



From the Editor



On The Road Again

Since the last issue of this Newsletter there were some notable events in the IT STAR domain. The Association adopted a Charter and many of its member societies were kept busy with IT STAR activities. There was a successful joint workshop with FISTERA (Foresight in Information Technology for the European Research Area – a thematic network established by the EU within the 5th Framework Program) and further involvement in EU-related activities and publications.

It was not, however, just bangs and roses. The intention was to move faster on a number of fronts, including this newspaper, but due to some constraints we had to tame our eagerness. It looks much better now with new partnerships, an increased interest in IT STAR and new sources for sponsorship and support.

We are on the road again and this issue of the Newsletter presents a medley of commentaries, articles and news portraying the broad picture within the IT STAR horizons.

Enjoy,

Plamen Nedkov



Organization

New Charter for IT STAR

Following a series of consultations, the IT STAR business meeting on 23 October 2004 in Prague, the Czech Republic unanimously adopted the IT STAR Charter.

IT STAR is constituted as a regional non-governmental and non-profit ICT Association with the objectives to encourage, promote and extend professional collaboration in Central, Eastern and Southern Europe and in this way to support European transition and integration processes. Its scope embraces education and training, research, development and application of ICT, Information Society issues, policies and governance and includes the conduct of projects, consultations, publications and other.

The full text of the IT STAR Charter is published at <http://www.starbus.org/download/charter.pdf>.



IT STAR representatives:

Austria/OCG - V.Risak, **Bulgaria/BAS** - K.Boyanov, **Croatia/CITS** - M.Frkovic, **Czech Rep./CSKI** - J.Stuller, **Greece/GCS** - S. Katsikas, **Hungary/NJSZT** – B.Domolki, **Italy/AICA** – G.Occhini, **Lithuania/LIKS** - E.Telesius, **Macedonia/MASIT** - P.Indovski, **Romania/ATIC** – V. Baltac, **Serbia & Montenegro/JISA** – G.Dukic, **Slovakia/SSCS**- I.Privara, **Slovenia/SSI** - N. Schlamberger.

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Letters to the Editor

[The September '04 issue of the Newsletter received a warm welcome around the World. Here are some extracts from letters to the Editor. Your comments, suggestions, contributions and criticisms would be most welcome with regard to this and future issues of the IT STAR Newsletter. The coordinates are given on p.1]

“It was good to see your name connected to a new initiative in the field of cooperation among Information Processing organizations. Good for the Organizations, good, I hope, for you, good certainly for Starbus itself which starts its life in the expert hands of someone who has practical knowledge of how to create an instrument of cross information and outside communication.”

Giorgio Sacerdoti †, Past President of AICA (IT)

“...very professional indeed”.

Louis Pouzin, Computer communications pioneer, Eurolinc-France (FR)

“I had a look at your publication and I am impressed.”

Ashley Goldsworthy, IFIP Past President (AU)

“Congratulations! We have all moved on!”

Neda Ferrier, UNESCO

“It was great to see the photos of some old friends and acquaintances ... and to read the various articles. Please say hello to them for me the next time you see them and let me know if I can help you in any way.”

Bruce Shriver, Past President of the IEEE CS (US)

“ ... It is a NL that many famous organizations, some international ones included, could only dream of.”

Niko Schlamberger, President of the Slovenian Society “Informatika” (SI)

“I would be pleased if you would add me to the distribution list.”

James Finch, Finch Associates (CA)

“Thank you for the Newsletter, readable and informative: you have not lost the old working habits (apart from the closing jokes!).”

Arrigo Frisiani, University of Genoa (IT) ■

Joke of the Issue

[Remember the Delivery Co.? Many of you do and would like to have a section in the NL on “the Brighter Side of Life”. We are obliged and pleased to introduce it. Our readers are invited to contribute with jokes, preferably related to ICT, the best of which will be published in future issues. A special selection of Delivery Co. jokes is available at www.starbus.org/download/jokes.pdf]

ENGLISH IS NOT EASY. To support this statement our attention was drawn to signs posted here and there

in Europe:

- **In a Bratislava hotel lobby:** The lift is being fixed for the next day. During that time we regret that you will be unbearable.
- **In a hotel in Athens:** Visitors are expected to complain at the office between the hours of 9 and 11 A.M. daily.
- **In a Slovenian hotel:** The flattening of underwear with pleasure is the job of the chambermaid.
- **In a Rome laundry:** Ladies, leave your clothes here and spend the afternoon having a good time.
- **In a Czech tourist agency:** Take one of our horse driven city tours - we guarantee no miscarriages.
- **At a Budapest zoo:** Please do not feed the animals. If you have any suitable food, give it to the guard on duty.
- **On the menu of a Swiss restaurant:** Our wines leave you nothing to hope for.
- **A sign posted in Germany's Black Forest:** It is strictly forbidden on our black forest camping site that people of different sex, for instance, men and women, to live together in one tent unless they are married with each other for that purpose.
- **In a Norwegian cocktail lounge:** Ladies are requested not to have children in the bar. ■

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Did you know that the average employee spends at least 38 minutes per day solving their own and other people's computer problems?*

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*Source: CAP Gemini Ernst & Young study, Norway, (8th of Oct 2001)



Who's Who in IT STAR

Giulio Occhini



Giulio Occhini is born in 1936. He graduated as physicist from the University of Milano. His professional activity started at the National Research Council (CNR) where he was involved in a pioneering work on finite element methods for solving fluid-dynamics problems. Technical reports on the subject matter co-authored by Dr. Occhini and published by international journals date back to 1959.

During his work with CNR Mr. Occhini had the opportunity to exploit the capabilities of the first digital computers in Italy at that time and this was his passport for entering the IT Industry in 1960. In this field, he served in technical and managerial positions in several areas including R&D, Product Planning, Application Development and Marketing. His last managerial position before starting his activity as an independent consultant in 1995 was Director of the IT observatory of Honeywell Information Systems Italy, a top management advisory role for evaluating technical trends and exploiting new market opportunities.

In parallel to his industrial activity, Giulio always maintained close connections to Academia. He was professor of Information Systems at the University of Pavia and has a long lasting cooperation with the Business School of Milano (Bocconi University) and with MIP, the Research Consortium of Politecnico di Milano.

In AICA, the Italian Association for Informatics and Automatic Computing, Giulio served as Head of the Milano branch for 6 years and as National President for 1989-1991. He was re-elected as Chairman of the Board for the period 2001-2003 and is currently AICA's Chief Executive Officer.

Giulio was President of CEPIS in the mid-nineties, a period crucial for finalizing the ECDL program and introducing it on a Europe scale. He has authored and co-authored many technical papers and several books on ICT and its applications and impact on economy.

Dr. Giulio Occhini is a founding member of IT STAR. ■

In Memoriam

Giorgio Sacerdoti – the Friend we Lost

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

There are many milestones during his outstanding professional career:

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 the Italian National Research Council, and subsequently named director of its computing center.



From our archives: Mrs. & Mr. Sacerdoti (front) during IFIP GA'92 in Toledo, ES

In 1956 he became member of a group of young researchers at Olivetti's Laboratorio di Ricerche Eletttroniche in Pisa, which 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 and named ELEA 9003 was a very advanced realization for the time considering its overall system design, its technology and physical layout. In 1962 Giorgio Sacerdoti became the Director of the Laboratorio, which was now based in Milan and involved in the design of other models of the ELEA series of computers and peripheral devices. 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 1971 he was named General Director of a research firm, SAGO, located in Florence and working on applications of electronic and computer technologies for 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.

Giorgio Sacerdoti has devoted a lot of time and efforts to AICA 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 in IFIP. He was the Italian representative to the General Assembly from 1977 to 1999 and in 1983 received the Silver Core.

Giorgio was a keen supporter of this Newsletter with whose editor he was in email contact until shortly before his departure. The ICT community lost a person whose calmness, knowledge, wisdom and sensibility, enthusiasm and passion for serious work will be long remembered. ■

Anniversaries

Happy-70

[Dr. Domolki is the Hungarian representative to IT STAR and one of its Founding members]



Balint Domolki

by Andrea Domolki

The history of programming and of software technology dates back to about the same time of that of computers with stored programs. There were sparkling moments of fundamental ideas, principles, concepts, basic processes, development tools, theory of programming, software designing and developments. New generations of computers and applications required new solutions – from the binary codes through programming languages and operations systems to the modern sophisticated object oriented „mass products”. This history is roughly 60 years old.

The first 10 years were not present in Hungary, mainly because of political reasons – the whole topic was not on the Science agenda at that time. Later, the so-called embargo made it difficult to understand, analyze and keep pace with what was happening in the West.

Balint Domolki was for some 50 years one of the „gurus” in Hungarian computer science, generally respected and honored as an intellectual leader during this historic period of software technology development in Hungary, and well-known of his international activities. Now at 70, Balint was conferred the Order of Merit ”Officer’s Cross” of the Republic of Hungary by the President of the country. ■

Austrian Computer Society [OCG]

[The 30th Anniversary celebration of the OCG was held on 13 April 2004 in Vienna, in the Dachfoyer of the Hofburg. The festivity was impressive and activists and foreign guests took the opportunity to congratulate OCG and report on various activities. We are pleased to include below the address of the OCG President.]

OCG - Your Partner in Education, Science and Research

by Gabriele Kotsis, OCG President

Austrian Computer Society – Your Partner in Education, Science and Research! You have probably read

this OCG slogan already on posters displayed at conferences and workshops. These words outline in brief the goals and tasks of the OCG as they were laid down when the society was founded and along these lines I will work as OCG President. We want to be partners; we aim at co-operation and consider ourselves a platform for communication and information transfer in the field of information and communication technology.

Maintain the proven course

When I was elected to succeed Mr. A Min Tjoa as OCG president, I found myself in the lucky position to have an experienced staff available both in the OCG and the ECDL office, which organise very successfully the numerous OCG initiatives. The ECDL is a central pillar. I do not exaggerate when I say that our neighbouring countries watch the success of the ECDL in Austria with envy. This success is reflected in the number of examinations (500,000 module examinations were taken in Austrian schools alone by 2005) and also in the number of ECDL certificates awarded upon passing of all required modules (by early 2005 already more than 100,000 certificates). With no doubt, it is impressive that every 17th certificate awarded worldwide is issued in Austria (as of early 2005)! Moreover, the Austrian ECDL team also participates actively in the development of new products, e. g. eJunior or WebStarter.

In the field of public relations the OCG team is also doing an excellent job. A great number of press releases (see www.ocg.at/presse/index.html and www.ecdl.at/presse/news/2005/) document the diversity of our activities and introduce the OCG to a broader public. With the magazine ‘ECDL News’, available on selected trains of the ÖBB, we inform the general public about the work of the OCG, especially about ECDL activities. The OCG publishing series target primarily professional experts. Under the responsibility of the scientific editorial committee (headed by Mr. Gerhard Chroust) books@ocg.at comprises more than 180 volumes already and it is known beyond the Austrian borders (especially through the publication of conference proceedings). The circulation numbers of our magazine, the ‘OCG Journal’, also exceeds the number of members. Just recently, for example, my tax consultant approached me about the journal and congratulated me on our successful issue!

Demonstrator for ICT innovations

I consider it an important task of a computer society not only to report on news in the ICT sector but also to use these new technologies and thus to pave the way for innovations. As an example I would like to mention our engagement for the ‘Bürgerkarte’ (Austrian Citizen Card) and the digital signature. Since February 2003 the OCG membership cards are distributed to the OCG members with the functions ‘Digital Signature’ and ‘Citizen Card’. Both the OCG office in Wollzeile, in Vienna, and the OCG branch office in Graz are authorised registration offices where the A-Trust certificate can be installed on all MAESTRO cards (cash dispenser card) which were issued after January 2005

(chip able to hold electronic signature). Let us have a look at the innovations on our homepage as another example. Here we have been offering RSS-Newsfeeds for a couple of months. These very simple XML-documents can be read by RSS Readers (integrated e. g. in Mozillas Firefox) and help to inform visitors of the site about current news reports.

Another innovative change is the accessibility of the OCG homepage, which is to be finished in 2005 and shall make information on the homepage available to all those interested. Accessibility means that ICT is used in a way, which adapts the information to become suitable for the broadest possible group of people, i. e. without obstacles and barriers for people with special needs. Eventually, we will all profit from the realisation of this goal of an improved accessibility.



Project partner

Apart from the role of demonstrator, we consider ourselves also a partner for R&D projects. We acted as a partner in the EU supported project 'ECDL PD: European Computer Driving Licence for People with Disabilities', for example, and we are a partner in the Austrian follow-up project 'ECDL access for all' as well as in the project 'AAL – Ambient Assisted Learning'. The OCG has also supported the EmBase project (Embedded Systems Knowledge Base) with the publication of the final project results (OCG publishing series volume 182). Our co-operation partners value both our professional competence, which we are in a position to contribute through our members and above all our working groups, and OCG's unbiased position - a valuable asset especially in the highly competitive area of ICT. Our project partners welcome the possibilities for the dissemination of project results through our own publishing media like the OCG Journal, ECDL News and the OCG publishing series books@ocg.at, and through our good press and media contacts.

Informatics and Society

Each technical innovation also bears some risks and thus it calls for awareness and responsibility. From the beginning of the society's activities it has been undis-

puted that ICT ought to be regarded without blinkers of technical experts and that its effects on and implications for Society must be considered at all times. The OCG supports crucial socio-political concerns that arise in Austria's way towards an Information Society. The OCG makes an effort to enable senior citizens and people with special needs to access information technology and thus to prevent the development towards a 'two-thirds' society.

The most outstanding initiative in this context is probably 'IT4her', a program for women and girls, which tries to remove barriers for IT training and professions. The working group 'IT for women' headed by Ms. Edeltraud Hanappi-Egger aims at motivating women more intensively to take over the role of professional women and thus to shape IT systems according to their needs.

The working group should, therefore, be an Austrian coordination point on the topic IT and Women. The 'IT-Salon Pour Elle' is an initiative of the OCG and 'results & relations – pr for technology' to link women of the IT sector. In the course of regular meetings the IT-Salon Pour Elle

acts as a platform for the exchange of experience, information and networking (see www.ocg.at/it4her/it-salon/index.html).

The coming years

There are many more activities, which deserve to be mentioned here, like those of the sister societies Österreichische Gesellschaft für Informatik, ÖGI (Austrian Society for Informatics), AARIT (Austrian Association for Research in IT) and the Österreichische Gesellschaft für Informatikgeschichte, ÖGIG (Austrian Society for Informatics History); the co-operation with national and international partners as well as with sister societies; OCG contests and prizes. You can find one part of all that in the annual report of the OGC. The other part, however, is waiting for you and I would like to invite you to join us and help us shape the future together! ■

Balkan Olympiad on Informatics

The Greek Computer Society hosts the 13th Balkan Olympiad on Informatics



by Sokratis K. Katsikas
Rector, University of the Aegean

The Greek Computer Society, jointly with the University of the Aegean hosted the 13th Balkan Olympiad on Informatics, in Rhodes, on September 3-8, 2005. The Balkan Olympiad on Informatics (BOI) is a programming contest for secondary school students of the Balkan countries. The basic rules of the competition are the same as the rules of the International Olympiad on Informatics (IOI). The BOI has been held yearly since 1993 in several Balkan countries, as follows: Constantza, Romania (1993), Thessaloniki, Greece (1994), Varna, Bulgaria (1995), Nikosia, Cyprus (1996), Drama, Greece (1997), Ankara, Turkey (1998), Ioannina, Greece (1999), Ohrid, FYROM (2000), Durres, Albania (2001), Belgrade, Serbia & Montenegro (2002), Iasi, Romania (2003) and Plovdiv, Bulgaria (2004).

The Olympiad is organized by the Ministry of Education or another appropriate institution of one of the following ten European countries: Albania, Bosnia & Herzegovina, Bulgaria, Cyprus, Greece, FYROM, Republic of Moldova, Romania, Serbia & Montenegro and Turkey. According to the rules accepted by the initiators of BOI, teams of these European countries are invited as regular participants. Moreover, the host country may invite guest participants as well. Enlarging or decreasing the set of BOI countries can only be made by consensus.

The BOI aims at motivating secondary school students of East Europe to:

- become more interested in informatics and information technology in general;
- test and prove their competence in solving problems with the help of computers;
- exchange knowledge and experience with other students of similar interests and qualifications.

Additionally, BOI may:

- stimulate the establishment of personal contacts between young people of the East European region;
- provide training for students participating in the International Olympiad in Informatics (IOI);
- initiate discussion and co-operation in informatics education in the secondary schools of East European countries.

Each team is composed of up to four secondary school students, a team leader and a deputy team leader. Students have to be in school during the year when the contest is held and at most 19 years old. The official language is English. However, students may use their mother tongue. Programming problems are formulated in English and then translated by the team leaders to the mother tongue of their team. Both versions are given to the students. The computers used are IBM PCs compatible with selected software packages. The programming languages of the contest are Pascal, C and C++.

The competition consists of two rounds in two days. In both rounds the working time is five hours and the contestants are given one to four problems to solve. When the competition ends, each contestant should prepare his/her solution for the evaluation, according to regulations issued by the organizers.

When the working time is over, the solutions provided by each contestant are checked by an evaluator, using previously unpublished test data. The evaluation is based on the test data and the responses of the programs only. The evaluation procedure concludes with the meeting of the Scientific Committee, where the evaluation reports are discussed.

Gold, silver and bronze medals are awarded to the winners. This year's results are as follows: Romania won two gold medals (Tiberiu Lucian Florea and Sorin Stancu-Mara) one silver (Dan Constantin Spatarel) and one bronze (Dan Leonard Cretez), Serbia & Montenegro won two silver medals (Igor Kabiljo and Stevan Joncic) and one bronze (Ivan Labath), Bulgaria won one silver medal (Rostislav Rumenov) and two bronze (Momchil Ivanov and Iskren Chernev), whereas the remaining bronze medals were won by Greece (Ioannis Panageas and Christos Mantoylidis) and FYROM (Nikola Postolov).

More info can be found at <http://www.boi2005.gr> ■

Member Society News

Czech Society for Cybernetics and Informatics - CSKI Slovak Society for Computer Science - SSCS

SOFSEM 2006: 32nd Conference on Current Trends in Theory and Practice of Computer Science, 21-27 January, 2006, Hotel VZ MERIN, Czech Republic <http://www.sofsem.cz>

SOFSEM (SOFTware SEMinar) is an annual international conference devoted to the theory and practice of Computer Science. Its aim is to foster co-operation among professionals from academia and industry working in various areas of Computer Science. The program consists of series of Invited Talks, given by prominent professionals and researchers, Contributed Talks selected by the Program Committee from

submitted papers, Working Sessions discussing work-in-progress and the Student Research Forum.

Tracks:

- FOUNDATIONS
- WIRELESS, MOBILE, AD HOC and SENSOR NETWORKS
- DATABASE TECHNOLOGIES
- SEMANTIC WEB TECHNOLOGIES

PROGRAM COMMITTEE

Chair: Jiri Wiedermann, (Czech Republic)

Co-Chair: Gerard Tel (The Netherlands)

Co-Chair: Jaroslav Pokorny (Czech Republic)

Co-Chair: Julius Stuller (Czech Republic)

LOCATION

The Hotel VZ MERIN is about 60 km South of Prague on the right shore of Slapska prehrada ("Slapy Dam" - see SOFSEM web page <http://www.sofsem.cz/>)

ORGANIZERS

- Institute of Computer Science, Academy of Sciences of the Czech Republic, Prague
- Charles University, Prague
- Action M Agency, Prague
- Czech Society for Cybernetics and Informatics
- Slovak Society for Computer Science

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Union of ICT Societies in Serbia & Montenegro – JISA

The 10th JISA Congress was held from June 12 – 17, 2005 in Herceg Novi. Its main themes were e-education, e-government and e-business. The Congress was attended by more than 250 participants and the foreign participation was around 100. There were several round tables and many submitted papers on electronic trade, electronic protection, banking and information systems. One of the accompanying events was the IT STAR business meeting.

Slovenian Society “INFORMATIKA” – SSI

Events

Past:

From April 13 to 15, 2005, the 13th traditional annual SSI open conference known as Days of Slovenian Informatics was held in Portorož, Slovenia. The place and event are well known among the IT STAR community as the birthplace of IT STAR. Each year, an actual motto is chosen as a guideline to reflect the content of

the conference. This year's red line read *Informatics as a fundament of interconnection*. The program contained ten tracks, four round tables, a workshop, students' forum, one-to-one meetings, an occasional exhibition, and social events. About one hundred papers were presented and also appeared in the Proceedings and over 400 participants attended the conference. The event is recognized as a convention of professionals and users alike and has attracted attention also among business and the general public. The honorary speaker was the rector of the third Slovenian University of Littoral, Dr. Lucija Čok.

Forthcoming:

The SSI Chapter of Operations Research is organizing its 8th International Symposium on Operations Research, to take place in Nova Gorica, Slovenia from September 28th to 30th, 2005. The event is important as a review of accomplishments of Slovenian experts in operations research and an opportunity to compare them with those of outstanding foreign experts. One of the aims of the symposium is to attract attention to the methods of OR thus offering a prospect of deployment of modern methods of research and development to interested businesses.

In 2006, the Days of Slovenian Informatics conference will take place in April, again in Portorož. The exact date is not yet set as it depends on related events that will also convene in spring. This is just an opportunity for an early announcement of the conference. A similar number of participants is expected and it is hoped that an international track will be given stronger emphasis. ■



Information Society - Special reports

The Advent of the Information Society

*ICT and the Eastern European Dimension - IST at the Service of a Changing Europe
Trends as seen at World Computer Congresses 1998, 2002 and 2004*

ICT and the Eastern European Dimension

On 22 October 2004 FISTERA and IT STAR organized a Workshop on “ICT and the Eastern European Dimension” in Prague, the Czech Republic. The participants represented a wide spectrum of institutions within Academia, Industry and Government and took part in personal capacities, which contributed to an open debate.

The future successful socioeconomic development of the countries in the region largely depends on the introduction of ICTs in all walks of life. Most countries have the principal strategy documents supported by laws and regulations covering education, e-governance, industry, commerce and other areas and the problem is not the lack of a legal IS base, but its quality and ability to adapt to the changing circumstances. Many existing strategies and documents are theoretical and remain unfocused. The notion of the Information Society remains unclear for a good part of the population. This is compounded by the fact that measuring the processes and the generic phenomena of the Information Society has some serious handicaps.

There is a need for the political establishment to think long-term on Information Society issues rather than to focus only on the political cycle. There is also a need for better horizontal coordination between ministries and governmental agencies and vertical coordination within the sectors on IS issues. Stronger bonds and partnerships between Government, NGOs and Industry are paramount.

The region has a traditionally good educational system, a developed research infrastructure and an acute interest on the part of the younger generation in ICT. The CEE countries have a legacy of well-trained ICT specialists, researchers and educators, however, in order to maintain and improve the quality of Education and Research, sufficient financing is of absolute importance. Research is seriously under-funded and the best scientists and ICT experts are emigrating or changing from academia to the private sector. Previously existing IT research units in the national industrial enterprises have disintegrated and there is a slow but progressive decline of the educational system due to a migration of educators to other sectors for better paid jobs. Since these worrisome phenomena are inter-linked, it is important for the governments to consider urgent measures to reverse the negative tendencies.

Many of the existing IS-related problems will disappear as the economies in the region expand and the living

standards improve. At the same time, this should not bring comfort as there is a need to be continuously innovative in monitoring, managing and adapting to the IS developments.

The final report and the proceedings of the Workshop are published at <http://fistera.jrc.es/pages/roadshows/prague%2004/FINAL%20REPORTrevised.pdf>. This document offers interesting perspectives for understanding the current situation related to ICT in the region and was intended as a contribution to the ongoing discussions within the FISTERA and the IT STAR constituencies. ■

Information Society in the Czech Republic

[Short summary of the National Czech report, which was presented by the President of CSKI, Prof. O. Stepankova during the IT STAR-FISTERA WS on “ICT and the Eastern European Dimension”. The full report is published in the proceedings of the Workshop]

The Czech Republic has a high number of top level ICT specialists and promotes itself as capable to deliver modern ICT products and services. The ICT production as a share of its GDP is significant, there is a good working culture and experience in ICT, a relatively high output of ICT specialists from its universities and a non-negligible involvement of women in ICT activities. Czech companies perceive opportunities to attract ICT orders. The country offers a friendly environment. Education is esteemed by the society and many people show interest in life-long learning and new technologies.

Unfortunately, the country’s current economic growth of 3% per annum is not sufficient to catch up with the most developed countries. There is a slow legislation process and a lack of transparency in decision-making, unclear tax system and insufficient intellectual property protection.

Several negative facts and tendencies are observed: while 32% of the adults have Internet access from their homes, 38% of the population has no experience in using computers and the degree of experience of those that have it varies significantly. The prices for Internet access are excessive, there is a relatively low number of employees connected to the Internet and a low availability of governmental Internet services. The average productivity of the R&D sector is significantly lower than in the G-7 countries. The quality of the educational system slowly declines as good teachers are leaving schools for better paid jobs. The work force

mobility is impeded and there is a lack of motivation and encouragement to people to increase their knowledge. Public institutions ignore or refuse to use simple international standards related to IT literacy and there is hardly any understanding that the administrative overheads of quality management in certification testing cannot be ensured for free.

The notion of computer literacy is still understood rather vaguely and this is misleading. There is a need for a transparent definition of IT literacy and a clear system how it can be tested in a reliable and uniform way. The European Computer Driving License (ECDL) is the only existing internationally recognized concept with such qualities and CSKI is promoting its utilization in the country, but serious governmental encouragement is lacking.

Most of the problems need to be resolved on a political level and it is up to the government to adopt appropriate solutions. The Czech government attempts to demonstrate a supportive attitude related to ICT and a number of laws and actions are in place. The *Electronic Signature Law* was passed in 2000 and the Ministry of Education since 1999 pursues the program on "Internet in Schools". In March 2004, a "*State Information and Communication Policy*" was adopted as a strategic document for the e-Society development until 2006. The Ministry of Informatics is working on a public portal to ensure a uniform approach to governmental services.

The Czech Republic is currently at a crossroads. The country could continue with the same pace and the same posture of its economy, which would be a safe strategy from a political point of view since no serious socioeconomic changes are required. However, that would be less attractive to the young, gifted, educated and enterprising part of the population. The other strategy would be to set more ambitious goals in achieving a Knowledge Society, which would need significant financial and moral investment of a long-termed character. This, however, does not seem to be in the focus of the current political forces. Fortunately, the world is interconnected in many sophisticated ways and the Czech Republic cannot ignore the current processes and the international atmosphere that call for a stricter application of internationally recognized standards, which could significantly support the enforcement of a necessary domestic change.

IST at the Service of a Changing Europe by 2020: Learning from World Views

16 -17 June 2005, Seville, Spain

This conference was organized by the Institute for Prospective and Technological Studies (IPTS) on behalf of the FISTERA network to investigate options for the future growth of Europe within a globalized society. It gathered a wide range of IST experts to debate current and future developments that will set the trend for IST policy and research in Europe.

A number of IST themes were discussed in 6 parallel sessions which elaborated on the following questions:

IST Visions and Economic Prospects: How far has Europe progressed towards the Information Society? Is it really moving towards a Knowledge Society? What are the visions for Europe's future? How will IST contribute?

Technology Futures: What are the general ICT trends? What emerging technologies can be identified? Where will the next paradigm shifts occur? What technologies will be needed to support industrial change? What type of applications will European citizens demand?

IST Policies and Strategies around the World: What are the successful national IST strategies around the world? How can Europe learn from these? How can Europe improve its competitive edge whilst maintaining cultural diversity and national specifics? What are the prospects of the European Knowledge-based Society in a globalized society?

The results from previous FISTERA projects were presented and discussed along with invited contributions of external experts. Among the invited speakers were

- Bruno Lamborghini, Olivetti and European IT Observatory
- Luc Soete, Univ. Maastricht / United Nations University
- John Zysman, University of California, Berkeley
- Danny McCaughan, McC Associates, Belfast

Information about the conference and many of the presentations are available at http://fistera.jrc.es/pages/final_conference_programme.htm So as to disseminate the knowledge and views developed during the Conference disseminate to a wider range of policy makers, IPTS will publish the full papers which will be prepared by the authors on the basis of the delivered conference abstracts. ■

Lessons from Vienna/Budapest 1998 & Montreal 2002

by Jan Wibe (Norway)



[Prof. Wibe was International Program Committee Chair of World Computer Congress (WCC) 2002 in Montreal and Program Committee Chair of the TeleTeaching Conference of WCC 1998 in Vienna and Budapest. He is currently the Chairman of IFIP's Technical Committee 3 on Education.]

Coming from Technical Committee 3 on Education, I would wish to concentrate on the “ICT and Education” component.

WCCs 1998 and 2000 both had a stream on TeleTeaching. In 2002, the name was changed to TeleLearning to underscore the shift from teaching to learning. The focus was on the learner, which also reflects the shift in Education worldwide.

Teacher training has been one of the main focuses at every WCC and at TC3 working conferences. Using the Internet and E-learning gives new opportunities for training teachers. The European Computer Driving License (ECDL) is a big success and is also introduced in other parts of the world. Similarly, pedagogic driving licenses were developed. It is not difficult to guess that Teacher training will be a main item for future conferences.

Support software for e-Learning is a fast growing area which was well-covered not only at WCC 2002 but also at TC3 working conferences. “Learning Management Systems” is perhaps the most known field and so is “Learning environments”.

Lifelong Learning (LLL) is a worldwide priority highlight and was well covered during WCC 2002. Every working group in TC3 is occupied with it and the concept is explored in various learning communities.

The use of the mobile phone in e-learning and personal use is in its infancy. We talk mostly about how young people use the mobile phone. Now we need to explore the educational use of it. Some call it m-Learning to distinguish it from e-Learning. Entertainment computing is another fast developing area and the educational potential needs to be explored further. ■

Toulouse 2004



by Jean-Claude Laprie (France) &Reino Kurki-Suonio (Finland)



[Dr. Laprie was the General Chair of WCC 2004. He was Director of LAAS and Chairman of TC 10 on Computer Systems Technology for the period 1996 - 2000. Currently he is IFIP Vice-President.

Prof. Kurki-Suonio was the WCC 2004 Program Committee Chair. He was the Chairman of IFIP TC 2 on Software: Theory and Practice for the period 1995 - 2000].

The 18th World Computer Congress (WCC2004) was held in Toulouse, France, from 22 to 27 August 2004, following Beijing in 2000 and Montreal in 2002.

It is now commonplace to acknowledge the revolution induced by computers in the way we work, learn, play and live. Everyone can perceive the effects and consequences in his or her everyday life. The usual perception is a personal computer connected to the Internet. Behind that perception, the revolution continues and is even expanding, via the so-called embedded systems, i.e. not directly visible, but present. This is already the reality of many objects that we use daily, such as household appliances, cars, broadcasting technology, portable phones. Tomorrow will see a general spread in domains that are still at an experimental stage or confined to specialized niches, from clothing to medication, including the monitoring of our environment, creating a world where computing and communications will be ubiquitous.

All the ingredients of the ubiquitous computing have been central in the WCC 2004 presentations and discussions. The 1100 attendees came from 71 countries and more than 600 communications were presented under various formats: plenary keynote addresses, co-located conferences, topical days, workshops, student forum. The presentations included the most recent advances in embedded systems, smart cards, virtual reality, mobile computing, artificial intelligence, human-system interaction, etc. The promises carried by the convergence of bio-, nano- and info-technologies, or by social robots have also been discussed. The transformations that these advances will induce on the organization of the society were not ignored, with e-commerce, e-business and the virtual enterprises, e-government, as well as the associated ethical questions. The potential hazards that will inevitably go with ubiquitous computing have also been largely discussed, be they malicious actions, the dependency of the essential infrastructures (electricity, transportation, health, etc.) on computing and communications, without forgetting the Achilles' tendon of software engineering, and more generally the failures originating from all causes. Finally, a significant space has been devoted to education, be it to computing and communications, or via them.

WCC 2004 has thus been a forum where realities, promises, hopes, risks and dangers of ubiquitous computing have been presented and discussed. ■

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