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Library and Information Science

Third Annual International
Conference on Library and
Information Science, 25-28 July
2016, Athens, Greece
Edited by Gregory T. Papanikos

THE ATHENS INSTITUTE FOR EDUCATION AND RESEARCH



Library and Information
Science Abstracts

3rd Annual International
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Information Science, 25-28
July 2016, Athens, Greece

Edited by Gregory T. Papanikos

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Preface

This abstract book includes all the summaries of the papers presented at the *3rd Annual International Conference on Library and Information Science, 25-28 July 2016, Athens, Greece*, organized by the Social Sciences Research Division of the Athens Institute for Education and Research. In total there were 11 papers, coming from 18 different countries (Austria, India, Portugal, Romania, South Africa, Sri Lanka, Taiwan, UK, USA, Vietnam and Zimbabwe). The conference was organized into 9 sessions that included areas of Information Behavior/Society, Academic Libraries and other related fields. As it is the publication policy of the Institute, the papers presented in this conference will be considered for publication in one of the books of ATINER.

The Institute was established in 1995 as an independent academic organization with the mission to become a forum where academics and researchers from all over the world could meet in Athens and exchange ideas on their research and consider the future developments of their fields of study. Our mission is to make ATHENS a place where academics and researchers from all over the world meet to discuss the developments of their discipline and present their work. To serve this purpose, conferences are organized along the lines of well established and well defined scientific disciplines. In addition, interdisciplinary conferences are also organized because they serve the mission statement of the Institute. Since 1995, ATINER has organized more than 150 international conferences and has published over 100 books. Academically, the Institute is organized into four research divisions and nineteen research units. Each research unit organizes at least one annual conference and undertakes various small and large research projects.

I would like to thank all the participants, the members of the organizing and academic committee and most importantly the administration staff of ATINER for putting this conference together.

Gregory T. Papanikos
President

FINAL CONFERENCE PROGRAM
3rd Annual International Conference on Library and Information
Science, 25-28 July 2016, Athens, Greece
PROGRAM

Conference Venue: Titania Hotel, 52 Panepistimiou Avenue, Athens, Greece

Monday 25 July 2016

(all sessions include 10 minutes break)

08:00-08:30 Registration and Refreshments

08:30-09:00 Welcome & Opening Address (ROOM B--Mezzanine Floor)

- Gregory T. Papanikos, President, ATINER.
- George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.

09:00-10:30 Session I (ROOM B- Mezzanine Floor): Information Behavior/Society

Chair: Despoina Katzoli, Researcher, ATINER.

1. Claire Katz, Professor, Texas A&M University, USA. "Shame on you": Education, Technology, and Social Control.
2. *Takawira Machimbidza, Lecturer, National University of Science and Technology (NUST), Zimbabwe, Stephen M. Mutula, Professor, University of KwaZulu-Natal (UKZN), South Africa & Ruth Hoskins, Professor, University of KwaZulu-Natal (UKZN), South Africa. Information Behaviour of Academics at Selected Zimbabwean State Universities.
3. *Tirhani Asnath Masia, Lecturer, University of Venda, South Africa, Cloupas Mahopo, Lecturer, University of Venda, South Africa, Cebisa Noxolo Nesamvuni, Senior Lecturer, University of Venda, South Africa & Vanessa Mbhatsani, Lecturer, University of Venda, South Africa. Knowledge and Consumption Practices of Indigenous Foods among Secondary Schools Learners in Limpopo Province, South Africa.
4. Zakir Hossain, Teacher / Librarian and Extended Essay Coordinator, EUROPEAN International School Ho Chi Minh City, Vietnam. Journey toward Learning Society: Possibilities and Challenges of Viet Nam Libraries.

10:30-12:00 Session II (ROOM B- Mezzanine Floor): Academic Libraries I

Chair: *Takawira Machimbidza, Lecturer, National University of Science and Technology (NUST), Zimbabwe.

1. Yen-Ting Chen, Assistant Professor, National Chin-Yi University of Technology, Taiwan, Tsung-Yu Chou, Associate Professor, National Chin-Yi University of Technology, Taiwan & Yi-Ru Chen, Student, National Chin-Yi University of Technology, Taiwan. Applying Interpretative Structural Model to Assess the Service Quality of Subject Services of Academy Library.
2. Ahmed Alwan, Faculty and Academic Librarian, California State University, Northridge, USA & David Prescott, Associate Professor, American University of Sharjah, UAE. Addressing the Framework for Information Literacy for Higher Education through Effective Librarian-Faculty Collaboration.
3. Leslin Charles, Instructional Design Librarian, The State University of New Jersey, USA & Laurie McFadden, Library Director, Berkeley College, USA. Embracing Challenges in Times of Change: Academic Librarians Identify Opportunities Presented by the ACRL Framework for Information Literacy for Higher Education.

12:00-13:30 Session III (ROOM B- Mezzanine Floor): Scholarly Communication and Disciplinary Studies

Chair: Daniel Conway, Professor, Texas A&M University, USA.

1. *James Clark, Professor and Chair of Psychology, University of Winnipeg, Canada. How Scientific are the Social Sciences?
2. Nelida Gentile, Professor, University of Buenos Aires, Argentina, Rodolfo Gaeta, Professor, University of Buenos Aires, Argentina & Susana Lucero, Professor, University of Buenos Aires, Argentina. Philosophical Challenges to the Sociology of Science.

13:30-14:30 Lunch

14:30-16:30 Session IV (ROOM B- Mezzanine Floor): Technology

Chair: Yen-Ting Chen, Assistant Professor, National Chin-Yi University of Technology, Taiwan.

1. Marcos A. Rodrigues, Professor, Sheffield Hallam University, U.K. Secure Information Systems in the Age of Cloud Computing.
2. Tefen Lin, Assistant Professor, Lunghwa University of Science and Technology, Taiwan & Yi-Sian Chen, Assistant Professor, Lunghwa University of Science and Technology, Taiwan. The Color Recommendation of Mosaic Image by Error Diffusion.

21:00-23:00 Greek Night and Dinner (Details during registration)

Tuesday 26 July 2016

08:00-11:00 Educational and Cultural Urban Walk Around Modern and Ancient Athens (Details during registration)

11:00-12:30 Session V (ROOM B- Mezzanine Floor): School Library Media and Education

Chair: Tefen Lin, Assistant Professor, Lunghwa University of Science and Technology, Taiwan.

1. Nicole Nicotera, Associate Professor, University of Denver, USA, Sarah Brewer, Research Associate, University of Colorado Denver, USA, Christopher Veeh, Research Associate, Washington University in St. Louis, USA & Julie Anne Laser-Maira, Associate Professor, University of Denver, USA. Predictors of Positive Youth Development in First-Year Undergraduate Students.
2. Christabelle Sikhanyisiwe Moyo, Postdoctoral Research Fellow, University of Venda, South Africa, Joseph Francis, Professor, University of Venda, South Africa & Pascal Obong Bessong, Professor, University of Venda, South Africa. Perspectives on the Impact of MAL-ED South Africa Project on Human Capital Development of Graduate Students and Junior Faculty at a South African University.
3. Cebisa Noxolo Nesamvuni, Senior Lecturer, University of Venda, South Africa. Measuring Nutritional Progress in the 21st Century through Nutritional Assessment in Rural Thulamela Households.

12:30-14:00 Session VI (ROOM B- Mezzanine Floor): Special Libraries and Collections

Chair: Nicole Nicotera, Associate Professor, University of Denver, USA.

1. Scott Seaman, Dean of Libraries, Ohio University, USA. Collaborative Shared Print Collections in the United States.
2. Robert J. Congleton, Associate Professor, Rider University, USA & *Sharon Q. Yang, Professor, Rider University, USA. A Comparative Study of Education Exemptions to Copyright in the United States and Europe.
3. Nombulelo Chitha, Lecturer, Walter Sisulu University, South Africa, Lizo Godlimpi, ILCC Coordinator, Walter Sisulu University, South Africa, Wezile Chitha, Dean, Walter Sisulu University, South Africa, Sikhumbuzo Mabunda, Public Health Specialist and Lecturer, Walter Sisulu University, South Africa, Siyonela Mlonyeni, Researcher at Albertina Sisulu Centre for Global Health and Research, Walter Sisulu University, South Africa & Yanga Mncedane, Researcher at Albertina Sisulu Centre for Global Health and Research, Walter Sisulu University, South Africa. Information Needs, Sources and Resources for 5th Year Medical Students during the Integrated Longitudinal Clinical Clerkship (ILCC).
4. Maria Do Sameiro Barroso, Board Member, Portuguese Medical Association, Portugal. Funerary Banquet. Unpublished Sculpture Relief from the Lisbon National Museum of Archaeology.

14:00-15:00 Lunch

15:00-17:00 Session VII (ROOM B- Mezzanine Floor): Academic Libraries II

Chair: Scott Seaman, Dean of Libraries, Ohio University, USA.

1. Maria Joao Amante, Head of Information and Documentation Services, ISCTE-Instituto Universitário de Lisboa, Portugal. Modelling Variables that Contribute to Faculty Willingness to Collaborate with Librarians: The Case of The University Institute of Lisbon (ISCTE-IUL), Portugal.
2. Claudio Sarra, Associate Professor, University of Padova, Italy. Metaphors in Law. A Conceptual Reconstruction and a Taxonomy.
3. Cristina Voichita Dragomir, Ph.D. Student, University of Bucharest, Romania. Next Generation Catalogue: The Romanian Libraries Experience.

17:00-18:30 Session VIII (ROOM B- Mezzanine Floor): Special Topics

Chair: Robert J. Congleton, Associate Professor, Rider University, USA.

1. Ching-Yan Wu, Assistant Professor, Fu Jen Catholic University, Taiwan & Mei-Chih Hu, Professor, National Tsing Hua University, Taiwan. Exploring the Developmental Trajectory and Technological Capability in the Global Concentrating Solar Power Industry.
2. Antigonos Sochos, Senior Lecturer, University of Bedfordshire, U.K. & Ritsa Psillou, Ministry of Education, Greece. Post-Traumatic Stress and the Greek Economic Crisis.
3. *Pradeepa Wijetunge, Librarian, University of Colombo, Sri Lanka. Perceptions of Sri Lankan LIS Professionals on the Effects of the Consortium on their Academic Efficiency.
4. Suzianah Nhazzla Ismail, Ph.D. Student, The University of Sheffield, U.K. Post-materialist Values and the Animal Protection Movement in Malaysia.
5. Sara Calogiuri, Ph.D. Student, University of Salento, Italy & Claudia Venuleo, Assistant Professor, University of Salento, Italy. The Concept of Context in the Field of Addiction Research. A Review.
6. Paolo Sommaggio, Associate Professor, University of Trento, Italy. Neuro-Civilization: A New Form of Social Enhancement.

21:00-22:30 Dinner (Details during registration)

Wednesday 27 July 2016
Cruise: (Details during registration)

Thursday 28 July 2016
Delphi Visit: (Details during registration)

Ahmed Alwan

Faculty and Academic Librarian, California State
University, Northridge, USA

&

David Prescott

Associate Professor, American University of Sharjah, UAE

Addressing the Framework for Information Literacy for Higher Education through Effective Librarian-Faculty Collaboration

Professional Communication for Engineers (ENG207) is a course offered at the American University of Sharjah (AUS), UAE and includes an engineering multidisciplinary project (EMDP) as the pedagogic tool that has agency in promoting students' attainment of professional communication skills and personal traits. It is university policy that engineering students study this course before conducting their senior design projects and usually prior to internship. Also significant in the course are the research skills that sustain the engineering multidisciplinary project, and which are essential for the students' final year Senior Design Project. Recent research (Zilinski et. al. 2014) has emphasized the fact that "undergraduate STEM students are increasingly expected to have some data use skills upon graduation, whether they pursue post-graduate education or move into industry" (p. 1).

For these reasons the Information Literacy Competency Standards for Higher Education (ACRL, 2000) are an important part of the ENG207 course. Information literacy (IL) preparation and briefing sessions are conducted at the outset of each semester in conjunction with the AUS Library. These sessions aim to provide students with the competencies they need to conduct research throughout the semester in order to develop their multidisciplinary projects. However, recently the IL Competency Standards for Higher Education have been newly revised by the Association of College and Research Libraries (ACRL) and an updated Framework drafted.

This paper will outline how the ACRL's new Framework provided both Librarians and Faculty at the American University of Sharjah and opportunity to move beyond simple bibliographic instruction. The overall aim was to work as a team to develop innovative, collaborative practices, developed specifically for engineering students that addressed three of the ACRL's new frames; Research as Inquiry, Searching as Exploration, Authority is Constructed and Contextual. Such collaborations, when fruitful, provide Faculty and Academic

Librarians examples of effective collaborative efforts that aim to improve student learning and performance in academic and beyond.

Maria Joao Amante

Head of Information and Documentation Services, ISCTE-Institute
Universitário de Lisboa, Portugal

Modeling Variables that Contribute to Faculty Willingness to Collaborate with Librarians: The Case of the University Institute of Lisbon (ISCTE-IUL), Portugal

This paper discusses key variables that shape the willingness of faculty to work with librarians in higher education establishments. We use the Librarian-Library/Faculty Relationship Model to highlight the variables which faculty members consider to be the most relevant in that relationship. We begin with a discussion of the causes of tensions between faculty and librarians.

This is followed by a descriptive and co-relational study of the ISCTE-IUL University Institute of Lisbon library. The study uses qualitative and quantitative methods, namely a focus group and a survey.

There was a good fit between the Librarian-Library/Faculty Relationship Model and the data (CMIN/DF=4.067), and the model explained 58% of the dependent variable, namely faculty willingness to collaborate with librarians.

Our final model confirmed the relationships proposed in our initial model, and allowed us to identify a range of new relationships, which may contribute to a deeper understanding of the dynamics of different socio-cultural processes (included as variables in the model) affecting the relationship between faculty and librarians, so as to what factors shape the willingness of faculty to collaborate with librarians.

The model shows that 14% of the willingness of faculty to collaborate with librarians can be attributed to key attributes of faculty, namely gender, age, department, academic qualification, professional category, and the length of career.

Leslin Charles

Instructional Design Librarian, The State University of New Jersey,
USA

&

Laurie McFadden

Library Director, Berkeley College, USA

Embracing Challenges in Times of Change: Academic Librarians Identify Opportunities Presented by the ACRL Framework for Information Literacy for Higher Education

Many academic librarians in the state of New Jersey (USA) have successfully integrated information literacy (IL) into the curriculum using the ACRL Information Literacy Competency Standards for Higher Education. These standards have formed the underpinnings of IL curriculum mapping and assessment plans. They have also been adopted by administrators in higher education institutions across the state. In light of the new ACRL Framework for Information Literacy for Higher Education, the presenters seek to find out how these NJ institutions are embracing the opportunities presented by the challenge of looking at information literacy through the new lens provided by the frames. How are coordinators of information literacy gaining buy-in from fellow librarians, faculty, and administrators? What existing academic programs already easily lend themselves to the framework? Are certain academic programs better supported by the Framework than the Standards? What strategies are needed to successfully align frames to current IL programs, learning outcomes, and assessment plans? Are institutions leaning toward a hybrid model of the standards alongside the frames or creating new localized learning outcomes as recommended? This presentation will describe and discuss the results of a statewide survey of coordinators of information literacy instruction in New Jersey. It will highlight challenges, opportunities, and new approaches to integration of IL as well as new considerations on how the frames influence assessment of student learning. It will also focus on areas such as gaining buy-in from relevant campus partners as well as library colleagues and library administration.

Yen-Ting Chen

Assistant Professor, National Chin-Yi University of Technology,
Taiwan

Tsung-Yu Chou

Associate Professor, National Chin-Yi University of Technology,
Taiwan

&

Yi-Ru Chen

Student, National Chin-Yi University of Technology, Taiwan

Applying Interpretative Structural Model to Assess the Service Quality of Subject Services of Academy Library

With the advancement of information technology and Internet booming, the large numbers of electronic resources, library users demand more resources from virtual channel than physical one; along with visiting rate declines, all libraries are doing their best to adopt innovative tools to provide diversified services to reshape the image and attract more users to enhance library usage. In recent years, university libraries have begun actively thinking in user perspective to redesign service model and content, subject service is an innovative services that apply technology to strengthen substantive contact with teachers and students.

Subject Service (or Subject Guide) is an exclusive service for academic libraries, which is a discipline-based service that provides users with needed information and reference resources. This innovative service helps libraries create a professional image and enhance users' satisfaction towards to library services. Previous research pointed that only 8 university libraries introduce "Subject Service" to users in Taiwan (Chiu, Tsai et al., 2011), and there is quite rare discussion in the service quality of subject service in Taiwanese research. This motivates the study to explore the relationships among service quality indicators for constructing an assess model of library subject service. The paper adopted SERVQUAL instrument as service indicators for evaluating the linkage among the five dimensions. 18 librarians and library users were asked to conduct the survey. The results show that library users are most concerned the service time and content the librarians can provide. This research develops practical management suggestions based on the results.

Nombulelo Chitha

Lecturer, Walter Sisulu University, South Africa

Lizo Godlimpi

ILCC Coordinator, Walter Sisulu University, South Africa

Wezile Chitha

Dean, Walter Sisulu University, South Africa

Sikhumbuzo Mabunda

Public Health Specialist and Lecturer, Walter Sisulu University, South
Africa

Siyonela Mlonyeni

Researcher at Albertina Sisulu Centre for Global Health and Research,
Walter Sisulu University, South Africa

&

Yanga Mncedane

Researcher at Albertina Sisulu Centre for Global Health and Research,
Walter Sisulu University, South Africa

**Information Needs, Sources and Resources for 5th Year
Medical Students during the Integrated Longitudinal
Clinical Clerkship (ILCC)**

Objective: The purpose of this study was to investigate information needs, sources and resources for fifth year medical students during ILCC in district hospitals of the Eastern Cape Province of South Africa.

Background: International Consortium of Longitudinal Integrated Clerkships (CLIC), Cambridge, MA, (2007) defines and characterises integrated longitudinal community clerkship (LICC) as the principal component of clinical training where medical students, “(1) participate in the comprehensive care of patients over time; (2) participate in continuing learning relationships with clinicians in the hospital; and (3) meet the majority of the year’s core clinical competencies, across multiple disciplines simultaneously through these experiences”. As part of its commitment to Community Based Education (CBE), Problem Based Learning (PBL) and social responsiveness, the Faculty of Health Sciences at WSU introduced a 20 week extensive ILCC rotation block in June 2014, where fifth year medical students were placed in six various district hospitals around the Eastern Cape Province.

Methods: A descriptive cross-sectional survey of fifth year medical students participating in the ILCC programme was conducted. Questionnaires were distributed to 72 students who were part of the programme in June 2014.

Results: Out of the 72 students, 51 returned the questionnaires, giving a response rate of 70.83%. Out of the 51, 35 (68.6%) students were males while 16 (31.4%) were females.

The study revealed that during the ILCC, fifty year medical students perform a wide variety of activities in the hospitals in which they are placed. The most prominent tasks that students carry which all relate to the care of patients included; attending tutorials (86 %), doing ward-rounds, doing after-hour calls and weekend calls came as the second most activities that students perform (84%), conduct clinical examination of patients (75%), prepare case summaries and presentations (73%), request radiological investigations including X-ray (73%), and making follow ups on investigations for patients under their care counted for (65 %).

The study further revealed that the information needs of the students during the ILCC revolve around patient care. The majority of students need information related to diagnosis and treatment of common conditions (59%), preparing for tutorials was also seen as very important and something they need information for (52%), learn how to examine various systems of the human body and reading more about cases encountered in ward-rounds (51%), understanding laboratory investigations in order to make diagnosis and reading more about conditions encountered during visits to local clinics counted for (49%) and (48%) respectively, prepare cases for bedside teaching (46%). The rest had frequencies between 36% and 44%.

Majority of students seemed to agree that medical doctors are the most available information sources for their needs (76%), library books came second at 74.5% followed by pocket handbooks (72.5%) and computers at 67%. Clinical guidelines kept in the ward or somewhere in the hospital (65%), reference books kept in the hospital (63%) and electronic books counted for (60%) were ranked as very important.

Students ranked mobile phones and internet access as very important at both (67%), followed by hospital library (64%), Health Professionals (62%) and computer laboratory (60%). Other information resources such as peers and newspapers had frequencies between 10% and 22%.

The majority of the students ranked the trustworthiness of the information source (65%), familiarity about the information source (62%), format of the information source and cost of accessing information both at 53%, accessibility of the information source (51%), and cost of the information (43%) were deemed as the most important factor in deciding to use the information source.

Conclusions: The findings of the study show that medical students use available information source and resources for the benefit of their

learning and their patients during the ILCC. This research paper provides valuable insights into the importance of various information sources and resources for the fifth year medical students and important factors influencing use of these sources and resources during the ILCC programme.

Robert J. Congleton
Associate Professor, Rider University, USA
&
Sharon Q. Yang
Professor, Rider University, USA

A Comparative Study of Education Exemptions to Copyright in the United States and Europe

This paper will be a comparative study of copyright law and how it has been adapted by the United States, the European Union (EU), and select European nations, including Greece, to address the needs of higher education in the digital age. The selected nations have signed international agreements that oblige each country to develop education exemptions to copyright restrictions. However, the international agreements permit, rather than mandate, specific exemptions, allowing each nation to choose what exemptions to adopt. This study will focus on how each nation has selected and implemented education exemptions regarding the use of digital materials in colleges and universities. Pertinent lawsuits, court decisions and philosophical differences between the approaches taken by the United States and Europe will be described. The paper will also propose suggestions for creating more standardized access to educational resources.

Cristina Voichita Dragomir
PhD Student, University of Bucharest, Romania

Next Generation Catalogue: The Romanian Libraries Experience

The paper presents the Romanian libraries response to the Library 2.0 challenge, providing a brief overview of the Next Generation Catalogue adoption among the Romanian information structures.

Understanding that the main objective of the library catalogue is to meet the users' expectations which are set by their Web experience and the only way to avoid further marginalization is to accept and operate major changes in the user services, worldwide libraries have chosen to migrate from their traditional OPAC to a Next Generation Catalogue.

As a Library 2.0 powerful instrument, the Next Generation Catalogue is a discovery platform which enables the bidirectional communication and collaboration between the library and its users who are becoming both information consumers, and information producers, the "prosumers" Toffler was talking about, having the possibility to contribute with content to the knowledge creation and dissemination process.

The aim of the paper is to evaluate the functional characteristics and social features of the Next Generation Catalogue and the Romanian libraries approach in implementing these features, highlighting that the most important catalyst for library innovative transformation according to the users' needs and expectations is represented by the librarians' acceptance of change, doubled by their openness to the community participation

Zakir Hossain

Teacher / Librarian and Extended Essay Coordinator, EUROPEAN
International School Ho Chi Minh City, Vietnam

**Journey toward Learning Society:
Possibilities and Challenges of Viet Nam Libraries**

As a part of ASEAN countries' lifelong learning ambition, the government of Viet Nam has made a commitment to build a Learning Society by 2020. A range of related initiatives have been launched by the Viet Nam government to encourage reading and raising awareness of its importance for sustainable development of knowledge and skills. Viet Nam aims to implement and develop lifelong learning activities in out-of-school education institutions such as libraries, museums, Community Learning Centres (CLCs) and cultural center clubs to achieve this national goal. The government of Viet Nam currently operates more than 11,900 CLCs and is in the process of both renovating and innovating public libraries and museums throughout the country. In addition to the work undertaken by the Viet Nam government, a number of enterprises have also been initiated by non-government and non-profit organisations to promote literacy and lifelong learning using libraries. As the concern authority believes that libraries can be a potential catalyst for Learning Society project, it is also essential to measure the possibilities and challenges of Viet Nam libraries. This analytical study, therefore, investigates some government and non-governmental initiatives focused on libraries and their impact on reading promotion and lifelong learning. This paper also reveals interconnection between library, lifelong learning and the learning society. Proposing a way forward, the paper confirms that Viet Nam's libraries play an essential role in promoting reading and building a Learning Society

Tefen Lin

Assistant Professor, Lunghwa University of Science and Technology,
Taiwan

&

Yi-Sian Chen

Assistant Professor, Lunghwa University of Science and Technology,
Taiwan

The Color Recommendation of Mosaic Image by Error Diffusion

The paper presents the recommendation of the best colors for mosaic images after image processing of Error Diffusion which one of Dither algorithm. We are planning to build a mobile e-commerce for selling the material for mosaic art which made from bricks, tiles, counted cross-stitch patterns, plastic beads or wool felt and so on. When user uploads his photo, our research will use the error diffusion to process the photo and recommend what the best colors named dynamic color palette for the best quality of mosaic image to produce the mosaic art. Our study not only plan to use the HSL (Hue, Saturation and Lightness) as color model but also use the psnr (peak signal-to-noise ratios) , color accuracy and Sharpness to test the mosaic image quality.

Takawira Machimbidza

Lecturer, National University of Science and Technology (NUST),
Zimbabwe

Stephen M. Mutula

Professor, University of KwaZulu-Natal (UKZN), South Africa
&

Ruth Hoskins

Professor, University of KwaZulu-Natal (UKZN), South Africa

Information Behaviour of Academics at Selected Zimbabwean State Universities

The paper presents the results of an investigation into the factors that influence the behaviour of academics at selected Zimbabwean State Universities towards peer reviewed electronic journals. The investigation grew out of the realization that despite several efforts that were made by different university libraries in Zimbabwe to enhance access to peer reviewed electronic journals, the use of such journals among academics remained very limited. The universities investigated are National University of Science and Technology (NUST), Midlands State University (MSU), and Bindura University of Science Education (BUSE). The survey research design was adopted with quantitative data being collected from a sample of academics using a survey questionnaire while qualitative data was collected from professional librarians in the universities by way of interviews. The findings of the study revealed that whereas majority of academics had adopted the use of electronic journals in their teaching and research their use of these journals was limited by among others inadequate infrastructure to support access, inefficient and slow speed of Internet connection, lack of skills to negotiate the electronic journals environment, lack of library support in the use of electronic journals, unfriendly library website interfaces, difficult electronic journal interfaces, failure to download full-text articles, challenges with off-campus access, lack of printers to print research findings, lack of access to back issues, and lack of research culture. The study builds on theory pertaining to adoption and use of electronic journals and also extends existing technology adoption theories. The results contribute towards improving practice by promoting efficient use of electronic journals in universities. In terms of policy, the paper contributes to the debate about crafting policies that would lead to significant reduction or total elimination of barriers to the use of peer reviewed electronic journals by academics in Zimbabwe.

Marcos A. Rodrigues

Professor, Sheffield Hallam University, U.K

Secure Information Systems in the Age of Cloud Computing

Recent revelations by Edward Snowden speak volumes about the need to protect sensitive data to comply with privacy regulations worldwide. The Cloud Computing paradigm in which servers, storage and applications are delivered to an organization's computers and devices through the Internet is here to stay. The benefits of this mode are that it enables data centers to be accessed and shared as virtual resources in a secure and scalable manner. For businesses, this is a very attractive model as services can expand or shrink as needs change. For information systems stored in the cloud to comply with EU data protection and privacy regulations, both the stored data and the connection between provider and customer need to be adequately protected against all known security risks. Recent reports indicate that 82% of cloud providers encrypt data in transit, protecting against man-in-the-middle attacks as data are transmitted. However, only 9.4% of cloud providers encrypt data once stored in the cloud, for file sharing convenience. This is a serious issue leaving the cloud vulnerable to data breaches and unauthorized access. In this paper, we will review security threats to cloud computing and present a solution based on our unique patented compression-encryption method. We focus on threat prevention through cryptographic methods that, when properly implemented, are virtually impossible to break directly. Our solution compresses data in a unique way tackling security, performance, data protection, privacy and cost issues. A unique, data-dependent symmetric key is generated as a side effect to the compression method. Without the key, the data cannot be decompressed. It is also important to realize that not all data in the cloud need to be encrypted, and not all data should be encrypted in the same way. For instance, images and video may be encrypted by a lossy method while text and other documents need to be lossless. Our algorithms cover both lossless and lossy requirements giving the user full control over what and where it is compressed-encrypted, either at the local machine or in the cloud. We highlight the benefits of the solution concerning less bandwidth requirements, faster data transmission and response times, less storage space, and less energy consumption. Finally, we consider that data protection and privacy legislations are not similar across the globe. It is demonstrated that our solution addresses security and privacy concerns

according to current European legislation on data protection whether the servers are located or not in the EU.

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Collaborative Shared Print Collections in the United States

American academic libraries face considerable pressure to vacate library space devoted to collections storage due to new user demands on buildings, the embracing of electronic resources, and declining print monograph circulation. Increasingly, academic libraries are collaborating to create networks in which last-copy serial and monograph print is retained by one library permitting others within the network to discard their copies.

Such initiatives differ from print archiving programs – which focus on preservation--in that these permit sharing of their last-copy either through interlibrary loan, courier, or electronically, throughout the collaborative. Duplicate print materials may be removed to reclaim space from on-campus or high-density storage facilities so they may be repurposed for more immediate demands. While initially focusing on reducing duplicate serial collections these initiatives have begun to include monograph titles.

Examples include the CIC Shared Print Repository, the Maine Shared Collections Cooperative, the Western Regional Storage Trust, and the Ohio LINK Shared Print Initiative. Such print cooperatives intend to ensure access to print materials for future scholars and students while realizing the economies of scale made possible through collective action.

This presentation will overview the goals, policy agreements, discovery, access mechanisms, and challenges of several major shared print cooperatives. It will (time permitting) describe the emerging tools enabling consortia-wide analysis of print duplication

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Perceptions of Sri Lankan LIS Professionals on the Effects of the Consortium on their Academic Efficiency

The University Grants Commission of Sri Lanka established a consortium in 2014 to increase the access to scholarly publications by the academic community in the 15 universities under its purview. As the initial step, five databases were included and there are 76 LIS journals included in the consortium. As the consortium is still new, not many researches are available on its impact on the academics. This research was carried out to ascertain the perceptions of the Library and Information Science (LIS) professionals on the effects of the available e-resources on their academic efficiency.

Of the 115 LIS professionals working in the 15 public universities, 99 was considered as the sample (excluding 16 who were on long term leave) and surveyed using a structured questionnaire. Data collection was carried out from 20 October to 20 December 2016 via e-mail and SPSS (Ver. 22) was used to analyze the data. The response rate was 48.5% from fourteen universities representing six seniority levels; Librarians, Deputy Librarians, Senior Assistant Librarians Grades I and II, Assistant Librarians with Masters Degrees) and newly recruited Assistant Librarians. Of the respondents, 71% were female while 42% were in the age group of 39-48 years, 75% possessed a Masters Degree in LIS while 8% had PhD. Primary language of 81% was Sinhala while it was Tamil of 17% and English of 2%. The academic activities of the respondents were measured along three perspectives; their publication output and the amount of research grants obtained within the last three years (2013-2015), and the years of experience in teaching LIS.

The respondents have generated 301 publications during 2013-2015 and 35% of this are conference papers, 31% are conference abstracts, 20% are articles published in non-indexed journals, 7% are articles published in indexed journals, 4% are books and 3% are other types of publications. Of the respondents, 21% have obtained research grants from their universities, 10% from national bodies, and 2% from international bodies. Teaching experience of the respondents indicated that 27% have 1-5 years of experience, 21% have 6-10 years of experience, and 15% have 11-15 years of experience while 2% each have 16-20 years and over 20 years of experience. The survey also revealed that they teach LIS and related subjects in the Sri Lanka Library Association, National Institute of Library and Information Science, University of Colombo and Department of LIS, University of Kelaniya

and in their own universities. These findings established that the respondents do engage in academic activities which require the use of scholarly information resources.

The effect of the available e-resources on their academic efficiency, was measured using eleven statement. Of the respondents, 92% asserted that it is easy to access information now, 88% and 81% respectively claimed that access to current information and access to quality information has increased, and 85% claimed that they now have access to a wide range of information resources, 75% and 77% respectively claimed that their professional competence and professional knowledge has now increased, while 79% claimed that their professional confidence has now increased, 60% claimed that it helps to get more of their papers get accepted for publication and 65% claimed that it has now improved the quality of their teaching. However, 65% also claimed that it is too early to say anything. Cross designation analysis established that there is no significant variation in the perceptions across the different designations. Based on the findings it can be concluded that the LIS professionals have a positive perception towards the consortium.

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Exploring the Developmental Trajectory and Technological Capability in the Global Concentrating Solar Power Industry

When climate change, resource conservation, and energy security have become critical worldwide issues, the development of renewable energy acts as one of the key drivers in the process of building eco-cities, circular economies, and sustainable society. In particular, the prosperous development of eco-cities (or smart cities) around the world has diverse characteristics of renewable energy to be utilized, depending on their various geographic characteristics and resources endowment. However, all of them are seeking for the most applicable solutions associated with the cost-effective renewable energy technologies to develop a sustainable socio-economy. The goal of this study is thus to explore the development trajectory and technological capability of the seven technological fields, namely “Tower concentrators”, “Dish collectors”, “Fresnel lenses”, “Heat exchange systems”, “Trough concentrators”, “Solar thermal engines”, “Thermal updraft”, and “Mountings or tracking system”, in the global concentrating solar power (CSP) industry. Since national approach and policies greatly impacted the development of renewable energy, this study thus tends to focus on the country-level exploration to identify and compare the strengths of the CSP technologies in the major countries whereas the different R&D focuses aimed by the major countries are revealed. This study then used a set of dedicated patent classifications relating to the CSP technologies to search for patents in the Espacenet patent database and construct the dataset for this study. In total, 28,852 patent grants (constituting a total number of 17,531 patent families) published by worldwide patent-granting authorities between 1970 and 2015 have been extracted and careful examined to compare the technological capabilities in the CSP renewable energy industries at the country level. To better utilize the extracted dataset, this study applied a series of econometric indicators, such as technological attractiveness, relative patent position (RPP), and revealed patent advantage (RPA) to analyze both quantitative and qualitative technology portfolios for each of the major renewable energy players. Our results show that the technological capabilities of

various CSP technologies focused by the top five players (i.e. the US, China, Japan, Korea, and Germany) reveal their respectively various technological strengths and national approaches in relation to the sustainable solution. Amongst the seven technological fields, The US overwhelmingly dominates all the seven technological fields in terms of R&D scale whereas China follows to be the second most significant patentee country in the CSP industry since 2004. The fast-follower Korea is seen its aggressive ambition to catch up with the technological leaders and has become one of the top renewable energy patentees since the year 2008. Despite of the development of a sustainable economy is not able to be relied on the technology per se, the results of this study reflected the relationship between technological development and opportunity of commercialization in each major country.