



开放科学·开放创新
OPEN SCIENCE OPEN INNOVATION



2019 竞争情报上海论坛暨国际科学技术信息理事会年会
Shanghai Competitive Intelligence Forum 2019 (SCIF) & International Council
for Scientific and Technical Information (ICSTI) Annual Conference
2019.9.23-9.26 中国,上海 · Shanghai, China

ICSTI's 2019 Annual Conference will take place in Shanghai on 23-26 September. Themed 'Open Science and Open Innovation', our conference is part of a bigger event co-organised with the Shanghai Competitive Intelligence Forum (SCIF) and the Institute of Scientific and Technical Information of China (ISTIC) and hosted by Shanghai Library/Institute of Scientific & Technical Information of Shanghai (ISTIS). In this framework, the conference will also present ICSTI's ITOC and TACC workshops.

ITOC and TACC Workshops Final Programs

ITOC Workshop

26th September 2019 – 9:00

Chair: Margret Plank, TIB

Open Science - Latest Developments and Initiatives

The ITOC Workshop 2019 provides a unique forum for researchers, librarians, practitioners, infrastructure providers, policy makers, and other stakeholders to discuss the latest and future developments in Open Science. Open Science is an umbrella term that involves various movements and initiatives aiming to remove the barriers for sharing any kind of research output, resources, methods or tools, at any stage of the research life cycle. Open Science gains in importance in the scholarly community by developments like the Open Science Cloud (EOSC) and the FAIR data movement. However, establishing open science practices in daily scientific work is still a great challenge. The workshop will cover a broad overview on recent developments and initiatives in Open Science around the globe including Scholarly Communication of the future, Open Data & Open Science Training, Open Scholarship in Practice and New Formats of Participation in Science.

Confirmed speakers include:



Yasushi OGASAKA - JST

*Yasushi Ogasaka is Director of Department for Information Infrastructure at **Japan Science and Technology Agency (JST)**, where he is responsible for information services such as open-access journal platform (J-STAGE) and researcher database (researchmap). He is also responsible for development and implementation of policy on open access to funded research article and data. Yasushi Ogasaka joined JST in 2009. He has been working on the management of several public funding programs such as Strategic Basic Sciences Programs (ERATO, CREST, PRESTO), Technology Transfer Program and Special Program for Regenerative medicine using iPS cells, before he was appointed to the present position in 2015. Before joining JST, Yasushi Ogasaka was Assistant Professor of Nagoya University, Japan. His research area was high energy astrophysics, in particular investigation of the origin of the Cosmic X-ray Background Radiation and development of X-ray telescopes. Prior to his academic career, he graduated from Gakushuin University, Tokyo Japan and received PhD. in physics in 1996.*

J-STAGE: <https://www.jstage.jst.go.jp/browse>

researchmap: <http://researchmap.jp/>

JST Open Science Policy: <http://www.jst.go.jp/EN/about/openscience/index.html>

'Footsteps and landscape of Open Science policy implementation in Japan'

The concepts and benefits of open science have been widely recognized today. However, the additional efforts by the stakeholders including funding agencies are necessary to make open science more practical.

The open science promotion in Japan was triggered by a report published in 2014 by an expert group established by the Council for Science, Technology and Innovation (CSTI) of the Cabinet Office, titled "Promoting Open Science in Japan -Opening up a new era for the advancement of Science." Since then, the descriptions about the promotion of open science were reflected or added onto various policy documents, such as the Basic Science and Technology Plan, so-called "basic plan" and "Integrated Innovation Strategy". As a result, national funding agencies including JST have successively implemented policies, which mandate or recommend Open Access to funded articles, creating Data Management Plans, and sharing of research data.

In this talk, the footsteps and landscape of Open Science policy implementation at both governmental and funder level are presented.



Maximiliane OKONNEK - ETH-Library

Maximiliane Okonnek is a dedicated innovation and technology strategist. She has strong expertise in project development, digital strategy and coordinating innovation and cooperation projects. She studied Japanese

Studies and Management & Economics at University of Zurich and Doshisha University, Kyoto and graduated with a Master of Arts. Moreover, she acquired a MSc in Digital Media Management from Steinbeis School of Management and Innovation, Berlin.

*After she had gained first work experience in the automotive and ICT sector, she joined ETH Library in 2010. There she held various positions related to digital knowledge environments, digital product strategy and innovation management. In April 2018 she embarked on a new journey to build **ETH Library Lab**, an interdisciplinary initiative striving to advance information infrastructure and services for science, research and education. Besides that she finished further education in “Leading digital transformation and innovation” at Hasso-Plattner-Institut Potsdam and Stanford University.*

‘Science Communication in transition: towards Open Science’

The term Open Science is a collective term for a bright mixture of colourful ideas on the free availability of knowledge, science and its results, even the complete transparency of the process of gaining knowledge and thus of the research process itself falls under this term.

In the sense of a biological interpretation, Open Science appears today as the climax of a development that will then be completed. In doing so, we overlook the fact that the course and development of science never has to be seen as completed itself, not even science communication. Thus, science communication and the idea of Open Science is also a process of permanent change and cannot be directed towards an ultimate goal. While open science is being promoted on a formal level in the EU and the European Countries, the development of open science is an ongoing transition process within scholarly communication.

The talk explains the development of science communication from its beginnings to the present day and draws the line of an opening of the associated processes and procedures, the changing nature of scholarly communication towards living, and consequently, open documents. It gives also an overview on both development strands and addresses EU recommendations towards open science and concrete developments and implementation examples in Switzerland. **(Authors: Ball/Okonnek)**



Laura HANSCOM – MIT Libraries

***Laura Hanscom** is a Scholarly Communications and Licensing librarian at the **Massachusetts Institute of Technology (MIT)**. Some of her responsibilities include maintaining the systems that the Libraries use to implement the MIT Faculty Open Access Policy, providing analysis and outreach related to scholarly communications issues, supporting the MIT community with funder requirements, and negotiating licenses.*

‘An MIT perspective on the future of scholarly communications, libraries, and Open Access’

At MIT we are committed to generating, disseminating, and preserving knowledge, and working with others to bring this knowledge to bear on the world’s great challenges – this is part of our mission. As the breadth and shape of scholarly communications has been changing rapidly, MIT Provost Martin A. Schmidt called for an Ad Hoc Task Force to work with the MIT community and other experts to examine how the Libraries at MIT will need to evolve in order to fully support MIT’s endeavors in the future. This talk will discuss some of the recommendations from the [Institute-wide Task Force on the Future of Libraries Report](#) that was published in October 2016 as a result of this investigation, give examples of how those recommendations are being implemented, and the role openness, service, and innovation play in shaping MIT’s vision of the future of scholarly communications.



Edward LIM Junhao & Vicky STEEVES – New York University

*Edward Lim is the Reference and Research Services Librarian for Business at **New York University, Shanghai** – codeword for liaison librarian, serving the business faculty and students. He has been a business librarian since 2011 and has worked as a user experience librarian, as well as in library promotion, and access services at Nanyang Technological University. He is originally from Singapore and moved to Shanghai, China in 2017. Edward initiated the first Library Carpentry workshop in Singapore, and looking to expand its pool of instructors, and reach new communities in Asia Pacific.*

*Vicky Steeves is the Librarian for Research Data Management and Reproducibility at **New York University**, a dual appointment between the Division of Libraries and the Center for Data Science. In her role, Vicky supports researchers of all levels and disciplines in creating well-managed, reproducible scholarship. Her research centers on integrating reproducible practices into the research workflow, advocating openness in all facets of research, and building/contributing to open infrastructure. She is the co-founder of the [LIS Scholarship Archive](#), an open-source, open access repository for LIS (and allied fields) work. She also works on [Taguette](#), a free and open source qualitative data analysis tool, and [ReproZip](#), a tool for full computational reproducibility.*

‘The Carpentries: Teaching data science skills to researchers and people working in library and information-related roles’

In July 1998, Los Alamos National Laboratory hosted the very first Carpentries course, led by John Reynders, Brent Gorda, and Greg Wilson. After running several courses thereafter, the lessons they learned highlighted the growing demand from the research community for training in basic computing skills and that traditional educational opportunities did not entirely address these needs.

Fast forward to 2019, there continues to be a tremendous demand from the research community to learn new computational approaches and improve their workflows leading to the growth of The Carpentries.

Since 2012, The Carpentries has seen 58 Trainers badged and 1,600 Instructors certified who have taught 1,700 Carpentries workshops reaching over 38,000 learners in 46 countries. This talk will describe what we teach, why and how we teach it, the impact it’s having, and what we’re planning to do next.



Junseon YOO - Pluto Network

*Junseon Yoo is the founder of **Pluto Network**. He attended POSTECH, a leading research university, and specialized in science and technology. While he was writing a paper for one of his classes, he encountered some*

inefficient practices in the academic publishing system, which led him to believe that academia should change. Prior to Pluto, Junseon was the product manager for Vingle, a popular social media app. Pluto Network is a start-up that plans to bring visibility into one of the most centralized information system in the world: academia. As technology develops, research and evaluation methods should also change accordingly. Pluto is building a foundation that can potentially change how we understand the research, or the process of research. Their first move to disrupt the academia world is an academic search engine called Scinapse (scinapse.io).

'What makes accessing papers so difficult?'

Many of the existing problems and issues in scholarly communication we see today lie beneath the question, what makes access so difficult in the first place? There are plenty of reasons and factors that play into this question, but we hope to shed light on a few issues that are often missed. What is currently missing in the picture? Is openness and visibility of access the same? Where do we start to solve such a complicated issue? We observe the issues we see in the patterns and ways researchers look for papers to how libraries manage their resources. Highlighting some of our findings from many libraries and researchers, we—Pluto—propose a few different approaches and solutions to access by focusing on visibility to empower libraries and researchers.

TACC Workshop

26th September 2019 – 13:15

Chair: Brian Hitson, DOE/OSTI

Technology Enabled Innovation in Open Science

The concept and benefits of open science are now well understood. Putting the concept into action and realizing the benefits require specific tools and technical approaches. In this TACC workshop, experts in open science will describe tools they have developed to enable researchers to practice open science – to share their discoveries ; collaborate ; and enable connections across research objects, people, projects, and places. From the growing use cases for identifiers ; to lab and software collaboration tools ; to new models for obtaining scientific community peer review and input ; to AI support for open science – the workshop will offer fresh takes on technical progress in open science.

Confirmed speakers include:



XU Feng - ISTIC

Dr. XU Feng is the Deputy director of Policy and Strategic Research Center, ISTIC and the Deputy director of New Generation Artificial Intelligence Development Research Center of Ministry of Science and Technology. He has long been engaged in research on strategy and policy of science, technology and innovation and development strategy of Artificial Intelligence.

‘Development Strategy and Progress of Artificial Intelligence in China’

The presentation will give an overview on the introduction of the new generation artificial intelligence development plan of China, the recent progress of the plan, as well as the measurements of China government to promote AI development.



Kazutsuna YAMAJI – Japan National Institute of Informatics

*Dr. Kazutsuna Yamaji is the Center Director in the Research Center for Open Science and Data Platform and Professor in the Digital Content and Media Sciences Research Division of the **National Institute of Informatics**. Dr. Yamaji has authored and presented hundreds of publications and lectures on blockchain,*

research data management, and open science, which can be found at <https://researchmap.jp/yamaji/?lang=english>.

'Development and deployment of the new research infrastructure for open science in Japan'

The NII Research Data Cloud serves as an e-infrastructure where research data and other related files can be managed, stored, and discovered. The infrastructure consists of three unique platforms: a research data management platform (GakuNin RDM), a repository platform (WEKO3), and a discovery platform (CiNii Research). These are set up to serve researchers throughout the different research stages: 1) a researcher or a research group sets up a project in the research data management platform (GakuNin RDM) at the start of a research project and stores, manages, and shares files with the research collaborators on this platform; 2) upon finishing of a research project, research outputs to be made openly available are decided, and the related files are copied on to the repository platform (WEKO3); 3) the academic resources in the repository platform are made findable through the discovery platform (CiNii Research) and can then be utilized by other researchers for conceiving new ideas and finding research materials for his/her own research. In this talk, current status of our development is introduced followed by the discussion how to build up researcher and library community around the infrastructure.



Richard HOSKING – Curtin Institute for Computation

Richard Hosking is a Senior Data Scientist working at the Curtin Institute for Computation and the Centre for Culture and technology. He holds a PhD in Computer Science from the University of Auckland. His research was in AI, eResearch systems and efforts to increase digital literacy. His current focus is exploring big trends in research funding, publication open access and collaboration. He is the lead data scientist in the Curtin Open Knowledge Initiative, building out integrations, collaborations and analytical pipelines. Prior to the COKI project, he has experience in both Academia and Industry working on Machine learning and Data Intensive Systems.

'Reimagining how we evaluate the production of knowledge: The Curtin Open Knowledge Initiative'

Universities exist to support the creation and transfer of knowledge, but despite a vast quantity of work, and the development of entire disciplines devoted to measuring scholarship and its dissemination, we remain fundamentally unable to ask basic questions about it. At its core is a lack of detailed examination of the effectiveness of communication and community building in favour of a narrow observation of countable signals. Even within the extraordinarily narrow scope of counting formal research outputs and citations between them our knowledge of the breadth and diversity of scholarship is limited. The Curtin Open Knowledge Initiative is exploring the idea of what an Open Knowledge Institution could be, threading together narratives, and importantly data, on open access rates, the diversity of hiring, policy direction, and how research impacts are tracking globally. To date we have collected and linked a multi-trillion point dataset covering multiple decades; linking funding, publications, data, citations and other forms of alternative impacts. To contextualise this big data we have also collected deeper qualitative metrics of universities; bringing together critical perspective and modern data science.

This talk focuses on our methods, infrastructure, code, and practices for working with incomplete, disjointed and often disagreeing data at scale. One particularly interesting characteristic of data

quality we explore is the notion of time: when things happen, when they are recorded, when they are made available, and when the past is rewritten! We finish with a discussion around how openness can be evaluated in a way which is itself open, what that might look like, and whether this allows us to reimagine how the production of knowledge is evaluated.



Matthew BUYS & Estelle CHENG – ORCID

*Matthew Buys is the **ORCID** Director of Engagement and has been with ORCID since 2015 in various roles. He is responsible for driving ORCID sustainability through community engagement, membership, integration, and user adoption efforts. The ORCID engagement team work with our communities to build ORCID as an international-scale research effort. He came to ORCID from Thomson Reuters, where he covered the Eastern and Southern Africa region; and prior to that was Regional Sales Manager at EBSCO Information Services. He completed a BA (Psychology) and Post-Graduate Diploma in Management at the University of the Witwatersrand. In addition, Matthew has also completed courses in Java, Flash, XML, html, Perl and SQL.*

*Estelle Cheng, Manager, Asia-Pacific Engagement, is responsible for growing the adoption of **ORCID**, engaging with partners across sectors and establishing communities of practice in the Asia-Pacific region. Based in Taiwan, Estelle works collaboratively with the regional team to promote ORCID awareness, build strategic relationships and to support best practices of ORCID implementation across the Asia-Pacific region. Before joining ORCID, Estelle served as the product manager for digital object identifier (DOI) at Airiti. Estelle holds a BA in English and a MA in Linguistics from National Tsing Hua University. She has infectious enthusiasm for scholarly communication.*

‘ORCID: building trusted infrastructure’

ORCID has a complex, diverse, global community of communities, operating at differing levels of ‘readiness’. Everything we do at ORCID is in service of our underlying mission, to enable transparent and trustworthy connections between researchers, their contributions, and affiliations. This involves collaborating with all sectors of the global research community -- disparate as their priorities and cultures often are -- to facilitate interventions that help increase the openness and reliability of research information. We support a community of nearly 7 million individuals globally and provide open tools that enable transparent connections between researchers and activities. The presentation will explore best practice use cases and adoption of persistent identifiers for scholarly communication.



Bo ALROE – Digital Science

Bo Alroe has worked in the Higher Education sector since 2004, initially focused on the institutional research management environment and helping universities and other research institutions develop tools, data, skills,

*and processes within research management and administration. He was Product Director with Atira, a company he co-owned that was later acquired by Elsevier, where he held two director-positions. Today, he is Director of Strategy at **Digital Science** in London. Bo has worked with research management and analyses at universities, government funders, with publishers, and in corporate settings in Europe and the US. He lives in Denmark with his wife and two daughters.*

'New and better insights into Open Science - taking new approaches with new data from Dimensions'

New and better insights into Open Science can help put that concept into action and realise its benefits faster. Such new insights require new information, and the starting point for this presentation will be Dimensions, Digital Science' new research information platform. In addition to publication metadata and citations, it incorporates and links global grants, patents, clinical trials, and policy documents. The presentation will give examples from government research, private sector research, academic research, and the publishing industry.



John KAYE – Jisc

***John Kaye** is Head of Change for Research for Jisc in the UK, working on innovation initiatives for the UK higher education research sector . He leads on Jisc's work in developing shared services for research data systems, repositories, storage, preservation and metadata. John previously worked in the British Library's Datasets Programme where he was Social Science Datasets Lead and project coordinator for the EC FP7 project ODIN: ORCID and DataCite Interoperability Network. John holds an MSc in Geographic Information Science and a BA in Geography and Politics. Prior to working in the research sector John held data and policy analyst and manager roles focusing on education, skills, housing and regeneration for various London regional government organisations.*

'Jisc Open Research Hub – Supporting Open Science'

Jisc's Open Research Hub integrates a number of digital repository, preservation, reporting and storage platforms. The service allows data and metadata to be shared openly if required and connects researchers and research objects together using scholarly communication services. It has been developed through years-long consultation with the UK HE research sector and sector bodies, along with contributions from Jisc and third-party experts. The need for such a solution has arisen from the sector's desires to achieve several, shared aims, including: greater collaboration; tackling the reproducibility crisis; enabling better research; and meeting funder requirements.

Jisc's custom-built repository—the Open Research Repository—is part of the Jisc Open Research Hub. It's built upon an extensive data model and a rich messaging layer provides interoperability between systems. Much design effort has gone into providing users with a clean, simple, and easy-to-learn interface for the deposit, approval, discovery and preservation of a range of outputs.

Jisc's position in the UK higher education / research sector, provides us with many sector-specific insights to share with delegates, ranging from the broad methods mentioned above, down to individual development and design decisions informed by UK research sector expertise.