ifip News
the leading edge of information technology

September 2005

WSIS - and a Step Forward

by Marianne Nganunu, Permanent Secretary, Ministry of Communications, Science and Technology

A concern to people all over the world and, not least, in developing countries is the lack of implementation of policies and strategies. In developing countries ICT related projects, which tend to be technology intensive, are likely to suffer from both lack of financial resources and local skills. At the same time, Heads of State and policy makers are aware of the power of ICT as a tool to address development issues related to poverty, health, education and unemployment. This was discussed at WSIS I in Geneva in 2003. The WSIS Declaration of Principles and Plan of Action chart the way forward how ICT can help address the UN Millennium Development Goals.

The World Information Technology Forum (WITFOR), which is an initiative of the International Federation of Information Processing and which was launched in Lithuania in 2003, is developing into an instrument to take WSIS one step forward, i.e. from policy to action. Thus, WITFOR 2005, which was held in Gaborone Botswana, was designed to help developing countries overcome financial obstacles through the use of innovative practices, partnerships and shared resources.

The outcome of WITFOR 2005 is the "**Gaborone Declaration**" and, attached to it, "**Proposed Projects and Actions**". Refer to the WITFOR 2005 website, www.witfor.org.bw . The projects listed are best practice case studies from around the world, as well as new ones, which countries can copy and adapt to their needs.

The theme for WITFOR 2005 was "ICT for Accelerated Development", and the specific objectives were:

- to find ways of utilising ICT for accelerated development in line with the UN Millennium Development Goals and the WSIS Plan of Action;
- to pay special attention to the needs of developing countries and to assist them in accelerating development through the applications of ICT;

Some 800 delegates, representing 66 countries and all continents of the world met in Gaborone Botswana from August 31st to September 2nd 2005 to address the above theme and objectives under eight separate sub-themes or Commissions. These were:

- Building the Infrastructure
- Economic Opportunity
- Empowerment and Participation
- Health
- Education
- Environment
- Agriculture
- Social, Ethical and Legal Aspects

(Continued on page 2)

In this issue:

WSIS—and a Step Forward 1
WITFOR 2007 2
The Stellenbosch Declaration 3
EUROSPI 2005 4
CARDIS 2006 5
TC2 Vice Chair 6
Algebra and Coalgebra 7
News from IFIP Secretariat 7
General Assembly 8
George B. Dantzig 8
Giorgio Sacerdoti 10

(Continued from page 1)

Each Commission, which was chaired by a team of international experts, was tasked to present a best practice case study from anywhere in the world, proposing a project that can be implemented as a partnership project between countries (N-S or S-S), ideally with a research component, and with the potential to bridge the digital divide.

The Forum was opened by His Excellency the President of Botswana and the participants included the Prime Minister of Namibia, about 20 Ministers and another 10 VIPs. Other delegates were senior government officials, CEOs from the Private Sector, academics and some NGOs. The participation was greatly enhanced through the financial support from the ACP Group, which offered support for one delegate from each ACP country. Presentations were of high professional quality, the case-studies attracted much interest, and the Gaborone Declaration was adopted. The Commission co-chairs all delivered their assignments as expected and all to a very high professional standard. Although there as no formal evaluation of the Forum, all verbal reports indicate that the delegates were very happy with the delivery of the sessions and the outcome.

The project proposals emanating from WITFOR are presented as an annex to the Gaborone Declaration as Proposed Projects and Actions. Some projects were already launched at WITFOR. For example, a SADC Education project that will provide a virtual resource centre for teachers, and a Europe-SADC Health project that aims to develop a health information system using open-source software. The European Commission's 6th Framework Programme's Information Society Technologies (IST) program has already provided seed funding for the health project, referred to as the BEANISH project (Building Europe Africa collaborative Network for applying IST in the Health Care Sector), to be implemented as a partnership project between two European countries and six African countries.

The Forum's success included adequate funding, wide range and level of participants, the involvement of the private sector and NGOs, the private-public sector partnership, the sharing of best-practice socio-economic ICT projects from around the world, the initiation of new projects, and the adoption of the Gaborone Declaration. The Forum was also well publicised and many could watch the proceedings from their homes. The Forum was broadcasted throughout Sub-Saharan Africa by satellite television and throughout the world through web casting. High-profile sponsors were able to exhibit and showcase state-of-the-art technology. These included large ICT multinationals as well as the European Commission, UNESCO and many others. The local community, in particular the local telecommunications regulator and telecommunications providers, including many other local ICT private sector companies, also took a very active part in WITFOR, both as organisers or sponsors.

The limited exhibition space may be seen as a constraint. The Forum was not able to provide exhibition space to all sponsors (about 40) due to the space available in the conference foyer. Therefore a decision had to be made to limit the exhibitors to the high-profile sponsors, i.e. those who contributed Euro 50 000 or more. The issuing of visas initially appeared as a big problem, as there are not many Botswana Embassies around the world, but was resolved by the Immigration Department in Botswana who agreed to issue visas on arrival. Thus, letters were faxed to registered participants to confirm the above and to facilitate their travel.

The registration of such a large number of participants posed a potential risk. With press, exhibitors, technical and other support staff we had about 1250 registrations. This potential problem was resolved as one of the resourceful sponsors agreed to use their resources and experts to handle the registration. Thus, the registration process ended up being smooth and efficient.

The WITFOR event and all documentation can be found on the website, www.witfor.org.bw . In particular, readers are advised to check the website for the Gaborone Declaration and project ideas. The plan is that the ideas for projects should grow and that the website develops into a valuable resource for developing countries around the world. WITFOR 2007, which will he held in Ethiopia, will be an opportunity to take stock of the success.

WITFOR 2007

Immediately after IFIP WITFOR 2005 already the first informal meeting for WITFOR 2007 took place during breakfast (Saturday morning, 07.00 a.m.) between Dipak Khakhar (Chair of the WITFOR 2007 Steering Committee), Leon Strous (program chair) and his Excellency Getachew Belay, Minister of Revenue, Chairperson Ethiopian Telecom, Member of the National ICT Coordinating Committee for Development, Ethiopia.

THE STELLENBOSCH DECLARATION

ICT IN EDUCATION: MAKE IT WORK

The participants of the IFIP 8th WCCE (World Conference on Computers in Education), held in Stellenbosch, South Africa, July 2005, address to all stakeholders in ICT in Education: teachers, practitioners, researchers, academics, managers, decision-makers and policy-makers, the "Stellenbosch Declaration", in order to improve the integration of ICT in Education as a resource for better teaching and learning and as a preparation of citizens for the Knowledge Society.

This Declaration has been produced from the ideas provided by speakers and participants in the WCCE 2005. It will be widely disseminated all around the World, and particularly in the next international major events, such as the WSIS (World Summit on the Information Society), Tunis, November 2005. All IFIP members are invited to help disseminate this important contribution of IFIP to the development of ICT in Education.

Abstract of the Declaration:

(the full text is available on the IFIP website and includes recommendations and suggestion for possible actions http://www.ifip.org/home/TheStellenboschDeclaration.pdf).

As educators, we want not only an Information Society, but a Knowledge Society, enabling all children and all people to access knowledge and to benefit from being educated. Education is a key issue in the Knowledge Society, and educators have a major mission. Particularly, it is the responsibility of all educators and decision-makers around the world to help developing countries take part in the developments of ICT in Education.

Six major areas will shape a beneficial use of ICT in Education:

1. **DIGITAL SOLIDARITY**

In the field of education, ICT should help develop "Digital Solidarity". This requires strong and joint actions of all stakeholders to guarantee the right of participation in the digital society for all students in the world. We recommend a **Digital Solidarity Action**, which will define the most important aim for the next five years, that every child in the world has access to a digital information and communication infrastructure.

2. **LEARNERS AND LIFELONG LEARNING**

In the Knowledge Society, every learner is a lifelong learner. The content and the methods of initial education must take into account preparation for lifelong learning. ICT is a key tool for developing lifelong learning. The development of lifelong learning needs an integration of education into the real world - ICT should be used for this purpose. Lifelong learning must be encouraged in all countries, as a tool for reducing the Digital Divide.

3. **DECISION-MAKING STRATEGIES**

In order to help decision-makers and to make decisions meet the real needs, bridging research, practice, experimentation, innovation with decision-making is essential. Decision-makers should make better use of the experience of practitioners and the findings of researchers. In turn, Practitioners and researchers should make their findings and results more visible and usable for the decision-makers. Educators and researchers should help in elaborating a vision and making it explicit.

4. **NETWORKING**

The Knowledge Society is networked. Networks in education offer many ways to access knowledge, offer many possibilities for networking people and developing collaborative work and enhancing the "collective intelligence". There is a need to develop networks and to involve all countries, particularly developing countries, in the education networks. Help in making the following sentence of an African child become reality: *"I am a child of Africa and a citizen of the world".*

5. **RESEARCH**

The development of ICT-based education and training processes is a growing reality. Therefore there is a need to continue research work on the development of these technologies and their applications. A certain realignment of research priorities is necessary: Bridging the gap between technology and pedagogy; development of solid theoretical frameworks; development of an understanding of the use

(Continued on page 4)

(Continued from page 3)

and the effects of ICT in Education; finding an appropriate balance between fundamental, applied, and development research as well as between public research and research made by the private sector. The output of research should be made widely available, as open source, for improving practice, decision-making, and resources development.

6. **TEACHERS**

Being a teacher in the Knowledge Society requires new specific competencies: a teacher has to deal with new knowledge, new ways for accessing knowledge; with a networked world and with new types of co-operation and collaboration; with a society in which knowledge plays a crucial role; with life-long learning. Teachers are the key agents in the education system. It is our common responsibility to help all countries to train and recruit teachers, and to involve all teachers in international networks. ICT changes teaching and learning, but technology is not the main issue. "Technology matters, but good teachers and good teaching, matter more".

IFIP Committee on Education (TC3)

Contact:

Prof. Bernard Cornu, Chairman of the Declaration Committee, bernard.cornu@inrp.fr

Prof. Jan Wibe, IFIP TC3 Chairman, jan.wibe@plu.ntnu.no

EuroSPI²2005

European **S**oftware **P**rocess **I**mprovement and **I**nnovation Conference in Budapest

at the heart of the historical Castle District, one of UNESCO's World Heritage sites

9-11 NOVEMBER 2005

http://2005.eurospi.net/

Local partner: http://www.njszt.hu/ John von Neumann Computer Society

EuroSPI is a European initiative with a tradition going back to 1994, creating a forum for experiences that can be reused to benefit your organisation. EuroSPI is collaborating with nearly all SPINs (Software Process Improvement Networks) in Europe.

EuroSPI²2005 research and industrial experience papers originate from 19 different countries.

Key Notes

Janos Feheregyhazy, Regional Strategy Siemens PSE Group
"Software Excellence and Outsourcing Experiences"

Rias van Wyk, University of Minnesota, USA, - "Innovation Foresight"

Ferenc Bati, Hungarian Software Alliance
"The Role of Process Improvement in the Development of Hungarian Offshore Software Industry"

(Continued on page 5)

(Continued from page 4)

Research proceedings published by **Springer** Verlag in the **LNCS** (Lecture Notes on Computer Science) series http://www.springer.de/comp/lncs/index.html.

Selected industrial experience papers published by **Wiley** in the **SPIP** (Software Process Improvement and Practice) Journal http://eu.wiley.com/WileyCDA/WileyTitle/productCd-SPIP.html.

Support and Manfred Paul best paper award for Excellence in Software: Theory and Practice offered by **IFIP TC2** (International Federation for Information Processing). http://www.ifiptc2.org/

EuroSPI^{2}2005 Conference participants are eligible to receive up to 21 total continuing professional education (CPE) credits which are recognized for **CISA® and CISM®** CPE hours by **ISACA** (Information Systems Audit and Control Association). http://www.isaca.org/

Advance Conference Programme, Call for Exhibitors, Sponsors and further information:

http://2005.eurospi.net/

Dr. Miklós Biró, the local chair of EuroSPI^{2}2005, is also ready to answer your questions at:

miklos.biro@informatika.uni-corvinus.hu

CARDIS'06

Tarragona, CAT, Spain

April 19-21, 2006

WG8.8 – Smart Cards

WG11.2 – Small System Security

The **7th Smart Card Research and Advanced Application IFIP Conference**, organized by IFIP Working Groups WG 8.8 and WG 11.2, will be held in Tarragona, Catalonia, Spain, April 19-21, 2006.

Since 1994, CARDIS is the foremost international conference dedicated to Smart Card research and application. Every two years the scientific community congregates to present new ideas and to discuss recent developments. CARDIS'06 will bring together leading researchers and practitioners in the development and deployment of state of the art Smart Card technologies.

Conference Scope

The program committee seeks papers describing the design, development, application, and validation of Smart Card technologies. Submissions across a broad range of Smart Card development phases are encouraged.

Topics of interest include, but are not limited to:

- Smart Device, Person Representation and Ambient Intelligence
- Smart Device, Identity, Privacy and Trust
- Smart Card (Smart Device) and Applications in the Internet
- Smart Card and Smart Device software
- High-level data model and management
- Application development and deployment
- From Smart Card to Smart Device (hardware, form factor, display)

Conference General Chair

Josep Domingo-Ferrer, *Universitat Rovira i Virgili, ES*

Program Committee Chair

Joachim Posegga, *University of Hamburg, DE*

Program Committee

Boris Balacheff, *Hewlett-Packard Labs, UK*
Bertrand du Castel, Axalto, USA
Josep Domingo-Ferrer, *Universitat Rovira i Virgili, ES*
Dieter Gollmann, *TU Hamburg-Harburg, DE*
Louis Guillou, *France Télécom, FR*
Pieter Hartel, *University of Twente, NL*
Peter Honeyman, *University of Michigan, USA*
Dirk Husemann, *IBM Research, CH*
Eduard de Jong, *Sun Microsystems, USA*
Jean-Louis Lanet, *INRIA-DirDRI, FR*
Javier Lopez, *University of Malaga, ES*
Bernd Meyer, *Siemens AG, Munich, DE*
Mike Montgomery, *Axalto, USA*
Pierre Paradinas, *CNAM, FR*
Jean-Jacques Quisquater, *Université Catholique de Louvain, BE*
Francesc Sebé, *Universitat Rovira i Virgili, ES*
François-Xavier Standaert, *Université Catholique de Louvain, BE*
Jean-Jacques Vandewalle, *Gemplus Labs, FR*

Advisory Committee

José A. Delgado-Penín, *IEEE Spanish Section Chair*

(Continued on page 6)

(Continued from page 5)

Biometrics and Smart Cards
High-speed, small-footprint encryption
Cryptographic protocols for Smart Cards
Attacks and countermeasures in hardware and software
Hardware, software and service (application) validation and certification
Formal Modeling
Security of RFID systems
Interplay of TPMs and Smartcards

Instructions for Paper Submission

Accepted papers will be presented at the conference and published in the proceedings, which will appear in Springer's Lecture Notes in Computer Science. Abstracts and papers must be submitted in electronic form using the conference tool setup for this conference (see submission section on **www.cardis.org**). Abstract information should be provided until **October 9th, 2005**. Paper submission must be completed until **October 16th, 2005**. If you experience any problems submitting your paper you may also use **submission@cardis.org**.

The only accepted formats are PDF and PostScript files which have to strictly follow the templates or style files indicated by the publisher (see submission section on www.cardis.org). For more details, please see the original call for papers at www.cardis.org.

TC2 Vice Chair receives top scientific accolade

Professor Judith Bishop, graduate of the School of Electronics and Computer Science, has been named Distinguished Woman Scientist of the Year in South Africa.

Professor Bishop is both a graduate of ECS, having received her PhD in the 1970s, and a former member of staff, who taught in the School in the 1980s and 1990s. She is now based in the Department of Computer Science at the University of Pretoria, and works on frameworks for distributed systems that prolong the lifetime of highly expensive software by enabling machine-dependent components to be monitored, identified and exchanged. Her innovative re-targeting methodology, pioneered on the Views system, has made it possible to re-target GUI software from Windows to Linux without rewriting it. She is now working with Microsoft Research and a local company on the Nomad system, which will enable closed groups of collaborators to exchange information effectively in today's mobile world when connectivity is essential, but not always there.

Judith Bishop began her career as a computer scientist at Rhodes University in 1970, and published her first paper before she was 21. She has always been at the front of her field of programming languages for distributed systems. She wrote the first BASIC compiler for ICL1900 computers in 1972, and was involved in the first Pascal compiler for 2900 computers while working on her PhD under David Barron in 1976. She joined the staff of ECS in 1988, and worked with Tony Hey's group on the design of distribution models for Ada on transputers. She wrote the first Java textbook to become widely used and translated in 1997, and most recently one of the first C# textbooks in 2004.

Professor Bishop is the top NRF-rated woman computer scientist in South Africa and has published over 70 journal and conference papers. Her 15 books are available in six languages, and read worldwide. She is a Fellow of the British Computer Society, a Founding Fellow of the SA Institute of Computer Scientists, was awarded the prestigious IFIP Silver Core Medal for her services to the international IT community, and has been involved in grant-awarding and conference reviewing panels internationally for 20 years. She has active inter-government collaborations with Italy, German, Canada and Scotland. She has organized numerous conferences and workshops in South Africa, aimed at keeping postgraduates involved in cutting-edge research. She is keenly interested in computer science at schools and was chosen as the university expert involved in setting the new curriculum and assessment guidelines.

Professor Bishop lives in Brooklyn, Pretoria, and has two sons who both studied at the University of Pretoria. While in Southampton, she was an Akela of the Brookvale Cubs in Highfield, and has had a lifelong association with the Scouts. See http://www.cs.up.ac.za/~jbishop for more information.

The Women in Science Awards of South Africa recognize the contribution of outstanding women in scientific research, as well as the role of women in the development and sharing of knowledge that contributes to improvement in people's economic status and quality of life.

Conference on Algebra and Coalgebra in Computer Science

The first Conference on Algebra and Coalgebra in Computer Science (CALCO) was held at the University of Wales Swansea, September 2-6, 2005. IFIP sponsored a well-attended workshop dedicated to young researchers: CALCO-jnr. All together, 20 members and observers of IFIP WG1.3 (Foundations of System Specification) were involved in the organisation and the program of CALCO. They were joined by several more members and observers in a three-day WG1.3 meeting hosted by Prof Peter Mosses just after the conference. Five new members were admitted: Dr Alexander Kurz (Leicester, UK), Dr Narciso Martí-Oliet (Madrid, ES), Dr Dirk Pattinson (Munich, DE), Dr Grigore Rosu (Illinois, US) and Dr Mark Ryan (Birmingham, UK).

A committee chaired by Prof José Fiadeiro and Prof Jan Rutten put together a very strong program that reported both theoretical work on the mathematics of algebras and coalgebras and the way these results can support methods and techniques for software development.

The 25 papers, selected from 68 submissions, together with three invited talks by Prof. Samson Abramsky, Prof. Peter Mosses and Prof. Vladimiro Sassone, attracted 77 participants from all over the world. Dr Neal Harman, Dr Markus Roggenbach and Dr Monika Seisenberger were highly praised for the enthusiasm and energy they put into the organisation of CALCO. With the help of a number of other members of the Department of Computer Science, they created a perfect environment in which ideas were freely exchanged and new collaborations initiated. Springer, through the publication of LNCS 3629, and Will Harwood, through a collection of superb photographs, ensured that the memory of CALCO will not be lost. Hopefully, they will also stimulate participation in the next conference, which is scheduled to take place in Bergen, Norway, 2007. More details (and the photographs) can be found at www.cs.swan.ac.uk/calco.

News from the IFIP Secretariat

With regret I have to inform you that **Mrs Christine McKenzie** has decided after being with IFIP for one year to pursue a full-time university course and so she left IFIP after GA mid September.

I am very pleased to announce that **Ms Brigitte Brauneis**, who has worked half-time in the IFIP secretariat for a number of years, has agreed to move to the post of Event Facilitator on a full-time basis. With her knowledge of IFIP's business and her customer minded friendly attitude she is very well prepared to overtake those new responsibilities (brigitte.brauneis@ifip.org).

Ms Marion Smith joined IFIP mid September. She is taking over the responsibilities of Ms Brigitte Brauneis as an Administrative Assistant on a part-time basis. Ms Smith is Austrian inhabitant, but she lived and worked in the USA for twelve years (marion.smith@ifip.org).

Lively GA in Gaborone

GA members gathered in Gaborone as guests of the Botswana Information Technology Society (BITS). Following a highly successful WITFOR conference, GA members were in good spirits as they elected **three new members** – Mauritius, Ethiopia and Zambia. A new Portuguese member was welcomed as ADPSI took over from API. GA was pleased to welcome a number of Member Society Presidents to its meeting from Chile, Croatia, Sri Lanka and Zimbabwe.

The IFIP President welcomed the initiative to establish a **regional grouping of African computer societies** which had been launched during WITFOR. He wished all concerned every success and looked forward to the new organisation joining IFIP's other regional bodies CEPIS, CLEI and SEARCC.

Congratulations go to Jean-Claude Laprie (France) and Joe Turner (USA-ACM) who were re-elected as Vice-President and Trustee respectively. A warm welcome goes to Chris Avram (Australia) who was elected to the vacant Trustee position. Mike Hinchey was welcomed as the incoming TC1 Chair with effect from January 1st 2006.

GA 2008 will be held in Milan in northern Italy. IFIP's Italian member, AICA, presented a very strong bid to host the event and GA overwhelmingly accepted the offer. GA heard that the contract for **WITFOR 2007** had been signed with the Ethiopian government and will be held in Addis Ababa.

IFIP's overall **financial position** remains strong. For 2004, the Treasurer was able to report an audited surplus of €195K although the new publications contract and declining conference attendance is reducing income which is being matched by reduced expenditure.

Marketing Committee continues to advance the IFIP image. The new IFIP banner was visible at WITFOR and GA. A new poster and leaflet about IFIP's work has been printed and will be provided to all conference organisers. The banner will also be available for loan. Updating of the web site is in hand and a new site will be launched soon.

Three new Working Groups and one Special Interest Group were approved on Concurrency Theory (WG 1.8), ICT and Sustainable Development (WG 9.9), Human-work Interaction Design (WG 13.6) and Life-long Learning (TC3 SIG).

The IFIP President closed GA with **warmest congratulations to our Botswanan hosts** for a hugely successful WITFOR conference and IFIP's sincere thanks for a very enjoyable and productive GA.

In memoriam George Bernard Dantzig

George B. Dantzig, one of the founding fathers of Operations Research and creator of the simplex method, passed away on May 13th, 2005, in Palo Alto, California.

Dantzig began his study of mathematics at the University of Maryland (to receive his A.B. in Mathematics and Physics in 1936) and continued at the University of Michigan, where he received his Master's degree (1937). Afterwards he went on to pursue his mathematical interests in Washington D.C. at the U.S. Bureau of Labor Statistics from 1937 to 1939. Seeking a deeper understanding of mathematical statistics, Dantzig was successful in entering the PhD program at UC Berkeley under the guidance (and with the support) of Jerzy Neyman. The onset of World War II interrupted his studies from 1941 to 1946, when he worked for the Combat Analysis Branch, U.S.A.F., Washington D.C., but he returned in 1946 to finish his doctorate.

(Continued on page 9)

(Continued from page 8)

Also in 1946, Dantzig was appointed as the Mathematical Advisor to the U.S. Air Force Comptroller. His mission at this time was "to find a way to compute more rapidly a time-staged deployment, training and logistical supply *program*". His research lead him to formulate a model which focused on linear relations (as familiar at that time as *activity analysis*). What proved unusual at the time was the fact that he employed a linear objective to be minimized. Thus, this was apparently the first formal instance of a *linear programming problem*. Drawing from his PhD thesis, he "proposed in the summer of 1947" the simplex method, "and by good luck it *worked*". Due to Dantzig, the "first large-scale application of the simplex method was to the determination of an adequate diet at least cost". This work, carried out at the National Bureau of Standards, continued through the fall of 1947. The diet problem involved 9 equations in 77 non-negative variables, and the objective was to find a cost-minimal diet. At the time, the immense scope of the problem was readily apparent: "Using hand-operated desk calculators, 120 man days were required". Given the astounding development in computer technology since the 1940's, it is clear why linear programming in general, and the simplex method in particular, could develop to such a powerful tool even for large scale applications. On the other hand, among models from OR applications, at present linear programs seem to use the highest proportion of computing time.

In 1952 Dantzig took an appointment at the RAND Corporation, where he began to consider a wide variety of optimization models and their corresponding mathematical issues. Much of this work was motivated, in part, by practical problems: implementation issues of the revised simplex method (with W. Orchard-Hays), duality theorems (with A. Orden), the dual simplex algorithm, the minimal number of tankers to meet a fixed schedule as well as maximal flows in networks (with D.R. Fulkerson), (mixed) integer programming, shortest paths in networks, machine-job scheduling, solution of large-scale traveling salesman problems, the decomposition principle and the corresponding algorithm for linear programs (with P. Wolfe) with possible applications to a variety of decentralized business organizations (as just one famous example the National Biscuit Company in the U.S.), stochastic linear programming (then called programming under uncertainty; in part together with A. Madansky), multistage (i.e. dynamic) linear programming, and numerous other applications.

In 1960 Dantzig joined the faculty of the Operations Research Center at UC Berkeley both as a Professor and Chairman. In 1963, he published *Linear Programming and Extensions* (which due to its subtitle: *A RAND Corporation research study* was substantially influenced by his activities at RAND). This proved to be the standard text on the subject for many years. Furthermore, he continued to do research in most of the topics mentioned above, as well as adding new ones, for example linear complementarity problems (with R.W. Cottle).

Finally, in 1966 Dantzig moved to Stanford University, where he took a position as Professor for Operations Research and Computer Science. Here again his activities were concerned with some of the above problems, but also new ones arose: the investigation of the stability of nonlinear optimization problems (with J. Folkman and N. Shapiro), particular problems of control/dynamic programming, the expected number of steps of the simplex method, and importance sampling within a Monte Carlo approach to solve stochastic programs. Due to the fact that he actually dealt with many practical problems, he became aware of the fact that an institution was needed to address the wide scope of these various types of optimization issues. This was the impetus for the formation the Systems Optimization Laboratory at Stanford University, well known among practitioners and scholars for its efficient and reliable commercial optimization software package MINOS. Dantzig's particular interest in the nation's energy problems spurred him to seek possible applications in this area for mathematical programming. This eventually lead to the Energy Modeling Forum on the campus of Stanford University, where, starting in the 1970's, the multi-period investment and production model PILOT (which dealt with the U.S.'s energy supply) was set up as a dynamic linear programming problem.

Due to his impressive and groundbreaking work in the development of Operations Research (in particular in the area of Mathematical Programming), Dantzig received numerous awards. Among others, he received the U.S. President's National Medal of Science, the John von Neumann Theory Prize, the National Academy of Sciences Award in Applied Mathematics and Numerical Analysis. He was honored by various academic institutions: he became a member of the National Academy of Engineering, a fellow of the Econometric Society, the Institute of Mathematical Statistics, the American Academy of Arts and Sciences, and the Operations Research Society of America. He received honorary doctorates from eight universities.

The pioneering work of George B. Dantzig lies at the core of a great deal of scientific activities of TC 7, the IFIP Technical Committee on System Modelling and Optimization, and of most of its Working Groups. This is readily evident by simply looking at the recurring themes of all general TC 7 Conferences since the start: particularly the development of algorithms and the corresponding theory in linear, nonlinear, discrete programming, in operations research, and their application in many areas. This core basis is now tied together to another major theme of TC 7, namely the use of optimal control as a broad platform to address ever complex modeling situations, which are also rooted in carrying out realistic simulations.

It is abundantly clear that TC7 is greatly indebted to George Bernard Dantzig for his person, devotion, and work. Those of us who had the honor of personally knowing George Dantzig will certainly remember his lasting activities --- even after his retirement in 1997 (!) he continued to participate in the scientific life. Many of us also have fond memories of his character. George Dantzig had a modest and friendly air in conversation; he was always frank, fortright, and sharing when asked about certain problems of mathematical interest. He was also a careful listener and readily dispatched excellent advice and valuable correspondence. He will be greatly missed.

In memoriam Giorgio Sacerdoti

Giorgio Sacerdoti, a pioneer in the development of Italian informatics, died on May 25, 2005.

He graduated in electrical engineering from the University of Rome in 1953 with a thesis on electronic computers, the first one in Italy. In 1954 he was charged with the installation of a Ferranti computer at the Istituto Nazionale per le Applicazioni del Calcolo, a research structure within CNR, the Italian National Research Council, and subsequently was named director of its computing center.

In 1956 he became a member of a group of young researchers within the Laboratorio di Ricerche Elettroniche which had been setup by the Olivetti Co. in Pisa. He was involved in the design and construction of a then large size computer, assuming the responsibility for the overall system design and for the design of software. The computer, the first built in Italy, was commercialized starting from 1959 with the name of ELEA 9003. It was a very advanced realization for the time considering its overall system design, its technology (all solid state) and its physical layout.

In 1960 the Laboratorio moved to Milan and in 1962 Giorgio Sacerdoti became its Director. The Laboratorio was involved in the design of other models of what had become the ELEA series of computer, including their peripheral devices, and he maintained the same responsibility when Olivetti's activities in electronics were grouped within a newly formed company, Olivetti General Electric. During this period of time for two years he also taught a newly established course on "Electronic computers" in the College of Engineering at the University of Genoa.

In 1967 he moved to the Olivetti headquarters in Ivrea, where he became director of personnel training and development for the entire Olivetti Group in the world. In such a capacity he gave substantial support to the development of training and teaching approaches based on audiovisual and computer technologies and worked constantly to convince public and private structures of the importance of spreading the informatics literacy to all people, and in particular to the younger generations. At the same time he promoted the implementation of software for teaching applications.

In 1971 he was named General Director of a research firm, SAGO, located in Florence and working on applications of electronic and computer technologies to the medical and health sectors. From 1971 to 1985 he taught a course on "Technologies for system organization" at the College of Engineering of the University of Florence and in 1985 he started teaching a course on computer architecture at the University of Brescia.

During his long professional career Giorgio Sacerdoti has devoted a lot of time and efforts to AICA, the Italian association member of IFIP, and was its President for three 2-year terms. As member of AICA he represented the association in many cultural and organizational structures and extremely significant was his service within IFIP. Indeed he was the Italian representative to the General Assembly from 1977 to 1999 and in 1983 received the Silver Core. His additional responsibilities included:1977-85 member Committee for International Liaison; 1984-85 member Committee Informatics for Development; 1987 member Activity Development Board; 1989-91 member Activity Management Board; 1989 member Nomination Committee for Officers; 1990-99 member Admissions Committee.

With his demise our field has lost a person appreciated for his calmness, knowledge, wisdom and sensibility and that will always be remembered because, (overcoming his physical impairment,) he was able to communicate and share enthusiasm and passion for serious work with all the people with whom he came in touch.

Contacts:

IFIP President: Prof.Dr.Klaus Brunnstein
brunnstein@informatik.uni-hamburg.de

Secretary: Dr. Roger Johnson
r.johnson@bcs.org.uk

Treasurer: Prof.Dipak Khakhar
dipak.khakhar@ics.lu.se

Head of Secretariat: Eduard Dundler
eduard.dundler@ifip.or.at

IFIP Secretariat:
Hofstraße 3, A-2361 Laxenburg, Austria
e-mail: ifip@ifip.or.at, Tel.: +43 2236 73 616

For your diary – forthcoming IFIP events

EVENT	Date / Location
IFIP International Conference on Very Large Scale Integration	**17-19.10.2005** Perth, AU
EduTech http://www.iess.org/edutech05.html	**20-21.10.2005** Perth, AU
First International Week on Management of Networks and Services http://www.manweek2005.org	**24-28.10.2005** Barcelona, ES
Latin-American Symposium on Dependable Computing http://www.lasid.ufba.br/ladc2005	**25-28.10.2005** Salvador, BR
I3E: The IFIP Conference on e-Commerce, e-Business, e-Government cellary@kti.ae.poznan.pl	**26-28.10.2005** Poznan, PL
The 20th Intl. Symposium on Comp. and Inf. Sciences http://iscis05.dmpe.boun.edu.tr/	**26-28.10.2005** Istanbul, TR
Visions of the Information Society http://www.empa.ch/vis2005	**03-04.11.2005** St. Gallen, CH
European Software Process Improvement 2005 (EuroSPI 2005) http://2005.eurospi.net	**09-11.11.2005** Budapest, HU
Design and Semantics of Form and Movement robert.young@northumbria.ac.uk	**11.11.2005** Newcastle upon Tyne, UK
1st IFIP Working Conference on Computer Aided Innovation andreas.jost@daimlerchrysler.com	**14-15.11.2005** Ulm, DE
Network Control and Engineering http://www.Net-Con2005.org	**14-18.11.2005** Lannion, FR
International Middleware Conference jean-bernard.stefani@inria.fr	**21-25.11.2005** Grenoble, FR
IFIP International Conference on Network & Parallel Computing http://grid.hust.edu.cn/npc05/	**30.11-03.12.2005** Beijing, CN
IFIP TC11WG11.1&11.5 Joint Working Conference on Security Management, Integrity, & Internal Control in Information Systems http://csis.gmu.edu/faculty/jajodia.html	**01-02.12.2005** Faifax- Virgina, USA
IFIP TC8 Working Conference on Mobile Information Systems www.mobis-ifip.org	**05-06.12.2005** Leeds, UK
International Conference on Embedded & Ubiquitous Computing http://EUC2005.he.NiAS.ac.jp	**06-09.12.2005** Nagasaki, JP
11th Pacific Rim International Symposium on Dependable Computing	**11-14.12.2005** Changsa - Hunan CN
IPAS'2006 The 3rd International Precision Assembly Seminar http://www.ipas2006.org	**19-22.02.2006** Bad Hofgastein, AT
19th International Conference on Architecture of Computing Systems http://arcs06.cs.uni-frankfurt.de/	**13-16.03.2006** Frankfurt/Main, DE
4th International Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks http://www.wiopt.org	**03-07.04.2006** Boston, USA
12th IFAC Symposium on Information Control Problems in Manufacturing http://www.emse.fr/incom2006/	**17-19.05.2006** St. Etienne, FR
21st IFIP International Information Security Conference "Security & Privacy in Dynamic Environments" http://www.sec2006.org	**22-24.05.2006** Karlstad, SE