



Message from a new IFIP Vice President

It was a great pleasure to be elected as a new IFIP Vice President at the General Assembly (GA) in September 2014. I am such a novice in GA that it was totally unexpected and a surprise. Nevertheless, I feel a great expectation as a woman board member from Asia. Please note that I am not the first in those attributes: we had Prof. Maria Raffai as the first woman board member and Prof. Dong Yoon Kim as the first Vice President from Asia. This time it looks like that even my novice nature seemed to be welcome. Why do I feel like that? Presumably some people might be seeking for a change and I looked like a piece in their jigsaw. I shall try and do my best to show that they have had the right one.

Let me introduce myself in terms of IFIP activities. I joined IFIP TC-11 (Security and Privacy Protection in Information Processing Systems) as a Japanese member society representative in 2006. On the other hand, I have served as a Vice Chair of WG11.11 on Trust Management since 2009. Through those activities, I have learned what would be required in a Technical Committee. I attended GA firstly as the TC-11 Chair last year and secondly this year as a TC-11 Chair as well as a new Japanese member society representative handed over by Prof. Tadao Saito.

As I understand it, IFIP has two distinct aspects in its activities. One is concerned with its technical aspect which is dealt with by Technical Assembly (TA) and I have been involved in this part as a TC-11 member. The other is the aspect of the member societies and I am new in this part. Regarding the technical aspect, we have a serious concern to keep a high technical standard as the other academic societies such as ACM and IEEE. We have a good history and motivation in past but cannot rely just on them. In particular, it is an urgent issue to establish a digital library. Prof. Joe Turner, Prof. Kai Rannenber and their publication committee have been making a great effort on this. We will need to keep making a progress in this direction.

In terms of the member societies, the former President, Acad. Blagovest Sendov mentioned at GA in September that now we were in totally different social situations in terms of global relations from the time when IFIP was established when they had the Cold War. From this viewpoint, we will need to re-think what kind of contributions IFIP can make with member societies. The Vice President, Prof. Max Bramer and the Secretary, Prof. A Min Tjoa initiated to have a meeting with member societies at GA this September. We may well have some possibilities. We could remodel the conference, WITFOR. We will need to regard this conference not just as a technical one, but also as the one to help the world in terms of education and information and communication technologies. From this viewpoint one could collaborate with the other international organisations. Vice President, Prof. Ramon Puigjaner has been working on this.

Another idea is to deal with the world disaster in terms of information processing. Most disaster issues have been dealt mainly with by the researchers and practitioners in risk management and safety engi-



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neering in past. It is high time for us to be involved in such issues. It may require not only to promote the technical and research aspects at TA, but also to let the member societies get together and communicate with the other international organisation such as the United Nations Office for Disaster Risk Reduction (UNISDR). I presented this need at GA this time. This might be an interesting case where TA and member societies can get together as GA to promote the IFIP role in the world.

I hope that I could contribute some of the above issues as a new Vice President. As a novice, I may well seek advice from many of you. I will need your cooperation. It is my childhood dream to work for an international organization such as the United Nations, and I am delighted to fulfill the dream to work for IFIP.

Strengthening Inter-society Relations: the Brazilian Computer Society Case

In 2011 the Brazilian Computer Society (SBC) launched an initiative to improve its relations with sister societies, towards a greater participation of its members in the related sister society activities.

A starting point in this process was a panel organized during SBC congress in 2012 to discuss inter-society relations with respect to meeting global challenges - from sustainable development to education for all -, where invited sister societies were represented (SBC, IFIP, CLEI, ACM and IEEE). In such a context, special attention was given to IFIP for its particular global and federated structure.

After the panel, SBC elaborated an action plan that began by promoting internal discussions within its technical committees (TCs) – SBC special commissions. SBC was convinced that involving its technical committees was the proper means for a wider and sustainable participation in IFIP initiatives.

Nominating SBC representatives to take part in IFIP TCs was the next step. To achieve that, SBC created a procedure for periodically nominating researchers for IFIP TCs. The nominations are done by SBC TCs and approved by SBC boards of directors and advice. In 2013, 13 SBC TCs actively participated in the process that resulted in nominations for 10 distinct IFIP TCs. The resulting nominations were then submitted and approved by SBC boards of directors and advice. In some cases, an IFIP TC received nominations from more than one SBC TCs, but in those cases, a consensus was established between the involved SBC TCs in order to come out with a unique name. The nomination process should repeat every three years.

The nominated researchers, when accepted by IFIP TCs, have to attend the corresponding IFIP TC meetings and report their activities to the related SBC TCs, every year.

A step forward was the creation of a SBC-IFIP forum for both IFIP TC Brazilian representatives and SBC TC Chairs - aiming to exchange experiences in IFIP activities. This forum, headed by the SBC director for the cooperation with scientific societies, meets every year in the SBC general congress. This year, in July, occurred the very first meeting of this forum with 25 people among Brazilian representatives in IFIP TCs, SBC TCs chairs and observers. The 2014 SBC-IFIP forum was considered a success.

Raimundo José de Araújo MACÊDO

IFIP Brazilian Representative

SBC Director for the Cooperation with Scientific Societies

<http://www.sbc.org.br/>

News from IFIP's Italian member AICA

Digital competences and school curricula in 2014-2015

On September 15th Italian schools started the new year.

According to a national reform program, some more resources will be dedicated to informatics and digital competences:

primary school students will have the opportunity to have at least a first acquaintance with the programming principles, and secondary students will be offered a wider range of proposals regarding both informatics and the more general digital competences required to fully exploit the potential of digital devices, applications and services.

In particular, AICA is directly promoting – in partnership with the Ministry of Education – a couple of new projects:

- **Logic**, aiming at the early development of procedural and computational thinking, also through some practice with simple robots obeying to children's instructions; the *Logic* project includes both a training proposal for teachers and guided activities for primary school pupils.

- **Webtrotter** (or “around the world in 80 minutes”), aiming at a better and more conscious use of information sources and resources available in the Internet.

A pilot edition was run in spring 2014, when over 1200 students (between 14 and 16 years old) participated in a national contest based on quick reply to a series of questions that can be answered by non-trivial internet searches and some smart manipulation of the information retrieved.

The new project, starting now, will also include an online course dedicated to teachers, who will coach their students and select the local champions for the final national contest.

The metaphor of the trip touching five continents will be kept, but in Webtrotter 2015 the quizzes will also be associated with the subject of Expo Milano 2015: *Feeding the Planet, Energy for Life*. By the way, AICA will be glad to meet the IFIP community in Milan also during this major event.

These new initiatives are just intended to extend the range of proposals, which included already several other projects, such as the learning and certifying user competences with ECDL, developing IT specialist knowledge through EUCIP curricula, competing for medals at the International Olympiad of Informatics etc.

More detailed information is available through AICA's website www.aicanet.it

webtrotter
Il giro del mondo in 80 minuti



IP3 News



Transforming IT Professional Practice

From the Chair – Brenda Aynsley

Brenda travelled to Europe early in September. This trip encompassed several objectives:

- ◆ Update from EC projects on e-skills, BOK and professionalism and establish stronger linkages for IFIP IP3.
- ◆ Meet with Portuguese computer society (APDSI) to explore common interests between IFIP IP3.
- ◆ Lead IFIP IP3 annual planning meetings with IP3 members and board.
- ◆ Report to the IFIP General Assembly (GA) on the IFIP IP3 Annual Report.
- ◆ Convene the 2014 Presidents Forum together with the IFIP President.

European Commission projects

Brenda met with Andre Richier and Niels van der Linden in Brussels on 5 September 2014. Andre updated her on the progress of projects underway, and alerted her to the conference 2 to 3 December 2014 in Brussels “e-Leadership and ICT Professionalism Fostering Talent and Excellence in Europe”. The event is organised to discuss with experts from governments, academia, associations and industry on the latest developments on e-leadership and ICT professionalism.

Andre also brought Brenda up to date on his work internationally with Japan and the BCS.

Portuguese Computer Society (APDSI) meeting

Brenda met with the founding President and Immediate Past President Jose Dias Coelho and current board member Luis Vidigal in Lisbon on Monday 8 September. They are a relatively young society dating back to early 1980s. The IFIP GA representative was not available to meet at that time.

We hope that Portugal will be encouraged to join IFIP IP3 Global Partnership in time, to develop professionalism in ICT practice in the region.

Presidents Forum held 11 Sep 2014

This event was co-hosted by Leon Strous and Brenda Aynsley. Presidents of 21 member societies were invited – Australia, Canada, Korea, Japan, Netherlands, Singapore, South Africa, Switzerland, United Kingdom, Zimbabwe, Brazil, Ireland, Spain, Sri Lanka, Italy, New Zealand, USA, Austria, Denmark, India and Portugal. President's or their representatives of 10 countries attended the forum.

Discussions and issues led to the following undertakings by those present:

Issue: Certification schemes clearing house

Objective: sharing work between member societies

Leader: SCS (Singapore) President KS Chack

Issue: Licensing and Regulation working group

Objective: develop a position on this subject that IFIP members can support and promote

Leader: BCS (UK) President Prof Liz Bacon

Issue: Government advocacy clearing house

Objective: share successful government approaches and support

Leader: ACS (Australia) Past President Anthony Wong

Issue: IFIP promotion of national societies

Objective: to ensure IFIP works to promote member societies

Leader: CIPS (Canada) President Brenda Byers

Issue: Common messages development

Objective: developing messages that we can all use to promote the value of professionalism in ICT

Leader: ACS (Australia) President Brenda Aynsley

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Issue: Curriculum archives in collaboration with Seoul Accord and TC 3

Objective: developing an archive of curricula to share amongst members

Leader: KIISE (Korea) President-elect Jee-In Kim

IFIP IP3 Planning Meetings

This year we focussed on revenue generating objectives, recognising that we have limited funding for the future. We affirmed our view that growing the global partnership on professionalism in ICT practice was the primary objective whilst providing for the accreditation of professionalism schemes as they become ready.

There is a strong commitment by South Africa and The Netherlands to becoming accredited in the next 6-12 months.

Some of the revenue generating activities will include:

- ◆ Developing tools that will assist members in the development and maintenance of their professionalism schemes. Such tools would be licensed for a fee.
- ◆ Provide benchmarking through a maturity model approach on a fee for service basis. This would help members assess where they are on the path to accreditation.
- ◆ Recruit partners to the scheme through GIC and IFIP more aggressively.
- ◆ Seek sponsorships for specific well planned projects from our GIC corporate members.

New Members

IFIP IP3 was delighted to welcome Schweizer Informatik Gesellschaft (SI) to IP3 membership at the end of the President's Forum. President Jürg Gutknecht explains that he considers international partnerships such as IP3, and accreditations, an indispensable precondition for SI (as for any other national society) to achieve credibility and excellence.

IP3 reported in a previous newsletter article that Vri/Ngi/NGN (Netherlands) has joined IP3. As Jos Timmermans joined us as their representative at the IP3 meetings, we took the opportunity to explore their motivation to join IP3. Jos listed the following reasons for seeking accreditation.

- ◆ Impact of ICT on our world increases dramatically.
- ◆ Increase local visibility by being accredited by a global organization
- ◆ Increased value for our members through global recognition.
- ◆ Increase span of influence
- ◆ Benefit from collective knowledge of associated organizations

Vri/Ngi/NGN hope to be accredited by IP3 in the next 6 months.

IP3 membership now stands at 13. This represents an increase of 60% in the past 3 years and demonstrates the success of our model of building the global partnership.

IP3 AGM

This was held at OCG on 10 September 2014. There was also an opportunity for those not present in Vienna to join by WebEx virtual meeting.

The following members were confirmed on the board: IPSJ; IITPSA; and NGI/VRI/NGN. ACS and CIPS have board seats as the remaining founding members.

At a subsequent board meeting Stephen Ibaraki and Adrian Schofield were confirmed as Vice-Chairs (Strategic Relations and SAC respectively). Moira de Roche was appointed as Deputy Chair and Brenda Aynsley was once again elected Chairman

Information about IP3's activities over the past year can be found in the [Annual Report](#).

Moira de Roche
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Human Choice and Computers: major societal challenges

Diane Whitehouse, chair, ICT and Society, IFIP TC9 & Kai Kimppa, HCC11 co-chair, IFIP national representative to TC9

Forty years since the first Human Choice and Computers conference was held, over 70 people attended the bi-annual ICT and Society flagship conference (HCC11). Attendees came from as far afield as Australia, Japan, South Africa and the United States. There were also many local Finnish, Nordic, and European participants present.

The three conference days took place in Turku, Finland from 29 July-1 August, 2014, thanks to the hosting of the Turku School of Economics and the great support offered by **Dr Kai Kimppa** and his team of young researchers. Another co-chair was **Dr Jackie Phahlamohlaka** of South Africa.

Robert Serén of the Finnish Information Processing Association welcomed the attendees to the event. The conference was based on four core themes, each related to one or more of the technical committee's eleven working groups: society, social responsibility, ethics and ICT; the history of computing and its meaning for the future; peace, war, cyber-security and ICT; and health, care, well-being and ICT. The interests of the newly-launched working group related to ICT applications in peace and war were very well represented. This new working group also used the event to organise its launch meeting, thanks to the dynamism of its new Chair, **Ms Louise Leenen** and her team from South Africa.

The event was successful and well attended. It was based around a comprehensive range of events: three keynote speakers; a dynamic workshop on professionalism; panels at which national computer society representatives and working group chairs presented their messages; several important social events; as well as the more customary academic presentations or position papers. Much tribute was paid to the intellectual heritage of IFIP: while the three keynotes were all longstanding members of IFIP, their messages were very fresh and pertinent today. **Professor Don Gotterbarn** of the ACM reminded us that even good people sometimes do, albeit unintentionally, bad things and proposed how to rectify this situation; **Professor Gunilla Bradley** of KTH, Sweden argued strongly in favour of pacifism on the part of ICT researchers and workers; and **Professor Klaus Brunnstein** of the University of Hamburg, renewed the interest of the audience in the important challenges related to privacy and security in ICT applications.

The conference has been successful in producing two publications: one from Springer-Verlag, and a second that comprises a dozen works-in-progress from the local Turku University publishing house.

For background information, see <http://www.springer.com/computer/general+issues/book/978-3-662-44207-4> and <http://www.hcc11.org>



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Professor Don Gotterbarn, one of the conference's three keynote speakers, addressed the plenary audience

An Open Torun Vision - IFIP TC3 - 2013 to 2017

Educational stakeholders and purpose: who and what can be supported better by computers?

Arising from the wide experiences and outcomes of the World Conference on Computers in Education (WCCE) 2009 in Bento Gonzales, and the WCCE 2013 in Torun, Poland that focused on '*Learning while we are connected*', this *Open Torun Vision* directs us towards the future WCCE 2017 in Dublin, Ireland.

WCCE 2013 outcomes indicated the many widening concerns of those involved with information processing, whether it be either in computer science (CS) and informatics, or in information and communication technologies (ICT) in education. There is a clear need for a greater detailing and shared understanding of the terms and dimensions we use and how these relate – the focus on the subject, creation and programming behind digital technologies, computing, computer science, computing literacy, and informatics, as well as the focus on the applications of technological tools concerned with technology enhanced learning (TEL), ICT, ICT literacy, digital literacy, digital fluency, and media literacy, for example. This discussion is underway, and the *Open Torun Vision* includes the delivery of clarifying statements and practices through WCCE 2017.

To consider the futures of both CS and ICT in education, a four-year vision must accommodate possible major shifts and developments between now and 2017, as well as further integration of CS and ICT practices into respective elements of professional development and careers, education, teacher education, curricula, teaching, and learning.

Both CS and ICT offer important opportunities for all stakeholders in education – learners, parents, policy-makers, educational advisors, managers, software developers, professional trainers, teachers, tutors, and counsellors. All learners have specific needs – whether they are professional, teacher, or student learners – but their needs are often concerned with developing greater personalisation, accommodating increasingly-found practices such as 'bring your own devices' (BYOD).

Stakeholders supporting learning can use both CS and ICT to benefit lifetime learners, including seniors, adopting lifelong and intergenerational practices. At the same time, differences in communities across the world are respected, accounting for language, cultural, and institutional values, including those that do not recognise a need for either CS or ICT as basic requirements; and in

this spirit, this vision promotes informing through robust concepts and knowledge rather than through shallow advocacy. The *Open Torun Vision* calls for a focus on five key elements – collaboration, creativity, deeper understanding, expansion, integration – which will be aided through the creation, working and reporting of taskforces – focusing on stakeholders and professional development, pedagogy, curriculum, security and other social implications, and equity.

The *Open Torun Vision* points to balance rather than dichotomy – the need to accommodate and explore how to integrate CS as well as ICT in education; to consider the world of work, informal, formal and non-formal learning settings; the need to explore the integration of existing technologies as well as the application of future technologies; the need to develop producers as well as consumers.

This vision calls for opportunities for blended rather than divided approaches and practices; the need to understand ways that both CS and ICT in education can be blended, rather than arguing a 'one or the other' case. But elements of the vision need to be accommodated in the more specific contexts of working groups and national policies and plans.

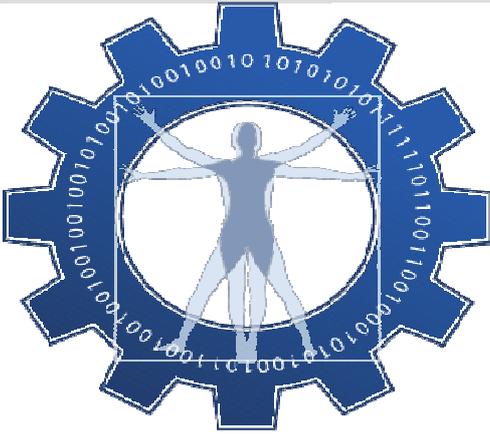
The *Open Torun Vision* foresees key aspects of our knowledge and understanding being addressed, in two focal areas, with subsidiary elements under consideration. By 2017 we need to:

- ◆ Move from consuming to innovating, creating, conceptualising, and producing using programming

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(CS) as well as ICT applications.

- ◆ Identify the development of knowledge and creativity that has been widened beyond current levels, and how education and professional development has been enhanced through effective communication of CS and ICT practices and approaches.
- ◆ Understand more the role of computers in positively supporting early child exposure to environment affecting subsequent development.
- ◆ Have a wider consideration of educational theories relevant to the field, in a way to discover and develop digital pedagogies.
- ◆ Deploy digital technologies to better support different interactions with different stakeholders, according to technologies selected and used (such as those with online or haptic features), accommodating institutional diversities, gender, cultural, native language, cognitive and social backgrounds.
- ◆ Recognise the more developed roles of active, deep and authentic learning, involving self-expression, problem-solving, collaborative, co-operative and group and team working using digital technologies with a reflective attitude.
- ◆ Understand more the roles of CS and ICT in effective learning occurring in informal and non-formal as well as formal and workplace settings.
- ◆ Review and develop CS and ICT curricula at all levels (professional, pedagogical, organisational, adult, student, student teacher and trainer, for example).
- ◆ Widen professional development for all those who support training and learning using CS and ICT (teachers, tutors, trainers, counsellors, advisors, and parents).
- ◆ Explore hybrid education and blended models of learning, to consider flipped classrooms, MOOCs, serious games, direct instruction, video revision clips, mobile technologies, and information security.
- ◆ Investigate emerging blended models of education, impacting learning and supported by digital technologies.
- ◆ Link education to capacity building, training and employment, and the more ready identification of skill gaps in terms of CS and ICT.
- ◆ Identify the application, agility and sustainability of emerging technologies for education and life-long learning.
- ◆ Match uses of computers to purpose (socio-cultural, democratic, or economic), to audience, intentions and outcomes (including assessment).
- ◆ Provide the facility to enter the information society, understanding the roles of social media in learning, the ethical challenges, and how negative uses may reduce or lessen these.



HCSE 2014

5th International Conference on Human-Centered Software Engineering

As part of its activities, the IFIP Working Group 13.2 organized the 5th International Conference on Human-Centered Software Engineering (HCSE 2014). HCSE is a bi-annual, single-track Working Conference aimed at bringing together researchers and practitioners interested in strengthening the scientific foundations of user interface design, examining the relationship between software engineering and human-computer interaction and on how to strengthen human-centered design as an essential part of software engineering processes.



HCSE 2014 took place on September 16th-18th at the Heinz Nixdorf MuseumsForum, the world's largest computer museum, in Paderborn, Germany. It was hosted by the s-lab – Software Quality Lab of the University of Paderborn.

With the support of an international program committee, the organizers of HCSE 2014 selected 13 full papers and 10 short papers covering advanced topics at the intersection of HCI, human-centered design and software engineering. Among the addressed topics were adaptive and context-dependent applications, user involvement, improved usability, use and reuse of models, agile develop-

ment and human-centered software engineering processes. In addition, HCSE 2014 featured two outstanding keynote speeches:

Margaret Burnett (Oregon State University) on “End-User Software Engineering: Beyond the Silos”;
and

Wil van der Aalst (Eindhoven University of Technology) on “How People Really (Like To) Work: Comparative Process Mining to Unravel Human Behavior”.

All these contributions are included in the proceedings published by Springer in the LNCS series, Vol. 8742, which is available at: <http://www.springer.com/computer/swe/book/978-3-662-44810-6>

During the conference, a panel was organized in the form of an interactive questions-answers game where participants were invited to discuss agile development process and UX methods. The result of this exciting panel provided substantial material that motivates the organization of the next IFIP 13.2 workshop which is going to be held in conjunction with the IFIP TC 13 conference INTERACT on September 14th-18th 2015 in Bamberg, Germany.

Last but not least, it is important to mention the great support provided by the local sponsors, especially the initiative “Paderborn überzeugt”, the Software Innovation Campus Paderborn (SICP) and the s-lab, who provided a wonderful environment and all facilities for making HCSE 2014 a great event.



Further information at the conference Web site: <http://hcse-conference.org>

IFIP WG 9.4 Latin American Regional Workshop 2014

North-South dialogues on IT4D take place in Brazil

The IFIP WG 9.4 Latin American Regional Workshop 2014 took place August 18 – 19, 2014 at the Engineering School of the Federal University of Minas Gerais (UFMG). The workshop was focused on the discussion of the social aspects of information technology in Latin America, and provided the space for the discussion of the role and social implications of science and technology across the North-South axis. The event was opened by Sandra Goulart, Vice-Rector of the Federal University of Minas Gerais, who emphasized the importance of interdisciplinary research promoted by IFIP WG 9.4, with particular regard to the dialogue between the social sciences and engineering - a point also highlighted by Alessandro Moreira, the Dean of the Engineering School, and Leonardo Santiago the coordinator of the graduate program in Production Engineering.

The workshop was organized around panels with invited speakers and sessions of submitted papers. After a panel focusing on the history and prospects of IT4D in South America, the workshop held a panel on Africa and another on the challenges involved in making scholarly research on the role of technology in society more relevant. The paper sessions received submissions on topics ranging from traditional IT4D issues such as the role of telecenters in low-income areas to broader contemporary issues such as the governance of nanotechnology. The event brought together 35 scholars from Brazil, Colombia, France, United Kingdom, United States and Uruguay.

The event was organized by IFIP 9.4 Latin American chair, Prof Raoni Rajão (UFMG), Prof Ricardo Duque (Alabama State University) and Prof Rodrigo Ribeiro (UFMG).



(L-R) Profs. Raoni Rajão, Ivan Marques, Renata La Rovere and Yuriy Castelfranchi participating in the Panel on the History and Prospects of IT4D and STS in Latin America



Participants during a session at the IFIP 9.4 Latin America Workshop

Photo credits: Thaila Alves Moreira

IFIP EGOV and ePart conference

Scholars from all over the globe presented their research and share their experiences in the fields of e-government, e-participation, and ICT supported policy and governance under the umbrella of the two working conferences the IFIP Working Group 8.5 (Information Systems in Public Administration). The conference was held at the heart of Dublin, the Trinity College with its magnificent buildings and beautiful campus spanning 47 acres (www.tdc.ie).

One keynote was **Rob Kuipers** who is the Director General on Standard Business Reporting (SBR). SBR is a digital language for business-to-government reporting allowing companies to submit their financial accounts to tax authorities, business registers and banks as an input to credit applications. SBR could significantly reduce information costs and improve quality at the same time. The second keynote **Dominic Byrne** is Head of Information Technology with Fingal County Council. He shared his experiences with social media and Fingal Open Data which was the first Open Government Data website in Ireland. **Sharon Dawes**, the founding director of the Center for Technology in Government at the University at Albany, SUNY, was the academic keynote speaker. She discussed eGovernment innovation and took a fresh look at this by combining theoretical and practical insights.



The keynote speaker Rob Kuipers and prof.dr. Yao-hua Tan at the welcome reception

The IFIP EGOV and ePart conferences were a huge success and there were many in-depth discussions. The papers at IFIP EGOV and ePart shined through scientific credibility and rigor as well as through high relevance to practice.

InterYIT to Support National YIT Groups

IFIP InterYIT expects to expand its services to support young professionals around the world as well as to strengthen groups of young professionals who are in the field of IT.

InterYIT is a group for young professionals in the field of Information and Communications Technology (ICT). InterYIT comes under IFIP. InterYIT has objectives such as being the umbrella organisation for all Young ICT professionals around the world, foster communication between Young IT Groups and promote representation of young professionals in the computer societies as well as within IFIP.

One key area that InterYIT is now focusing on is around 'Supporting Local Young IT Activities and Formation of New Young IT Groups'. Under this, if your National Society is interested in getting support for your local YIT group, IFIP InterYIT will consider the request. Ideally, the support requests will be prioritized to cater for countries that has no YIT presence or weak presence.

InterYIT Chair Yasas V. Abeywickrama can be contacted at yvabeywickrama@gmail.com to get further details on this. InterYIT Chair can be also contacted to receive guidance on formation of new Young IT groups. The group has developed a guideline on how new groups can be formed effectively.

KEYCIT 2014 - Key Competencies in Informatics and ICT, Potsdam

In our rapidly changing world it is increasingly important not only to be an expert in a chosen field of study but also to be able to respond to developments, master new approaches to solving problems, and fulfil changing requirements in the modern world and in the job market. In response to these needs key competencies in understanding, developing and using new digital technologies are being brought into focus in school and university programmes.



To provide a forum to present and to discuss research, case studies, positions, and national perspectives in this field, the IFIP TC3 event "Key Competencies in Informatics and ICT" (KEYCIT 2014) was held at the University of Potsdam in Germany from July 1st to 4th, 2014. The conference was organized into strands focusing on secondary education, university education and teacher education (organized by IFIP WGs 3.1 and 3.3) and was accompanied by parallel conference streams on "Key Competencies for Educating ICT Professionals (KCICTP 2014, organized by IFIP WG 3.4)" and on "Key Competencies in Informatics and ICT: Implications and Issues for Educational Management (ITEM 2014, organized by IFIP WG 3.7)".

Around 90 experts from 28 different countries all over the world visited the conference and took the opportunity to discuss the subject with colleagues. The presentations selected out of around 80 submissions covered questions like: What are the key competencies in Informatics and ICT of students and educators? How can such key competences be derived, even theoretically? How can key competencies be modeled in competence structure models? How can they be measured using competence level models? How can key competencies be taught in motivating ways? Three invited lectures by Johannes Magenheimer (GER) and Sigrid Schubert (GER) on their experiences in the field of competence modeling and measurement in the fields of system comprehension and modeling, by Paul Curzon on his work in the well recognized projects „Computer Science for fun - CS4fun" and the "Magic of Computer Science" and by Ivan Kalas on his experiences in developing key competencies in Informatics and ICT in primary education completed the program. After the conference the IFIP TC3 Committee held its Annual General Meeting.

IFIP WG5.7 continues its activities

In 2014, the IFIP Working Group 5.7 on **Advances in Production Management Systems** successfully continued the series of events that form the backbone of the group's activities. The WG5.7 flagship event, the annual APMS conference, took place in the city of Ajaccio, Corsica, 21-25 September 2014, and was organised by a group of 4 colleagues from French universities. Bernard Grabot, the chief conference organiser, had the pleasure of welcoming more than 270 participants from all across the world, both from academia and industry. Under the theme "Innovative and knowledge-based production management in a global-local world", 3 keynote speeches and some 230 presentations were delivered. At the working group meeting in Ajaccio 6 new members were welcomed to the group. Also, WG5.7 decided to introduce new interactive workshops on its technical subject area and global research initiatives at future APMS conferences.

The Special Interest Groups on "Product and Asset Lifecycle Management" and "Experimental Interactive Learning in Industrial Management" held their annual workshop meetings in Les Diablerets, Switzerland in January 2104 and in Dornbirn, Austria, in June 2014, respectively.

RuralVoice

Sustainable development with mobile voice-based services for rural India illiterate people

Background

India is an incredible country in many ways, but perhaps this incredibility is most visible in the people of India. There are over 1.2 billion Indians, and they come from various cultural and linguistic backgrounds. Despite the megatrend of urbanization, 70 per cent of the population still lives in rural India, which has over 600 000 villages. India is one of the largest economies in the world and has enjoyed sustained economic growth for over two decades, but still a large portion of the people suffers from extreme poverty. 300 million Indians live below the poverty line, and can thus be described to belong in the so called bottom of the pyramid (BoP), the poorest socio-economic group. The BoP people are practically all illiterate, and in rural areas they have to cope with poor infrastructure, energy shortages and insufficient information. At the same time, the BoP people are in serious need for various public and private services.

Despite the humble beginnings, the mobile revolution has reached also rural India and is boosted with the most low-priced calls in the world. There are now over 300 million mobile phone connections and over 6 million new connections are added each month. In the rural area the devices are often shared, which makes the number of people who have access to a mobile phone even greater. In relatively short time mobile phones have become the best and often the only way to reach also distant villagers.

Voice-based services and Spoken Web

Currently, voice-based services are used successfully in many areas in many countries. They use wide but varying set of language technology depending on the extent, complexity and environment of the tasks they are developed for. Typical examples of voice-based services include transport information services, such as automated train and bus timetable services. Voice-based approach can be very useful for users if they introduce new services which are not possible or affordable with human operators (or in any other way). This is exactly the case in rural India, where human-operated services are not viable in many cases. Spoken Web is a technological platform developed by the IBM Research Lab India that is remedying the impediments that voice-based services have in BoP context. In short, the goal of the Spoken Web is to give the illiterate and the underprivileged the possibility to access information similar to WWW by using mobile phones, i.e. without a need to have an access to a computer or knowing how to read or write. The technology is fully server-side and thus device independent: Spoken Web sites can be accessed even through a landline phone. In addition, Spoken Web enables user generated content and linking – features that are necessities also for the word-of-mouth marketing of the services.

In order for Spoken Web to become truly successful and wide-spread system, it needs both commercial service providers, commercial application developers and commercial language technology companies that can before long do reasonable business on the platform. Technical future development areas include for example the infrastructure itself (i.e. hosting the Spoken Web applications), the language palette (i.e. more languages are needed), navigation (i.e. due to its' sequential nature, voice content can be arduous to navigate) and multimodality support. In the sketched voice-based service ecosystem European language companies develop additions to the Spoken Web infrastructure and gain revenue from their usage.

Service verticals and fieldwork

We have identified five service areas that are of high significance to the rural people of India. These areas are agriculture, healthcare, education, entertainment and banking and microfinance. Since most of the rural Indians live on farming, agriculture is the most important service area and the initial focus of our project. In addition to technological solutions, successful service deployment requires contextual understanding about the users' and their needs, the environment and the local stakeholders. This understanding must be gained without overestimating or romanticizing the capabilities of the people. The major challenge for the BoP people in rural India is access to services and relevant and reliable information. This means that a significant palette of localized voice-based services can be created to improve the situation, even when considering the natural limitations that these services have compared to human operated services. For example in agriculture the services can in the simplest form include dynamic information services considering production, processing and marketing of the farm products and cash crops.

(Continued on page 14)

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- Marginal farmer (holds below 1 hectare of land)
- Small farmer (holds 1-2 hectares of land)
- Medium farmer (holds 2-4 hectares of land)
- Large farmer (holds 4 and above hectares of land)

The key findings of the field study conducted on the sample of 51 farmers were as follows.

- ◆ All farmers liked the prototype and its approach to delivering agricultural information services.
- ◆ A particularly attractive feature of the service was that it was in the local dialect that made understanding easy.
- ◆ The other existing sources of agricultural information are elders in the family, radio and television. Radio and television do not have the advantage of information on demand that the voice site provides.
- ◆ Most of them are aware of IVR (Interactive Voice Response) services. They use them mostly for downloading ringtones for their mobile phones and to check the talk-time currency available on their mobile phone. They are also use IVR to access agricultural information from the agricultural help lines. Getting used to a voice site was, therefore, not a significant transition.
- ◆ 46 out of the 51 farmers said they cannot afford to pay for these services and would like these services could to be given free of cost. These were marginal, small and medium farmers. 5 out of the 51 farmers said they were willing to pay a small monthly subscription charge for the service. These were large farmers. It, therefore, appears that for this service to be consumed it must be given free of cost.

Network of participation and collaboration

Our project is a joint effort of Finnish and Indian stakeholders. RuralVoice is coordinated by CIRCMI group Research on Information, Customer and Innovation Management from the School of Information Sciences at the University of Tampere, in collaboration with voice-based interaction experts from TAUCHI (Tampere Unit for Computer-Human Interaction and Indian research institutes. University of Agricultural Sciences from Dharwad provide vital contextual knowledge about the service- and business environment and IBM Research Lab India offers the Spoken Web platform and operates as a technological partner. In addition, a set of both Finnish and Indian companies are taking part in the service development. The project is funded by Tekes, the Finnish Funding Agency for Technology and Innovation. Project leader group CIRCMI is a networked and collaborative partner research and development unit that focuses on emergent research challenges in the area of business, ICT and organizational transformation with an innovative and multidisciplinary approach. For a number of years we have been focusing on Asian business and technology and Indo-Finnish business perspectives in particular. Our staff consists of both Finnish and Indian researchers, and we have considerable Asian partner network. We are hoping to expand and deepen our collaboration network of experts and stakeholders. The ultimate goal of RuralVoice is to develop service concepts that can be deployed also in other developing areas in Asia, Africa and South America.

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Some of forthcoming IFIP events. For a full list of events, please look at <http://www.ifip.org>

22nd IFIP/IEEE Conference on Very Large Scale Integration http://www.inaoep.mx/vlsi-soc2014	VLSI-SoC 2014	06/10-08/10 2014 Playa del Carmen, MX	IFIP WG10.5 / IFIP TC10
2014 International Conference on Cyberworlds http://www.cw2014.unican.es	CW 2014	06/10-08/10 2014 Santander, ES	IFIP WG5.10 / IFIP TC5
15th IFIP Working Conference on Virtual Enterprises http://www.pro-ve.org	PRO-VE 2014	06/10-08/10 2014 Amsterdam, NL	IFIP WG5.5 / IFIP TC5
7th International Workshop on Communication Technologies for Vehicles http://www.nets4cars.eu	Nets4Cars-2014-Fall	06/10-08/10 2014 St.-Petersburg, RU	IFIP WG6.8 / IFIP TC6
Computer Technology in Russia and in the Former Soviet Union http://sorucom.ru/en/	SoRuCom 2014	13/10-17/10 2014 Kazan, RU	IFIP / A.P. Ershov Institute of Informatics Systems, Siberian Branch of the Russian Academy of Sciences / Computer History Museum, California, USA / Scientific Council of the Russian Virtual Computer Museum
Forum on specification and Design Languages http://www.ecsi.org/fdl	FDL	14/10-16/10 2014 Munich, DE	IFIP WG10.5 / IFIP TC10
International Conference on Application of Information and Communication Technology and Statistics in Economy and Education http://icaictsee-2014.unwe.bg/	ICAICTSEE - 2014	24/10-25/10 2014 Sofia, BG	IFIP TC 5
Workshop on Designing Interactive Visualization for Smart Devices (DIVis) http://www.hciv.de/divis14	HCIV 2014	27/10-27/10 2014 Helsinki, FI	NordiCHI'14, DFG's International Research Training Group (IRTG)
MOSIM 2014 http://www.mosim2014.org	MOSIM	05/11-07/11 2014 NANCY, FR	IFIP WG5.7 / IFIP TC5
Wireless Days 2014 http://www.wireless-days.org/	WD'14	12/11-14/11 2014 Rio de Janeiro, BR	IFIP WG6.8 / IFIP TC6
10th International Conference on Network and Service Management http://cnsm2014.inf.ufrgs.br	CNSM 2014	17/11-21/11 2014 Rio de Janeiro, BR	IFIP / IEEE Communications Society / IEEE Computer Society / IEEE SIGCOM
6th International Workshop on Reliable Networks Design and Modeling http://www.rndm.pl/2014/	RNDM 2014	17/11-19/11 2014 Barcelona, ES	IFIP / IEEE
I3E 2014, e-Business, e-Services, and e-Society http://i3e2014.net/	I3E	28/11-30/11 2014 Sanya, Hainan, CN	IFIP WG6.11 / IFIP TC6
Networks of the Future http://www.network-of-the-future.org/	NoF	03/12-05/12 2014 Paris, FR	IFIP WG6.2 / IFIP TC6
International Conference on Middleware http://2014.middleware-conference.org/	Middleware	10/12-12/12 2014 Bordeaux, FR	IFIP WG6.1 / IFIP TC6
IFIP Working Group 8.2 Conference http://bis2.aut.ac.nz/ifip82-2014/	IFIP 8.2	11/12-12/12 2014 Auckland, NZ	IFIP WG8.2 / IFIP TC8
Eleventh IFIP WG 11.9 International Conference on Digital Forensics http://ifip119.org	IFIP WG 11.9 ICDF	26/01-28/01 2015 Orlando, US	IFIP WG11.9 / IFIP TC11
International Symposium on Environmental Software Systems 2015 http://www.isess2015.org	ISESS 2015	25/03-27/03 2015 Melbourne, AU	IFIP WG5.11 / IFIP TC5
Doctoral Conference on Computing, Electrical and Industrial Systems http://sites.uninova.pt/doceis	DoCEIS'15	13/04-15/04 2015 Costa de Caparica, PT	IFIP WG5.5 / IFIP TC5

Some of forthcoming IFIP events. For a full list of events, please look at <http://www.ifip.org>

Sustainable Internet and ICT for Sustainability http://www.networks.imdea.org/sustainit2015/index.html	SustainIT	14/04-15/04 2015 Madrid, ES	IFIP WG6.3 / IFIP TC6
International Conference on Fundamentals of Software Engineering http://fsen.ir/2015	FSEN 2015	22/04-24/04 2015 Tehran, IR	IFIP WG2.2 / IFIP TC2
International Workshop on Traffic Monitoring and Analysis http://tma-2015.cba.upc.edu	TMA	23/04-23/04 2015 Barcelona, ES	IFIP WG6.6 / IFIP TC6
Conference on Optical Network Design and Modeling http://ondm2015.sssup.it	ONDM	11/05-14/05 2015 Pisa, IT	IFIP WG6.10 / IFIP TC6
International Conference on Open Source Systems http://www.oss2015.org/	OSS	16/05-17/05 2015 Florence, IT	IFIP WG2.13 / IFIP TC2
Wireless and Mobile Networking Conference http://www.wmnc2015.com/	WMNC	23/06-25/06 2015 Belgrade, RS	IFIP WG6.8 / IFIP TC6
Information Security South Africa 2015 http://www.infosecsa.co.za/	ISSA 2015	12/08-14/08 2015 Johannesburg, ZA	IFIP TC11
28th Symposium on Integrated Circuits and Systems Design (SBCCI) http://www.sbcci.org.br	SBCCI 2015	31/08-04/09 2015 Salvador, BR	IFIP WG10.5 / IFIP TC10
IFIP International Conference on Entertainment Computing http://icec2015.info	ICEC2015	30/09-02/10 2015 Trondheim, NO	IFIP TC14
Twelfth International Conference on Open Source Systems http://oss2016.org	OSS 2016	31/05-01/06 2016 Gothenburg, SE	IFIP
INTERACT 2018 http://NA-YET	INTERACT 2018	03/09-07/09 2018 Paphos, CY	IFIP TC13

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