



Sheraton Denver Downtown Hotel
(Room Directors Row E)
1550 Court Place, Denver, CO 80202, USA

ITOC Workshop

‘Enabling Innovations for Researcher Workflows and Scholarly Communication’

The Information Trends and Opportunities Committee (ITOC) is the catalyst for strategic thinking of ICSTI. It conducts foresight/horizon scanning to identify trends and opportunities of interest and relevance to ICSTI members. The **Chair of ITOC is Margret Plank**, Head of Competence Center for non-textual Materials at the German National Library of Science and Technology (TIB).

Workshop Description

The way science and research are organised and communicated has changed massively over the last couple of years. Driven by the globalisation of the scientific community, new approaches and tools are used for information-sharing and collaboration. Made possible by digital network technologies, they have an impact on the entire research cycle, from inception to publication as well as on the way in which the research cycle itself is organised. This workshop provides a platform for presenting, sharing and discussing best practice regarding the application of innovations for researcher workflows and scholarly communication.

Workshop Program



Jeroen Bosman and



Bianca Kramer – 101 innovations in

scholarly communication

‘Innovations in scholarly communication: openness, efficiency and reproducibility drivers’

Science is in transition. Exactly how is what we try to find out in the project 101 Innovations in Scholarly Communication. By looking at tool development and tool usage in all phases of the research cycle we can distill patterns in research practices. The empirical underpinning for this is supplied by data from our recent global survey that reached >20K researchers, librarians and others. We will show how one may get a grip on these complex tool usage patterns by using a simple model that frames tools according to the extent that they facilitate or promote research to become more efficient, more open and more reproducible.

Jeroen Bosman (@jeroenbosman) is scholarly communications and geoscience librarian at Utrecht University Library. His main interests are Open Access and Open Science, scientometrics, visualization and innovation in scholarly communication. He is an avid advocate for Open Access and for experimenting with open alternatives. He is co-author of the poster [101 Innovations in Scholarly Communication](#) depicting innovation trends by research workflow phases and he has led the [global survey in Innovations in Scholarly Communication](#) with his colleague Bianca Kramer. Jeroen regularly leads workshops in online search and other aspects of scholarly communication, for students, faculty and professionals alike. When not working you can see him cycle touring (fast), photographing (slow) and drinking Islay malts (not necessarily at the same time).

Bianca Kramer (@msphelps) is a librarian for life sciences and medicine at Utrecht Library, with a strong focus on scholarly communication and Open Science. Through her work, together with colleague Jeroen Bosman, on the project [101 innovations in scholarly communication](#) (including a worldwide survey of >20,000 researchers) she is investigating trends in innovations and tool usage across the research cycle. She regularly leads workshops on various aspects of scholarly communication (e.g. online search, altmetrics, peer review) for researchers, students and other stakeholders in scholarly communication, and has an active interest in data- and network visualization. Her twitter handle reflects her love for children's literature and librarianship alike.



Cameron Neylon – Force 11

'From Principles to Action - The FORCE11 approach to innovation in scholarly communications'

There is a lot of talk of innovation and change and even disruption in scholarly communication but sometimes the pace of change itself can seem slow. Some efforts seem to get bogged down in endless discussion and never make it to implementation. Some by contrast reach a technical conclusion too quickly and fail because they don't address the complex needs of many stakeholders.

FORCE11 started as a movement for change amongst a particular group of technically minded people in scholarly communication including publishers, technologists, researchers, advocates and funders. Over time it has evolved in a number of directions, now positioning itself as a forum where different stakeholder communities can come together to seek a consensus on how to move forward. In particular a pattern has emerged in which successful groups seek first to articulate and refine a set of principles that can help to guide implementation but do not specify it. If a wide consensus can be developed on principles then the next phase moves towards community implementation. The success and challenges of this approach will be discussed with examples.

Cameron Neylon is Professor of Research Communication at the Centre for Culture and Technology at Curtin University. He is interested in how to make the internet more effective as a tool for scholarship. He writes and speaks regularly on scholarly communication, the design of web based tools for research, and the need for policy and cultural change within and around the research community. Cameron Neylon is a one-time biomedical scientist who has moved into the humanities via Open Access and Open Data advocacy. His research and broader work focusses on how we can make the institutions that support research sustainable and fit for purpose for the 21st century and how the advent of new communications technology is a help (and in some cases a hindrance) for this.



Lambert Heller – German National Library of Science and Technology (TIB)

‘Wikidata and Wikimedia Commons as a platform for collaborative annotation and reuse for scientific data’

The WikiProject Open Access makes parts of the Open Access literature available on WikiSource, in order to make it easier to cite and reuse it in Wikipedia articles. With our 3-yr project NOA together with Hannover University of Applied Sciences and Arts, that recently received 0,5 M € funding from German Research Foundation (DFG), we aim to scale these efforts up to a large part of the globally available Open Access literature. Our vision is to enable WikiSource (together with its sister projects Wikimedia Commons and Wikidata) to become a collaborative workbench where e.g. content mining methods can be applied on a large number of scholarly objects, including images from journal articles. Wikimedia platforms are fit and proper for this purpose, since applications from the community of Wikipedia editors are not restricted through the goals of any commercial enterprise, or any state authority.

Lambert Heller leads the „Open Science Lab“ research group at TIB, the German National Library of Science and Technology. With a background in social sciences and as an academic librarian, Lambert explores the ongoing shift towards more open and collaborative digital working practices in science. The Open Science Lab develops strategies, good practices, and tools to help research communities to respond to these changes. It aims to be an incubator and playground for new ideas for advancing our common research infrastructure. You may follow me on Twitter – I’m [@Lambo](#).



Courtney Soderberg – COS, Center for Open Science

‘An Open Science Framework for managing and sharing research workflows’

The mission of the Center for Open Science (COS) is to increase openness, reproducibility, and integrity of scholarly research. The focus on openness is in service of the greater goal of increasing research quality and efficiency. To this end, COS develops and maintains the Open Science Framework (OSF)--a free, open source workflow management and sharing service built to make it easy for researchers to connect, document, archive, and share their research workflows and outputs. Along with its built in feature set, the OSF also has a public API that allows other tools and services to be connected to the OSF so that researchers can continue to use the services they like for sections of their workflow (e.g. Github for version code and Dataverse for sharing final datasets), but connect those individual pieces to one central OSF project to facilitate collaboration, sharing, and discovery.

This talk will discuss the value of tracking and sharing the research workflow, the functionalities of the Open Science Framework, and the ways in which the underlying feature set of the OSF can be customized to fit the workflows and needs of different scientific communities.

Courtney Soderberg is the Statistical and Methodological Consultant at the Center for Open Science and heads up their training programs for reproducible research methods and statistics. She has a Ph.D. in Experimental Social Psychology with a minor in Quantitative Psychology from the University of California, Davis.



Alex Viggio – University of Colorado Boulder

‘Lessons Learned from the OpenVIVO Experiment’

VIVO’s goals include providing a connected, integrated record of the scholarly work of research institutions around the world based on a shared OpenRIF information model. The VIVO and OpenRIF projects embrace open source, open data, and open community. We’ll examine lessons learned from OpenVIVO.org, an experimental hosted instance of VIVO describing attendees of recent FORCE11 and VIVO conferences. OpenVIVO extended the VIVO 1.8.1 open source release to include ORCID authentication, linkage of data from Figshare, CrossRef, and ORCID, a new OpenRIF attribution model, reuse of data in accordance with FAIR data principles, and the integration of existing vocabularies in linked data form. Attendees at FORCE2016 and VIVO 2016 with ORCID identifiers were able to log into OpenVIVO, and could add their scholarly works and specify their role in those works using OpenRIF attribution models. What have we learned from the OpenVIVO experiment? How can the VIVO and OpenRIF projects best support innovation in researcher workflows and scholarly communication?

Alex Viggio is the Associate Director of the Faculty Information System (FIS) at the University of Colorado Boulder. FIS has provided faculty reporting and research information management solutions to the CU Boulder campus and research institutes for over 20 years, and the FIS team integrated VIVO to surface public researcher profiles in 2010. Alex served as a VIVO Implementation Working Group lead from 2011 until 2015, and has also served on the SHARE Technical Working Group and CU Boulder’s Research Data Management Task Force. He is currently a Steering Group member on the VIVO Project at DuraSpace.