# International Symposium

“Global Collaboration on Data beyond Disciplines”

23 – 25 September 2020

Online Conference

## Wednesday 23 September 2020

**Opening Session (05:00-08:00 UTC)**

*Conveners: *Masaki Kanao, Yasuhiro Murayama, Takashi Watanabe, Rorie Edmunds*

<table>
<thead>
<tr>
<th>Time</th>
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<th>Details</th>
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| 05:00–05:20 | **Opening Addresses** (Chair: Masaki Kanao) | - Asao Fujiyama (Director-General, Joint Support-Center for Data Science Research (DS), ROIS) (10’)
|         |                                                            | - Masaki Kanao (LOC Chair), outline of symposium & practical information (10’)                    |
| 05:20–06:35 | **Keynote Talks** (Chair: Takashi Watanabe) | **Keynote 1:** Global Collaboration on Data Beyond Disciplines
- Mark A. Parsons (Editor-in-Chief, Data Science Journal) (25’)

**Keynote 2:** Open Science for Asia and the Pacific
- Mazlan Othman (Regional Office of Asia and Pacific, International Science Council) (25’)

**Keynote 3:** Do we all need to become data scientists?
- Jens Klump (Mineral Resources, CSIRO in Australia) (25’)

| 06:35–06:45 | **Group Photo @ Zoom Screen & Coffee Break** |

<table>
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<tr>
<th>06:45–08:00</th>
<th><strong>10 Years Event of the International Programme Office of the World Data System (WDS-IPO)</strong> (Chair: Yasuhiro Murayama; each talk is allocated for 5’-10’)</th>
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<tbody>
<tr>
<td></td>
<td>- Hideyuki Tokuda (President, National Institute of Information and Communications Technology (NICT))</td>
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<td>- Ryoichi Fujii (President, Research Organization of Information and Systems (ROIS))</td>
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<td>- Kazuhiko Takeuchi (Vice President, Science Council of Japan)</td>
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<td>- Daya Reddy (President, International Science Council)</td>
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<td>- Alexander de Sherbinin (Chair, Scientific Committee of World Data System)</td>
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<td>- Elaine Faustman (Vice Chair, Scientific Committee of World Data System)</td>
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<td>- Chieh-Chih Estelle Cheng (Manager APAC Engagement, ORCID)</td>
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<td>- Rorie Edmunds (International Program Office, World Data System)</td>
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<td><strong>Discussion</strong></td>
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**Note:**
- The event includes a **Zoom Screen** and **Coffee Break**.
- Talks are scheduled for 5’-10’.
- The **10 Years Event** marks the 10th anniversary of the International Programme Office of the World Data System (WDS-IPO).
Wednesday 23 September 2020
WDS Members’ Forum 2020 (12:00-15:00 UTC)
Conveners: * Rorie Edmunds, WDS-SC, WDS-IPO, WDS-ITO

12:00–13:30 **Scientific Session – Member Lightning Talks**
(Chairs: WDS-SC Members, Rorie Edmunds)

Exact title of topics TBC

- **Welcome & Introduction**
  Alex de Sherbinin (Chair, WDS-SC) & Rorie Edmunds (Executive Director, WDS) (5’)
- **Challenge 1: Pre-recorded Lightning Talks & Panel Discussion**
  Panellists TBC (20’)
- **Challenge 2: Pre-recorded Lightning Talks & Panel Discussion**
  Panellists TBC (20’)
- **Challenge 3: Pre-recorded Lightning Talks & Panel Discussion**
  Panellists TBC (20’)
- **General Discussion**
  This may take the form of breakouts (20’)
- **Wrap-up of Scientific Session**
  Alex de Sherbinin (Chair, WDS-SC) (5’)

13:30–13:50 **Coffee Break**

13:50–15:00 **Plenary Session – Community Consultation**
(Chairs: WDS-SC Members, Rorie Edmunds)

Exact title of topics TBC

- **Welcome & Introduction**
  Alex de Sherbinin (Chair, WDS-SC) & Rorie Edmunds (Executive Director, WDS) (5’)
- **WDS-ITO Activities (+ Discussion)**
  Karen Payne (Associate Director, WDS-ITO) (15’)
- **Data Together: WDS & Member Involvement (+ Discussion)**
  Ingrid Dillo (Vice Chair, WDS-SC) (15’)
- **Candidate Membership & Mentoring (+ Discussion)**
  Wim Hugo (Director of Strategy, WDS) (15’)
- **Domain vs Generalist Repositories (+ Discussion)**
  Alex de Sherbinin (Chair, WDS-SC) (15’)
- **Wrap-up of Plenary Session**
  Alex de Sherbinin (Chair, WDS-SC) (5’)


### Thursday 24 September 2020
#### Regional Activities on Data in the Asia & Oceania Area (01:00-03:30 UTC)
Conveners: *Toshihiko Iyemori, Mazlan Othman, Juanle Wang, Takashi Watanabe*

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<tr>
<td>01:00–03:30</td>
<td><strong>Regional Activities on Data in the A &amp; O Area</strong> (Chairs: Mazlan Othman, Toshihiko Iyemori)</td>
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<td>• National Cross-Domain Activities on Research Data in Australia and Connections with International Activities (Invited) Lesley Wyborn (Australian National University) (20’)</td>
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<td>• WDS-led Activities on Data in the Asia-Oceania Area Takashi Watanabe (International Program Office, World Data System) (15’)</td>
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<td>• Research Policy in Japan to promote Open Science Policy Kazuhiro Hayashi (National Institute of Science and Technology Policy) (15’)</td>
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<td>• General-purpose research-data management service for international research collaboration (Invited) Yusuke Komiyama (National Institute of Informatics) (20’)</td>
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<td>Coffee break (10’)</td>
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<td>• Scientific Data Standard System Construction and its Application for Data Archiving in China Juanle Wang (Chinese Academy of Sciences) (15’)</td>
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<td>• Collection, Archive and Sharing Space Weather information in NICT Mamoru Ishii (National Institute of Information and Communications Technology) (15’)</td>
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<td>• Making historical data Re-useable: a case study of the challenges and success of Bangladesh Bureau of Statistic’s historical data conversion project Chandra Shekhar Roy (Bangladesh Bureau of Statistics) (15’)</td>
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<td>• Data Stewardship: Indian Perspective (Invited) Devika Madalli (Indian Statistical Institute) (20’)</td>
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<td>• Discussion / Summary</td>
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### Thursday 24 September 2020
#### WDS – ORCID Strategic Workshop: Adoption of PIDs in Asia-Oceania (05:00-08:00 UTC)
Conveners: *Chieh-Chih Estelle Cheng, David Castle, Rorie Edmunds, Aminata Garba, Masao Mori, Karen Payne, Hideaki Takeda*

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<th>Time</th>
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<tr>
<td>05:00–06:20</td>
<td><strong>Part 1 – PIDs: A Vital Component of Global Research Data Infrastructure</strong> (Chairs: Rorie Edmunds, Estelle Cheng)</td>
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<td>• Introduction by Chairs (5’)</td>
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<td>• Adopting Persistent Identifiers in Open Research Infrastructure: ORCID and beyond Chieh-Chih Estelle Cheng (ORCID, APAC Engagement Manager) (20’)</td>
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<td>• Japanese DOI RA, Japan Link Center (JaLC) and its collaboration with ORCID Masashi Hara (Japan Science and Technology Agency) (20’)</td>
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</table>
• **The IGSN Global Sample Number - A PID for Physical Objects**  
  Jens Klump (Mineral Resources, CSIRO in Australia) (20’)

• Discussion & Wrap Up (15’)

06:20–06:40 Coffee Break

06:40–08:00 **Part 2 – Practical Use Cases: From National PID Systems to Sector Applications**  
  (Chairs: Rorie Edmunds, Estelle Cheng)

  - **Introduction by Chairs (5’)**

  - **The roles of PIDs in Scientific Data Management in China**  
    Xiaoyan Hu (National Space Science Center, CAS, Space Science Big Data Technology Laboratory) (15’)

  - **Korea Research Data Management Platform and PID**  
    Sa-kwang Song (Korea Institute of Science and Technology Information) (15’)

  - **DataCite Commons – A new service to explore the PID Graph**  
    Martin Fenner (DataCite, Germany) (15’)

  - **The Power of PIDs at the Cambridge Crystallographic Data Centre**  
    Ian Bruno (Cambridge Crystallographic Data Centre) (15’)

  - Discussion & Wrap Up (15’)

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Thursday 24 September 202

**Sharing of the COVID-19 Data (10:00-16:00 UTC)**  
Conveners: *Elaine Faustman, Marc Nyssen, Masaki Kanao, Tadahiko Maeda, Tomoya Baba, Mari Minowa*

10:00–12:00 **Sharing of the COVID-19 Data - 1**  
  (Chair: Tomoya Baba, Tadahiko Maeda)

**Keynote 1: Open Access and Data Sharing of Nucleotide Sequence Data**  
  Masanori Arita (National Institute of Genetics) (25’)

- **Time-series analysis of directional sequence changes in SARS-CoV-2 genomes and an unsupervised explainable AI for studying corona virus genomes**  
  Toshimichi Ikemura (Nagahama Institute of Bio-Science and technology) (20’)

- **Susceptibility to COVID-19 infection: Insights from mathematical modelling**  
  Ryosuke Omori (Research Center for Zoonosis Control, Hokkaido University) (20’)

- **Wastewater-based epidemiology for COVID-19: Perspectives for environmental surveillance of SARS-CoV-2 in wastewater**  
  Ryo Honda (Faculty of Geosciences and Civil Engineering, Kanazawa University) (20’)

- **Spatial analysis of COVID-19 spread using compositionally-warped Gaussian process**  
  Daisuke Murakami (Center for Data Assimilation Research and Applications, DS, ROIS) (20’)

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### Keynote 2: Sharing data for a coordinated response during COVID-19 pandemic

**Priyanka Pillai** (Research Data Stewardship and Health Informatics) (25’)
- Sharing literature annotation regarding COVID-19 through PubAnnotation
  - Jin-Dong Kim (Database Center for Life Science, DS, ROIS) (20’)
- COVID-19 Data and Knowledge Hub
  - Liu Chuang (Global Change Research Data Publishing & Repository and GCdataPR -WDS) (20’)
- COVID-19 Data Sharing Initiative by WDCM and NMDC
  - Linhuan Wu (Institute of Microbiology, Chinese Academy of Sciences) (20’)
- Machine Learning based Peptide Therapeutics for Covid-19
  - Shailza Singh (National Center for Cell Science, India) (20’)

### Keynote 3: Monitoring Sustainable Development Goals Amidst COVID-19

**Kassim S. Mwitondi** (Sheffield Hallam University) (25’)
- The RDA Community Response to COVID-19
  - Mark Leggott (Research Data Canada) (20’)
- VODAN-in-a-box: a FAIR toolkit for improving reusability of COVID-related data
  - Luiz Olavo Bonino da Silva Santos (GO FAIR International Supporting and Coordination Office) (20’)
- Detailed Methodology and Application Guidelines for “The Global Covid-19 Index (GCI)”
  - Woody Ang Woo Teck (PEMANDU Associates, Malaysia) (20’)
- Leveraging open data towards containing COVID-19
  - Obwaya Mogire (South Eastern Kenya University) (20’)

### Discussion
Friday 25 September 2020
Forum of Early Career Data Scientists in the Asia & Oceania Area (01:00-03:30 UTC)
Conveners: *Akira Kadokura, WDS ECR Network members, Juanle Wang, Yoshimasa Tanaka, Takashi Watanabe

01:00–03:30  Forum on Early Career Data Scientists in the A & O Area
(Chairs: Jesse Xiao, Akira Kadokura)

- Introduction for WDS ECR Network (Invited)
  Lianchong Zhang, Jesse Xiao (The University of Hong Kong, WDS ECR Network) (15’)
- Information platform promoting global collaboration in microbial community (Invited)
  Linhuan Wu (Institute of Microbiology, Chinese Academy of Sciences) (15’)
- Disaster Rapid Damage Mapping with Remote Sensing: benchmarking datasets and methods (Invited)
  Junshi Xia (Institute of Physical and Chemical Research (RIKEN)) (15’)
- Introduction of FUXI Platform -Global Integrated Observation Data Management and Service System (Invited)
  Yuanyuan Wang (Zhejiang University) (15’)
- Activities toward Open Data and Research Data Management at NIES/CGER (Invited)
  Yoko Fukuda (National Institute for Environmental Studies) (15’)
- Standardization of biological sample information database (Invited)
  Tazro Ohta (Database Center for Life Science, DS, ROIS) (15’)
- Official Micro Data, Causal Inference and Evidence-Based Policy Making (Invited)
  Junchao Zhang (Center for Social Data Structuring, DS, ROIS) (15’)
- Recent Achievements of Deep Learning on Recognition of Modern Japanese Magazines (Invited)
  Anh Duc Le (Center for Open Data in the Humanities, DS, ROIS) (15’)
- A data-scientific approach toward understanding of the goldfish genome and morphological diversity (Invited)
  Tetsuo Kon (Nagahama Institute of Bioscience and Technology) (15’)
- Modelling the Suitability of Parcel Pick-up Lockers Using the Multi-Source Open Data (Invited)
  Zilai Zheng (Graduate School of Life and Environmental Sciences, University of Tsukuba) (15’)

- Discussion

Friday 25 September 2020
Promotion of Multi-Disciplinary Data Analysis,
Conclusive Adresses (05:00-08:30 UTC)
Conveners: *Takashi Watanabe, Asanobu Kitamoto, Masahito Nose, Ryuho Kataoka

05:00–06:30  Promotion of Multi-Disciplinary Data Analysis - 1
(Chair: Takashi Watanabe, Asanobu Kitamoto)

- Introduction of the Session
  Takashi Watanabe (International Program Office, World Data System) (5’)
- Developing Open-Source Data Analytics and Tools to Address Interdisciplinary Issues in Political Science, Human Geography, and Environmental Science
  Joshua Brinks (iSciences, Limited Liability Company, Burlington) (20’)
- Implementation of OA/FAIR Principles in Six Years - A Case Study of Global Change Research Data
**Publishing & Repository**

- Liu Chuang (Chinese Academy of Sciences) (20’)
  - Data analysis and intelligent application in modern agricultural technology extension
- Ying Deng (National Engineering Research Center for Information Technology in Agriculture, China) (20’)
  - A Comparison between Logistic Regression and Decision Tree Methods for Predicting the Pre-term Birth
- Rakesh Kumar Saroj (SRM University Sikkim-Gangtok, India) (20’)

- Coffee Break

06:30–08:00 **Promotion of Multi-Disciplinary Data Analysis – 2**

(Chair: Takashi Watanabe, Asanobu Kitamoto)

- Importance of a Multi-disciplinary Study of Peculiar Environmental and Socio-economic Movements in 18/19 Century
  - Takashi Watanabe (International Program Office, World Data System) (20’)
- A unique website JCDP that aims to disseminate scientific information on historical climate data
  - Takehiko Mikami (Tokyo Metropolitan University) (20’)
- Historical records of red auroras in Japan: Collaboration between literature and science
  - Ryuho Kataoka (National Institute of Polar Research) (20’)
- Research Across Disciplinary Boundaries: Data Challenges and Solutions in the Environmental and Eco-social Sciences
  - Alison Specht (the University of Queensland, Australia) (20’)

- Discussion

08:00–08:30 **Conclusive Addresses** (Chair: Masaki Kanao; each talk is allocated for 5’-10’)

- Yasuhiro Murayama (National Institute of Information and Communications Technology (NICT))
- Sa-Kwang Song (Korea Institute of Science and Technology Information (KISTI))
- Masaki Kanao (LOC Chair), summary of symposium & conference proceeding

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**Extended Abstract only @ conference web-site**

Extended Abstracts will be included in the conference “Programme and Abstracts” online booklet.

- **EA-1:** Application of machine learning techniques to weather forecasting  
  V. Sakthivel Samy (National Centre for Polar and Ocean Research, India)
- **EA-2:** Analyzing the early 19th century’s geomagnetic declination in Japanese archipelago from Tadataka Inoh’s 67 volumes magnetic survey azimuth ledger Santou-Houki-Ki by Interdisciplinary study  
  Motohiro Tsujimoto (no affiliation)
- **EA-3:** Data and metadata sharing among Asian countries  
  Masaki Kanao (Joint Support-Center for Data Science Research, ROIS)