



Kyushu-Illinois Strategic Partnership Colloquia Series

DATA CURATION AND INFORMATION MANAGEMENT IN THE AGE OF DIGITAL TRANSFORMATION



KYUSHU
UNIVERSITY



**UNIVERSITY OF
ILLINOIS**
URBANA-CHAMPAIGN

Date / Time

9:00-11:30 am Thursday, December 9, 2021 (Japan Standard Time)

6:00-8:30 pm Wednesday, December 8, 2021 (U.S. Central Standard Time)

Registration

https://us06web.zoom.us/webinar/register/WN_yhOFIwpZQhuZUoKxkMYPza

This exciting workshop highlights the partnerships between the University of Illinois Urbana-Champaign (Illinois) and Kyushu University (Kyushu) faculty on meeting the research and education challenges posed by the present-day information deluge. This colloquium is convened within the framework of the collaborative explorations amongst the School of Information Sciences (Illinois), the Graduate School of Integrated Frontier Science (Kyushu), the University and Grainger Engineering Libraries (Illinois), and the University Library (Kyushu). An open-ended panel discussion will follow the presentations.

Co-Moderators:

- **J. Stephen Downie**, Professor, Associate Dean for Research, and Co-Director of the HathiTrust Research Center, University of Illinois Urbana-Champaign
- **Emi Ishita**, Associate professor, Department of Library Science (iSchool); Research and Development Division, Kyushu University Library; Kyushu University

JST	U.S. CST	PROGRAM	SPEAKER
9:00-9:05 AM	6:00-6:05 PM	Opening Remarks from Illinois	Susan Martinis , Vice Chancellor for Research and Innovation and Stephen G. Sligar Professor of Molecular and Cellular Biology
9:05-9:10 AM	6:05-6:10 PM	Opening Remarks from Kyushu	Toshiyuki Kono , Executive Vice President for International Affairs, Professor of Law
SESSION 1			
9:10-9:20 AM	6:10-6:20 PM	Talk #1	Heidi Imker , Director of the Research Data Service (RDS), Associate Professor, Illinois
9:20-9:30 AM	6:20-6:30 PM	Talk #2	Chris Wiley , Engineering and Physical Sciences Research Data Services Librarian, Associate Professor, University Library, Illinois
9:30-9:40 AM	6:30-6:40 PM	Talk #3	William H. Mischo , Interim Head, Grainger Engineering Library Information Center, Berthold Family Professor Emeritus in Information Access and Delivery, Illinois
9:40-9:50 AM	6:40-6:50 PM	Talk #4	Yoichi Tomiura , Deputy Director General of University Libraries, Professor of Faculty of Information Science and Electrical Engineering, Kyushu
9:50-10:05 AM	6:50-7:05 PM	Q&A	
SESSION 2			
10:05-10:15 AM	7:05-7:15 PM	Talk #5	Ted Underwood , Professor of Information Sciences and English Literature and Glen Worthey , Associate Director for Research Support Services, HathiTrust Research Center, Illinois
10:15-10:25 AM	7:15-7:25 PM	Talk #6	Kate McDowell , Associate Professor, School of Information Sciences and Matthew Turk , Assistant professor, School of Information Sciences, Illinois
10:25-10:35 AM	7:25-7:35 PM	Talk #7	Allen Renear , Professor of the School of Information Sciences and Special Advisor for Strategic Initiatives, Office of the Provost, Illinois
10:35-10:45 AM	7:35-7:45 PM	Talk #8	Emi Ishita , Associate professor, Department of Library Science (iSchool); Research and Development Division, Kyushu University Library; Kyushu
10:45-11:25 AM	7:45-8:25 PM	Panel Discussion, Q&A	All Presenters Moderated by Michael Twidale , Professor, School of Information Sciences, Director, PhD Program, Illinois
11:25-11:30 AM	8:25-8:30 PM	Closing Remarks	Tomoyuki Kubo , Senior Vice President, Director General of Kyushu University Library, Kyushu



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Abstracts

Talk #1 (Illinois Library)

Self-Reported Data Reuse Associated with Highly Cited Journal Articles

By Heidi Imker, Director of the Research Data Service (RDS), Associate Professor, University of Illinois Urbana-Champaign (co-authors: Hoa Luong, William H. Mischo, Mary C. Schlembach, Chris Wiley)

Abstract: In this lightning talk, I will present a recently concluded study that examined the data reuse associated with highly cited research articles. I will describe how our project first surveyed University of Illinois at Urbana-Champaign authors who published highly cited papers in nine STEM disciplines. The purpose of this survey was to determine if data were generated for their article and if the authors knew of any reuse by other researchers. Then I will show how we surveyed authors who cited these highly cited articles to find out if they reused data from the article and how that data was obtained. The project goal was to better understand data reuse in practice and to explore if research data from an initial publication was reused in subsequent publications. While the results revealed reuse in many situations (and deemed important in these cases), the survey results and researcher supplied comments also indicated that data does not play the same role in all studies or even in studies that build on previous ones.

Talk #2 (Illinois Library)

Summary Big Data: A Tale of Researcher Experiences

By Chris Wiley, Engineering and Physical Sciences Research Data Services Librarian, Associate Professor

Abstract: In this lightning talk, I will present a recently concluded study exploring the role of big data and data science. The purpose of this work is to present faculty and researchers practices acquiring data, working with data, issues encountered, and challenges. The responses created an opportunity to learn how researchers define big data, use technological resources, and share big data. It also provided an opportunity for information professionals to learn of opportunities to expand or create services within the context of research, collection, analysis, research communication, training, and support.

Talk #3 (Illinois Library)

Linking the Scholarly Journal Article Literature with Supporting Data and Dataset Repositories

By William H. Mischo, Interim Head, Grainger Engineering Library Information Center, Berthold Family Professor Emeritus in Information Access and Delivery, University of Illinois Urbana-Champaign (co-author: Mary C. Schlembach)

Abstract: The University of Illinois Library has been actively developing an information discovery and delivery system, called Easy Search, which provides value-added content links to the retrieved scholarly research literature. One major area of focus has been coupling journal article records with the supporting data generated or used by authors in the writing of the article. This data is typically stored in a discrete dataset repository. Easy Search uses the Project Scholix API to dynamically retrieve and present users with relevant dataset links for the retrieved and displayed articles. The article DOI serves as the linked open data interconnectivity element.



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Talk #4 (Kyushu)

Challenge to Promote Research Data Management in Kyushu University

By Yoichi Tomiura, Deputy Director General of University Libraries, Professor of Faculty of Information Science and Electrical Engineering, Kyushu University

Abstract: Kyushu University plans to establish an organization to support research data management. I will briefly explain this plan and discuss issues related to support systems, human support, and researcher awareness in promoting proper research data management for research fairness and promoting open data.

Talk #5 (Illinois iSchool)

Millions of Books, Digitally Transformed: How to Manage and Curate Them, and What to Do with Them

By Ted Underwood, Professor of Information Sciences and English Literature and Glen Worthey, Associate Director for Research Support Services, HathiTrust Research Center, University of Illinois Urbana-Champaign

Abstract: HathiTrust is the largest academically oriented digital library ever created, containing nearly 17.5 million digitized volumes in a multitude of languages, covering many topics, published over many hundreds of years. It represents the combined efforts of dozens of universities and corporations, and is collectively managed, curated, and presented to readers and researchers around the world. A unique repository of human knowledge, as a data source it is uniquely appropriate for the production of new knowledge using new approaches in data science, digital humanities, and many other fields.

This talk introduces the history and principles undergirding HathiTrust and the derived data and services that have grown up around it, describing a few of the many “digital transformations” (paper to digital; unstructured text to highly-structured and enhanced data; copyright-restricted to open access) that have enabled innovative large-scale research.

Talk #6 (Illinois iSchool)

Data Storytelling as Honest Information Management

By Kate McDowell, Associate Professor, School of Information Sciences and Matthew Turk, Assistant professor, School of Information Sciences, University of Illinois Urbana-Champaign

Abstract: Data storytelling communicates data analysis in memorable and actionable ways, using visual and narrative strategies to organize insights. For the past 5 years, students in this course have learned to interpret data through story for a variety of audiences and applications, with a focus on ethics, storytelling dynamics, visual data exploration, and honesty.



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Talk #7 (Illinois iSchool)

Teaching data curation: Two example courses and some reflections

By Allen Renear, Professor of the School of Information Sciences and Special Advisor for Strategic Initiatives, Office of the Provost, University of Illinois Urbana-Champaign

Abstract: The School of Information Sciences has long had a special focus on research and teaching in data curation. Dr. Renear will discuss two iSchool courses that introduce the foundations of data curation, but do so in different ways, to different audiences, and with different delivery methods. The first, taught in our MS program in Library and Information Science, anticipates that students may have careers (or in some cases are already in careers) that involve providing or supervising data curation services in a university library, government agency, business, laboratory, or other organization. In the second course, taught as part of the Department of Computer Science's Master of Computer Science in Data Science program, most students are already working as analysts, software engineers, scientists, or in other technical roles. The MS/LIS course has been delivered as small face-to-face classes and in small synchronous online classes. The MCS Data Science course is an asynchronous Coursera course that enrolls about 300 students a year. These two courses can help us understand the range of possibilities for data curation education.

Talk #8 (Kyushu)

Research for developing research data management at Japanese universities

By Emi Ishita, Associate professor, Department of Library Science(iSchool); Research and Development Division, Kyushu University Library; Kyushu University

Abstract: Japanese universities are required to develop an environment to manage research data appropriately and efficiently. I will discuss the significance of developing a Japanese model of research data management services and human resources development program. I will also mention that we need a discussion of a new direction for research data management based on the change of research process in the digital transformation age.

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