This is the first issue of the **IFIP Newsletter** printed by Chapman & Hall, the new IFIP publisher, as part of its contract with IFIP: We look forward to a long, cordial collaboration. Following is a description of C&H written by Mr. Mark Hammond (GB), the representative of C&H to IFIP:

Chapman & Hall, the new IFIP publisher, is both an old and a new company. Its origins lie in the 1830s. When it was the first significant publisher of Charles Dickens, publishing *Pickwick Papers* in 1836. For the past 50 years, it has been a publisher of science books and journals exclusively and remained relatively small, though noted for the quality of its publications. For many years, it represented John Wiley & Sons in Europe.

In 1987, the company became part of The Thompson Corporation (TTC), the major media group owned from Germany (Weinheim) to Britain, the U.S.A. (New York), and Canada, based in the U.S.A., but with a significant portfolio of companies in Europe and Australia. It is the aim of TTC to build C&H into a major scientific, technical, and medical publisher, with full worldwide representation, through agents and offices. This schedule is on target. The company has tripled its revenues in five years and has major offices in Britain, the U.S.A. (New York), and Germany (Weinheim).

Unusual for a major science, technology, and medicine publisher, C&H has concentrated on building a balanced list of books and journals. In 1993, it published over 400 new titles and now has 64 journals and a number of electronic products. CD-ROMs are published in chemistry, and a major CD-ROM program is under way in all disciplines. On-line products are also being generated — the first electronic journals will be published over the Internet in 1995. There is a programme of computer science publications of growing importance, a manufacturing and industrial engineering programme, and an electronic engineering programme. In 1994, these programmes will produce approximately 60 new book titles (excluding IFIP publications), covering both the industrial and academic research markets, and textbooks for students and professionals.

C&H intends to integrate its publishing and marketing of IFIP with its own existing programme, to ensure maximum care from specialist personnel. The relevant editors will be in touch directly with Technical Committee, Specialist Group, and Working Group chairs as soon as possible; however, if individual proposals are now ready to be made, relevant IFIP members should contact Mr. Mark Hammond, the IFIP coordinator, at Chapman & Hall

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**WG3.2 HOLDS PAPERLESS CONFERENCE**

The IFIP Working Group on Informatics Education at the University Level (WG3.2) held “the world’s first paperless conference” 6-8 July 1994 in Melbourne, Australia. All 30 participants brought home from the conference a CD ROM that contained not only the text of the papers presented at the conference, but also video, graphics, animations, and audio snippets of the debate and discussion provoked by the papers.

continued on page 7
Mr. Plamen Nedkov, the new Administration Manager of the IFIP Secretariat, was born in Vratza, Bulgaria, in 1954. As a child, he lived for several years in Israel and Lebanon. He studied economics and graduated from the Higher Institute of Economics in Sofia with a degree in International Economic Relations. He is a Fellow of the Salzburg Seminar (session On The International Negotiation Process) and has completed a course in French Language and Culture in Versailles. During and following his studies, he worked as an English interpreter and translator.

In 1982, he joined the staff of the Bulgarian Academy of Sciences, first as a specialist and later as head of the Sector for International Organizations. In 1989, he was appointed head of the Department for International Organizations. He was also executive director of the Sofia Office of the International Foundation for Survival and Development of Humanity, and national coordinator and secretary of the Bulgarian Organizing Committee for Earth Day International, from 1990 to 1992.

Mr. Nedkov also served as secretary of the Bulgarian Committee for the International Council of Scientific Unions (ICSU) and national coordinator of the Bulgarian Young Pugwash Group. He is presently a member of the Bulgarian Commission for UNESCO and has participated in five sessions of UNESCO’s General Conference, the first session of the Intergovernmental Committee of the IIP-UNESCO, and in a number of ICSU General Assembly meetings.

He has coordinated a number of projects and events hosted by the Bulgarian Academy of Sciences. In 1987, he was appointed secretary of the Balkan Initiative Committee for the First Balkan Scientific Conference on Environmental Protection and as one of the editors of the conference proceedings. He was secretary of the National Organizing Committee for the 1990 General Assembly of ICSU, in Sofia.

Mr. Nedkov has written a number of articles for Bulgarian and foreign publications on problems relating to international scientific cooperation and international relations. With interviews for the Bulgarian media, he has contributed to the popularization of science.

The IFIP community met him in 1984, when he was responsible for arranging the General Assembly meeting in Varna, Bulgaria. Subsequently, he attended General Assembly and Council meetings as assistant to Acad. Blagovest Sendov (BG), then a vice-president. In 1989, he was appointed Contracts Officer, responsible for monitoring IFIP contracts with publishers, event organizers, and other associations. In 1994, he was named IFIP UNESCO Liaison Officer.

In September 1994, prior to the move of the IFIP Secretariat from Geneva, Switzerland, to Laxenburg, Austria, he was chosen as Administration Manager of the Laxenburg Secretariat. In speaking about plans for the future, Mr. Nedkov says, “As an IFIP volunteer myself for over 5 years, I have a great appreciation of the time and effort hundreds of IFIP volunteers around the world dedicate to the successful operation of our organization. A primary concern of the IFIP Secretariat in Laxenburg will be to maintain efficient communication and information channels to serve the IFIP community at large. Another area will be to extend the services to IFIP Member societies. The greatest challenge for the immediate future, however, is to meet the high standards of efficiency and tact so carefully developed through the years by the Geneva Secretariat and its manager, Mme. Gwyneth Roberts.”

In his spare time, Mr. Nedkov enjoys skiing, swimming, and traveling. He has visited over 40 countries around the globe and appreciated their varied cultures and traditions.

SENDOV LEADS BULGARIAN PARLIAMENT

We are pleased to report that on 12 January, Acad. Blagovest Sendov, IFIP representative of Bulgaria since 1982 and president of IFIP from 1989 to 1992, was elected Chairman of the National Assembly of the Republic of Bulgaria.
GWYNETH ROBERTS RETIRES

Me. Gwyneth Roberts, Administrative Manager of the IFIP Secretariat, retires in March, after twenty years of devoted and extraordinary service. The entire IFIP community, which has depended on her all these years, will miss her help, counsel, and friendship. Gwyneth was persuaded to write the following few lines of farewell.

As Shakespeare wrote: "All the world's a stage, and all the men and women merely players: they have their exits and their entrances ... "

I entered IFIP in 1975 and am exiting in 1995.

May I express here how much I have enjoyed working for and with you all.

My very best wishes accompany Plamen Nedkov and the Laxenburg Secretariat for the future.

NEW IFIP SECRETARIAT IN AUSTRIA

The IFIP Secretariat is now well established in its new headquarters in Laxenburg, Austria, the Geneva Secretariat having been closed in January. Mr. Plamen Nedkov (BG) is the Administration Manager, and Ms. Wilma Mendel (A) is Administrative Assistant.

Address information can be found in the masthead on page 2.

FEDERATION ON COMPUTING IN THE UNITED STATES (FOCUS)

by Dr. Bruce Shriver (USA)*

The Federation on Computing in the United States (FOCUS) was formed in late 1991 to serve as the officially recognized U.S. member of IFIP. The primary purpose of FOCUS is to represent U.S. computing interests and to help the U.S. take part in the activities and programs of IFIP. FOCUS was established to fulfill the role of IFIP representation formerly performed by the American Federation of Information Processing Societies (AFIPS).

FOCUS was founded by the Association for Computing Machinery (ACM) and the IEEE Computer Society (IEEE-CS). These two founding societies appoint the members of the FOCUS Board of Directors, which is responsible for FOCUS policy matters and for appointing the U.S. delegate to the IFIP General Assembly. The delegate keeps FOCUS updated on general IFIP activities and policy issues.

FOCUS also has a Technical Assembly, which is responsible for appointing the U.S. representatives to the various IFIP Technical Committees. Through these representatives, FOCUS keeps abreast of the various technical activities carried out by IFIP’s TCs and their Working Groups. The Technical Assembly is also a forum for FOCUS member societies to exchange views about U.S. and IFIP computing activities and, from time to time, to take positions on issues important to the U.S. computing community. Member societies of FOCUS participate in the Technical Assembly on a one-vote-per-society basis.

FOCUS is not directly involved in dissemination and technical interchange activities, such as publications and conferences, that might compete with the activities of the FOCUS member organizations. Its administrative functions are carried out jointly by the two founding societies.

FOCUS looks forward to hosting the March IFIP Council meeting in New York.

IFIP IS ON THE WORLD WIDE WEB

by Mr. Howard Funk (USA)*

The World Wide Web (www) is a distributed hypermedia system developed by Tim Berners Lee of CERN in Switzerland. It has enjoyed an explosive growth since the development of Mosaic by the National Center for Supercomputer Applications at the University of Illinois, Urbana-Champaign. Mosaic is a "point-and-click" hypermedia browser for www. Since the development of Mosaic, many others have become available: Cello from the law school at Cornell University, Netscape from Netscape Communications (the developers of Mosaic are there), Web Explorer from IBM, AIR Mosaic from Sypri, and LYNX, a text-only browser from the University of Kansas.

Thanks to the efforts of Prof. Carlos Delgado Kloos (E), Internet users around the world can obtain information about IFIP via this service. The URL is http://www.dit.upm.es/~cdk/ifip.html

With Mosaic and similar browsers, users can point to over 20,000 homepages such as IFIP’s, to gophers, ftp archives, and other Internet resources. Free versions of Mosaic are available via anonymous ftp from ftp.ncsa.uiuc.edu

Free versions of Netscape are available via anonymous ftp from ftp.mcom.com

Versions of both of these browsers are available for Windows**, UNIXt, and Macintosh* platforms.

There are currently (December 1994) over 5000 publicly accessible Web servers and over 20,000 publicly accessible homepages.

* former chairman of the FOCUS Board of Directors

** registered trademark of Microsoft Corp.

† registered trademark of UNIX Systems Laboratories, Inc.

 registered trademark of Apple Computer, Inc.
IFIP TECHNICAL COMMITTEE 13: HUMAN-COMPUTER INTERACTION

Human-Computer Interaction (HCI) is a relatively new discipline that has matured considerably within the past two decades, and IFIP's Technical Committee on Human–Computer Interaction (TC13) has had a prominent role in that process of maturation. The work of TC13 is primarily oriented toward computer users, especially users who are not computer professionals. The goal is to improve the human–computer relationship for them. The field ranges from very technical areas, such as optimum colors to use on video display terminals, to societal concerns, such as the impact of computers upon individuals in organizations. In these areas, TC13 strives to develop and apply rigorous methods for studying, modeling, and measuring computer-human systems.

The history of HCI work in IFIP dates back to the 1970s in Working Group 6.3 on Man-Computer Communication, under chairman Dr. Jim Bair (USA). Its goals were similar to those of TC13; however, it operated within the TC on Communication Systems, which is more interested in the technology of computer communications. In 1981, WG6.3 was reorganized under the chairmanship of Prof. Brian Shackel (GB), the current chairman of TC13, and in 1982 it was reconstituted as an IFIP Task Group. At that time, a questionnaire was mailed to 1000 people, virtually the entire world-wide HCI community, and over 300 responded and expressed interest in receiving a newsletter in this field, to let them know what was going on in HCI. (A measure of their interest was their willingness to pay a fee for this service.) Consequently, INTERACT, the newsletter of the IFIP HCI Task Group, was initiated and published for six years. Another activity was sponsorship of HCI conferences. One of the first, supported by the Task Group and other organizations, was a conference in 1982 on Human Factors in Computer Systems, in the U.S.A. That conference led to the series of conferences organized by the U.S. Association for Computing Machinery (ACM) Special Interest Group on Computer-Human Interaction, annually since 1985.

In 1984, because of the need for an international conference on HCI, the Task Group organized the first INTERACT conference, which was held in London. Virtually all the notables in the field at that time attended, and the large number of delegates (550) surprised the organizers. It was a true state-of-the-art conference. The next INTERACT conference took place in Stuttgart in 1987, with a larger attendance. At that time, the number of people in the field had grown to a point that national organizations were able to organize conferences on HCI. Nevertheless, INTERACT'90, held in Cambridge U.K., was larger, with over 570 participants from 32 countries. The 1993 conference was named INTERCHI'93, because the Netherlands Society for Informatics and its Man-Machine Systems Group invited IFIP's TC13 and ACM's SIGCHI to hold the INTERACT and CHI conferences together. The joint organization brought a successful conference to Amsterdam, exceeding expectations of attendance with 1580 participants from 30 countries. Beginning in 1995, the INTERACT conferences will be held biennially. It is not thought that attendance will diminish much from the size of the 1990 meeting, even though there are some signs of HCI workers becoming more interested in specialized conferences (this parallels the evolution of IFIP Congresses). For 1995, in Lillehammer, Norway, and 1997, in Sydney, Australia, it is expected that INTERACT will continue with comparable attendance and with the same high standards for contributions.

In the late 1980s, it was suggested to Prof. Shackel that the time was ripe for the HCI Task Group to become an IFIP TC. He made that proposal to the 1989 IFIP General Assembly in San Francisco, which readily accepted it. The TC has been successful and now has four Working Groups, which are described below.

TC13 is a truly multi-discipline activity. Specialists in ergonomics, cognitive scientists, and computer scientists are involved in its activities. The majority of the workers, however, are from the human factors area. Prof. Shackel, for example, is a psychologist/ergonomist. Similarly, the areas of study are varied. They include the following:

- problems users have with computers
- impact of computers upon people in both individual and organizational contexts
- determinants of utility, usability, and acceptability
- appropriate allocation of tasks between computers and users
- modeling the user, as an aid to better system design
- harmonizing the computer to the characteristics and needs of the user

The TC attempts to bring formal methods to bear on all aspects of these problems — in the specification, design, and evaluation phases of systems development. Modeling of the computer system user is an approach that gained importance in the late 1980s. The field has matured a great deal, from the cut-and-try techniques of a decade ago to the more refined approach of iteratively (a) modeling a system, (b) carefully but rapidly designing an improved prototype solution, and (c) testing. Nevertheless, says Prof. Shackel, even now, HCI is not a pure discipline.

The TC13 Working Group on Education in HCI and HCI Curricula (WG13.1) promotes and improves all aspects of HCI education at all levels of higher education. It does not, however, specifically develop curricula itself. The focus of the WG is on existing work in IFIP Member countries and consists of evaluating needs, collecting information about existing programs, and making recommendations. This WG has held workshops at INTERACTs on Designing the Teaching of HCI. Another notable activity is the assistance and encouragement in the organization, at Ohio State University, of a database containing approximately 150 descriptions of HCI courses from approximately 80 institutions in 10 countries.

WG13.2 on Methodology for User-Centered System Design integrates HCI and software engineering. It is involved in research and the promulgation of information in this field. Both the use of HCI techniques to enable software developers to perform their tasks more effectively and the proper engineering of HCI systems are in the domain of this WG. The ultimate goal is the integration of HCI and software-engineering methods. Several workshops and conferences have been held and are being planned.

WG13.3 on Human–Computer Interaction and Disability works to make HCI designers aware of the needs of the handicapped and the elderly. Surveying the current directions in HCI is an important component of the WG's work. Promulgating guidelines for HCI systems, to make them usable by the handicapped, is also part of the WG's activities. In addition, the use of technology to empower the handicapped — for example, by replacing one interface with a more suitable one or designing systems that are easily adapted to the individual user — is part of the WG's work.

WG13.4 on User Interface Engineering also belongs to TC2 on Software: Theory and Practice. (There, it is known as WG2.7.) Its scope includes providing a framework for reasoning about interactive systems and providing an engineering model for the development of user interfaces. The methodology of this WG tends to be analytic and is moving TC13 in the direction of greater rigor.

continued on page 8
IFIP TC13

Deals with human-computer interaction (HCI) in the widest sense, with the main orientation toward the users, especially non–computer-professional users, and how to improve the human-computer relationship for them.

TC13 Chairman: Professor Brian Shackel
Position: Professor of Ergonomics, Emeritus
Employer: HUSAT Research Institute, Loughborough University of Technology
Location: Loughborough, U.K.
Interests: analysis and design of HCI systems and interfaces, usability specification and evaluation, electronic journals

TC13 Vice-Chairman: Mrs. Judy Hammond
Position: Head of HCI Studies
Employer: School of Computing Sciences, University of Technology, Sydney
Location: Sydney, Australia
Interests: HCI education, HCI in systems development and design, usability testing, computer-mediated collaborative learning

Working Group 13.1: Education in HCI and HCI Curricula — Studies all aspects of HCI education and aims to improve courses with recommendations for HCI curricula.

WG13.1 Chairman: Prof. Dr. Peter Gorny
Position: Professor of Applied Computer Science
Employer: University of Oldenburg
Location: Oldenburg, Germany
Interests: methodology of user interface design, interactive computer graphics (especially interaction in 3D), educational software (especially user interfaces and semiotics for data visualization)

Working Group 13.2: Methodology for User-Centered System Design — Aims to foster research, information dissemination, and good practice in the methodical application of HCI to software engineering.

WG13.2 Chairman: Dr. Michael Tauber
Position: Professor of Informatics
Employer: Department of Mathematics and Computer Science, Universität-Gesamthochschule Paderborn
Location: Paderborn, Germany
Interests: task analysis, workplace analysis, empirical methods in user-centered design, object-oriented analysis, advanced user interfaces

Working Group 13.3: Human–Computer Interaction and Disability — Aims to make the HCI and computing communities aware of the needs of people with disabilities, in order to facilitate the accessibility to and usability of computers for such people.

WG13.3 Chairman: Professor Julio González-Abascal
Position: Professor of Computer Architecture
Employer: Informatika Fakultatea (School of Informatics), Euskal Herriko Unibertsitatea (University of the Basque Country)
Location: Donostia–San Sebastian (Basque Country), Spain
Interests: HCI, assistive technology (for people with disabilities), operating systems, computer architecture

Working Group 13.4: User Interface Engineering — Investigates the nature, concepts, and construction of user interfaces for software systems.

WG2.7 (13.4) Chairman: Professor Dr. Claus Unger
Position: Professor of Computer Science
Employer: University of Hagen
Location: Hagen, Germany
Interests: intelligent user interfaces, interactive systems’ architectures, CSCW, computers in education
THE AUSTRIAN COMPUTER SOCIETY, in cooperation with the Institut für Allgemeine Elektrotechnik und Elektronik of the Vienna University of Technology (Rehabilitation Technology group), has organized four international conferences on Computers for Handicapped Persons (ICCHP). The most recent, co-sponsored by the IFIP Technical Committee on Relationship between Computers and Society (TC9), two IFIP Working Groups, and other organizations, was held in Vienna 14–16 September 1994. More than 180 participants from 25 countries assembled to hear 80 contributions on issues relating to the state-of-the-art and recent developments and research projects in the field.

After welcome addresses from Dr. Veith Risak, president of the Austrian Computer Society, and Dr. Wolfgang Zagler (A), International Program Committee chair, the opening session was dedicated to the presentation of examples of initiatives for handicapped persons. Mrs. Mary Frances Laughton (CDN) presented a talk, "Communications and Information Technology for Persons with Disabilities — the Canadian National Strategy as an Example," which was followed by a video about the crucial points of research under the umbrella of the TIDE (Technical Initiatives for Disabled and Elderly People) program of the European Union.

Subsequently to the opening session, papers were presented in three parallel tracks. Track A was dedicated to current technologies and solutions that have been developed for blind or visually handicapped persons. Tracks B and C covered a variety of other topics. Blind people can be helped successfully by means of computer technology providing greater access to data and information. Many solutions for other handicaps were also discussed. New telecommunication services are a valuable contribution in the development of systems for handicapped persons.

During ICCHP'94, many reports were delivered concerning the integration of handicapped people in education and concerning authoring systems for the development of education for handicapped persons.

The Austrian Computer Society made an effort to give the participants, many of them handicapped, the opportunity during the social program to exchange personal experience in a pleasant atmosphere, including a reception by the mayor of Vienna in the city hall.

Prior to the Conference, introductory seminars were convened with the objective of extending the knowledge of participants in specific fields of information technology for handicapped persons. These 6 half-day introductory seminars were greatly appreciated and will be integrated into future Conferences, such as the 5th ICCHP, tentatively scheduled for August—September 1996, and the 6th in August 1998, which will be part of IFIP Congress '98, organized jointly by the Austrian Computer Society and the Hungarian John von Neumann Computer Society, in Vienna and Budapest.

The proceedings of ICCHP'94, Computers for Handicapped Persons, edited by Dr. Zagler, Mr. Geoffrey Busby (USA), and Prof. Roland Wagner (A), were published in the Springer-Verlag "Lecture Notes in Computer Science" series.

WORKING GROUP ON HUMAN—COMPUTER INTERACTION AND DISABILITY

by Mrs. Collette Nicolle (GB)*

Starting with an inaugural meeting in November 1993, IFIP's Working Group on Human-Computer Interaction (HCI) and Disability (WG13.3) is moving forward. One of the first items for discussion was the most appropriate name for the WG, which had originally been called "HCI and Special Needs." Some of the discussions revolved around the fact that disabled people don't have special needs, but need special solutions. It was suggested that the WG name should reflect the subject area as named and understood by the "world at large." It was then decided that the name should become "Human-Computer Interaction and Disability," because it is short and easy to understand.

There are over 500 million people with disabilities in the world. Social exclusion and many other problems often result from their situation. It is recognised that developments in information technology and HCI can often help with problems — for example, to maximise choice and integration. However, there is also a danger that such developments can lead to the further exclusion of this user group if they are not designed from the beginning with universal access as an aim.

Awareness Is Critical

WG13.3 intends to make designers of information systems and complementary tools aware of the needs of this group, in order to encourage the development of more appropriate tools for access and usability. As a result, systems will become universally accessible, and the market for them will increase.

The workplan and strategy for the next two years includes the following items:

- Ways need to be found to influence industry, perhaps through case studies.
- Figures are needed to stress the financial benefits to industry and the size of the potential user group.
- Regular contacts will be established within the computer industry, and information will be forwarded directly to them.
- Investigations will be made to identify how effective legislation has been.
- Investigations will be made to identify what makes designers take note of these issues.
- A combined approach will be exercised, including representatives from IFIP and the European TIDE programme (Technology Initiatives for Disabled and Elderly People).

Although WG13.3 intends to consider all of the above points, it is necessary to know its limitations in the short term; therefore, certain concrete tasks were identified, including production of a leaflet and poster informing the public about the group. A panel session was held at CHI '94, (ACM Conference on Human Factors in Computing Systems) entitled "Meeting Federal Accessibility/Disability Requirements in Interface Design." A summer school was held 1–5 August 1994.

continued on page 12
In response to suggestions made by IFIP’s president, Prof. Akihiko Rolstadås (N), in March 1994, the September General Assembly (GA) in Hamburg voted to accept most of the components of a plan to revise IFIP Technical Committees (TCs) and Specialist Groups (SGs). (The original proposals were described in the June 1994 IFIP Newsletter, page 9.) Following are the key changes approved by the GA; however, full implementation will have to wait until the requisite changes in the Statutes and Bylaws have been approved by the September 1995 GA.

- Membership of TCs may be expanded by admitting additional members from nations that are Members of IFIP. (At present, TC membership is limited to one member per nation. A TC member, however, need not be a member of the organization representing that nation in IFIP.) These added members will have a vote in the TC and be eligible to hold TC office. In addition, Expert Members from nations that are not Members of IFIP may also be invited to become TC members, but without a vote. New members will be nominated by the Member societies and the TC, and be approved by the Cognizant Officer of the TC. (Chairmen of the Working Groups (WGs) of TCs are already voting members of the TCs.)

- From now on, all SGs will be provisional and ultimately become TCs, WGs, or other IFIP bodies, or be disbanded. The present SG14 on Foundations of Computer Science will eventually become a TC, but the Hamburg GA took no specific action in that regard. The status of provisional SG15 on Fractals and Chaos was not changed by the GA.

- A database containing the addresses and scientific interests of WG members will be created, and information from this will be offered to Member societies. No decision was made concerning who will maintain the database and what controls will be placed on its use.

- Special Interest Groups (SIGs) may be created by TCs as a means of providing younger, less-experienced scientists an opportunity to participate in IFIP. So far, no TC has created a SIG that exactly fits President Rolstadås’s concept: a young group with no restrictions at all on membership. The Technical Assembly voted that no membership fee need be charged SIG members.

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PAPERLESS CONF. cont. from p. 1

The title of this working conference was Interactive Multimedia in University Education: Designing for Change in Teaching and Learning, and the format of the “interactive proceedings” exemplified the change. All Conference participants joined in the task of designing the proceedings. The following questions were asked: In what way does an electronic publication add value to the standard print publication? How, in theory, is information enhanced by interactivity? Are hypertext links and multiple forms of media sufficient justification for this task? What are the copyright concerns in international electronic publishing?

Interactive Multimedia

Interactive multimedia is the merging of previously separate media — video, text, audio, graphics, and animation — under computer control. It claims to offer advantages over traditional computer-based learning, by means of its ability to combine an appeal to multiple senses with the engaging power of interactivity. The Conference focused on the challenges of developing interactive multimedia for use in teaching and learning at the university level, including open university education.

Conference participants included academics, graphic designers, video producers, and instructional designers, all actively engaged in multimedia development. Case studies were used to address issues under three main themes: Evaluation, Implementation, and Design. The Conference was concerned with techniques rather than technology, and aimed at portraying the best international practice, leading to a blueprint for strategic planning in universities.

Prof. Alfred Bork (USA), a member of WG3.2 who attended the Conference, provided the IFIP Newsletter with the following notes on some highlights of the Conference.

The Conference was run, very effectively, by Sandra Wills (AUS), vice-chair (Asia-Pacific) of the IFIP Technical Committee on Education (TC3) (and one of the three International Program Committee chairs for IFIP Congress ’96 in Canberra, Australia). Since the papers were mostly available in the preliminary proceedings, Sandra persuaded people to give short speeches, so that much of the time could be spent on discussions. This format worked well, and the discussions were very good.

Interesting CD ROM products were shown, including two products from the University of Melbourne. The first of these, something of an advertising mechanism for the University, is based on an earlier printed docu-

continued on page 10
O ne product of IFIP Congress '94 will be a collection of "white papers" that address the seven Issues (significant problems associated with the linkages between the Congress tracks) that were discussed at the Congress. A discussion of the Issue Process can be found on page 7 of the December 1994 IFIP Newsletter, along with the Congress Message. The white papers will be an expansion of the Congress Message. They will be distributed at the March IFIP Technical Assembly in New York and discussed at that time, and ultimately disseminated to the Technical Committees, Specialist Groups, and Working Groups, as well as to the IFIP Member societies.

The decision to prepare these white papers was reached during an international telephone conference on 22 December among five of the seven Issue Champions or their representatives, Dr. Karen Duncan (USA), organizer of the Congress Issues Process, Dr. Ronald Uhlig (USA), chairman of the Congress International Program Committee, and the IFIP Newsletter Editor. The Issue Champions agreed to prepare 10-20-page white papers that would be expansions of their Congress Messages, which were presented at the closing session of the Congress and printed in the Newsletter. Rather than simply amplifying the original Congress Message, the white papers would contain further ideas on the subject, developed by the Issue Champions and their colleagues. The recommendations for action would be addressed to specific IFIP Technical Committees, Specialist Groups, and Working Groups or to Member societies, which would be expected to act on the recommendations.

Drs. Duncan and Uhlig expressed gratitude to the Issue Champions for the immense effort this undertaking required.

**CORRECTION**

Following is the correct address to use in requesting information about IFIP Congress '96:

Mrs. Anette Palm
IFIP Congress '96 Secretariat
do Australian Convention and Travel Services
GPO Box 22 00
Canberra ACT 2601, Australia
tel: +61-6-257-3299, fax: +61-6-257-3256
e-mail: acts@ozemail.com.au

An incorrect e-mail address was given on page 10 of the December 1994 IFIP Newsletter.

**SUMMER SCHOOL ON INFORMATION TECHNOLOGY AND SOCIAL ACCOUNTABILITY**

IFIP’s Working Group on Social Accountability (WG9.2) announces the second IFIP International Summer School on Information Technology and Social Accountability, which will be held at Katholieke Universiteit Nijmegen, The Netherlands, 13-18 August 1995.

The central theme of the Summer School will be the accountability of information technology — more specifically, the question How can we handle information technology? Keynote speakers will address some of the following themes:

- Is an information society sustainable?
- Can informatics empower the user?
- Can we control information technology?
- Ethical issues of the future

Workshops will be conducted on topics that include the following:

- Privacy in a controlled world
- The information society and culture
- Sustainable telematics
- The digital city: the Amsterdam experiment
- Information society and the disabled
- Electronic highways

The aims of this IFIP summer school are to convey the deliberations of WG9.2 to a new generation of researchers and young people working (or about to work) in information technology; to introduce young researchers and students to study and research perspectives from a diversity of viewpoints, interests, types of society, and regions of the world; to increase the range of research, study, and learning experiences available to young researchers and students; and to forge new networks of young researchers and students.

For further information please contact
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**TC13 continued from page 4**

Looking to the future, Prof. Shackel says that hot topics in the HCI area are computer-supported cooperative work (CSCW), MultiMedia / Graphical User Interface (MM and GUI), and virtual reality (VR). Although computer-technology professionals seem to be taking over the VR field and leaving human factors professionals behind, the former are just beginning to look into usability issues. Prof. Shackel foresees TC13 actively pursuing these areas.

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**PROFESSOR RICHARD A. BUCKINGHAM**

We regret to announce that Professor Richard (Dick) A. Buckingham (GB) died on August 13, 1994, at the age of 83.

Dick’s contributions to IFIP were invaluable, including the chairmanship of its Technical Committee on Education (TC3) from 1963 to 1973. Typical of Dick was the unstinting help he gave to the development of IFIP Working Group 3.1 on Secondary Education, from its initial role as an international information exchange in the late 1960s through its later success as an international forum for experts.

Dick Buckingham was the first and only Director of the London University Institute of Computer Science, playing a key role in the development of computer science as a mainstream subject before moving to become, in 1974, the Professor of Computer Education at Birkbeck College, from which post he retired in 1978. He was the founder Director of the University of London Computer Unit in 1957, which later became the Atlas Computing Service and the University of London Computing Centre. He was a numerical analyst who recognized before many of his colleagues that academic computing should be related to areas far removed from its basic science and engineering origins and that these areas would become increasingly important.

Dick was a great supporter of the work of the British Computer Society, a member of its Council for 12 years, serving on many of its education committees, and was the first chairman of the BCS Examinations Council.

David Tinsley
member of WG3.1
AIMS AND SCOPES
OF NEW WORKING GROUPS

The September 1994 IFIP Technical Assembly, meeting in Hamburg, approved three new Working Groups. Their Aims and Scopes are printed here. Note that the numbers WG6.2 and WG6.3 were taken from unrelated WGs that had been previously disbanded.

WG6.2: Broadband Communication

AIMS
To identify and study current issues related to the development of broadband communication networks and applications, with a special emphasis on broadband networks, e.g., networks that are based on ATM (Asynchronous Transfer Mode) technology.

SCOPE
The concept of broadband communication implies that the digital access to the network from the user's premises is done at rates higher than 2 megabits/second, and that there will be, wherever required, an integration of data, audio, and video communication. Broadband networks will constitute adequate support for multimedia communication, both in the local and wide area. ATM is thought to be the optimum technology for the development of broadband networks. The WG studies will, therefore, focus on issues related to ATM but are not restricted to it, since different technologies, which can also contribute to a future integrated broadband network, should also be addressed.

Some of the items of current research interest in this area are switching, signaling, resource management, traffic characterization and control, protocols, network control, testing, inter-networking, and multimedia communication services.

WG6.3: Performance of Communication Systems

AIMS
The work of the WG is directed towards improving the state of the art of performance evaluation of new and existing communication systems.

SCOPE
• Analysis of the performance (i.e., throughput, response time, buffer occupancy distribution, etc.) of various aspects of current communication networks, such as ATM (Asynchronous Transfer Mode) networks, wireless networks, and LANs/MANs
• Congestion and call-admission control in communication systems
• Performance evaluation of future high-speed networks as they would be deployed over optical switching networks
• Performance evaluation of bridge and gateway technology towards inter-networking of communication systems
• Analysis of protocol enhancement for LANs/MANs
• Traffic characterization of existing and future networks and services
• Monitoring and tuning communication systems, for better performance
• Knowledge acquisition for performance evaluation of communication systems
• Development of relevant performance evaluation techniques, as motivated by real-life communication systems
• Understanding the performance of communication software systems as they interact with kernels, and applications such as multimedia
• Analysis of future networks that will become possible when link capacity becomes "cheap and unlimited"

WG14.5: Cellular Automata

AIMS
To support the development of cellular automata theory and its applications (especially in parallel computing, in the study of complex systems, and in physics, biology, artificial life, etc.).

To pursue the design and utilization of cellular automata machines.

SCOPE
• Cellular automata as models of parallelism, complex systems, dynamical systems, interactive behavior, physical systems, and biological systems.
• Cellular automata machines.
THE IAPR INDUSTRIAL AFFILIATE PROGRAM

[The following is taken from an article in the newsletter of the International Association for Pattern Recognition (IAPR), an Affiliate Member of IFIP, by its former president, Prof. Jake Aggarwal (USA). It addresses an issue of interest to IFIP.]

To increase the interrelationship between the IAPR and industry, the IAPR Governing Board has voted to establish an "Industrial Affiliate" membership programme. This programme is intended to enhance IAPR's visibility in industry and increase the participation of industrialists in our International Conferences on Pattern Recognition and other IAPR-sponsored activities, as well as to contribute to IAPR's revenues.

Any company in a member country can become an Industrial Affiliate of the IAPR by applying in writing and paying the administration fee and annual membership fee. Industrial Affiliates will receive a subscription to IAPR's official magazine, Pattern Recognition Letters, ten copies of each issue of the Newsletter, and periodic mailings of informative materials such as calls for papers. The annual membership fee will be $250 U.S., with a one-time administration fee of $500 U.S. charged to initiate membership. Industrial Affiliates will be encouraged to join for a two-year term of membership.

PAPERLESS CONF. cont. from p. 7

CD ROM Costs Are Lower

Another interesting direction was the report on the recent British program for technology in university education, the Computers in Teaching Initiative. This is a much more focused program than any I am familiar with in the United States, but still with no full course development. A similar Australian project was also reviewed. The British project, described by Jonathan Darby (GB), reported statistical data on the various projects. Perhaps the most surprising information was the fact that, as a whole, the CD ROM projects cost less than the projects without multimedia. He also took a survey, of those present in Melbourne, about current projects or proposals. From this, he calculated the cost per student hour. As might be expected, larger projects often turned out to cost less per student. A talk related to this was delivered by Jef Moonen (NL), who stressed the difficulty of getting reliable figures for costs of any educational projects, not just computer projects.

Conventional proceedings, in book form, edited by Ms. Wills, Kate Beattie (AUS), and Carmel McNaught (AUS), were published by Elsevier/North-Holland.
T he Canadian Information Processing Society (CIPS) is Canada’s largest association representing information technology professionals. The association currently has over 6,200 members geographically dispersed in 23 cities or “sections” in Canada. Since its inception in 1958, CIPS has been committed to the professional development of the information technology professional. By hosting and facilitating educational events, CIPS provides IT professionals an opportunity to take advantage of high-quality, industry-specific, affordable education.

In the late 1970s, CIPS initiated the National Seminar — a professional-development program designed to give its local sections the opportunity to provide education directly to local members. The National Seminar followed a “traveling roadshow” format. That is, over a 12-month period, a group of program facilitators traveled to each section and delivered a day-long series of seminars that focussed on one specific topic or theme.

Because of ongoing challenges, CIPS decided in 1989 to cancel the National Seminar and in its place introduce the National Telecast Symposium (NTS), a program that would be less time-sensitive, more cost-effective, and more open to the full participation of the local CIPS sections. CIPS presented the first NTS in February 1990. The program originated from Toronto and was broadcast via satellite to 12 sections across Canada. All subsequent telecasts have followed the same basic format: two presentations by well-known speakers in the information technology field, each followed by a 20-minute interactive period for questions from audience members across Canada.

The NTS, on average, attracts approximately 700 attendees plus interested students and faculty at 15 colleges and universities across Canada. Typically, educational institutions have a satellite dish and facilities to watch the program. CIPS has allowed these institutions to participate on a non-interactive basis (view only) for a nominal fee.

There are, of course, some challenges organizers must face when planning an event as complex as the NTS, and there are disadvantages with this format as well. One of the largest disadvantages is the relatively high production costs of the program, which run to approximately 62,000 Swiss francs. Typically, this cost of an NTS is divided between the sections; with the larger sections assuming a larger percentage of the cost.

As well as costs, the issue of income generation is also causing concern on the part of organizers. While the four Telecast Symposia to date have been successful in terms of audience appreciation, they have all failed to reach their budgeted financial targets. Although the expenses for the technology have decreased by almost 50% over the last four years, broadcasting to 12 sites across seven time zones is still a costly undertaking. In addition, speaker expenses usually account for 1/5 of the budget.

Given this substantial capital outlay to produce and broadcast the NTS, sponsorship is key to the financial success of the program. Over the four NTS to date, sponsorships have covered speakers’ fees and 10% of production costs.

Another major challenge in organizing the NTS is obtaining a consensus from all participating sections on speakers and topic. Sections not only have individual education agendas, but each section also has a different target audience with specific needs. To accommodate most sections’ educational calendars and professional development needs, planning a symposium’s content usually starts one year in advance.

Developing a strategy to market the NTS to an audience that is used to interacting with “live” speakers is also a major challenge facing the telecast organizers. Although this problem has diminished over the last four years, it is still an obstacle to effective marketing, and unfamiliarity with the technology still makes it difficult to attract a wide audience. Currently, CIPS is concentrating on a marketing strategy that communicates how the technology works, emphasizes interesting speakers, and demonstrates the educational and professional benefits of attending the symposium.

By Mr. Alex St. Croix (CDN)*
and Ms. Gina van Dalen (CDN)t

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A few weeks ago, I was engaged in a game of telephone tag with Peter Davies, who is the President of the Computer Society of South Africa (CSSA). He called me, I wasn’t in, he left a message. I called him, he wasn’t in, I left a message. This went on for some days. Finally, getting somewhat irritated with our mutual inability to communicate by telephone, I left a message suggesting that he actually send me an e-mail message. Back came an e-mail message saying that he had been invited to speak at a conference in Namibia, but he couldn’t make it, so could I fill in for him? I sent a message to our travel agents, asking them to book the flight. Then another message arrived asking whether I could contribute the Guest Writer piece for Computers & Communications in Africa, which is what you’re reading now. All this has been achieved by e-mail, without my speaking to, or meeting with, any of the people involved. I still haven’t even spoken to Peter Davies.

I have used a company e-mail system for the last ten years. But it is only recently that the rest of the world seems to have woken up to the use of e-mail. It is even more recently that different e-mail systems have started talking to each other.

About a year ago, I proposed that the CSSA should start an initiative to enable members to communicate with other members by e-mail. After all, the members of any society should have some interests in common, and consequently there should be a need to communicate with each other.

Once a significant base of members with e-mail facilities has been established, we can move on to offer such things as bulletin boards and electronic forums. E-mail also enables members to participate in such things as the Working Groups of IFIP without having to finance the cost of attending meetings overseas. It is in these areas that digital electronic communication shows its true strength, since most of the communication described above could have been achieved with e-mail.

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* This article has been adapted from a “Guest Writer” presentation in Computers & Communications in Africa and is reprinted here with their permission.

** representative to the IFIP GA from South Africa

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* Communications Coordinator of the Canadian Information Processing Society
† Professional Development Coordinator

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continued on page 12
In July 1994, at the 21st International Colloquium on Automata, Languages and Programming (ICALP) in Jerusalem, Prof. Wilfried Brauer was elected president of the European Association for Theoretical Computer Science (EATCS). Prof. Brauer, the German representative to IFIP and a vice-president, was General Chairman of IFIP Congress ’94 and chairman of the International Program Committee for Congress ’92, and is Cognizant Officer of the Specialist Group on Foundations of Computer Science (SG14). The EATCS has a close relationship with SG14.

EATCS was founded in 1972. Its aim is to facilitate the exchange of ideas and results among theoretical computer scientists and to stimulate cooperation between the theoretical and the applied communities in computer science. At present, EATCS has over 1600 members from 51 countries: approximately 1200 members from 29 European nations, and the remainder from the Americas, Africa, Asia, and Australia.

The major activities of EATCS are
• organizing ICALP. The papers presented are of very high quality, including all topics in theoretical informatics, from computability theory to models of concurrency and robotics. Typical attendance is 150 to 200 persons.
• publishing the EATCS Monographs in Theoretical Computer Science, the Bulletin of the EATCS, and the journal Theoretical Computer Science

(It is interesting to note that for ICALP 95, which will take place in Szeged, Hungary, in July, the registration fee will be only $220 (U.S.) and hotel room $35. The registration fee includes reception, excursion, conference dinner, lunches, refreshments, a copy of the proceedings, and one year’s membership in EATCS.)

WG13.3 continued from page 6

on the design of interfaces for disabled people, supported by the CEC TIDE programme and WG13.3. WG13.3 also joined with TC9/WG9.2 and others in WG13.3. WG13.3 looks forward to collaboration with individual designers who are keen to promote the concept of universal accessibility.

E-MAIL continued from page II

simple telephone answering machines. (Answering machines, however, don’t provide a permanent record nor permit forwarding or editing of messages.)

Yet another aspect to this initiative is that right now South Africa has a great need to re-establish effective but affordable lines of communication with other countries, particularly with other countries in Africa.

The response from my Executive Council was: "Good idea. Do it!"

The South African Experience

This wasn’t quite as easy as it might sound. Our first idea was to identify a service provider. We would then inform all our members, who would rush out, buy modems, and sign up with the service provider. That didn’t happen, partially because a number of our members already had access to various e-mail facilities.

Once we recognised this fact, we realised that the most urgent task was to build critical mass. So we started compiling a directory of members with e-mail addresses. The minimum requirement is that the member must have either direct access to the Internet, or at least access via a gateway. At the moment, this is where we are, and the response so far has been extremely positive.

Our next step is to identify a number of different service providers and inform those members who do not already have an e-mail address how they can obtain one. In other words, the CSSA must act as a facilitator. This step is in progress now.

As we pursue this initiative, we are increasingly aware that this is not a trivial task. It has taken a lot of effort, and we are constantly learning as we go along. But the response has been overwhelmingly enthusiastic, and we are beginning to experience a snowball effect as people become aware of what we are trying to do and want to become part of it themselves.

Those who want more information about accessing the Internet system in their countries can acquire a primer describing how to access the Internet from many nations around the world. Copies (on diskette, as hardcopy, or via e-mail) are available to members of the IFIP community from Mr. Howard Funk
tel: 1 (914) 232-9375
fax: 1 (914) 232-3530
e-mail: funk@vnet.ibm.com
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Advanced CAD/CAM Systems
State-of-the-art and future trends in feature technology
R Soenen, Laboratory of Industrial and Human Automatatics, University of Valenciennes, France and G Oilting, Chrysler Corporation, USA

This book presents a state-of-the-art review of feature techniques in CAD/CAM, outlining recent evolutions and promising research opportunities. It presents a selection of the most representative contributions of an international working conference arranged by the International Federation for Information Processing, held in Valenciennes, France, in May 1994. The key feature modelling issues addressed are organisation, management, representation, recognition and validation.


December 1994: 234x156: 288pp, 160 line illus: £55.00

Software Quality and Productivity
Theory, practice, education and training
M Lee, Department of Information Systems, City Polytechnic of Hong Kong, B Z Barta, Ministry of Education, Haifa, Israel and P Juliif, Deakin University, Victoria, Australia

As the world becomes increasingly dependent on the use of computers, the need for quality software which can be produced at reasonable cost increases. These proceedings brings together the work of leading researchers and practitioners who are concerned with the efficient production of quality software. Key topics addressed include: requirements, design and development methodologies; object-oriented analysis, design and development; software process and capability; project management; quality, reliability and standards; specifications, metrics, assessment; reusability; integrated environment. CASE tools; education and training.

Researchers and practitioners, as well as students in the broad area of software engineering, will find this book invaluable.


December 1994: 234x156: 416pp, 45 line illus: £56.00

Protocol Specification, Testing and Verification XIV
Edited by S Vuong and S T Chanson, both of University of British Columbia, Vancouver, Canada

This volume presents the latest research worldwide on communications protocols, emphasising specification and compliance testing. It presents the complete proceedings of the fourteenth meeting on ‘Protocol Specification, Testing and Verification’ arranged by the International Federation for Information Processing and held in Vancouver, Canada, in August 1994.

As computer networks proliferate, their protocols also become more diverse and complex. Formal methods and tools have thus become essential in all phases of the protocol design process. This book contains a selected set of papers which address various important topics in protocol engineering, including FDT-based protocol specification and design methodology, theoretical issues as well as practical methods and tools for protocol testing, and modelling and verification of real-time systems.

A wide range of contributors drawn from industry and the universities in North America, Europe and the Pacific Rim countries provide detailed insights into the latest research directions in this crucial area for communications development.


November 1994: 234x156: 416pp, 145 line illus: £50.00

Information Technology in Educational Management
B Barta and Y Gev, both of Ministry of Education, Culture and Sport, Israel, and M Telen, School of Education, Tel Aviv University, Israel

This volume reviews the state-of-the-art in information technology in educational management with emphasis on research, approaches, methodologies, applications and tools. It presents the complete proceedings of an international working conference arranged by the International Federation for Information Processing and held in Jerusalem, Israel in July 1994. Most of the issues presented relate to the schooling system - primary and secondary - with a few papers relating to higher education. Subjects covered by this volume include: general approaches and basic issues; description of actual systems around the world; staff and teachers; training, support and updating; educational decisions support systems; use of telecommunication and voice response systems; human resources management; geographic planning of educational systems.

All those concerned with information technology in educational management will find this book of particular interest, especially those policy makers, heads of department and senior staff dealing with planning and running of educational systems, as well as teaching staff and system designers.


December 1994: 234x156: 264pp, 40 line illus: £45.00

Reliability and Optimization of Structural Systems
R Rackwitz, Technical University, Munich, Germany

The 6th meeting sponsored by IFIP WG 7.5, on reliability and optimisation of structural systems took place in September 1994 in Asiut, Egypt. This book contains the papers presented at the working conference and topics include reliability of special structures, fatigue, failure modes and time-variant systems reliability.

• present up-to-date research including practical real-world examples based on the contributors’ experience

February 1995: 234x156: 352pp: £50.00

Benchmarking: Theory and Practice
A Rolstadás, Department of Production and Quality Engineering, T U Trondheim, Norway and President of IFIP

This volume reviews the methods and techniques of benchmarking, evaluates the ways of implementation and discusses industrial experience and requirements. The aim is to generate a generic benchmarking approach and propose future research topics within the field.

January 1995: 234x156: 408pp, 150 line illus: £49.00

Integrating Information Technology into Education
Edited by D Watson and D Tinsley

This book takes a forward look at the issue of integration of information technology and related problems of quality. It discusses current developments in society and education influenced by integration and the successes and failures in existing practice. It covers the perspectives of teachers, looking at their roles and concerns and also that of the learners, studying their expectations of and behaviour in an integrated environment. The organization and management of integrated environments is also covered.

February 1995: 234x156: c.356pp, 40 line illus, 32 half-tone illus: £49.00
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### CALENDAR OF EVENTS (continued from page 16)

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Location</th>
<th>Sponsored by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work. Conf. on Information Technology and Changes in Organizational Work</td>
<td>7-9 Dec 95</td>
<td>Cambridge, U.K.</td>
<td>IFIP WG8.2</td>
</tr>
<tr>
<td>Third Intl. Conf. on Achieving Quality in Software — AQuIS’96</td>
<td>24-26 Jan 96</td>
<td>Florence, Italy</td>
<td>IFIP WG5.4</td>
</tr>
<tr>
<td>Work. Conf. on Impact of Information Technology from Practice to Curriculum</td>
<td>Apr 96</td>
<td>Neve Ilan, Israel</td>
<td>IFIP WG9.5 et al.</td>
</tr>
<tr>
<td>Work. Conf. on Domain Analysis and Modelling for Interactive Systems</td>
<td>9-12 May 96</td>
<td>Geneva, Switzerland</td>
<td>IFIP WG3.2</td>
</tr>
<tr>
<td>Twelfth Intl. Open Conf. on Information Systems Security:</td>
<td>21-24 May 96</td>
<td>Island of Samos, Greece</td>
<td>IFIP WG3.2</td>
</tr>
<tr>
<td>Work. Conf. on Place of Information Technology in Management Education</td>
<td>8-12 Jul 96</td>
<td>Melbourne, Australia</td>
<td>IFIP WG3.4</td>
</tr>
<tr>
<td>Fourteenth IFORS World Congress</td>
<td>8-13 Jul 96</td>
<td>Vancouver, B.C., Canada IFORS</td>
<td>IFIP</td>
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<tr>
<td>IFIP Congress ’96 — Fourteenth World Computer Congress</td>
<td>2-6 Sep 96</td>
<td>Canberra, Australia</td>
<td>IFIP</td>
</tr>
<tr>
<td>Fourteenth IMEKO World Congress</td>
<td>2-30 Jul 97</td>
<td>Temple/Helsinki, Finland</td>
<td>IMEKO</td>
</tr>
<tr>
<td>IFIP Congress ’98 — Fifteenth World Computer Congress</td>
<td>23-29 Aug 98</td>
<td>Vienna, Austria, or Budapest, Hungary</td>
<td>IFIP</td>
</tr>
</tbody>
</table>

The IFIP Secretariat can furnish details of most of the events listed. The schedule of IFIP administrative meetings is below:

### FUTURE IFIP MEETINGS

#### GENERAL ASSEMBLY AND COUNCIL (and related meetings)

- **Council**: 5-9 Mar 95 (Sun.—Thurs.)
- **GA**: 6-10 Sep 95 (Wed.—Sun.)
- **Council**: 3-7 Mar 96 (Sun.—Thurs.)
- **GA**: (contiguous to IFIP Congress ’96)
- **GA**: (contiguous to IFIP Congress ’98)

- **Location**
  - New York, NY, U.S.A.
  - Calgary, Canada
  - South Africa
  - Canberra, Australia
  - Vienna, Austria, or Budapest, Hungary

#### TECHNICAL COMMITTEE AND WORKING GROUP MEETINGS

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Location</th>
<th>Sponsored by</th>
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<tr>
<td>WG2.1</td>
<td>23-27 Sep 95</td>
<td>Ulm, Germany</td>
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<tr>
<td>WG2.2</td>
<td>13-17 Jun 95</td>
<td>Ithaca, NY, U.S.A.</td>
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<td>WG2.3</td>
<td>24-28 Jul 95</td>
<td>near Pittsburgh, PA, U.S.A.</td>
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<tr>
<td>WG2.4</td>
<td>6-10 Jun 95</td>
<td>The Netherlands</td>
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<td></td>
<td>Apr 96</td>
<td>North America</td>
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<tr>
<td>WGG.2</td>
<td>23-25 Mar 95</td>
<td>Hampshire, U.K.</td>
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<tr>
<td>TC5</td>
<td>29-30 Jul 95</td>
<td>Birmingham, U.K.</td>
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<tr>
<td>TC6</td>
<td>15 May 95</td>
<td>Australia (Canberra?)</td>
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<tr>
<td>WC5.11</td>
<td>18-19 Apr 95</td>
<td>Beijing, China</td>
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<td></td>
<td>Nov—Dec 95 (with IFIP/IFAC conf.)</td>
<td>Galway, Ireland</td>
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<tr>
<td>TC6</td>
<td>30 Mar — 1 Apr 95 (after TELKOM conf.)</td>
<td>Queensland, Australia</td>
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<td></td>
<td>Sep—Oct 95</td>
<td>Johannesburg, South Africa</td>
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<td></td>
<td>1st half 96</td>
<td>Cambridge, U.K., or Palma, Spain</td>
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<td></td>
<td>second half 96</td>
<td>Montreal, Canada</td>
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<tr>
<td>TC8</td>
<td>24-25 Aug 95</td>
<td>Australia</td>
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<tr>
<td></td>
<td>12-13 Apr 96</td>
<td>Melbourne, Australia</td>
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<td>WG8.2</td>
<td>7-9 Dec 95</td>
<td>Austria</td>
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<td>TC9</td>
<td>19-20 Aug 95</td>
<td>Munich, Germany</td>
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<td>WG9.2</td>
<td>Sep 96 (with IFIP Congress ’96)</td>
<td>Germany</td>
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<td>WG9.6</td>
<td>10-12 Mar 95</td>
<td>U.S.A.</td>
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<td>TC10</td>
<td>14-15 Mar 95</td>
<td>California, U.S.A.</td>
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<tr>
<td>WG10.2</td>
<td>95 (with conf.)</td>
<td>Japan</td>
<td></td>
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<tr>
<td>WG10.4</td>
<td>Jun 95</td>
<td>Tokyo, Japan</td>
<td></td>
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<tr>
<td>WG10.5</td>
<td>Apr 95</td>
<td>Tbilisi, Georgia</td>
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<tr>
<td>TC12</td>
<td>95</td>
<td>Thailand</td>
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<tr>
<td>TC13</td>
<td>25 Jun 95 (during INTERACT’95)</td>
<td>Geneva, Switzerland</td>
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<tr>
<td>SG14</td>
<td>Apr 95 (with Latin 95?)</td>
<td>Sao Paulo, Brazil</td>
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</table>

### CALLS FOR PAPERS

**Fifth IFIP Work. Conf. on Dependable Computing for Critical Applications — DCCA-5**
- **Date**: 27-29 Sep 95, Urbana-Champaign, IL, U.S.A.
- **papers due**: 17 Mar 95
- **contact**: Prof. Michele Morganti
- **Sponsoring Organizations**: ITALTEL, Central Research Labs
- **Location**: 1-20019 SETTIMO MILANESE (MI), ITALY
- **Tel:** +39 (3) 2-4388-7353, Fax: +39 (3) 2-4388-7962
- **E-mail**: morganti@settimo.italtel.it

- **Date**: 21-24 May 96, Island of Samos, Greece
- **papers due**: 15 Jul 95
- **Contact**: Prof. Sokratis Katsikas
- **Sponsoring Organizations**: Univ. of the Aegean, Research Unit
- **Address**: 30 Voulgaroktonou St., Athens, GR 11472, GREECE
- **Tel:** +30-1-6442727, Fax: +30-1-6448428
- **E-mail**: sec96@aegean.ariadne-t.gr

### CHANGES IN IFIP

Because a revised IFIP Information Bulletin will be distributed soon and the Geneva Secretariat personnel were busy transferring files and equipment to the new headquarters in Laxenburg, Austria, no Changes in IFIP column is included in this IFIP Newsletter.
CALENDAR OF EVENTS

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Location</th>
<th>Sponsored by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third Intl. Conf. TELKOM/AFRICOM '95</td>
<td>27-29 Mar 95</td>
<td>Johannesburg, S. Africa</td>
<td>CSSA IFIP TC6</td>
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<tr>
<td>Third Work. Conf. on Information System Concepts —</td>
<td>28-30 Mar 95</td>
<td>Marburg, Germany</td>
<td>IFIP WG8.1</td>
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<tr>
<td>Towards a Consolidation of Views — ISCO-3</td>
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<td>G1 FG 2.5.2 (EMISA)</td>
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<td>Third Work. Conf. on Visual Database Systems — VDB.3</td>
<td>29-31 Mar 95</td>
<td>Lausanne, Switzerland</td>
<td>IFIP WG2.6</td>
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<td>Second Intl. Symp. on Latin-American Theoretical Informatics —</td>
<td>3-7 Apr 95</td>
<td>Valparaiso/Vina del Mar, U.</td>
<td>IFIP IFIP SG14</td>
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<td>LATIN'95</td>
<td></td>
<td>of Chile</td>
<td>SCCC SBC EATCS</td>
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<td>Work. Conf. on Re-engineering the Enterprise</td>
<td>20-21 Apr 95</td>
<td>Galway, Ireland</td>
<td>IFIP WG5.7</td>
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<tr>
<td>Workshop on Personal Wireless Communications</td>
<td>24-25 Apr 95</td>
<td>Prague, Czech Republic</td>
<td>IFIP TC6</td>
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<tr>
<td>Fourth Intl. Symp. on Integrated Network Management — ISINM’95</td>
<td>1-5 May 95</td>
<td>Santa Barbara, CA, U.S.A.</td>
<td>IFIP WG6.6</td>
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<td>Eleventh Intl. Open Conf. on Computer Security — IFIP/SEC’95</td>
<td>9-12 May 95</td>
<td>Cape Town, South Africa</td>
<td>IFIP TC11</td>
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<tr>
<td>Fifth Intl. Conf. on Computer Applications in Production and</td>
<td>16-18 May 95</td>
<td>Beijing, China</td>
<td>IFIP TC5 et al.</td>
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<td>Engineering — CAPE’95</td>
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<td>Workshop on Algorithms &amp; Architecture for Real Time Control —</td>
<td>31 May — 2 Jun 95</td>
<td>Ostend, Belgium</td>
<td>IFAC IFIP WG5.4</td>
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<td>AARTC’95</td>
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<td>Workshop on Stochastic Methods and Global Optimization</td>
<td>12-15 Jun 95</td>
<td>Vilnius, Lithuania</td>
<td>IFIP WG7.7</td>
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<tr>
<td>Workshop on Formal Design Methods for Computer-Aided Design</td>
<td>12-15 Jun 95</td>
<td>Berkeley, CA, U.S.A.</td>
<td>IFIP WG8.2</td>
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<td>Verification — PSTV’95</td>
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<td>Fifth Intl. Conf. on Human-Computer Interaction — INTERACT’95</td>
<td>25-30 Jun 95</td>
<td>Lillehammer, Norway</td>
<td>IFIP TC13</td>
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<td>Sixth Work. Conf. on Database Applications’ Semantics — DS-6</td>
<td>30 May — 2 Jun 95</td>
<td>Stone Mount., GA, U.S.A.</td>
<td>IFIP WG2.6 Georgia Tech</td>
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<td>Symp. on Modelling and Control of National and Regional Economics</td>
<td>2-5 Jul 95</td>
<td>Brisbane, Australia</td>
<td>IFAC IE IFIP WG7.6</td>
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<tr>
<td>Seventeenth Conf. on System Modelling and Optimization</td>
<td>10-14 Jul 95</td>
<td>Prague, Czech Republic</td>
<td>IFIP IFIP TC7 IFAC IFORS CSCI</td>
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<tr>
<td>Work. Conf. on Modeling and Optimization of Distributed Parameter</td>
<td>17-21 Jul 95</td>
<td>Warsaw, Poland</td>
<td>IFIP TC7/WG7.2 PAS</td>
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<td>Systems with Applications to Engineering — WCE ’95</td>
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<td>World Conf. on Computers in Education — WCCE ’95</td>
<td>23-28 Jul 95</td>
<td>Birmingham, U.K.</td>
<td>IFIP TC3</td>
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<tr>
<td>Eighth IMIA World Congress on Medical Informatics — MEDINFO’95</td>
<td>23-28 Jul 95</td>
<td>Vancouver, B.C., Canada</td>
<td>IMIA</td>
</tr>
<tr>
<td>Ninth Work. Conf. on Database Security</td>
<td>13-15 Aug 95</td>
<td>Avery Point, CT, U.S.A.</td>
<td>IFIP WG11.3</td>
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<td>Work. Conf. on Engineering for Human-Computer Interaction — EHCT’95</td>
<td>14-18 Aug 95</td>
<td>Grand Targham, WY, U.S.A.</td>
<td>IFIP WG2.7/13.4</td>
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<tr>
<td>Workshop on Information Systems Development for Decentralized</td>
<td>21-23 Aug 95</td>
<td>Trondheim, Norway</td>
<td>IFIP WG8.1 et al.</td>
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<td>Organizations</td>
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<td>Intl. Conf. on Intellectual Property Rights for</td>
<td>21-25 Aug 95</td>
<td>Vienna, Austria</td>
<td>Austrian Comp. Soc. IFIP et al.</td>
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<td>Specialized Information, Knowledge, and New Technologies — KnowRight'95</td>
<td></td>
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<tr>
<td>Eighth Intl. Conf. on Very Large Scale Integration — VLSI’95</td>
<td>29 Aug — 1 Sep 95</td>
<td>Makuhari, Chiba, Japan</td>
<td>IFIP WG10.5</td>
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<tr>
<td>Intl. Conf. on Computer Hardware Description Languages and Their</td>
<td>29 Aug — 1 Sep 95</td>
<td>Makuhari, Chiba, Japan</td>
<td>IFIP WG10.2/10.5 et al.</td>
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<tr>
<td>Applications — CHDL’95</td>
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<tr>
<td>Work. Conf. on Managing Concurrent Manufacturing to</td>
<td>11-15 Sep 95</td>
<td>Seattle, WA, U.S.A.</td>
<td>IFIP WG5.7</td>
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<tr>
<td>Improve Industrial Performance</td>
<td></td>
<td></td>
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<tr>
<td>Sixth Conf. on High Performance Networks — HPN’95</td>
<td>11-15 Sep 95</td>
<td>Palma de Mallorca, Spain</td>
<td>IFIP WG6.4</td>
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<tr>
<td>Work. Conf. on Communications and Multimedia Security</td>
<td>20-21 Sep 95</td>
<td>Graz, Austria</td>
<td>IFIP TC6 TC11</td>
</tr>
<tr>
<td>Joint Intl. Conf.: Modelling Techniques and Tools for Computer</td>
<td>20-22 Sep 95</td>
<td>Heidelberg, Germany</td>
<td>GI IFIP WG7.3 et al.</td>
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<tr>
<td>Performance and Measuring, Modelling, and Evaluating Computing and Communication — PT’95/MMIF’95</td>
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<td>Fifth Work. Conf. on Dependable Computing for Critical Applications — DCCA-5</td>
<td>27-29 Sep 95</td>
<td>Urbana, Ill., U.S.A.</td>
<td>IFIP WG10.4 TC11</td>
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<tr>
<td>Eighth Symp. on Information Control Problems in Manufacturing —</td>
<td>4-8 Oct 95</td>
<td>Beijing, China</td>
<td>IFAC IMACS IFORS ISPE IFIP</td>
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<td>INCOM’95</td>
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<tr>
<td>Intl. Conf. on Computer Safety, Reliability and Security —</td>
<td>11-13 Oct 95</td>
<td>Belgrate, Italy</td>
<td>IFIP WG5.4</td>
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<tr>
<td>SAFECOMP’95</td>
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<td>IEEE TC-FTC E WICS U. III</td>
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<tr>
<td>Work. Conf. on Diffusion and Adoption of Information Technology</td>
<td>14-17 Oct 95</td>
<td>Oslo, Norway</td>
<td>IFIP WG8.6</td>
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<tr>
<td>Seventh Open Conf. on Formal Description Techniques on Distributed</td>
<td>17-20 Oct 95</td>
<td>Montreal, Quebec, Canada</td>
<td>IFIP WG6.1</td>
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<tr>
<td>Systems and Communication Protocols — FORTE’95</td>
<td></td>
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<tr>
<td>First Workshop on Knowledge-Intensive CAD — KIC-1</td>
<td>Oct 95</td>
<td>Helsinki, Finland</td>
<td>IFIP WG5.2</td>
</tr>
<tr>
<td>Intl. Work. Conf. on Upper Layer Protocols, Architectures and</td>
<td>6-8 Dec 95</td>
<td>Sydney, Australia</td>
<td>IFIP TC6 WG6.5 et al.</td>
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<tr>
<td>Applications — ULPAA ’95</td>
<td></td>
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</tbody>
</table>

This calendar information is furnished to the Newsletter by the Secretariat. It contains only approved IFIP events, arranged by local Organizing Committees. IFIP does not assume any financial or legal liability. The Secretariat can furnish details of most of the events listed. Please see page 15 for a schedule of IFIP administrative meetings.

(continued on page 15)