# IFLA Section Knowledge Management

The IFLA KM Section provides an international platform for professional communication and understanding of the significance of KM for libraries, following the developments in KM and promoting its practical implementation within the IFLA community

# From the Chair

Dear KM Section members,

The current is the third out of four issues of the KM newsletter under the two-year term (2017-2019) of the Knowledge Management Section officers: Julien Sempéré, Secretary, Jane K. Burpee, Information Coordinator and the undersigned as Chair.

The Standing Committee consists of 21 members plus four (4) corresponding members. The Section sponsors the Digital Humanities / Digital Scholarship SIG, whose Convener is Xuemao Wang. Fifty-one institutions have registered as members of the Section and seven (7) affiliate members.



*Attendees at the WLIC 2018 KM Open Session*

**First pillar of activities: the program for the IFLA WLIC 2018 in Kuala Lumpur**

As it is showcased in the KM Annual Report 2017-2018 which was submitted to IFLA and to the Division III Chair on November 14, 2018, the Section implemented the Action Plan 2017-2018 regarding the objectives it had placed. Thus, the main work of the Section was the organization of its program in terms of the 84th IFLA WLIC in Kuala Lumpur on 24-30 August 2018. The theme of the Congress was: **Transform Libraries, Transform Societies** and the Congress official website is https://2018.ifla.org. The program included the Satellite Conference, the Joint Open Session, the 5th Knowledge Café and the Session of the SIG DH/DS which is sponsored by our Section.

The Satellite Conference was organized on Thursday, August 23, 2018, 09.00-17.30 and was hosted in Xiamen University Malaysia (http://www.xmu.edu.my/) . The topic of the SM was: **Is Knowledge Management the New Library Science?** It is considered as one of the most successful SMs of the KM Section as regards the number of attendees (66 people from 10 countries). Eight (8) papers including the keynote speech stimulated a productive group discussion. The successful Satellite Conference was the result of the effective team-work of the organizing group: Prof. Long Xiao (Chair), Frank Cervone, Spencer Acadia, Elisabeth Freyre, Sylvia Piggott and Yue Wu as well as Dehong Xiao and his staff at the XMUM for the generous hosting and sponsoring the Conference. My appreciation is great to all of them. The papers of the Conference are already available at the



*Eva Semertzaki, Head of the Library, senior librarian at Bank of Greece*

The two-hour Joint Open Session was jointly organized by the Sections: Knowledge Management, Academic and Research Libraries and Rare Books & Special Collections. The JOS was held on Tuesday August 28, 2018. Its topic was: **Digital scholarship and knowledge management: building confidence in the digital world.** The Session was co-chaired by Steffen (KM Section) and Andreas Degkwitz (ARL Section). In addition to



*Committee members at dinner, Kuala Lumpur*

Steffen, the KM program team consisted of Agnes Hajdu-Barat and Liz Turner. During the Session, the two co-chairs coordinated the program very efficaciously and inspired discussion among the speakers and the audience as leaders of the orchestra. The session was the outcome of laborious work throughout the year. My sincere thanks go to the whole program team. The papers are available at the IFLA Library.



*Observers at the WLIC 2018 Section Business Meeting I*

I was astonished by the idea of the interactive conversation between the organizers and the audience, the first time I attended the Knowledge Café during the WLIC. The Knowledge Café running its 5th year has become a tradition for the Knowledge Management Section. It was co-organized by three (3) Sections: Knowledge Management (KM), Continuing Professional Development and Workplace Learning (CPDWL) and Library and Research Services for Parliaments (RSP). The topic was: **Knowledge Café 2018: continuous learning for successful info pros in the knowledge economy.** The co-ordinators: Monica Ertel (KM), Jane Dysart (CPDWL) and Karin Finer (LRSP) are experts in the organization. Twelve round tables staffed by their discussion leaders and rapporteurs focused on 12 topics related with the essential role information professionals play in managing the knowledge with their organization.



*Committee members at dinner, Kuala Lumpur*

The fourth activity of the KM Section during the WLIC 2018 in Kuala Lumpur was the SIG Digital Humanities / Digital Scholarship two-hour Session, organized and executed by its Convener, Xuemao Wang. The topic was: **The transforming digital scholarship model: from service provider to interdisciplinary partner.** Besides, the Convener, the program team included Spencer Acadia and Zheng (John) Wang from the SC members of the KM Section. During the program five speakers from respective continents featured lighting talks, under the creative moderation of the Xuemao.



*Attendees at the WLIC 2018 Section Business Meeting II. Photo by Emilio Sims*

It is estimated that between 120-150 people attended each session. The number of attendees to the abovementioned Session of our Section is the evidence that the programs are rewarding for the organizers. The attendance proves that the content, the quality of the papers and the organization of each session are prestigious to attract audience. The reports of the Satellite Conference and the Knowledge Café are available at the official website of our Section: http://www.ifla.org/km.

## Second pillar of activities of the KM Standing Committee

The KM Section worked to develop an Advocacy Paper aiming to be used to advocate the value of knowledge management in organizations. The title of the paper is: **IFLA KM, advocacy and the UN SDGs 2030** (https://www.ifla.org/publications/node/59399?og=85).

The paper is the wonderful result of a close cooperation between the members of the team: Sylvia Piggott, K. Jane Burpee and Mary Augusta Thomas. It is a professional work which advances knowledge management. It supplements the **IFLA KM advocacy paper 2017**. Both papers have been published on the official IFLA KM website.

Another aspect of the professional and *scientific* work of the Section is the preparation of the **special issue on knowledge management of the IFLA Journal**. The editorial team consists of Leda Bultrini, Wilda Newman, Mary Augusta Thomas and Jennifer Bartlett. The Call for Papers has been posted by IFLA Headquarters and is available at the Journal's website.



*Julien Sempéré, Project Manager Learning Center of Paris- Saclay University. Photo by Emilio Sims*

Julien Sempéré and Jennifer Bartlett collaborate to create a toolkit based on the IFLA Global Vision program. The goal is to prepare a poster and to create a brochure.

Regarding communication and publicity activities of the Section, the new Communication Plan 2018-2019 modelled off the training for Information



*K. Jane Burpee, Director of Libraries Centennial College, Toronto Canada*

Coordinators, has been published on the Section's website. As part of IFLA's communication process, new logos have been created for the Professional Units. The identity of the Section is *IFLA Section – Knowledge Management*.

Thanks to K. Jane Burpee, the website is continuously updated with all relevant documents and information. According to the "IFLA KM social media in numbers" K. Jane prepared as an appendix to the Annual Report 2017-2018, KM has a sufficient appearance in the social media (as of October 31, 2018): 1,228 followers on Facebook, 654 members at the KMDG-L@infoserv Listserv, 498 on LinkedIn and 293 on Twitter. Julien monitors the KMDG-L@infoserv Listserv.

During the IFLA WLIC 2018 in Kuala Lumpur the Section conducted its two business meetings on Friday, August 24, 2018 and on Sunday, August 26, 2018. During them the activities for the WLIC 2018 were discussed and the plan for the WLIC 2019 was decided. The chair organized the Section's dinner where SC members had the opportunity to enjoy the Malaysian food in a relaxing environment.

### Towards the IFLA WLIC 2019 in Athens

The KM Satellite Conference has been approved by IFLA. It will be hosted at the Ionion University (https://ionio.gr/en ) in Corfu island, Greece on Friday, August 23, 2019. The topic is**: Artificial intelligence and its impact on libraries and librarianship**. It will be jointly organized with the SIG DH/DS. The organizing team consists of the co-chairs: Sylvia Piggott and Xuemao Wang and the members: Spencer Acadia (webmaster), Liz Turner, Jane Dysart, Monica Ertel, Zheng (John) Wang and Long Xiao. The Call for Papers is almost ready to be announced when IFLA gives the green light.

On November 15, 2018, the KM Section submitted to IFLA the program proposal webforms for the following activities:

1. Knowledge Café 2019 as a joint session of three Sections: Knowledge Management, Continuing Professional Development and Workplace Learning and Library and Research Services for Parliaments, coordinated by Monica Ertel, Jane Dysart and Karen Finer accordingly.

2. Joint Open Session organized by the Knowledge Management and the Information Technology Sections. Frank Cervone is the co-chair on behalf of the KM Section. The topic is **Data mining and artificial intelligence: applications and directions to help manage knowledge in libraries and information agencies.**

Approval by IFLA is anticipated by December 17, 2018. The official conference website is continuously updated at the URL: http://2019.ifla.org.

More detailed information about the KM activities is available throughout the Newsletter.

As a conclusion, I would like to thank the SC members for their devotion and volunteer work for the growth of the Knowledge Management Section. They spend their valuable time to work on the activities of the Section. The outcome is always a success. I feel proud to be the chair of such an important team.

*Eva Semertzaki*
*Chair, IFLA KM Section*
*esemertzaki@gmail.com*

## Members of the 2018-2019 IFLA Section KM Standing Committee

**Chair**
Eva Semertzaki, Greece

**Secretary**
Julien Sempéré, France

**Information Coordinator**
K. Jane Burpee, Canada

**Members**
Spencer Acadia, USA
Jennifer Ann Bartlett, USA
Frank Cervone, USA
Monica Mooney Ertel, USA
Elisabeth Freyre, France
Ágnes Hajdu Barát, Hungary
Xiao Long, China
Magdy Nagi, Egypt
Sylvia Piggott, Canada
Nsiimoomwe Felix
Rwomuzaano, Uganda
Mary Augusta Thomas, USA
K. Elizabeth Turner, USA
Victor Allan Walusimbi,
Uganda
Zheng Wang, USA
Steffen Wawra, Germany
Liu Zheng, China
Zhong, Yongheng, China

**Convenor**
Xuemao Wang, USA

**Corresponding members**
Leda Bultrini, Italy
Jane Dysart, Canada
Stephen Lei, China
Wilda B Newman, USA

# Spotlight!

## Why should the KM community care about AI?

**By Elizabeth Turner, standing committee member and currently accepting submissions to the 2019 KM Satellite Meeting. Review the call for papers**

*Elizabeth Turner, Strategic Initiatives TPG Global LLC*

This year the Knowledge Management Section has carefully aligned its events and interests with the artificial intelligence community, exploring new trends and theory but with a special focus on practical application in our profession. Many of us were initially curious, why should the KM community care about AI? What do we stand to gain from diving deep within this subject?

The KM community and information professionals have always enjoyed a proximity to technology in the library and other organizations. Often the first to embrace change or adapt to new systems and solutions, it is within our best interests to keep informed and aware.

Second, automation practices and machine learning are quickly becoming part of the scope of organizational knowledge and should be included as items in a knowledge inventory. It is important that these methods are properly documented and socialized beyond IT so that they can be refreshed and maintained as practices evolve. As they intersect and cultivators of organizational knowledge this is well within our purview as professionals.

Additionally, we should be excited about possibilities for automatic classification and tagging, which can no doubt make our work easier. In areas where machine learning and AI are improving the search and discovery experience, we should pay close attention.

AI is already becoming pervasive in some industries (such as health, manufacturing, logistics, etc.) and in some ways is a co-component of what we would already consider KM practice. For example, the use of AI to understand health-related images, categorize them, and applying rules about what patterns indicate certain knowledge, i.e., to produce a diagnosis.

Some AI applications pose a challenge or quandary which should be considered from an ethical framework – for example, in health science we are seeing AI-rendered analysis which might remove a human from the equation in initial prognosis. Is this acceptable or something we should encourage? What is an appropriate balance between man and machine in high-level analysis and decision-making?

For these reasons and more, we encourage you to participate with us in an exploration of AI themes correlated to KM and librarianship. Join us at our programs and activities this year, including the KM Section Satellite Meeting, August 23, 2019, in Corfu or our Joint Open Session at the 2019 WLIC in Athens where we will host discussion and highlight AI research and practice in effect around the world today.

# WLIC 2018 KM Section Event Summaries

## 1 - Satellite Meeting

### *IS KNOWLEDGE MANAGEMENT THE NEW LIBRARY SCIENCE?*

**By Long Xiao, Chair of the Satellite Meeting**

The IFLA Knowledge Management Section organized its Satellite Meeting under the title *IS KNOWLEDGE MANAGEMENTTHE NEW LIBRARY SCIENCE?* at the Xiamen University Malaysia in Selangor, Malaysia, on Thursday, 23 August 2018.

Out of the 91 registrations, 66 attendees from 10 countries (Belgium, Canada, China, Estonia, France, Greece, India, Malaysia, New Zealand and USA ) participated in the Satellite Meeting. One keynote speaker (Embracing Knowledge Management as a New Perspective for Librarianship, presented by **Prof. Lihong Zhou,** from Wuhan University– School of Information Management, China) and 7 speakers (from India, China, USA, Malaysia, Iran, New Zealand) shared their ideas with the audience who participated very lively in the discussion. Additionally, a group discussion and one more speech took place before the closing remarks leaded the audience to the activities of the Knowledge Management Section during the WLIC 2018. Only one paper was not presented due to the absence of the speakers.



*Long Xiao, Professor and Deputy Director, Peking University Library and China Academic Social Sciences & Humanities Library, China*

The program chair was Long XIAO (Peking University Library and China Academic Social Sciences & Humanities Library). The members of the organizing group were: Frank Cervone (author contact, paper collection and evaluation, University of Illinois at Chicago), Spencer Acadia (webmaster and paper evaluation, University of Kentucky), Élisabeth Freyre (paper evaluation and moderator, Bibliothèque nationale de France), Sylvia Piggott (paper evaluation, moderator, McGill University), Yue Wu (chair secretary, webmaster of SM Chinese website, Peking University Library) and XMUM working group (Director Dehong Xiao +

librarians + IT support).

In terms of financial expenses, since Xiamen University sponsored this conference (sponsorship includes round-trip transportation, coffee break, lunch and conference venues, conference reception), the satellite meeting was balanced.



*Participants at the Satellite Meeting*



*Organizers and Speakers at the Satellite Meeting*

The organizers are grateful to Eva Semertzaki, Chair, IFLA KM Section for her guidance and leadership; to Xiamen University Malaysia for the generous sponsorship. The organizers are especially thankful to Dehong Xiao (Director of Xiamen University Malaysia Library) and his staff, for the excellent hosting of the conference as well as for his efforts to organize the amazing catering services (two coffee breaks and lunch buffet) and the shuttle bus transportation. Moreover, special thanks are given to Benjun Zhu for capturing the memories of the conference with his beautiful photos.

**The Final report of the event can be found with other event reports on the IFLA Section website: www.ifla.org/km/conferences**

# 2 - Open Session

## *DIGITAL SCHOLARSHIP AND KNOWLEDGE MANAGEMENT: BUILDING CONFIDENCE IN THE DIGITAL WORLD*

**By Steffen Wawra, co-chair of the Open Session**

*Sponsored by IFLA Sections*

- *Knowledge Management*
- *Academic and Research Libraries (ARL) and the*
- *Rare Books and Special Collections Section (RBSC)*

Guardians of trust – how libraries managing the Digital Age: Report about the Open Session

The session explored issues of trust in digital libraries, and the impact of those issues on digital scholarship. Knowledge management plays a critical role for libraries and organizations seeking to establish trustworthy digital repositories and to preserve reliable, verified content.



*Dr. Steffen Wawra, Director of Passau University Library, Germany*

We see an erosion of institutional trust in the digital age. While trust in many institutions has been declining for decades, but libraries have held their ground. How we ensure that libraries build trust in the digital age farther?

The IFLA Knowledge Management (KM) Section together with the Section of Academic and Research Libraries (ARL) and the Rare Books and Special Collections Section (RBSC) tried to find answers in this Open Session. Was that successful? Let`s see….

**Glenn Hong** (National Library Board of Singapore, Resource Discovery Department in the National Library Board of Singapore and responsible for the creation and maintenance of Singapore name authorities and taxonomies) spoke about "**Authoritative content to build trust in an age of information overload: The**

**National Library Board of Singapore's experience**": the National Library Board of Singapore (NLB) has created thousands of authorised local names over the past 10 years for indexing of its resources. These names of entities comprise people, organisations and places and include their variant forms such as aliases and previous or successive forms. The names also contain further information about the entity, such as the achievements of a person, latitude and longitude of a place or the founding year of an organisation. NLB ensures trustworthiness of the data through authoritative research and by cross-checking content gleaned from crowdsourced knowledge bases such as Wikipedia. Data authenticity and transparency are maintained through policy guidelines governing acceptable sources of data and provenance of the data sourced. These include data from Singapore's cultural institutions (Galleries, Libraries, Archives & Museums) which are aggregated to enable seamless searching on NLB's single-search platform, OneSearch.

**Xu Huifang ("Digital Scholarship Skills and Librarian Training Toward Digital Scholarship Services - Case Studies of National Science Library at Chinese Academy of Sciences")** from Chinese Academy of Sciences spokes about, that Digital Scholarship is becoming a new focus of research community and libraries, which can be interpreted from different perspectives: a new kind of digital technology and digital products as well as a new kind of scholarly communication model, a new teaching and learning style and scientific research paradigm, these constitute a complete digital scholarship ecosystem in the digital, networked and new media era. Academic library is incubator of digital scholarship and in turn the new engine of academic library. Digital scholarship is the reasonable expanding of libraries' new business and librarians' core competitiveness, and it empowers libraries' innovation and transformation. During August 2017, they investigated 15 academic libraries' digital scholarship services overseas and found that: Digital scholarship services programs were called as Digital Scholarship Commons/LAB, Center for Digital Scholarship and so on, which mainly include 7 types of issues: Physical Space, Tools, Research Data Services, Scholarly Communication and Digital Publishing, Digital Humanities, Digital Scholarship Seminars and Trainings, Digital Technology Support Services. Accordingly, librarians play roles of data analysis librarian, metadata librarian, online publishing designer, app engineer, it requires librarians to have diverse disciplinary backgrounds as well as a variety of digital skills above.

In China, digital scholarship services is promising but still emerging, digital scholarship skills training for librarians is necessary and significant.

Xu Huifang discussed the effective and feasible ways of cultivating skilled digital scholarship services librarians by recruitment, trainings, seminars and social network in China – for sharing this experience all over the libraries world….

**Takashi Koga**, from Tenri University, Japan, gave a passionate plea for "**Issue-oriented strategies or extensive infrastructure for digital scholarship: Reviewing the policy and projects of Japanese digital libraries and archives**" - he described reviews, topics, and possible solutions in relation to the policy, practices and projects surrounding Japanese digital archives/libraries. In this context, the concept of digital archives is preferred over digital

libraries, not only in Japan, but also worldwide. As a potential solution, he suggested applying open licenses to digital archives/libraries, which would allow users to create their own systems by using the contents, in addition to open systems such as the International Image Interoperability Framework (IIIF). Finally, he concluded that the policy, practices and projects of Japanese digital archives/libraries should develop extensive infrastructure for digital scholarship globally, rather than issue-oriented strategies for the survival of Japanese culture and intellectual property (IP).

**Esraa Elsayed Abdelaziz** from the Arab Academy for Science and Technology, Alexandria, Egypt spoke about the importance of the idea of Sematik Web in her presentation **"Proposal for Implementing Linked Open Data on Libraries Catalogue"**: the semantic web vision was created in 1999 by Tim Berners Lee. In 2001, the W3C declared the semantic web as the web of shared



*Waves from the WLIC 2018 Open Session co-chairs and speakers*

data. Hence, the realization of this vision requires that current data adopts the new technology in order to be part of the global shift of the current web technology. Library data often encodes some of the most important, unique and authoritative information in the world. Hence very essential that library data speaks the same language as the language spoken by the current web. Bibliographic data stored in traditional record formats has reached its limits of efficiency and utility. Semantic web technology enables users to move from viewing, and managing bibliographic data as records towards managing data as entities (works, people, places, etc.). Moreover, the library data should be treated as part of the web, in other words woven into the web and integrated into the sites and services that library users visit daily, and be part of the linked data vision of the Semantic Web.

This research aims to develop a new method for implementing the conversion of bibliographic data to semantic web. It will provide semantic methodologies to link cataloguing records to external Linked Data resources, as Wikipedia and DBpedia. The purpose is to extend the knowledge provided in the cataloguing information and map it to the largest online encyclopaedia the DBpedia. The proposed attempt succeeded in connecting the British Library with the DBpedia through the SPARQL "SPARQL Protocol and RDF Query Language" queries and succeeded in facilitating the searching, retrieving and connecting data all over the web.

**Zheng Wang** (Associate University Librarian, Digital Access, Resources, and Information Technology at University Libraries of Notre Dame, United States) and **Christina M. Leblang (**University of Notre Dame, Center for Theology, Science and Human Flourishing) described challenges and opportunities for Academic Libraries in the field of "**Topic or Metadata Modeling for Cross-Disciplinary Scholarship":** they have been exploring automatic classification of texts via topic modeling and user-generated metadata to support cross-disciplinary scholarship. This effort originated in 2015 from a collaboration between the libraries and the Center for Civil and Human Rights to create an online comparative research tool to explore documents of Catholic social teaching and international human rights law. The library built the infrastructure for indexing, retrieving, and visualizing records while the researchers provided the controlled vocabulary and initial classification scheme. The project team is currently reconciling issues of transparency by providing detailed documentation on the application of the controlled vocabulary and in the process of implementing features for crowdsourcing data to enhance classification. They gave an overview about of their topic modeling endeavor, and provide insights on considerations of the scalability and sustainability for academic libraries to support cross-disciplinary scholarship.

Finally **Duncan Wambogo Omole** (The World Bank Group, Team Leader, Knowledge and Information, Information and Technology Solutions, United States) gave a deep insight into the World Bank's Access to Information (AI) and Open Access (OA) programs **("Trust in International Digital Content: Open Access and Access to Information at the World Bank")**: Knowledge Management (KM) is an indispensable tool used by organizations to ensure digital repositories are credible, reliable, accessible and useful. The future can be made even more open and even more diverse based on genuine verified and dependable content which can be shared credibly as widely as possible for impact. One global organization has been progressively doing just that for many years. aim to share the Bank's information to the widest possible audiences in support of development around the world. While the policy on Access to Information is aimed at disclosing the Bank's documents, reports and institutional information including its financing in as timely a manner as possible, the Bank's policy on Open Access addresses itself to scholarly publishing at the institution including those it funds and published externally. Together these two policies form the Bank's Open Agenda. This efforts transparency can only be considered real and credible if anchored on trust of the information sources, trust of the processes used to acquire and process them and trust in the delivery channels. He explored "trust of digital content" at the World Bank Group and how this trust can be used in pursuit of achieving the United Nations (UN) 2030 Agenda for Sustainable Development Goals (SDGs) and opportunity for all.

# 3 - Knowledge Café

**Compiled by Monica Ertel**

*Sponsored by*

- *Continuous Professional Development and Workplace Learning*
- *Knowledge Management*
- *Library and Research Services for Parliaments*

Continuous learning is key in preparing and building the skills necessary to succeed. The Knowledge Café at the 2018 IFLA World Conference focused on the essential role information professionals play in managing the knowledge within their organizations in order to best support customers, whether they are public, university, parliamentary, governmental, or corporate libraries. This was an interactive session using round tables and facilitators with a number of different topics such as coaching and mentoring, change management and staff continuous learning. The report summarize the various discussions.



*Monica Mooney Ertel, Director, Global Information Services, Bain & Company, United States*

**Table topics:**

- *Stimulating collaboration and social interaction: best uses of library spaces*
- *Librarians as mentors and coaches*
- *Staff continuous learning: practices and techniques*
- *Competencies for future success: libraries and librarians*
- *Building leadership skills for individuals and teams*
- *Transforming the library with creativity*
- *Learning from others: best practices for peer learning*
- *Learning within the constraints of limited staffing and budgets*

- *New tools for teaching and learning*
- *Effective and innovative ways to measure the impact of library services*
- *Building partnerships to expand library skills and services*
- *Change management techniques for staff: communication and leadership*

**The Final report summarizing the table topics and discussion notes can be found with other event reports on the IFLA Section website: www.ifla.org/km/conferences.**

# 4 - Digital Humanities / Digital Scholarship SIG Session 078

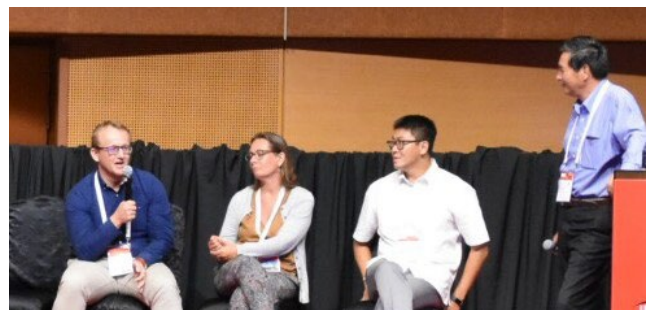**By Xuemao Wang**, **DH/DS SIG Convener and Session Moderator**

*The Transforming Digital Scholarship Model – From Service Provider to Interdisciplinary Partner*



*Xuemao Wang, Dean and University Librarian of the University of Cincinnati Libraries, USA*

The DH/DS SIG formed a conference program planning committee from volunteers from KM section and beyond. Participants included:

- Xuemao Wang- Dean and University Librarian, University of Cincinnati
- Jenny Mackiewicz- Coordinator of Special Projects and Programs, University of Cincinnati
- Spencer Acadia- Assistant Professor and Librarian in Social Sciences, University of Kentucky
- Tomáš Foltýn- Collections Management Division Director, National Library of the Czech Republic
- Edwin Qobose- Acting Director, University of Botswana Library
- Sophie Vandepontseele- Directrice Collections contemporaines, Bibliothèque royale de Belgique
- Zheng (John) Wang- Associate University Librarian for Digital access, Resources and Information Technology, University of Notre Dame



*DH/DS SIG WLIC 2018 Session panel speakers*

The DH/DS SIG hosted a two-hour program at the IFLA General Conference in Kuala Lumpur, "The Transforming Digital Scholarship Model- From Service Provider to Interdisciplinary Partner." The 2-hour program featured lighting talks from speakers from five continents, with the intent to capture emerging global development trends of DH/DS practices in library and information services settings, with particular attention given to new trends that elevate a library-based DH/DS center from a service unit to be recognized as an academic and research unit in a higher education environment.

The session was publicized via the DH/DS IFLA website, the KM website and newsletter, the IFLA_L mailing list, and social media. Between 120-150 people attended the session. Session speakers included:

- Zhu Benjun- Peking University Library, China
- Theo Bothma- University of Pretoria, South Africa
- James Lee- Digital Scholarship Center, University of Cincinnati, United States
- Martin Lhotak- Library of the Czech Academy of Sciences, Czech Republic
- David Ramírez-Ordóñez- Conector Foundation, Colombia
- Xuemao Wang- University of Cincinnati Libraries, United States

This year, the DH/DS SIG will be joining the Knowledge Management section for their satellite meeting in Corfu, with the theme *Artificial intelligence (AI) and its impact on libraries and librarianship*. We will also be co-sponsoring sessions with the News and Media Section and Information Literacy Section. At the upcoming general conference in Athens, Greece, SIG convener Xuemao Wang is planning to use the two-hour program time to organize a round table discussion which will focus primarily on the future of the DH/DS SIG, whose three-year probationary period ends next year. More information about the conference round table program will be forthcoming, and shared via IFLA-L.

# SPECIAL REPORT

## Summary of the AI Conference in Oslo – Fantastic Futures

### By Vincent Thébault

The conference was held in Oslo on the 05th of December about Artificial Intelligence (AI) and on the 06th of December about the International Image Interoperability Framework (IIIF).

### Artificial Intelligence

Both introductions from *Trine Skei Grande*, Minister of Culture in Norway and *Aslak Sira Myrhe*, librarian from the National Library of Norway (NLN) who organized the event, insisted on the necessity to integrate an ethical, philosophical, moral and political dimension to the AI field.

While introducing the Norwegian AI system called *Nancy*, the conference focused on presenting the practical part of AI in all its aspects both technical and ethical.

*George Zarkadakis* described AI with three words: **Work**, because AI means hard work performed by intelligent machines replacing humans in a more diverse and range of tasks throughout the society. Should we welcome this change? What purpose should automation serve? What (moral) values should we inject into them? **Love**, the love we can feel towards machine is new and can feel weird at first sight but is the very basics of human nature: the ability to project a human mind towards an object or an animal. Robots should always declare they are robots and not pretend to be humans. **Polis**, the idea of a republic ruled by selfless expert rulers failed the last ages because of human flaws. But what if IA could provide expert beings without any moral flaws? Will it lead to more democracy or another totalitarianism? Since AI is an

ideology, it serves a purpose and we should ask ourselves the question about how it could serve democracy.

*Meredith Broussard* is making journalism talk with AI. She presented how Data Journalism is designed to use data to tell stories. One of her goal is to make people understand AI without Mathematics or Computer science skills. In fact, the quality of the data is a determinant to the results and predictions AI with Machine Learning do. Solving human problems using technology can be translated into two concepts: Automation fantasy as in AI taking all the decisions for someone; AI assistant as in AI providing advices and built-in services for someone who uses this knowledge to take decision. She also warned the audience about technochauvinism, this belief puts technology and math above people themselves. It produces positive asymmetry upon AI and hides its dangerous potential or the consequences for end-users. In the end, AI can be seen as a tool that must be used for the right task and nothing more, which must be integrated in a human-in-the-loop process.

*Ruggero Gramatica*, CEO of Yewno, reoriented the discussion over knowledge and its visual representation. Knowledge is a subjective representation that is built over information and of course its core: data. It empowers people to take decisions whereas it is a living abstract inference: it shifts, it evolves, and it disappears over time and depending on the amount of information gathered. He defined the notion of concept as an abstraction of an idea, or thought or an expression, varying over time and can be related to different topics and definitions. It is the keyword of his definition of an AI framework: the system must read the data sources and understand their meaning, identify these data into concepts and map them in a way that work like a neuronal system i.e. an evolving semantic disambiguated space. Yewno's products are based on knowledge graphs and their utilization for libraries in tools that allow users to discover these graphs in a document-oriented environment such as deep full text searching, automated state-of-the-art building, context presentation and better understanding of links between documents and ideas.

All *Barbara McGillivray*, Alan Turing Institute, argument was to demonstrate how AI is able to help scholars to perform quantitative research through different timelines. She demonstrated how powerful AI systems could be in their ability to dig the various meanings of a specific word or a concept in ancient languages over time. The algorithm was analyzing the use of this specific word in a huge set of documents over different period of times and retracing how this word evolved in terms of meaning. She also reaffirmed that human was a non-negligible part of the process by introducing a notion of genre in the results of the study which changed the prediction of AI from acceptable to outstanding.

Norway pursued a vivid policy of digitalization over the last decades and is about to reach close to 100% of digitalized materials such as books, journals, photos, radio shows, TV shows, etc. But the question has never been about digitalization for itself but in what purpose can this huge amount of data be used for? *Svein Arne Brygfeld*, head of *Nancy* project at the NLN, offered us a demonstration of *Nancy*, the AI they developed with the collaboration of Google with the Library. The idea was to provide a Machine Learning system with the digitalized data in order to build a single interface that could offer services and knowledge to their users. He insisted in the fact that institutions have to change their way of seeing software from an exact results producing tool to an approximate prediction system. During months, they ran the algorithms over their data and looped back after human testing over the results to make *Nancy* learn and fix its bias. They trained on automated Dewey classification (6-digits) for their documents and ended with a success rate of 70 to 100% depending on the corpus. Their second test case with *Nancy* was to take all the data they had on a monthly revolute period of time and ask Nancy to search through them to find persons, places, organizations, time, relation, and subject classifications. It generated a map from the data with hits on the different locations and data that could identify this person at this location during this specific period of time with contextual information and access to exact resource that made *Nancy* to build this hit.

*Christian Boesgaard*, DBC, developed the idea of Machine Learning to improve recommendation in a Library system. He put the emphasis on the feedback data – ratings, likes, loans, views - as an alternate way of building recommendations. Their algorithm creates a proximity vector between the documents than satisfy a recommendation request.

*Krish Seetah*, researcher at Stanford University (STU), explained how AI could make data sets from very different subjects work together in a research perspective. His goal was to link the data from each silo he had (climatic, environmental, anthropologic, historical, social) by identifying links between silos then links between links and so on to interconnect data in order to analyze Malaria disease presence on Earth through ages. It resulted in a predictive power from the data to understand the actions that can be taken to decrease the risks of an epidemic based on the data between two epidemic phases.

*Jennifer Sampson*, Equinor, described how their AI system used historical data over industrial incidents that really happened to identify similar situations in the current maintenance workflow and provide advices and warnings. They iterated though a process of data alinement between structured and unstructured data, the introduction to an annotation tool to improve incidents



*Vincent Thébault, Learning Center project / Digital services officer. Université Paris-Saclay*

understanding in a whole way: people, maintenance actions, machinery statuses and post-incident causes understanding. Then, they used a Machine Learning process to run these data and find out concrete advices depending on the situation that could have avoided the incident.

Catherine Coleman, STU Libraries, proposed a vision of the Library where they are considered as the masters of context and where librarians are able to bring back knowledge to all text and images present in the collections. She warned about how the absence of data is mediating the perception by the machines of the context and then the use of these data.

As a conclusion, *Michael Keller*, STU, asserted that Libraries are the perfect playground for AI and librarians will participate as Data and Knowledge leaders for every community. He insisted in the need of expanding the AI – Library community worldwide to integrate and witness more and more experiments that lead to better understanding because understanding of human records allow us to crack the code of complex data to answer more complex problems.

## IIIF

IIIF, or International Image Interoperability Framework, is a mature technology that is not a tech object anymore, now ready-to-use, expanding, worldwide, and served by a strong community.

"Future is not a thing that happens, it is something that is made", *Tom Cramer*, STU Library, explained. It deals with a set of techniques, methodologies and software that can be implemented in order to secure stored images, provide interoperability for all the systems within the institution.

IIIF makes it possible for a huge range of services on top of it: image comparison in HD resolution, deep zooming, annotations, image comparisons (zooming, rotating, and manipulating several images set), text searching inside the image, and crowdsourcing. It also open image data warehouses and allow students, researchers and all to dive into deep images banks - books, manuscripts, scrolls, painting - without the need to move from a country to another. It also provides a way to expose and save metadata for these images.

A variety of IIIF compatible software already exist in the open-source world such as Universal Viewer or Mirador. They provide the very services mentioned above while exploiting the Application Programming Interfaces (API) described in III Framework as the core of the initiative.

To *Sara Brumfield*, Brumfield lab, "The future is already here – it is just not evenly distributed". The way she described IIIF possibilities illustrates how this framework is part of the digital revolution libraries are dealing with. Since it allows every community of users to compare resources from different libraries at once, across countries and frontiers, IIIF defines a common way of resolving the same problems, the same needs within a controlled and reviewed technological stack. But by addressing these problems within the same universe, libraries of the world unite in an international standard they all profit.
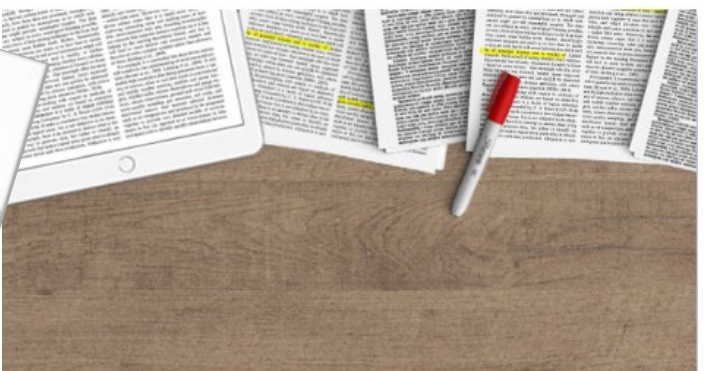
*Petr Pridal* presented a passion he developed during his thesis then matured in his company, Klokan Technologies. He has designed software on top of IIIF that create maps by merging actual maps with historical maps to create geographical time-travelling experience. The user can visualize itself in the streets of Venice, precisely geo-located by his smartphone GPS, but within the Renaissance context in terms of graphical design or names at the time for example. Here IIIF is exploited both in the area of metadata about an image (latitude, longitude for instance) and the image itself reworked to fit, via a user input, perfectly the maps of today.

*Sonia Wronkowska* concluded these IIIF conferences by detailing her experience of IIIF in the construction of a digital national library such as the National Library of Poland. In the end, IIIF must be seen as a Zero Waste initiative where the resources are stored once but used many times whether if it is via their unique interface where every users can search through the millions of items they have in store or by initiating a innovative way of creating new typography by extracting graphical letters from old books and assemble them in a correlated panel.

## References

Fantastic Futures official website: https://www.nb.no/hva-skjer/ai-conference/

Dealing with images workshop program about IIIF: https://mattmcgrattan.github.io/Oslo

## Program

### Day One

- Introduction from the Culture Minister of Norway
- Introduction by Aslak Sira Myrhe (National Library of Norway librarian)
- Introduction by Nancy Pearl
- Work.Love.Polis by George Zarkadakis
- How AI misunderstands the world by Meredith Broussard
- Cognitive semantics and information: a new frontier for knowledge economy by Ruggero Gramatica (Yewno)
- Computing the classics by Barbara McGillivray (Alan Turing Institute)
- Machine learning and inspiration by Christian Boesgaard (lead data scientist at DBC)
- Archives, AI and Epidemics by Krish Seetah (Stanford University)
- The language riddle, AI and safety offshore by Jennifer Sampson (Data Scientist - Equinor)
- Library-inspired Artificial Intelligence by Catherine Nicole Coleman (Stanford Libraries – Digital Research Architect)
- Discussion with Michael Keller (director of STU) – Thoughts of the day

### Day Two

- How libraries can change the human interaction with digital services through cooperation and development of technology by Tom Cramer (Stanford University Library)
- Libraries: Past, Present and Future via IIIF by Sara Brumfield (software engineer-Brumfield lab)
- The magic of online maps by Petr Pridal (Klokan Technologies)
- How to utilize IIIF when building a national library by Sonia Wronkowska (National Library of Poland)

Call for Papers: IFLA Journal special issue on Knowledge Management. Submissions due by 19 April 2019.

# Call for Papers: IFLA Journal special issue on Knowledge Management



*Leda Bultrini, Operating Systems and Knowledge Management, Director, ARPA Lazio (Regional Agency for Environment Prot.)*

IFLA Journal and IFLA's Knowledge Management Section are pleased to announce a call for papers for a special issue focused on Knowledge Management (KM).

Managing institutional knowledge is increasingly recognized as a crucial element in improving competitiveness, innovation, and creativity. Libraries seeking to be resilient organizations in a quickly and unpredictably changing world know that KM is essential to their internal management strategy, and librarians in particular have the necessary skills and competencies to put it into action. Libraries contribute to their parent institutions by helping them to develop their own approach to KM, providing them with methods and tools to address their own development, and transform themselves in a transforming world.

As the number of knowledge workers increases in all sectors, practicing effective KM requires attention to human resources, a mature use of technologies and the ability to deploy effective processes.

*IFLA Journal* invites papers for a special issue focused on Knowledge Management across all continents. We intend to gather the latest theories, research, and practices from libraries and information professions to further the discourse on the current state of Knowledge Management in libraries and other information-rich institutions. We are particularly interested in articles employing quantitative or qualitative research methods in their approach to knowledge management.

**Guest Editors:**

**Leda Bultrini**, Operating Systems and Knowledge Management, Director, ARPA Lazio (Regional Agency for Environment Prot.) Italy

**Wilda Newman**, Information Resources Manager, Knowledge Resources Associates, LLC, United States

**Mary Augusta Thomas**, Deputy Director, Smithsonian Libraries United States

**Jennifer A. Bartlett**, Interim Associate Dean, Teaching, Learning, & Research Division, University of Kentucky Libraries United States

## Topics of interest include, but are not limited to:

- The role of Knowledge Management and knowledge managers in organizational change management and fostering innovation
- Connections between KM, open access, intellectual property, privacy, and institutional integrity
- The implementation and use of social media, blogs, intranet, and other platforms to share knowledge, improve collaboration and team spirit, and involve colleagues and communities
- Methods of teaching, coaching and mentoring knowledge workers, including job-shadowing programs
- KM in academic curricula, and continuing training for knowledge managers
- KM approaches in multicultural environments; diverse KM approaches in different socio-cultural environments
- KM and digital scholarship: a possible alliance to face new challenges (new forms of publications, content curation, big data, research data services…)
- Success and failures in KM

**Submission Deadline:**

*Articles for the special issue should be submitted to IFLA Journal for peer review before **19 April 2019.***

**How to Submit a Manuscript**

IFLA Journal is hosted on ScholarOne™ Manuscripts, a web based online submission and peer review system SAGE Track. Please read the Manuscript Submission guidelines, and then simply visit the IFLA Journal Manuscript submission webpage to login and submit your article online.

**IMPORTANT**: Please check whether you already have an account in the system before trying to create a new one. If you have reviewed or authored for the journal in the past year it is possible that you will have had an account created.
All papers must be submitted via the online system. If you would like to discuss your paper prior to submission, please contact:
**Steven Witt**, Editor of IFLA Journal: swwitt@illinois.edu or
Leda Bultrini,Guest Editor : leda.bultrini@gmail.com

For instructions on formatting your manuscript please consult the submission guidelines.

# Satellite Meeting: Call for Papers

## ARTIFICIAL INTELLIGENCE AND ITS IMPACT ON LIBRARIES

Date: August 22, 2019

Venue: Ionion University, 72, Ioannou Theotoki Str., 49100 Corfu, Greece (https://ionio.gr/en)

Organizers: IFLA Knowledge Management Section and Digital Humanities / Digital Scholarship SIG

**Primary contacts:** Program chair: Sylvia Piggott (seapiggott@gmail.com); co-chair: Xuemao Wang, SIG Convenor (x.wang@uc.edu)

**Satellite Meeting focus**

Artificial Intelligence (AI) generally envisions more technology and fewer people. Artificial Intelligence creates new possibilities for humans to leverage machines to complete complex tasks, sometimes tedious, repetitive, and even dangerous, with much-improved accuracy and speed. Its potential in advancing societies and in benefiting lives seems only subject to the limits of the imagination but at the same time AI introduces ethical and socioeconomic concerns. It is reasonable to predict that AI will mainstream in a number of critical areas including the library field in the near future; therefore, libraries must pay attention to the impact of AI.

*Sylvia Piggott, President, President, Black Academic Scholarship Fund(BASF), Director, McGill University Alumnae Board(MWAA), Standing Committee, Knowledge Management, IFLA, SLA - Past President 1995-96, Fellow, John Cotton Dana Award www.Basfund.ca*

The satellite conference will be dedicated to presenting and discussing examples showcasing how AI implementations in libraries are being used successfully to improve and to manage library processes. In addition, it is expected to bring together information professionals from a wide variety of library and information services to share knowledge and showcase AI research, including its current implementations and future possibilities.

Authors are solicited to contribute to the conference by submitting papers that illustrate research projects and results. Furthermore, the papers in this session should provide a series of vibrant examples of the broad concept of AI as it applies to information services, including contributions to librarianship in this evolving field. The ultimate objective is to build a body of literature on this topic that will help to guide other librarians with these issues.

All presentations should provide participants with a clear description of the AI system and its impact on the library service and its client, including how the measure of its success was assessed. We therefore prefer submissions that demonstrate real experiences/case studies – papers that tell a story. Please structure your paper in this way.

The Professional Committee of IFLA has approved the Knowledge Management Section's proposal for the Knowledge Cafe 2019.

The second proposal of our Section concerns the joint open session under the title: "Data mining and artificial intelligence: application and direction to help manage knowledge in libraries and information agencies".

For submission details and other news about KM Section activities at WLIC 2019 see: www.ifla.org/km/conferences

**World Library and Information Congress**
**85th IFLA General Conference and Assembly**
**24–30 August 2019,** Athens, Greece

**Early Registration deadline:**
15 May 2019, 24:00 CET

**Standard Registration deadline:**
20 August 2019, 18:00 CET

**Onsite Registration:**
from 21 August 2019

# We can't wait to see you there!

Images Below:
- Corfu Town (Corfu, Greece): the old fortress. (Source: Marc Ryckaert (MJJR) Wiki Commons)
- Athens – Café at the New Acropolis Museum
- *Athens – Stoa of Attalos*