

Summary Report of the 9th Meeting of the World Data System Scientific Committee

National Institute of Information and Communications Technology (NICT) Kōjimachi
Conference Room, Tokyo
17–18 October 2013

Goals of the Meeting

The principal theme of the meeting was the development of two documents*:

1. A Strategic Plan spanning a period of several years and highlighting a number of medium-term targets and their relevance to the ICSU World Data System (ICSU-WDS).
2. An associated Implementation Plan focussing on the realization of the targets; specifically, their current status, WDS mechanisms already in existence for their accomplishment, and what ICSU-WDS can do further. This document should be reviewed and updated on an annual basis according to measurements of success.

A higher goal in time might be the creation of a 'body of knowledge' to communicate and preserve knowledge within the WDS Scientific Committee (WDS-SC) vital for achieving its targets.

Data Management and ICSU-sponsored Research Programmes

- ICSU-WDS and ICSU's Committee on Data for Science and Technology (ICSU-CODATA) have been working with the Secretariat of the ICSU-sponsored Future Earth (FE) programme regarding the adoption of a data policy by FE projects. ICSU-WDS will thus firstly concentrate its efforts on the FE programme so that the WDS/CODATA approach can be validated, and therefore can be employed across other ICSU programmes prioritized by the WDS-SC.
- A focus of ICSU-WDS will be for data managers to be involved in the FE programme from the onset and for someone with a data management remit to be positioned within the FE Secretariat. At the same time, ICSU-WDS will look to promote the importance of producing and implementing data management plans to funding bodies, in particular, those reviewing proposals on behalf of such bodies.
- ICSU-WDS will attempt to negotiate with all major data repository registries about the building of a registry of trusted digital repositories and data services. Certification should be prominently shown in each profile entry such that WDS Members' information can be effectively utilized in ICSU-sponsored programmes. This effort will be conducted in parallel with a potential joint Research Data Alliance/WDS Working Group (RDA/WD- WG) looking to create a global service for trusted digital repositories.
- The proposed WDS Knowledge Network (KN) will rely on harvesting information from external sources such as the abovementioned registry. With a prototype KN portal environment under construction, the next stages of the project are:
 - Implement some immediate use cases and services from a WDS perspective.
 - Incorporate existing networks and registries.

* The Strategic and Implementation plans will be posted separately.

- Seek collaboration opportunities and independent funding.
- A first implementation of the WDS Metadata Catalogue (MC), which will form part of the knowledge base required by the KN, could be generated through bringing together some/all metadata aggregators. ICSU-WDS could then advocate those portals for its Member Organizations. WDS Members might be asked to take on some financial/maintenance responsibility for the MC if it can be shown to be an added-value common infrastructure.

Data Management Communities

- ICSU-WDS is a complex system of data systems. In the future there will be many new types of entities that will need to be incorporated into ICSU-WDS, and although the concentration has been on data repositories, data services and even legal organizations must now be included. Since 'data management' is one of the many service functions that WDS Member Organizations might undertake, the emphasis should instead be on 'scientific data services'. As an ICSU body, WDS' primary mandate is to facilitate and strengthen disciplinary and multidisciplinary science, and scientific data services and communities must be defined in this context.
- A key implementation is the provision of models and exemplars through the documenting of lessons learned/recommendations/guiding principles/case studies. The WDS-SC is in a fortunate position to be able to see the differences and similarities between communities, and can open up communication pathways. The knowledge base being created by ICSU-WDS will be able to accelerate the process of identifying commonalities.
- ICSU-WDS will build an online, interactive, visual model from WDS Member applications to understand the level of performance of data services and to provide a recommended level of practice. Such a model is not thought to exist in our community and is considered extremely useful. WDS Members will be recruited for this undertaking, as well as contributors from the Health Sciences, Social Sciences, and Humanities. It is expected that at least one journal paper will result from the research.
- Lack of trust is regarded as one of the largest problems when it comes to sharing data. Although ICSU-WDS is already endeavouring to increase trust in the 'data services sense' (i.e., documented and certified evidence of an organization's authenticity and integrity), it will look to improve/foster/engender all types of trust as a way of enhancing the data-sharing environment.
- The WDS Webinar series serves many purposes, including community building. ICSU-WDS will look to use its Webinars in the most effective manner and to gain the trust of communities. Young Scientists in particular are a very important audience since they will be the next generation of researchers/data managers. Other techniques will also be employed to supplement the WDS Webinars, for example, short recorded lectures. The WDS-SC will explore diverse channels to reach out to communities that ICSU-WDS is not already engaged with.
- For the two days preceding the 9th WDS-SC Meeting, ICSU-WDS co-hosted an International Forum on 'Polar Data Activities in Global Data Systems'. This Forum was considered successful in its remit of bring together both polar communities. As a concrete output of the Forum, the WDS-SC will compile a review document of current initiatives within the polar communities and their scope, standards employed, and any gaps for improvements and collaboration.
- ICSU-WDS will identify those organizations with International Polar Year (IPY) data and attempt to affiliate them as WDS Members. In addition, it will outreach to the Standing Committee on Antarctic Data Management, the International Arctic Science Committee, the Sustaining Arctic Observing Networks, and (more generally) data centres in the Arctic community about the potential of becoming WDS Members. ICSU-WDS will furthermore assist in IPY data rescue efforts by identifying data that can be rescued and encouraging WDS Members to accept those.

- There is a need to understand the cost of not publishing data; one-third of IPY datasets cannot be found, what are the financial implications of this? The WDS-SC will produce verifiable facts of the costs, based on available estimates, of the assets that need protection. Many of the 'lost' IPY datasets are part of the longtail of science and ICSU-WDS will start an activity concerned with the preservation of such datasets.

Communications and Outreach

- Improving of WDS visibility and outreach is seen as imperative. WDS initiatives require communication, and this is a highly important aspect of the SC's and IPO's role in ICSU-WDS. Specifically, the WDS-IPO will look to increase the visibility of ICSU-WDS by:
 - Approaching WDS Members about the possibility of having an article on ICSU-WDS in their newsletters.
 - Growing the WDS Newsletter readership via other ICSU bodies.
 - Talking with the Publishing organizations within the WDS membership with the purpose of maximizing Webinar audiences.

Moreover, all members of the WDS community will be encouraged to spread the word on ICSU-WDS in other communities and to contribute and create resources for sharing on the WDS social media pages.

- Responses from ICSU-WDS will be written to articles concerned with stewardship and accessibility of scientific data.
- The WDS-SC will publish a concise commentary on ICSU-WDS in a high-level Health Sciences journal. This commentary will explain what ICSU-WDS is, what we do, and the importance of bringing communities together for a global programme like FE (international coordination systems do not currently exist in the Health Sciences).

WDS Administrative Matters

- A note will be added to the WDS Bylaws concerning the reasoning behind using the Robert's Rules.
- ICSU-WDS now has a structure in place for accepting and utilizing funding from external bodies; a non-legal entity (a 'Voluntary Association') has been launched, and this lightweight structure is deemed an adequate framework for current needs. The articles of the Association and details of the Memorandum of Understanding between the Association and the WDS-SC have been written, but will be revised according to comments received from the WDS-SC.
- Both activities under the WDS KNMC-WG will be continued, but will be morphed into two separate WGs and new members sought. Thus, the existing WG is to complete its current tasks, document that experience, and then be split into two parts (with the Charters rewritten appropriately). The MC-WG will stay solely under ICSU-WDS, whereas the KN-WDS will continue as a WDS-WG and also approach RDA to propose a joint RDA/WDS Interest Group in order to broaden the discussion.
- The WDS-SC was unanimous in approving the joint Data Seal of Approval (DSA)-WDS WG on the Certification of Trusted Digital Repositories and Services as a formal WDS-WG (the DSA Board will also do the same). A Charter for the WG will be written in the same style as that for other WDS-WGs and a web presence coordinated with DSA.
- The WDS Data Publishing WG activity will be continued.
- The first joint WDS-CODATA Conference—SciDataCon 2014 will be held on 2–5 November 2014 in New Delhi, India. ICSU-WDS will have its business meetings either side of these dates: a WDS Members' Forum prior to the Conference and the 11th Meeting of the WDS-SC on the two days immediately after its conclusion. The ICSU-WDS and ICSU-CODATA Executive Committees have a formalized process for meetings, and one of the immediate tasks is to select a Conference Steering Committee. This Committee will then ask the community to suggest session themes for the

18/12/2013

Conference through the SciDataCon website (under construction) and decide on the main tracks.

- ICSU-WDS will attempt to obtain funding for its activities through targeted agencies. To that end, a one-page document will be generated outlining those concepts that require funding: what does ICSU-WDS want to do and how much will it cost? Nongovernmental sources of funding may be sought during this process; going to such funders directly. For example, large Information Technology companies might be able to provide funding in their research capacity.
- WDS-SC#10 is to take place on 31 March – 2 April 2013 at the ICSU Secretariat in Paris, France.