Welcome Message

Welcome to wonderful Vancouver, B.C. It is a pleasure to welcome you to the 14th International Conference on Knowledge Management (ICKM). We hope that you will find the presentations helpful, and the conversations with colleagues valuable. We have a great lineup of topics and presenters that truly represent an international collaboration on the current state and future of Knowledge Management. This year’s theme—a Profession and Discipline of Action—highlights the efforts to push toward impactful action and change. It suggests that the things we do with information and knowledge are of little value without strategic, relevant, and actionable ends. The topics and presenters have added their own unique insights to this theme, and we are excited about the ideas and collaborations that will come out of the conference.

The conference proceedings are published in the University of North Texas Digital Library. In addition, selected papers will be included in a special issue of the Journal of Information and Knowledge Management. So be on the lookout for that issue.

We are pleased to partner with the Association for Information Science and Technology (ASIS&T) for this year’s conference. This represents an important collaboration, and ASIS&T has been invaluable to the success of the conference. Many of you will be attending both annual events this year. We also want to thank our sponsors—listed at the end of this program. They have provided the resources to make this event possible.

We have made an effort to provide you with a program that is helpful, and we invite you to take a look at the variety of sessions and presenters over the next two days. We especially invite you to check out the plenary sessions throughout. This gives us a chance to meet together as a whole around critical issues in our field. We also invite you to stay for the ICKM council meeting after the closing remarks.

Have a good time!

Darin Freeburg
ICKM 2018 Conference Chair
Hyatt Regency Floor Plan

Plaza Level (Second Floor)

Perspectives Level (34th Floor)
# ICKM 2018 Program Snapshot

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<td>10:30 am</td>
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<td>Closing Remarks &amp; ICKM Council Meeting</td>
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Presentation Abstracts

November 9th

Plenary Session 1 (9:00 am – 10:00 am)

iSchools as Crucible: Melding Public Good, Technical Efficiency, and Knowledge
Gary Marchionini, School of Information and Library Science, University of North Carolina at Chapel Hill

iSchools bring together people, information, and technology. We do so by considering all aspects of socio-technical systems ranging from the genesis, flow, and management of knowledge to the creation and use of information technologies to theories of human behavior and social practices. In today’s globally informed world, our fundamental human capabilities, tendencies, and beliefs are being challenged on physical, cognitive, and affective levels. For example, it is one thing to create and manage knowledge repositories—libraries, archives, Google, and Amazon Web Services routinely do so at scale. It is quite another thing to trust those repositories and the knowledge they steward. iSchools study and teach strategies for appraisal, documentation and provenance, and the human consequences of technical efficiencies. Together with attention to changing technologies, these interests make us well-positioned to address issues of trust in many kinds of knowledge-intensive enterprises.

Brief Bio: Gary Marchionini is the Dean and Cary C. Boshamer Professor in the School of Information and Library Science at the University of North Carolina at Chapel Hill. He teaches courses in human-information interaction, interface design and testing, and digital libraries. He has published over 200 articles, chapters and reports in a variety of books and journals. Professor Marchionini has had grants or research awards from the National Science Foundation, Council on Library Resources, the National Library of Medicine, the Library of Congress, Bureau of Labor Statistics, Kellogg Foundation, NASA, The National Cancer Institute, Microsoft, Google, and IBM among others. Professor Marchionini was Editor-in-Chief for the ACM Transaction on Information Systems (2002-2008) and is the editor for the Morgan-Claypool Lecture Series on Information Concepts, Retrieval, and Services. He was program chair for ACM SIGIR (2005) and ACM/IEEE JCDE (2002) as well as general chair of ACM DL 96 and JCDL 2006. He served as President of the American Society for Information Science and Technology (2010). He received the Library and Information Technology Kilgour Award for Research in Library and Information Technology (2000) and the ASIST Award of Merit (2011). His current interests and projects are related to interfaces that support information seeking and information retrieval, and issues arising from data science and ubiquitous information.

Session 1|Methods for Research and Evaluation in KM (10:30 am – noon) |Moderator: Michael Gryk

Novel Lexicon Hierarchy Semantic Embedding for Domain Specific Text Mining (paper)
Xiaoli Chen and Tao Han, National Science Library, Chinese Academy of Sciences, chenxl@mail.las.ac.cn
Zhixiong Zhang Wuhan, Library of Chinese Academy of Sciences, zhangzhx@mail.las.ac.cn

Feature representation plays a very important role in text mining tasks, especially for domain-specific scientific documents mining. In this paper, we propose a lexicon hierarchy semantic embedding model (LHSE) for domain text mining. The novel embedding model associates each lexicon pair in the lexicon hierarchy with a distance metric. Lexicon pair’s distance are calculated with respecting to their relative hierarchy in the lexicon hierarchy. We use a tree-based path weight to calculate each lexicon pair’s semantic distance. To test our novel embedding model, we compare our lexicon hierarchy semantic embedding (LHSE) based CNN classification algorithm with other state of the art text classification algorithms. Text classification experiments conducted in chemical domain scientific documents show the superiority of our proposed method.

Bibliometric Analysis using Bibliometrix an R Package (Experience Report)
Hamid Darvish, Information Department & Records, Kastamonu University, hdervis@kastamonu.edu.tr

This study aims to explore the usage of Open-source software in bibliometric analysis. Bibliometrix an R package for bibliometric and co-citation analysis was used to achieve the research activities. R is an ecosystem software meaning all functions are shared in an open-source environment with the users. We have
used Graphene as a subject of research for bibliometric analysis. Graphene is one of the fastest growing research fields in nanotechnology worldwide. A textual query on Web of Science (WoS) Clarivate Analytics using the term “graphene” was performed retrieving 1155 scholarly papers from 2000 to 2017 with having at least one author based in Turkey. Bibliometric results indicate graphene within nanotechnology as a scientific research field is growing steadily. Graphene not only is used in engineering but also can be used in medical technology. Furthermore, this is an ongoing research exploring an Open-source software and its roles in the field of information studies.

Critical Evaluation of and Proposed Corrections for Knowledge Management Maturity
Justin Kollinger, Senior Analyst, Education Advisory Board, Washington DC
Dean Testa, Manager, Knowledge Management Office, Goodyear Tire & Rubber Co., LLC, Akron OH
Denise A. D. Bedford, Faculty, Communication Culture and Technology, Georgetown University, Washington DC

The peer-reviewed literature and popular press are rich with discussions of knowledge management maturity models and assessments. Despite these examples and discussions, there are persistent challenges and dissatisfaction with existing methods and the results they produce. Several factors contribute to this dissatisfaction, including: (1) lack of guidance on the factors to monitor; (2) lack of alignment with knowledge management strategic plans; (3) failure to align interventions with assessment indicators and methods; and (4) lack of treatment of growth and maturity in other than a simple linear scale (Bedford et al, 2014). This research reports on a comprehensive root cause analysis exercise of deficiencies in knowledge management maturity models. The root cause analysis suggests that there are failure points throughout the modeling and assessment process.

Session 2|Knowledge Organization | (10:30 am – noon) |Moderator: Saima Kanval

Domain Knowledge Organization and Utilization—A Case in the Field of Nanoscience and Technology (Best Practice Report)
Qimei Chen, National Science Library, Chinese Academy of Sciences, chengm@mail.las.ac.cn
Bo Zhang and Lucheng Lv National Science Library, Chinese Academy of Sciences, zhangbo@mail.las.ac.cnlvlc@mail.las.ac.cn

This best practice shows a model used in domain knowledge organization and utilization. The publishers, research institutions, and libraries collaboratively described the overview of science and technology. By looking at publications of high-quality academic papers, patent applications, key areas of development, international collaborative networks and other aspects, it reveals recent trends of the development in science and technology. Having also incorporated experts’ interpretations and views, the study applies both quantitative analysis and qualitative information. In this way, Springer Nature, the National Center for Nanoscience and Technology of China, and the National Science Li-brary, Chinese Academy of Sciences collaboratively produced the whitepaper on China’s development of nanoscience and technology to assess the trends of China’s development in nanoscience and nanotechnology, and to identify opportunities and challenges. The Whitepaper was released at the 7th International Conference on Nanoscience and Technology (Chi-naNANO 2017) and attracted much attention and acclaim.

Developing User-Oriented, Rule-Based Systems for Knowledge Management: Demo of Expert Systems and Usability Research Discussion (Best Practice)
Deborah E. Swain, NC Central University, dswain@nccu.edu

Knowledge Management Systems (KMS) support the identification, collection and sharing of useful knowledge to enhance decision making and collaboration in organizations. Among the tools and technologies available to develop knowledge-based decision support systems is the rule-based expert system (ES). Expert systems are built from collected knowledge using rules and an inference engine to cull through knowledge bases in a specific subject domain and to provide decision suggestions from “if-then” rules or other logical algorithms. This demo will illustrate easy-to-use applications and procedures for creating basic expert systems. In addition, instructions on how to build one with open source software and research ideas for improving usability will be
presented and discussed. Expert systems can provide best practice tools that ignite action and decision making in businesses and organizations that use KMS and seek change.

MIA: Multimodal Information Architecture (Paper)
George Hideyuki Kuroki Júnior, Information Science College, University of Brasilia, kurokijr@gmail.com
Cláudio Gottschalg-Duque, Information Science College, University of Brasilia, klaussherzog@gmail.com

Construction of meanings is based on Multimodal phenomena. It is not conceivable the idea that objects are expressed by only one Mode – several Modes are required. The existence of these Modes is the opposite to the search for relevance by the human mind: it adapts to the world it’s inserted through selection of stimuli. Setting ways towards a Multimodal Information Architecture (MIA), it is presented possible strategies for designing models of representation for meaning construction by selection of stimuli, translating them into logical constructions, giving new meaning for Information Architecture: transcending from a technicist paradigm to a theory of meaning construction. Modal logic contributes to qualification of truths as it is no longer imperative that a proposition be qualified as true or false: it may be possible, or necessary. It is proposed that this new paradigm for Information Architecture can be utilized as a meta-theory for Deep Learning Neural Networks.

Session 3|Workshop I (10:30 am – noon) |Moderator: Ana Roeschley
The Faculty IT Liaison Program: Using Participatory Design to Build Possibilities with Technology
Valerie Nesset, Department of Library and Information Studies, University at Buffalo, vmnesset@buffalo.edu
Daniel Deakin, Assistant Director, IT Customer Service

The Faculty IT Liaison Program was initiated in a large research university to foster meaningful interaction and communication between faculty members and IT professionals. The Program is intended to generate opportunities for faculty and IT professionals to meaningfully interact and share knowledge to better understand and align IT services with faculty needs. As its guiding framework, the program uses the Bonded Design methodology, a form of participatory design where users and designers of technology collaborate in the shared experience of a design team. Preliminary results indicate that the Bonded Design methodology is an effective framework for the program as it encouraged collaboration and better understanding between these two disparate groups who together created new ideas to modify technologies; outcomes that could not have been accomplished by working alone or within their respective peer groups. The workshop will demonstrate how to plan and implement a similar program in other institutions.

Session 4|Data, Information and People (1:30 pm – 3:00 pm) |Moderator: Kristyn Helge
Scientific Knowledge Management Practices in the Big Data Era—A Case Study of the Chinese Academy of Sciences (Best Practice Demo)
Qimei Chen, National Science Library, Chinese Academy of Sciences, chenqm@mail.las.ac.cn
Hanyu Li, National Science Library, Chinese Academy of Sciences1, lihy@mail.las.ac.cn
Lili Wang, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, wendywang@dicp.ac.cn

In order to provide scientists and researchers an easy way to access and manage knowledge, the National Science Library of Chinese Academy of Sciences (CAS) developed the SciThink App, a mobile knowledge management tool. The app helps scientists and researchers query, download and read scientific and technological literature. As a result they may be able to discover, manage and use more information anytime and anywhere. SciThink can also assist scientists and researchers to grasp progress and trends in global scientific research. Furthermore, SciThink has also added a science interaction function to support self-organization of personal information. The SciThink App is supported on Android and iOS mobile devices. In order to satisfy the information-using habits of different groups of people, SciThink recently has successively released versions for multiple media platforms, including in addition to a mobile phone App, WeChat and web page support.

Using Information from Word Clouds to Generate and Create Knowledge in Assessments (Paper)
M Asim Qayyum and David Smith, Charles Sturt University, aqayyum@csu.edu.au
Conducting research online to find resources for assessment tasks is a common everyday activity for students at most education levels and settings. When the students access study material via the Internet and without the presence of an instructor, especially in distance education settings, then students can face difficulties in understanding the complete purpose of an assessment. Such difficulties can lead to poor information search practices resulting in a poor knowledge gain, which may in turn lead to poor information synthesis and poor knowledge creation. This study focuses on the use of information tool by novice and experienced university students to gain and create knowledge for their assessment tasks. An intervention in the form of a learning tool was introduced to create a visual and textual support scaffolding for the students, and thus provide them with some relevant learning cues to improve knowledge creation and their engagement with online assessments tasks.

Arts and Humanities Academics Information Needs in Digital Era (Paper)
Alia Arshad, Department of Information Management, University of the Punjab, alia.im@pu.edu.pk
Kanwal Ameen, Department of Information Management, University of the Punjab, kanwal.im@pu.edu.pk

The purpose of this study was to examine arts and humanities academics scholarly information needs and their means of accessing scholarly e-content in today digital environment. The design of the study was quantitative and survey method was employed to achieve objectives of the study. The University of the Punjab was chosen as a sample among large public universities of Pakistan due to its high ranking in teaching and research output. Self-administered questionnaire was distributed to all regular and contractual academics of faculty of arts and humanities, oriental learning and Islamic studies. The response rate of the survey was 44%. The findings showed that majority of the humanities academics were users of the Internet. They heavily relied on online reference sources, print information sources and discussion with colleagues to meet scholarly information needs. They frequently used general search engines, Google Scholar and open access e-journal websites to locate journal articles.

Session 5|Knowledge Sharing (1:30 pm – 3:00 pm) |Moderator: Suliman Hawamdeh

Tereza Raquel Merlo, Adjunct Professor, University of North Texas, terezamerlo@my.unt.edu

Technological advances in the fields of information and communication have been, increasingly, reshaping the range of information systems, affecting the data management processing, use, and accessibility, and the knowledge management systems. Developers and consumers of information seek the most efficient platform for solid infrastructure in web-based services, on demand, to theirs end users anywhere, anytime in a growing digital workspace that is user centered. The emerging cloud-based services both on premise and on the cloud results from the incredible volume of data collected and processed in daily organizational operations, prompting issues of systems vulnerability, storing capacity, and migration and compliance. This paper discusses clouding computing and its impact to knowledge management process in organizations, through a literature review and the approach of some leading services providers. It concludes that cloud computing initiatives should combine a solid information infrastructure platform that is aligned with a type of management support focused on harnessing KMS practices.

Creating a Knowledge-Sharing Culture Using the Implementation of a Digital Asset Management System: A Case Study (Experience Report)
Jane Leuchter, Content Librarian, The Institute for Functional Medicine, janeluechter@ifm.org

This case study examines the process the Institute for Functional Medicine (IFM) took to implement a digital asset management system and the increased focus on a knowledge sharing culture that we were able to create with its implementation. We utilize the knowledge management maturity model developed by APQC and have measured our progress from the first stage, initiate, to the third stage, standardize, over the last three years. Our journey shows that incremental changes at any organization can have far-reaching effects. This case study will be a good resource for individuals working in any organization in the first two stages of the knowledge management maturity model.

Information Overload and its Effect on High School Students (Paper)
Information overload has increased over the past three decades as sources, types, and volume of information have increased exponentially. Regardless of age, occupation, or social status, most people experience information overload daily. Huge quantities of digital information are available via mobile technology. High school students are particularly susceptible to information overload because of their strong reliance on smartphones as well as their designation as “digital natives,” or those having grown up using and understanding digital technology. This study explores how high school students experience information overload, including specific physical, emotional, and mental reactions. Questionnaires, interviews, and diaries will be used to collect, then analyzed to identify themes and patterns. Results of this research will result in greater understanding of how high school students’ experience information overload, giving educators, parents, and healthcare providers insight for dealing with teenagers in this situation.

Session 6|Workshop II (1:30 pm – 3:00 pm) |Moderator: Joyline Makani

How Does Your Knowledge Flow? Exercises in Spatial Syntax
Jayne Sappington, Texas Tech University, United States, jayne.sappington@ttu.edu
Denise A. D. Bedford, Georgetown University, db233@georgetown.edu
Alexeis Garcia-Perez, Coventry University, United Kingdom, ab1258@coventry.ac.uk

In the 21st knowledge economy organizations must invest in and leverage their knowledge and intellectual capital assets. The circulation and sharing of knowledge and intellectual capital is critical to investment and value. While the literature discusses four categories of factors that influence knowledge sharing, one category has been neglected – the design of the physical-spatial environment. This program introduces participants to the practice of spatial syntax and provides a hands-on opportunity for participants to map and assess the knowledge flows of their working environments. Session leaders will provide a Quick Reference Guide describing Hillier’s (Hillier et al, 1983) fourteen spatial metrics, and instructions for applying them. Session leaders will act as coaches in applying justified graph methods to determine how an architecture enables or impedes knowledge flows. The program will conclude with participants sharing their observations.

Session 7| Posters- Full Abstracts Listed on Pages 17-22 (3:00 pm to 4:00pm)

- Application Of QR Codes In Library Services: Beyond Q
- Bridging, Bonding, And Maintained Social Capital As Predictors Of Psychological Well-Being In A WhatsApp Group
- Survey On The Graduate Attitudes And Needs Toward Data Literacy And Library Instruction
- Using Augmented Reality To Navigate Campus
- Usage Patterns Of E-Journal Databases: A Transaction Log Analysis
- A New Model Of Information Architecture Associated With Multimodality For Training High Performance Professionals
- Document Expansion For Short Text Conversation
- Source Preferences In Everyday Life Information Seeking
- Developing Data Systems For Evidence-Based Policy Making And Implementation: A Study Of The Ns Student Attendance And Engagement
- The Analytics Edge: Use Of Analytics In University Libraries
- Characterization Of A Semantic Relations Taxonomy In Biomedical Science
- A Rosetta Stone For Provenance Models
- Deep Learning For Predicting Scientific Growth Trends  (File Corrupt, Waiting For New One)
- Exploring The Relationship Between The Motivation And Behavioral Predisposition Of Self-Disclosure On Social Media Applications
- Accelerating Student Learning For Taxonomy Design Work: Rapid Onboarding Through Consultant-Internships
- Mining Linked Open Data For Semantic Predications To Inform Literature-Based Knowledge Discovery
- Building Agency Within The Agency And In The Community: Improving Web Access To Public Health Data In New York City
- Fostering Scholarly Creativity: Modeling Functional Browsing Through The Lens Of Complexity
- Towards An Understanding Of Data Ethics In LIS
Session 8 | Organizational Change Management (4:00 pm – 5:30 pm) | Moderator: Roy Prodip

The Knowing Model: Encouraging Behavior Change in Organizations through Awareness, Integration, and Knowing (Paper)
Darin Freeburg, University of South Carolina, darinf@mailbox.sc.edu

Leadership is often responsible for behavior change in their organizations. This paper outlines a context-based model—utilizing existing theories and models in Knowledge Management and Library and Information Science—to increase leadership’s effectiveness in this area. The Knowing Model approaches behavior change as an issue of information content, dissemination, and use of that information—all within a complex environment with additional social barriers. A target behavior is identified by leadership. Researchers then map the social field of organizational members to identify barriers and strategies for overcoming them. Three stages are outlined in the model—suggesting that members must be aware of the information, integrate it as knowledge, and be motivated to put it to use. As leadership learns more about organizational members, they can change the content of information about a behavior change to account for barriers to its adoption.

Effective Knowledge Transfer and Behavioral Change in a Training Environment (Paper)
Amy Rosellini, University of North Texas, Amy.rosellini@gmail.com

Current models of knowledge transfer are insufficient in defining the factors that address the impact of knowledge transfer in a firm. Firms employ traditional training programs and require a model that identifies the impact of knowledge transfer at different cycles of the training and behavior change process. The purpose of this study is to examine the relationship between effective knowledge transfer and behavioral change in the training environment. The study is concerned with how training affects knowledge transfer, how knowledge transfer impacts behavior changes and how behavior change affects overall job performance. The concept paper examines existing KM models such as SECI model, complexity theory, an entrepreneurship model and knowledge-to-action with the aim of developing an enhanced version of knowledge transfer measurement model (KTMM) that requires further testing.

Session 9 | Innovation I (4:00 pm – 5:30 pm) | Moderator: Zhenjia Fan

José Miguel Baptista Nunes, School of Information Management, Sun Yat-Sen University, miguelnunes@mail.sysu.edu.cn
Saima Kanwal, School of Information Management, Sun Yat-Sen University, saimakanval@gmail.com
Muhammad Arif, School of Information Management, Sun Yat-Sen University, muhammad_arifpk@yahoo.com

This study aims at establishing the state-of-the-art causal link between KM practices and organizational innovation by critically reviewing research published in the domain over the last ten years. This study adopted a two-steps strategy: a systematic extraction of research studies was followed by the critical analysis of the selected studies. Findings disclosed that research in the recent past increased exponentially in this field. In terms of impact, KM actively contributes to different types of innovation associated with organizational processes, products, and services. However, it was also noted that there are several factors, which interplay significantly between KM processes and innovation in a mediating role. From a methodological perspective, the scholars used mainly quantitative approaches in preference to qualitative or mixed methods. This is clearly an issue that needs to be addressed by the KM research community since qualitative and pragmatic studies tend to provide better explanatory and descriptive findings.

Innovation in the Internationalization Processes of Brazilian Exporting Companies (Paper)
Julio Cesar Zilli, Universidade do Extremo Sul Catarinense, zilli42@hotmail.com
Amanda Locks, Universidade do Extremo Sul Catarinense, amana_s_locks@hotmail.com
Patricia De Sá Freire, Universidade Federal de Santa Catarina, patricia.desafreire@hotmail.com
Jaime Dagostim Picolo, Universidade do Extremo Sul Catarinense, jaime@unesc.net

The internalization process carried out in interaction with innovation is an alternative to organizational performance when facing a competitive scenario. Putting both together form a strategic pair in the pursuit of
international competitiveness. Considering such scenario, this study aimed to identify the role of innovation in the process of internationalization of the exporting companies of southern Santa Catarina state. Methodologically, it was characterized as a quantitative, descriptive research comprising secondary data analysis and field survey. Data collection was carried out with the application of a questionnaire via Google Docs, together with 12 exporting companies from a variety of industries. In the scope of innovation, these companies invest mainly in products and processes, without using financing tools. Finally, it is comprehended that the majority only allocates between 1% and 5% of its revenues towards innovation, concluding that innovation still has an average performance in the internationalization of its activities.

**Knowledge Management Initiatives Implemented in the Tourism Industry and Contributing to Innovation Generation (Paper)**

Carla Zandavali, Federal University of Santa Catarina, setteca@gmail.com
Emerson Cleister Lima Muniz Federal University of Santa Catarina, eng.prod.emerson@gmail.com
Gertrudes Aparecida Dandolini Federal University of Santa Catarina, gtude@egc.ufsc.br
João Artur De Souza, Federal University of Santa Catarina, jartur@egc.ufsc.br

The managing knowledge can contribute to generate innovation and improving competitiveness on tourism industry. Thus, this article aims analyze knowledge management initiatives applied to touristic services and that contribute to their innovation. To this, a systematic integrative review in Scopus, Web of Science and Scielo was realized. As main results, it is possible to notice that knowledge management initiatives with a focus on people stand out, since the knowledge obtained from the clients, their lived experiences and the employees of the companies are essential for innovation and these knowledges must be used, shared and disseminated. Thus, actions focused on structuring processes and strategies, changing organizational culture and deploying information technology tools are actions with greater emphasis. Finally, it is still noticeable that the publications on the topic under study are recent, with gaps to be explored in further research, mostly aimed at the study of tacit knowledge.

**Session 10|Panel (4:00 pm – 5:30 pm) |Moderator: Daniel Alemneh**

**Open Science and Open Data for Sustainable Development: A Global View**

Abebe Rorissa, University at Albany, arorissa@albany.edu
Daniel G. Alemneh and Suliman Hawamdeh, University of North Texas, Daniel.Alemneh@unt.edu and Suliman.Hawamdeh@unt.edu
Shimelis Assefa, University of Denver, Shimelis.Assefa@du.edu
Kris Helge, Texas Woman’s University, khelge@twu.edu
Elise Lewis and Samantha K. Hastings, University of South Carolina Columbia, elewis@mailbox.sc.edu and hastings@sc.edu

A movement has grown over time to make scholarly and scientific data more open and accessible. While the movement gained momentum and achieved successes across various aspect of the information society in which data and information are created, organized, managed, processed, accessed, disseminated, retrieved, and used; there is still a long way to go and a considerable amount of work to be done. Especially if the promises of open science and data are to be realized globally. One of the ways to keep the movement continuing in its current trajectory is to engage stakeholders in discussions that could lead to concrete recommendations and policy ideas. In this panel, panellists, with the help of an active and engaged audience, intend to do just that. They will also provide an overview of the global landscape of open science and data that will assist in a thorough discussion by panellists and the audience in the context of sustainable development.
**Plenary Session II (8:30 am – 10:00 am)**

**The Art of Participatory Leadership**

Working in complexity requires that we learn how to convene teams and meetings to induce many different voices and ideas. Beyond good facilitation, this requires us to develop a leadership practice based on good dialogue and rigorous practices to make sense of our world.

In this plenary session, Chris Corrigan will introduce you to the Cynefin framework and discuss its implications for developing our leadership practices. We will also engage in dialogue exercises to ground the learning about this framework in our real-life challenges.

Brief Bio: Chris Corrigan is an Art of Hosting practitioner, a well-known facilitator and writer who has been working in the field of dialogic organizational development for twenty years. He has focused his work on teaching about the intersection of dialogue, leadership, facilitation and complexity. He lives on Bowen Island, British Columbia and runs Harvest Moon Consultants with his partner Caitlin M. Frost.

**Session 11|Collaboration (10:30 am – noon) | Moderator: Isto Huvila**

**Jealousy In Cooperation – A Comparison of Two Game Based Approaches (Paper)**

Franz Barachini, BIC-Austria, barachini@bic-austria.at
Manfred Bornemann, Intangible Assets Consulting, Austria, bornemann@ia-consulting.at

We are interested in the question of how to motivate people to share valuable information, so that group performance can be leveraged. In a previous article we investigated the impact of power and jealousy on cooperation. By using intelligent agents, a stochastic updating process has been used, so that artificial agent populations could be modelled. In the current article we investigate update procedures based on deterministic dynamics for populations arranged in a lattice. Compared to stochastic processes our findings show that populations behave and react far more dynamically, in certain parameter regions, when spatial cooperation is applied.

**The Case for Research Collaboration and Alignment: Social Informatics and Knowledge (Paper)**

Denise Bedford, Georgetown University, db233@georgetown.edu
Alexeis Garcia-Perez, Coventry University, United Kingdom
Mark Sallos, Coventry University, United Kingdom

Social Informatics and Knowledge Sciences represent two research domains with selective common areas of interest. This paper begins with the perspective of Social Informatics and considers the challenges it faces in a dynamic and rapidly evolving digital world. The research team sets out to consider how knowledge sciences theories and methods might apply to the original and current Social Informatics challenges. The authors propose a comprehensive and inclusive conceptual model for social informatics that may be used to map relevant research and literature in other domains, particularly those beyond information science. The authors also discuss the need for a fully elaborated and extensible classification scheme and vocabulary for social informatics to support automated discovery of relevant research. The research suggests there are areas of common interests between the fields of social informatics and knowledge sciences and highlights potential areas of future collaboration.

**Barriers to Active Participation in VCoPs of a Brazilian Public Sector Company (Paper)**

Nara Viana Costa Ribeiro, Independent Researcher, Brazil, naravr@gmail.com
Julietta K. Watanabe Wilbert, Gertrudes Aparecida Dandolini, and João Artur De Souza, Federal University of Santa Catarina, Brazil, julietta.wilbert@gmx.net, gtude@egc.ufsc.br, jartur@rgc.ufsc.br

Virtual Communities of Practice (VCoPs) are used as a tool for sharing and disseminating knowledge for increasing organizational performance. In this context, some theoretical and practical studies have been conducted to identify barriers and facilitators for the functioning of Communities of Practice in organizations. The article identifies the reasons why participants of VCoPs do not actively participate in their communities in
a Brazilian company of the public services sector. The results of the case study were obtained using a survey of members of VCoPs in the target organization in combination with semi-structured interviews with focus groups. The data analysis confirmed the results of other researchers and no evidence was found that would suggest different factors for organizations of the public sector in Brazil. The study contributes to the understanding of the main reasons why people do not actively participate in VCoPs in organizations and provides elements useful in the management of VCoPs.

Session 12| Innovation II (10:30 am – noon) | Moderator: Valerie Nesset

Knowledge Management Initiatives Applied to Social Innovation (Paper)
Carla Zandavali, Federal University of Santa Catarina, Brazil, setteca@gmail.com
Yohani Dominik Dos Santos Figueiredo, Gertrudes Aparecida Dandolini, and João Artur De Souza
Federal University of Santa Catarina, Brazil, yohanidominik@gmail.com, gtude@egc.ufsc.br, jartur@egc.ufsc.br

Currently knowledge is considered the main mechanism of production, either of goods and services, or as a source of competitive advantages for innovation. In this sense, the management of this knowledge becomes strategic for the organizations. Knowledge management is a deliberate and systematic coordination of people, technology, processes and organizational structure that add value through re-use and innovation in the organization, its use can contribute to Social Innovation actions. In this context, this article aims to analyze knowledge management initiatives used in actions of Social Innovation. The research was based on an integrative systematic review of empirical publications, which were obtained from Scopus, Web of Science and Scielo databases. Among the results obtained, of the thirteen final articles analyzed, of the knowledge management initiatives applied to Social Innovation, nine presented actions focused on processes, seven focused on technology and only one of the articles has actions directed at people.

The Guided Innovation Model: Messy Human Innovation (Paper)
Darin Freeburg, University of South Carolina, darinf@mailbox.sc.edu

This paper outlines the Guided Innovation Model, which helps nonprofits increase innovation through the application of Knowledge Management tools. Representatives from various nonprofit groups that play a role in addressing a given need are brought together. This group is a Complex Adaptive System (CAS), which has implications for how it adapts, the role of the unique agents within it, and the nature of predictability. A Community of Practice is intentionally designed to allow room for the full expression of each of these natural CAS elements. It does this while simultaneously manipulating control parameters that move the system closer to the edge of chaos where innovation happens. The CoP meets regularly to identify existing information, engage in a culture of sharing and knowledge pooling that promotes idea generation, and experiment with these ideas through shared practice. In doing so, it innovates to better meet the identified community need.

Innovation Structure Framework (Paper)
Patricia De Sá Freire, Federal University of Santa Catarina, Brasil, patriciadesafreire@gmail.com
Julio Cesar Zilli, Universidade do Extremo Sul Catarinense, Brasil, zilli42@hotmail.com

Innovation needs a structure based on paradigmatic values that allow the transmutation of an organization towards the survival into an organization ready to learn. To understand this context, it was performed a theoretical rereading, constructing a parallel between the structure of scientific revolutions to the progress of science and the innovation structures for organizational development. This study goes beyond the discussion of the technological paradigm for the understanding of the innovation and people paradigms, building, in the end, Innovation Structure Framework, which promotes the understanding of internal organizational processes that cause the necessary state of crisis for the creation, implementation and acceptance of innovation. This applied qualitative approach can be considered as an exploratory descriptive of bibliographic order. The proposed Framework is a relevant tool to the understanding of organizational behavior and development in the different processes of innovation, whether incremental,distinctive or radical ones.
Managers or Librarians: Roles and Competencies in RDM

Zhenjia Fan, Department of Information Resources Management, Nankai University, fanzhenjia@nankai.edu.cn

Focusing on the research question what the critical roles and competencies of data curators are in supporting RDM lifecycle, it adopts multi-case study method, to analyze competencies required in different contexts such as enterprises and academic libraries in China, and critical roles in guaranteeing data quality and efficiency of data reuse are put forward. Based on the general factors of capability summarized, strategies of empowering data curators’ competencies are raised according to the corresponding contexts. Findings of this paper are as follows: Data curation is beyond digital archiving and preservation and more emphasis should be put on data governance. Different roles of data curators would take their own parts in the process of data curation and should be specified according to given contexts. The roles, competencies and empowerment strategies presented in this paper might have both theoretical and practical significance for the fields of both data curation and data governance.

Examining the Integration Engineering and the Mergers and Acquisitions processes through the evaluation of intangible assets and knowledge management in organizations: A Brazilian case (Paper)

Patricia de Sa Freire, Division of Engineering and Knowledge Management, Federal University of Santa Catarina, Brazil, patriciadesafreire@gmail.com,
Tereza Raquel Merlo, Organizational Management and Information Technology, University of North Texas, terezamerlo@my.unt.edu

The Mergers and Acquisitions (M&A) process is professed as the foundation for fast organizational growth in a competitiveness; however, challenges related to intellectual capital as valuable and intangible assets remains. Although this phenomenon is greatly impacting integration engineering and M&As, the international accounting organization has not identified the effective tool for measurement of intangible assets. In light of a knowledge-based society, the question this study aims to answer is: How should intellectual capital be measured as an intangible asset in companies applying the M&As? The researchers present a literature review and an analysis of the management and measuring of intangible assets from companies participating in M&As using a Brazilian case as an example. This study explores six critical reference models, including Integration Engineering. The conclusion will highlight how the digitization and virtualization of the workspace changes the knowledge consumption process bringing a new light to intangible assets for companies aiming at competitiveness and innovation.

Spatial Syntax and Knowledge Flows in American Grocery Stores (Paper)

Denise A. D. Bedford, Georgetown University, Washington D. C., db233@georgetown.edu

Spatial syntax and geometry are established architectural and cultural methods dating back to the early 1980s. While theoretically grounded, these methods have not been widely applied to work environments. This research anonymously applies seven spatial syntax methods to seven grocery stores for the purpose of identifying and characterizing work space genotypes. The genotypes are further defined in terms of their knowledge flows. The goal of the research is to determine whether spatial syntax and knowledge flow factors align, and if so how such an alignment affects workers’ intellectual capital asset development. The motivation for the research is to establish a set of work environment genotypes that may serve as a foundation for assessing the knowledge value of work in the knowledge economy. The value of work is assessed not to the organization or company rather as the opportunity for workers to develop their intellectual capital assets.

Conceptual Relationships between Quality Management and Intellectual Capital Reporting – a Case Study (Paper)

Manfred Bornemann, Intangible Assets Consulting GmbH, Austria, bornemann@ia-consulting.at
Franz Barachini, BIC-Austria, barachini@bic-austria.at
An intellectual capital statement identifies knowledge and competences according to the requirements of the ISO 9001:2015 standard. The current state of knowledge and competencies of an organization is evaluated by the relevant employees in the context of strategic requirements. The deviations from the strategically desired status result in a clear prioritization and specification in order to develop additional knowledge. Possible risks due to lack of a systematic approach to knowledge and competencies are identified and prioritized in order to improve them in the next step.

Session 15| Knowledge Organization II (1:30 pm – 3:00 pm) |Moderator: Yejun Wu

Toward a Universal Document Model for Active Knowledge (Experience Report)
Dagobert Soergel, Department of Library and Information Studies, University at Buffalo, ds@dsoergel.com
Felipe S. Iturralde Escudero, World Bank, Washington DC 20433 USA, fturraldeescude@worldbankgroup.org

This paper presents a universal document model that can represent documents comprehensively at any level of granularity to make knowledge active, for example, through integrating information into workflows for actively pushing just-in-time, just-what-is-needed information. The model can serve many other functions: document analysis; linguistic annotation, information extraction; flexible search, navigation, and browsing; rendering documents (pre-existing or assembled dynamically); commenting and annotating; composing new documents using templates and reusing content; version management. The model uses a hypermedia approach on steroids; it represents a document as a collection of document units in a database. These units are independent objects; document structure, including the document composition hierarchy, is expressed through links among the units, quite different from nested XML tags. The power of the model lies in the possibility to specify many types of data about and links among document units. The model is presented at a conceptual level; implementation will require considerable effort.

Data, Information, and Knowledge Management: University Of North Texas and Texas Woman's University Institutional Repositories Initiatives / Experiences (Best Practice Demo)
Kris Helge and Amanda Zerangue, Library, Texas Woman's University, khelge@twu.edu and azerangue@twu.edu
Daniel Gelaw Alemneh and Pamela Andrews, Library, University of North Texas, Daniel.Alemneh@unt.edu and Pamela.Andrews@unt.edu

This session conveys how staff of the University of North Texas and Texas Woman's University libraries collect, preserve, utilize, and disseminate data, scholarship, Information, and knowledge via its institutional repositories. Each member discusses various initiatives that manifest success and those that present challenges. Some of these initiatives involve experiences with Verio, open journal systems, DSpace, and other open source platforms. Also communicated is the importance of collaboration across campus and with external stakeholders to guarantee success of each of these services. Other issues discussed include implementing OERs and how digital repositories may be utilized to advance OER advocacy and efficiency. Future endeavors and expectations are communicated, which include possible horizon technologies that may affect digital repositories, and what data repositories, OJS, scholarship repositories, and other future open access systems may look like and provide.

Use-Oriented Information and Knowledge Management: Information Production and Use Practices as an Element in the Quality and Impact of Information (Paper)
Isto Huvila, Department of ALM, Sweden, isto.huvila@abm.uu.se

There is a broad consensus that better models for assessing the impact of information in the context of information repositories and digital preservation efforts are needed. Rather than proposing new quality measures for the information itself, which has been a common approach in earlier proposals, this text probes into a problem identified in earlier research that in spite of the existence of multiple definitions and standards for information quality, the usefulness of information tends to have multiple problems. The aim, with an empirical focus on archaeological information, is to examine how to take into account the current information production and management practices and the present and anticipated use of these resources as an aspect of the impact and usefulness of information.
**Session 16: Young Researcher Presentations (1:30 pm – 3:00 pm) | Moderator: Darin Freeburg**

**The Scientific Memory of the Brazilian National Institute of Technology (Int/Brazil) Public Library Under the Perspectives of Control Devices and Information Policy Regime**

Patricia Pui Yue Lee, Communication/ Information Science Faculty (ECO/IBICT), Federal University of Rio de Janeiro (UFRJ), patricialohlee@gmail.com

Ricardo Medeiros Pimenta, Communication/ Information Science Faculty (ECO/IBICT), Federal University of Rio de Janeiro (UFRJ), ricardopimenta@ibict.br

This is the study of the scientific memory of the INT public library, under the perspective of control devices and information policy regime. As main issue, it is presumed that the storage and preservation of physical and digital documents are links for formation and consolidation of memories. Technical library would be partly responsible for the development of scientific memory, and furthermore, the development of knowledge. Its importance is justified by the human need to counteract scientific and technological events, materialized by artifacts and relics. This library is also responsible for the scientific communication. Society holds informational capital and scientific memory, whereas it controls or limits access to the collection of libraries through control devices. Therefore, it is studied the maintenance of informational power through technological artifacts. Another objective is the analysis of the social control exercised by the public administration (information policy regime and the law on access to information).

**Development of an Electronic Resource Management Model for Science & Technology Institutions in India**

Vijay Kumar Verma, Central Library, Indian Institute of Technology, vkverma@library.iitd.ac.in

This paper, is in the early stage of research, highlights the complexities associated with the management of electronic resources in an institution. It opines that electronic resources are the needs of the hour and libraries all over the world are procuring them, but managing these resources is quite challenging task. The paper primarily focuses the objectives to be decided and methodology to be followed to develop an Electronic Resource Management (ERM) model for central government funded technical institutes in India. Based on the review of literature, it says that none of these institutions are practicing ERM, although a large part of the budget is spent to procure electronic resources. Hence, the paper recommends that there is an urgent need of development of a cost effective ERM model. The paper talks about the development of Electronic Resource Management System (ERMS) by customisation of open source software CORAL as per the need of the surveyed institutions.

**How to Classify: The Information Resource Relating to Intangible Cultural Heritage of Databases in China**

Lin Wanwan, School of Information Management, Sun Yat-sen University, linww9@mail2.sysu.edu.cn

Chen Runhao, School of Information Management, Sun Yat-sen University, chenrhao@mail2.sysu.edu.cn

The paper proposed that it is necessary to incorporate the awareness and measures concerning the establishment and management of intangible cultural heritage information resources into practice, and to generate a special assorting technique for intangible cultural heritage information resources so as to achieve effective integration of quantitative resources, ensure data storage, data management and data access, which will promote the preservation and inheritance of intangible cultural heritage.

**Understanding Driving Factors of Science for Predicting Scientific Dynamics**

Jiangen He, Department of Information Science, Drexel University, jh3328@drexel.edu

Scientific literature offers opportunities to explore the complex dynamics of science. My research focused on building quantitative understanding of key factors driving scientific dynamics and predicting scientific dynamics based on the understanding. We develop the metrics and representations of novelty and uncertainty in science and investigate their roles in scientific evolution. By the investigation, we may understand the mechanisms of how science advances, for example, a burst of novelty identified among studies on a research topic may be an early sign of the rapid knowledge growth of the research topic. The understanding of the critical factors driving scientific advancement inspires us to build predictive models of science dynamics by machine learning approaches. We also build visualization systems for investigating the identified factors and prediction results in a context-aware environment.
Session 17: Plenary Session III: Plenary Closing Panel: The Nexus of Knowledge Management and Information Science: What Past and Present Trends Tell Us About the Future (3:30 pm – 5:00 pm)

PANELISTS:
- Darin Freeburg, University of South Carolina (Moderator);
- Jay Liebowitz, Harrisburg University of Science and Technology;
- Gary Marchionini, University of North Carolina;
- Suliman Hawamdeh, University of North Texas;
- Joyline Makani, Dalhousie University;
- Jayne Sappington, Texas Tech University

The influx of digital information and the recent advances in information and communication technologies bring about new opportunities and challenges for research and practice. The fields of Knowledge Management and Information Science have been at the forefront of these developments. This panel brings together leaders from each field to discuss the trends and opportunities for collaboration within and between them. This marks an important moment of reflection and renewed purpose as researchers and practitioners attempt to harness new opportunities to create value.

Closing Remarks and ICKM Council General Meeting

All Attendees are invited to attend the ICKM Council Annual General Meeting. Beside the normal business, the Council will discuss future meetings and plans for the ICKM conference.

POSTER ABSTRACTS

Application Of QR Codes in Library Services: Beyond Q
Vijay Kumar Verma, Central Library, Indian Institute of Technology, vkverma@library.iitd.ac.in
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New and emerging technologies have always been playing vital role in shaping the different services of libraries. They not only help the users to provide quick, quality and efficient services but also give a chance to library and information professionals to think outside the box. With the arrival of affordable smart mobile phones, libraries all over the world have been utilising them for the various purposes. QR code is one of the technologies used by the libraries. Although, libraries are the end user of these technologies, they make the life of all the stakeholders of the library smart and comfortable. This write up explores the possibilities of using QR codes in providing different libraries services. It discusses the features and functionality of this technology and tell about how it can help libraries to make their services more attractive and efficient. It also discusses the issues involved in the application of QR code.

Bridging, Bonding, and Maintained Social Capital as Predictors Of Psychological Well-Being in a Whatsapp Group
Noah Oluwafemi Samuel, School of Information Sciences, University of Illinois at Urbana-Champaign, nosamue2@illinois.edu

This paper reported part of the findings from a study conducted to understand how participants build and maintain social capital through group communication on WhatsApp. We collected data from 75 participants who were members of a high school WhatsApp group. The participants all graduated from the same high school in 2003, and they currently use WhatsApp to keep in touch. We used QuestionPro; an online survey platform, for data collection. Participants were compensated with mobile phone call credits in the local currency. We tested a single hypothesis to see if bridging, bonding, and maintained social capital in the group are predictive of individual group member’s self-reported measures of psychological well-being based on Ryff & Keyes (1995). Regression result shows that of the three, only bridging social capital is a significant predictor of psychological well-being. This result adds to the findings by Ellison, Steinfield, & Lampe (2007).
Survey on the Graduate Attitudes and Needs Toward Data Literacy and Library Instruction

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In this study, using the online questionnaire survey method, we conducted a data literacy survey among 30 graduates of earth science in UCAS. The questionnaire includes 17 questions regarding graduate students' own basic data management attitudes and needs toward data literacy of library instruction. By means of the statistical analysis of questionnaire survey, it shows that the graduates are facing complicated problems managing their research data, such as inefficient data retrieval, data screening and data evaluation, and strongly hope to receive data literacy education and training. So, the education contents around research data lifecycle are designed, which include three levels of learning model, i.e., basic learning, advanced learning and promotion learning. The implementation aim, scenes and evaluation are also provided for graduate students to improve their data literacy competencies. We hope it would give beneficial assistance for libraries as a reference to design of library data literacy education service.

Using Augmented Reality to Navigate Campus

Dr. Erin Colvin, Western Washington University, Computer Science Department, erin.colvin@wwu.edu 
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This paper describes a new approach to the standard campus tour using an augmented reality campus application. Due to the many choices of colleges students face, scheduling campus tours becoming less plausible due to scheduling conflicts. Most campuses offer no real portable option available for large campus directories found around campus and scheduling a guided tour by other campus employees is difficult and limiting. We propose a new augmented reality application that will allow students, visitors and staff to quickly and easily find buildings, identify which departments are in each building and faculty offices located in the buildings with the use of a smartphone.

Usage Patterns Of E-Journal Databases: A Transaction Log Analysis

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The study explores the evidence-based usage patterns of Higher Education Commission (HEC) e-journals’ usage at the University of Engineering & Technology (UET), Lahore in Pakistani scenario through SAWMILL and MS Excel. The poster contents share the most used and less used databases, by education level and gender. The results revealed that usage of scholarly publishers’ databases was more as compared to subject specific databases in the field of science, engineering and management. Moreover, female users frequently accessed e-journals from hostels as compared to boarding male users. Individuals identified through their user names were mostly from undergraduate programs as compared to graduate, post graduate students and faculty members. The results will help HEC in access management, budget allocation; and information professionals in designing digital literacy skills programs.

A New Model of Information Architecture Associated with Multimodality for Training High Performance Professionals

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The permanent training of professionals in any area of knowledge is a challenge to be achieved today. It is no different with high-performing professionals, they must master a wide range of disciplines ranging from human
relationships to the domain of enterprise risk management, and the multimodality applied in professional training can help the reach of the learner's information needs. In this work, the authors propose an Information Architecture model, associated with Multimodality, applied into informational spaces, towards to meet the information needs of high-performance professionals. This research shows a model that applies the concepts of information architecture, informational spaces and multimodality as a proposal to meet these professionals’ demands. This model captures some of the concepts of information architecture, informational spaces and multimodality as a proposal to meet these professionals’ demands. This model captures some of the concepts of information architecture, multimodality, relevance theory, gamification and user experience, applied in informational spaces for professional training to provide a significant help for learner’s information needs, for a better performance of daily activities.

Document Expansion for Short Text Conversation
Jianqiang Wang, Department of Library and Information Studies University at Buffalo, jw254@buffalo.edu

We report a study on improving the retrieval of comments made to previous posts that can potentially be relevant to new posts in the open social media domain. This retrieval task, known as an important component of “short text conversation,” is challenging due to various reasons, among which is the fact that both posts and comments are usually very short, thus not providing enough context for typical information retrieval systems to be very effective. We used a “document expansion” technique to enrich each comment by adding terms contained in the post that the comment previously responded to. Our comparative evaluation experiment shows that while helpful in some cases, the technique hurt in some other cases. Initial analyses are discussed and future directions are outlined.

Prototype User Interface for Studying the Effect Of Suggested Tags and Autocomplete on Tagging Behavior
Chris Holstrom, University of Washington, cholstro@uw.edu

We built a prototype social tagging UI that can enable and disable suggested tags and autocomplete features. We ran a pilot study to determine the suitability of the prototype for studying how these UI elements affected tagging behavior. We did not find a significant effect for these UI elements in the pilot study, but we did find prototype utility. This paper reports on the design of the prototype and makes suggestions for designing adaptable user interfaces for social tagging experiments.

Source Preferences in Everyday Life Information Seeking
Emily Anne Dill, Kimdy Le, and Joan Poulsen, Indiana University-Purdue University, eadill@iupuc.edu

People today have a wealth of options when it comes to the information sources used to make everyday decisions, including in the workplace. Many variables can contribute to which sources people choose and what the rationale is for choosing those sources. The present study used a questionnaire to identify which information sources respondents would use in specific situations and which qualities of those sources were most important to them. Respondents rated using family and friends as sources more often than consulting experts, print media, or electronic sources. We also tested for individual differences in which sources are preferred using the Big Five personality framework. For example, extraverts were more likely to indicate seeking out expert advice and using social media as a source. The results of this study help explain why individuals select different information sources and may be useful in understanding how information might best be shared within organizations.

Developing Data Systems For Evidence-Based Policy Making And Implementation: A Study Of The NS Student Attendance And Engagement Policy
Joyline Makani, Dalhousie University
George Frempong, Trevor Cuningham, and Michelle McPherson, Halifax, NS

Using one Education Centre, as a case study, this research explores the role of the Centre, as it works to support schools’ use of student attendance data within the Provincial Student Attendance and Engagement Policy contexts. Employing quantitative and qualitative methods, we examine current data systems, together with policies and practices concerning the collection and use of data to monitor and analyze attendance rates and make decisions contributing to the reduction in absenteeism and enhancement of students’ achievement. We explore attendance rates of the whole student population, but more specifically of minority student populations. We provide a framework for developing data systems for evidence-based policymaking and implementation in education. In providing a data systems perspective on the success of policies
in mainstream education, our research places discussion of minority students’ school attendance and engagement success within the margins of the larger macro-context of education and within current discourses relating to achievement of minority students.

The Analytics Edge: Use of Analytics in University Libraries
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Dr. Paul Mercieca, Lecturer - Information Management and Digital Publishing, School of Business IT & Logistics, Melbourne, Victoria, paul.mercieca@rmit.edu.au
Dr. Pradip K. Sarkar, Lecturer - Information Systems (U-Grad) Major Coordinator, School of Business Information Technology & Logistics, RMIT University, pradipta.sarkar@rmit.edu.au

The role of analytics is becoming universal and influencing the way information is used, analysed and applied. An organization can lead, decide, measure, manage and optimize performance to achieve greater efficiency by using analytical tools. This study will explore how libraries use data analytics for decision-making on various aspects of day-to-day library operations. The research question for this study is, how does analytics influence library decision making within a university environment? Two theories that are deemed relevant; Social Construction of Technology and Structuration Model of Technology are considered to explain the relationships between technology and the changes in librarianship practices. This study will use qualitative methods through multiple case studies. This research is drawing data from nine university libraries that are within the state of Victoria, Australia. The study will add to the existing body of knowledge on theoretical perspectives that provide us understanding on how the technology in the library affects practices of librarianship.

Characterization of a Semantic Relations Taxonomy in Biomedical Science
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Li Yang, School of Computer Science Southwest Petroleum University, China, yangli0027@163.com

Semantic relations have many applications in ontology construction and knowledge discovery but are rarely studied. This paper characterizes the Onto bee relations ontology in the biomedical science domain with comparisons to the Conflict and Mediation Event Observation (CAMEO) relations taxonomy and the UMLS semantic network relations. The findings can be used to understand and build domain-specific semantic relations taxonomies for codifying domain knowledge.

A Rosetta Stone For Provenance Models
Michael R. Gryk, Pratik Shrivastava, and Bertram Ludäscher, University of Illinois, gryk2@illinois.edu, pratiks2@illinois.edu, ludaesch@illinois.edu

With respect to scientific workflows, provenance refers to the documented lineage of how one dataset was produced from others. Provenance comes in at least two forms: retrospective provenance entails execution logs and provenance traces stored after a scientific workflow has been executed, and which describes the execution itself; prospective provenance refers to what a scientific workflow is designed to do, i.e., prospective provenance describes the predicted lineage one would expect to have after workflow execution. Not only are there various notions of provenance, there are also various models for tracking provenance. In this poster we compare and contrast four different provenance models: the prospective models of Common Workflow Language (CWL) and YesWorkflow, and the retrospective models of PROV and PREMIS. This comparison is made by documenting each of the various modelling constructs on the same workflow records – providing a Rosetta Stone for translating the provenance semantics between the various models.

Deep Learning For Predicting Scientific Growth Trends
Jiangen He, Department of Information Science, Drexel University, jh3328@drexel.edu

Predicting scientific growth over time is vital for research policy maker and grant-making agencies. As the primary vehicle of scholarly communication, scientific publications can characterize the dynamics of research topics that are potentially useful for predicting their growth trends. The dynamics include the semantic dynamics derived from text data and structural dynamics derived from link data. However, current methods rarely represented and harnessed the dynamics of research topics for the prediction. We represent the semantic and structural dynamics of research topics by embedding learning and propose a supervised
learning model based on Convolutional Neural Network that can capture discriminative features for predicting scientific growth. We train and test the model by using scientific publications from PubMed. Our experimental results show that both semantic and structural dynamics of a research topic has predictive features for its future growth.

Exploring The Relationship Between The Motivation And Behavioral Predisposition Of Self-Disclosure On Social Media Applications
Kijung Lee, School of Information Technology, University of Cincinnati, kijung.lee@uc.edu
Il-Yeol Song, College of Computing and Informatics, Drexel University, song@drexel.edu

In this study, social media users' self-disclosure is examined. Diverse motivations for voluntary self-disclosure and communicative characteristics of self-disclosure are investigated with regard to causality. Based on underling factor structures, we aim to examine links among different factors of motivation and self-disclosure. This study will contribute to understandings of why users share their private information on social media, how they cope with self-disclosure on this contemporary channel of communication, and how particular set of motivations is represented as a function of self-disclosing predisposition.

Accelerating Student Learning For Taxonomy Design Work: Rapid Onboarding Through Consultant-Internships
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Consultant-internships are effective for rapid onboarding of higher education students into knowledge management (KM) positions, supporting them in bridging concepts and theories from their coursework into real-world information design and analysis projects. Building on a recently completed case study, this research uses template analysis methodology to examine skills and competences relevant to taxonomy design work, and the soft skills that employers both demand and struggle to articulate. This dual combination of information professional abilities is highly sought after in collaborative and virtual KM professional settings.

Mining Linked Open Data for Semantic Predications To Inform Literature-Based Knowledge Discovery
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Recent research into Literature-Based Knowledge Discovery (LBKD) has been focusing on extracting and identifying the context of relationships between discovered concepts. That is, it seeks to determine a positive, negative, or even the specific nature of the relationship or influence between two concepts. For example, in the seminal paper introducing the practice and applicability of LBKD, Don Swanson was able to identify the connection between Dietary Fish Oil and Platelet Aggregation, and Platelet Aggregation and Reynaud’s Syndrome; but his initial technique was not able to identify that Dietary Fish Oil reduces platelet aggregation or that Platelet Aggregation is a symptom of Reynaud’s Syndrome. These contextual relationships are expressed in a form sometimes called semantic predications (subject-predicate-object) and are often in RDF triplestore standard format. My research proposes to source semantic predications from Linked Open Data to provide the context of the relationships between the entities extracted from scholarly literature.

Building Agency within the Agency and in The Community: Improving Web Access to Public Health Data in New York City
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Organization(s): 1: RTI International; 2: New York City Department of Health and Mental Hygiene; 3: Clinton Foundation
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In the interest of open government data, public health departments have been making public use data available via their departmental websites. The New York City (NYC) Department of Health and Mental Hygiene (DOHMH) has been making survey, surveillance, and administrative data available to the public since the early 2000s. In an era of increased public use of health data and increased demands on public health practitioners’ time, NYC DOHMH is investigating ways to make these data more widely attractive and usable and at the same time easier to maintain. To do this requires internal coordination, user-centered design, software development and testing, and plans for outreach and evaluation. One important enhancement in this
redesign is to improve the site’s dynamic data visualization capabilities using modern tools. This work catalogues NYC DOHMH’s redevelopment efforts as it better understands users and reimagines uses for its public use data.

**Fostering Scholarly Creativity: Modeling Functional Browsing Through The Lens Of Complexity**
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New Knowledge has long been the hallmark of scholarly work. This requires, of necessity, abandoning goal oriented deterministic notions of searching. Subject searches and known item searches and classification schemes are of little use for they are founded on what is known. One cannot walk into a library or log into a search engine and ask for “That new model we are trying to develop” or even for “Those documents that would catalyze ideas spinning about in our head into a unique solution of this intractable problem.”

**Towards An Understanding Of Data Ethics In Lis**
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With the rise of available data online, ethical use of this data has come into question. From corporate abuses of client information to questionable research methods in the academic sector, data misuse is clearly a social problem that requires both attention and understanding. In the library and information sciences (LIS), data ethics continues to be an area of increasing focus. However, while literature on data ethics in LIS exists, there is little agreement of the topic’s scope in the LIS fields. What is precisely meant when the phrase “data ethics” is used in LIS literature? What are the main themes within the scholarly literature on data ethics in LIS? The purpose of this visual presentation is to answer these questions and comprehensively delineate data ethics in the LIS fields based on the diverse body of literature on the topic.
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