

The World Summit on the Information Society (WSIS)

The World Summit on the Information Society (WSIS) takes place, in two stages, in Geneva in December 2003 and Tunis in November 2005, organised by the International Telecommunication Union under the patronage of the UN Secretary-General. It aims to bring together Heads of State, Executive Heads of United Nations Agencies, industry leaders, non-governmental organizations, media representatives and civil society in a single high-level event, to discuss the broad range of questions concerning the Information Society and move towards a common vision and understanding of this societal transformation.

Does the Scientific Community have a role to play in this event?

August 2003 Highlights

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<http://www.codata.org>

The Committee on Data for Science and Technology (CODATA) was established in 1966 by the International Council for Science (ICSU). Working on an interdisciplinary basis, CODATA seeks to improve the quality, reliability, management and accessibility of data of importance in all fields of science and technology.

Q. Carthage, if yes, what is this role?

A. We want it to be recognised that science does indeed have an important role to play in the information society – both in relation to technological development and the use of scientific knowledge. Science is a key public good that underpins the information society. Universal and equitable access to scientific knowledge is crucial to human development. The World Summit provides a unique opportunity for the international scientific community to raise the issue of access to scientific knowledge in front of world leaders.

Q. What has ICSU done to mobilize the scientific community to ensure that their role in the information society is clearly understood within the framework of the Summits?

A. ICSU, together with CODATA and other ICSU family members, has been involved right from the start in the preparatory process and negotiations for WSIS. In collaboration with CODATA, we organized an online discussion forum from 10 February to 10 March 2003 on *Science and the Information Society*. Fifty three articles were posted and 110 registered users. (<http://www.icsu.org>).



Dr. Carthage Smith,
Deputy Executive Director
of ICSU, the International
Council for Science.

In March 2003, a two day International Symposium on *Open Access and Public Domain in Digital Data and Information for Science* took place in UNESCO headquarters in Paris. This was organized by ICSU, CODATA, the National Academy of Sciences US, UNESCO and ICSTI. The meeting sought to describe the role, value, and limits of the public domain and open access to digital data and information in the context of international research. Legal, economic, and technological issues were reviewed as well the ways to preserve and promote public domain and open access to science and technology data and information on a global basis, with particular attention to the needs of developing countries.

Following these two events, on 12 March 2003, more than 60 invited experts—leading scientists and representatives of international organizations—gathered at UNESCO in Paris to consider the role of science in the information society. Participants developed an overall Agenda for Action for consideration by all parties interested in using information and communication technologies (ICTs) for a better society. (see page 3). ICSU has now published four short summary documents on each theme of the Workshop and these are available on www.icsu.org or from the ICSU secretariat. (continued on page 2)



The World Summit on the Information Society (continued from page 1)

Q. Carthage, you refer above to the *International Symposium on Open Access and Public Domain in Digital Data and Information for Science*, how important is the issue of public domain from the scientific community's perspective and how can it achieve a balance between increasing open access to original data and safeguarding intellectual property rights (IPRs)?

A. A common pool of scientific data creates a knowledge infrastructure—the public domain for science—from which the whole of society should be able to benefit in an equitable way. In short—data created with the use of public funds should be recognized as a public resource and remain publicly accessible. Publicly funded research data should be priced no higher than the marginal cost of dissemination and be freely available on the Internet to the greatest extent possible.

Concerning the question of “balance”, safeguarding IPRs is important to stimulate innovation in many countries but it need not be in opposition to open access. For example, “fair use” exemptions can be incorporated into legislation to ensure that proprietary data is freely available for basic research and teaching purposes. Without doubt, the interests of those who hold IPRs must be balanced with society's need for the open exchange of ideas and information.

Q. In his editorial “A Challenge to the World Scientists” (*Science*, 7 March 2003) United Nations Secretary General Kofi Annan puts a very direct challenge to the scientific community: “Your advocacy can help bring about a breakthrough in access to scientific knowledge...”. And in your response to the opening question you state that “The World Summits provide an excellent opportunity for the international scientific community to raise the issue of access to scientific knowledge to world leaders”—Why is this important?

A. Scientific knowledge has international applicability. ICTs have the capacity to increase accessibility to scientific knowledge internationally. Despite this potential, the knowledge divide appears to be widening. Increasing inequalities in access to ICTs reduce opportunities for individuals and institutions to use scientific knowledge that could help foster innovation, facilitate efficient decision-making and support education and training. Inequalities in access to information and in the availability of relevant technologies lead to differences in productivity, creativity, innovation and income. If the United Nations' Millennium Development Goals are to be realized, equitable access to scientific knowledge must be made a priority.

Q. You refer to “education and training” in your previous answer. How important is this in the context of the information society?

A. ICTs offer unprecedented opportunities to support scientific education and training programmes that exploit and enhance global knowledge, yet can be tailored to local needs. An ever-increasing amount of science and technology information is freely available. Yet, without education and training on how to access and utilize it efficiently and effectively, the potential benefits for society as a whole will not be realized.

Q. According to the WSIS website (<http://www.itu.int/wsisis>) “The anticipated outcome of the Summit is to develop and foster a clear statement of political will and a concrete plan of action for achieving the goals of the Information Society”. What should the scientific community be arguing for in these documents?

A. The key role that science has played and will play in the future in developing the information society should be acknowledged. New

governance mechanisms, such as national and international commissions, that are likely to arise out of the WSIS should include scientists.

We would like it to be recognised by all governments that the public domain for science must be protected and strengthened in order for the benefits of science for society to be realised.

We would also like to see high priority attached to providing affordable, high-speed internet access to all universities and research institutes across the world. A five year deadline for this is included in the draft plan of action for WSIS and this should be maintained.

Q. Finally what is your vision for WSIS?

A. My vision is that the WSIS will be the beginning of the end for the knowledge divide in science. But, in order to achieve this, the international scientific community must accept its responsibility to engage in dialogue with all the other players that will be involved in the WSIS.

The essential role of science and scientists in building the Information Society has been understated in the Declaration of Principles and Plan of Action as currently drafted. The ICSU/CODATA Agenda for Action, as defined by the scientific community (see page 3), has already been endorsed by many of our National Members, Scientific Committees and Scientific Associates. I encourage your readers to review this Agenda and to bring it to the attention of the delegates of their country who will be attending the Summit. *Interview by Kathleen Cass.* ❖

CODATA Data Science Journal

In April 2002, CODATA launched its free peer-reviewed electronic journal. It publishes papers on the management of data and databases. The scope of the journal includes descriptions of data systems, their publication on the internet, application and legal issues. To find out more about its international Editorial Board, the latest papers and how to submit a paper please consult <http://www.datasciencejournal.org/>.

If you have any e-mail queries, please contact Professor Jack Smith, Editor in Chief, Queens University Belfast at codata@qub.ac.uk. We have started to send e-mail notifications when new issues are completed and available, using existing CODATA lists. We welcome suggestions for other names or lists. Please send Kathleen Cass your suggestions at codata2003@dial.oleane.com.

The CODATA Journal Committee is Chaired by Steve Rossouw (SA) and its members include: Marcelle Gaune-Escard, (France), Horst Kremers (Germany), Takashi Kunisawa (Japan), Krishna Rajan (USA) and John Rumble (USA).

Join the CODATA International Mailing List

If you want to learn more about CODATA activities and data related issues, we invite you to join our CODATA International mailing list. Directions to join can be found on <http://www.codata.org/instr.html>



The Georgian Academy of Sciences Applies to Become a Member of CODATA

On the 29-30 of May 2003 an International Workshop focussed on teleworking within Georgia was organized in Tbilisi by the Earth Data Network for Education and Scientific Exchange (EDNES). This was within the framework of the project WISTCIS of Information Society Technologies Program (IST) of European Commission. The main topics of the workshop were e-government and team work in the management of technology and scientific data.

CODATA activities were presented and discussed at the meeting. CODATA representatives included: Vice-president Prof. Alexei Gvishiani (Russia), Treasurer Prof. Jean Jacques Royer (France) and Prof. Jean Bonnin, Chairman of the CODATA Task Group on Virtual Laboratories in Earth Physics and Environmental Sciences. For more information on this Task Group see <http://www.codata.org/taskgroups/TGvirtual/index.html>

As a result of this Workshop, the Georgian Academy of Sciences expressed a strong interest in CODATA activities. The President of the Academy, Academician Albert Tavkheldize then met with the CODATA representatives to discuss CODATA activities following which the official letter of application was given to Professor Gvishiani. As soon as the administrative steps have been complied with, the CODATA Georgian National Committee will be established.



From right to left; Prof. Jean Jacques Royer, Acad. Albert Tavkheldize, Prof Alexei Gvishiani, Prof Jean Bonnin, Dr. Levon Chobonyan, Director of Georgian Business Communication Center, Acad. O. Natishvili, Secretary of Georgian Academy of Sciences.

CODATA's Scientific Activity Advisory Board (SAAB)

CODATA is presented with a wide range of requests for scientific activities. Proposals for CODATA Task Groups follow a procedure administered by the Secretary General, ending in approval or disapproval by formal vote at the General Assembly. To ensure that scientific activities are considered from many viewpoints – impact, cost, feasibility, need, and above all quality – a Scientific Activity Advisory Board (SAAB) was established. This Board will give advice on proposed scientific activities over the coming months. It is Chaired by Alexei Gvishiani, (Russia) and its members include: Robert Chen (USA); SUN Honglie (Beijing, China); Gordon Wood (Canada); Jean-Jacques Royer (France).

If you have scientific projects that you think CODATA should be addressing we welcome hearing from you. Please e-mail the secretariat at codata2003@dial.oleane.com.

Science in the Information Society

Agenda for Action for consideration by all parties interested in using information and communication technologies (ICTs) for a better society.

Agenda for Action

Ensure that all universities and research institutions have affordable and reliable high-speed Internet connections to support their critical role in information and knowledge production, education and training.

Promote sustainable capacity building and education initiatives to ensure that all countries can benefit from the new opportunities offered by information and communication technologies (ICTs) for the production and sharing of scientific information and data.

Ensure that any legislation on database protection guarantees full and open access to data created with public funding. In addition, restriction on proprietary data should be designed to maximize availability for academic research and teaching purposes.

Promote interoperability principles and metadata standards to facilitate cooperation and effective use of collected information and data.

Provide long-term support for the systematic collection, preservation and provision of essential digital data in all countries.

Promote electronic publishing, differential pricing schemes and appropriate open source initiatives to make scientific information accessible on an equitable basis.

Encourage initiatives to increase scientific literacy and awareness of how to interpret web based scientific information.

Support urgently needed research on the use of information technologies in key areas, such as geographical information systems and telemedicine, and on the socio-economic value of public domain information and open access systems.

Recognize the important role for science in developing and implementing the new governance mechanisms that are necessary in the information society.

Endorsements

The Agenda for Action has been circulated to the ICSU and CODATA members for consideration and formal endorsement. To date the following scientific organizations have formally endorsed this Agenda.

- The Royal Society, UK
- The Royal Society of New Zealand
- The Science Council of Japan
- The Chinese Association for Science and Technology, CAST
- The Scientific and Technical Research Council, Turkey
- National Research Council, Thailand
- Consiglio Nazionale delle Ricerche, Italy
- Academy of Sciences of Moldova
- IUPAB International Union for Pure and Applied Biophysics
- IMU International Mathematical Union
- IUPAP International Union of Pure and Applied Physics
- IUPsyS International Union of Psychological Science
- URSI International Union of Radio Science
- IUPESM International Union for Physical and Engineering sciences in Medicine
- IUHPS/DHS International Union of the History and Philosophy of Science/Division of History of Science
- IUPAC International Union of Pure and Applied Chemistry
- IUPAB International Union for Pure and Applied Biophysics
- ISPRS - International Society for Photogrammetry and Remote Sensing
- WDC Panel on World Data Centres
- COSPAR - Committee on Space Research
- IGBP International Geosphere-Biosphere Programme

Further information on the workshop can be found at www.icsu.org and www.codata.org. See also www.unesco.org/wsis



Digital Earth 2003

Information Resources for Global Sustainability
<http://digitalearth03.geogr.muni.cz>

The 3rd International Symposium on Digital Earth will be held at the Congress and Business Hotel Voronez, Brno, in the Czech Republic from Sunday 21st to Thursday 25th September, 2003. It is organized by Masaryk University in Brno, Czech Republic in close co-operation with the newly established International Society on Digital Earth. Among the conference topics are:

Data, Information, Knowledge, Technologies and Techniques

Including data standards; data centers, warehouses and services; interoperability visualization; virtual reality; data and information infrastructures; intellectual property rights; digital divide

Global Sustainability: Concepts and Debates

Including the meaning of sustainability; information, knowledge, and the well-being of citizens; ethical challenges concerning global surveillance and monitoring; policy formulation, delivery, monitoring and evaluation

Global Society Dialogue

Including the roles of other disciplines in working towards global sustainability; how do we join up disciplines to produce a joined-up strategy for sustainability?; globalization processes; poverty, health, well-being, development and the environment

A Networked Knowledge Society

Including e-government and e-governance; e-parliament; e-societies and participation; e-commerce; skills, education; organizations and organizational behavior; global sustainability versus homeland security

Delivering Services to Citizens: From Web to Mobile

Location-based technologies and techniques; geo-information networking; applications including: m-commerce, early warning, environmental security monitoring; how to close gap between information "haves" and "have-nots"?

Digital Cities, Communities and Localities

Digital marketplaces: nations, regions and cities; the spatial characteristics of new cities in a networked sustainable society; the definition of community in a networked knowledge society; citizen's concerns and needs: privacy, security, trust

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CODATA Publications Committee

CODATA has appointed a new Chair of its Publications Committee. He is Jacques Octave Dubois, Institut de Physique du Globe, France. The other members are Heinrich Behrens (Germany), Jean Garnier (France), Krishan Lal (India), Paul Mezey (Canada) and Vladimir Yungman (Russia). The Committee oversees the publication of the CODATA Newsletter and the CODATA quarterly reports. CODATA has two books that will be published over the coming months by Springer-Verlag:

Nonlinear Analysis and Control of Physical Processes and Fields

M.Z. Zgurovsky and V.S Melnik

Thermodynamic Data, Models, and Phase Diagrams in Multicomponent Oxide Systems – An Assessment for Materials and Planetary Scientists based on Calorimetric, Volumetric, and Phase Equilibrium Data

O. B. Fabrichnaya, S. K. Saxena, P. Richet and E. F. Westrum

CODATA would like to thank the previous Chairman, Heinrich Behrens for all his work over the last two years and in particular in the preparatory process leading to these publications. If you have any questions concerning any of the above please contact the secretariat at codata2003@dial.oleane.com and they will be forwarded to the Publications Committee.

E-Drug Discovery

An International Symposium on 'E-Drug Discovery' took place 20-23 May, 2003 in Seoul, Korea. It was jointly organized by the Bioinformatics & Molecular Design Technology Innovation Center (BMDTIC) and the CODATA Task Group on Data Sources in Asian and Oceanic Countries (DSAO). The symposium was an important event within the discipline for the exchange of research and practices in E-Drug Discovery. Among the topics discussed were; cutting-edge methods in in-silico drug discovery technologies. The Symposium recognized the tremendous potential of Chem-informatics, Virtual Screening, ADME/Tox, and Physiome for improving the quality of life in this new paradigm of the digital era. Over twenty prominent and internationally recognized speakers from all regions of Asia- Oceania were invited and delivered exceptional lectures. Professionals from universities, research institutes and industry shared their knowledge and expertise. The symposium consisted of 4 main sessions, poster session, supporter presentation, venture capital presentation and tutorials. The details of Symposium can be found on <http://codata.kisti.re.kr/dsao2003/>. The proceedings will be available within the next few months. For additional information on the DSAO Task Group see: <http://www.codata.org/taskgroups/TGasian/index.html>

OBITUARY

In Remembrance... Götz Gabert 15.06.1927-20.07.2002

It is with great sadness that CODATA remembers Dr. Götz Gabert who passed away on the 20th of July 2002. For over 20 years, Dr. Gabert was very active within the CODATA family. As recently as 2000 he participated at the 17th International CODATA Conference in Italy and he presented a paper on: "Historical Geo Data: The Baveno Data Set."

As an international geologist, he was outstanding in his field creating the first ever map of Tanzania using remote sensing equipment. He worked on many projects all over the world, including projects in the Himalayas and South Africa. His publications included:

"Geological Map of the Northern Volcanic Field" (Bayuda Desert, Sudan). Meinhold, K.D.; Gabert, G.; Schmidt, B. (1978)

*"Selected Methods for Computer Applications in Resource Studies"
Gabert, G. (1984)*

*"Integration of Landsat TM Data and Spot Digital Elevation Model Applied to Geoscientific and Geotechnical Research in the area North of Katmandu, Nepal"
Gabert, G.; Amtaya, K.M.; Bardinnet, C.; Bournay, E.; Hoppe, P.; Pradhan, P. (1997)*

CODATA wishes to extend its sincere condolences to his family. ❖

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