study on SERVQUAL and LIBQUAL Models as Methods for Evaluating the Quality of Library Services

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In order to survive in today’s digitalized and competitive environment, libraries should evaluate the quality of their services. Also increasing this quality and satisfying users, are among inevitable libraries activities. According to library’s role as a service institution, some popular methods from business world were used to evaluate the quality of services in libraries and information centers. SERVQUAL model is one of these mentioned methods which was adapted to be applied in libraries’ environment. This paper at first introduce different aspects of SERVQUAL model. Then LIBQUAL- the derived modal of SERVQUAL for application in libraries’ environment- will be discussed.

Keywords: Quality. Services. Libraries. SERVQUAL. LIBQUAL

The Investigation of Individual Factors that Affect Information Technology Usage by Librarians Affiliated to Tehran University

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The goal of this research is to determine the extent of relationship between individual factors and usage of information technology by librarians affiliated to Tehran University. The investigated factors are as follows: age, gender, level of education, educational field, experience with IT, training in IT, attitudes toward IT, level in organization, work tenure in libraries, access to IT, librarians' participation in IT application projects, and level of English language knowledge. The method was survey and data has been gathered by questionnaires.

The population was composed of 153 librarians of central library and college libraries of Tehran University. The result shows that there is a positive significant relationship between each of following factors and IT usage: level in organization, level of education, level of English language knowledge, access to IT, experience with IT, training in IT and librarians' participation in IT application projects. This is suggested that library administrators facilitate the effective performance of library and information science by providing equal educational opportunities about IT for different groups of employees.

Keywords: Individual factors..Information Technology. Usage. University Libraries. Tehran University

Proposing a Change Management model for Academic Libraries

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Academic libraries today are faced with a series of challenges in different fields, for example building collection with the increase in the cost of books and journals, rapid and costly changes in technology, and changes and diversity in users' information needs. This study explores some ways to apply existing change management models to manage the changes in academic libraries. In order to do that, first I will review the literature in management, library and information science, and academic libraries. Then a meta model for change management which is appropriate for academic libraries' characteristics will be selected and described.

Keywords: Change management. Models. Academic Libraries.

Are qualitative and quantitative data appropriately gathered for managerial decisions?

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Academic libraries have begun to incorporate principles of research-based management in improving the quality of reader services, as evidenced by the increased attention to seeking input from library users. But is the "user perspective" identified, analyzed and interpreted in ways that are aligned with decisions required of library service managers?

Contemporary management theories advocate that managers make decisions based on data, with special emphasis in the management of services to include the customer's perspective among data considered. To practice such data-driven or evidence-based management, decision makers require an understanding, if not a mastery, of ways to systematically gather data for a defined purpose, and the associated methods to analyze and interpret the results. If they themselves do not gather the data, they need a foundation in applied research to judge the quality of data they are presented by others. The growing emphasis on utilizing customer perspectives in decision making has introduced qualitative data to organizations previously managed by quantitative monitors. Justification of value, outcomes, and service quality require data about opinions, perceptions, and preferences, which are new to many managers who had mastered reporting of amounts of resources, volume of activity, or productivity rates. The changed expectations of managers to embrace robust data might not be paralleled by changes in their understanding of the qualitative and quantitative approaches to gather and interpret data they use in decision making.

This presentation addresses the application of theory in practice by exploring the extent to which library managers accurately distinguish qualitative and quantitative approaches to gathering and interpreting data needed for managerial decisions. The results of a two-phased exploration will be summarized. The first phase involves a survey and focused group interview of administrators of public services in large academic libraries and the second

phase examines samples they provided of evaluation reports of services used in making decisions about service improvements. Together the study explores the following research questions:

- What are the types of decisions for which administrators of public services in large academic libraries seek data?
- What methodologies are used to gather the data needed for such decisions?
- Do procedures for gathering, analyzing and interpreting such data reflect the established theoretical basis and protocols of the quantitative and qualitative methodologies used?
- How confident are administrators of public services in large academic libraries in their understanding of research methodologies needed in their work to gather data about users and uses of libraries?

The results of this study should be of interest to managers, academics, and educators to clarify what practitioners need to know about the data presented to them and which they commission or gather themselves, as well as to identify areas for which further research could inform managerial decisions. Ultimately, the provision of appropriate data and the capacity of service managers to effectively rely on them in making decisions should result in improved service quality and value of libraries.

A Small Library with Big Goals - The Library For German Language And Literature,

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As the subject of the conference is *Qualitative and Quantitative Methods in Libraries* I would like to talk about the foundation and function of a small library. Big libraries differ very much from the small ones. They both have their positive and negative aspects. In big libraries everything is impersonal and that is what many people like. It is important is that there is a book and a seat in the reading room for the visitor. In small, for example, department libraries, the milieu plays a big role. There are people who never go to the main library of the university. They do not like too big bleak rooms without cosy corners, too many strange people.

I would like to speak about the Library of the Department for German Language and Literature at the University of Tartu. The University of Tartu is one of the oldest universities in the Nordic countries, founded in 1632. After the collapse of the Soviet Union the situation in our country was changing. We had to build up new society, a new educational system. The example of our library illustrates the developments in Estonia very well. In many areas we had to start from scratch. When learning foreign languages, it is natural that the dictionaries, lexicons and scientific literature are at students' disposal, but in Tartu it was not so. The first German Professor in Tartu – Claus Sommerhage - started establishing a library. Without intensive support of the German and Swiss funds our library would not exist today. Our library is getting better every day, the students and lecturers use it more and more often.

I would like to speak more profoundly about different qualitative and quantitative methods I use in my everyday work in the small library.

- The first and very important part of my work is dealing with different funds, supporting programmes and promoting cooperation with the university main library.
- The priority of our library is to be of high scientific quality. This is the direction, Claus Sommerhage gave to our library and we still hold on to it. It is sometimes difficult because of our insufficient financing, but we always choose books carefully, ask advice from our German patrons and friends, try to be informed of the newest scientific literature.

- One of the priorities of our library is its closeness to students and lecturers. We are informed of every need very quickly and for the students it is comfortable that everything about one subject (German language and literature) is concentrated at one place. Small libraries often have other advantages.

- Our library is a kind of a social gathering place for students who study the same subject, have the same problems and pleasures.

- The nice and comfortable interior (enough place for everybody, computers, open the whole day, exhibitions) plays an important role here.

- All the books are in the Library system the Innovative Millennium and because of open access it is very easy to find necessary books.

In my paper I would like to speak about my work with the students, lecturers, foreign partners, funds, connections with other libraries. In big modern libraries the work of the librarian could be monotonous and very specific. My work, on the contrary, has contacts with every field of the library work. I am sure that the good “old librarian” is still alive and the audience is eager to know about his or her chores.

Internet access and use: concepts, measures and analytic model

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Understanding, describing and explaining internet access and use, as well as the use of other information and communication technologies, as mobile phones, are subjects that nowadays attract the attention of many different researchers and professionals, including social scientists and librarians. From the perspective of social scientists, the multidimensional and complex characteristics of the internet seem to point out to the importance of understanding the multiple aspects of internet use and how these uses relate to the social and cultural characteristics of users. Unveiling these processes will hopefully help to diminish internet use differences between individuals and also contribute to find out how internet use can have an effect in people’s or communities’ lives. The role of libraries and librarians in bridging these digital divides is also being emphasized in many studies. A recent major public library survey shows that the internet is being used as the first information source for the solution of everyday life problems, and also that the access to the internet in libraries is relevant for those that do not have internet in their homes as well as for those that only have dial up access to the net. From several perspectives, therefore, studies try to focus on the interplay between socio-cultural and technical aspects of internet access and use, besides trying to find out how internet uses can contribute to people’s life chances or to community development. However, there are differences in internet access and many aspects involved in the measurement of internet use. How social and technical characteristics of users intervene in internet access and use is another complex analytical problem requiring careful attention. Aiming to contribute to studies about internet use and internet use effect, and to studies about internet use in libraries, we try to point out here the multiple aspects involved in the measurement of key concepts, as that of Internet uses. We also try to discuss the analytic modeling of the concepts that might be considered in these studies, having in mind both qualitative and quantitative approaches. How different aspects of internet use might present different relationship with the social characteristics of users as well as with the technological aspects of internet access is also considered with examples taken from the 2005 survey of the Brazilian Bureau of Census involving more than 408 thousand interviews.

Key Words: Internet use, User behavior, Use measures

Information Behaviour of University students

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The European universities, among them Spanish universities, began in the year 1999, through the *Bologna Accords*, a convergence process toward a European Higher Education Area (EHEA). This process will conclude in the year 2010 with a new university model. Because of this model the management structures will be configured around an education focused in the student's learning, so information technologies will play a fundamental role in that learning.

This change in the university structures, is assuming a change in the traditional university library and other administrative services. In this period of European convergence, the Learning & Investigation Resources Centers (called CRAI in Spanish argot) have arisen in the Spanish university. The CRAI are organizational units that, in an integrated way, provide basic educational resources to the university community. Likewise, other information services of the university (secretary, tutorships, etc) will also provide in an agile way all the necessary information for the realization of any academic step.

However, the design and planning of these services has been done from the perspective of the ideal organizational structure and theoretical point of view and has not been done from the future user's perspective. Moreover, the rhythm in which these services have settled down is different according to universities. Thus, there are universities that were born with a clear vocation in providing integrated services through virtual platforms. But others, with a longer history, they still keep close to the doors of the year 2010, the traditional university model.

The **objectives** of this research are:

To describe the information behaviour (informational problems related to academic life, strategies for their acquisition and use) of the students of two Spanish universities in two different contexts: a virtual campus (Universitat Oberta de Catalunya - UOC) and an on-site campus (Universitat de València – UVEG)) in order to extract practical recommendations for the information systems planning according to the user's information needs.

To analyze the educational styles, in terms of training in the use of the information resources.

To validate the use of an inductive approach, the grounded theory, in the study of the informative behaviour.

A qualitative **research approach** is used. According to Strauss y Corbin (1990) is used when there is a need to go out into the field in order to understand a phenomenon and when the experience is continuously evolving. The tool used to collect data of this research is the in depth and semi-structured interview and for the analysis of the data the principles of the grounded theory are applied. The sample used in this study reflects the principle of *maximum variation sampling*, as defined by Patton (1987) in order to obtain relatively small simple but very diverse and to obtain a rich picture of the students information behaviour.

This is an investigation in progress and **expected results** are as follows:

The relative utility of university library, as a service to assist the informative problems that arise in academic life.

The partial utility of the general information services of the university.

The importance of interpersonal communication for the access to information.

The importance of the Internet as a way to access information in front of the little importance of the traditional university library.

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Towards an assessment of public library value: statistics on the policy makers' agenda

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Data and evidence on library value is a powerful tool for changing attitudes and actions towards libraries as well as can serve as a tool for advocacy and fundraising. Since all public libraries in Latvia receive government funding, librarians must advocate for support to provide and sustain services to their changing communities by demonstrating the value of libraries within their communities to their government bodies, funders and decision makers. The paper presents methodology, early findings, possible applications of results and lessons learnt from the research study "Public libraries: value, trust and satisfaction".

The study has been conducted in Latvia as the part of the impact assessment plan within the public library development project "Third Father's Son". The project is co-financed by the government of Latvia and Bill & Melinda Gates Foundation within the Global Libraries program. All local government authorities with their 874 public libraries are participating in the project the main goal of which is to improve people's quality of life by strengthening and using the capacities of public libraries to facilitate better and proactive use of resources offered by free access to IT and the Internet. It is expected that the project "Third Father's Son" will raise the prestige and image of public libraries in society in general and value of public libraries in local communities. The project is beneficial to many people in Latvia, especially the rural population, in self-education, boosting the effectiveness of their working lives, developing social communication and getting better access to variety of services. The project also aims to motivate existing and to attract new library users that could benefit socially and economically from the new technologies and free Internet access in public libraries.

The study is looking on the magnitude of social value that library can have by using context oriented research approach (Durrance, 2002) that includes research of information ecology of local community as the system to find out what is the role of library and librarian within it. The theoretical background of the study is based on the theory of use-oriented value of information and information services (Saracevic and Kantor, 1997). To research information ecology of local communities the ecological theory of human information behaviour (Williamson, 2005) has been used that contains model of information search and use ecology that helps to identify information sources available at the community as well as helps to understand user information needs, information search habits as well as factors that influence the local information ecology. In order to look on social and cultural factors that influence information processes the model of everyday life information seeking has been used (Savolainen, 2005).

The study is answering several research questions:

- How do inhabitants rank public library service against other services provided by local government/municipality? How important is the public library service for inhabitants compared with other services provided by local government/municipality?
- What is the peoples' level of trust in public libraries in comparison with other social and cultural institutions and other institutions in local government/municipality?
- What is people's level of trust in public librarians in comparison with other professions?
- What is the trust level in information received in/through public library (or by using e-services and content, provided by public library) in comparison with information received through other information channels and resources?
- What is the level of user satisfaction with public library services?

Both quantitative and qualitative methods have been used for the data collection purposes that include representative survey of inhabitants in Latvia as well as focused discussion groups in all regions of Latvia covering urban as well as rural areas. The information ecology mapping method that allows illustration of networks of trust that exist in a geographical community has been applied in FGDs. The research sample includes both library users as well as non-users.

The paper introduces library community with practical results from the measurement of use-oriented value of public libraries by using information ecology approach that allows to look at the value of services from outside of the library within information ecology that exists in the community around the library and allows identifying the role of public library within a context of other information sources used by the public.

Keywords: Public libraries, Value, Trust, Satisfaction, Information Ecology, Information Needs

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Outcomes based measurement of public access computing in public libraries: comparative analysis of studies in Latvia and Lithuania

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Capturing impact is one the most ambitious fields of performance measurement of libraries’ services. In the fight for public resources and funding it becomes vital to prove the benefits users gain from the interaction with libraries services. The same applies to the public access computing (PAC) in public libraries. The benefits that users can gain from using PAC in public libraries include access to ICT, technology training and assistance, expanded employment opportunities, conducting commercial transactions, access to and assistance with local, state and federal government electronic services, support to learning, communication and personal identity. The paper presents a methodology of measuring the outcomes of public access computing as well as acquaints with main results of studies conducted in Lithuania and Latvia.

The **purpose** of the paper is to share the methodology and practice of impact focused and outcomes based research into PAC in public libraries in two neighboring countries – Latvia and Lithuania. The paper describes an approach and framework and gives an overview of methods used in impact focused research into PAC in public libraries applied in studies that were done within projects “Third Father’s Son” in Latvia and “Libraries for Innovation” in

Lithuania both supported by Global Libraries program of the Bill & Melinda Gates Foundation.

Both studies are exploring both positive and negative downstream impacts in the areas of employment and income generation; educational levels; civic life and engagement; government transparency and democracy; cultural preservation and improved health. The **central questions** of studies are:

- What are the social and economic impacts of PAC in public libraries on peoples' lives?
- What is the magnitude of these benefits?
- How do these benefits reach people who do not otherwise have access?

Findings from studies in Latvia and Lithuania show both similarities and differences in PAC infrastructure in public libraries as well as user activities and perceptions of social and economic benefits received. The studies prompt some very positive findings about:

- **The social role of library PAC:** experience of PAC users include improved social relations, better access to education and healthcare resources, enriched leisure and cultural life.
- **It's economic impact:** PAC users report saved finances, increased earnings, jobs found, increased opportunities to buy things and services online;
- **The educational role of library staff towards diffusion of ICT's:** ability to get support from staff is important factor for choosing PAC in the library, especially for low-skilled users.
- **Improved equal access towards users without alternative access and hard-to-reach groups:** Library PAC provides access and support to people from hard to reach groups such as unemployed, rural inhabitants, children from social risk families and other. Significant part of PAC users has no any other alternative access.

Public Libraries in the Information Ecology System of the Local Community (Focus Group interviews with the Information Ecology Mapping – Approbation of the Method and the First Results)”

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The research under the title “Municipal Public Libraries: Value, Trust and Satisfaction with the Services” is implemented in the framework of the project of municipal public libraries “Father’s Third Son” co-funded by the Government of Latvia and the Bill & Melinda Gates Foundation (from January till June, 2009 it is carried out by the Institute of Social and Political Researches under the University of Latvia). The aim of the research is to evaluate the value of services provided by the public libraries in the broader context – in the level of local community. There will be two methods of research used – the opinion survey of the adult population and the focus group interviews with the information ecology mapping. The aim of the focus group interviews is to study the type of information actual in the local community, understand the habits of searching for the information among the population, and define the role of the municipal public library.

There are two library science and information science theoretical models made use of during the approbation process of the method - Ecological Theory of Human Information Behavior by Kirsty Williamson and Everyday Life Information Seeking (ELIS) by Reijo Savolainen.

The sample includes both the library users and non-users. During the course of discussions in the focus groups the information ecology mapping is performed for each topic, reflecting the place and resources used to search for the information. At the end of the discussion the information ecology map of the local community is developed.

According to the first results obtained, the resources and places to gather information differ from cities to the country, depend on the age group of the inhabitants, their information literacy, the financial position, accessibility to the internet and some other factors.

Keywords: Library and information science research; municipal public libraries, library users and non-users, focus group interviews with the information ecology mapping.

Strategic planning, an approach to develop criteria for evaluation of library services:

Report of a case study

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A library can be defined and judged by its services. Library services which are based on users' needs and is in line with changes in the society can ensure quality services. Evaluation of library services is a tool that can assess its quality. Although several assessment tools have been developed and used by different libraries, each type of library and each institution should take into consideration its own conditions, specifications and information needs. Strategic planning is not only a kind of map for defining and developing library activities, but it also provides criteria for assessing the usefulness, efficiency and effectiveness of those activities including information services.

A one year research project was carried out by a team of professional librarians and an information system specialist to develop a strategic plan for a main library and 29 state libraries at the Management and Planning Organization (MPO) of Iran. The underlying aims of this strategic plan were the development of library services and accessing some criteria for controlling the quality of these services. The research population included a sample of library users (MPO researchers and users coming from other institutions), 7 MPO Deputies, 29 managers of the main and state libraries, and some documented policies and regulations. Questionnaires, structured questions for interviews and checklists were instruments for data collection. The underlying theory for designing these instruments was "Guidelines for information services" which was revised by RUSA in 2000. Data collection helps gather information about external and internal environments. SWOT analysis provides basis for designing the strategic plan for information services. Based on this strategic plan a set of criteria which match with the users' needs and the organization's specifications was developed for the control of planning and implementation process as well as for the future evaluation and development of information services.

Keywords: Strategic planning, Library services, evaluation criteria.

A glance at the characteristics of Mixed Methods and importance of its application in library and Information Science Researches

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Disciplined inquiry about problems of a interdisciplinary Domain such as library and information science studies requires decision to be taken about an appropriate research design. In making such a decision, the researcher tacitly assumes a philosophical point of view or a research paradigm. There are four research paradigms which are the basis for the selection of research methodology and research methods. These paradigms include: a) positivism, b) interpretivism, c) critical theory, and d) post-structuralism. The basis of quantitative research methods is positivism, and of the quantitative research method is the three paradigms, as mentioned above. Due to nature and complexity of problems in library and information science settings, neither of the quantitative and qualitative research methods,

alone, would be fully appropriate to investigate them thoroughly. Therefore, there has been a shift toward applying a combination of quantitative and qualitative approaches. Such a combination is called mixed method research. Based on the above, first a review of the philosophical point of view (paradigms) which are the basis of research methods is made. Then characteristics of mixed methods research are discussed and its applications in library and information science are described.

Key Words: Mixed methods, Mixed models, Qualitative research, Quantitative research, Library and Information Science

Communicative behavior and demands for digital preservation among academic community and government officials - a mixed methods study

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Our study, conducted as part of the PLANETS project (www.planets-project.eu), used qualitative user studies to investigate the communication networks and the preservation needs of academic staff and government employees. From these data we created a theoretical model of the information-based thought process and highlighted important concerns of these users.

After these preliminary findings, a questionnaire was deployed to a much larger audience, namely the academic community at British and Danish Universities, and government agencies in the Netherlands.

With data still coming in this survey will provide knowledge on communicative behaviour, use of professional networks and the resulting needs for preservation of communication. The results of the quantitative study will be reflected in an analytical taxonomy of differing patterns of behavior, modalities of use of professional networks and contrasting demands and attitudes of academic staff and government employees towards digital preservation.

This analysis will also draw on the qualitative data gathered earlier and thus can be characterized as a methodological triangulation. By this approach we aim to integrate the objective findings with the subjects' reflections on their own praxis.

Museums and the Art Galleries in the Digital Age

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With the advent of World Wide Web (WWW), museums provide access to information, documentary films, story-telling times etc. Audiences can access information via WWW which is hidden in the museums physical walls. Some museum websites provide entire collection to their audiences while other museum-related websites provide selected presentations. Web facilitates audiences to access what they want anywhere, anytime without any geographical barrier. Web act as a bridge between audiences and the museum collections. Museums can be considered as heritage institutions. In this electronic era, museums are actively involving with their communities. It helps to build their own past while facilitating for the awareness of contemporary issues such as famine, racism, AIDS, and drug abuse.

Museums audiences can be scholars, teachers, students, museum staff, and museum visitors. To evaluate the services provided by the museum websites, a questionnaire can be distributed among the audiences via websites and through e-mails. Evaluations are helpful to provide efficient service to the audience. It attracts more audience to the sites. A survey also can be done within the museum website by taking visitor statistics.

Past times museums preserve their existing collection to satisfy its funding donor. But now the image has dramatically changed and it raised social awareness. In fact modern museums generate more active participation and conservation of cultural heritage. It develops quality of community lives. Due to this, there are considerable voluntary preservation trusts, heritage trusts, conservation trusts etc emerged in the world. Museum Community acts as the storage, creation centre for the objects and events of the museum. Museum ownership keeps always within the community except for objects. Objects have no physical or emotional home. Museums borrow the object from the people in the community and it returns as short-term exhibitions for their awareness. Museums are playing major role in the educational sector. Mainly museums encourage self improvement, self-respect, and self-actualization of its community. Museums are the places where people can preserve their cultural heritage and life blood of any community in this world.

Key Words: new information, audiences, cultural heritage

Measuring the Capacity and Use of Collections library and its Interaction with Teaching and Research at the EARTH University.

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This paper present the progress of the results of the first phase of research on development of collections being done in the Library of the University EARTH (Costa Rica), whose main hypothesis is to demonstrate that the interaction of teaching and learning processes and research collections, are observable and measurable from the library. The method used, "focused on materials," is based on citation analysis and the study of uses, with input from indicators that have facilitated the analysis and interpretation of results, which will contrast it with other studies. The findings presented a check of the assumptions made in terms of capacity and use of physical and electronic collections, and new methodological contributions of the scientific analysis in the area of knowledge in serving the Library W. K. Kellogg.

Key Words: Academic Library; University libraries / Collections development / E-Collections Building / Evaluation of collections / Bibliometric/ Indicators

A new look at the university libraries in context European Research Area

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The role of university libraries in the European Research Area (ERA). Collecting, diffusion and exploitation of knowledge like the core of the research system are discussed. The paper presenting an access to knowledge by exploiting the potential of university libraries, the development of online libraries, repositories of scientific information and databases of publications. An examination of the role of university libraries in Poland in the process of the knowledge transfer, the main problem of scientific communication.

Keywords: university library, European Research Area, knowledge transfer, access to knowledge

Quality Management in Academic Library: A case studies of the Science and Technology area in Spain

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This paper presents partial results of a research developed during the year 2002 to 2006. Population analyzed was Science and Technology teachers of Spanish universities. The investigation has worked with sample academic users, distributed among 19 Spanish universities. The main contribution of this study is to present a BIQUAL tool. It is useful for the evaluation of the quality services in university libraries and especially of Science and Technology. This tool is created using the user's point of view. Results identify behaviour of these users and the aspects that concern the quality of the service in this environment.

We also discuss about some problems and difficult experimented in this research. We analyzed the use of quantitative methods, in special, survey as well as it effectiveness to library quality management.

Key Words: Academic library, quality services, surveys, information behavior, Science and Technology, European Higher Education Area

Databases - instruments of documentation and information in scientific research

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If we are to talk about of information source in XXI-th century, it definitely belongs to the virtual information environment either it is website, library, publication, study or article. Nowadays, the information is being created, developed and spread in real time, online. The documentation and information are greatest importance in order to acquire competencies in scientific research.

In this article we present the databases that are available at our university and also useful to researchers and to the members of the teaching staff.

Key Words: databases, documentation, information, digital library, doctoral school

Change Management in the University Library

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Starting from the emphasis of the strategic role the libraries play in the knowledge-based society – either as self conducting institutions, or as specialized entities within the educational system – the paper presents a methodology of achieving change management in the university libraries and its application to a case-study.

Change management distinguished itself as a separate field in the management theory and practice in the last two decades and various methods of elaborating and implementing organizational changes were proposed. The model discussed in the paper, original in many aspects, outlines two major stages determining the results of the changes upon the

organization's overall performance: implementing changes from a strategic point of view and approaching change as a project.

The theory developed by the authors is applied in a case-study on Transilvania University Library of Brasov. The study includes a diagnostic analysis of the library revealing strengths and weaknesses of the organization. The changes done in the last decade are examined as well as the way the processes of elaborating and implementing major changes – concerning information technologies and human resources – were carried out. The study underlines the need for changes in the library's management system that can be done through systematic actions regarding leadership, the services' quality, the organization of work on modern principles and staff involving. These actions represent central priorities of the strategy elaborated by the library management and modern management principles, methods and techniques will contribute to their achievement.

Keywords: change management; library management; university library.

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Measuring the Quality of Leadership and Service Provision in Libraries

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The intention of this key-note is to present some more or less provocative ideas concerning the development of public libraries.

In USA and Western Europe, we do witness the same types of developments in public libraries and we see very similar themes of discourses independent of the national and local culture in which these libraries operate. Some of the themes concern the management structure and organisation but more important is probably the current think about service delivery in a broad sense. Service delivery concerns the activities. It is areas like collection and collection management, the allocation of resources to the different part of the collection, the interplay and relationship between national internet-based delivery and the local service. Another important theme is the effort concerning the public library and its integration into the community taking up different forms of citizen services, cooperation and partnership with the local community, but also a focus on playing a new and more active role in the cultural scene by for example emphasising learning activities, lifelong learning, internet courses and different forms for events and exhibitions. The ambition is to become a local meeting place, a third room; a common intended to generate social capital.

This discourse and many of the activities resulting from it like 23 thinks, the libraries in the second world and experiments with various forms of social technology appear to how a great appeal in the library profession.

However, both library statistics and numerous studies of users and their preferences give a more differentiated picture. In most countries, the public libraries face economic hardship. They witness stagnating or decreasing numbers of visitors and the issues of traditional materials also tend to decrease. The public appear to value especially the services and products that suffer due to economic pressures and the internal priority setting in libraries. Overall, it appears – at least at the surface – that users do have a rather traditional view of the public library and their stated preferences also seems to be very traditional as they are oriented towards books and information and to a lesser degree towards new services and delivery forms.

It is of course of paramount interest to investigate possible discrepancies between the discourse and the practices in the professions and the users' preferences, priorities and level of satisfaction.

There is probably no right solution to the problem, but it is of both a practical and theoretical significance to investigate which factors influence the development of the discourse and the activities in the professions and in the public libraries and is also important to be able to measure users perception of the significance and importance of the service delivery and to which degree this is connected with measures of satisfaction.

The keynote discusses users' perception of the significance of the various services and presents a model for how it is possible to measure the significance of the single service. This measure is related to measures of satisfaction and what influence that factor.

The keynote further discusses the factors behind the profession's discourse and practices. The concept of an organisational recipe is introduced in relation to organisational culture as two factors that have influence on the way libraries tend to adopt different forms of innovations. Of course, leadership plays an important role and the keynote also introduces measures of the personality traits of library directors and discusses this in relation to the innovation and development process but also in relation to the "sense" or construction the profession is creating of the user.

Finally, the keynote discuss possible consequences and outcomes of the fragile relationship between users and a public service as public libraries.

Portuguese School Libraries. The design and implementation of a School Libraries Self Evaluation Model

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The School Libraries Network (SLN) was initiated under inter-ministerial initiative in 1996. It aims at creating and developing school libraries across school levels – from early learning pre-schools to secondary education - in partnership with Municipalities, Public Libraries and local education administration structures.

Since its institution in 1996, SLN supported 2058 schools, representing 95% of the total of post-elementar schools. This reach is the result of significant investment by the Ministry of Education and by the efforts of different partners committed to the development of school libraries.

To assess and acknowledge the impact of such investment and the effective contribute of school libraries in students' achievements is therefore essential to all stakeholders. It is moreover a reality check and an evidence-based practice exercise.

Additionally, school libraries lacked an instrument tailored to collect and use intelligence, identifying successful domains and actions and those requiring intervention, reform or design of transformational policies. This analysis is in itself a basic principle of good management, and a pivotal instrument for project development, contributing greatly to the wider recognition and affirmation of the school library's role within the school. The evaluation of the school library should moreover integrate the wider school self-evaluation process and it must articulate with the school's educational project.

The realization of this vision depends on a considerable number of conditions that schools must understand. Several international studies have identified them as critical success factors for the school library: co-operation and co-ordination levels between teachers and school librarians in what concerns the selection of resources and the development of activities aimed at improving student's achievements; accessibility and service quality; adequate collection and IT resources, etc (cf., for example, Lonsdale, 2003; Lance & Loerstsher, 2003). These studies demonstrate that school libraries contribute decisively to teaching and learning success and that it is possible to establish a co-relation between the quality of the work developed at the school library and student's performance.

The conception of a self-evaluation model for school libraries integrated in SLN is the result of this context. It became of utmost importance to gather objective information on how school libraries develop and operate, how they contribute for effective student learning and success and for the goals of lifelong learning.

It is the result of previous study and analysis of existing models and more specifically of Portuguese schools' teaching and learning settings. We have confronted and taken into consideration previously practices and we drew from other education systems, but above all we endeavoured to develop both quantitative and qualitative approaches, focused on processes and outcomes. The model has been piloted for the first time in 2008. One hundred schools have applied the model and in 2009, 545 schools will be involved in this process.

In this paper we propose to present and analyse the model, its principles and steps leading to implementation and some results of the pilot implementation. The self-evaluation model is based on four domains which represent essential areas to the accomplishment of school libraries' teaching and learning objectives. Some of the features are characteristic of the Portuguese reality, but they are all directed towards critical teaching and learning dimensions of school libraries. Elements to be scrutinized were grouped in the following different domains: A. Supporting Curriculum Development; B. Promoting Reading and Literacy; C. Projects, Partnerships, Open-ended and Community-oriented Activities; D. School Library Management.

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Project for an open course for information literacy in the UACEG library

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This paper reviews different aspects in realizing the need of creating methods for leading an *open course for information literacy* for library clients from engineering subjects – in particular, architecture, civil engineering and geodesy – and the organization and management of that idea.

The paper also renders a report on the results of a sociological investigation among the students concerning the offered open course, as well as their evaluation of the work organization at the library, of the traditional and electronic information sources owned by the library, and, the most important, of the realization of the students of their need of such a course.

Keywords: digital libraries Bulgaria / information literacy/ sociological investigation / psychological difficulties / organization problems / development program / program for adaptation

Qualitative and quantitative measures in marketing research for university library resource assessment

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The article presents the following research: attitudes, opinions and behaviors that Braşov students have regarding the use of informational resources that *Transilvania University Library* has to offer. Qualitative research: difficulties, obstacles, limits and opportunities, regarding the access to bibliographical research services.

Main points of the presentation:

- the formulation of general and statistical hypothesis
- the determination of the research goals
- the presentation of the survey in its final shape

Keywords: marketing, university library, electronic resources, library assessment

New Technologies, Citizen Empowerment, and Civic Life

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The Internet has dramatically expanded the range and variety of information available to people worldwide. The World Wide Web, powerful search engines, and the rapid expansion of broadband service have made this information readily accessible to individuals. Mobile technologies have made this information accessible anywhere, anytime. New communication tools built on the Web—blogs, wikis, RSS feeds, social networks, and online communities—have modified the channels and the ways that many people seek, receive, and share information. Prior to this abundance of information and the proliferation of information creators and providers, the cost of producing and disseminating information sources—primarily in printed form—required a system of gatekeepers. Editors and publishers acted as channels for information dissemination. Both by economic necessity and selectivity based on principles of quality, accuracy, and authority, there was a relative scarcity of recorded information in the pre-Web world compared to today, more than a decade after the Web appeared and grew rapidly. These changes pose challenges for civic life. The 2008 presidential campaign in the United States offers significant examples that clearly demonstrate the need for greater civic literacy founded on greater information literacy. Publishers and librarians have a role to play, not so much as gatekeepers, but as educators to assure that civic life is not degraded by a proliferation of misinformation and by deliberate disinformation campaigns.

Librarians' and publishers' biggest challenge will be making their voices heard in ways that the citizenry will:

- recognize and value the role of reliable information, especially in civic life
- and recognize and value the contribution publishers and librarians make to civic life by providing high quality, accurate, reliable information

Information literacy and civic literacy intersect in ways that are important to society and that demonstrate the value of librarians and publishers. Librarians and publishers play an important role in cultivating information literacy in the populace so that citizens can carry out their civic responsibilities in an informed and responsible way.

Evaluating the All-Digital Library

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The focus of this presentation is on the evaluation of the all-digital library. As background, we note that any of the current approaches to managing and evaluating library services relate to the physical facility in which the library is housed, and to the availability of services through that facility. As we move toward the all digital library, there is a need to change some of our approaches to evaluation.

Medical libraries are on the forefront of the all digital library. Their collections consist primarily of scientific and technical journals and databases, almost all available online, and their users tend to be interested in the very latest information, delivered quickly. The ready availability of electronic databases and journals has made it possible for medical libraries to modify their services and to begin to provide information wherever and whenever it is needed.

The presentation will describe how the Welch Medical Library of Johns Hopkins University carries out evaluation activities with a focus on how its digital library is used. The program includes three components:

- a monthly report or dashboard of key aspects of the use of the digital library, used by library management and by all library staff to keep aware of and up to date with how the library is being used
- the collection of comments from users of the library, for review both by library staff and by other users
- more specific tracking of progress against the most important goals in our action plan

With these three approaches, the library is able to maintain awareness of the impact of its services and to make data-based decisions about those services.

Modeling a Great Library: A Schema for Assessment in Research Libraries

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Over the previous decade, academic libraries have engaged in a myriad of assessment activities in order to measure service quality as determined by both qualitative and quantitative indicators, according to different user groups. The early literature on assessment tended to present methods and case studies, indicating that libraries tended to conduct assessment on a project-by-project basis. Other publications discussed the organizational factors that support assessment, including support from staff at all levels of the library and the creation of a “culture of assessment” (Lakos 2002). The emerging literature now focuses on models that allow libraries to organize their assessment activities into the process of their workflows in particular areas (e.g., collections management or information literacy). This shift can allow librarians to reconceptualize assessment, from a reactive activity that attempts to measure the success of individual projects to a regular activity of evidence-based practice within our work processes.

Library administrators are concerned with the role assessment should play in strategic planning and decision-making. They must understand assessment not as a series of discrete activities, but within the context of revealing the organization’s successes and failures as a whole. Further, administrators must be able to see where assessment results recommend the allocation of limited resources, whether to enhance effective services, improve ineffective services, or discontinue services altogether. This paper will present a schema for identifying critical assessment points within the work of a research library. The schema will allow administrators and those responsible for assessment a model for academic library planning and resulting resource allocation.

Rapid Service Metrics Improvement Using Collaborative Experience Modelling Techniques

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If libraries are going to provide optimal service they must be able to measure the value of the services they provide, so that they may make the business case for what they do. This will enable them to obtain funding, gain administrative support, and increase usage and user satisfaction. The responses from an easy-to-use survey can be analyzed statistically to determine patterns of need and use, or experience models. These models can be implemented using special techniques that bridge the gap between testing and real-world patron experience. They can be verified empirically, and then used to rapidly create new programs with improved usage, funding, goal-attainment, and customer satisfaction metrics.

Keywords: qualitative measurement, quantitative measurement, service quality, surveys, statistics, and new programs.

Many-Faceted Measuring of the Quality as a Tool for Quality Improvement in the Kuopio University Library, Finland

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From the beginning of the 1990's, different types of quality management and evaluation systems have become integrated into higher education institutes in Finland due to the creation of the European Higher Education Area (EHEA). At the same time a renewal of the higher education legislation and structures was decided to be carried out in Finland. This has meant that the university services, e.g. libraries have had to integrate more efficiently to the core processes of the universities. The paper describes the building of the quality management system in one library and especially how different types on quality measurement systems - statistical analyses, benchmarking, surveys - are used in order to improve the quality of the library services. A great emphasis is in the management involvement both at the strategic and everyday level.

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Invalidity of a General Theory on information organization

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The concept of organizing knowledge, or classifying information and scientific data, is one of the most ancient that man has had to live with. This problem came about as a result of man's need to create a system for all of his knowledge about the outside world and about the knowledge process. The very idea of organizing knowledge and the determinism in classification structures implicitly involve certain limits which are translated into a General Theory on the Classification of Knowledge, given that classification responds to specific parameters and structures more than to a theoretical concept. Furthermore, the organization or systematization of the sciences leads to a structuring of reality and knowledge that, in turn, is modified according to the different world views of the people who create them. The classification of things is a reflection of their classification by man, and this is what determines classification structures. The first categories upon which classifications are based are social categories. Even a child initiates coordinated classification while immersed in a whole series of established relationships that are steeped with value and are the basis of classification. Intuitive knowledge presents a reality and a structuring and classification of reality that is intact and unaltered by modern forms of thought, as compared with logical classification, which is the result of an elaborate structuring of reality in an artificial manner that makes comparisons with the people around us. Similarly, by applying logic to the world of knowledge, a classification system should arise in which the system is equivalent only to a series of logical principles, but logical principles are not hierarchical by nature. The origin of hierarchical classifications of inclusion and subordination, which introduce a value system into classification itself, lie in the classification of knowledge and the bibliographical classification of the nineteenth century, which are based on empirical principles and ideas of practicality. They are tested and evaluated only for their usefulness and applicability.

The Western World's classification systems, along with modes of thinking and language structures, give form to social, political, economic and cultural structures, as well as others. Therefore, the classification of the sciences, and in the end documentary classification, take on the shape derived from the Weltanschauung that they form part of. The classification and organization of knowledge are presented to us as an artificial construct or as a useful fiction elaborated by man. They are characterized by their lack of ability to go beyond time barriers, or in other words, for being short-lived. The infeasibility of a classification of the sciences of a universal nature means that a General Theory on Classification is impossible.

KEYWORDS: Classification Theory, Knowledge Organization,

UPR Library Evaluation and Assessment Project

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This presentation discusses a model of implementation of an assessment process from its conceptualization to identify concerns, to the application of effective solutions to address evaluation results. As part of its strategic plan, the State University of Puerto Rico System (UPR) developed an alliance with the Association of College and Research Libraries (ACRL) to conduct a comprehensive evaluation of all its libraries based on its standards of

effectiveness. One of the main goals was to promote the development of an assessment culture throughout the UPR library system, as well as to identify major issues that were hampering its effectiveness. The process was to signify the beginning of concrete efforts that would lead the way to the transformation of libraries and the way they operate within the UPR. This paper explains the process followed from its start as it discusses an approach that proved effective in influencing the organizational cultural of libraries and represents a replicable model for other university instances. Change and leadership development among libraries of the UPR is occurring as a consequence of this initiative. The presentation will demonstrate the building of an effective, sustainable practical assessment based on the understanding of the importance of continuous betterment as libraries take advantage of available strategies for knowledge management and technology implementation, responsiveness to potential and actual users, and the need to build alliances to achieve major institutional changes. In this presentation we want to share our experience in terms of developing alliances, addressing issues raised in an evaluation process effectively by involving librarians in the solution. No top down approach was used at anytime, yielding results with solutions developed by the continued experience of academic librarians.

User's behaviour inside a digital library

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CASPUR allows many academic Italian institutions located in the Centre-South of Italy to access more than 7 million of articles through a digital library platform. We analyzed the behaviour of its users by considering their “traces” stored into the web server log file. Using several Web Mining and Data Mining techniques we discovered that there is a gradual and dynamic change in the way how articles are accessed; in particular there is evidence of a Journal browsing increase in comparison to the searching mode. We interpreted such phenomenon by considering that browsing better meets the need of users when they want to keep abreast about the latest advances in their scientific field, in comparison to a more generic searching inside the digital library.

Keywords: Digital Library, Web mining, Web server log file, Data Mining, user's behaviour, search engine, Journal browsing

Challenges in teaching information literacy in online courses

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This presentation will discuss the activities of University of Tartu Library in information literacy education.

To give all students the opportunity to develop information literacy skills and abilities more in depth we developed 2006 a web-based course „Fundamentals of information literacy“. It is a credit bearing free elective course, giving 2 credit points (3 ECTS). This course is general, directed to all faculties and all subject librarians are involved in teaching, tutoring the students of their subject area.

The entire course is delivered in the Blackboard learning environment. In an e-learning course it is possible to offer a more comprehensive program as it is possible in face to face classes. We can consider the needs of students with different skill levels and use the discussion tool for giving feedback.

The ACRL Information Literacy Competency Standards for Higher Education were used to develop the program of the course. The course discusses different types of information

sources, principles of information search which can be used in different search environments, search opportunities for finding scholarly information on the Internet and evaluation of search results.

During the course the students have to perform information searches on their research topic and evaluate the search results. The tutors give feedback to the exercises of each student. Both the exercises and tutors' comments are posted to a discussion forum of the course where all participants can read them and learn from others' searches too. The students also have to analyse some searches of their fellow students. At the end of the course they draw up a summary of their searches through various sources/databases and reflect on their information search process.

In 2008 an online course for doctoral students „Introduction to information research” were developed and carried out following the same model with subject librarians as tutors. This course is registered in all doctoral curricula of the University of Tartu as elective course.

Based on general basic course some subject librarians have designed discipline specific online courses, which are taught in cooperation with the faculties as a part of some subject. The subject librarians enjoy their role as consultants and facilitators in developing information literacy skills and abilities of the students.

The feedback to our courses has been generally positive, the students like the simple and logical order of the materials and the elements of active and self directed learning. E-learning is a perfect form for this kind of courses, because here the form and the content complement each other.

Keywords: Information literacy, teaching library, e-learning

User profiles: from a qualitative case study approach to providing a better service

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An analysis of space social relations, constructed in a public library setting among readers, staff and management, and an analysis of space design and of space usage was conducted as a preliminary stage to a single case library study.

Our purpose was to understand how social relations were built within this setting, how space was produced and reproduced (Lefebvre, 2000 [1974]), how different readers appropriated this space and what meanings did they associate to their practices.

A qualitative methodology (Becker, 1996; Donmoyer, 2000; Patton, 1990; Seale, 2004) was selected so that results might reflect a holistic approach (space and people interacting) and both real uses and their context taken into account (social groups and inequalities, power relations, cultural policies, cultural practices) in the production of the final conclusions.

For an in-depth, intensive approach, Michael Burawoy's (1998) extended case methodology was applied, relying on his basic epistemological tenets of complexity and reflexivity and his four regulatory principles of scientific knowledge production: *intervention* (the intersubjectivity between scientist and people under study); *process* (entering their lived world); *structuration* (relating local processes to external forces); *theory reconstruction* (building on existing theory with a critical stance, while acknowledging ideology's role in theory production). This methodology's pragmatic commitment, of designing a research model which may fit the research objectives and be adequate to its purposes, revealed to be very insightful and fruitful.

A public library, Almeida Garrett in Porto, was selected for its particular features regarding building architecture, urban insertion (Tonkiss, 2005), and services usage for an ongoing extended research. Ethnographic and in-depth interviewing methods were applied, along side with document analysis. A diversified convenience sample was employed,

including users of different ages, sexes, social and ethnical origins and visual and mobility capacities.

At this stage, several user profiles, which are here presented, were designed from some preliminary results. These profiles are believed to be of practical relevance in the development and tailoring of library services in a moment when libraries purposes are being questioned and redesigned (Coalter, 2001; Harris, 1998; Kerslake & Kinnel, 1998; Levy, 2000; Scrogam, 2006).

Keywords: user profiles; single case study; ethnographic method; qualitative methodology; public libraries; Portugal

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Usability Features of Universities's Website of Rajasthan State

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“The term web refers to the collection of information assessable on the internet. The web is also referred to as the WWW. It's nothing, but similar to library, with particular type of arrangement of information (web site). ”

With the above statement it is clear that the web is a book on internet. But how much informative, easy in use and authentic this book is, this is the matter of research. In the present paper, sample universities' websites of Rajasthan, India from the website of UGC are taken as sample and are evaluated on different parameters. The result comes as in these sample universities' websites, no website is too good to be graded as excellent but mostly is lying on the grade- good and average. The aim of present study is to make the users of the website, aware and able about the website. Different facts and results are presented in a lucid manner with the help of different tables.

Use of Internet by the Students of Faculty of Arts of the University of Dhaka: A Survey

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University of Dhaka is the largest university of Bangladesh established in 1921. Faculty of Arts is one of the largest faculty of the University of Dhaka having 13 departments. More than ten thousands students currently study in various departments of the Faculty of Arts. The prime object of the study is to analyze the use of the internet among the students of Faculty of Arts of the University of Dhaka. A well structured questionnaire was distributed among 400 students of all the departments under the Faculty of Arts. The present study demonstrates and elaborates the various aspects of internet use, such as frequency of internet use, most frequently used place for internet use, most frequently used search engines, purpose of e-mail communication, purposes for which the internet is used, use of internet services, ways to browse the information from the internet, problems faced by the students and satisfaction level of students with the internet facilities provided at the university centre. The author also attempts to give some recommendation to establish computer lab with full time internet facilities in various department and to increase the use of internet by the students.

Benchmarking for measurement and improvement- an imperative for libraries

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The essence of benchmarking is - moving from where you are to where you want to be. As industries face the challenges of globalization, competition emphasis has been placed on performance evaluation in reduction of inefficiency.

Until recently benchmarking had been confined to international corporation, but interest is now extending to public sector and service industries. Within education sector, libraries have been early and enthusiastic adopters of benchmarking.

Libraries it was long argued, were simply a sum of their collection- print and later electronic. Later the changes in technology, learning and society have impacted library services; leading in turn to the need for new roles, skill and approaches to library human resources management and development. In tandem with these changes there exists great possibility for conversion of ordinary things into extraordinary achievement. This structured proactive change effort - by benchmarking - can be designed and well implemented when it is closely associated with goals of organizations

If quality initiatives are to succeed, all Library and Information Science (LIS) professionals need to understand the rationale behind this activity of benchmarking as well as acquire and apply the necessary knowledge and skills.

Keywords: Benchmarking, Library services, Evaluation, Development

Exploring e-Business Potentials for the Electricity Industry using Qualitative Methodology

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This paper describes the various steps followed in this study and provides justification for the appropriateness of the methodology used, the suitability of data collection instruments and the rigour of checks and balances applied throughout the research. Based on the issues and questions being investigated, which involves e-Business as a new organisational phenomenon, this research has adopted a mainly qualitative research method focusing on a case study approach. For this study, in which the objective is to look at e-Business strategy for the electricity utilities in more depth, case-based research involving qualitative data collection and analysis was felt to be the most appropriate methodology to use and further justification for this choice is discussed in the this paper.

Keyword: e-Business, electricity industry, qualitative research, case study

What is impact assessment and why is it important?

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This paper offers a definition of impact assessment and discusses some of the implications of this and other definitions. A particular approach to impact assessment is introduced, as developed for use in a variety of library and information service settings (Markless and Streatfield, 2006) and the principles underpinning this approach are outlined. This approach has been adapted by the Bill and Melinda Gates Foundation's Global Libraries Initiative when providing impact planning and assessment support to grantees through their 'IPA Road Map'. The approach was also adopted by IFLA in devising its impact assessment strategy for evaluation of its future Free Access to Information and Freedom of Expression (FAIFE) work.

The importance of impact assessment in a variety of settings is outlined: from school libraries to university researcher support and from public libraries to electronic information services. Some 'unofficial' observations are offered on the relationships between impact assessment, advocacy and service sustainability, particularly in relation to major service development programmes such as the Global Libraries Initiative.

What 37000 citations can tell

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A longitudinal study at the Tshwane University of Technology (TUT) used citation analysis to analyze the reference list of 480 master's and doctoral (M and D) theses and dissertations submitted at TUT between 2004 and 2007. The purpose was to determine what types of information sources M and D students at TUT use most, how the patterns of use differ across the seven faculties of the university, and to what extent the Library and Information Services (LIS) keep or provide access to the journals that are mostly used by M and D students. More than 37000 citations were analyzed over the four-year period. The study found several similarities but also some distinct differences in the use of information sources across the seven faculties of TUT. It also identified more than 60 different information sources used by M and D students. With regard to journal use, the study found that out of 3641 different journals cited, most journals were only cited once over a period of four years. However, a small percentage of journals were highly and/or frequently cited.

Keywords: Citation analysis, theses and dissertations

A Novel Comparative Study of the Dating of Bulgarian Parchment Manuscripts

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There is an ongoing scientific debate on the exact time and speed of replacement of parchment with paper. The opinions of researchers form three groups: the first one based on Sobolevskij views claims that paper completely replaced parchment as early as in 14th century; the second one suggested by Hunter is that parchment was still widely used during the 15th century; and the third group suggests that the parchment was still in use in the 16th century. The wider spread of catalogues of manuscripts in digital form make it possible to study on a comparative basis the European collections of manuscripts. We will present in the paper a statistical study based on the data within an electronic catalogue of manuscripts including 823 Bulgarian manuscripts currently stored in Bulgaria. We continue our research with collections of manuscripts from the Delorez's Codicology, manuscripts in Dubrovnik archives and in the Bodleian and British libraries. This study as anticipated is based on the dating in the catalogues. Our basic conclusion is that while there is rare evidence of any Bulgarian parchment manuscripts dated after 1350, this is in controversy with manuscript collections from libraries in Central and Western Europe.

Keywords: parchment, paper, mediaeval manuscripts

Investigating the atmosphere of Kerman public libraries with respect to planning and designing measures of Iran planning and management organization

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As public libraries are special centers for developing culture and enlarging studious people, they should be safe and favorable for attendees. If not, the number of attendees will

decrease, the defined goals regarding making and equipping public libraries will never be achieved and destructive consequences on culture and society will be gradually imposed.

Changing the atmosphere of public libraries into favorable and pleasant one will encourage people to have a stronger tendency to attend libraries. To that end, growing number of studious people will happen and magnificent objectives of governments will be fulfilled.

In many sources the standardized conditions of public libraries have been dealt with. It, therefore, shows the importance of public libraries. The present study will investigate atmospheric standardized qualities and quantities in Kerman public libraries based on *IFLA Standard* for public Libraries and reference criteria extracted from the official magazine of Iran planning and management organization. Similarities and differences are deduced by means of comparing present qualities and standardized ones. Then, attempt has been made to modify and optimize the atmosphere of public libraries in Kerman, the biggest province in Iran.

Keywords: standard, designing measures, planning measures, public libraries, designing principles for public libraries, librarianship

Users' Feedback and the Computer Logs

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This paper examines users' information behaviors by analysing the computer logs kept by the library system. It is an unobtrusive method used to collect evidence-based data that indicate several variables that should be useful for library managers, namely: the frequency of use of certain books, journals, web sites, etc. by specific users; the nature of reference questions posed and the reply by librarians; the awareness or unawareness of users about certain materials or services which are hardly or not use at all.

Document-Term Clustering Technique: Mining the Bibliographic Data for Finding the Hide Relationships in Disorder-Therapeutic Literature of Psychology

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Document-Term Clustering is a classification method that is based on the term co-occurrence of documents within a corpus. The result of co-occurrence analysis is a table called proximity matrix. In this table, every row is labeled by a distinct term and follows by the count of its co-occurrence frequency with other terms, so that each case is considered a vector. The base of clustering is measuring the distance between these vectors.

To give an instance of how this technique works, we examined it to find the existent relationships between the psychological disorders and the therapeutic methods in biomedicine literature. To this end, Medical Subject Headings (MeSH) was searched for finding the therapeutic methods. The culled terms were queried by "OR" operator in PubMed/MEDLINE. It retrieved over 65.000 relevant bibliographic records. Saving them in a text-format made the data mining process by programming possible. The focus was on the descriptors (MeSH Headings) that those documents received by human indexers. The corpus entailed about 4.000 distinct descriptors. We ignored those with less than ten times frequency. About 100 of the most relevant descriptors up to the rest 2.000 were selected to determine the relationships among them.

Two fields of records were automatically transferred into a SQL Server Table: 1. the sequence number of records within the corpus, 2. their MeSH Headings. The co-occurrence count of each term with other recent culled terms was determined latter by Query Search

Techniques. The process automatically followed by inserting the counts into a proximity matrix.

The proximity of descriptors was measured by Euclidean Distance Method (EDC). They were also clustered hierarchically based on the method suggested by Ward (1963).

The outcome revealed that we can classify the disorders into eight or nine segments. In addition, we could find out which disorders have not consistently neighbored with certain therapeutic methods. On the other hand, we discovered which disorder(s) was/were often taken into consideration with certain therapeutic method(s). Finally, we could determine how the segments correspond with each others.

Key words: Cluster Analysis; Data Mining; Subject Classification; Psychology, Disorders; Psychology, Therapeutics Methods

On handling geographic data of print and digital forms in academic libraries: the role of ontologies

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The last few years the availability of geographic data in various formats in academic libraries is increasing, bringing back in the spotlight issues that might not have been the focus of library related research for the past few years. Moreover the diversity of the available formats those data can be in, ranging from old-fashioned paper maps to digital maps and from satellite images to digital cartographic data, increases the complexity of the problem at hand. All these data cannot be considered anymore out of scope for the libraries since they are tightly related with the rest of information maintained by them, especially in academic settings where they can have an impact both on teaching and research.

On the other hand, the so called digital libraries initiatives have brought into the picture the wide use of ontologies and semantic models in order to facilitate the better understanding among the librarians, the users and the expanded possibilities of using the material itself. These help us to better position the use of such data in the everyday library life by cataloguing them not just as items but also linking their spatial references to the rest of library resources providing not only thematic based catalogues but also spatially enabled catalogues. In that sense both concept based taxonomies of the Geoinformatics field but also geographic based ontologies (that define geographic entities) can be combined to catalogue, archive and retrieve the necessary items.

This is the focus of the work discussed in this paper, where we try to analyze and present ontology based solutions that would allow academic libraries to combine current or future semantic based catalogues with ontologies that describe the spatial characteristics of such items. The tools to support such implementations become slowly but increasingly available and this makes its implementation more apparent for the Greek Academic Libraries of the (near) future.

Keywords: Geolibraries, Digital Libraries, Ontologies; Semantics, GIS in Libraries, Public Access to GIS

Supporting Knowledge Discovery In A Research Organisation

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In dynamic research organisations, library and information management professionals should take an active role in supporting knowledge creation, discovery and sharing. The UK Ministry of Defence's Defence Science and Technology Laboratory created in 2000 has a pedigree of research success which includes radar, the jet engine, carbon fibre and flat screen television, to name but a few.

This paper describes the creation from scratch, and philosophy of, a Department whose structure and functions were all aimed at supporting knowledge creation by both individuals and project teams. Underlying these services was a deep understanding gathered over 30 years of how research scientists learn, and how we need to aid that learning process. This process is demonstrated graphically by a development of Max Boisot's "Social Learning Cycle".

Quality metrics in academic libraries

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Quality Assurance is a part of accrediting an institution. In South Africa the HEQC (Higher Education Quality Council), a sub committee of the CHE (Council for Higher Education), is responsible for this issue. The academic library functions in a larger context and one has to look how the library contributes to achieving the overall objectives of the parent institution. Quality assessment of the academic library is part of the Total Quality Management of the institution. Quality assessment includes products, services, individuals, as well as the institution. Quality metrics of the service will have to include evaluations at an individual, service, and organisational level. Instruments such as SERVQUAL and LibQUAL+TM are valuable tools in measuring library service quality. PABER

Some basic principles are common to all measurements. In the 20th century the focus was strongly on quantitative measurements such as the number of items in stock, the use thereof, number of visitors and reference requests. A paradigm shift characterises the 21st century, as user's expectations, technology, measurements, and many other library scenarios have changed. The focus is strongly on user expectations and needs. The quality of service is defined by the customer's perception of both the quality of the product and the service providing it. The shift is "from measuring what you can count to measuring what counts". This implies qualitative measurement, which is fundamentally subjective.

Quality in academic libraries is a multi-dimensional construct. Quality assessment is done from the perspective of different groups of people. Both quantitative and qualitative measurements are required to determine the quality and effectiveness of the library. The ultimate goal of measurement is improving the "fitness for purpose" of the library. It is the task of the academic library to move from a passive service provider to an active and vital force in the institution.

**Awareness and use of electronic information resources by education graduate students:
Preliminary results from the Aristotle University of Thessaloniki**

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The purpose of the present study was to examine the use of electronic information resources by graduate students at the Aristotle University of Thessaloniki. Fifty-nine graduate students affiliated with four Departments of Education voluntarily participated in the study. A specifically designed questionnaire was administered to gather information about the awareness of resources, the frequency of use, the kind of information sources preferred by students, the main reasons for using the resources, the perceived effectiveness of the searches, the factors encouraging their use and the major obstacles in terms of using them effectively. In addition, the authors sought information on the ways students identify the sources they use, the level of training they have received in using the services and their training needs. Results showed that the vast majority of the participants used Internet search engines rather than specialized databases and full-text resources. It is quite interesting, that nearly half of the respondents (49.1%) had never used ERIC, the fundamental resource of education literature. Only 6.8% became familiar with electronic resources by attending the library training programs. The main problem associated with the non-use of resources was lack of adequate searching skills. The above findings suggest limited use of electronic resources by graduate students, mainly due to absence of basic skills. In order to exploit the full potential of electronic information, university library should undertake a more active role in informing, promoting, and educating the members of the academic community.

Keywords: information services, electronic media, postgraduates, academic libraries, Greece

**Qualitative analysis of the activity unfolded within the free access room of the library of
Transilvania University of Brasov**

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The quality of the offered products and services stands for one of the most important targets, which pertains nowadays to all fields of activity. The data will be obtained following the fill-in of a survey by the users, who are the main beneficiaries of the library. There will be likewise obtained information about the orientation of the publication collection which are to be acquired.

Key Words: qualitative analysis, library, information, questionnaire, publications

Service Quality of Web Information Systems

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Background: It is essential that web designers understand what users expect of web services, how they perceive service dimensions such as security, usability and information quality, and which ones they value most.

Research question: How do users perceive the service quality of web sites in terms of information quality, usability and service interaction?

Setting/Participants/Resources: Data were obtained from 1,900 users of web sites of a for-profit online bookstore and a non-profit national information center through the E-Qual Index

that was administered online. An online questionnaire was used to gather data on demographic characteristics of web site users.

Methodology: In order to identify the service dimensions that both for-profit and non-profit web site users valued most, factor analysis was applied to data. Significance tests were carried out to see if there was a relationship between demographic characteristics of users and the service dimensions.

Results: Users of both web sites valued the service dimensions of trust, information quality, usability, design and empathy. Statistically significant correlations were observed between sex, education, experience and age of web site users and their expectations and/or perceptions of service dimensions.

Discussion/Conclusion: Findings indicate that users tend to rate the service quality of web sites on the basis of their personal characteristics and experiences. Hence, users' expectations should be regularly measured to revise the design and structures of both for-profit and non-profit web sites.

Keywords: web service quality, usability, information quality, trust, E-Qual Index, web information systems.

ARL and SCONUL Assessment Initiatives: Synergies and Opportunities

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This paper describes and evaluates recent North American Association of Research Libraries (ARL) and UK and Ireland Society of College National and University Libraries (SCONUL) performance measurement and assessment initiatives, with particular attention to the use of ARL tools and techniques in the UK and Ireland. These include LibQUAL+ and the Effective and Sustainable Assessment program (ESP). The different contexts of quality and quality assurance on each side of the Atlantic are considered, and the issue of transferability is discussed in the context of the globalization of higher education. Both qualitative and quantitative methods are covered, including the SCONUL Value and Impact programme (VAMP) and the potential international convergence of academic library statistics collection. The paper considers potential synergies and opportunities for further international collaboration in this field.

Keywords: ARL, SCONUL, Effective, sustainable and Practical Assessment, Value and impact programme (VAMP), Qualitative and Quantitative Methods

The use of online synchronous interviews as a data collection technique

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The viability of the use of Internet Relay Chat (IRC) clients (e.g. Skype and MSN) to conduct online synchronous interviews is debatable due to the limitations inherent in computer-mediated communication. This data collection technique was utilized in the researcher's master's thesis project, which had explored the concepts of trust and risk in the online hospitality network, The CouchSurfing Project. Semi-structured interviews were conducted over Skype and MSN with respondents from five different countries. Various challenges and benefits of IRC were experienced by the researcher and the respondents. However, in the opinion of the researcher, it was found that the advantages had outweighed the disadvantages due to the circumstances of the thesis project.

Key words: online synchronous interviews, IRC

Digitization of Manuscripts A Case Study of Central Library, Banaras Hindu University, India

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The paper outlines the efforts at Sayaji Rao Gaekwad Library, Banaras Hindu University (BHU), so as to bring in their rich collection of manuscript from the cocoon of reticence and making it available to the world of scholars. It also includes an elaboration of the National Mission for Manuscripts of India and the affiliation of Central Library, BHU with it. The issues and future targets for the library pertaining to preservation of manuscripts have been elaborated. The paper is first of its kind to report on various aspects such as policy issues for access; content management; manpower development; centralized database development related to manuscripts. The issues have its relevance for the organizations which are planning for conservation and preservation of their manuscript collection.

Users' Image Seeking Behaviour in Multilingual Environments: a FlickLing Case Study

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The increasing amount of information accessible on the Web in various languages and the rapid growth of non-English native speaking users demonstrate a need for developing systems in Organizations, Libraries, Archives for supporting Cross Language Information Retrieval (CLIR) and Access (CLIA). A variety of different techniques in implementing and organizing different linguistic resources and succeeding better retrieved results have been tested and cross-evaluated. All these efforts aimed to provide the best possible system for the average web user to search and retrieve the desired information regardless of the language written. In this process, little attention has been given to user interaction and behaviour with these systems which are considered to be essential if we are to develop CLIR systems that support effective search behaviour and performance.

This study aims to explore the image seeking strategies that users employed to search for known, non-annotated images across-languages in FlickLing, a multilingual search interface designed by Cross Language Evaluation Forum (CLEF) organizers. The task assigned to users was to search for the first three given images without knowing in which of the six languages (English, German, Dutch, Spanish, French, Italian) the images were described. The main focus of our study was to identify the characteristics of our users' search strategies when searching and retrieving images across languages.

In this context, this study employed four different methods, both quantitative and qualitative. In particular, a questionnaire was adopted to identify users' previous experience in searching on the Web for images across languages. In addition, observation was used to note users' specific actions and form questions focusing on why users were adopting the specific strategies. Furthermore, retrospective thinking aloud was used to derive findings entirely on users' thoughts, comments and search behaviours rather than depending on data gathered through only quantitative methods and facilitator's observations, interpretations and questions asked. Finally, semi-structured interviews were adopted to clarify specific actions of the user's image seeking behaviour during the search session and user's expressions describing what he/she was doing.

Results show that six out of ten users employed typical IR search strategies aiming to retrieve known, non annotated images across languages. These users were aiming to retrieve the image by identifying the setting of the image and the objects seen in there and extract the right keywords without thinking about languages. The rest four users recognized the

importance of language when searching in a multilingual environment. The remaining four users recognized the importance of language when searching in a multilingual environment. As a consequence, they identified the language by paying attention to small details, such as a piece of writing, the colour usage, and the pictured landmark.

The value of this study in employing a combination of qualitative and quantitative methods lies in the insights that can be obtained into the users' search behaviours. Drawing on the experience and the findings of this preliminary study, further research based on qualitative and quantitative methods is intended to help inform the design of a CLIR system which will support the user in searching large multilingual collections.

Keywords: Multilingual Information Retrieval, User Image Seeking Behaviour, Multilingual Interfaces, Qualitative/ Quantitative Methods

Systematic Evaluation of UPR Libraries: Reaffirm the Collaboration, Promote Evaluation and Assessment Culture

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The presentation is about innovative quality management practices on to how develop an evaluation and assessment culture, incorporate these initiatives as part of the daily work of the library staff and the results generate organizational change. This initiative helps our libraries to enhance the daily work to offer quality services and to establish benchmarking between Puerto Rico's libraries. The exposition describes the process of design, implementation and results of the University of Puerto Rico (UPR) Library Evaluation and Assessment Project based on the application of the ACRL standards, the use of external evaluators from ACRL and answering the results project development of communities of practice to address findings of the evaluation process.

The 14 libraries, located at 11 of its campuses in UPR participating in the project with the objectives to document the work being done, demonstrate its effectiveness, reaffirm its collaborative nature, and to promote a culture of self-evaluation and assessment. Its efforts are focused on promoting communication and collaboration between the services and resources at each campus. The evaluation process is based in the College and Research Libraries standards with elements from other accrediting agencies such as the Middle States Association and the Puerto Rico Council of Higher Education. The model used starts from the ACRL standards with indicators, some of which were taken from Spain's Libraries Quality Certification, that shows the outcome assessment and that will help in the development and establishment of the assessment process in the libraries.

The evaluation process implies the design and implementation of evaluation instruments, qualitative and quantitative data organization, gathering, and analysis. Most importantly: it includes an evaluation visit by ACRL members. As a result, the libraries received a certificate of completion for their efforts. This is the first system-wide university library evaluation project performed by ACRL. The presentation demonstrates how our model helped us in the implementation of the assessment process, shows a way to contribute to a cultural change and leadership development among libraries of the UPR and mechanisms to build an effective and sustainable practical assessment culture.

UPR Libraries Evaluation Process: Identification of indicators and creation of tools for a data collection

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During the UPR Libraries Evaluation process one of the factors strongly worked was an establish indicators for ACRL Standards and the creation of tools for a data collection. The presentation is on how the selection of indicators was, which of the indicators were used and which were discard because not effectively her application. It also describes the strategies of how to work with staff to make use of the indicators and tools developed. The experience show how enhance of UPR librarians skills to use qualitative and quantitative methods to get data and demonstrate his work with evidence. One of the results of the process is a creation of a data collection system that helps library information gathering of the performance results. The discussion of the topics helps to expose all changes contributing to organizational performance and the mechanisms to integrate them in the daily work of libraries.

Bibliometric analyses on repository contents for the evaluation of research at Wageningen UR

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Since the last two decennia, Wageningen UR Library has been involved in bibliometric analyses for the evaluation of scientific output of staff, chair groups and research institutes of Wageningen UR. In these advanced bibliometric analyses several indicator scores, such as the number of publications, number of citations and citation impacts, are calculated. For a fair comparison of scientific output from staff, chair groups or research institutes (that each work in a different scientific discipline with specific publication and citation habits) scores of the measured bibliometric indicators are normalized against average trend (or baseline) scores per research field. For the collection of scientific output that is subjected to the bibliometric analyses the repository Wageningen Yield (WaY) is used. This repository is filled from the research registration system Metis in which meta data for scientific output is registered by the secretaries of the research groups of Wageningen UR. By the application of a connection between the meta data of publications in WaY and citation scores in Thomson Reuters' Web of Science, custom-made analyses on the scientific output and citation impact of specific entities from Wageningen UR can be performed fast and efficiently. Moreover, a timely registration of new scientific output is stimulated (to ensure their inclusion in future bibliometric analyses) and the quality of meta data in WaY is checked by the library staff and by the research staff from the research entities under investigation, thus promoting communication between the library and customers.

Keywords: Bibliometric analysis, Citation impact, Repository, Research evaluation, Library

Digital Library Education from the Information and Knowledge Management

Perspective

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Preparing students to work in the digital environment is an important responsibility of library and information science (LIS) schools. While most of the LIS schools offer courses or modules related to different aspects of digital information management, there are few dedicated digital library programs in Europe.

This paper discusses the methods used to examine the relevance of information and knowledge management topics within the Digital Library Learning (DILL) joint international master curriculum at Tallinn University. Different methods were used: a web survey of course information on the sites of LIS schools, a diagnostic analysis survey, course evaluation survey, expert interviews and focus group interviews.

Keywords: Information and Knowledge Management, Digital Library, Curriculum

Marketing information literacy education in a scientific community

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As Thomas Jefferson put it, information is the currency of democracy. Similarly we can argue that the librarians' competence towards information literacy is a strong currency in a scientific community. The value of that currency is highly dependent on how librarians get their message through. In order to get through, librarians need marketing. One example of doing so is presented here.

Kumpula Science Library is a Helsinki university campus library mainly concentrated on natural sciences (geography, physical sciences, mathematics, chemistry, geology and computer sciences). Traditionally the information literacy education in the campus has mainly been conducted by the departments. This tradition is a result of history of small department libraries in a tight relationship with the department and its' curriculum. Only recently the relatively new (founded in 2001) Science Library is starting to gain a significant role in educating students.

In Kumpula science library we have chosen three strategies on marketing our information literacy and competence – co-operation, availability and assimilation. The information literacy teaching must be carried out in full and equal co-operation between the library and the department. The library must be able to prove to be a specialist in the area and a value-added to the department. Availability is also essential. Alongside with having library doors open as much as possible all the services must be attainable constantly. The library services must also be proven to be assimilated as a part and parcel of scientific process. Information literacy is a key to all of these three strategies.

Keywords: information literacy education, marketing, library services, university libraries

Use of open access journals in biomedicine in Greece

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The democratization of knowledge has always been “the big deal”. The 21st Century set the landmarks for the implementation of Antonio Panizzi’s vision of an open library, and open access publishing activity, supported by technological advancements. However, the establishment of this “great idea” will require recognition from the scientific community. Consequently, it is very important to evaluate scientists’ attitudes about this new reality because they are not only the receivers of open access information but also its creator. This paper discusses the situation in Greece, among biomedical scientists. It presents preliminary findings from a longitudinal study of attitudes towards open access, and the effects of open access on the scientific visibility of Greek researchers.

Keywords: Open access publishing, Open access models, Biomedical publishing, Greece, Research methods

Value of Innovation in the Field of Library and Information Science with Special Reference to the University Libraries in Sri Lanka

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This paper discuss about the new innovation of the field of library and information science. In this paper researcher offer huge attention to the OPAC system in Sri Lanka. The OPAC is the newest and most sophisticated catalogue format that an acronym for On-line Public Access catalogue in the world today. The OPAC is of a special retrieval tool to the library users which important to find a book or information. They could have access to all type of materials in libraries such as books, periodical titles, thesis, and audio-visual items more easily than the card catalogue system.

Key Words User’s style, E-users, OPAC, Sri Lanka,, city-culture, e-culture

The Creation and Development of a Multi-Disciplinary Centre in an Academic Library

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Hurricane Katrina was the costliest natural disaster in U.S. history and one of the deadliest. In 2006, the University of Southern Mississippi established the Katrina Research Center (KRC) as a multi-disciplinary center for research and education to facilitate the gathering of information on the effects of and recovery from catastrophic natural disasters such as Katrina. The purpose of this case study is to document the creation and development of the Katrina Research Center, including its mission, vision, organizational structure, funding, collection development, community outreach, research and educational activities.

Keywords: hurricanes, disasters, academic libraries, repositories, research centres

Paper history and expertise provided by the eContentPlus project Bernstein

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The goal of project Bernstein is the creation of a European integrated digital environment about paper history and expertise. The project connects European watermark databases and thus offers a comprehensive and significant information source about paper. The databases are augmented by specialized image processing tools for measuring, authenticating and dating papers and by a plenitude of contextual data with bibliographical and geographical contents. A substantial further project goal is the dissemination of the achieved results to a broad audience in the form of an easily installable software package. The circle of potential users and interested parties includes historians, curators, archivists, librarians, art historians, musicologists, incunabula researchers, auctioneers, forensic technicians, and paper makers.

This paper presents the results of the project Bernstein. An internet portal allows the linking between each record stored in the Bernstein databases and the bibliographical references on paper studies provided by Deutsche Nationalbibliothek. Statistical information is extracted from the over 150.000 items in the combined databases of the project and presented in numerical form or through powerful diagram visualizations. Data export capabilities forward the statistical information to a cartography tool which can show e.g. the distribution and the trade routes of paper and watermarks.

Keywords: watermarks, manuscripts, paper history, digital libraries, cartography, databases

Cost – Benefit Analysis of Isfahan University of Medical Science Database in 2007

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Introduction :

cost increasing in almost government & organizations persuade them to analysis their services by financial and economic dimension . community is limited .

community is limited to pay social goal that it has a proving effective to health services. Because of unnecessary increasing of cost .

today income is strategic issue for governments there fore using application method of economic is necessary . there fore calculating cost accounting medical university of Esfahan data base to compare with its citation is accomplishment.

Methods:

Current research is descriptive and view retrospective. Data collection was carried out through check list .in this checklist we consider human resource expenditure , consuming material expenditure , capital material depreciation expenditure

And purchase fee . and then average of expenditure was compaire with amount of article use in each database.(Proquest, Blackwell, Springer, Ovid, Elsevier).

Results: our finding indicated that: Elsevier have the most Cost – Benefit and Springer The least Cost – Benefit.

Consolation:

Manager in informatics system must use management technique such as cost analysis method for getting best selection to decreasing costs.

Key word: cost accounting, data base, citation

Tools to develop effective research support in an academic library: a case study

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As research support becomes an increasingly topical issue within academic libraries in the UK, this paper examines two different approaches used by Loughborough University Library to assess the effectiveness of its research support. The first is a traditional benchmarking survey distributed to universities within the well-regarded 1994 Group of UK universities. This online survey produced largely quantitative data to compare resources (physical and financial) and services provided to researchers. It enabled both Loughborough University and survey respondents to identify their relative strengths and weaknesses, and draw up plans for future developments.

This external benchmarking was then followed by a second, inward looking survey which examined the information needs of a group of research centres. The survey obtained quantitative data from an online survey and internal library systems, plus qualitative data from follow up interviews. This data has provided an extremely valuable insight into the ways in which these centres and their researchers operate and use library services and resources, as well as, even more importantly, why they may not do so. The paper discusses the strengths and weaknesses of the two approaches and how the results themselves can be carried forward into operational plans.

Key Words: Academic libraries, Research support, Qualitative data, Quantitative data, Case study, Library services, Benchmarking, User surveys, Practitioner research.

The relationship between computer anxiety in library anxiety

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The relationship between computer attitude and library anxiety in the context of information literacy program will be analyzed. Computer attitude could be explained as a prevalence of computer anxiety or computer challenge. On the other side the construct of library anxiety has four factors: librarians, library knowledge, library environment and affective barriers. 100 students from humanistic faculty were participated in a research. The correlation between computer attitude and library anxiety was explored with the aim to anticipate strengths, weaknesses, opportunities and threats in the information literacy program conducts in the faculty. At the conference, the results will be explained in more details. Besides, a critical approach will be used to explain the role of such quantitative methods in university library practice.

Key Words: computer anxiety, library anxiety, informaiton literacy, quantitaive methodology

A Rasch Model Measurement of Online Customer Satisfaction: An experience of Information Management in the Malaysian Agricultural Extension Services

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Agriculture has recently turned to be the prime sector with special emphasis given by the Malaysian Government in their recent review of the Outline Planning Perspective 3 for the period 2000-2015. The focus of economic generator has now shifted from pure manufacturing to agro-industrial based. As such, the Ministry of Agriculture, Malaysia has taken task to develop various policies to drive people into agriculture. Research agencies have been consolidated and revitalised to carry out breakthrough research in diverse fields and provide new knowledge in obtaining optimal benefit from the soil and crops. This information is crucial to farmers and those interested in practising agriculture. Web portals have been deployed as one of the key media used in sharing agricultural information. The Department of Agriculture (DOA) has developed a website where research information can be disseminated effectively to the respective agricultural officers and technicians in the field at specific locality. They in turn are responsible in sharing this information to the farmers and transform it into usable knowledge. They are the end users who bridge the dissemination of knowledge from the research laboratories to the farmers at the point of use. The portal is also intended for the agricultural officers to get information on policies and activities from the ministry and other relevant agencies. Hence, there is a need to assess how far does this information reach the target, and how useful are the web portals in providing the relevant and meaningful information to the end users and farmers in the field. Thus, this study is to establish the customer satisfaction level on the information system provided by the DOA using Rasch measurement and analysis model. The concept of measurement dealing with ordinal data is outlined and the quantitative outcomes thereof described. Rasch offers easier analysis and reporting by means of Ordered Matrix Map and uni-dimensional measurement.

Key Words: information management, agriculture, information system, customer satisfaction, extension services, Malaysia, Rasch model

Information management in agriculture: a study of information use and flow within the Japanese agricultural extension services

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The level of awareness on food safety and quality among consumers has shown a sudden and marked increase in recent times. This indicates a higher need for clean, safe and healthy food production by the agricultural sector which consequently requires farmers to be involved in intensive decision-makings. The agricultural extension, on the other hand has been a strong tradition in agriculture which play predominantly advisory roles within the agricultural community. Formally the extension act as an intermediary which normally provide information support to farmers in attempts to facilitate decision-makings by the latter. It helps to address information needs of farmers by communicating the information produced by research laboratories, research and experiment stations, government agencies as well as the industry to farmers. Information, therefore, is at the core of the extension services and effective information management within this service is imperative to ensure that efficient, relevant and timely information is delivered to the farmers. The present study is carried out to discover the state of the Japanese agricultural extension services. It would be helpful to understand the flow of agricultural information and how the extension advisors use the

information resources. The results might also provide useful insights which could explain the success and sustainability of the Japanese agricultural sector.

Key Words: information use, information flow, agricultural information, agricultural extension, information management, decision making, agriculture, information intermediary

Evaluation of Information Systems using Software Metrics and Measurements

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Information system users, administrators, and designers are all interested in performance evaluation since their goal is to obtain the highest performance at the lowest cost. Performance evaluation is required at every stage in the life cycle of an information system, including its design, manufacturing, sales, use, and upgrade. The evaluation is applied when designer wants to compare a number of alternative designs and find the best design. The first step in performance evaluation is to select the right measures of performance, the right measurement environments, and the right techniques. Evaluation of information systems can focus on a variety of technical properties, including data transmission speed or bandwidth, data quality, system functions and features, ease of use, reliability, and service or maintenance requirements. This work introduced the reader to software metrics that are used to provide insight about different elements of systems software. It presented internal metrics that can be applied prior to the release of the product to provide indications relating to quality characteristics, and external metrics applied after product delivery to give information about user perception of product quality. These factors include estimation, early detection and prevention of problems, product assessment.

Qualitative transformation of libraries in Serbia: Developing information literacy as an imperative

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The libraries of Serbia concentrate on developing information literacy of their focus groups. They adjust themselves to the needs and requirements of users as much as they can. At the same time these institutions tend also to follow the international standards in librarianship and information activity as well. In addition, the libraries of Serbia are mostly non-profit, cultural and educational organizations. Contemporary librarians follow many tendencies in the world environment. Library 2.0 based on Web 2.0 is in the very core of the Information Society which is being permanently promoted. There are users and librarians as well who can create contents across Web by themselves. However, these results are very modest. The libraries of Serbia went out of their walls. They are in the phase of development when catalogues become electronic or global, when electronic contents are being used carefully, when users become electronic ones. E-culture is being promoted intensively. The penetration of new technologies makes possible for experts to think of the way libraries would get included into cities 3.0 although that moment is not so close to us. The Virtual Library of Serbia (VLS) functions well. Users may search Internet under very favourable conditions. Serbian Consortium for Coordinated Acquisitions exists and works efficiently tending to meet the expectations of students, researchers, professors, scientists from diverse professional fields. Thanks to the Consortium they may access full-texts of academic e-journals, download them and print as well. This paper will focus on the qualitative changes in the libraries. It will point out the advantages and problems in their work. Except this it will show how Total Quality Management (TQM) is being implemented in the libraries of Serbia.

Key words: libraries, Serbia, development, information literacy, qualitative transformation.

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