The CODATA IDPC 2030 Vision——Promoting Open Data in Crisis and beyond

Session Conveners: Prof. Virginia Murray, Prof. Lili Zhang, Prof. Burcak Basbug Erkan

Session Background

The world is entering an era of compounded crises, generating unprecedented volumes of data. Yet each crisis also exposes the fragility of existing data governance frameworks. The CODATA International Data Policy Committee 2030 Agenda calls for a fundamental rethinking of global data policy architectures. This vision moves away from reactive, siloed approaches toward anticipatory, equitable, and interoperable systems that uphold open science principles while respecting data sovereignty, security, and ethics. A critical gap remains, however. Even as nations and institutions endorse high-level declarations such as the 2021 UNESCO Recommendation on Open Science, there remains an urgent need for operational, tested policies for managing data during acute crises. Practical tools such as the UNESCO CODATA Data Policies for Times of Crisis Toolkit and its accompanying global implementation survey represent important steps forward.

Yet this session goes beyond any single toolkit. We will situate crisis data policies within the broader IDPC 2030 vision and explore how they can serve as both a litmus test and a catalyst for reforming global data governance. Against a backdrop of rising geopolitical fragmentation, AI-driven disinformation, and calls for data solidarity, this session argues that how we govern data in the next crisis will shape the legitimacy and resilience of open science for decades to come.

"The Data Policies for Times of Crisis (DPTC) facilitated by Open Science is a toolkit developed jointly by UNESCO and CODATA, and provides guidance to support effective, ethical, and coordinated data governance before, during, and after crises, recognising that science and access to reliable data remain essential throughout all phases of crisis management. The Toolkit consists of:

- **Factsheet**: a concise briefing for leaders and decision-makers. It outlines the mandate, scope, and value of crisis data policies and aligns with the *Sendai Framework for Disaster Risk Reduction and the updated UNDRR-ISC Hazard Information Profiles* (HIPs).
- **Guidance**: a structured playbook for policy co-designed across preparedness, response, and recovery.

- **Checklist**: a practical readiness tool for supporting drills, gap analysis, and quarterly monitoring.

The survey translated the DPTC Checklist is to assess current practices, capacities, and needs related to data policies for times of crisis, and to better understand how organisations align their data governance, infrastructure, and processes with open science principles in the UNESCO Recommendation on Open Science (2021). It also served as a maturity assessment and benchmarking exercise, helping to identify strengths, gaps, and opportunities to strengthen data governance, accessibility, collaboration, and preparedness for future crises. Together, these sections provide a comprehensive overview of how organizations implement open science principles in managing data before, during, and after crises."

Why This Matters

This session addresses a critical gap by moving from high-level open science commitments to operational, cross-sectoral data governance during emergencies. Without such policies, data remains siloed, ethical safeguards collapse, and interoperability fails precisely when it is most needed. This session is also closely tied to the CODATA International Data Policy Committee 2030 Agenda, which calls for rethinking global data policy frameworks to support resilience, equity, and trust in the post-2030 sustainable development era. By connecting practical crisis data efforts with the IDPC's long-term vision, the session will help shape how the scientific and policy communities prepare for future crises. These events will be treated not as isolated incidents but as systemic challenges requiring coordinated, open, and ethical data practices.

What the Session Will Do

The session will achieve three main objectives. First, it will present preliminary results from the UNESCO CODATA global DPTC survey, highlighting common strengths, gaps, and capacity needs across organizations and regions. Second, it will provide a hands-on walkthrough of the DPTC Toolkit, demonstrating how the Checklist can be used for drills, gap analysis, and monitoring. Third, it will facilitate a policy-design dialogue that links practical crisis tools to the CODATA IDPC 2030 Agenda and explores how crisis data policies can inform broader data governance reform. A dedicated tabletop exercise will allow participants to apply the DPTC Checklist to a simulated multi-hazard crisis scenario, yielding concrete recommendations for their own institutional contexts.

This session is designed for policymakers, data managers, disaster risk reduction

practitioners, open science officers, and researchers involved in data governance, crisis response, or the implementation of open science policies. It is particularly relevant to representatives from government agencies, international organizations, research institutions, and academic libraries that manage sensitive or high-value data. Attendees will leave with a tested toolkit, a clear understanding of global benchmarking practices, and actionable pathways to align their crisis data policies with the UNESCO Open Science Framework and the emerging CODATA IDPC 2030 vision.

Proposed Speakers (4-5 talks, TBC)

(12') Reshaping data in crisis governance: An UN perspective (Prof. Virginia Murray, UK Health Security Agency, online)

(12') Empower data capabilities in achieving SDGs (Prof. Gretchen Kalonji, CBAS, TBC, onsite)

(12') Protect Essentials in managing crisis data (Dr. Lili Zhang, Computer Network Information Center, Chinese Academy of Sciences, onsite)

(12') Real practices in managing crisis data (IRDR/AIRCAS/IRDR/AIRCAS/another crisis expert, onsite, TBC)

(12') UNESCO CODATA global DPTC survey (Prof. Burçak Basbug Erkan, Professor of Statistics and Disaster Science, Middle East Technical University, Türkiye, online)

(30') Group discussion

- What are the most critical gaps between existing national data policies and the requirements in compound crisis scenarios?
- How can the CODATA IDPC 2030 Agenda move from a high-level vision to actionable milestones that different countries, regardless of their data maturity level, can realistically adopt?
- What institutional or political barriers have prevented the widespread adoption of anticipatory data governance frameworks despite clear lessons learned from recent global crises?
- Feedback to the UNESCO CODATA global DPTC survey.