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TC9 Celebrates 25th Anniversary

On the occasion of its 25th anniversary, the **IFIP** Technical Committee on the Relationship between Computers and Society (TC9) organized a "Round Table" in Namur, Belgium, on 18 May during the annual TC9 meeting. The Round Table, chaired by Chrisanthi Avgerou (GB), focused on the theme Information Society in Public Discourse and Government Policies in Our Countries. It comprised the following panelists:

John A.N. Lee (US), IEEE—CS representative to IFIP

Peter Mambrey (DE) of the German National Research Center for IT

Jonathan Miller (ZA), former chair of the South African Computer Society

John Weckert (AU) of the School of Information Studies, Charles Sturt University.

A brochure, *Some milestones of the history of Technical Committee 9, Relationship between Computers and Society,* has been published that gathers some documents of the period before TC9 was established and some other historical papers since the founding of the TC. It will be available soon on the TC9 Website, at http://www. in fo. fundp. ac.bc/~j bl/IFI P tc9/ index.html.

Founding TC9

In celebration of the anniversary, we print here a part of a TC9 history included in the book *A Quarter Century of IFIP*,* edited by Prof. Heinz Zemanek (AT) and published by North-Holland. Amsterdam. 1986, pp.

IFIP

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INTERACT '01 Conference Held in Tokyo

*by Mrs. Judy Hammond (AU)***

The IFIP Technical Committee on Human Computer Interaction (TC 13) held its eighth INTERACT conference in Tokyo July 9th to 13th. Hosted by the Information Processing Society of Japan, the Japanese Full Member of IFIP, and the Human Interface Society of Japan, the conference was the first INTERACT to be held in the Asian region. Nearly 400 participants from 25 countries attended the conference. Seventy-five full papers and many other presentations on a wide variety of HCl topics gave a total of 180 presentations in all. INTERACT '01 clearly continued the tradition of scientific successes of the INTERACT series. Strong support was provided by 11 sponsors, mainly from Japanese industry.

Three keynote speeches highlighted recent advances and challenged participants to think about how HCI can address new challenges. **Prof. Jenny Preece** (US) opened the conference with a speech that is excerpted in an article on page 3.

Prof. Rosalind Pickard (US), in her keynote speech, spoke about her area of specialty, affective computing. The unique needs of such systems present challenges to designers of hardware and software. Her aim is to create designs to sense aspects of a user's affective response, such as whether the user is pleased or displeased, calm or stressed, during interaction. If this could be achieved, the system would be able to modify its behaviour and respond in a way that is more respectful to the user.

The final keynote speaker gave participants a glimpse of the latest research being conducted at the Sony Computer Science Laboratories in Tokyo. Dr. Jun Rekimoto's research aims at designs to make our physical world more comfortable, using highly personalised portable computers and environmentally embedded computers. He explained that computers that are aware of our physical situations will be more "real-world" oriented and less computation oriented. This means that people will be able to concentrate on real-world tasks that are constantly augmented by the computer's information. He expects to see such computer-augmented physical environments integrated into our daily lives in the near future.

Drum Rolls Open Conference

The opening of the INTERACT '01 conference was heralded by the stirring sound of drum

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- * TC 13 chair

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Kindly submit material for the ***IFIP*** *Newsletter* three months before the publication date.

Please send announcements of conferences, workshops, and other meetings directly to the Secretariat, which prepares the Calendar of Events. Calls for papers should be sent to both the Secretariat and the *Newsletter* editor.

IFIP on the **Internet**

IFIP information (including this *Newsletter)* is available through the Internet as follows:

WWW: http://www.ifip.or.at
anonymous ftp: ftp.ifip.or.at

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rolls played by Japanese students in a traditional Japanese ceremony. Following the opening of the conference by the TC13 chair, **Mrs. Judy Hammond** (AU), welcome addresses were made by representatives of the hosting societies: **Dr. Takeo Miura,** the Japanese **IFIP** representative, for the Information Processing Society of Japan and **Prof. Kouichi Inoue,** president of the Human Interface Society of Japan, for that organization.

The Brian Shackel Award, for the best refereed paper submitted to and presented at the conference, was presented at the opening ceremony to **D. Scott McCrickard, Richard Catrambone** and **John T. Stasko** (all US) for their paper "Evaluating Animation in the Periphery as a Mechanism for Maintaining Awareness." The complete paper will be placed on the TC13 web site: http://www.ifip-hci.org/.

Mrs. Hammond presents the Brian Shackel Award to D. Scott McCrickard.

The five-day conference programme began with two days comprising seven workshops and nine tutorials. Topics were diverse and ranged from "Developing Educational Materials for HCI" and "Application of Guidelines to the Design of HCI Systems for People with Disabilities" to "Cost Effective User-Centred Design Using International Standards ISO 13407" and "Social and Technical Issues when Developing Web-based Collaborative Applications."

Ten Ph.D. students from several countries were selected to attend the highly-regarded Doctoral Consortium that is staged at each INTERACT conference. This event provides students with the opportunity to present papers on their research and receive critical advice and new insights from international experts.

The main conference consisted of four parallel sessions of refereed full papers covering a wide range of HCI areas, including Virtual and Augmented Reality, Perceptual Interfaces, Public Social Collaboration, Groupware, HCI Applications such as Mobile/Office Applications, Human Error, Technologies for Groups, Interface Design, Perception/Feedback, HCI Education, and Visualisation and Usability. Other sessions enabled short papers and posters on a range of topics to be presented and some interactive experiences to be explored. Technical tours to see the latest research projects at the Humanoid Robotics Institute, Waseda University, and the Sony Computer Science Laboratory at the University of Tokyo were very popular and quickly filled.

INTERACT '01 was chaired by **Prof. Masaaki Kurosu** (JP), ably assisted by the programme chair, **Prof. Michitaka Hirose (JP),** the organising chair, **Prof. Akira Okamoto** (JP), and 49 volunteers making up the organising and programme committees, as well as a conference secretariat. TC 13 assisted with various aspects of the planning, particularly in regard to the conference programme. **Dr. John Karat** (US) acted as international programme chair and **Prof. Brian Shackel** (GB) as INTERACT-series conference advisor, while **Mrs. Hammond,** throughout the planning period, provided continuity and knowledge from previous INTERACT conferences. The conference proceedings were edited by **Prof. Hirose** and published by IOS Press.

The next INTERACT conference will take place in Zurich, from the 1st to the 5th of September 2003.

IFIP COUNCIL

(on 1 September 2001)

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Online Communities: Designing Usability and Supporting Sociability*

by Prof Jenny Preece (US)

[At the INTERACT '01 conference in July (see the article starting on page **1), Prof. Jenny Preece** (US) presented a paper entitled Designing Usability, Supporting Sociability: Questions Participants Ask about Online Communities. We found this to be interesting, because it discusses issues involved in the design of systems many of us use but whose social aspects few of us consider; thus, we print a significant part of the paper below. References are not included. The full text is in the conference proceedings: *Human–Computer Interaction — INTERACT '01,* ed. by **Prof. Michitaka Hirose** (JP), IOS Press, Amsterdam, 2001, pp. 3-12. More information about **Prof. Preece** and her work can be found at http://www.ifsm.umbc.edu/onlinecommunities. — Editor]

Every second of every day, millions of people send email to colleagues, friends, family and strangers. Being able to chat with like-minded people (the community), obtain information, explore new relationships, get help with problems or find support is compelling.... But communities are neither designed nor do they just emerge. How the supporting software is designed obviously influences how a community functions, and an individual's behavior also affects the community. While it isn't easy to control people's behavior, nor is it usually desirable to do so, carefully designed policies can help guide behavior, particularly early in community development. How a community's purpose is manifest, the roles people take and the way policies are set up determine a community's sociability and influence its character. ...

Defining an Online Community

Before we discuss online communities, we need to agree what we mean by "online community," because the term means different things to different people. For some, the concept of an "online community" is pleasant, fuzzy, warm and reassuring; for others, it can conjure disturbing thoughts, such as hate groups plotting heinous crimes. We all have our own notion of what an online community is, but it is slippery to define and tricky to measure. In 1994, cyberspace guru **Howard Rheingold** wrote: "... virtual communities are cultural aggregations that emerge when enough people bump into each other often enough in cyberspace. A virtual community is a group of people who may or may not meet one another face-to-face and who exchange words and ideas through the mediation of computer bulletin boards and networks."...

A workshop in the 1990s defined online communities according to a set of primary and secondary attributes identified in a brainstorming session. For example, primary attributes included such things as whether members share a common goal, engage in repeated, active participation, form strong emotional ties, share resources, reciprocate by giving support and providing information as well as taking it from others, have a shared context and social conventions etc.

... Relationships that develop to satisfy strong identifiable needs are particularly potent indicators of community. These "strong-tie" relationships produce closely knit, interdependent groups, as in many family relationships. In contrast, "weak-tie" relationships occur when people do not depend on each other for life-supporting resources, as in many interest groups where the main activity is occasional information exchange.

Another way of defining online communities is by describing the software that supports them. For example, it is common to hear technical people refer to chat, bulletin board, listserver, UseNet News or Web-based communities. Such descriptions are concise and instantly meaningful to technical people who can infer the structure of the community from knowing the structure of the supporting software. ...

E-commerce entrepreneurs take a very broad view of community. Any chat, bulletin board or other type of communications software is regarded as an online community. For them, the important issue is what draws people to a Web site and keeps them coming back to buy goods or services — a concept known as "stickiness." Web-site owners believe that online communities are like the sweet smell of baking cakes in a house open for viewing by potential buyers. They hope that social interaction will encourage a sense of comfort and maybe even trust in the business-driven environment of the Internet. ...

A variety of other terms are also used, including "community of practice" to connote a group of like-minded people (often professionals) whose purpose is to support each other, learn, and promote their understanding via electronic collaboration in a group. Such groups benefit their members by providing physical, economic, cognitive and emotional resources.

Not surprisingly, this array of terms creates some confusion. Many researchers also now try to avoid the term "online community" because they feel that it has been changed by the e-business community and is now inaccurate. Instead they prefer the term "social cyberspace," which is more general and can include any of the definitions discussed above.

Regardless of how we define online community, our goal as HCI specialists is to contribute to developing successful social spaces where people can exchange information, support each other, play games, learn, chat and do whatever helps them to lead more fulfilling lives. We are used to designing for usability, but we now need to understand much more about sociability and how usability and sociability contribute to successful online communities.

Usability

The goal for the software developers of the 1960s and 1970s was to provide increasingly sophisticated software with more and more functionality. At that time, they catered to the needs of a relatively small number of trained users. But as computers became more widespread and user populations diversified, usability became increasingly important.

It started off as an ill-defined concept that was difficult to apply practically. Typically, usability was discussed in vague terms of "user friendliness" or "easy to use." But gradually, usability experts redefined the term so that it could be applied practically by software developers.

... Usability engineers can measure how long it takes typical users to perform a typical task, how many errors they make and how satisfied they are with a product. This "testing approach" was the predominant paradigm until the early 1990s, when heuristic evaluation and other review techniques started to be popular. Although many of the principles underlying heuristic evaluation

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SOCIABILITY & USABILITY continued from page 3

were already established, applying them provided a popular, inexpensive way to evaluate interface design.

At around the same time, computer-supported cooperative work systems became widespread and, although usability testing and heuristic evaluation were useful for evaluating the interface design of these systems, they were less well suited for understanding how products integrated into real-world environments, where multi-tasking was common practice.

A better understanding of social interaction online was needed and techniques for evaluating it. While ethnography is useful and is currently the predominant approach, it is time to look for frameworks that indicate what to look for and therefore support practitioners better. Interaction in online communities pushes this need even further because social interaction is at the heart of any online community. A step in this direction is achieved by defining the concept of sociability.

Online Sociability

Online sociability is concerned with developing software, policies and practices to support social interaction online. Three components contribute to good sociability:

• Purpose: shared focus on an interest, need, information, service or support that provides a reason for belonging to the community.

• People: who interact with each other and have individual, social and organization needs. They may take different roles in the community.

• Policies: language and protocols that guide people's interactions and contribute to development of folklore and rituals that bring a sense of history and accepted social norms. These informal or formal policies provide community governance.

Decisions about purpose, people and policies by developers help determine the initial sociability of an online community. In practice, sociability and usability are closely related. Consider, for example, the decision that community members should "register" to join a community. The decision to have registration, what the policy says, what information is requested from registrants, and what promises are made about privacy and security are sociability issues that will influence who joins the community. The mechanics of registering are determined by software design and involve usability decisions. ...

Additional complexity arises in online-community design that does not occur to the same extent in other software, because a community's needs change as it develops. This in turn means that sociability and usability decisions have to be regularly revisited. For example, a small community of under one hundred people will have different needs from a community of ten thousand people. The biggest concern of most small communities is ensuring that the community stays active, so that people don't get bored and leave. There must be interesting discussions and events that draw people back to the community. Members need to be encouraged to take on different roles, and policies must be flexible. If most people are passive, there will be no community activity, so "lurking" [observing without participating otherwise] is discouraged. In contrast, a large community will be busy, and the developer's role is likely to be concerned with keeping discussions on topic, discouraging inappropriate behavior and finding ways of subdividing the community into smaller subgroups. If a large number of people read and do not "post," a large community will not be damaged, and it may even be an advantage. Consequently, as communities grow, changes in policies and software are common. Ideally, policies guide community development just enough to discourage inappropriate behavior but not so much that people feel imprisoned by rules. Paying attention to sociability and providing good usability is essential if we are to avoid the cyber ghost towns that are becoming common on the Internet.

There is already a large body of the research in communication studies that is relevant to online community developers. For example, it is well known that in textual communities in which one leaves one's body and most of one's identity behind, people tend to be extraordinarily candid and open about themselves. An advantage of these environments is that people may be very supportive to people whom they have never met. These same environments, however, can encourage "flame and run" behavior in which the flamer sends aggressive or abusive messages and then disappears without taking responsibility for the action. ...While it **is** impossible to review these early contributions in depth here, they are mentioned as reminders that many issues of concern to online community developers have been well researched, mostly in relation to individuals and small groups.

Prof Encarnação Honored on His 60th Birthday

On the occasion of his 60th birthday, a celebration colloquium was held on 29 May by the Technical University of Darmstadt to honor **Prof. Jose Luis Encarnação,** the German member of Technical Committee 5 on Computer Applications in Technology and vice-chair of Working Group 5.10 on Computer Graphics and Virtual Worlds. He founded and leads **the Interactive Graphics** Systems Group (GRIS) at the Department of Computer Science. With this ceremony, the University honored **Prof. Encarnação's** outstanding achievements in the areas of computer science and information technology, in particular in the development of computer graphics and its use in industry and commerce.

Similarly, work from sociology is also relevant. Strong-tie and weak-tie communities have already been mentioned. ... Social-dilemma theory is invoked to explain why participants may take from a community and not give back. There is much more to learn from cyber-sociologists.

Given that a body of research exists, the issue I am addressing is how can we take this fundamental knowledge about sociability and apply it so that online-community developers can make better use of it. ...

[Prof. Preece next discussed a large support community for people with knee injuries.] This is a bulletin board community with Web pages....Over 1000 messages per week are posted to the board, which ... remains open to anyone, and there is no formal moderation, though there are people who watch out for trouble....It appears very successful in that it has a high rate of posting, people come back and there is so little inappropriate behavior that formal registration, moderators and policies are almost completely absent. Further research will hopefully help to explain why this is so. My hypothesis is that the clear, narrowly defined focus strongly contributes to its success. Further research will tell.

It is clear that no one set of principles fits all communities. General principles can guide developers, but each community is unique. Developing online communities by involving community members in participatory, community-centered development helps to

identify issues, characteristics and idiosyncrasies that address sociability and determine usability.

Elements of Sociability

Purpose, people and policies provide a framework for sociability that addresses usability design, and a few elements of the sociability component of this framework are summarized below.

Defining the community's purpose is important because most people want to find out immediately if the community is worth joining. Developers of large commercial Web sites will be instructed by management and marketing specialists on how to portray the community. Small teams developing not-for-profit communities... will be eager to work with the community to define its purpose. ...

Trust is important in any community, but in health and e-commerce communities it is essential. People need to be reassured that their privacy is protected and that comments that they thought were confidential do not appear elsewhere. They also need to know which information is provided by professionals and can be trusted and which is the personal opinion of community members. ...

Universal access: Some communities deliberately try to restrict access in order to achieve their purpose. For example, religious, ethnic and political discussion groups usually want only people with those interests. However, many communities want to encourage people of different cultures, races and genders by promoting an explicit policy of universal access.

Who should be encouraged to use the system? A clear statement about access is needed, possibly linked with the statement of purpose. Different versions of the interface may be needed. For example, basic information such as "help" and governance policies could be provided in different languages. There could be different versions for people with disabilities and reduced technical facilities.

Communicating effectively: A healthy alternative to setting rules is to encourage people to communicate more effectively, so that misunderstandings are reduced and frustration is avoided. Pictures, thumbnail icons, links to personal Web sites and personal stories are ways to remind users that a real person exists behind the alias.... Helping people to more accurately convey meaning and their intentions in correspondence, particularly emotional intentions, helps to reduce ambiguity. ...

Governance: Developers wanting to influence governance, hence social interactions in the community, rather than hoping for good luck need to work with potential community members. Governance covers many issues, from registration to moderation and democracy. ...

Conclusions

This paper argues that sociability is an important concept for developing successful online communities. Sociability impacts usability design but requires a deep understanding of social interaction online. Applying the concept of sociability is essential for developers to use it productively in development and evaluation of online communities. While there is already significant research on basic online communication, further research on social interaction is needed to address the purpose, people and policies framework proposed in this paper. ...

As more and more people participate in online communities of all kinds, satisfying their diverse needs will be a challenge. A better understanding of participants' social and usability needs will be essential for ensuring universal access, universal usability and, as appropriate, universal sociability.

AFRICOM 2001

*by Prof Koos Koen (ZA)**

The **IFIP** Technical Committee on Communication Systems (TC6) sponsored and the Computer Society of South Africa (CSSA) organized AFRICOM 2001 in Cape Town 28-30 May. This year's conference, the fifth of its kind, was entitled Network Infrastructures for the Digital Economy. Speakers from countries as far afield as Australia, Canada, USA and Europe presented their technical research to the 55 participants.

Errol Gelenbe (US) presented results on Cognitive Packet Networks, an attempt at addressing the many issues that the new generation of multimedia Internet traffic will present. The same theme was followed by **Tony Krzesinski** (ZA) and co-workers.

Novel methods to address issues in mobile and wireless networks were offered by many speakers. **Hisashi Kobayashi** (US) described a new technique to be employed by a proxy server that serves as a gateway between mobile wireless clients and WWW servers.

UMTS Cons 3G Networks were also high on the agenda, with **Michiel Lötter** (US) discussing implementation and application matters of UMTS. Specifically, he showed that the key to a successful 3G service will be the ability of the underlying silicon platform to support new and advanced applications, such as Java.

Equally practical was the description of a software bed by **Andy Shearman** and **Pieter Kritzinger** (both ZA) for the diagnosis of GSM Network error, using a database of monitored data.

The 3-day event ended with meetings of TC6 and a closed joint workshop on the performance of telecommunication of computer networks.

Those leading the conference were Conference Chair **Koos Koen,** International Program Committee Chair **Pieter Kritzinger,** and Organizing Committee Chair **Peter Aspinall** (all ZA). This was yet another **IFIP** event in South Africa, following last year's TC9 event (International Conference on IT in Developing Countries) and is a vital part of the CSSA strategy of continuing to bring more international events to South Africa. ❑

* Conference chair of AFRICOM 2001

IFIP Web Site Commended

•*nterWEB Portugal*, a magazine about computers and the Internet, chose the **IFIP** Web site as "Web Site of the Month" (Site do Mes) for March 2001 and published an article about **IFIP.** Congratulations to the Secretariat!

Those who have recently visited the Web site (http://www.ifip.or.at) will have noticed a new, attractive format.

Call for Papers Is Available for **IFIP** Congress 2002

The Call for Papers for IFIP Congress 2002, which will take place in Montreal, Canada, 25-30 August, is now available on the Congress Web site at URL http://www.wcc2002.org. Following is a brief summary of each stream and its chair. The instructions in the Call for Papers should be followed carefully. The deadline is 3 December 2001. Addresses to which the papers should be sent can be found in the Calls for Papers column on page 12. Submissions should include the paper title and the stream for which it is intended, as well as author name(s), e-mail address, and telephone number.

IT Foundations in the Era of Network and Mobile Computing

Network and mobile computing are radically changing information technology systems by bringing together computing, communication, and mobility functions. Future IT systems will be highly dynamic, large, and complex, spanning vast geographical areas. The design issues involved in such environments pose enormous challenges to theoretical computer science, calling for focused research on foundational problem areas. This stream will provide a forum to discuss and analyze the results of current investigations.

Chair: **Nicola Santoro —** santoro@scs.carleton.ca

Software Architecture

In the Software Architecture stream, international participants from academia and industry will present the latest developments and identify new challenges in the field. The main event of this stream is the 3rd Working Conference on Software Architecture (WICSA). Its location in the Congress presents the opportunity to involve researchers and practitioners whose primary area is not architecture, but whose work influences and is influenced by the field of software architecture.

Chair: **Christine Hofmeister** — crh@eecs.lehigh.edu

TelE-Learning

This stream will be organized in four tracks:

1. Lifelong Learning
2. Teacher Education
3. Community and Distributed Learning
4. Professional and Organizational Developments

The TelE-Learning stream will provide us with a great opportunity for presenters to describe and demonstrate developments in these areas (including the links with the other streams) and for delegates to discuss and evaluate the achievements to date.

Chair: **Raymond Morel —** raymond.morel@tecfa.unige.ch

Communication Systems: The State of the Art

This stream will be a comprehensive presentation of the state of the art in communication systems. Areas to be covered include Architectures and Protocols for Distributed Systems, Performance of Communication Systems, Internet Applications, Network Management, Smart Networks, Wireless Communications, Photonic Networking, and Communication Systems in Electronic Commerce.

Chair: **Lyman Chapin** — lyman@nexthop.com

Information Systems: The e-Business Challenge

E-Business is shaping the future, inspiring a growing range of innovative business models and information systems. Today's increasingly complex business environment calls for high-performance solutions. A holistic approach to design is needed, balancing various demands of organisations and users. Areas to be covered include: Methods and Tools for Design, Innovative Services and Organisational Redesign, Best Practice in e-Commerce and e-Government, Systems Assisting Cooperation and Decision Making, Technology Transfer, Multidisciplinary Aspects, Social Implications. and Legal Frameworks.

Chair: **Roland** Traunmüller—traunm@ifs.uni-linz.ac.at

Human Choice and Computers: Issues of Choice and Quality of Life in the Information Society

Many people publicly argue that information and communication technologies will bring about an inevitable transition from "industrial" to "information-based" or "knowledge-based" economies and societies. It is assumed that all aspects of our economic and social lives will be radically different from what they are today.

Chair: **Klaus Brunnstein —** brunnstein@informatik.uni-hamburg.de

Distributed and Parallel Embedded Systems

Distributed realisations of embedded systems have recently been gaining popularity in various applications, like telecommunication devices, automobiles, aircraft, and even complete production lines. In a distributed setup, the control task is carried out by a number of controllers distributed over the entire system and interconnected by a network such as field buses.

Chair: **Bernd Kleinjohann** bernd@c-lab.de

Intelligent Information Processing

This stream will constitute the International Conference on Intelligent Information Processing — IIP-2002, which will focus on two themes of eminent importance in which Al methods contribute innovative solutions and enable successful applications:

1. Knowledge-Based System Architecture
2. Intelligent Information Management.

Chair: **Bernd Neumann** — neumann@informatik.uni-hamburg.de

Usability: Gaining a Competitive Edge

Usability offers enormous benefits in terms of productivity, efficiency and quality of use, and it increases people's feelings of satisfaction when using IT and communications in their daily lives. This stream plans to present the current state of usability research and practice and encourages contributions that discuss usability in terms of industry and practice as well as research advances.

Chair: **Judy Hammond** — judy@it.uts.edu.au

Information Technology: the Need for Convergence between Industry, Practitioners and Researchers

This stream will be a strong program geared toward the IT industry needs and toward strengthening relationships between researchers and industry. Papers on current research in organisations and enterprises, case studies, and new developments of practical relevance for practitioners and industry are especially welcomed.

Chair: **Lin Gingras —** Lin.Gingras@fsa.ulaval.ca

IFIP Awards Structure Being Reconsidered

*by Dr. Jack Rosenfeld (US)**

Following the 1999 **IFIP** General Assembly in Malaysia, **Dr. Roger Johnson** (GB), the **IFIP** secretary and chair of the Internal Awards Committee, was asked to review the use of the **IFIP** Outstanding Service Award (OSA). Established in 1988, the OSA is given for services rendered to I **FIP** by Technical Committee (TC) and Working Group (WG) members, on recommendation of TC chairs and approval by the Internal Awards Committee. Eligible for nomination are individuals not normally eligible for the Silver Core Award. So far, 71 OSAs have been awarded — most recently, four in 2000.

In June 2000, **Dr. Johnson** sent a short questionnaire to TC chairs, soliciting their view of the OSA. Three of the chairs responded, with varying evaluations of the OSA. On the basis of these responses and further discussions of the Executive Board, **Dr. Johnson** made the following recommendations to the 2001 Council in Capri:

1. The OSA should be left essentially unchanged.
2. The Internal Awards Committee should be asked to review the wording to clarify the purpose of the award.
3. The Marketing Committee should be asked to seek ways to give it greater prominence within **IFIP.**

Silver Core Award

The Silver Core Award is conferred on those who have served **IFIP** as GA members, committee officers, members of **IFIP** Congress program committees, and editors of proceedings of **IFIP** conferences

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* ***IFIP*** *Newsletter* editor, Individual Member

IFIP Past Presidents in the News

Sendov in Bulgarian Parliament

Acad. Blagovest Sendov, IFIP president from 1989 to 1992 and now an Honorary Member, was elected to the Bulgarian parliament in June. He previously served in the parliament as Chair and Vice-Chair.

The elections received major international media coverage, with the party of **ex-King Simeon II** winning. **Acad. Sendov** was not on the winning side. **Simeon II** and **Sendov** met during the 1992 **IFIP** World Computer Congress in Madrid, in the company of King **Juan Carlos** of Spain.

Zemanek Elected to Hungarian Academy of Sciences

Prof. Heinz Zemanek (AT), **IFIP** president from 1971 to 1974 and now an Honorary Member and **IFIP** Historian, was elected as Honorary Member of the Hungarian Academy of Sciences in June.

Project Gateway Binds **IFIP** and Its Member Societies

*by Mt: Plamen Nedkov**

Earlier this year, members of the IFIP Executive Board and the IFIP Committee for Cooperation with Industry were in contact in order to consider how to connect IFIP's Technical Committees (TCs) with the working bodies (WBs) of IFIP's Full Member societies. One of the results was to move forward with Project Gateway, an Internet arrangement linking our TCs with the WBs of our Members by means of a network of standardized IFIP pages maintained by our Members on their Web servers. The IFIP Secretariat was requested to develop a prototype of the IFIP page.

In June, the IFIP page became available at ftp://ftp.ifip.orat/pub/presentation/memsoc.htm.

* Executive Director of IFIP

It is simple in design, with the characteristic elements of the **IFIP** site. The links to **IFIP,** its events, publications, newsletters, and 12 TCs are embedded.

We have included space for each society to insert its name and logo and provide a link to its site. There are entries for the General Assembly (GA) and TC representatives of the member and links to their personal pages, as well as basic contact data. Under the names of the **IFIP** TCs, there is space for inserting the names of and creating links to the WBs of our Members. One section of the page is reserved for the annual reports to the **IFIP** GA. Finally, there is space for announcements, including events and publications, and our Members are encouraged to create links to their calendars of events and to their publication pages.

Member societies who have not already done so are invited to consider downloading the **IFIP** page and providing the links and information described above. When the Member's **IFIP** page has been established, a link to it will be created in the I **FIP** site.

Project Gateway offers many advantages to **IFIP** and its Members, their members, and the IT community. It will also help us provide greater visibility and information about our Members and their activities.

Please do not hesitate to contact me should you need any further information. ❑

AWARDS continued from page 7

and Congresses. The required length of service varies with the role. The president of IFIP may also propose individuals who have given exceptional service to IFIP. (Those readers who have entered the field of information processing in recent years may not realize that the **IFIP** logo represents a magnetic core a toroidal memory device that was once the most common type of computer memory — and its wires, with a globe superimposed. The Award, first established in 1974, was named after this symbol of the computer technology of that time.) So far, 381 Silver Cores have been awarded — most recently, 65 in 1998.

Revising the Awards

During the Council discussion, the response to the questionnaire of one of the TC chairs was presented:

> Personally, I think that the Silver Core needs to be altered as well. Many people who have received the Silver Core Award have worked on the minimum number of events required by the award criteria, with small working conferences, or they have edited small books, etc. Compare that to people who have been TC chairs or chairs of very large and prestigious conferences, where the financial and technical aspects are *huge* in comparison.
>
> What is needed is a better set of awards that cover effort in a variety of ways. I also note that times are not as they were 10 or 20 years ago. It is much more daunting today to take on a role and responsibility in an organisation, like **IFIP,** that expects that everyone does things for no return.
>
> The return does not have to be money, but awards (that can be shown on people's CVs, when they are going for promotion, etc.) are a good way of honouring volunteers. But the awards really have to be seen as an honour that is widely recognised and revered. So my suggestion is that the whole awards system be reviewed, not just the OSA, and that **IFIP** install a well-documented and prestigious tiered set of awards that are not only appreciated by recipients but are also useful in their working careers.

Problems and Suggestions

The two problems identified were the lack of differentiation among the degrees of service to **IFIP** rendered by the recipients and the questionable prestige of the awards.

Additional suggestions offered at the Council meeting were that the OSA not be restricted to TC and WG members; that higher levels of award be instituted (e.g., a gold core and a platinum core); that additional mementos be given with the awards (e.g., scarves, neckties, pins [the Silver Core recipients are given a pin, but the OSA recipients are not]); and that discounts on **IFIP** books and registration fees for conferences or Congresses be offered. Also, it was suggested that pictures of the OSA recipients and their contributions to **IFIP** be printed in the ***IFIP*** *Newsletter.*

Personal Experience

I received my Silver Core in 1977, because I edited proceedings of IFIP Congresses '71 and '74. At that time, the awards were presented by the president of **IFIP** at the closing ceremony of the Congress and consisted of a plaque. (The 1977 plaque included a clear cube of lucite, approximately 10 cm. per side, in which a "silver" core was imbedded. This was, in turn, mounted into a plastic sheet to which a paper certificate was affixed.)

Among the perquisites of the holders of the Silver Core were the following, all prescribed in the Standing Orders: the plaque, inclusion in a list of recipients printed in the *Information Bulletin,* and use of a Silver Core Lounge at **IFIP** Congresses.

Over the years, the perks have been changed. The plaque has been replaced by a paper certificate and a pin, which is now delivered by mail rather than presented in a public ceremony. Perhaps it will eventually be delivered by e-mail as a PDF file! The Standing Orders still call for the names to be printed in the *Information Bulletin;* however, they are listed on the **IFIP** Web site instead (http://www.ifip.or.at). The lounge no longer exists at Congresses.

Dr. Grafendorfer Is Honored by Austria

The Grand Decoration of Honour for Services to the Republic of Austria was recently awarded to **Dr. Walter Grafendorfer,** an **IFIP** vice-president, by the Federal President of the Republic of Austria, for outstanding service during forty years as a Civil Servant, including approximately 22 years as Secretary General of the Austrian Computer Society, and especially for international activities:

In IFIP — as representative, trustee and vice president, for activity involved in the transfer of the **IFIP** Secretariat to Austria, and for organization of the I998 **IFIP** World Computer Congress in Vienna and Budapest.

In the Council of European Professional Informatics Societies (CEPIS) — as representative and member of the Executive Committee and for the establishment of the European Computer Driving Licence in Austria.

For organizing many other international events.

We offer our hearty congratulations to **Dr. Grafendorfer.**

The Grand Decoration of Honour

Some recipients enjoy the ceremonial aspects of the recognition; others couldn't care less. It is possible that restoring some of the special treatment might enhance the value of the award to those who do care. Similar treatment could be afforded the recipients of the OSA. ❑

*Academic Writings on Information Systems and Development**

*by Dr. Richard Heeks (GB)***

[Many of the articles in the newsletter **of IFIP** Working Group 9.4 on Social Implications of Computers in Developing Countries are of broad general interest. An article from the April issue by **Dr. Richard Heeks (GB)** discusses different approaches to research within the scope of WG9.4. We believe that the article, humorously entitled "What Did Giddens and Latour Ever Do For Us?," might be of interest to our readers, so we print an abbreviated version here. The complete article can be found at

apr200I/article7.htm. — Editor]

Over the past decade, people in and around **IFIP** WG9.4 have **built** up a literature on Information Systems (IS) and development that is very mixed in style and approach. One strand of writing has been the individual case study within an organization or country. Such studies have been largely descriptive, rooted in the practical realities of IS implementation, and hard to generalize. Over time, such work runs the risk of retreading the same old ground without making much progress in either a practical or theoretical way.

More Theory Building Needed

It was partly the prevalence of such writing that led to the call of Sahay and Walsham in I995 for more theory building in the field of IS and development. They argued various values for theory: a means for researchers to communicate with each other, a means for researchers to communicate with practitioners, a means for accumulation of knowledge, and a means for legitimacy and recognition of an academic discipline. They also noted that writings engaging with theory could be used in two main ways: to develop and refine that theory, and to bridge the gap between theory and practice.

What progress has been made since this "call to arms"? A review of subsequent writings in the proceedings of the main IS and development conferences and journals shows that relatively non-theoretical material still predominates. For example, at most, I0 of the 35 papers in the year 2000 Cape Town conference on information systems and development can be said to engage with theory. These ten root their purpose in social science theories and return to those theories in the analysis of **their** data. **All** the papers represent writings of significant value; they are mostly accessible, and they clearly demonstrate a contribution to accumulation of knowledge.

However, these and other recent theory-engaged writings typically fail the other "values of theory" identified above. Writings on IS and development show a surprising and disappointing lack of inter-referencing. **That** is, theory-engaged writers rarely reference other IS and development writers, except for self-references to their own previous work.

The IS and development field can be characterized as a "periphery" that surrounds a "core" of mainstream IS and social science research. Ideas are not interchanged **within** the periphery but flow from core to periphery: writers are involved in an atomized engagement with the core, instead of a collective endeavor. Theory-engaged writers may be developing a personal "legitimacy and recognition" whilst the IS and development field overall is not.

But is this atomized engagement with the core fostering communication between researchers? In terms of flows back from periphery to core, it would appear largely not. Citation of IS and development work in mainstream IS journals is practically non-existent. If IS and development writers don't seem to read and value each other's work, why should anyone else? The picture is sadly reminiscent of the relationship between development economics and mainstream economics — a picture of a flea jumping up and down on the back of an elephant, demanding to be noticed.

Too Much Theory Applying

In part, the lack of interchange and citation may relate to a further shortcoming: most IS and development theory-oriented writing is "theory application" — not "theory building." Almost all recent theory-engaged writing takes a "core idea" and shows how it fits

* **IFIP**

** Member of IFIP Working Group 9.4

Continued on page 10

IS AND DEVELOPMENT cont. from p. 9

a particular developing country's case study or set of data. This suggests too much deference to these core ideas and/or an opacity of those ideas that makes refinement hard to achieve. In general, then, we are seeing a one-way flow of ideas: from core to periphery.

This is a great pity, because IS cases from the South have much to offer. In practical terms, such cases can be easier to research than those in the North. Globalisation has also brought a greater prevalence and greater relevance of such cases.

Perhaps most valuably, DC information systems cases offer new insights into theory. Adding in the 'stretch' of technology transfer throws new light onto theory by pulling the stages of design, implementation and use into a spiral that moves between different contexts.

Theory and Practice Gap

If used appropriately, then, real-world IS cases from the South can contribute to theory. But what of the converse? Can theory-engaged writing on IS and development show a contribution to practice? There are some positive signs. Most (though not all) such writing is accessible enough to be understood by a "reflective practitioner."

In terms of value to practitioners, two of the ten conference papers mentioned above are fully focused in their conclusions on the practical implications of their findings. However, this cannot be said of the majority of theory-engaged writing, which draws from practice to inform writing but fails to then develop findings of practical value. Yet the ultimate purpose of theory must not be just to provide a better understanding of the world but also to provide the basis for better interventions in that world.

In many ways, this practice-related shortcoming explains why the recently evolved activities and networks on "ICTs (Information and Communication Technologies) and development" with their fetish for action over analysis — have overlapped so little with the long-standing "IS and development" world. That latter world is perceived rightly or wrongly — as being an ivory tower that is out of touch with realities and more concerned with theory than with practice. The continuing division acts to the detriment of both camps. It denies the ICTs and development camp the benefit of accumulated lessons and expertise; it denies the IS and development camp the funding and fora for growth.

Academic Colonialism?

There is also a moral point here. Academics may be seen as taking data and value from developing countries and repackaging it for the (limited) benefit of a small clique of other Western or Western-oriented theoreticians. If so, they differ little from the exploitative colonialists and capitalists extracting resources and labor value from developing countries for the benefit of Western elites. If this is to be avoided, a question for all those involved in IS and development must therefore surely be, "What benefit is being returned to the individuals and organizations and communities from whom my data was drawn?"

In summary, IS and development writings generally need to focus more on analysis and less on description, to clearly create new and generalisable knowledge and to engage more with theory for these purposes. The points made by Sahay and Walsham remain valid but, as yet, too few of their identified values of theory have been demonstrated. In particular, for those whose writings do engage with theoretical ideas, there is a continuing danger of falling between two stools — failing to add to the theory base but also failing to provide practical guidance.

Academic writing on IS and development must therefore do more to —

- criticize and refine core IS and social science theories, not just subserviently apply such theories
- develop new theoretical viewpoints that build upon the collective enterprise and shared expertise of IS and development writers
- ensure that writing is intelligible to the "reflective practitioner"
- demonstrate the contribution that theoretical ideas can make to practical application of information systems in development. ❑

TECHNICAL COMMITTEE CHAIRMEN

TC I:	G. Austell°	IT	00-02
TC2:	A. Haeberer	AR	01-03
TC3:	B. Samways	GB	00-02
TC5:	G. 0lling	US/ACM	01-04
TC6:	A. Casaca	PT	01-03
TC7:	I. Lasiecka	US/ACM	01-04
TC8:	B. Glasson	AU	99-01
TC9:	J. Berleur	BE	99-01
TC I 0:	J.-C. Laprie	FR	00-02
TC I I:	L. Strous	NL	01-04
TC12:	B. Neumann	DE	01-03
TC 13:	J. Hammond	AU	98-01

TC9 ANNIVERSARY continued from p. I

393_408. Written by **Prof. Harold Sackman** (US), the chair of TC9 from I983 to I989, the history demonstrates the struggle to gain approval experienced by this now well-established TC.

Within the founding TC9 circle, **Heinz Zemanek** has always been acknowledged as the "father" of TC9. When he assumed the presidency of **IFIP** in August 1971, he promised to achieve three goals during his administration: 1) maintain scientific and technical standards, 2) improve administration, and 3) "foster the human aspect." The last was the gleam in **Zemanek's** eye in 1971 that eventually led to TC9 in 1976.

The uncharted road to TC9 had its own pitfalls and blind alleys. **Zemanek** tried, unsuccessfully, to kick off an **IFIP** conference on Man and Machine in 1972, but ... the International Labor Office in Geneva turned down co-sponsorship of this proposed conference, and it could not be held.

While still President of **IFIP** in the fall of 1973, **Zemanek** submitted a formal proposal to the **IFIP** General Assembly (GA) for a new TC on Non-Technical Affairs, for the field of human, philosophical, social and historical matters, with Working Groups (WGs) on Information Processing and Society, Computer Applications in the Humanities, and the History of Computers and Automation. The proposal was turned down. [The idea of] a new TC with a negative name (Non-Technical Affairs) carried the unfortunate disadvantage of negative semantics. First, it was proposed as a "non-technical" committee when all the others were "technical." Second, it attempted to cover the vast domain of computers in the social sciences and the humanities under one huge umbrella. Third, it could alienate social scientists and applied interdisciplinary scientists by labeling their work as non-technical and, by indirection, as non-scientific. ...

Human Choice & Computers

These obstacles did not deter **Zemanek,** who kept the concept of the defunct 1972 **IFIP** conference alive and, with his persistence, put together a winning team for the First Conference on Human Choice and Computers (HCC 1) in Vienna in 1974....

A time-honored technique in **IFIP** to get [approval for] a new TC is to demonstrate the value and the viability of the proposed scope and aims of the TC with a successful prototype conference. ...

HCC 1 had 125 participants from 20 countries. The key professionals at the conference included social scientists, computer and information scientists, labor union representatives, managers, and representatives of international or-

ganizations. ... Sparks flew in many directions. Computer and information scientists were surprised that everyone else did not consider them objectively neutral in social impacts of their wares. Social scientists were accused of being too academic and unwitting tools of management. Labor unions felt they were being left out and ignored in long-range technological planning, in information system design, and in shaping the quality of future working life. Everyone felt the brunt of free-wheeling criticism. ...

Shortly after HCC 1, at the 1974 **IFIP** GA, as **Zemanek's** presidency of **IFIP** drew to a close, he again attempted to recommend approval of TC9. ... The GA temporized by accepting TC9 "in principle" and setting up a task group to flesh out the detailed proposal. In the spring of 1975, **C.C. Gotlieb** (Canada) agreed to chair TC9 for one year, at **Zemanek's** request.

TC9 Meets

The first working meeting of embryonic TC9 was held in Boston in August 1975, with 15 people showing up. ... [Six] national representatives were present, and nine countries in all had national representatives appointed. The meeting was primarily concerned with proposing initial WGs.

At the subsequent **IFIP** GA meeting in 1975 in Rio de Janeiro, **Zemanek** again proposed acceptance of TC9, only to have it postponed once more. In his letter to **Gotlieb,** with copies to TC9 designates, **Zemanek** indicated "I got so sad that I gave it up ... My patience is finite." But at a later point in this letter, he cut right into the heart of the central issue by stating that "The human aspects of information processing today have become more important than any technical aspect." And he ended on an upbeat note, "I therefore trust that you and all TC9 members will not be discouraged."

The wheels were already in motion. Embryonic TC9 had an **IFIP** budget, and the next TC9 meeting was held in February 1976, in Amsterdam. Eighteen people attended. The Scope and Aims were hammered out at this meeting. ...Three WGs were recommended for **IFIP** approval... .

At the 1976 GA meeting, TC9 was finally formally adopted by **IFIP.** Two WGs were authorized: WG9.1, Computers and Work, and WG9.2, Social Accountability.

We congratulate TC9 on its anniversary and its many accomplishments during the past 25 years. ➥

FUTURE **IFIP** MEETINGS

GENERAL ASSEMBLY AND COUNCIL (and related meetings)

GA	1-5 Sep 2001 (Sat-Wed)	Natal, Brazil
Council	2-6 Mar 2002 (Sat-Wed)	Bled, Slovenia
GA	30 Aug - 3 Sep 2002 (Fri-Tue)	Montreal, QU, Canada
Council	I-5 Mar 2003 (Sat-Wed)	Bilbao, Spain
GA	30 Aug - 3 Sep 2003 (Sat-Wed)	Lithuania
Council	29 Feb - 4 Mar 2004 (Sat-Wed)	Portugal
GA	11-15 Sep 2004 (Sat-Wed)	Toulouse, France

TECHNICAL COMMITTEE AND WORKING GROUP MEETINGS

WG2.1	10-I4 Sep 2001	Ameland, the Netherlands
	Jun 2002	Dagstuhl, Germany (tentative)
	Mar 2003	Stony Brook, NY, US (tentative)
WG2.4	17-22 March 2002	Simonstown, South Africa
	10-15 Nov 2002	Dagstuhl, Germany
	August 2003	US
	July 2004	Paderborn, Germany
WG2.5	2002	Portland, OR, or Washington, DC, US
	2003	Austria
TC3	15-16 Feb 2002	France
WG3.1	2002	Dortmund, Germany
WG3.2	8 Aug 2002	Florianopolis, Brazil
	2003	Sydney, Australia
WG3.3	2003	Finland
WG3.4	2003	Finland
WG3.5	Jul 2002	France
WG3.6	Aug 2002	Montreal, QU, Canada
WG3.7	Jul 2002	Helsinki, Finland
TC5	7-10 Nov 2001	Budapest, Hungary
WG5.10	28 Sep 2001	Geneva, Switzerland
TC6	6-7 Oct 2001	Zurich, Switzerland
	6-7 Apr 2002	Saariselka, Finland
WG6.1	15 Nov 2001	Heidelberg, Germany
WG6.2	May 2002	Pisa, Italy
WG6.3	May 2002	Pisa, Italy
WG6.6	16 Oct 2001	Nancy, France
WG6.7	I Oct 2001	Philadelphia, PA, US
WG6.I1	5 Oct 200I	Zurich, Switzerland
TC8	23-24 Aug 2002	Montreal, QU, Canada
WG8.2	Dec 2002	Barcelona, Spain
TC9	24-25 Aug 2002 (tentative)	Montreal, QU, Canada
WG9.1	16 Sep 2001	Bonn, Germany
SIG9.1.1	Oct 2001 (?)	Bremen, Germany (?)
WG9.2	19-20 Jan 2002	Namur, Belgium
	24-25 Aug 2002 (tentative)	Montreal, QU, Canada
	Jan 2003	Namur, Belgium
WG9.3	28-30 Apr 2002	Irvine, CA, US
WG9.4	29-31 May 2002	Bangalore, India
WG9.5	Oct 2001	Bremen, Germany
WG9.6/11.7	23-24 Nov 2001	London, UK
	1 June 2002	Prague, Czech Republic
WG9.7	25-26 Aug 2002 (tentative)	Montreal, QU, Canada
TC 10	10 Sep 2001	Brasilia, Brazil
WG10.4	20-24 Jan 2002	Saint Johns, Virgin Islands, US
	26-30 Jun 2002	North Carolina, US
WG10.5	I0-15 Sep 200I	Brasilia, Brazil
	3-5 Dec 2001	Montpellier, France
TC11	5 May 2002	Cairo, Egypt
WGI1.4	26-27 Nov 2001	
WG11.5	15 Nov 2001 (in conjunction with conf.)	Brussels, Belgium
WG1I.7 see WG9.6		
TC13	28 Feb - 2 March 2002	Prague, Czech Republic
WG13.3	10 Sep 2001	Lille, France
WG13.5	17 Jul 2002	Glasgow, UK

This information is furnished to the *Newsletter* by the Secretariat. Will TC and WG chairs kindly keep the Secretariat advised of the dates and locations of their future administrative meetings and also send a copy of the minutes to the Secretariat.

Some meetings are scheduled in conjunction with Working Conferences, for which the conference dates are listed. ❑

New **IFIP** Books

The following IFIP books have been published since April:

Architecture and Design of Distributed Embedded Systems, edited by B. Kleinjohann (DE), Kluwer Academic Publishers, hardbound, ISBN 0-7923-7345-6, April 200I, 248 pp., EUR 165.00

New Trends in Optical Network Design and Modeling, edited by Alexandros A. Stavdas (GR), Kluwer Academic Publishers, hardbound, ISBN 0-7923-7355-3, April 200I, 296 pp., EUR I49.00

Global Engineering, Manufacturing, and Enterprise Networks, edited by John P.T. Mo (AU), Laszlo Nemes (AU), Kluwer Academic Publishers, hardbound, ISBN 0-7923-7358-8, April 2001, 5I2 pp., EUR 230.00

Communications and Multimedia Security Issues of the New Century, edited by Ralf Steinmetz (DE), Jana Dittmann (DE), Martin Steinebach (DE), Kluwer Academic Publishers, hardbound, ISBN 0-7923-7365-0, April 2001, 440 pp., EUR 202.00

Trusted Information: the New Decade Challenge, edited by Michel Dupuy (FR), Kluwer Academic Publishers, hardbound, ISBN 0-7923-7389-8, May 2001, 504 pp., EUR 201

Realigning Research and Practice in Information Systems Development: The Social and Organizational Perspective, edited by Nancy L. Russo (US), Brian Fitzgerald (IE), Janice I. DeGross (US), Kluwer Academic Publishers, hardbound, ISBN 0-7923-7420-7, July 200I, 496 pp., EUR I92

Human-Computer Interaction - INTERACT '01, edited by Michitaka Hirose (JP), IOS Press, hardbound, ISBN I 58603 188 0, July 2001, 897 pp., EUR 145

Emerging Personal Wireless Communications, edited by 011i Martikainen, Jenni Hyvainen, Jari Porras (all FI), Kluwer Academic Publishers, hardbound, ISBN 0-7923-7443-6, July 2001, 312 pp., EUR I65

Advances in Information Security Management & Small Systems Security, edited by Jan H.P. Eloff, Les Labuschagne, Rossouw von Solms (all ZA), Kluwer Academic Publishers, hardbound, ISBN 0-7923-7506-8, August 200I, 232 pp., EUR I53

Pathways to Institutional Improvement with Information Technology in Educational Management, edited by C.J.Patrick Nolan (NZ), Alex C.W. Fung (CN), Margaret A. Brown (NZ), Kluwer Academic Publishers, hardbound, ISBN 0-7923-7493-2, September 2001, 180 pp., EUR I36

Technical Committee chairs are reminded to send information about non-Kluwer IFIP books to the Secretariat and the *Newsletter* editor.

Calls for Papers

IFIP WG9.4 Conf. on **ICTs and Development: New Opportunities, Perspectives & Challenges**
29-31 May 2002, Bangalore, India
papers **due:** 3I August 2001
contact: http://is.lse.ac.uk/ifipwg94/Conference2002/first_call.htm

Fourteenth IFIP TC6/WG6.1 Intl. Conf. on **Testing of Communicating Systems — TestCom**
19-22 March, 2002, Berlin, Germany
papers **due:** 8 September 200I
contact: http://www.fokus.gmd.de/events/testcom2002

17th IFIP TCII Intl. Conf. on **Information Security (IFIP/SEC 2002): Security in The Information Society — Visions and Perspectives**
6-8 May 2002, Cairo, Egypt
papers due: 31 October 2001
contact: Dr. Mahmoud El-Hadidi
Faculty of Engineering — Cairo Univ.
Giza - Cairo- Egypt
e-mail: Hadidi@mailer.scu.eun.eg
fax: +20 2 572 3486

IFIP **Congress 2002, the I7th World Computer Congress**
25-30 Aug 2002, Montreal, Canada
papers due: 3 Dec 200I
contact: Mr. Jan Wibe
e-mail: jan.wibe@seu.allforsk.ntnu.no
submission addresses:
by e-mail: papers-wcc2002@cips.ca
by fax: WCC2002 Conf. Secretariat
(5I4) 840-1243
by mail: WCC2002
550 Sherbrooke Street West
Suite 355, West Tower
Montreal, QU, Canada H3A IB9

IFIP WG2.1 Working Conf. on Generic **Programming**
8-13 July 2002, Dagstuhl, Germany
papers due: 16 Feb 2002
contact:
Jeremy.Gibbons@comlab.ox.ac.uk
http://www.generic-programming.nl/wcgp/index.html

Will event organizers please send calls for papers to both the IFIP Secretariat and the *Newsletter* editor. Note that calls cannot be listed in this column until the events have been approved by **IFI P.**

Minutes-Reading Competition

n October 2000, the always-innovative Secretariat held a competition to encourage IFIP volunteers to read the minutes of the August 2000 General Assembly. Four questions based upon the minutes were posed, and the two winners of the competition were chosen at random from those who submitted correct answers. The prize, "a delightful sight-seeing tour of the Laxenburg and Baden regions followed by dinner for 2 organized and hosted by the Delivery Co.," was won by **Prof. Bernard Cornu (FR)** and **Prof. Arrigo Frisiani** (IT).

A Special Award (a bottle of the famous Rotgipfler white wine from the Baden/Gumpoldskirchen region) was presented to **Prof. Jacques Berleur** (BE) for the fastest reply — two hours after the original mail was sent!! He wrote: "You must imagine at what speed I was able to read the minutes you wrote so carefully :-)."

Mr. Nedkov (left) and Prof. Berleur with the "Special Award."

National Abbreviations Used in Newsletter

AR	Argentina	DK	Denmark	JP	Japan
AT	Austria	EG	Egypt	MX	Mexico
AU	Australia	ES	Spain	NL	The Netherlands
BE	Belgium	Fl	Finland	NZ	New Zealand
BG	Bulgaria	FR	France	PL	Poland
BR	Brazil	GB	United Kingdom	PT	Portugal
CA	Canada	HU	Hungary	RO	Romania
CH	Switzerland	IE	Ireland	SE	Sweden
CN	China	IN	India	TH	Thailand
CZ	The Czech Republic	IR	Iran	US	USA
DE	Germany	IT	Italy	ZA	South Africa

Published by KLUWER ACADEMIC PUBLISHERS on behalf of the International Federation for Information Processing

New Developments in Distributed Applications and Interoperable Systems

edited by **Krzysztof Zielinski**
University of Mining and Metallurgy (AGH), Kraków, Poland
Kurt Geihs
University of Frankfurt, Main, Germany
Aleksander Laurentowski
University of Mining and Metallurgy (AGH), Kraków, Poland

TC 6

This book focuses on the techniques available or under development with the goal to ease the burden of constructing reliable and maintainable interoperable information systems providing services in the global communicating environment. Topics include: Context-aware applications; Integration and interoperability of distributed systems; Software architectures & services for open distributed systems; Management, security and quality of service issues in distributed systems; Software agents and mobility; Internet and other related problem areas.

The work contains the proceedings of the *Third International Working Conference on Distributed Applications and Interoperable Systems (DAIS'2001)*, held in September 2001 in Kraków, Poland, sponsored by the International Federation for Information Processing. The program presented state of the art research concerning distributed and interoperable systems. This is a topical research area where much activity is currently in progress. Interesting new aspects and innovative contributions are still arising regularly. The DAIS series of conferences is one of the main international forums where these important findings are reported.

ISBN 0-7923-7481-9 August 2001, 344 pp.
EUR 185.00 / USD 170.00

Towards the E-Society

TC 6/8/11

E-Commerce, E-Business, and E-Government

edited by **Beat Schmid, Katarina Stanoevska-Slabeva**
MCM Institute, University of St. Gallen, Switzerland
Volker Tschammer, *GMD FOKUS Berlin, Germany*

A state-of-the-art book that deals with innovative trends in communications systems, information processing, and security and trust in electronic commerce, business, and government. It comprises the proceedings of *I3E 2001, the First International Conference on E-Commerce, E-Business, E-Government*, held at the University of Zürich, Switzerland, in October 2001, sponsored by the International Federation for Information Processing.

The book contains recent results of research and development in the following areas: Security and trust; Inter-organisational transactions; Virtual enterprises; Online communities; Strategies and business models; Customer relationships; Negotiations; Formal E-models; E-commerce-induced reengineering; E-government; E-democracy; and, M-commerce.

ISBN 0-7923-7529-7 October 2001, 880 pp.
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Advances in Information Security Management & Small Systems Security

TC 11

edited by **Jan H.P. Eloff** and **Les Labuschagne**
Rand Afrikaans University, Johannesburg, So.Africa
Rossouw von Solms, *Port Elizabeth Technikon, So.Africa*
Gurpreet Dhillon, *University of Nevada, Las Vegas, USA*

This book presents a state-of-the-art review of current perspectives in information security, focusing on technical as well as functional issues. Topics include the latest developments in:

- Information security management issues;
- Network security and protocols;
- Information security aspects of E-commerce;
- Distributed computing and access control;
- Security in mobile environments;
- Advances in intrusion detection;
- Information Security Risk management.

This volume contains the selected proceedings of the *Eighth Annual Working Conference on Information Security Management & Small Systems Security*, sponsored by the International Federation for Information Processing and held in Las Vegas, USA in September 2001. It will be essential reading for researchers in information systems, computer science, information technology, and business informatics, as well as to information security consultants, system analysts and engineers, and IT managers.

ISBN 0-7923-7506-8 August 2001, 232 pp.
EUR 153.00 / USD 140.00

Pathways to Institutional Improvement with Information Technology in Educational Management

TC 3

edited by **C.J. Patrick Nolan**
Massey University, Palmerston North, New Zealand
Alex C.W. Fung
Hong Kong Baptist University, Hong Kong SAR, PR of China
Margaret Brown,
Massey University, Palmerston North, New Zealand

This volume contains the selected proceedings of the *Fourth International Working Conference on Information Technology in Educational Management*, sponsored by the International Federation for Information Processing and held in Auckland, New Zealand, July 2000. It presents findings and insights from contemporary thinking and research about alternative and new ways that computerised information systems might be designed and used to support the improvement of educational institutions. Many pathways are identified although expansion of access to and use of computerised systems by a much broader range of professionals than in the past is vital to the success of improvement initiatives. The contents are in four sections: Models for supporting and enhancing professional practice; Computerised school information system models and designs; Evaluation of system effects; and, Making a difference through training & professional development. The contents suggest, in particular, ways that educational professionals might revise their understandings of how computerised systems may in the future be designed and used to support key institutional processes, policy and strategy development, professional and executive decisions, and institutional planning and programme review.

ISBN 0-7923-7493-2 September 2001, 180 pp.
EUR 136.00 / USD 125.00

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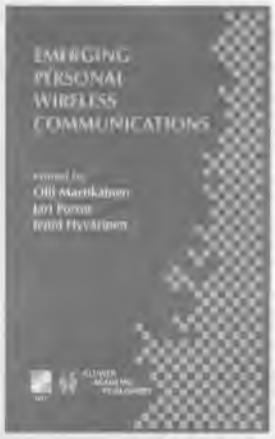
Emerging Personal Wireless Communications

TC 6

edited by **Olli Martikainen**
Jari Porras and **Jenni Hyvärinen**
Lappeenranta University of Technology, Finland



The growth of telecommunications has been largely based on mobile and data services in the past 10 years and this growth will continue. It is forecasted that after 2005 the mobile traffic turnover in Europe will exceed that of fixed telephone traffic, and the penetration of Internet access through mobile will exceed that of fixed access. It is expected that new value-added services will be Internet-based and that IP traffic will outweigh the amount of traditional ISDN based telephone traffic. The transition from existing services to mobile and Internet-based services will change the service infrastructure as well as the customer and service management structures.

This volume comprises the proceedings of the *Working Conference on Personal Wireless Communications (PWC'2001)*, which was sponsored by the International Federation for Information Processing and organized by IFIP Working Group 6.8. It was held in Lappeenranta, Finland in August 2001. The PWC'2001 conference is a forum for tutorials, discussions and presentations of new developments in mobile and wireless research. The contributions to this volume have been divided into six categories that vary from voice over IP implementations to quality of service issues; from service aspects to performance and modelling issues; from modern cellular networks to future wireless systems. This volume will be essential reading for IT students and researchers as well as for theoreticians interested in the current state of the telecommunication systems.

ISBN 0-7923-7443-6 July 2001, 312 pp.
EUR 165.00 / USD 150.00

Data and Application Security

Developments and Directions

TC 11

edited by **Bhavani Thuraisingham**
The MITRE Corporation, Bedford, MA, USA
Reind van de Riet
Vrije Universiteit, Amsterdam, The Netherlands
Klaus R. Dittrich
Universität, Zürich, Switzerland
Zahir Tari
Royal Melbourne Institute of Technology, Australia

New technology is always evolving and companies must have appropriate security for their businesses to be able to keep up to date with the changes. With the rapid growth of the internet and the world wide web, data and applications security will always be a key topic in industry as well as in the public sector, and has implications for the whole of society. This book covers issues related to security and privacy of information in a wide range of applications, including:

- Electronic Commerce, XML and Web Security;
- Workflow Security and Role-based Access Control;
- Distributed Objects and Component Security;
- Inference Problem, Data Mining and Intrusion Detection;
- Language and SQL Security;
- Security Architectures and Frameworks;
- Federated and Distributed Systems Security;
- Encryption, Authentication and Security Policies.

This book contains papers and panel discussions from the *Fourteenth Annual Working Conference on Database Security*, which is part of the Database Security: Status and Prospects conference series sponsored by the International Federation for Information Processing . The conference was held in Schoorl, The Netherlands in August 2000.

ISBN 0-7923-7514-9 October 2001, 392 pp.
EUR 175.00 / USD 160.00

Geometric Modelling

Theoretical and Computational Basis towards Advanced CAD Applications

TC 5

edited by **Fumihiko Kimura**, *Precision Machinery Engineering, University of Tokyo, Japan*

Geometric modelling has been an important and interesting subject for many years from the purely mathematical and computer science viewpoint, and also from the standpoint of engineering and various other applications, such as CAD/CAM, entertainment, animation, and multimedia. This book focuses on the interaction between the theoretical foundation of geometric modelling and practical applications in CAD and related areas. Beginning with two position papers discussing basic computational theory and practical system solutions, the well-organized seven review papers give a systematic overview of the current situation. Further, they provide deep insight for future research and development directions towards the reality of shape representation and processing. They discuss various aspects of important issues, such as geometric computation for space search and shape generation, parametric modelling, feature modelling, user interface for geometric modelling, geometric modelling for the Next Generation CAD, and geometric/shape standard. Other papers discuss features and new research directions in geometric modelling, solid modeling, free-form surface modeling, intersection calculation, mesh modeling and reverse engineering. They cover a wide range of geometric modelling issues to show the problem scope and the technological importance.

ISBN 0-7923-7538-6 October 2001, 384 pp.
EUR 190.00 / USD 175.00

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Calendar of Events

(continued from page 16)

Event	Date	Location	Sponsored by	Contact
Intl.Confon Accel. and Large Exp. Physics Control Syst.	27-30.11.2001	San Jose, CA, US	IFIP TC5	rusty@slac.stanford.edu, http://icalepcs2001.slac.stanford.edu
Intl. Conf. on Very Large Scale Integration - The Global System on Chip Design & CAD Conference	3-5.12.2001	Montpellier, FR	IFIP WG10.5	michelsobert@lirmm.fr, Fax: +33 467 418500,http: //www.lirmm.fr/—w3mic/VLSI-SOC/
IFIP/IIASA Workshop on Dynamic Stochastic Optimization	**11-14.3.2002**	Laxenburg, AT	IFIP WG7.7, UniBw Munich	kuhn@dpt.bwl.uni-muenchen.de/campus/LRT/UK-Tu/Frame/prof_stur/WS_2/workshop.html
14th Intl.Confon Testing of Communicating Systems	19-22.3.2002	Berlin, DE	IFIP WG6.1, GMD Fokus, Cottbus	schieferdecker@fokus.gmd.de, Fax: +49 3034638241. http://BTU www.fokus.gmd.de/events/testcom2002
Work.Confon Formal Meth.f.Open Object-Based Distr.Syst.	20-22.3.2002	Enschede, NL	IFIP WG6.1	rensink@cs.utwente.nl, http://trese.cs.utwente.nl/fmoods2002
7th Conf.on Intelligence in Networks	8-10.4.2002	Saariselka, FI	IFIP WG6.7	kimmo.raatikainen@cs.helsinki.fi, Fax: +358 9 1914 4441
OIKOS 2002	28-30.4.2002	Irvine, CA, US	IFIP WG9.3	avenkate@uci.edu, Fax: +1 9498248091
3rd IFIP Work.Confon Infrastructures for Virtual Enterprises	2-3.5.2002	Vilamoura, PT	IFIP TC5, COVE Project, 1ST	cam@uninova.pt, Fax: +351 21 2941253
Confon Security Visions and Perspectives in the Bright Age of Information Society	6-8.5.2002	Cairo, EG	IFIPTC11	hadidi@mailer.scu.eun.eg, Fax: +20 2 5723486, http://www.sec2002.eun.eg
11th Intl.World Wide Web Conf.	7-11.5.2002	Honolulu, HI, US	Univ.of Hawaii, PTC, IFIP TC6	http://www2002.org
Intl.Confon Nonlinear Problems in Aviation and Aerospace	15-17.5.2002	Daytona Beach, FL, US	IFIP WG7.2, IEEE	il2v@virginia.edu, Fax: +1 804 9823084, http://www.ICNPAA.com
Networking 2002	21-23.5.2002	Pisa, IT	IFIP WG6.2/3/8, CNR	enrico.gregori@cnuce.cnrit, http://www.cnuce.pi.cnr.it Networking2002
IFIP WG9.4 Work.Confon ICTs and Socio-economic Development: Balancing global and local priorities	29-31.5.2002	Bangalore, IN	IFIP WG9.4	skbhatnagar@iimb.ernet.in, Fax: +91 80 6584050, http://iimb.ernet.in/conference/ifip2002
Intl. Conf. on Decision Making and Decision Support in the Internet Age	4-7.7.2002	Cork, IE	IFIP WG8.3, Univ. Coll. Cork, Univ. P. & M. Curie, Paris	fadam@afis.ucc.ie, Fax: +353 21 490 3819, http://afis.ucc.ie/ dsiage2002/
Work.Conf. on Generic Programming	8-10.7.2002	Dagstuhl, DE	IFIP WG2.1	johanj@cs.uu.nl, Fax: +31 30 2513791, http://www.generic-programming.nl/wcgp/index.html
IFIP WG3.2 Work.Confon Informatics Curricula, Teaching Methods and Best Practice	10-12.7.2002	Florianopolis, BR	IFIP WG3.2, SBC	raul@infufsc.br, Fax: +55 48 3319770, http://www.infufsc.br/ifip2002/
IFIP Congress 2002 - 17th World Computer Congress	**25-30.8.2002**	**Montreal, CA**	**IFIP**	**contact-wcc2002@cips.ca, Fax: +1 416 368 9972, http://www.wcc2002.org**
Conf.on Analysis and Optimization of Different.Syst.	9-14.9.2002	Constanza, RO	IFIP WG7.2, Rom. Acad.of Sc.	oltiba@imar.ro
World Telecommunications Congress 2002	22-27.9.2002	Paris, FR	IFIP TC6, SEE	prosper.chemouil@francetelecom.com, Fax: +33 1 46451236, http://www.wtc2002.org/
5th IEEE/IFIP Intl.Confon InfTechnology for Balanced Automation Systems in Manufacturing and Services	25-27.9.2002	Cancun, MX	IFIP WG5.3	marik@labe.felk.cvut.cz, Fax: +420 2 24357224
Asia-Pacific Computer-Human Interaction Conference	1-4.11.2002	Beijing, CN	IFIP TC 13, Chin. Acadm. of Sc., Nature Sc.Found.of China	guozhong@admin.iscas.ac.cn, Fax: +86 1062562533
Conlon E-Training Practices for Professional Organizations	14-18.7.2003	Pori, FI	IFIP WG3.3/3.4	multisil@pori.tut.fi, Fax: +358 39 6272727, http://www.pori.tutfi/etrain/

This calendar information is furnished to the *Newsletter* by the Secretariat. It contains only approved IFIP events, arranged by the local Organizing Committees.
For the latest information on IFIP events please refer to the on-line calendar at http://www.ifip.orat/cal_even.htm
IFIP does not assume any financial or legal liability. A schedule of IFIP administrative meetings can be found elsewhere in this *Newsletter.*

Calendar of Events

Event	Date	Location	Sponsored by	Contact
Intl.Symposium on Telecommunications	1-3.9.2001	Tehran, IR	IFIP TC6, Alcatel, Ericsson, Siemens	marvasti@itrc.ac.ir, Fax: +9821 8009885, http://www.itrc.ac.ir/ist2001/
Intl. Workshop on Cluster Computing	1-6.9.2001	Wimp.ha, RO	IFIP WG10.3, TU Iasi, Black Sea Univ.	grid@infoiasi.ro, Fax: +40 32 232430, http://
Forum on Design Languages	3-7.9.2001	Lyon, FR	IFIP WG10.5	anne.mignotte@insa-lyon.fr, http://www.ecsi.org/ecsi/fdl/ fdl.html
11th Advanced Research Work.Confon Correct Hardware Design & Verification Methods	4-7.9.2001	Livingstom/Edinburgh, GB	IFIP WG10.5, Inst.f.Syst.-Level Integr.	tfm@dcs.gla.ac.uk, Fax: +44 141 3304913, http:// www.dcs.gla.ac.uk/CHARME2001
Intl. Conf. on Parallel Architectures and Compilation Techniques - PACT 2001	8-12.9.2001	Barcelona, ES	IFIP WG10.3, IEEE, ACM	mateo@ac.upc.es, Fax: +34 93 4017055, http:// www.ac.upc.es/pact01
Are guidelines for accessibility accessible ?	10-10.9.2001	Lille, FR	IFIP WG13.3	mno@info.fundp.ac.be, Fax: +32 81 724967
IHM-HCI 2001	10-14.9.2001	Lille, FR	IFIP TC13	pdg@dcs.gla.ac:uk. Fax: +44 141 3304913
Symp.on Integrated Circuits and System Design	10-15.9.2001	Brasilia, BR	IFIP WG10.5, SBMicro	rjacobi@cic.unb.hr, http://www.sbc.org/sbcci, Fax: +55 61 2733589
13th Symp.on Comp. Arch.& High Performance Comp.	10-15.9.2001	Brasilia, BR	IFIP WG10.3, BCS	albamm@cic.unb.br, http://www.cptec.inpe.be—sbac2001/
Intl. Work.Confon Distributed Applications and Interoperable Systems	17-19.9.2001	Krakow, PL	IFIP WG6.1	al@cs.agh.edu.pl, Fax: +48 12 6173966, http://www.cs.agh.edu.pl/DAIS01
8th IFAC/IFIP/IFORS/IEA Symposium on Analysis, Design and Evaluation of Human-Machine Systems	18-20.9.2001	Kassel, DE	IFIP TC13, IFAC	rosenzweig@vdi.de, Fax: +49 211 6214161, http:// www.imat.maschinenbau.uni-kassel.de/hms2001/index.html
Symposium on Inf. Control Problems in ManufTechn.	20-22.9.2001	Vienna, AT	IFIP TC5, IFAC	incom@ihrt.tuwien.ac.at, Fax: +43 1 58801 31899
AUTOMATA 2001	27-29.9.2001	Hyeres, FR	IFIP WG1.5	hdurand@cmi.univ-mrs.fr, Fax: +33 4 91113602
8th Work.Confon Information Security Management & Small System Security	27-28.9.2001	Las Vegas, NV, US	IFIP WG11.1/11.2, Univ.of Nevada, Las Vegas	rossouw@ml.petech.ac.za, Fax: +27 41 5043313
The Challenge of Technological Development	27-29.9.2001	Vienna, AT	IFIP TC9	kopacek@ihrt.tuwien.ac.at, Fax: +43 I 58801 31899
3rd Intl.Work.Confon Active Networks	30.9.-2.10.2001	Philadelphia, PA, US	TFIP WG6.7, Univ.of Penn.	jms@central.cis.upenn.edu, Fax: +I 2158988190, http://www.cis.upenn.edu/iwan
1st IFIP Confon e-Commerce, e-Business, e-Government	3-5.10.2001	Zurich, CH	IFIP TC6/TC8/TC II	haukn@ifi.unizh.ch, http://www.ifi.unizh.ch/I3E-conference
Intl.Symp.on Informatics for Environmental Protection - Sustainability in the Information Society	10-12.10.2001	Zurich, CH	IFIP TC9, EMPA, GI	lorenz.hilty@empa.ch, Fax: +41 71 2747862, http://www.empa.ch/iep01
12th IFIP/IEEE Intl.Workshop on Distributed Systems: Operations & Management	15-17.10.2001	Nancy, FR	IFIP WG6.6, IEEE CNOM	olivier.festor@loria.fr, Fax: +33 383413079, http://www.dsom2001.org
4th IFIP/IEEE Intl.Conf.on Management of Multimedia Networks and Services	29.10.-1.11.2001	Chicago, IL, US	IFIP WG6.2, IEEE, DePaul Univ.	ehab@cs.depaul.edu, Fax: +1 312 3626116, http:// www.mnlab.cs.depauLedu/mmns2001/
3rd Intl.Conflon Info-Tech & Info-Net	29.10.-1.11.2001	Beijing, CN	IFIP, IEEE	mqzhou@public.bta.net.cn, http://www.cie-china.org/ICII2001/
I Ith Intl. IFIP TC5 Conf PROLAMAT	7-10.11.2001	Budapest, HU	IFIP WG5.2/5.3, EU, ERCIM	gkovacs@sztaki.hu, http://www.sztaki.hu/conferences/prolamat
Intl.Confon Distributed Systems Platforms	12-16.11.2001	Heidelberg, DE	IFIP WG6.1, ACM	joe@cs.ucl.ac.uk, http://www.dcs.ucl.ac.uk/icdp2001, Fax: +44 131 3317851,
4th Intl.Work.Conf.on Integrity and Internal Control in Information Systems	15-16.11.2001	Brussels, BE	IFIP WG11.5	strous@iaehv.nl, Fax: +31 492 548636, http://www.ifip.tu-graz.ac.at/TC11/CONF/IICIS2001
1st Intl. IFIP TC11/WG11.4 Work.Confon Network Security	26-27.11.2001	Leuven, BE	IFIP WG11.4, Natl.Research Network, Natl.Science Found.	bart.dedecker@cs.kuleuven.ac.be, Fax: +32 16 327996, http://www.cs.kuleuven.ac.be/conference/inetsec01/

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