

19th International CODATA Conference
Report on the Special Session on the World Summit on the Information Society
10 November 2004
Berlin, Germany

The Committee on Data for Science and Technology, CODATA, convened a Special Session on [the World Summit on the Information Society \(WSIS\)](#), which was attended by over 90 people. This Session took place on 10 November 2004, within the framework of the 19th International CODATA Conference: "[Information Society: New Horizons for Science](#)." The agenda and background documents to this Session can be found on the [CODATA website](#). The Session was organized by CODATA in collaboration with its supporting partners:

- [U.S. National Academies](#);
- [French Academy of Sciences](#);
- [The Academy of Sciences for the Developing World \(TWAS\)](#);
- [The International Council for Scientific and Technical Information \(ICSTI\)](#);
- [The International Network for the Availability of Scientific Publications \(INASP\)](#); and
- [The International Union of Psychological Science \(IUPsyS\)](#)

The Session aimed to:

- Motivate discussion among the scientific community on the important role of scientists within the information society;
- Highlight initiatives currently under way within the scientific community that complement the science-related Agenda for Action items from the first phase of WSIS, which took place in Geneva in December 2003. The relevant sections can be found marked in red in the following links: [Science in the Declaration of Principles](#) and [Science in the Agenda for Action](#); and
- Commence discussions on how the scientific community can constructively contribute to the second phase of WSIS in Tunis 2005.

The first part of the Session was chaired by Dr. Krishan Lal, who has since been elected CODATA Vice-President.

His Excellency Adama Samassekou, President of the WSIS Preparatory Committee for the Geneva Phase, was the keynote speaker. His [presentation](#) focused on open access to scientific data and information.

This was followed by presentations by:

- [Carthage Smith of ICSU, the International Council for Science](#);
- [Axel Plathe of UNESCO](#);
- [Bertrand de la Chapelle of WSIS online](#), a community platform to connect all actors addressing WSIS issues;
- Peter Schröder on "[Cherishing the Memory of Science: Towards International Guidelines for Access to Research Data from Public Funding](#);" and
- Wesley Shrum on the [science event planned during the Tunis phase](#) in November 2005.

These presentations were followed by a Roundtable Discussion with CODATA, its supporting partner organizations, and the invited speakers. The supporting partner organizations were represented as follows:

Gerard Siclet: Académie des Sciences, France

Paul Uhlir: US National Academies

Carol Priestley: International Network for the Availability of Scientific Publications (INASP)

Daniel Schaffer: The Academy of Sciences for the Developing World, TWAS

Michel Sabourin: The International Union of Psychological Science (IUPsyS)

Barry Mahon: International Council for Scientific and Technical Information, ICSTI

Kathleen Cass: CODATA

This part of the Session was chaired by Dr. Robert Chen, who has since been elected the Secretary General of CODATA.

Participants focused on four major questions related to the scientific community's role in WSIS.

1. What do you see as the major challenges facing your institution regarding scientific data management and access?

- * 20,000 petabytes (gross estimate) of data are being produced annually. The problem is not just of access, but of usability of such amounts as well.
- * Access and connectivity are essential, but only as first steps. We also need new techniques for knowledge discovery – techniques that depend on an ability to integrate knowledge at different scales.
- * New forms of dissemination are potentially useful in helping policy makers and the general public to understand scientific issues.
- * Funding is a common problem: How to persuade governments to finance data management as well as the basic science?
- * There is a lack of resources (and interest) in digitising heritage data (e.g. astronomical photographic plates).
- * There remains a mismatch in the collection of environmental data between what are being gathered and what are actually of most use, particularly in the developing world.
- * The International Mathematical Union is working on the goal of digitising all mathematical publications to produce a complete digital library of mathematics.
- * Geodiversity needs to be emphasised.
- * WSIS should emphasise the need for common data standards.
- * Personnel in the developing world need to become more involved. There are issues of language and training, and, specifically, a lack of awareness of the need for archiving data.
- * INASP emphasized the need for improved access as a first step, and can provide many examples of how the benefits of increased bandwidth to developing institutions are very quickly realised.
- * The Third World Academy of Sciences acknowledges the need for archiving, but their priority is rapid access to the latest information.

2. What issues and accomplishments do you think are the most important to highlight at WSIS in Tunis?

- * Need to discriminate among different types (and quality) of data.
- * Want to see more new horizons for science arising from WSIS, and a proper respect for, and understanding of, the role of science within the broader Information Society.
- * The need to see "better" science coming out of WSIS, and a culture change. Data should be taken seriously; the science is not finished until the associated data have been publicly posted.
- * Scientists are beginning to work towards the design of data representation languages that have common structures and vocabularies, to encourage interoperability between related domains.

3. What activities are currently taking place within your institution that directly or indirectly relate to the implementation of the Agenda for Action that has come out of the first phase of WSIS?

- * The International Polar Year of 2007-2008 (marking the 50th anniversary of the International Geophysical Year) demonstrates the role of science in promoting international cooperation.

- * The World Data Centres offer another good example.
- * The forthcoming "Electronic Geophysical Year" will contribute towards the new horizon of taking data and information seriously.
- * A project is under way to create a 1:1,000,000 digital map of the entire world, with eight layers critical to sustainable development. The best input so far has come from the developing world.
- * The OAI-PMH transport mechanism for metadata in the provision of open access is a noteworthy achievement.

4/5. What specific outcome do you think CODATA and its partners should aim to achieve in Tunis and are there specific actions, in addition to the ones highlighted above, that CODATA and its partners should take in preparation for WSIS in Tunis in 2005?

- * Renewed efforts towards the provision of electricity and power globally - no data if no power!
- * Much of science is based on relationships, and initiatives promoting interpersonal contacts should be encouraged.
- * ICT developments may lead to an entirely different structure for science in the future. CODATA should paint the picture of what science will be like in 15 years time.
- * The exercise of producing an inventory of specific activities is very important, but should not end with the Tunis summit.
- * Scientists need to engage more with policy makers on issues of relevance. Internet governance is one such area.
- * WSIS is an opportunity to emphasise the non-monetary value of sharing knowledge. This is understood intrinsically within scientific culture, but may need to be spelled out to the world at large.
- * Intellectual property rights must be managed sensitively in cooperation with WIPO.
- * Open access to data and equitable access to publications remain specific goals that should emerge from the WSIS summit in Tunis.

The Session identified five action items for CODATA:

Near-term Actions (Before February 2005)

1. CODATA will distribute a short report on the Session to all participants, together with list of participants.
2. CODATA will contact participants requesting a description of the activities that are currently been carried out by their respective scientific communities that directly/indirectly focus on the science-related issues from the Agenda for Action that came from Geneva. These activities will be highlighted in the inventory of activities that CODATA and its partners are bringing together.

Long-term Actions

3. CODATA in collaboration with its partners will compile an inventory of activities referred to in item 2.
4. CODATA in collaboration with other international organizations is organizing an International Workshop in September 2005 at UNESCO on "Building Information Commons for e-Science: Strategic Institutional and Policy Approaches."
5. CODATA in collaboration with other members of the scientific community plans to organize a number of sessions within the framework of the Scientific Event in Tunis in 2005.