ICSTI 2014 General Assembly  
October 18-19, 2014

TACC Workshop – Sunday, October 19th, 2014

Workshop Description
Enhancing Discoverability and Accessibility of Scientific and Technical Research Information and Data

The TACC workshop will explore the intersections in technical aspects and approaches to discoverability and improved accessibility to scientific and technical research information and data. Existing models representing national and global perspectives—and the intersections of these models—will be featured, with a focus on technology solutions for improving public access to research information and data. Mustapha Mokrane of ICSU’s World Data System will open the session with a presentation on connecting data and articles, which is key to stakeholders in the data publication landscape. Zhang Zhixiong, Chinese Academy of Sciences, will discuss their new service cloud for information analysis. Chuck Koscher, CrossRef, will detail CrossRef’s role as a mainstay of the scholarly communication ecosystem, and KISTI’s Ryong Lee will discuss scientific workflow in the age of big data.
Workshop Description

Enhancing Discoverability and Accessibility of Scientific and Technical Research Information and Data

Speakers

Mustapha Mokrane

Connecting Data and Articles: Building a One-for-all Solution

Description: This presentation will give an overview of the current activities of the Data Publishing-Services Working Group, a joint ICSU World Data System (ICSU-WDS) and Research Data Alliance (RDA) Working Group. Currently, there is no common framework for cross-referencing datasets and published articles, which creates barriers and inefficiencies for the interlinking and contextualization of journal articles and datasets. This is a problem because better connections between articles and data will improve the visibility, discoverability, and usability of scientific content and serve to accelerate science in the 21st century. In order to address this issue, the initial focus of this WG is to work towards a one-to-many cross-reference service for datasets and articles published in scientific journals, i.e. a service that minimally enables the identification of datasets associated with articles and vice versa. Additional features could include linking at different levels of granularity, metadata to describe the nature of the relationship, and relevant metadata for individual data sets and articles. Quality, both in terms of content and in terms of operational performance, will be a decisive factor for successful adoption of the cross-referencing service. Equally, inclusiveness and availability of the cross-linking service to all stakeholders in the data publication landscape is key.

Bio: Executive Director, ICSU World Data System International Programme Office. Since March 2012, Mustapha Mokrane is the first Executive Director of the ICSU-WDS International Programme Office. Previously, he worked between 2009 and 2012 at the International Council for Science (ICSU) as Science and Information Technology Officer in charge of the coordination of ICSU’s Scientific Data and Information activities and the liaison with its partners. He was also responsible for the information technology related activities within ICSU before 2003 and 2009. After moving from Algeria, his home country, he trained as molecular biologist in Marseille,
Towards Building a Service Cloud to Enhance Usability of Web Resources in Strategic Information Analysis

**Description:** [**Objective**] A new service cloud which supports on-demand self-service is built for monitoring strategic S&T information. [**Context**] Based on the existing automatic Web information monitoring system, the authors want to extend the system to support more information analysts. [**Methods**] With regard to the problems of scalability and flexibility of the existing system, the authors propose a idea of building a new service cloud, design and implement the service cloud with focusing on six aspects of the problems. [**Results**] The service cloud for strategic S&T information monitoring with the characters of scalability and flexibility is implemented and now is used by more users. [**Conclusions**] Implementation of the service cloud results in a on-demand self-service model for user. The new platform supports more information analysts and provides more effective service for information analysts.

**Keywords:** Strategic S&T Information Monitoring; Service Cloud Platform; On-demand Self-Service; Customized Service; Strategic Information Analysis

**Bio:** **Zhang Zhixiong**, PhD, Professor, Assistant Director of National Science Library, Chinese Academy of Sciences, and the head of Information System Department of the library. He is a standing committee member of IFLA (International Federation of Library Associations) Science and Technology Libraries Section. Now he is a member of Academic Committee for Digital Library Research and Development of the Library Society of China, and a professor of Graduate University of Chinese Academy of Sciences. He published more than 100 research papers on topic related to “Information
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Chuck Koscher

CrossRef - Not the New Kid on the Block Anymore

Description: Crossref's core services continue to grow and become further entrenched as a mainstay of the scholarly communications ecosystem. Experience shows that new services have a lengthy adoption period and require constant nurturing to become firmly established. Crossref continues to innovate by incubating new ideas and helping the community come together and shape them. All the while crossref maintains a sharp focus on our original reference linking mission and metadata distribution services.

In this talk I'll look back on the paths taken to get to where we are and what paths are being traveled today.

Bio: Chuck Koscher has been the Director of Technology for CrossRef since 2002. His primary responsibility has been the development and operation of CrossRef's core services and technical infrastructure. As a senior staff member he also contributes to the definition of CrossRef's mission and the expansion of its services such as the recent launch of FundRef (http://www.crossref.org/fundref). His role includes management of technical support and back-end business operations. Chuck and his team interface directly with publisher members in dealing with issues effected by new or evolving industry practices such as those involving non-journal content like books, standards and databases. Chuck has been active within the industry having served 9 years on the NISO board of directors, and a participant in initiatives such as the NISO/NFAIS Best Practices in Journal Publishing (http://nfais.org/files/file/Best_Practices_Final_Public.pdf) and NISO's Supplemental Material Working Group (http://www.niso.org/workrooms/supplemental). Prior to CrossRef Chuck has over 20 years in software engineering experience primarily in the aerospace industry.
Ryong Lee

Data-Centric Renovation of Scientific Workflow in the Age of Big Data

Description: In the age of big data, scientific data analytics work increasingly needs to involve with a huge volume of observation data, which should be manipulated, calculated and rendered, repeatedly and interactively, until scientists finally achieve the comprehensive understanding to the studied data and eventually reach successful scientific discoveries. In this talk, we introduce our on-going work to support oceanographers’ data exploration and analyses with high-resolution and long-term remote sensing data. In particular, two significant approaches for 1) enabling customised data products generation and 2) providing an integrated web-based visual analytics platform will be described with the details on the practice, emphasising on how we successfully renovate the scientific workflow of the scientists in a fast-responsive and interactive way.

Bio: Ryong Lee is currently a Senior Researcher at Korea Institute of Science and Technology Information (KISTI), Korea. He received the Ph.D. from Graduate School of Social Informatics, Kyoto University, Japan in 2003. He also worked for Samsung Advanced Institute of Technology as a Researcher from 2003 to 2008. His research interests include Geographic Information Systems, Social Media Analysis, and Scientific Data Analytics.

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