From Guidance to Practice: Implementing Open Science Data Policies in Crisis Situations

Wednesday 15 October 2025 14:00 (1h 30m)

Introduction
This workshop addresses the urgent need to translate the high-level vision of the UNESCO Recommendation on Open Science into concrete, actionable data governance mechanisms tailored for crisis contexts. Whether triggered by natural disasters, health emergencies, climate change, or geopolitical conflicts, in times of crisis effective and ethical data management is essential for informed decision-making, resource coordination, and community resilience. Drawing on the practical outputs of the UNESCO-CODATA project Data Policies for Times of Crisis Facilitated by Open Science (DPTC) (including the Guidance, Checklist, Factsheet, and Technical Report), participants will explore how to operationalize these tools to design agile, transparent, and context-sensitive data policies. These tools are part of the UNESCO Open Science Toolkit and are aligned with global instruments such as the Sendai Framework for Disaster Risk Reduction, UNDRR's Hazard Information Profiles (HIPs), and the WHO's International Health Regulations (IHR).

Through structured, interactive exercises, the session will engage participants in applying the DPTC Toolkit to simulated crisis scenarios grounded in real-world complexities. Using open science-aligned policy frameworks, participants will collaboratively address barriers such as data sovereignty, fragmentation of data systems, legal and ethical constraints on real-time data sharing, protection of sensitive information, equity of access, and responsible use of artificial intelligence. The workshop will emphasize alignment with the FAIR Data Principles (Findable, Accessible, Interoperable, Reusable), CARE Data Principles (Collective Benefit, Authority to Control, Responsibility, and Ethics), and TRUST Digital Repository Principles (Transparency, Responsibility, User Focus, Sustainability, and Technology). It highlights the importance of integrating traditional and Indigenous knowledge systems and multilingual accessibility.

The goal of the session is to empower multi-stakeholder communities, including researchers, policymakers, data scientists, data stewards, emergency responders, and representatives from affected regions, to co-create crisis-ready data policy strategies that are ethical, inclusive, and resilient. Drawing on international frameworks such as the SDGs, the UN Pact for the Future, WHO Health Emergency and Disaster Risk Management (Health-EDRM) Framework, and the Royal Society's guidance on trusted data systems, the workshop will produce a prototype implementation roadmap. This roadmap will support regional and disciplinary customization of open science data policies and serve as a living document for advancing capacity-building, governance, and preparedness in the face of complex and cascading crises. The session will centre equity and interoperability, ensuring that communities most at risk are not excluded from the benefits of scientific data and that data infrastructures are robust enough to support collaborative, cross-border crisis response.

Workshop (90 minutes) –Format: Interactive, Practical Implementation
All of the listed authors are invited to participate as either presenters, panelists, or breakout group leaders.
It includes a mix of brief presentations, group work, and structured discussion, designed to enable hands-on learning and policy co-creation. Here's the breakdown:

Opening Presentation (10 minutes)
Introduction to the UNESCO-CODATA DPTC tools (Checklist, Guidance, Factsheet) and their global policy context (UNESCO Open Science, Sendai, WHO IHR, etc.)

Lightning Case Presentations (20 minutes)
Short, real-world examples from diverse crisis contexts (e.g., WHO Health-EDRM, Royal Society data privacy tools, Ukraine conflict, Australia's federated systems)

Breakout Group Exercises (35 minutes)
Participants work in small groups to simulate applying the DPTC Checklist to a hypothetical crisis (e.g., multi-

hazard urban flooding)
Focus: data governance, stakeholder roles, ethical AI, equity, infrastructure, privacy

Plenary Debrief and Synthesis (20 minutes)
Group insights shared; common challenges and local adaptations identified
Draft "Implementation Roadmap" template introduced for further use

Closing Remarks (5 minutes)
Summary, feedback, and invitation to join the DPTC community of practice

Key features
• Highly interactive and participatory
• Co-creative: builds practical outputs (e.g., a draft roadmap)
• Integrates real examples with hands-on application
• Designed to bridge guidance and action in crisis data policy

Expected outcomes
• Deeper understanding of how to apply UNESCO Open Science and DPTC tools to crises
• A prototype "Implementation Roadmap" for crisis data governance
• Contributions toward a community of practice around crisis-ready open data policy
• Cross-regional collaboration and capacity building

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Track Classification: SciDataCon Persistent Themes: Policy and Practice of Data in Research