International Federation for Information Processing

Annual Report 2018 / 2019

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2. Introduction
(Max Bramer, Honorary Secretary)

This is the second in what will become a regular series of annual reports issued by IFIP, the International Federation for Information Processing, based on papers prepared for our annual General Assemblies. This report covers the period from October 2018 up to the General Assembly in Kiev, Ukraine in October 2019.

IFIP is a global non-profit federation of societies of ICT professionals. It aims to achieve the worldwide professional and socially responsible developmen8 and application of information and communication technologies. The Federation's membership comprises approximately 38 national and international ICT societies in six continents. Together its member societies represent over half a million ICT specialists worldwide. The Federation was founded under the auspices of UNESCO in 1960, so 2020 marks the important milestone of its sixtieth anniversary year.

IFIP also has thirteen Technical Committees (TCs) covering all areas of ICT from Foundations of Computer Science through Artificial Intelligence to ICT and Society. The TCs have approximately 100 Working Groups which comprise around 3,500 international ICT specialists. Together they organise, sponsor or co-sponsor around 100 events each year, bringing together skilled professionals and thought leaders from ICT industry, research and policy to enable the sharing of knowledge and development of professional standards. Proceedings are published in major technical publications such as the Springer Lecture Notes in Computer Science series. Copies of many papers are also made available free of charge in the IFIP Digital Library.

As well as Technical Committees, IFIP has four Domain Committees, established to strengthen inter-disciplinary work, specifically in application domains where ICT is increasingly being deployed. There are currently Domain Committees on Cloud Computing, IT in Disaster Risk Reduction, Health Informatics and Internet of Things.

As part of its commitment to professionalism, IFIP has established IP3, the International Professional Practice Partnership, which is developing an infrastructure to encourage and support the development of both ICT practitioners and employer organizations, recognise those who meet and maintain the required standards for knowledge, experience, competence and integrity, and define international standards of professionalism in ICT. It currently has members in 14 countries.

IFIP pays special attention to the needs of developing countries and assists them in obtaining optimum benefit from information technology through its standing committee on Digital Equity and otherwise.
The Federation's main flagship event is the World Computer Congress (WCC), which has run approximately every two years since 1959 and includes exhibitions of computer systems and services, world-class technical events, symposia and workshops. The twenty-fourth WCC was held in Poznan, Poland in September 2018.

This document contains reports on all areas of the Federation's activity. Further information is available from the committees, societies etc represented here or from the General Secretary, Eduard Dundler, at eduard.dundler@ifip.org. Up to date news is also available from our free monthly publication, IFIP Insights, circulated by email, which contains news from IFIP member societies, Technical Committees etc around the world. A free subscription is available from http://www.ifip.org/insights_register/ . Recent articles can be seen at http://insights.ifipnews.org/ .

3. President's Report

(Mike Hinchey, IFIP President)

Mr Hinchey started his President's report with the introduction of IFIP's new 60th Anniversary logo, which will be used from now on.

Mr Hinchey reported about the activities of the International Liaison Committee:

- in May 2019 an Artificial Intelligence Forum was held in Vienna in cooperation with the Austrian Ministry for Traffic, Innovation and Information Technology (bmvit)
- UNESCO has invited IFIP to hold the celebration of the 60th anniversary of IFIP at the UNESCO premises in Paris, France in September 2020. A detailed plan will follow.
- A side event on Ethics has been organized at the UNCTAD meeting. IFIP was present in discussions of a project on professionalism.
- IFIP was involved in the conferences of WSIS (ITU) and organized 3 events in 2019. Events for 2020 are under preparation.

Mr Hinchey informed General Assembly that he had promising contacts with potential IFIP members, like IEEE, Tanzania, Botswana, Thailand, Bangladesh and Egypt. These contacts will be followed up in the next time.

Mr Hinchey reported from the Digital Equity Committee that the Committee is working on a new regulation for supporting Developing Countries. A Foundation for financing WITFOR is under investigation.
WITFOR 2021 will potentially be organized in Peru. Ms Marin-Raventos is investigating the possibility together with her contacts in Peru.

Mr Hinchey presented the highlights of the report of the Publications Committee (full report at https://www.ifip.org/images/stories/ifip/members/GA2019/Reports/it%2006%20pc%20report%20to%20ga2019.pdf

Springer contract under renegotiation
- Open Choice and Open Access
- IFIP requesting reduced embargo time and more open access
- IFIP Select
- Reduced number of free copies
- 9 month deadline for post-proceedings
- Quality assurance
- Digital Library – IFIP eCollections

Mr Hinchey informed General Assembly that IP3 proposed a project with Rotary International on Artificial Intelligence and Emerging Technologies: Ethics, Transparency and Accessibility.

IP3 announced that the David O'Leary Prize 2019 will be awarded this General Assembly (please see later in these minutes).

Mr Hinchey informed General Assembly that InterYIT had presented on overview of their events in 2018 – 2019 and beyond. Details can be found in the minutes of the Board meeting.

On the question of General Assembly regarding the status of the IFIP Strategy project, Mr Hinchey responded that the project is in work and he would be very interested to get input and comments to the draft from the GA members.

4. Honorary Secretary's Report

(A Min Tjoa, IFIP Honorary Secretary)

Since the General Assembly 2018 in Poznan, Poland the Honorary Secretary has hold several face to face business meeting with the General Secretary Mr. Eduard Dundler, the head of IFIP Secretariat. Current important managerial issues and collaborative aspects were explained and discussed in-depth.

Mr Dundler reported that the agreement regarding a subsidy of € 50.000 for 2018 / 2019 with the Austrian Federal Ministry is still running.

Mr Dundler reported that he used the participation in the General Assembly in Poznan, Poland to attend the TC business meetings of TC9, led by the new TC Chair David Kreps, and of TC11, led by Stephen Furnell. In 2019 he participated in the TC meetings of TC8, led by the new Chair Isabel Ramos and TC9 and TC11. In these TC meetings Mr Dundler had the opportunity to transfer knowledge from the IFIP governing bodies to the Technical Committees, to explain and help on financial issues and to solve administrative issues.

IFIP Digital Library: In the meantime the maintenance and loading of the files and the metadata of the proceedings received by SPRINGER is routine work for the IFIP Secretariat. But this should not hide the fact that it is a substantial workload for the Secretariat and it takes time.

Membership
Related to the IFIP membership I can report to the Board that by the end of 2018 IFIP had (see the members' list on IFIP Website):

- 37 Full Members Comment: Hungary, Spain and Denmark left IFIP per end of December 2018
- 2 International Members at Large: ACM, CLEI
- 1 National Member at Large: IT Ukraine
- 4 Associate Members: CEPIS, IMIA, SEARCC, VLDP
- 9 Honorary Members
- 8 Ex-Officio Members

Membership issues will be discussed in detail under the relevant topic of the agenda of this Board meeting.

EC work between GA2018 and this Board meeting
In order to arrange and solve several current issues the EC had discussions and made decisions

- electronically by emails,
- held one teleconference:
  - February 14th, 2019
  - July 16th, 2019
- a face-to-face meeting: March 28th, 2019

The Secretariat continues to run smoothly and on behalf of the IFIP officers I would like to take the opportunity to express our thanks to the colleagues of the Secretariat for their excellent support.

5. Honorary Treasurer's Report
(Declan Brady, IFIP Honorary Treasurer)

FINANCIAL STATEMENTS FOR THE 2018 CALENDAR YEAR
The accounts have been maintained during 2019 by the Secretariat, monitored by the Treasurer, with draft statements (subject to final Audit) prepared by CONSULTATIO Wirtschaftsprüfung GmbH & Co KG.

SUMMARY OF FINANCIAL STATEMENTS, 2018
The 2018 financial year ended much as outlined in my report to GA in Poznan, 2018. Income of €313.404,63 for 2018 was overall in line with previous years, though the mix shifted slightly; a little stronger than budget due to better proceeds from activities though essentially in line with expectations. Fee income, as expected, was a little weaker, due to members availing of discount, and the need to write off uncollectable income of €11,283 (Hungary, Spain and Iran).

Expenses – at €429.044,95 – are somewhat higher than budget, accounted for almost entirely by an increase in Administrative Support (see below).

IFIP budgeted to return an operating loss (i.e. excluding portfolio performance) in 2018 of €99k; that the outcome has been worse (€115.640,32) is predominantly due to the exceptional expenditure under Administration Support (see below).

Turmoil in the financial markets (related to BREXIT, as well as continued uncertainty over "tariff wars" with the US, military activities in the middle-east, and a general slowing down in the world economy) has meant that the portfolio recorded a reduction in market value of €218.973,64. Overall (i.e. including the portfolio performance) the turnout for the year was a (balance sheet) loss of €356k.This serves only to illustrate the dramatic impact that the portfolio performance, which we cannot influence, has on our finances, variously either flattering them, or damning them. This merits some further thought.

OBSERVATIONS ON FINANCES
Concerning membership dues: 2018 was the first year where a discount was offered to member societies for early payment, and there has been deductions in the accounts amounting to ~€5k where this has been taken advantage of; also, some ~€11,2k was written off in respect of non-recoverable fees from Hungary and Spain, and the deferral of the fees from Iran.

Concerning Administration Support: the increase in expenses for the executive committee arises from the strategy meeting held during 2018 in Amsterdam.

Concerning Projects: per the decision of the Board, the establishment costs of the Digital Library, and the costs of the Marketing contract, have been financed from the portfolio (as an investment, totalling €65.517).

Concerning the Portfolio: as indicated earlier, 2018 was not a good year for financial investments overall, with an overall reduction in portfolio value (exacerbated, in some part, by withdrawals from the portfolio to fund projects) swamping a modest return. The overall size of the "book loss" in the portfolio value (excluding withdrawals for projects) is equivalent to over half of IFIP's income (see below); this starkly illustrates the ungoverned power of the financial markets to sway our apparent financial performance. With this in mind reporting of the financial statements will report separately on the operating accounts and the portfolio performance.

Concerning durability of IFIP finances: In reviewing our accounts and audit this year, I observe that our TC funds are technically a liability to IFIP as they represent a promise to TCs. At the close of 2018, these funds amounted to a provision of €589.080,49, or about 25% of the value of our portfolio. This raises two interesting points that need to be kept in mind for the future: 1) that IFIP's financial "elbow room" really only amounts to ~€1.5m, not the ~€2m in the portfolio, because 2) should the market value of the portfolio ever fall below the accumulated value of TC funds, IFIP might be views as technically insolvent.

PORTFOLIO OF INVESTMENTS
The portfolio of investments is managed on IFIP's behalf by UBS in London. Our portfolio is managed as a "balanced" investment, with costs compatible with expectations. There is no reason to change this position at this time.

4.1 Portfolio Performance and Evaluation
A poor year in the financial markets, coupled with withdrawals from the fund, meant that overall the portfolio did not generate an income, but instead lost market value to the tune of €219k. Accounting for management fees (28,6k), withdrawals, and project investments (€65k), means the headline loss is a less bleak, but still substantial, €154k.

4.2 CONSULTATION WITH UBS
Each year we consult with UBS on the management of our portfolio. Since last GA, I have met with UBS in London on October 17, in Vienna on January 10 (see below), and again by telephone on July 10, and with various emails at other times.

I reported in autumn 2017 that UBS had advised that they would be streamlining their business, resulting in the consolidation of several regions into one. At the time, the likely outcome for this was that the management of our portfolio would be transferred to UBS headquarters in Zurich. Further consultation discovered that Zurich would not be a suitable location, and we were advised that the best option was to move our portfolio to Vienna.

Eduard and I met with UBS on January 10 to commence the relocation of our portfolio management to Vienna. It transpires since that visit that UBS in Vienna cannot accept as a signatory or "beneficial owner" of the funds any person that is a US resident or passport holder, and therefore we have had to pause the transfer while we seek further advice and options. We have requested UBS to investigate the options and arrangements undertaking by organisations similar to ours, and await their response. It should be noted that UBS in London (currently) operates under the same pan-European accounting rules as UBS in Vienna; so it is likely that we will incur some challenge when UBS in London undertakes its next AML (Anti-money laundering) documentation review cycle. We must wait and see.

In the course of our discussions, I also discovered that UBS in London now maintains a minimum threshold of £5m for opening new accounts, which opens the spectre that we are now too small to do business with.

Informal discussions with other organisations and financial institutions indicate similar formalities are applied elsewhere, and so, for the time being, we are "stuck" with UBS in London, which brings up the question of BREXIT.

UBS in London continues to maintain the position that BREXIT will not be disruptive as there will need to be a transition period for any changes. As the likelihood of a "deal" recedes, so does the likelihood of a transition period. While UBS, being Swiss, does not need a "financial passport" to provide services to organisations based in the EU, I

remain concerned that changes (forced or agreed) to European financial structures will mean higher costs in the management of the portfolio. I am monitoring the situation closely, together with the Executive Board, and will report again on this matter in the spring.

4.3 Austrian Tax Exemption

Our auditors (Consultatio) work on getting extensions to IFIP's tax-exempt status in Austria on the basis of Gemeiützigkeitserklärung ("statement of the common benefit"). This normally proceeds smoothly; however, this year the Austrian ministry again requested clarification concerning plans for the usage of the reserves. 2018's usage of reserve funds for our Marketing project, and for the establishment of the Digital Library, has satisfied the ministry of our purposes for the time being. While underlining the importance of using our funds in line with our declared aims and objectives in order to preserve our tax exemption, this also brings to light a gap in our governance as we lack any official policy statement concerning our reserves.

SUMMARY CONCLUSIONS

The financial performance represents a mixed view of IFIP. While overall results are close to budget (within the variation we have learned to anticipate), the overall trend is to continue to make a loss.

Some of this "loss" is correctly attributable to decisions by IFIP to invest in, or fund, important projects (such as the Digital Library) and efforts to better position IFIP in the awareness of its members and the IT community at large (such as the marketing engagement and the Digital Library). Nevertheless we need to pause for a moment, and consider the ongoing sustainability. Over the past four years, the accumulated shortfall in the accounts amounts to over €300.000 (or some 15% of IFIP's net worth over the period).

Recommendations

1. IFIP must continue to use its reserves to finance initiatives in line with its strategy and goals in order to preserve the special tax exempt status granted by the Austrian government.

2. Nevertheless, IFIP must be cautious about the rate of depletion of funds, and continue to seek ways to render the ordinary operations of IFIP (administration, secretariat, GA, executive board, TC support etc.) effectively revenue neutral (i.e. largely supported by Membership Fees and TC-generated income, rather than dipping into the reserves).

3. Our circumstances in respect of UBS suggests that during the early part of 2020 IFIP should review its policy/strategy regarding safekeeping of its reserves

4. In particular, some thought should be given as to whether IFIP should use some of its reserves to purchase a bond to protect funds "owed" to TCs through the TC funds

BUDGET PROPOSAL, 2020 CALENDAR YEAR

I am required by the statutes and bylaws to prepare a budget for IFIP for 2020, according to procedures and principles laid down in the standing orders, for approval at GA. A considerable part of this process requires taking input from budget holders, as their combined budgets comprise the large part of the overall expenses of IFIP.

NOTES ON BUDGET PROPOSAL

This budget maintains last year's approach of TCs with zero budgets. This reflects the absence of any engagement by some TCs in the task of preparing a budget, leaving an open question that may need to be addressed during the year (as has been the case this year with TC10). While this has the beneficial effect of reducing projected expenses, this is counterbalanced by having a (smaller) reducing effect on projected income; this year, in order to offset this, and to illustrate the need for TCs to more directly support the work of the Secretariat in providing TC and event support, I have inserted budgetary income targets for TCs.

As in previous years, I have also "squeezed" areas of expenditure controlled by the Executive Committee and Board – the effect of this is limited in the forthcoming year by the need to support celebrating and commemorating the 60th anniversary of IFIP's founding.

Income for 2020 is projected at €278.201. This is based on a conservative opinion of likely income from Membership Dues, the impact of discounts, and on a continued trend in income from Publications and Events (Royalties). What might be considered operational expenses (Secretariat, admin support, DCSC support for TC events, and non-TC events (WCC etc.)) are budgeted at €451.702. This extraordinary departure from our goal of bringing this expenditure into line with projected income is created by
• the strategic plan requirement to hire additional secretariat support (circa €80k)
• expenditure in support of 60th anniversary (circa €60k)

Stripping these out, yields operational expenses of ~€311k, that is more in line with our budgetary goals. Projected TC expenses of €63.480 brings non-project total expenses to €374k (134% of projected income). Total budgeted expenditure, taking all elements into account, is €581.182, creating an operational loss of €302.972 (noting that some €132k of this relates to projects to be funded from our portfolio).

With real interest rates in many economies remaining at or close to zero (or negative), coupled with the expected market adjustments due to uncertainties surrounding such things as BREXIT and the burgeoning US "Tariff war", we do not place much hope on the money markets. Therefore, I have allowed for only modest return our portfolio. Thus, the budget for 2020 forecasts a net overall loss for the year of €99.472.

6. IFIP Historian's Report

(Roger Johnson, IFIP Historian)

Celebrating IFIP's 60th Anniversary in 2020

Background

IFIP was founded in 1960 and has celebrated several significant birthdays since then. The motivations for the celebrations included:

- Raising IFIP's visibility and credibility on the global stage by publicizing IFIP's recent major achievements
- Acknowledging the contribution of the several thousand volunteers in IFIP who have devoted their enthusiasm, time and skills to advancing IFIP's objectives
- Celebrating the sustained record of IT more widely in improving the lives of citizens worldwide.

As a global body, IFIP needs to sustain and hopefully expand its reputation as a major international meeting place for world class researchers as well as representatives of the world's major IT institutions. The Diamond Jubilee offers IFIP another opportunity to demonstrate its relevance to the advancement worldwide of Information Processing.

Diamond Jubilee Commemorative Book

I reported last year that, following a thought-provoking meeting with David Grier, the distinguished US computer historian on the possible content for a 60th anniversary book, all felt that it should record both the broad trends of the last decade but also reflect on the influences that have helped form IFIP over the past 60 years and in so doing enable us to reflect on its possible future role thus assisting GA in formulating plans for the 2020s. The book is planned to be available on open access to maximise its readership and impact.

Following agreement at GA 2018, Leon Strous and I have met again with Mike Hinchey, David Grier and also Doron Swade, the UK computer historian, and have produced short outlines for a series of chapters to fulfil this brief. These are attached as an Appendix. Potential authors have been identified for most chapters who will be approached following GA 2019.

Following last year's TA, it was reported that TA was planning to produce a book which would record the achievements of the TCs over the past decade. We have however remained in contact with TA Chair and Publications Committee Chair. In consequence as currently planned the jubilee commemorative book does not record explicitly the achievements of individual TCs and their WGs.

The IFIP President is in contact with UNESCO in Paris concerning the possibility of an event to mark the 60th anniversary of IFIP's founding which might be held in September 2020 in Paris and at which the diamond jubilee book would be launched.

Other Possible Actions

1. WCC session

Previous celebrations have each coincided with a World Computer Congress. The celebration has been reflected in the Opening Ceremony and also by a history session within the Congress programme.

2. Displaying IFIP's TC heritage

Newcomers to IFIP, such as incoming member society Presidents and new TC & WG members, are often unaware of IFIP's rich legacy of seminal papers presented at past conferences. IFIP SELECT is beginning to addresses this.

I would ultimately like to see all World Computer Congress proceedings available from the IFIP Digital Library. Those that are not yet electronically available could be scanned and uploaded. We could start with the proceedings of the 1959 Congress (which is held by a number of libraries) as part of the 2020 celebrations. The proceedings that are electronically available from publishers other than our current could be negotiated with these publishers.

3. Celebratory logo
IFIP marked its 50th anniversary with a special logo. A 60th anniversary logo will appear on all IFIP outputs and communications during the year so that everyone coming in contact with IFIP during 2020 would know of the anniversary.

Benefits
In the view of the IFIP Historian for a small financial outlay, IFIP can achieve significant visibility from the celebration of its 60th anniversary. The main purposes of the celebration should be to:
- Raise IFIP's visibility and credibility by creating a record of the specific achievements made by IFIP volunteers over the past decade
- Recognise the contribution of the many IFIP volunteers in advancing information processing and hence helping fulfil IFIP's objectives
- Celebrate how the transforming power of information processing has been applied to improving humanity worldwide.

IFIP @ 60 Commemorative Book
IFIP was established as a result of a UNESCO initiative in Paris in 1960 in recognition of the transformative power of ICT to advance the well-being of humanity at large. To celebrate the 60th anniversary of this important event IFIP is planning a number of activities culminating in a special conference to mark the event.

One important action is the production of a special book reflecting on the development of ICT over the past 60 years, the current and future opportunities and challenges and, finally, the past, present and future role of IFIP and its member societies within the ICT community.

It is planned that the book will be published by Springer in their Advances in Information and Communications Technology (AICT) series which will be publishing its 600th book during 2020. IFIP intend to make the book available by Open Access as well as in hardback to ensure its widest circulation.

The book will examine key challenges for ICT today as well as reviewing the place of IFIP in its past, present and future development. A detailed outline of the chapters is attached. In summary, the approach of the book is to look at a small number of contemporary issues looking back to help understand the contemporary scene and then to identify the challenges ahead. In this way, the book can provide valuable input to IFIP activists in prioritising their workplans.

In addition, part of the book will look specifically at the role of national, regional and global organisations in disseminating the benefits of ICT to humanity worldwide. Finally, the book will examine the challenges of preserving the legacy of ICT since its inception in the 1940s and reflect on how the lessons of the past can best be portrayed to assist future generations of ICT engineers and users.

The detailed history of each of IFIP's Technical Committees and their Working Groups will be covered in a complimentary book being produced under the auspices of the IFIP Technical Assembly.

7. International Professional Practice Programme (IP3)
(Moira de Roche, Chair IP3)

Governance
The International Professional Practice Partnership (IP3) was founded by the International Federation for Information Processing (IFIP) in partnership with several leading professional ICT organizations from around the world. IFIP was founded under the auspices of the United Nations Educational Scientific Organization (UNESCO) in 1960 and now has over 56 country member bodies and affiliates representing over 90 countries. IFIP is a consultative body for IT for the United Nations Educational Scientific Cultural Organization, Sector Member for the International Telecommunications Union (ITU) and Scientific Associate Member of the International Council for Science (ICSU).

IFIP IP3 Mission
Our mission is to be a global partnership that will strengthen the global IT profession and contribute to the development of strong international economies by:
- defining international standards of professionalism in IT;
- creating an infrastructure that will encourage and support the development of both IT practitioners and employer organizations and give recognition to those who meet and maintain the required standards for knowledge, experience, competence and integrity;
- working closely with our member bodies and partners who share our commitment to creating a sound global IT profession.

IFIP IP3 also participates in the UN supported, ITU hosted World Summit for Information Society (WSIS) including formal recognition by ITU as a "Contributing Partner" (IFIP). Our work aligns to WSIS and the Sustainable Development Goals (SDGs). Representatives from the IFIP IP3 executive have led WSIS forums and high-level events in Geneva and Paris since 2012, they were invited to participate at the United Nations in New York and have made submissions to the UN General Assembly's overall review of the implementation of WSIS outcomes in 2015.

IP3 Vision
A vigorous program to promote professionalism in the IT profession equal to the older and longer established professions; define international standards and create a global infrastructure that will encourage and support the development of both practitioners and employer organizations in the developed and developing world through the creation of a worldwide set of professional certification schemes recognized as the hallmark of true IT professionalism, delivered through independent national member societies and supported by development frameworks for both individuals and organizations.

iDOCED
IP3 launched the IFIP Duty of Care in Everything Digital Campaign in November 2016. This campaign aims to promote Trust in Digital, and the Duty of Care that everyone including Governments; Organisations, Providers and Consumers have in keeping themselves safe in a Digital World, especially in the reality of the Cyber-physical world that has come with the Fourth Industrial Revolution. IP3 promote this message at every opportunity, and actively seek to "partner for Trust in Digital".

Chairman's Report (Moira de Roche)
As mentioned in the previous Annual Report, the Immediate Past Chair Brenda Aynsley, passed away in August 2018. Her IFIP colleagues and friend gathered at Malta Lake in Poznan to say goodbye to her. We threw a garland of Origami swans

into the lake, and while they floated off her dear friends and colleagues gave tribute to her as a Chair and as a friend. We will always miss Brenda but cherish the fine example she set for us as a Professional, an all-round good person and faithful friend.

World Summit for Information Society (WSIS)
High-Level Strategic Dialogue
As a supporting partner, IFIP was invited to participate in a High-Level Strategic Dialogue on "ICTs for achieving SDGs" during the Official opening segment. Mike Hinchey invited Moira to speak on behalf of IFIP. The questions she responded to were : How can we make ICT safe for everyone, to ensure that it can support the achievement of the SDGs, and provide economic opportunity without undue risk?; and What role can a global body like IFIP play in achieving ICTs for SDGs? Read more about the session from pages 23 onward on this outcomes document.

IFIP was recognised as a supporting partner at the official reception and received a certificate. ITU Secretary-General Houlin Zhao expressed his appreciation for our support over the years.

Thematic Workshop
As we have since 2012, IP3 hosted a Thematic Workshop at WSIS in Geneva. In 2019. IP3s workshop was held on 11 April. We presented a Thematic Workshop entitled "How do we maximise the benefits of Innovative 4.0 technologies, without unnecessary risks and consequences? As Innovative 4.0 Technologies including AI and algorithmic decision-making bring economic and societal benefits in many areas of our human endeavours, how do we maximise the benefits without exposing our Society to unnecessary consequences and risks?

Moira de Roche chaired the session, and Stephen Ibaraki addressed "Life and Enterprise with Industry 4.0 to Society 5.0 and the 5th Machine Age—investments, the landscape, disruptive technologies and economic opportunities". Sadly Anthony Wong, who was to present on "Cyber-security – A multi-disciplinary approach", was taken ill, and was unable to deliver his presentations remotely. We did however show some of the slides, so that the subject was not left out. We were delighted to include Austeja Trinkunaite, CEPIS Secretary-General, and Liesbeth Ruoff, KNVI, in the panel. Both are very involved in Initiatives in promoting IT professionalism across Europe. Austeja presented on the standardisation of all four pillars of ICT profession in Europe which is led by TC428 and is part of the European Committee for Standardisation. It is supported by IT Professionalism Europe network which brings together stakeholders to exchange best practice in maturing the IT profession, whilst Liesbeth provided insights on frameworks to support digital skills, explaining that people are the distinctive factor. The workshop was closed by Mike Hinchey, who commented on all the subjects covered.

I was invited to join the panel of a Thematic Workshop hosted by The Trustless Computing Certification body, to discuss Trust and how it can be developed by all concerned. This was a good opportunity for us, as it provided another forum for us to spread the message on Trust and the Duty of Care.

Future of Professionalism for Digital Skills Around the World
A team of IP3 directors, under the leadership of Liesbeth Ruoff (KNVI), and invaluable guidance from Leon Strous, have created a Project Proposal, which aims to find sponsors and support for this project. Using "The future of productivity report" from the OECD 2015, this proposal brings into practice the sentences "that future growth will largely depend on our ability to revive the diffusion machine both within and across countries. The list of structural obstacles to diffusion is long. Four factors are key to

have a more effective diffusion. One is to reap the full benefits of new technologies; investments are needed in education and skills".

The goals and deliverables set in this proposal are:
- to make a repository of best practices, frameworks and use cases worldwide around the development and the usage of frontline digital technology;
- practical recommendations based on findings;
- start a platform of experts based on the inventory of best practices and use cases around the development of the ICT profession.

With these goals and deliverables IFIP contributes to the development of appropriate regulatory frameworks and consensus on best practices for developing and deploying frontier technologies.

We look forward to sharing developments on this in future and encourage everyone to participate as the process goes forward. Mike Hinchey, Liesbeth Ruoff, Raymond Morel, Yuko Murayama and I visited Shamika and her team at CSTD. The purpose of this meeting was to ask for their support, and hopefully some introductions to possible funders. The proposal has been further developed and Liesbeth has stayed in touch with CSTD. I thank Liesbeth for running this project, bringing her knowledge and enthusiasm with her. These things take time, but I am confident that we will achieve the goals as we move forward and find interested parties to sponsor the next phase of the project.

IFIP IP3 David O'Leary Award by Redds Capital
The most exciting news this year is we made a proposal to the Kay Family Trust, requesting funds for a prize in the name of the late David O'Leary. The proposal was successful, and we will have funding for a prize to acknowledge an individual or organization that has promoted and demonstrated Professionalism (Professional Practice), has worked as an Ethics Evangelist, and/or has made strides in fostering diversity. This Award provides a vehicle to identify exemplars of best practice in the field, to give them the recognition they deserve and to provide a goal for other aspirant practitioners and entities.

David P. J. O'Leary ISP, ITCP / IP3P passed away in 2018. He embodied and demonstrated all the qualities that make a true Professional. He was an IFIP Global Industry Council member and made a valuable to contribution to the Skills 2020 report, acting as editor-in-chief. For more about David and the Award https://www.ipthree.org/newsroom/david-oleary-award-by-redds-capital/

The Award will be presented to the first recipient at GA in Kiev, October 2019.
Last, but not least, I sincerely thank all board members for their support and efforts. The results are from the collective.

Deputy Chair Report (IP3 Vice Chair A.Wong)
Since the IFIP GA in 2018, we have seen the intensification of debate on Ethics with the publication of various AI Ethics Principles and Frameworks. There are at least 70+ such ethical principles and frameworks currently in existence globally.

In my Vice-Chairman report, I have summarized some of these initiatives resonating with the IP3 2019 Action Plan – Ethics in Professional Practice - "Giving voice to values".

In 2019, both Australia and the EU published their frameworks, adding to the lists including the OECD - Principles on Artificial Intelligence; WEF and the Singapore Model AI Governance Framework.

The conversation has matured significantly in 2019 with the EU Ethics Guidelines for Trustworthy AI progressing "beyond a list of ethical principles, by providing guidance on how such principles can be operationalised in socio-technical systems" and the draft Australia's AI Ethics Framework advocating for "do no harm", and for systems to be designed and implemented in ways that minimise any negative outcomes.

The EU framework further emphasises that AI should be "human centric" and "trustworthy".

In addition, IEEE with their Global Initiative on Ethics of Autonomous and Intelligent Systems, and through their proposed standard IEEE P7000 - Model Process for Addressing Ethical Concerns During System Design, establishes a process model by which engineers and technologists can address ethical consideration throughout the various stages of system initiation, analysis, design and development.

- Over the course of the year, I presented or prepared papers for the following activities:
- Artificial Intelligence & Employment Law Implications – LAWASIA 2018, Siem Reap, Cambodia, 4 November 2018
- Robo-advice & FinTech: More Transparent, Honest & Reliable than Human Actors? – University of Sydney Business School Panel Discussion, 9 November 2018 Submission to the Artificial Intelligence, Australia's Ethics Framework, A Discussion Paper, Data61, May 2019
- 4.0 Technologies including AI and a Case Study of its Un-Intended Consequences? – WSIS 2019 Geneva, 11 April 2019
- Ethical Dimensions of AI & Autonomous Systems – Nan Tien Institute, 24 August 2019
- The Ethics of AI – NITC 2019 "Embrace Digital", Computer Society of Sri Lanka (CSSL) Colombo, Sri Lanka, 10th October 2019.

BCS President Chris Rees was invited to present by the ACS on "Ethics in AI and IT", in November 2018 in Australia.

The ACS organised a 7 column series on Ethics, covering:
1. Ethics Part 1: Artificial influencers- Not all social influencers are human.
2. Ethics Part 2: Facial recognition unmasked - There are equally amazing and frightening uses of the technology.
3. Ethics Part 3: When IoT goes wrong - Amazon Alexa and Google Home are just the start of an IoT onslaught.
4. Ethics Part 4: Who's to blame for phishing breaches? It's the most common form of social attack.
5. Ethics Part 5: Could encryption legislation increase risk of being hacked? – The government wants access to private communications.
6. Ethics Part 6: Would you install a keylogger at your workplace?
7. Ethics Part 7: Do you abide by a professional code of ethics? The series concluded with an online panel on 11 December 2018.

The following are regulatory activities indicating the progression and maturity of Professionalism around the world:

- The UK Government announced plans to develop a Cyber Security Profession with different specialisms and Chartered status for cyber security professionals.
- The Malaysian government legislated to establish an independent professional body (Malaysian Board of Technologists) to certify professionals with practical experience as Technicians and with Bachelor degrees and practical experience as Professional Technologists.

Since our IP3 meeting with David Kreps, IFIP TC9 Chair and Don Gotterbarn, chair of SIG 9.2.2 Ethical Frameworks at WCC and GA in Poland in 2018, TC9 has agreed to sponsor an IFIP Code of Ethics that would further support and strengthen the IP3 work on professionalism more broadly.

For some light reading on Digital Ethics, the EU Data Protection Supervisor has produced a hilarious comic book, available on https://lnkd.in/f-Fh3md .

VC Standards and Accreditation (A.Schofield)
Adrian Schofield from the Institute of Information Technology Professionals South Africa (IITPSA) has completed his fifth year as convener of the Standards and Accreditation Council (SAC).

The role and function of the SAC is to:
1. Establish and maintain standards, policies and procedures for the accreditation function
2. Manage the accreditation function, including the recruitment, appointment and training of assessors
3. Ensure compliance with the standards, policies and procedures and ensure consistency of decisions by assessment panels, including an audit function if required
4. Provide an assistance service to IP3 members in planning for accreditation provided that such assistance service does not compromise standards or the integrity and independence of the assessment process
5. Establish a working relationship with the Seoul Accord.

We are reviewing the need to include Cybersecurity specialism into accredited schemes, as has been done by the Australian Computer Society and is being planned by IITPSA in South Africa. Documentation for this will be issued for comment in line with the ACS re-accreditation.

We have not needed to recruit any additional assessors, nor have there been any assessment activities requiring audit.

We are pleased to report that IPSJ (Japan) has been able to extend its scheme coverage to include software engineers registered with its sister organisation, IPEJ. We also thank IPSJ for their continued work on the development of ISO24773.

We are disappointed that the changes in the structure at CIPS continue to delay the re-accreditation of the Canadian scheme, but we continue to receive assurances that they will be able to accommodate the assessment in the foreseeable future. However, as another year has elapsed without bringing the matter to closure, the IP3 Board must consider rescinding the Provisional Accreditation of the CIPS scheme, until such time as a valid application is received and assessed.

We note that the ACS accreditation is due for renewal at the end of 2019 and the IITPSA accreditation is due for renewal in 2020. Both bodies will be requested to submit applications in due course. We note that IITPSA has now introduced a Level 7

designation Pr.CIO (Professional Chief Information Officer) as an extension to its existing Level 5 Professional Member. This will be included in the 2020 accreditation review.

There is no other progress to report from other societies. We accept that the road to accreditation is a long one and that there will be periods of no visible activity while preparations proceed behind the scenes.

The IP3 Guide to Accreditation was launched in Geneva in June 2017, providing IFIP member societies with an overview of the processes as they consider the resources required for accreditation. The 2015 edition of the full IP3 accreditation guidelines provides the detailed template for all societies interested in being accredited. IP3 assessors are available to consult with societies who seek guidance on how to meet the IP3 compliance standards for their professional grades of membership and in the compilation of their applications for accreditation.

VC Strategic Relations & Global Industry Council (Stephen Ibaraki)
The GIC global activities and work by Chair Stephen Ibaraki provide unique and broad opportunities to position IFIP and IP3 with many diverse audiences to grow recognition, brand and membership. Due to the extent of these activities they are listed in point form:

- Working with Moira de Roche, Stephen presented several times at the UN ITU WSIS event in April including keynoting the UN ITU WSIS Briefing on AI for Good Global Summit and with Moira as Chair, speaking at the IFIP IP3 Workshop at WSIS. Stephen also arranged for IFIP IP3 Chair Moira de Roche and IFIP Vice-President Yuko Murayama to speak at TRUSTLESS AI day at WSIS, founded by Rufo Guerreschi.

- In April, this announcement appeared: https://www.ifipnews.org/ip3-wins-funding-david-oleary-award/--The IFIP IP3 David O'Leary award (cash prize and travel to IFIP General Assembly http://www.cips.ca/node/3548) from REDDS Capital with funding from the Kay Family Foundation, was named in honour of a man who made an enormous contribution to the IFIP Global Industry Council and who embodied, and was a role model for, all the qualities of a true Professional.

- Stephen had more than 100 engagements in 2018-2019 thus only a few additional ones will be sampled here:
  o Keynoting on Wall Street at the private AI Pioneers (300 CxOs in innovation)) forum in New York: July, September, October, … etc … Ibaraki is a founding member of the AI Pioneers Steering Committee
  o Keynoting, moderating, speaking, judging at the UN ITU Telecom World Durban South Africa September 2018
  o Keynoting Early Technology Innovation Conference Saipan October 2018
  o Keynoting twice Yonder25 Conference, Cluj-Napoca Romania December 2018
  o Speaking twice "AI reshaping national security" Shanghai December 2018
  o Keynoting YPO Edge Conference Cape Town South Africa, March 2019
  o Speaking several times, South by Southwest (SxSW) conference, Austin, March 2019

- o Participating CEO-invite only Fintech Ideas Festival, San Francisco, March 2019 (as founder and chair technology advisory council Fintech Ideas Festival January 2017)
  - o Speaking invitation only Horasis global meeting, Cascais Portugal, April 2019
  - o Keynoting IFIP AI Vienna, May 2019
  - o Keynoting Kingfomarket, Barcelona, May 2019
  - o Speaking UN ITU AI for Good, Geneva, May 2019 (as founder)

- Contributor for Cognitive World, Forbes, IT World (Canada)
- Microsoft MVP AI Awardee in July 2019 – 200 million in technology, 48 awarded in AI globally
- Writing articles/blogs throughout the year – too many to list
- The ACM is the No.1 computer science research, innovation, educational organization in the world and an international member of IFIP. Stephen is ACM Practitioner Board member and immediate past chair 2018-2020.

Stephen conducts 50+ interviews annually that appear with IFIP in support of IFIP or IP3. Examples are found here with IFIP IP3 Founder CIPS: http://www.stephenibaraki.com/cips/cips_interviewslist.html

VIDEO INTERVIEW: A Chat with Liesbeth Ruoff - van Welzen: Founder-Owner of LRWA, Advisor on Return on Investment in IT

VIDEO INTERVIEW: Yuko Murayama, Researcher at Institute for Mathematics and Computer Science, Tsuda University

VIDEO INTERVIEW: Amit Joshi: Director of Global Knowledge Research Foundation; Entrepreneur; Researcher

VIDEO INTERVIEW: Mike Hinchey, President of the International Federation for Information Processing (IFIP); President of the Irish Computer Society; Chair of the IEEE UK & Ireland

VIDEO INTERVIEW: A Chat with Moira de Roche: IITPSA Director; Director of IFIP IP3; Director on the Global Industry Council of IFIP

VIDEO INTERVIEW: Blaine Bey and Brent Reed - Top Leaders in IT

VIDEO INTERVIEW: Moira de Roche Chair IFIP IP3

Stephen Ibaraki
GIC Founding Chair; Vice Chairman IP3 Board (representing GIC and Strategic Relations)

8. Standing Committee Reports

8.1 Admissions Committee
(Max Bramer, Chair of the Admissions Committee)

I regret to have to report that no applications for membership have been received during the year since the 2018 General Assembly.

This reinforces the view that I have previously expressed elsewhere, that for the Federation to develop or even just to maintain its current level of influence in a rapidly expanding field, we need to look for alternative types of membership whilst preserving the core role of Country Representative Members and Members at Large.

A proposal for a new category of membership, University Affiliates, will be coming to the General Assembly, which I hope you will all support.

Max Bramer
IFIP Vice-President
Chair IFIP Admissions Committee

8.2 Publications Committee
*(*Chair of Publications Committee Kai Rannenberg*)*

Accomplishments since the 2018 GA meeting, important facts and ongoing work

Revision and update of the IFIP Digital Library
The implementation of the new IFIP DL provided as a professional service by Inria is progressing further. The current status can be viewed at life https://hal.inria.fr/IFIP. All IFIP publications by Springer from 2010 through 2018 are in the DL.

We have the first three eCollection (non-Springer) volumes in the DL. One can see the eCollection from the home page. Each one is also in the collection for its TC and events.

For the most recent publications (for which Springer has the exclusive publication and embargo rights for three years except for author copies on authors' home pages) the tables of contents are given. There is a link to the author manuscript and a link to the paper in SpringerLink. So the author manuscript can be obtained by clicking on its link, and the publication copy of the paper can be obtained by clicking on its link (designated "DOI"). The publication version link will be active as soon as the proceedings volume is added to the DL, so the paper will be accessible to those with a subscription to SpringerLink, and then it will be accessible to the public four years after publication. The author manuscript link will not be active until three years after publication. Monthly views are beyond 90000 since April 2019 with a peak of 132399. Monthly downloads are beyond 20000 since May 2019 with a peak of 32474.

For all downloadable papers the numbers of record views and document downloads are given. https://hal.inria.fr/IFIP-AICT-362/hal-00669799 also documents an example of the interface to Altmetric coverage with e.g. Mendeley and News references. Several options for search are implemented and also a function "Cited literature" to extract bibliographies from articles automatically.

The eCollection workflow procedures are now agreed with the IFIP Secretariat and Inria. So we are now inviting regular IFIP eCollections. The price is 10 EUR per paper upload (with the front matter counting as one paper also). Interested events are invited to contact the IFIP Secretariat.

At the same time thanks to the volunteer efforts of TC 6 and especially Aiko Pras we continue to have many IFIP publications (mainly proceedings from 2005 till 2012) available for free access already now at http://dl.ifip.org/. This is not limited to TC 6 publications and holds for publications three years old and older. However this library has collected more proceedings than agreed and made announcements, that the links to those proceedings would be preserved, even when dl.ifip.org will be rerouted to the new IFIP DL. Therefore the transfer effort is larger than expected.

Open Access to IFIP Publications
Open Access to IFIP Publications is currently realized via three channels, as documented   on www.ifip.org/index.php?option=com_content&task=view&id=219&Itemid=564:

1) The upcoming IFIP Digital Library (https://hal.inria.fr/IFIP/), which currently makes available the author's files of IFIP Springer publications (AICT, LNCS, LNBIP) from 2016 (as applicable) back to 2010. It also has the references to such publications up to and including 2018.

2) Springer Link (https://link.springer.com) for IFIP Springer publications (AICT, LNCS, LNBIP) with free access for all articles 4 years old and older, almost complete back till 2005 and on top many publications back till 1995, when Kluwer became the official IFIP publisher. NB: Not the "books" are free, but the individual articles. So don't get confused by the fact that there is a lock on the book download. Just move on to the table of contents and download the articles individually.
3) The previous IFIP Digital Library (dl.ifip.org/) for some non-Springer publications and also Springer publications between 2005 and 2012.

Combined, (almost) all IFIP works published with Springer from ca. 2005 to 3 years old are available for open and free access (one way or the other). In addition many proceedings back till 1995 when Kluwer Academic Publishers (KAP) became the official IFIP publisher are available (NB.: KAP, the then official IFIP publisher, was merged into Springer in 2004).

Publications Agreement with Springer
The current contract with Springer is valid since January 01, 2015 and until December 31, 2019. In line with the tradition IFIP has given notice in time to negotiate a new contract (see Section 0 on the state of negotiations.

Since spring 2018 Springer is presenting a new version of the "Consent to Publish" form that authors need to sign, when they want to publish in IFP Springer proceedings. This has been checked and agreed by the Publication Committee.

IFIP's flagship line of publications is IFIP Advances in Information and Communication Technology (IFIP AICT, http://www.springer.com/series/6102). Besides the main line IFIP AICT currently has two active sub-lines: Surveys and Tutorials. In addition several IFIP publications are published as part of LNBIP and LNCS. In 2018 altogether 45 volumes were published (after 48 in 2017 and 49 in 2016). Income for 2018 has been 50001 EUR after 60938 EUR for 2017 and 51942 EUR for 2016. So the positive trend from 2017 (increase by 17.3 %) could not be upheld, but a decrease by 17.95 % occurred. However the first 6 months of 2019 showed a positive development with 31 published volumes and an income of 33.270 EUR (compared to the 18 volumes and 17345 EUR in the first 6 months of 2018 this is a raise of more than 70%).

As of 2017 Springer has started inserting society logos on the SpringerLink pages of proceedings resulting from their cooperation with societies. Therefore the IFIP-logo is being displayed on the bottom of the sections "About these proceedings" (Bibliographic information) and "About this paper" of all IFIP AICT, IFIP LNCS and IFIP LNBIP volumes. Authors and editors can now add their ORCID (Open Researcher and Contributor ID) to their name in all IFIP-AICT proceedings papers.
Access to IFIP publications with Springer (AICT, LNBIP, and LNCS) is as follows:

- All IFIP publications in SpringerLink are becoming cost-free accessible four years after publication. This holds for as long as IFIP has a contract with Springer. It covers the publications since the contract between IFIP and Chapman and Hall (and later Kluwer) back in 1996. So many more of the earlier IFIP publications are now available for free as long as this contract holds. (NB: This is not to be confused with the embargo period for the IFIP Digital Library. After 3 years IFIP can put the author's versions of IFIP publications published with Springer into the IFIP Digital Library.)

- "Retrodigitized" proceedings are opened after 3 years instead of 4 years. As Springer had retrodigitized many of the older proceedings in 2013, almost all became available during 2016.
- Publications published under the current contract (i.e. from 2015 till end of 2019) will be accessible cost-free also after the end of any contract with Springer.

The interaction between a proceedings editor and Springer is subject to all procedures established by IFIP for all IFIP publications. In particular, this includes any quality assurance mechanisms established by IFIP. There is a high degree of agreement on quality issues between Springer and IFIP, although some elements in IFIP's policy had needed explanation. To operationally ease the process of quality assurance the members of the AICT Editorial Board are being informed every time, when Springer has accepted to start the process of publishing proceedings from an event of "their" TC.

The relation between the IFIP AICT Editorial Board members and the respective TCs is now made explicit both on the Springer IFIP AICT website and the AICT book front matter. The IFIP AICT website also links to detailed information about the 13 series editors organized by the IFIP TC.

Springer is more interested in topically targeted publications than in publications that cover the whole of informatics or computer science.

An IFIP event whose proceedings are published by Springer can receive 49 print or electronic copies of the proceedings free of charge except for shipping costs. However, it should be noted, that Springer is moving to the option of temporary, normally four weeks, free access to the publication on SpringerLink instead of this option, so at some point in the future there may be only the option to receive temporary free access to the proceedings in SpringerLink.

Springer is currently offering the free use of the iThenticate tool for plagiarism check as a part of the Springer proceedings publication package. The tool is offered on demand to all events publishing with Springer, but as it has costs, Springer does not publicize this widely (also, 90% of the events seem to not really need this). The software checks everything registered at CrossRef (whatever has a DOI – so all serious publications) plus a lot of cites on the web. The tool is not perfect, but to Springer's knowledge the best available.

There are also general trends in Springer's strategies that are worthwhile to note:

- Springer plans to offer to IFIP a special tariff structure for IFIP events going for immediate open access publications with Springer (currently the fees are 37 EUR/page, if a whole volume is made open access and 42 EU/page, if single articles are made open access). 2 WGs published one volume each under the current tariff for Springer open access publications.
- Publications on SpringerLink are moving from pdf to an html/e-book compatible format. Actually in 2017 Springer has been publishing everything except one volume (where the editor insisted on camera-ready pdf publication) in full-text HTML (and pdf and EPUB).
- Proceedings can be made available to an event for four weeks around the event dates, normally two weeks prior and two weeks following the event.
- All printing is by "print on demand".

- For institutions who purchased one or more eBook collections from Springer and their people there is a lower quality, black-white only printing option, called "MyCopy" for 24.95 USD/EUR (depending on shipping address) per copy including shipping & handling excluding local VAT/Sales tax where applicable. Details including a list of the ca. 30 countries, where this service is available, can be found on https://www.springernature.com/de/librarians/products/product-types/books/my-copy .

Please let the PC know any issues that you see, so that they can be discussed and considered in the work with Springer and for future negotiations
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IFIP Select: An "e-journal" comprising "best" papers from IFIP proceedings

The purpose of IFIP Select is to obtain a better outreach and diffusion of some of the excellent research done in within IFIP TCs and WGs. By doing that and adding some information & discussion on the practice contribution we make the research produced within IFIP available to a much larger audience of national computer societies. IFIP Select is to be a more or less regular compendium of papers from IFIP proceedings that could be of interest to an audience, especially member societies, who could distribute that compendium and see value in it justifying the IFIP membership fee. "Best" is "Best for member societies", i.e. more overview papers than very special ones.

The concept especially includes asking the authors of the selected papers to produce a "cover paper" of 2-3 pages that describes the related scientific paper and its relevance for a more mainstream audience, especially for practitioners and other "typical" members of member societies.

IFIP Select is accessible under www.ifip.org/select and via the IFIP home page. It contains the "cover papers" and links to the full original papers in the IFIP DL or Springer Link or copies of the full papers, if they are not published elsewhere.

A preliminary agreement was reached with Springer that existing papers from Springer Link can be linked in a way enabling cost-free access. These papers are available for 12 months to cover for 2 issues per year.

Editorial process

The TC Chairs once a year appoint two published papers from the last 18 months as the best from their TC.

The Editor-in-Chief contacts the authors and asks them to write and add a 2-3 page "How can I apply this? – The practice contribution" aimed at the thousands of members of national and regional Computer Societies (that are members of IFIP).

When received this new addition is reviewed by a small Editorial Board (ideally 2 people) appointed by IFIP Publications Committee consisting of representatives from National Societies with a reasonable command of research.

Logistics

The journal is to be published electronically 2-3 times a year. In each issue of the journal there are to be 5-7 papers. This means that each TC on average will have 1.5 best papers published per year.

Operations till now

Jan Pries-Heje – former Chair of TC 8 – is Editor-in-Chief for the first 3 years. Elizabeth Eastwood has agreed to to review the "cover papers" from the perspective of a national computer society representative

The inaugural issue with 6 papers was published in February 2019 (http://www.ifip.org/gensel.php?option=com_content&task=view&id=262&Itemid=674&vol=1&issue=1). It contains papers from TCs 3, 8 (2 papers), 9, and 13 (2 papers).

IFIP TC Journals

Three TCs have journals:
1) TC-3 Education and Information Technologies, with Springer, https://link.springer.com/journal/10639
2) TC-11 Computers & Security (COSE, https://www.journals.elsevier.com/computers-and-security/) and the International Journal for Critical Infrastructure Protection (IJCIP, https://www.journals.elsevier.com/international-journal-of-critical-infrastructure-protection/) with Elsevier.
3) TC-14 Entertainment Computing, with Elsevier. https://www.journals.elsevier.com/entertainment-computing

Plans

Continued development of the IFIP DL and the "IFIP eCollection" series

Aiming for an "IFIP eCollection" series as the primary series for proceedings not published by Springer a process is being developed to integrate the respective articles (including proceedings with an IFIP ISBN) into the IFIP DL. Several publications are being used for test runs. Tools are needed to support the editors of non-Springer proceedings for those tasks that for Springer proceedings are executed by Springer.

This holds especially for the transfer of files out of paper reviewing systems and the production of the metadata needed for the DL. One option is the Sciencesconf conference management system that Inria provides. However, at least four different systems are being used by the several organizers of TC-6 conferences. A related step is to transfer the e-only proceedings that are currently in Aiko Pras' library into the new IFIP DL.

Moreover it is planned to redirect dl.ifip.org to the new IFIP DL. This requires that the links to the proceedings in the previous IFIP DL will be preserved or redirected. As this library has collected more proceedings than agreed and made announcements, that the links to those proceedings would be preserved, even when dl.ifip.org will be rerouted to the new IFIP DL the transfer effort will be larger than expected.

In view of restricted resources in Inria the opening of the IFIP DL towards non-Springer proceedings has got priority over the bibliographic processing of Springer IFIP proceedings older than 2010.

There are also some open questions being clarified with regard to IFIP's possibilities and impossibilities for (usually old) papers where the copyright is not clear.

Quality assurance for IFIP publications

Work is underway to implement quality assurance for all IFIP publications by an IFIP editorial board. Feedback from the Technical Assembly on the proposal for regular

quality assurance process (that had originally been developed within the Technical Assembly) was mixed. Some TCs like the process. A few TCs don't see any need for any formalized process, as one should trust the well-chosen Programme Committee chairs. Some TCs are insecure about the effort for the process. One TC is now trialling the proposed process reporting good experiences.

For the "IFIP eCollection" series quality assurance will also need to cover those aspects that with Springer publications Springer is taking care of (e.g. compliance with the IFIP templates and proper lists of references). The respective requirements procedures are now being discussed with the IFIP TA.

Development of IFIP AICT
The intention remains to involve the AICT Editorial Board, along with the PC, in considering how to make AICT a stronger series, using sub-lines to distinguish between different types of events and publications.

 A new sub-line "Festschrifts" (honouring individual researchers and their scientific work or they institutions or fields) will be established. The first issue is planned to be AICT 600, a collection of papers on the occasion of IFIP's 60th anniversary focussing on the technical/scientific output of the TCs and their WGs.

Ongoing negotiations with Springer
Nine major points have been touched in the negotiations with Springer (figures in brackets references in the draft contract offered by Springer):
1)   Access to IFIP Springer publications
   a.   IFIP is asked by MS and TCs to provide more open access and less embargo.
   b.   The Springer team reported, that change in the embargo time has a direct impact on revenue and is therefore extremely sensitive. Their support of the IFIP DL Archive solution has not made the team particularly popular in the company.
   c.   As a partial approach on the issue of the embargo a non-complicated membership solution will be implemented. People can register with name, email address and name of IFIP member society at IFIP website once a year. This will then go to Springer who will issue to each e-address an access token to IFIP publications valid for a year. The checking of the membership is in the domain of the member society.
2)   IFIP Select can have per year 20 Springer articles for free for a period of 8 months each (and then an additional 4 months via SharedIt).
3)   Royalty per page is to rise from 3.25 EUR to 3.50 EUR (Para 11).
4)   Springer wants to reduce the number of free printed copies of proceedings from 49 to 25 per conference (Para 10 g). This will set many event organizers back (even though in future mailing of the proceedings shall be free).
   a.   To mitigate the issue there will be 25 free copies as a standard and another 25 for free on demand.
   b.   The approach will be evaluated after 2 years of the new contract period. Springer will provide IFIP with the information which event went for which option in the past years to assess, what is popular.
5)   Open access conditions for complete proceedings
   a.   Conditions are integrated (Para 10 i.a) and without requiring a minimum number of proceedings (which was 2 in the earlier negotiations). Prices per page are 4 EUR higher than at the option without royalties.
   b.   IFIP is requested to explore more marketing options for this.

6) Springer is concerned, that in some cases post-proceedings of events take very long (longer than a year, sometimes two), and then the proceedings outdate.
   a. So Springer would like to introduce a 9-months deadline for delivering the papers of the post-proceedings to Springer.
   b. Extensions can be negotiated, if e.g. there is a double review cycle after the event (like in the TC 9/11 summer school), but in general Springer would like to set a signal for timely delivery.
7) "The Society will notify the Publisher about Proceedings planned for publication by sending a preliminary plan (for the upcoming year) by September and a revised plan in March of the current year. The Society can revise the plan anytime, but at least four months before the start of the specific event." (Para 9 l). This may cause problems with postponed and freshly starting events, but is meant as a pragmatic support for Springer, not as an exclusion criterion.
   a. The plan will be delivered from IFIP HQ with best effort to help Springer plan its resources.
   b. Event organizers will be asked in the event management system, whether they intend to go for Springer or not and whether they plan pre-proceedings or post-proceedings.
   c. The approval letter from IFIP will include a strong recommendation to contact Springer ASAP and not just some time later.
8) "The Society supports the Publisher by offering a free registration for a Publisher's representative at selected conferences, symposia or workshops, and by providing a table for the display of publications." (Para 9 k).
   a. This was agreed. It will go into the approval condition for IFIP events (e.g. in the IFIP event management system).
9) "The Publisher offers the Program Committee the use of a plagiarism checking software, currently Crossref Similarity Check powered by iThenticate, during the peer review process. The PC Chairs should contact Springer about 2 weeks before the access is needed, specifying the expected number of submissions."

IFIP Select: An "e-journal" comprising "best" papers from IFIP proceedings
After the publication of the first issue this is being publicised together with Springer. New submissions were provided by TC Chairs in time for the deadline of 2019-10-01 for publication before the end of 2019.

8.3 Digital Equity Committee
(Gabriela Marin-Raventos, Chair of the Digital Equity Committee)

Conformation of the Digital Equity Committee
- Gabriela Marín-Raventós (CR), Chair of DEC and IFIP Vice-president
- Ramon Puigjaner (ES), former DEC Chair and former IFIP Vice-president
- Raymond Morel (CH), Switzerland representative to the IFIP GA and member of TC3
- Yuko Murayama (JP), IFIP Vice-president, TC11 Chair (finished) and Japanese representative to the IFIP GA
- Sindre Rosvik (NO), Chair of TC3 on Education
- Lalit Sawhney (IN), Member Secretary, IFIP WITFOR 2012, New Delhi and former IFIP Vice-President
- Leon Strous (NL), IFIP Past President and one of WITFOR creators
- David Kreps(UK), Chair TC9 on ICT and Society
- Lawrence Gudza (ZW), Zimbabwean representative at the IFIP General Assembly
- A Min Tjoa (AT), IFIP Honorary Secretary
- Robert Davison(HK), Chair of WG9.4 on Social Implications of Computers in Developing Countries

Leaving members
- Ana Pont (ES), Spanish representative to the TC6 and TPC Co-Chair of WITFOR 2016
- Siraj Shaikh (UK), Chair of WG6.9 on Communication Systems in Developing Countries

General aspects
DEC membership change
I have contacted by Ana Pont who explained to me that, unfortunately, Spain had decided to end its IFIP membership. She wrote stating that she did not know if this would have an impact on her IFIP DEC membership. In fact, she suggested me that she felt she should withdraw from DEC. After asking the Secretariat for advice, I accepted her proposition.
As a consequence, I also checked on Ramon Puigjaner´s DEC membership status. I argued to the Secretariat that he should remain being a DEC member, since he has its founder, and his actual role in DEC is former IFIP Vicepresident in charge of DEC. These arguments were accepted.
During GA2019 meeting we should decide if we want a WG 6.9 (Communications for Developing Countries) representative in DEC. If so I will contact Burkhard Stiller (TC 6 Chair).

2018
DEC had a 2018 budget of 12.000 euros.   During the first two calls, I-2018 and II-2018, 12.000 euros were allocated. Since at the end of the year we already knew some activities would not be able to invest the funds received, an additional call has distributed, III-2018. For III-2018, an additional 1.000 euros funding was approved. Thus, during 2018, a total of 13.000 euros were allocated but only 6.804,30 euros were reimbursed.

2019
Our total budget for 2019 is 12.000 euros. This year, most of the budget, 11.500 euros, was distributed during the first call, I-2019. However, 8.500 euros were

allocated to events that will take place before the second call, whose deadline is July 31st, 2019. This fact allowed DEC to reassign unreimbursed funds. 2.000 euros were allocated for the II-2019 call.

As in 2018, an extraordinary funding request was received after the II-2019 deadline (in September). 3.000 euros were allocated to an early 2020 event. This amount has added to the budget for 2020 with the Secretariat approval, with the justification that in previous years some "not used" money was transferred to the following years. Thus 2020 total DEC budget will be 15.000 euros instead of 12.000 euros.

Funding Requests for I-2019

Event: Automata 2019

25th International Workshop on Cellular Automata and Discrete Complex Systems, will take place on June 26-28, 2019, at the University of Guadalajara, Mexico. The workshop was approved by the IFIP as an official event, and its website is available at https://automata2019.wordpress.com/.

Amount requested: 2,000 euros
Rationale:

> *for the transport (not including accommodation) of two invited speakers: Pablo Arrighi, Aix-Marseille University and LIF de Marseille, France (confirmed) and Tullio Ceccherini-Silberstein, University of Sannio, Italy (confirmed).*

Request sent by:

Alonso Castillo-Ramirez, University of Guadalajara (approved by Jacques Sakarovitch, TC1 Chair)

Event: WG 8.6 Conference:

ICT unbounded, Social Impact of Bright ICT Adoption Conference on June 21-22, 2019 at University of Ghana Conference Center, Legon, Accra, Ghana and its website is available at https://www.ifipnews.org/ifip-wg-8-6-calls-papers-2019-diffusion-transfer-conference/

Working 8.6 is organizing a doctoral consortium for Ph.D. students in Ghana and other students from around the globe. The doctoral consortium is part of a two-day annual conference to be held at the University of Ghana, Accra in summer 2019. Date: June 20, 2019

Original amount requested: 7.664 euros (US $8.737)
Rationale:

> *funding to support travel costs for key resource persons for the conference and* six doctoral students to be selected based on competitive application.

Request sent by:

Emmanuel Ayaburi, Ph.D. Organizing Committee Chair IFIP 8.6 Working Group Conference 2019

New request information

Isabel Ramos TC 8 Chair answered my email stating that TC 8 will cover:
1) 6 000 € for the summer school in Ghana

2) 1 000€ to support the attendance of colleagues from developing countries that have papers accepted in the WG 8.6 conference
3) Possible some more funding (about 500 €) if you are trying there a new conference format.

So, from 1 and 2, TC8 can support about $8 000 in expenses within those categories. The difference is $1. 537 (equivalent to 1.400 euros)

Event: WG 9.4 Conference:

15th International Conference on Social Implications of Computers in Developing Countries.
The conference is expected to take place from 1st – 3rd May, 2019 at Ramada Resort Hotel, Dar es Salaam, Tanzania with the theme " Strengthening Southern-driven cooperation as a catalyst for ICT4D". See the conference website www.2019ifipwg94.net

Amount requested: 7.340 euros (USD 8.400)
Rationale:
- Travelling grant for 10 PhD students from institutions in developing countries (US$600 each) US$6.000
- Travelling grant for two International keynote speakers (US$1.200 each) US$2.400

Request sent by:
Wilfred Senyoni (approved by David Kreps TC 9 Chair)

Event: INTERACT 2019, 17th International Conference on HCI,
that will take place in Paphos, Cyprus (September 2-6, 2019). This is an IFIP event, supported by the TC13 HCI. You can find more information about this event in the website of the conference: https://interact2019.org/ In addition, diverse calls for contributions are in: https://interact2019.org/calls/

For this event, TC13 will issue a call for applications for student grants. They plan to use the funds provided by DEC to partially support travelling expenses of PhD students. In addition, the IFIP TC13 will contribute with some funds to partially support trips and stays. The organization of the INTERACT 2019 conference will provide all the awardees with free student conference registration and free participation in workshops and tutorials.

Amount requested: 6.000 euros
Rationale:
These grants are set up to support PhD students from or living in developing countries who personally present papers accepted in any of the conference tracks (Full Papers; Short Papers; Interactive Posters; Demonstrations; Doctoral Consortium; Student Research Consortium; Student Design Consortium). Each awarded student/early stage researcher will be reimbursed the travelling costs to Cyprus to a maximum of 1000 USD (aprox. 900 euros), and the lodging to a maximum of 300 USD from TC13 funding (no other subsistence expenses will be reimbursed).

Request sent by:
Julio Abascal (TC 13 Chair)

Event: SUZA 2019

is a TC3 event organized by WG 3.4 Professional and Vocational Education in ICT. The title of the conference is Sustainable ICT, Education and Learning and it will take place in Zanzibar, Tanzania, 25-27 April 2019 – see: https://suza2019.org

Amount requested: 2.000 euros
Rationale:
to support PhD students from developing countries to attend

Request sent by:
Sindre Roesvik (TC 3 Chair)

Funding for I-2019

Reimbursement

Event	Purpose	Amount allocated	Reimbursed Funds	Final reimbursements
Automata 2019	for the travel expenses of two invited speakers	**2.000 euros**	1.802 euros	Prof. Tullio Ceccherwi (529 euros) Prof. Pablo Arrighi (1.273 euros)
WG 8.6 Conference	to cover travel expenses of professors and students of doctoral consortium	**1.400 euros**	1.400 euros	PhD. Student Petnyin Pamela Oban (750 euros) Professor Emmanuel Ayaburi (650 euros)
WG 9.4 Conference	to cover PhD students from developing countries and 2 keynotes	**3.100 euros**	1.735 euros	Abdulrashid Iliya (520 euros) Jane Lissah (27 euros) Mbongeni Hlabano (515 euros) Trymore Chawurura (673 euros)
INTERACT 2019	PhD students from developing countries	**3.000 euros**	3.000 euros	Bhutkar Ganesh (458 euros), Debjani Roy (442 euros), Tikadar Subrata (600 euros), Victorelli Eliane Zambon (750 euros), Zelchenko Peter (750 euros)
SUZA 2019	PhD students from developing countries	**2.000 euros**	987 euros	Shephard Pondiwa (487 euros) Nasiru Yakubu (500 euros)
TOTAL		**11.500 euros**	**8,924 euros**	

Funding Requests for II-2019

Event: 18th IFIP Conference on e-Business, e-Services and e-Society, www.i3e2019.com,
the flagship of event of WG6.11. IFIP I3E2019 will be 18-20 September 2019, in Trondheim, Norway.

Amount requested: 2.000 euros
Rationale:
support for PhD students traveling to the conference from developing countries.

Request sent by:
Ilias Pappas, Conference Chair (Burkhard Stiller, TC6 chair, supports the initiative)

Reimbursement

Event	Purpose	Amount Approved	Reimbursed Funds	Final reimbursements
I3e2 2019	to cover PhD students from developing countries travel expenses	2.000 euros	**750 euros**	Prabhsimran Singh
TOTAL		2.000 euros	**750 euros**	

Extraordinary Funding Requests for III-2019 (for I-2020)

Event: OCCE 2020 "Empowering teaching for digital equity and agency"
6th to 8th January, 2020, Tata Institute of Social Sciences, Mumbai, India
www.occe2020.tiss.ed

Amount requested: 3.000 euros
Rationale: To cover traveling expenses Ph.D. students from developing countries and keynote speakers.

Event: TFC 2019 "New opportunities for innovation breakthroughs for developing countries and emerging economies"
Triz Future Conference 2019 (TFC'19), October 09-11, 2019, Marrakesh, Morocco that will be hosted by ENSA Marrakesh, Cadi Ayyad University, WG5.4 event, http://tfc19.ovh/

Amount requested: 1.500 euros
Rationale: To cover traveling expenses of 2-3 Ph.D. students from developing countries

Event	Purpose	Amount Requested	Funding approved	Description
OCCE 2020	to cover traveling expenses Ph.D. students from developing countries and keynote speakers	3.000 euros	**3.000 euros**	**Goes to 2020 Budget**

TFC 2019	to cover traveling expenses of 2-3 Ph.D. students from developing countries	1.500 euros	**1.500 euros**	
TOTAL		4.500 euros	**4.500 euros**	

Activities done by DEC members

WG 9.4 Conference, 15th International Conference on Social Implications of Computers in Developing Countries "Strengthening Southern-driven cooperation as a catalyst for ICT4D", May 2019, Dar es Salaam, Tanzania, Workshop on Digital Equity

TC3 SUZA, Digital Equity was a natural part of the conference "Sustainable ICT, Education and Learning" in April 2019 in Zanzibar. Important: Zanzibar declaration (Raymond Morel will report on this).

Latinity 2019, August 2019, San José, Costa Rica, Panel on Gender Digital Gap (I was the panel moderator-- México, Colombia, Perú and Costa Rica).

Our next OCCE 2020 conference in Mumbai, 6th -8th January focus on "Empowering teaching for digital equity and agency"

8.4 Finance Committee
(Franz Rammig, Chair of the Finance Committee)

Concerning its charter FC has the following duties:

1.To formulate policies for the sound management of IFIP finances and to propose such policies to the appropriate IFIP body for approval. Policy areas of interest include, but are not limited to, the following:
- dues, royalties and conference surpluses
- grants and loans
- investments
- cash management

The present policies are considered by FC to be adequate and useful. No alternations are proposed by FC.

2.To issue guidelines and/or to establish procedures as necessary to carry out approved policies.

FC considers the present guidelines and procedures to be adequate and useful. At the moment, no alternations are proposed by FC. FC emphatically asks all budget holders to provide the necessary data in strict timely manner.

3.To analyze and evaluate IFIP's financial condition as necessary to ensure that policies are being followed, and to propose changes in policy when appropriate.

3.1. Comments on Treas 3 and Treas 4:
We have received Treas 3 and Treas 4 from the General Secretary Eduard Dundler. They give a very good overview of the financial situation in IFIP. FC is concerned about the structural financial problem of IFIP to be currently unable to cover its expenses from regular income. It can be observed that income from membership dues is less than budgeted by an amount of €24K while income from royalties and events is expected to be €40K higher, which results in an increase by €19K of total income. At the same time, the expenses tend to become €31K higher than budgeted. This results mainly from an increase of administrative support costs and projects. On the other hand, the expenses for TCs (which on the other hand increased their contribution to the income) is lower than budgeted. Unfortunately, the resulting operational loss of about €116K (€17K higher than budgeted) cannot be compensated by return on portfolio.

3.2 Comments on the report from the Treasurer:

The Treasurer's report became available rather late but did allow for reactions of FC. In principle FC supports the Treasurer's report. FC is concerned about a couple of facts that can be identified in TREAS3/TREAS4:
a) It can be observed that for a couple of years IFIP is spending more money than earning. This means, that we are "eating off" our portfolio. The present situation on the money markets even increases this long-term financial risks of IFIP. FC proposes to carefully check any spending position in the budget (including digital library, marketing, and others).
b) In the Treasurer's report it is mentioned for keeping IFIP's "non-profit" status it is necessary to provide a plan how spend an appropriate amount of money from the portfolio. To keep a good balance, FC proposes to re-install the rule of an upper limit for TC funds, including the rule that amounts above this upper limit has to be spent within one fiscal year or it is transferred to IFIP general funds.

c) There still exists the pending problem of finding a bank willing to manage our portfolio (rules like minimal amount of 5M€, AML rules).

The budget proposed by the Treasurer for the fiscal year 2020 sounds reasonable. It follows a conservative approach. FC supports this proposal.

FC makes the recommendation to GA that:
- GA discharges the Treasurer and the EC for fiscal year 2018
- GA accepts the Auditors' report for 2018

4.To encourage and facilitate the use of external financing support for IFIP activities.

No concrete plans concerning this aspect have been discussed by FC.

5.To review IFIP's dues structure at no less than 3-year intervals, and to propose changes in a timely manner for General Assembly approval.

FC makes the proposal to GA to keep the fee structure as installed by GA 2017.

6.To propose the amount to be set aside each year for the IFIP Development Fund.

As already mentioned above, we have a structural financial problem; our income is not enough to cover our costs without help from our portfolio. Ideally we would be growing our portfolio above inflation, we are not quite up to that at present. FC recognizes that under the present condition on the financial market satisfactory interests cannot be achieved when following a conservative investment policy. FC supports the Treasurer's strategy to continue with such a conservative strategy.

8.5 Membership and Marketing Committee
(Chair of the Membership and Marketing Committee, Max Bramer)

Membership Changes and Issues since GA 2018

(a) 'Association IT Ukraine' was approved for membership at the 2018 General Assembly. The society has now paid its first member dues and so becomes the Federation's first National Member at Large.

(b) Hungary has terminated its membership for 'internal' reasons. I regret to have to report that Denmark has also decided to terminate its long-standing membership effect from the end ofDecember 2018.

(c) Spain (ATI) has also terminated its membership. Discussions are under way about a possible replacement Country Representative Member.

(d) Problems have been experienced by the Computer Society of Iran in paying its annual membership dues because of international sanctions against the government of that country. At its meeting in February 2019 the Executive Committee decided to defer payment of dues as long as that situation continues. Thus, CSI remains as a member of IFIP.

(e) Four other societies have unpaid membership fees. If they remain unpaid, their membership will be terminated at the end of 2019.

(f) No new applications for membership have been received since the 2018 General Assembly.

Overall the Federation's membership remains in long-term decline, even though there are far more people involved in the Information Processing field than ever before and despite the introduction of a new category of membership, Member at Large. Late payment of membership dues remains a perennial problem.

Website Changes

The website continues to be developed to make it more useful for both current and potential new members. Further information is given in a separate report from the Website Task Force to the Board. IFIP Insights is continuing to appear on a monthly basis, together with IFIP News which is issued by the Secretariat every three months. The home page of the Visitors mini-site is automatically updated with the most recent six articles from the most recent IFIP Insights. In an attempt to improve the usefulness of the Federation's Twitter feed, details of the password etc needed to post messages was circulated to all Executive Committee members shortly after the General Assembly, but this has not so far led to any additional postings.

The online system for processing membership applications has been improved. The 'Join IFIP' page now includes a link to information about Associate Membership as well as Country Representative Members and Members at Large. Admissions Committee members have been given a facility for filtering applications and the General Secretary has been given facilities for editing the applications uploaded to correct errors, remove duplicates etc. Membership applications can be given seven possible statuses: 'No recommendation from the Admissions Committee' (the default), 'Not eligible for this category of membership', 'AC recommends that GA approves the proposal', 'AC recommends that GA rejects the proposal', 'Proposal approved by GA', 'Proposal Rejected by GA' and 'Deleted'.

Although the software has been improved, the lack of membership applications to process remains.

Printed Material for Members and Potential New Members
The Membership Benefits leaflet and the Member Societies leaflet were sent to all member societies with their renewal invoices. Offers have been made to prepare two further leaflets, one about publishing books and the other about organising events, but they have not yet been received.

The most important innovation since the General Assembly has been the production of the first in a new regular series of IFIP Annual Reports. The report is for session 2017-18, covering the period between the 2017 and 2018 General Assemblies. The annual report has been produced in paper form as a printed booklet of 133 pages. It contains reports from 23 of our member societies and all 13 Technical Committees as well as IFIP Officers, the IFIP Historian, chairs of Standing Committees, the Technical and Member Societies Assemblies, IP3 and one of the Domain Committees, plus a report on the 24th World Computer Congress. It has been sent in paper form to all members of the General Assembly and to all member societies with their membership renewal invoices and has also been placed online for downloading from the IFIP website home page. I would particularly like to thank our General Secretary for his work on assembling and producing this new publication.

Discount Scheme
The policy of IFIP events giving a discount of at least 10% on registration fees to all members of IFIP member societies is now fully operational, with many new events approved since the policy was introduced at the 2017 General Assembly, potentially benefitting any one of the half million or so individual members of our member societies.

Observations
IFIP is essentially a network of societies that come together for their mutual benefit. The more members there are in the Federation, the more beneficial the grouping will be for each of the members and the more influence it will have. A falling membership is likely to have the opposite effect. At present our membership is falling while our technology is becoming all pervasive and the need for a forum to discuss and act on social and ethical issues as well as technical ones is of greater importance than ever before. In my view, as well as increasing the number of 'traditional' members we need to diversify our membership by bringing in a wider range of national and international bodies, plus major companies and other organisations and – not least – leading universities. A proposal to establish an 'academic affiliates ' scheme was discussed at the last General Assembly and is an agenda item for this meeting of the Board. It is intended to make a detailed proposal to the 2019 General Assembly for changes to Statutes and Bylaws to establish the scheme.

The task of increasing and diversifying our membership is so important that it cannot be left to any one individual or any committee to deal with it. Rather, it needs to be a concern of the whole of the General Assembly, which of course includes the Board and the Executive Committee. At the last two General Assemblies I have made three requests for input from members, which I will repeat here. So far none of them has produced any reaction.

(1) We need to be much more proactive over recruitment of new member societies, especially National Members at Large, rather than simply waiting for applications to come in. General Assembly members are well placed to identify 'prospects' in their countries. The Membership and Marketing Committee can

then draw up a shortlist of **potential** new members, with a reasonable chance of success. If every national society member identified one other society in the same country our total membership could rapidly rise. **Suggestions wanted!**

(2) Having drawn up a 'prospects list' we need to consider how best each one should be approached. General Assembly members have a considerable number of contacts worldwide. At present the work of visiting and talking to potential members almost always falls on the President, but it is much too large a task for any one individual and I would like to see all GA members, especially the elected Officers and Councillors more actively involved in this task. **Offers of help wanted!**

(3) We have the first two in a planned series of information leaflets, printed on light card as a doublesided A4 sheet folded to form a four-page A5 leaflet, but more are needed. Some possible topics are as follows (approximate titles):
* Benefits of Organising an IFIP Event
* What do Technical Committees and Working Groups do?
* How can I join a Technical Committee or a orking Group?
* What do Domain Committees do?
* What is IP3?
* What is InterYit?
* What does the IFIP Digital Equity Committee do?
* What does the International Committee do?
* What does IFIP publish?

Much of this information can be extracted from the website (although not always in a 'focussed' form) but it is unlikely that officials of either current or potential new member societies spend much time studying either our website or our social media and it may be helpful to draw what we do to their attention in a more tangible and durable form. I see the most important priority as being to produce a booklet on 'Benefits of Organising an IFIP Event'. **Offers of help welcome!**

IFIP has an associated community that is far wider than the member societies and General Assembly members. It also includes the 400 or so members of our Technical Committees, the 3,000 or so members of our Working Groups, plus our Domain Committees, IP3 and InterYIT, plus the thousands of people who attend IFIP-sponsored or IFIP-organised events each year.

Given a reasonable amount of dedicated additional part-time administrative support, there is a great deal that could be done to keep our community proactively informed about our range of activities, forthcoming events etc., on a regular scheduled basis, as well as developing an expanded portfolio of both paper and online documents, identifying new marketing opportunities, establishing GDPR-compliant mailing lists of event delegates, members of Working Groups and other entities, plus much more.

We also need to look closely at the 'product' we are trying to 'sell'. Diversifying our types of membership is not only desirable in its own right, but offers the prospect of an important new stream or streams of income. Creating Members at Large was a step in the right direction; so was establishing InterYIT. The Academic Affiliates proposal is another. However diversification should not end there.

In my view the task of increasing and diversifying our membership is fundamental to the future success of the Federation. If the General Assembly shares this view it needs to act much more proactively to bring change about. The most committed members of the GA are likely to be the Officers and Councillors, all of whom have been elected to

represent the member societies' interests, so I look particularly to you for support in this venture and would particularly appreciate any offers of help or advice in relation to items (1) to (3) above.

8.6 IFIP Elections

Mr Bramer reported that
- Mr Mike Hinchey will start after this General Assembly his second term as IFIP President
- Mr Bramer will step in as IFIP Honorary Secretary after this General Assembly.

Vice Presidents:
There were two vacations and two nominations for Vice President.
Ms Gabriela Marin-Raventos and **Mr Anthony Wong** were declared **elected** unopposed.

IFIP Honorary Treasurer Elect:
There was one nomination. IFIP Statutes & Bylaws required a ballot voting for the office of Honorary Treasurer Elect.

Voting result: 39 votes against; 7 votes in favor; 2 abstentions. This result required according Statutes & Bylaws new nominations from the floor.

Mr Bramer explained the regulation defined in Statutes and Bylaws for nominations and asked to send nominations until evening of the first day to the IFIP General Secretary.

Mr Bramer announced that two nominations have arrived:
- Mr Milan Ftacnik (Slovakia)
- Mr Sanjay Mohapatra (India)

Both of the nominees presented themselves, Mr Ftacnik in person and Mr Mohapatra over Skype.

Result of the ballot voting:
Mr Milan Ftacnik   41 votes   **elected (2019 - 2020)**
Mr Sanjay Mohapatra   5 votes

Councillor:
a) There was one vacancy for Councillor position to be nominated by the **GA.** Nominations Committee received two nominations.

   Result of the ballot voting:
   Mr Jee-In Kim   27 votes   **Elected**
   Mr A Min Tjoa   20 votes

b) There was one vacancy for Councillor position (to be nominated by the **Member Societies** of IFIP)**:** According IFIP's S&B 6.3.1, as the number of nominees is equal the number of vacancies the candidate(s) will be declared elected unopposed.

   Ms Elizabeth Eastwood has been declared elected unopposed for **Councillor**

c) There was one vacancy for Councillor position to be nominated by the **Technical Assembly** of IFIP**:** According IFIP's S&B 6.3.1, as the number of nominees is equal the number of vacancies the candidate(s) will be declared elected unopposed.

   Mr Philippe Palanque has been declared elected unopposed for **Councillor**

d) There was one vacancy for Councillor position to be nominated by **IP3:** According IFIP's S&B 6.3.1, as the number of nominees is equal the number of vacancies the candidate(s) will be declared elected unopposed.

Ms Moira de Roche has been declared elected unopposed for **Councillor**

e) There was one vacancy for Councillor position to be nominated by **Members at Large:** According IFIP's S&B 6.3.1, as the number of nominees is equal the number of vacancies the candidate(s) will be declared elected unopposed.

Mr Gerrit van der Veer has been declared elected unopposed for **Councillor**

8.7 Statutes and Bylaws Committee

(Chair of the S&B Committee, Max Bramer)

Mr Bramer presented some proposals for changes / clarifications in IFIP's Statutes and Bylaws.

1. Bylaw 2.9 Liability for Dues: to make a more substantial sanction for non-payment of dues.

    Voting: Changes in the Statutes and Bylaws needs a "two-thirds majority".
    Result: 27 in favour; 16 against; no abstentions.
    The proposal was **REJECTED**

2. Bylaw 4.1.2 Composition of Technical Assembly: Change 'The Chair is appointed by the President and will normally be a Vice-President' to 'The Chair is appointed by the President'.
    Reason for Change: To give the President more flexibility and to bring into line with recent practice.

    The proposal was unanimously **ACCEPTED**

3. New Bylaw 3.9 Project Reviews: Each of the Federation's projects shall be reviewed by the Executive Committee at least once every 3 years to ensure that it continues to meet the Federation's aims and provides good value for money. In addition, each new project shall be reviewed at the end of its first year of operation. For the purposes of this Bylaw, 'project' shall be interpreted to mean an activity that incurs significant capital and/or recurrent expenditure.
    Reason for Change: In the interests of good management practice.

    The proposal was unanimously **ACCEPTED**

4. Bylaw 4.2.2 Technical Committee Membership: "Should a Country Representative member or a Member at Large cease to be a member of the Federation, its representation on all Technical Committees (category (a) above) will automatically cease. The former representatives and the relevant Technical Committee chairs will be informed of this by the General Secretary. Any of the representatives who are Technical Committee chairs will be allowed to compete their elected terms of office."
    Reason for Change: To make it explicit that TC representation by a CRM or a MAL depends on the society remaining a member of IFIP.

    The proposal was unanimously **ACCEPTED**

9. Domain Committee Reports

9.1 Doman Committee on Internet of Things
(Chair of the IFIP Domain Committee on the Internet of Things, Leon Strous)

Membership
Since the last report three new members were welcomed:
- Torsten Brinda (TC-3), University of Duisburg-Essen, Campus Essen, Germany.
- Ulrika Westergren (TC-9), Umeå University, Umeå, Sweden. Ulrika is replacing Christina Mörtberg, many thanks to Christina for her contributions.
- Srinivas Katkoori (TC-10), University of South Florida, Tampa, FL, USA.

Position paper
The draft position paper was discussed in the first working conference during WCC 2018 and in GA 2018. The draft position paper is included in the (free open access) proceedings of the working conference. A revised version was accepted by the Board 2019 and the position paper has been published and distributed. Upon publication a number of reactions have been received. These are included, anonymized, in Annex 3. The DC would appreciate a brief reflection on this during GA and suggestions on how to proceed.

Conferences
The first conference was organized as part of the IFIP WCC 2018 in Poznan, Poland. For a first edition of a new, cross-domain event it was reasonably successful. Because of the concept of WCC, allowing people to move around events, participation in the IoT sessions varied between 25 and 35. Important to note that there was active participation in the discussions and that the concept of a cross-domain approach was appreciated. In addition to an invited speaker and a panel session on the position paper, 12 of the 13 accepted papers were presented. The post-conference edited book includes the 12 refereed papers, a paper by the invited speaker and the draft IFIP position paper. In addition four contributions of other WCC sessions are included. The book, number 548 in the IFIP AICT series, is available full (golden) open access in Springer Link.

The first edition was promising enough to start organizing a second edition. This will take place on 31 October and 1 November in Tampa, Florida, USA. The review process has been concluded, papers selected and two very interesting keynote presentations plus some special sessions are scheduled. For more information about program and registration visit the congress website **http://ifip-iotconference.org/index.html**

Plans
- Post-conference proceedings of 2nd working conference
- Involvement in event for UNCTAD/CSTD, March 2020
- Follow up on position paper
- Book with contributions by TCs and WGs
- 3rd Working Conference ???, end of 2020

New publication AICT 548 available full open access !!
Reflecting on the IFIP World Computer Congress 2018 and the first cross-domain conference on the Internet of Things it is a fantastic opportunity to have a post-conference book available online open access.

In addition to the refereed papers of the IoT conference, volume 548 in the IFIP AICT series includes two special contributions from the IoT conference and four contributions from plenary and special sessions of WCC 2018:

- Responsible Data Science in a Dynamic World: The Four Essential Elements of Data Science (Wil van der Aalst)
- How Three Poznan University Students Broke the German Enigma Code and Shortened World War Two (Roger Johnson)
- Professionalism and Frameworks (Moira de Roche)
- Should Artificial Intelligence Be More Regulated? Panel Discussion (Leon Strous)
- The Internet of Things is Hardly About Technology (Kees van der Klauw)
- IoT: Do We Have a Choice? Draft IFIP Position Paper (IFIP Domain Committee on IoT)

Comments on final position paper on IoT
(in order of receipt by the DC chair)

This is an excellent paper. My only comment is that 5g is not mentioned anywhere. As I understand it, 5g will have an impact on IoT, and also has the potential to impact the environment.

I have read the very interesting IoT position paper and I suggest on section 5 to include some obligations for vendors that want to develop IoT applications. Something like:
"... due to the pervasiveness of IoT applications and their impact on society and on the environment, vendors and ICT companies should be aware of these impacts and to consider these systems as socio-technical systems. As such, companies should submit their systems' proposals to policy makers and appropriate authorities BEFORE the development."
In this area the dimension about "computer ethics" will be more and more connected with a "business ethics" dimensions.

I have read this position paper with interest. However, I was quite surprised to not find any statement about bringing computing education at schools forward (making it mandatory), which could serve as a common basis for the necessary education of our whole future society to be prepared for IOT and other phenomena of digitization. To cause any changes in educational politics, it would be helpful to have this

necessity communicated via various channels. IFIP TC3 has produced a report, which highlights the challenges: https://www.ifip-tc3.org/app/download/7193588451/OCCE+2018+TC3+UNESCO+meeting+040219+CS+coding.pdf?t=1549292996

I just have read the paper and really like it. There are, however, some comments that I would like to share with you.

§ In paragraph 3.2.3 the list of issues related to IoT is further elaborated. I think that reducing the negative environmental aspects of IoT to power consumption is rather inadequate because much more serious problems are not taken into account. For instance: IoT devices rather often are made of composite materials that are quite difficult to recycle – the huge numbers of IoT devices therefore will result in a gigantic heap of waste that cannot be properly recycled. Furthermore it is to be expected that many IoT devices will just be forgotten after bringing them into the environment – this will amount again to a serious environmental pollution not only with plastic materials but with heavy metals and other materials that nobody really wants to be in our soil or water. I would therefore like to recommend that IFIP reconsiders the consequences of IoT beyond the obvious and most usual consequences. This not only applies to environmental issues but to all issues listed in the position paper.

§ The example to clarify Statement VI seems to be rather problematic. The purpose of a smart meter is to ensure that the energy supplier and network management know exactly what the current electricity consumption is. Anonymization could certainly help answer privacy and data protection questions – but turning off the smart meter can't be the answer. Because then sustainability gains would be lost. This example shows that in almost all IoT applications there is not only one stakeholder with clearly defined interests affected, but that the ethically fully justified interests of very many stakeholders must be balanced. This complexity has so far not been sufficiently reflected in the statements.

§ The explication of Statement X reads: "Policymakers / regulators have a choice to balance the interests of various stakeholders in the applications and their data. It is important that policies and regulations provide the conditions for the choices that users and providers can or should be able to make." The first sentence mentions "various stakeholders" but the second sentence only mentions "users" and "providers". It must however be emphasized that there are much more stakeholders than users and providers. Policies and regulations must take that complexity into account and I am strongly convinced that in Statement X (and potentially in other statements, too) it must be explicitly stressed that policymakers and regulators must be aware that there are so many stakeholders.

I am pretty sure that there are more issues that might need to be further discussed. For instance, paragraph "3.2.3 Issues" lists "Personal and societal issues", "Security and Privacy issues" and "Legal and Ethical issues" as being separate issues. But that is, at least from the point of view of an ethicist, not entirely correct: While you can make this distinctions analytically, privacy issues are always ethical issues; societal issues, for instance the distribution of wealth and power (which are related to IoT), are always related to social justice and therefore to ethics.

Although these remarks sound rather critical, I think the position paper is extremely important and that it makes a really valuable contribution to a debate of social relevance.

I've read and appreciated the paper you prepared.

About this I wish to point out a particular facet of points VI and VII. This is related to a particular subtype of user, that we can designate as "guest".

This person, going to the premises of a company or an user, is subjected, more or less passively, to the choices of the user or company.

Is it possible, in the points VI or VII, to state that an user should, at least, warn his/her guests about his/her choices about IoT so, at least, a guest is warned and - better - this guest can obtain a (temporary?) opt-out ?

Thank you for sharing this document. Perhaps the way to ensure, as much as is possible, that the IoT (and other digital technologies) are developed in an ethical way may be to focus on this bullet point on page 8, 'Provide a "set of the right questions".'

In my opinion, if we can provide the key decision makers with this skill and to remove the tendency, as mentioned in a previous correspondence, to reduce ethical (and probably legal) compliance to no more than a box ticking exercise, we can create better digital solutions (this also includes the non-technical aspects such as policies).

Perhaps if we are having to teach these key decision makers how do ask the right questions haven't we failed to educate them appropriately? Or to put it another way, how can we ensure these key decision makers are provided with the skills required to appreciate the importance of effective consultation and that technology alone cannot provide all of the answers?

Summary:

The report seems very "motherhood" - no great insights or observations that have not been made many times elsewhere.

The purpose appears to be unclear. Perhaps as a consequence of not having a clear purpose, it appears to be an aggregation of common sense rather than an incisive statement that will have impact on the field or its practitioners and governance.

Specific Feedback:

"Environmental issues" (pg.4) - The paper fails to consider environmental impact of billions of sensors that may need to be discarded, replaced, recharged, unless the challenges of (bio)-degradability are addressed. Imagine billions of silicon-based devices deployed in IoT agricultural applications, planted into ground, and what to do with them after end-of-life.

Section 3.2.2 Phases of an IoT lifecycle - does not adequately recognised that the deployment phase is probably the most contentious and risk-prone phase of an IoT lifecycle. It is during deployment that things change for the users, supply-chain members, competitors, etc, and this appears to be the "throttle" point for greatest risk of undue influence.

Section 3.2.4 – does not adequately cover the most contentious issue of competitive regulation/monopoly - is it intended to be covered in Socio-organisational issues, or perhaps Legal and Ethical? Like cell-phone technologies, IoT connects devices and communications, and allows market control in ways not typically cross-enabled.

Section 4 Statement - it's not being a hostage to technology that would worry me - it's being a hostage to a company that owns and controls both:

a) the devices that are integrated in and deployed as part of a standard purchase of household or commercial goods
b) the communication channels that connect (or disconnect) these devices, capture (or feed) data from (to) them, and use the data for potential benefit (or otherwise) or otherwise to me and others

Such a company has the consequent ability to effectively hold me to ransom because of its position as being integral to my existence, ability to do my job, and stability of my private environment.

The paper ignores IoT definitions from EU funded IoT projects and documents, under FP7 and Horizon-2020, while citing a 2013 paper from a non-mainstream IoT journal.

The issues of multi-aspect interoperability, including semantic, technical, organisational, data, context, as well as integrating IoT silos are overlooked.

IoT data provenance and IoT business models aren't sufficiently highlighted.

9.2 Doman Committee on IT in Disaster Risk Reduction
(Chair of the Doman Committee on IT in Disaster Risk Reduction, Yuko Murayama)

Ms Murayama reported that the Domain Committee has presently 23 members. As of it multidisciplinary nature, members are diverse and are experts from various backgrounds, like industry, diverse geographical and global settings, not-for-profit organization, agriculture, marine life, health, welfare, risk management, safety engineering and social networking services. And pf course people outside from IFIP.

Ms Murayama said that since the first workshop in November 2015, a series of conferences (first in 2016 in Sofia till the the fourth International Conference on IT in Disaster Risk Reduction (ITDRR 2019)) were held. The recently conference held in Kyiv, Ukraine received 63 submissions, 24 accepted, post-conference proceedings will be published. There were 22 participants from 12 countries and nearly 80 students from Kiev National University of Culture and Arts.

Ms Murayama announced the future events:
- November 9th – 12th 2019: World Bosai Forum with a session of ITDRR
- March 30th – April 3rd, 2020:WSIS2020, Workshop from ITDRR
- September/October 2020: ITDRR2020 at the Black Sea, Bulgaria (including a Domain Committee meeting)
- September/October 2021: ITDRR2021 in Morioka, Iwate, Japan (including a Domain Committee meeting)

Ms Murayama informed General Assembly that the life time for this Domain Committee is on its end. The Domain Committee will be transferred over to a Working Group 5.15 under control of TC5 with this General Assembly.

10. Member Societies Assembly
(Erich Neuhold, Chair of the Member Societies Assembly)

Mr Neuhold reported form Member Societies Assembly and presented the main issues the MSA has worked on:

University Affiliates: the proposal to introduce a new category of membership has been discussed. In summary, the majority of the attendees did not support the current draft proposal.

Amendments to MSA Bylaws: The proposed amendments to IFIP's Bylaws 6.4.3 were presented and unanimously **ACCEPTED** by General Assembly.

Member Reports: 17 Member Reports were received. MSA discussed the option to publish them on IFIP public Website.

Member Societies: MSA discussed the reasons why IFIP is losing Member Societies and is shrinking instead of growing. Results will be presented at next General Assembly.

Plan for the next 12 months:
- to add an item in IFIP News about 'what is new on the Web site' – IFIP office
- to ensure that MSA webpage is updated and contains a list of member societies -- MSA Chair and IFIP office
- to amend the template of the annual Member Society report – MSA Chair

Prof Aida, the incoming GA representative of IPSJ presented the Information Processing Society of Japan (IPSJ) and its work.

11. Technical Assembly

(Michael Goedicke, Chair of the Technical Assembly)

Participating: TC-1 (L. Barbosa & J. Sakarovitch a past/ vice chair), TC-2 (M. Goedicke TC 2 vicechair as proxy to I. Schaefer), TC-3 (S. Røsvik), TC-5 (T. Czachorski), TC-9 (D. Kreps),TC-11 (Y. Murayama as proxy to S. Furnell), TC 12 (E. Mercier-Laurent), TC-13 (P.Palanque)

1. TC Reports and WG related Issues

The TCs presented their reports as can be downloaded and viewed at the secure area of the GA 2019 located at the IFIP website. As can be seen there – in general – the level of activity and engagement is quite high and satisfactory. In many cases it was possible to revitalize dormant WGs.

Another concern of the TC chairs is national representatives in TCs. As was agreed, their role should be the national perspective and support of the technical work in the related TC. Thus, related documented expertise should be available with these TC members. Active support is normally also reflected by attending the meetings and involvement in the TC activities. The TA is therefore considering a new process for installing new national representatives in TCs. A virtual TA meeting will be held in February 2020 to work this out and is then proposed to the GA via the normal way through the committees.

The TA thanks the TC Chairs for their continuing hard work to achieve this goal. During the discussions a number of changes were proposed and unanimously accepted by TA. Thus, these changes are announced to the GA as well.

The following changes were thoroughly discussed and accepted by TA:

- TC 5: a new WG (5.15) is being proposed as proposed by Yuko Murayama as the Chair of the IFIP Domain Committee on IT in Disaster Risk Reduction, to transform this Committee into a TC5 Working Group on *Information Technology in Disaster Risk Reduction* was discussed inside TC5. The idea was well received, and TA is looking forward to seeing the formal proposal.

- TC 9 proposes to rename WG 9.5 *Virtuality and Society* to a more appropriate contemporary name without changing the main thrust of its profile. The new name is *Our Digital Lives*. TA agreed.

- TC 9 proposes another name change: in order to revitalize WG 9.3 and due to the broad technological development, the original name *Home Oriented Informatics and Telematics* is to be renamed into *Intelligent Communities*. TA agreed.

- TC 11 proposes to form a new WG on in the area of AI and Security. This was considered and positively received at the TA meeting, with a formal proposal expected to follow as a result. As mentioned above a virtual TA meeting is planned before the next IFIP board meeting in February 2020 to follow up on the aforementioned topics and issues.

2. S&B Academic Affiliates

The TA Chair reported on this specific development. The TA discussed the various pros and cons of this change. It became clear in the discussion that the change should be redesigned with the aim to clarify the relationship to TA and TCs respectively.

3. Digital Equity Committee (with Gabriela Marin)
The issues and problems to spend the budget of the DEC in a useful and effective way were presented by the DEC Chair Gabriela Marin. The TA discussed various ways to support this aim. The information of the DEC as presented in the meeting is distributed to the TCs and the TA supports that the DEC finds better ways to spend the money by e.g. allowing to swap the rest of the budget to the following year or slightly overbooking itself in order to allow for no shows, less than expected expenditures etc. Also, event organizers will be allowed and encouraged to announce the support by the DEC on their website. A related wording has been proposed to the DEC. Further proposals are welcome, and TA is looking forward to new regulations from the DEC.

4. Publications (together with Kai Rannenberg, Leon Strous, Erich Neuhold, Jan Pries-Heje[via skype] and Aliaksandr Birukou[from the Springer Verlag])
Kai Rannenberg and Jan Pries-Heje presented the current state of the IFIP select feature. Certain elements are made explicit again like an eligible paper must be published on an IFIP event, peer review must have been in place originally etc. The next issue is in preparation for publication in March 2020. The deadline for this is 15.12.2019 while the next round of proposals is expected to end at 15.4.2020. TC chairs present at the meeting wanted more information about the process while Jan Pries-Heje gets the related meta data to process the proposals. He will turn to the elated TC chair when there are more papers up for potential publication than possible in an upcoming issue in order to make a selection then.

The next topic was the AICT 600 jubilee volume(s). Erich Neuhold (TC oriented scientific view on achievements and challenges) and Leon Strous (oriented to general IT-related societal challenges) presented two versions of it, which either get merged into one or are worked on in parallel resulting into two different books. After a thorough discussion it was felt, that there are two different audiences of the two goals which cannot be merged in a natural way without make damaging compromises in concepts and contents. Thus, it was decided to go for two books. Still mutual exchange regarding the developments was felt to be beneficial. The aim to publish in Sept. 2020 is quite a demanding one, so detailed work in the books need to start immediately. This means for the actual AICT volume 600, which presents the scientific view, Erich Neuhold, Michael Goedicke and Kai Rannenberg will tend to the TC Chairs to write one or two chapters on the work in the respective TCs in terms of achievements and challenges in the current work.

As a last item in this topic Aliaksandr Birukou (aliaksandr.birukou@springer.com) from Springer Verlag presented the current state of their work wrt. to IFIP. A number of persons on the Springer side have changed due to restructuring the work and processes at Springer and retirements as well. There are, however, new persons and functions available to support the publication processes for IFIP and no interruptions should occur.

The observation was shared that not all AICT papers / volumes are indexed in dlbp while this database is very important in certain TC related communities. Dr. Birukou explained the reason behind this observation and that this is not a problem of the Springer side. All related meta data are sent to dlbp on a regular basis by Springer. Due to the high demand on dlbp in general, it might be the case that some of the volumes are considered of less priority than others and work on them is postponed by dlbp. Further inquiries should be addressed to the PC and/ or Dr. Birukou directly. It will be good to share the findings within the TA, of course.

5. AOB
Next meetings will be virtual while the next physical meeting will be directly prior to the next GA. Venue and Time needs to be determined still.

There will be soon a virtual meeting on the creation of the AICT 600 book.

The next general virtual TA meeting is planned in Feb 2020 before the upcoming IFIP Board meeting addressing WG and membership issue as mentioned above

12. Member Society Report: International Member at Large

12.1 Association for Computing Machinery (ACM)
(Gerrit C. van der Veer, GA Representative ACM)

This report is based on the ACM Annual Report for Fiscal Year 2017 (July 1, 2017 - June 30, 2018), by Vicki L. Hanson, ACM President
https://www.acm.org/binaries/content/assets/about/annual-reports-current-fy/acmarfy17.pdf
and on other information provided by the ACM leadership.

Overview of Society

- o Society's vision/mission statement: ACM, the Association for Computing Machinery, is the world's largest educational and scientific computing society, uniting educators, researchers and professionals to inspire dialogue, share resources and address the field's challenges. ACM strengthens the computing profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.

- o Website: www.acm.org

- o ACM is officially represented in the following Technical Committees (still confusingly labelled "US" at the IFIP website): TC1; TC2; TC3; TC7; TC9; TC11; TC12; TC13; TC14. Participation of ACM in Technical Committee Working Groups cannot be identified: more than half of the ACM members do not live in the USA, and many ACM members are members of one or more IFIP Country Societies.

- o ACM Global membership, some statistics:

	31 May 2018		31 May 2017	
Total	98,015	100%	97,484	100%
US	47,137	48%	46,296	47%
Europe	15,894	16%	15,283	16%
other	13,049	14%	12,675	13%
India	10,987	11%	10,139	10%
China	5,101	5%	7,590	8%
Canada	3,095	3%	2,814	3%
Japan	2,752	3%	2,687	3%

	Professionals, 31 May 2018		Students, 31 May 2018	
Total	**67,200**	100%	**30,815**	10%
US	36,553	54%	10,584	34%
Europe	11,933	18%	3,961	13%
other	6,293	9%	6,756	22%
India	4,638	7%	6,349	21%
China	2,852	4%	2,249	7%
Canada	2,428	4%	667	2%
Japan	2,503	4%	249	1%

- o ACM has 37 Special Interest Groups (SIG) that include 25,000 ACM members and 11,000 SIG-only members:
  - SIGACCESS - Special Interest Group on Accessibility and Computing
  - SIGACT - Special Interest Group on Algorithms & Computation Theory
  - SIGAI - Special Interest Group on Artificial Intelligence
  - SIGAPP - Special Interest Group on Applied Computing
  - SIGARCH - Special Interest Group on Computer Architecture
  - SIGAda - Special Interest Group on Ada Programming Language
  - SIGBED - Special Interest Group on Embedded Systems
  - SIGBio - Special Interest Group on Bioinformatics, Computational Biology
  - SIGCAS - Special Interest Group on Computers and Society
  - SIGCHI - Special Interest Group on Computer-Human Interaction
  - SIGCOMM - Special Interest Group on Data Communication
  - SIGCSE - Special Interest Group on Computer Science Education
  - SIGDA - Special Interest Group on Design Automation
  - SIGDOC - Special Interest Group on Design of Communication
  - SIGEVO - Special Interest Group on Genetic and Evolutionary Computation
  - SIGGRAPH - Special Interest Group on Computer Graphics
  - SIGHPC - Special Interest Group on High Performance Computing
  - SIGIR - Special Interest Group on Information Retrieval
  - SIGITE - Special Interest Group on Information Technology Education
  - SIGKDD - Special Interest Group on Knowledge Discovery in Data
  - SIGLOG - Special Interest Group on Logic and Computation
  - SIGMETRICS - Special Interest Group on Measurement and Evaluation
  - SIGMICRO - Special Interest Group on Microarchitecture

- SIGMIS - Special Interest Group on Management Information Systems
- SIGMM - Special Interest Group on Multimedia Systems
- SIGMOBILE - Special Interest Group on Mobility of Systems, Users, Data & Comp
- SIGMOD - Special Interest Group on Management of Data
- SIGOPS - Special Interest Group on Operating Systems
- SIGPLAN - Special Interest Group on Programming Languages
- SIGSAC - Special Interest Group on Security, Audit and Control
- SIGSAM - Special Interest Group on Symbolic & Algebraic Manipulation
- SIGSIM - Special Interest Group on Simulation
- SIGSOFT - Special Interest Group on Software Engineering
- SIGSPATIAL - Special Interest Group on Spatial Information
- SIGUCCS - Special Interest Group on University & College Computing Services
- SIGWEB - Special Interest Group on Hypertext, Hypermedia and Web
- SIGecom - Special Interest Group on Electronic Commerce

Key activities this year
- o Events and Projects:
  - o ACM China council:
    - Wenguang Chen and XiangYang Li, co-Chairs of the China Council 2017
    - TUR-C conference in Shanghai, May, 2018
      - o 2018 Keynote Speakers include:
        - Turing Laureates Vint Cerf, Leslie Valiant and Raj Reddy
        - Michael I Jordan
      - o SIG Chapters meetings and ACM-W China
      - o Planning now for TUR-C May, 2019 in Sichuan, Chengdu
    - Established an editorial board
      - o Provide introduction/comments in Chinese for CACM articles rather than translating entire articles
    - CACM China insert (Fall, 2018)
  - o ACM Europe council
    - Chris Hankin, elected Chair 2017
    - EUACM
      - EUACM and Informatics Europe produced two White Papers:
        - *Automatic Decision Making*
        - *Informatics4All*
      - Panel sessions including European Commission representative in Brussels (March, 2018)
    - Active support for chapters: 50 years of German Chapter
    - Conference on HPC, Barcelona Supercomputing Center, September 2017
    - ACM-WE; womENcourage conference
    - Summer School on Data Science
    - CACM Europe insert (underway)
  - o ACM India Council
    - Abhiram Ranade, elected Chair 2018
    - ACM India Annual Event, February, 2018
      - Turing Laureates Martin Hellman and Robert Tarjan

- Moshe Vardi
- ACM-W conference and Professional Chapters Summit
- CSPathshala, teaching computational thinking
- ACM India initiative to teqach computing as a science in all schools by 2030
  - o Partnering on Key Activities
    - Sponsor, *2nd AI for Good*
    - Partnership on AI
      - … *to benefit people and society*
      - ACM rep part of working group on Fair, Accountable, and Transparent AI
    - Heidelberg Laureate Forum
      - Laureates in Computing & Mathematics
        - ACM, A. M. Turing Award
        - IMU, Fields Medal, Nevanlinna Prize
        - NASL, Able Prize
        - 2017 ACM Prize in Computing
      - 200 Young Scholars
  - o ACM Future of Computing Academy
    - New "ACM experience" that meets the needs of future generations
      - Engender a spirit of loyalty, volunteerism and ACM leadership
    - 1st intake June, 2017 – 46 members
      - Planning for 2nd intake, recruit for technical diversity
    - Podcasts, conferences, blogs
  - o Conferences
    ACM and its SIGs Organized a total of about 350 conferences during this Fiscal Year, see map at https://dl.acm.org/conferences.cfm and a complete list at: https://dl.acm.org/events.cfm

- o Social Responsibility
  - o Policy Against Harassment at ACM Activities
    The open exchange of ideas is central to the Association for Computing Machinery's mission. This requires an environment that embraces diversity and provides a safe, welcoming environment for all.
    This policy applies to all ACM activities, including:
    - conferences, symposia, workshops, and events sponsored, co-sponsored, or in cooperation with ACM any ACM SIG or Chapter or any other ACM subunit;
    - ACM member meetings;
    - exchanges among committees or other bodies associated with ACM activities publications and communications sent through communication channels associated with ACM, including social media.
  - o ACM 2018 Code of Ethics and Professional Conduct
    Draft 1 was developed by The Code 2018 Task Force. (It is based on the 1992 ACM Code of Ethics and Professional Conduct.)
    The Code as a whole is concerned with how fundamental ethical principles apply to a computing professional's conduct. The Code is not an algorithm for solving ethical problems; rather it serves as a basis for ethical decision-making.

- o Thought leadership
  - o ACM Publications Board
    - New titles
      - New titles in development
        - o *Computing for Healthcare*
        - o *Digital Government, Practice and Procedures*
        - o *Middleware and distributed Systems*
        - o *IoT*
        - o *Quantum*
      - Fellows meeting / Consultant for Gap analysis
      - Both acquisition and organic growth
    - Prepublication services with ArXiv
    - Ethics and Plagiarism Committee
    - Consistent COI
  - o ACM Practitioners Board
    - Who are ACM's Practitioners?
      - Like knowing about research
        - o Need research digestible at right level
      - Not interested in certification
    - ACM Learning Webinars
      - Jay Gambetta (Quantum)
      - Eric Horvitz & Fei-Fei Li (ML);
      - Robyn Murphy (Robotics and Disasters)
    - *AI Decentralized* meet-ups
  - o ACM Learning Center
    - The ACM Learning Center offers ACM members access to lifelong learning tools and resources. Our E-Learning collections offer complimentary access to more than 55,000 online books and videos from top content publishers. The ACM Learning Webinar series brings leading computing luminaries and visionaries to your screen. Members enjoy exclusive offers and

discounts on IT industry certifications and vendor-specific training.

- o Government engagement/projects
    - o The ACM US Technology Policy Committee (USACM) is a leading independent and nonpartisan voice in addressing US public policy issues related to computing and information technology. The Committee regularly educates and informs Congress, the Administration, and the courts about significant developments in the computing field and how those developments affect public policy in the United States.
    - o ACM Europe Technology Policy Committee addresses the EU and European national bodies about significant developments in the computing field and how those developments affect public policy in their region.
    - o ACM RISK forum is an online dialogue on risks to the public in computers and related systems, and is heavily involved in issues such as human safety, privacy, ethics, and legal responsibility. The RISKS Forum activity involves many people around the world, some of whom are contributing to the effort through their RISKS submissions.
    - o The ACM Education Policy Committee is a high-level committee of acclaimed computer scientists and educators dedicated to improving opportunities for quality education in computer science and computing-related fields. The Education Policy Committee develops initiatives aimed at shaping education policies that impact the computing field. A primary goal of the EPC is to ensure that computer science education is recognized in educational initiatives at all levels of the educational pipeline.

13. Member Society Reports: Country Representative Members

13.1 Austrian Computer Society (OCG)
(Erich Neuhold, GA Representative Austria)

o **Society's vision/mission statement**
Aim of the association:
The aim of the OCG is the comprehensive and interdisciplinary promotion of informatics and communication technology with due regard to their interaction with people and society.

Measures to realise the association's aim:
They include in particular:
1. Collecting and forwarding information about the development of information and communication technology and of certifications
2. Education and training as well as certification in the area of information and communication technology
3. Promotion of further training in the area of information procession and its economic, social and human implications
4. Targeted promotion of certain groups of our society in order to enhance access to ICT technology for all (e.g. people with special needs, the elderly)
5. Co-operation with relevant private and public institutions in accordance with the aim of the association
6. Individual service and counselling for members in accordance with the aim of the association
7. Certification of persons in the area of information technology (e.g. ECDL and OCG certificates)
8. Education, training and certification of trainers and examiners for the certification of persons
9. Issuing of nationally and internationally recognised certificates upon successful completion of tests for personal certification
10. Securing the adherence to the existing quality criteria set by the ECDL foundation or other licensers
11. Development and approbation of teaching and learning material, content development and approbation of electronic test systems
12. Continuous adaption and further development of the certification principles, syllabi and examination questions
13. Development and operation of automatic test systems for personal certification and/or for testing skills and knowledge
14. Certification of companies and other organisations according to European and/or other national and international standards
15. Conducting research and development projects, preferably interdisciplinary projects
16. Representation of Austria in relevant international organisations
17. Organisation of information events, congresses, conferences, meetings and seminars in accordance with the aim of the association
18. Dissemination of relevant knowledge and Austrian best practices in other countries, especially in neighbouring countries and throughout Europe
19. Operation and service of electronic information platforms on the Internet to disseminate information in accordance with the aim of the association
20. Establishment and operation of working groups, forums, branches, affiliated associations and research institutes

o **Link to Website:**
https://www.ocg.at/

o **Which Technical Committee Working Groups do your members participate in?**
The Bulletin Information is mostly correct and up to date. OCG participates in all Technical Committees and in most of the working groups that are related to groups inside of the OCG working on related subjects.

Key activities this year

o **Events:**
Overall OCG sponsored and/ or organized close to 100 events a year http://www.ocg.at/projekte

Examples are:
January:
OCG Opening Day 2019 – "IKT Trends 2020" – Risks in IoT
SOFSEM 2018 (44th International Conference on Current Trends in Theory and Practice of Computer Science) https://sofsem2018.ocg.at/

February:
IEEE HPCA 2018 (24th International Symposium on High-Performance Computer Architecture) https://hpca2018.ece.ucsb.edu/
IEEE/ACM CSGO 2018 (International Symposium on Code Generation and Optimization) http://cgo.org/cgo2018/
PPoPP 2018 (Principles and Practice of Parallel Programming) https://ppopp18.sigplan.org/

March:
EDBT/ICDT 2018 (21st International Conference on Extending Database Technology) https://edbticdt2018.at/

April:
Data Economy & Cyber Security https://www.ocg.at/de/cybersecurity2018/

May:
CEEE|Gov Days 2018 (Central and Eastern European eDemocracy and eGovernment for and by Researchers, Politicians and Practitioners) https://ceeegov2018.ocg.at//

June:
OCCE 2018 (Open Conference on Computers in Education) http://occe.2018.ocg.at/

July:
IEEE ICDCS 2018 (38th IEEE International Conference on Distributed Computing Systems) https://icdcs2018.ocg.at/
IEEE CBI 2018 (20th IEEE International Conference on Business Informatics) https://cbi2018.big.tuwien.ac.at/

September:
Workshop 100 Tage DSGVO https://www.ocg.at/de/100-tage-dsgvo/

October:
Energy Informatics 2019 (8th DACH+ Conference on Energy Informatics) https://www.energy-informatics.eu/

November:
European Big Data Value Forum 2018 http://www.bdva.eu/node/979/

o **Projects:**
Overview see: http://www.ocg.at/projekte
EDLRIS (European Driving License for Robots and Intelligent Systems) in cooperation with University of Technology Graz.
COMPASS (Cooperative Design Spaces for Next Generation Internet-of-Things Solutions) in cooperation with the Austrian Institute of Technology (AIT)

o **Social Responsibility**
_ ECDL for Children and Youth suffering from cancer, provided in hospitals.
_ Project OCG cares: In the project refugees learn basic computer skills and improve their German language skills.
_ WACA – Web Accessibility Certificate Austria

o **Thought leadership**
_ Digital competences among all citizens – supporting activities from the government (BMDW and BMBWF)
_ Becoming a IKT Think Tank in Austria for IT related topics

o **Government engagement/projects**
_ ICT Research Map for Austria (BMVIT)
_ Digicomp (BMBWF)

13.2 Australian Computer Society Incorporated (ACS)
(Anthony Wong, GA Represntative Australia)

The Australian Computer Society (ACS) is the professional Association for Australia's Information and Communication Technology (ICT) sector. Over 45,000 ACS members working in business, education, government and the com unity. As the professional association and peak body representing Australia's ICT sector, ACS delivers authoritative independent knowledge and technology insights, building relevant technology capacity and capability that catalyses Australian innovation and speeds the adoption of technology for the benefit of commerce, government and society.

Purpose
The Principal Objective of the ACS is to promote the development of Australian information and communications technology resources.

Vision
The ACS' vision is for Australia to be a world leader in technology talent that fosters innovation and creates new forms of value.
ACS' commitment to Australia's future is built on three pillars:
• CAPACITY: Ensuring Australia has a growing ecosystem of technology professionals to meet its economic growth needs
• CAPABILITY: The development of superior skills to ensure our place higher up the value chain
• CATALYST: Sparking innovation – supporting businesses and government to use technology to transform processes and reimagine customer experiences

Mission
• To deliver authoritative independent knowledge and insight into technology
• To build relevant technology capacity and capability in Australia
• To be a catalyst for innovative creation and adoption of technology for the benefit of commerce, governments and society.

ACS Website: https://www.acs.org.au/

Which Technical Committee Working Groups do your members participate in?
ACS has representatives on the following seven IFIP Technical committees:
1. IFIP: Technical Committee 2: Software Theory and Practice – Mr Ted Smillie, MACS (Snr)
2. IFIP: Technical Committee 3: Education – Mrs Sharon Singh, MACS
3. IFIP; Technical Committee 8: Information Systems – Dr Dale Mackrell, MACS (Snr)
4. IFIP: Technical Committee 9: ICT & Society – Assoc Prof Oliver Burmeister, MACS CP
5. IFIP: Technical Committee 11: Security and Privacy Protection in Information Processing
Systems – Assoc Prof Paul Haskell-Dowland, MACS (Snr) CP & Dr Marcus Belder, MACS (Snr) CP
6. IFIP: Technical Committee 12: Artificial Intelligence – Prof Simeon Simoff, MACS (Snr) CP
7. IFIP: Committee 14: Entertainment Computing – Prof Artur Lugmayr, AACS

In addition to participation in IFIP technical committees, ACS activities in establishing professional benchmarks include being the first international computer society to become accredited under International Professional Practice Partnership (IP3).

Significant Events in this period
• Fourth Reimagination Thought Leaders' Summit and ACS Digital Disruptors Awards; Reimagination 2018 brought together more than 1,000 Australian and international thought leaders from technology, business, academia and the political sphere to advance the conversation on Customer experience (CX), Emerging Tech and New Business Models1. At the Summit, the ACS presented the Digital Disrupters Awards to honour Australia's ICT professionals best and brightest innovators and disruptors of the ICT field. Reimagination will be held again in December 2019 in Melbourne.

• Education Across the Nation (EdXN) is a signature part of the ACS speaker series. Held quarterly, EdXN presents experts sharing topical insights about the ICT sector today and tomorrow. EdXN is a highly valued event attracting ICT professionals from a wide range of international industries. This year, ACS attracted more than 2,000 attendees to its thought leadership series. The series saw leading Australian and international experts present a range of opportunities that have emerged as a result of disruption in the ICT sector.

• In 2018-19, ACS partnered with Sky News to deliver several initiatives. The partnership leverages the knowledge capital of ACS members to influence positive change with government and industry hrough thought leadership.

• In the first season of RiverPitch tv series, twenty-four entrepreneurs from around the country competed to win a prize of $20,000, and to be crowned RiverPitch champion. ACS' involvement with RiverPitch was to educate the public about the challenges and achievements that the entrepreneur community face.

• ACS continued its support for the ACS Foundation's BiG Day In and BiG Day In Junior events. The events are aimed at senior secondary school and university students interested in careers in ICT and technology. They are held on university campuses all around Australia to give students an insight into what transition to university life would look like. The BiG Day In events have helped more than 5,000 students explore careers in technology and where it can take them.

• ACS releases several special reports and conducts roundtables in partnership with the Australian Financial Review. The partnership leverages the knowledge capital of ACS members and stakeholders to share thought leadership in the ICT sector, raising awareness of ACS' key messages on a national stage.

Publications of note and thought leadership
• Australia's IOT Opportunity – Driving Future Growth. This report, a first of its kind in Australia, takes a broad economic and business view of the IoT opportunity. It assesses the revenue and cost implications of the technology on the industries most likely to benefit from it: construction, mining, manufacturing, healthcare and agriculture. It also considers the opportunities for developing the IoT industry (as a subset of the broader ICT sector) in Australia and looks at the cyber security risks associated with increased uptake of IoT technology.

• Information Age – Cyber Security Experts Series. ACS' flagship publication Information Age has since showcased a number of professionals achieving ACS certifications in cyber security. This publication is a compilation of those articles and provides a fascinating insight into the multi-disciplinary nature of cyber security across a range of verticals including aviation, banking and finance, audit and risk, consulting, and healthcare.

• Privacy in Data Sharing – A guide for Business and Government. This report describes a framework for privacy-preserving data sharing, addressing technical challenges as well as some data sharing issues more broadly.

• Introducing Integrated E-Government in Australia. A detailed report that takes a look at what an integrated Australian e-government would require.

• Artificial Intelligence – A starter Guide to the Future of Business. This guide presents an introduction to the capabilities of AI as they stand today, how it has currently been implemented, what the big players are up to, and where the benefits lie.

• Blockchain Innovation – A Patent Analytics Report. This report outlines findings from patent families filed since 1999, analysing trends, innovators, filing destinations and commercial players in this space.

• Blockchain 2030 – A look at the Future of Blockchain in Australia. Uncertainties raise the question: can blockchain progress beyond the hype to deliver tangible, highvalue applications and a thriving industry for Australia, or will blockchain amount to little more than a market bubble?

• Rockstar Aussie Founders Living in the US. ACS is proud to showcase some of those founders and companies that have made it in Silicon Valley and the US, and we'd like to thank Aussie Founders Network for compiling this report and highlighting some of our brightest stars.

• 2019 Federal Election Manifesto. In the lead-up to the 2019 federal election, ACS members were surveyed on public policy priorities that would advance the national interest. This included identifying the key blockers inhibiting Australia from achieving its potential in the digital economy, as well as the key enablers.

• Hacking Democracies – Cataloguing Cyber Enabled Attacks on Elections. This brief starts an important national conversation, generating awareness of the approaches commonly taken by adversaries to spread disinformation, misinformation and fake news.

• Blockchain Challenges for Australia. This technical white paper explores solving the challenges, including the analysis of use cases; the education of key actors; the exploration of blockchain development, especially surrounding consensus; and further understanding of regulations.

13.4 Canadian Information Processing Society (CIPS)
(Margaret Havey, Canada's Country Member Representative to IFIP)

Canada's Country Member is the Canadian Information Processing Society (CIPS). CIPS is a federation of Provincial Societies and is Canada's Association for IT Professionals.

Vision:
To be the professional association providing leadership in information systems and technologies.

Mission:
To advance the Information Technology profession in Canada by
× Determining, developing and maintaining the integrity and competence of individuals active in Information Technology;
× Advancing the theory and practice of Information Technology;
× Promoting the free interchange of information about the theory and practice of Information Technology; and,
× Establishing public awareness of the potential impact of Information Technology and protecting the public and individuals against the misuse of Information Technology.

Website **www.cips.ca**

IFIP Technical Committee Working Group Participation:
Canada participates in the following IFIP Technical Committee Working Groups:

TC	WORKING GROUPS
TC 1	1.2, 1.3, 1.5, 1.8, 1.10
TC 2	2.1, 2.3, 2.4, 2.5, 2.7, 2.9, 2.10, 2.11, 2.16 Chair of 2.10 and 2.11
TC 3	3.1, 3.3
TC 5	5.1, 5.5, 5.11, 5.12, 5.14
TC 6	6.1, 6.2, 6.3, 6.6, 6.8, 6.9, 6.10
TC 7	7.2, 7.3, 7.5, 7.6, 7.8
TC 8	8.1, 8.2, 8.3, 8.5, 8.6, 8.9, 8.11 Secretary of 8.11
TC 9	9.1, 9.2, 9.3, 9.4, 9.7, 9.9, 9.10
TC 10	10.2, 10.3, 10.4, 10.5 Vice-Chair 10.4
TC 11	11.3, 11.5, 11.10, 11.11, 11.12, 11.13 Chair of 11.11
TC 12	12.2
TC 13	13.5, 13.6, 13.7, 13.9, 13.10
TC 14	14.3, 14.4, 14.5, 14.8, 14.9

Key Activities This Year
Within CIPS events come under the purview of the provincial societies. Provincial and regional events held this year include meetings and presentations on technical trends and emerging issues, a Business Intelligence special interest group, professional development conferences, and partnering in the development of a new regional technology summit.

CIPS has embarked on a period of renewal to sustain CIPS into the future. Projects under consideration include CIPS re-branding, website modernization and digital marketing, and initiatives related to protection of the public.

At the Government of Canada's request CIPS is reviewing IT-related National Occupational Classification (NOC) categories. The NOC classifies occupations by job duties and skill levels, and provides a standard taxonomy for labour market information

used to collect data (passport applications, population censuses, applications for immigration), create statistics, and determine labor market gaps and priorities.

CIPS IP3 reaccreditation documentation is underway and is expected to be completed by end December 2019.

13.5 Croatian Information Technology Association (CITA)
(Marijan Frković, m.sc, Deputy president of CITA and Country Member Representative to IFIP Croatia)

Overview
Croatian Information Technology Association (CITA) (www.hiz.hr), is the umbrella organisation of Croatian ICT experts founded in 1975, ever since it has been acting continuously with the goal to create the conditions for faster and more efficient introduction and application of ICT.

CITA participates in the work of international ICT associations of informatics experts; regional ITSTAR, CEPIS, IFIP and ICDL Foundation.

In 2015 CITA celebrated the 40th anniversary of its continuous activity. There were a few occasional manifestations and conferences organized on the level of the umbrella organization and its associations marking the anniversary.

There are more than 200 legal entities active in CITA, and more than thousand of individuals in young informatitions Society.

Key activities this year

Last year   HIZ has started to participate in new EU projects: "Educating the unemployed for digital competencies" and "Digital.hr" under the call "Thematic Networks for Socio-Economic Development and Promoting Social Dialogue in the Context of Improving Working Conditions", and has been active in promoting GDPR.

Particular emphasis should be placed on the participation of the HIZ in the preparation and implementation of the project funded by the Croatian Employment Service (CES) "Education of unemployed persons for digital competences", which has significantly increased digital literacy for more than 2000 ECDL students.

On March 7th, as part of the new edition of the GDPR Adriatic Conference under the slogan "Minutes to 12", the biggest experts from this areas, which in ten short but very substantive units have addressed what should not be neglected when responsibly moving towards the implementation of the GDPR regulation.

There are several organisations, experts and users of ICT active within the scope of CITA aiming to introduce and apply ICT technology more quickly and more effectively, and to open the opportunities of the exchange of skills and experiences, as e.g.:

Croatian Society for Open Systems and Internet (**HrOpen**) was founded in 1992 with the intention to promote the development and advancement in applying these systems in the Republic of Croatia (RH), which is being implemented by organising seminars, lectures and workshops, by establishing the collaboration with the experts and associations for open systems and Internet in Croatia and abroad, by encouraging the usage of program support in the field of Open Source and Free Software.

One of the most important activities of the Society is the annual conference «Open Systems Days» (DORS) organised for the purpose of informing people about open systems, their usage, the experiences of users and problems in application. It should be also added that HrOpen participates in training activities for teachers of primary and secondary schools to use open systems, and it is also very active in technical committees of the Croatian Institute for Standardization in the field of open systems, introducing and applying international standards.

Croatian Society of Young Informaticians (**HrSIN**) was founded in 1985 with an intention to organise the work of young informaticians, to carry out the program of works and to provide help to members, organise district and state competitions, winter schools and summer camps for informaticians, preparations and participations of young informaticians at international competitions, information schools and manifestations, and organising the competitions for software works of young informaticians and their presentation.

The 30th International IT Olympiad - International Olympiad in Informatics, was held from 1 to 8 September 2018 in Tsukuba, Japan, with 339 competitors from 88 countries.

Croatian Young Informatics won TWO SILVER and ONE BRONZE MEDAL in this competition.

Josip Klepec, Paula Vidas, Dominik Fistric, Leonard Inkret

There are more than thousand young people being active in HrSIN and the best of them participate successfully at state, Regional, European and world Olympiads in informatics for young people, where they have won until now more than 100 medals.

Croatian Society of Geographic IS (**HrGIS**) was founded in 1994 in order to make GIS technologies popular and organise education in GIS, to promote the production of national GIS standards, to participate at European projects and programs, to organise professional presentations at Croatian and international gatherings, to raise the level of skills in the field of GIS technologies at the faculties and vocational schools, to collect and distribute the publications and professional works in GIS.

The main project that has been underway for 25 years is the GIS Odyssey Conference and the exhibition, with the sub-project of the publication, has been completed in its entirety.

The conference was held in the city of Perugia, Italy on September 10-14 at the Sacro Cuore location.

The conference was hosted by the University of Perugia, which made it possible to use the University's ceremonial old hall for the opening and commencement of the conference.

On the first day of the conference, a dozen papers were presented, and in the course of the conference about 40 papers were presented in the form of papers.

In collaboration with the State Geodetic Agency from Zagreb and the one from Warsaw/ Poland , the work on the project of producing maps and plans for blind and low vision people is being continued.

Croatian Society of SAP users (**HrUSKO**) organises mutual communication of users with the firm SAP and helps in exchanging the information among the members, organises professional conferences for the users of SAP tool and databases, represents the interest of the members in publication of their new products, organises a demo centre of new program products, as well as the teams for testing beta versions, organises mutual performance of the members at Croatian and international fairs, exhibitions, conferences.

Since the start of ECDL implementation in Croatia in 2003, more than 72,700 students have passed the program, with more than 400,000 exams. HIZ has participated in new EU projects: "Educating the unemployed for digital competencies" and "Digitalna.hr" under the call "Thematic Networks for Socio-Economic Development and Promoting Social Dialogue in the Context of Improving Working Conditions", and has been active in promoting GDPR- And. Particular emphasis should be placed on the participation of the HIZ in the preparation and implementation of the project funded by the Croatian Employment Service (CES) "Education of unemployed persons for digital competences", which has significantly increased digital literacy for more than 2000 ECDL students in Croatia.

Former the government of the Republic of Croatia had accepted ECDL as a standard in schools and state administration. So far more than 22.000 teachers in primary and secondary schools, and more than 2000 employees in state administration have got a certificate to work on such jobs.

In order to provide conditions for quicker development of electronic business in the region with the information literacy being one of essential presumption, CITA organised in 2007 in , Croatia the first annual ECDL conference, and the next annualy until now were held in Slovenia, Serbia, Bosnia&Hercegovina, Kosovo, Montenegro and Macedonia.

13.6 Czech Society for Cybernetics and Informatics (CSKI)
(Prof . Jaroslav Pokorný, GA Representative of the Czech Republic)

Overview of Society

o Society's vision/mission statement: The Czech Society for Cybernetics and Informatics (CSKI) was founded in 1966 as the Czechoslovak Society for Cybernetics. It has currently about 300 members and it is the largest society focused on informatics in the Czech Republic. The society objectives centre on support and promotion of cybernetics, informatics and related fields, advancing the professional standing of its members, providing services to its members, and support of conferences, seminars and other activities. Members have the opportunity to participate actively in local and international technical and social activities. They may join any of the 8 working groups. One of them is the Committee for IFIP managed by Jaroslav Pokorný. The Committee was founded after reorganization of committees managed directly by Czech Academy of Sciences in 2016.

The society is currently a member of ECDL Foundation, CEPIS, IAPR, IASS/AIS, IFAC, European Association for Artificial Intelligence, and IFIP. CSKI cooperates with ÖCG (Austrian Computer Society) and the Czech society of biomedical engineering and medical informatics. Some members of CSKI also work in societies not allowing collective membership, like IEEE, SIAM, International Semiotic Institute (Imatra, Finland), Deutsche Gesellschaft für Semiotik, International Speech Communication Association, and Association for Computational Linguistics.

o Link to Website: http://www.cski.cz/

o Czech Republic has members in IFIP Technical Committees in all TCs (except of TC5) and in working groups WG 1.2, WG 1.5, WG 1.8, WG 1.10, WG 2.2, WG 3.1, WG 3.3, WG 5.7, WG 5.11, WG 5.13, WG 6.2, WG 6.8, WG 7.7, WG 8.9, WG9.6/11.7, WG 11.8, WG 12.5, and WG 14.2.

Key activities this year

o Events

  o CSKI supports annually several international conferences and seminars. In 2018, the events have included ECDL Forum, Medsoft 2018, and 2 colloquiums - 42nd Pattern Recognition and Computer Vision Colloquium and 43rd Pattern Recognition and Computer Vision Colloquium. The Czech-Slovak Conf. Data a Znalosti & WIKT 2018 was also supported.

  o Czech members of IFIP TC-6 Communication Systems prepared the 11th Wireless and Mobile Networking Conference which was held in Ostrava on September 3-5, 2018. A team with Czech member in T14 organized the workshop "Robot Competitions" and at WCC 2018 in Poznan, similarly the conference CONFENIS organized by WG 8.9. CONFENIS provides an international forum for Enterprise Information System (EIS) and will be held in Prague this year.

- Projects
  - The CSKI within its fundamental scope, which is besides the development of cybernetics and informatics in the Czech Republic, participates also on pedagogical activities and on advertising the scientific results of the related fields, announces the national competition for the Antonín Svoboda's Best Thesis Award every year. The award ceremony for the year 2019 took place on June 6, 2019, within the framework of the General Assembly of CSKI.
  - An important continuing activity of CSKI is a warranty of ECDL (European Computer Driving Licence) in Czech Republic. ECDL Foundation is an international organisation dedicated to raising digital competence standards in the workforce, education and society. In Czech Republic, a realization of the project is accomplished by cooperation of CSKI as expert level guarantee and several commercial subjects accredited as test centres.
  - Government engagement/projects: Since January 2017 CSKI is a member of the DigiKoalice national group. DigiKoalice is an open group of representatives of state institutions, IT companies, ICT sector, educational institutions, academic communities, non-profit organizations, founders of schools and school facilities and other entities wishing to contribute to increasing the digital literacy of Czech citizens to increase their chances of succeeding in the labour market and thus to achieve the competitiveness of the Czech economy. DigiKoalice is a member of the International Skills and Jobs Coalition platform.

The Member Society is willing to authorise all this report to be published on the IFIP Website.

13.7 French Informatics Society (SiF)
(Florence Sedes, GA Representative France)

Overview of Society
Society's vision/mission statement: The French Informatics Society (Société informatique de France, SiF) was founded in 1984, first under the name SPECIF. Its purpose is to promote and foster Informatics as a science and a Technology in the French society, especially in the French Educational system, in order to give the ability for every citizen to understand the new digital world of the 21st century.

SiF has over 600 individual members, 80 institutional members (such as associations, University CS research lab or University CS departments). SiF edits a journal, named "1024", the "Binaire blog" (hosted by the famous newspaper "Le Monde") and runs a number of scientific events every year. SiF is becoming a key influence with French decision-makers in its mission to promote Informatics in education and in the French society.

Web-site: http://www.societe-informatique-de-france.fr

All IFIP TCs have French members. Two of them (TC12 and TC13) are chaired by a French member. Almost all WGs have French members.

Key activities this year
Annual SiF congress:
2019: Bordeaux, Februray 6-7: **"Data, personal data and privacy, industrial data – GDPR and security ».** et respect de 2020: Lyon, February 4-5. The theme will be "Sustainability and digital transition".

Projects and main events :
• 50 years of Internet: staring the famous and iconic Louis Pouzin, Internet pioneer, jean-Francois Abramatic, web pioneer, Gerard Le Lann, Internet pioneer
https://www.societe-informatique-de-france.fr/2019/11/50-ans-internet-deroule/

• « Informatique débranchée », June 15th, Gaîté Lyrique (Paris)

• spécialité informatique au bac (NSI) : une immense opportunité pour l'enseignement supérieur !, April 17th, Cnam, Paris

• Women and Informatics: meetings and workshops, invited talks and round tables – "Grood practices for women-men equality in computer science lab", March 29, Rennes.

Journée sur les bonnes pratiques en terme d'égalité femmes-hommes dans les laboratoires d'informatique

SIF is highly involved about "Women and Informatics" and proposes to other scientific societies to pool and share initiatives.

A main topic in France presently is the introduction of Informatics in Lycée (Higher Secondary School) as a new option. It was initiated by the French Minister of Education. The role of SIF is to work closely with organizations in charge to set up this new education program and help to prepare the large number of teachers required to deploy the new program.

One of main future tasks will be to balance gender in this program and find the way to motivate girls for STEM and "NSI" (Numérique & Science Informatique – Digital and Comuter Science).

The "IFIP-France" Consortium
SIF is the IFIP French Member in the framework of a "Consortium", gathering the 5 main actors of Informatics in France:

• CNRS – the National Center for Scientific Research, a public organization under the responsibility of the French Ministry of Education and Research.

• Inria - the French National Institute for computer science and applied mathematics, promotes "scientific excellence for technology transfer and society". Graduates from the world's top universities, Inria's 2,700 employees rise to the challenges of digital sciences.

• IMT – the Mines-telecom-Institute, is a public institution dedicated to higher education, research and innovation in engineering and digital technologies. The institution is under the authority of the Minister for Industry and Electronic Communication.

• SEE - Société de l'Électricité, de l'Électronique et des Technologies de l'Information et de la Communication – is a nonprofit, state-approved, scientific and technical association, active in France and in French speaking countries.

• SiF – Société informatique de France, which is the official French IFIP member.

SIF and the IFIP-France Consortium are represented at the IFIP GA by Prof. Bernard CORNU, former TC3 Chair. From January 1st, 2019, he has been replaced by Prof. Florence Sedes (https://www.irit.fr/~Florence.Sedes/).

The IFIP Digital Library
Inria is designing and implementing the IFIP Digital Library.

IFIP 60th anniversary
The IFIP-France Committee is ready to take part in the preparation of an IFIP event that could take place in Paris, in coordination with UNESCO, in 2020, to celebrate the IFIP 60th anniversary.

IFIP events
AI&FS
Dr. Eunika Mercier, TC12 IFIP chair, chair of the AI Forum in Vienna:
First Austrian IFIP Forum "AI and future society"
08/05 - 09/05 2019 Vienna, AT
IFIP Event, BMVIT, OCG

13.8 Gesellschaft für Informatik e.V. (GI)
(Kai Rannenberg, Representative of Germany)

o Society's vision/mission statement: Please confer https://gi.de/ueber-uns

o Mission motto: "Enlighten, raise questions, co-shape, move …" („Aufklären, Fragen stellen, mitgestalten, bewegen…")

o Mission headlines

 □ "Informatics move, Informatics are future, we are Informatics" ("Informatik bewegt, Informatik ist Zukunft, wir sind Informatik"

 □ "We are part of a lively network" („Wir sind Teil eines lebendigen Netzwerks")

 □ "We follow up on current topics related to Informatics" („Wir verfolgen aktuelle Themen mit Informatikbezug")

 □ "We build bridges to other disciplines" („Wir schlagen die Brücke zu anderen Disziplinen")

 □ "We care for well-skilled and well-educated coming generations" („Wir sorgen für gut ausgebildeten Nachwuchs")

 □ "To the public we provide a multi-facetted and differentiated perspective on Informatics" („Wir zeichnen ein differenziertes Bild der Informatik in der Öffentlichkeit")

 □ "We contribute Informatics competence into societal debates" („Wir bringen unsere Fachkompetenz in gesellschaftliche Debatten ein")

o Link to Website: www.gi.de, https://ifip.gi.de/

o Which Technical Committee Working Groups do your members participate in?
  o All TCs (most matched by Special Interest Groups of GI and often ITG)
  o Almost all WGs (many matched by Special Interest Groups of GI and often ITG)

Key activities this year
o Events
 □ INFORMATIK 2019, Kassel, Sep 23/26. "50 Jahre Gesellschaft für Informatik – Informatik für Gesellschaft" "50 years German Informatics Society – Informatics for Society, https://informatik2019.de

 □ Further events see https://gi.de/aktuelles/veranstaltungen/

o Projects
 □ 50th birthday of the GI, https://50jahre.gi.de

 □ Turing Bus – Informatics for teenagers, https://turing-bus.de

 □ #KI50 – Artificial intelligence in Germany, https://ki50.de

 □ Youth Internet Governance Forum & Summit, https://yigf.de

KI-Camp – The AI science convention for young researchers https://www.wissenschaftsjahr.de/2019/ki-camp/

 AI2Ynet – the AI platform from SME for SME (https://ai2y.net)

o Social Responsibility

 Left Facebook, i.e. closed the central GI page there due to Facebook's repetitive ethical and technical failures in respecting or protecting the data of its users. More and a documentation of the long and intensive discussion on https://gi.de/meldung/gi-zentrale-verlaesst-facebook/
 Newly formed Working group on Gender & Diversity (https://gi.de/meldung/hohe-resonanzauf-gender-diversity-papiere-der-gi/)

 Work by GI Presidential Board "Data protection and IT Security" (http://pak-datenschutz.gi.de/)

 Ethical guidelines (https://gi.de/ueber-uns/organisation/unsere-ethischen-leitlinien)

 National Informatics Challenges (https://bwinf.de): 3 Challenges of different level:
   o Informatik-Biber: Beaver for beginners
   o Jugendwettbewerb Informatik: Advanced students
   o Bundeswettbewerb Informatik: Expert pupils, also basis for the selection of German teams for the international Olympiads in Informatics, e.g. IOI

 Position paper on informatics education in primary education (January 2019) (https://gi.de/meldung/gi-veroeffentlicht-empfehlungen-zur-informatischen-bildung-imprimarbereich)

 Recommendations for university studies, education and continuous education in Informatics (https://gi.de/service/publikationen/empfehlungen)

 Common Frame of Reference for Computer Science Education (GeRRI) The GI and the German Association for the Promotion of Mathematical (...) and Scientific Teaching) (MNU) have developed a Common Frame of Reference for Computer Science Education (GeRRI). This frame of reference, divided into the areas of digitalization, automation and Informatics systems, describes how the use, design and reflection of digital systems are interwoven with basic informatics concepts and what contribution they can make to general school education. The reference levels of GeRRI are structurally linked to the Common European Framework of Reference for Languages (CEFR). Levels A1 and A2 correspond to elementary informatics education, which can also be acquired in informal educational processes. Levels B1, B1+ and B2 are related to general computer science education, usually acquired in informatics lessons. The frame of reference was adopted at the GI Presidential Board on 27.6.2019.

 Frankfurt-Dreieck (Frankfurt Triangle) The GI has continued its discourse with scientific representatives of media education on informatics education. After the principles of an interdisciplinary approach to informatics education and media education were conceptualized in the joint Dagstuhl Declaration in 2016, this concept has now been continued with the publication of a further document (Frankfurt-Dreieck, 2019) as the result of a joint WG. Analysis,

reflection, and design will be given to each object of this interdisciplinary approach. The perspectives for consideration are envisaged: Technological-media perspective, social-cultural perspective, interaction perspective.

☐ Charter on digital education (https://charta-digitale-bildung.de) Based on the Dagstuhl (and Frankfurt) Triangle the GI initiated a charter to gain a common understanding on how a good education in a digitally connected world could look like. The charter was signed by more than 200 leaders from politics, academia and business/industry.

o Thought leadership

☐ Position paper on Gender & Diversity within informatics and within the GI (https://confluence.gi.de/display/GD)

☐ 9 claims of the youth on internet governance (https://gi.de/meldung/positionen-desnetzpolitischen-nachwuchses-internet-nicht-den-konzernen-ueberlassen)

☐ Rejection of video surveillance tests at Berlin Südkreuz railway station (https://gi.de/meldung/gi-fachbereich-iug-lehnt-erneute-videoueberwachungstests-ambahnhof-berlin-suedkreuz-ab/)

☐ Young scientists in computer science: precarious conditions endanger Germany as an IT location: https://gi.de/meldung/wissenschaftlicher-informatik-nachwuchs-prekaerebedingungen-gefaehrden-it-standort-deutschland/

☐ Digital supply law: GI demands improvements: https://gi.de/meldung/digitale-versorgunggesetz-gi-fordert-nachbesserungen/

☐ GI supports initiative against backdoors in Messenger apps: https://gi.de/meldung/giunterstuetzt-initiative-gegen-hintertueren-bei-messenger-apps/

☐ Implications of Memristor Technologies for Future Computing Systems: https://shop.vde.com/de/implications-of-memristor-technologies-for-future-computingsystems

o Government engagement/projects

☐ Federal Ministry of Education and Research: Project "Turing-Bus" as a mobile offer to youth to discuss and experience the role of digitalisation and technology in work and society: https://turing-bus.de/

☐ Federal Ministry of Education and Research: Project National Informatics Challenges (https://bwinf.de), cf. section "Social Responsibility"

☐ Federal Ministry of Education and Research: Project #KI50 – Artificial intelligence in Germany, https://ki50.de

☐ Federal Ministry of Economic Affairs and Energy: Project Youth Internet Governance Forum & Summit, https://yigf.de

☐ Federal Ministry of Education and Research: Project KI-Camp – The AI science convention for young researchers https://www.wissenschaftsjahr.de/2019/ki-camp/

☐ Federal Ministry of Economic Affairs and Energy: AI2Ynet – the AI platform from SME for SME (https://ai2y.net)

13.9 Associazione Italiana per l'Informatica ed il Calcolo Automatico (AICA)

(Paolo Schgör, IFIP representative of Italy)

Overview of Society

- o AICA - Associazione Italiana per l'Informatica e il Calcolo Automatico, founded in 1961, is the focal point for digital society stakeholders. It's the most renowned independent and not-for-profit association of ICT lovers and professionals in Italy; its mission is to spread and increase digital culture, knowledge and skills in all scientific, economic, social and educational aspects. Leveraging on European and global relations, AICA is the national bearer of international values and experiences.

- o www.aica.it

- o Italian representatives participate in almost all IFIP Working Groups and AICA has an official representative in every TC.

Key activities this year

- o Annual Congress, 21-22 October 2019, Napoli (https://www.aicanet.it/congresso2019)

- o *Didamatica*, annual conference on e-learning, 16-17 May 2019, Reggio di Calabria (https://www.aicanet.it/didamatica2019)

- o Observatory on Digital Competences: providing an annual report on uptake of digital culture within public administration and enterprises (https://www.aicanet.it/osservatorio)

- o *Mondo Digitale* ("digital world"), cultural magazine dealing with the most up-to-date and wide-ranging topics of the IC, with scientific value but also accessible to non-specialists (http://mondodigitale.aicanet.net/ultimo/index.xml)

- o *Bricks*, online magazine targeted at schools, collecting good practices in didactics and promoting the uptake of digital technologies by teachers and the development of ICT / digital competences by students (http://www.rivistabricks.it/)

- o Activity as a Certification Body: AICA is accredited by Accredia as a certification body compliant with ISO 17024:2012; accredited certification schemes include ICDL Full Standard, e-CFplus, e4job and EPM. The total number of certification tests provided by AICA every year is around 300.000.

- o Training: AICA provides online training contents both related to the above certifications, and in the educational context through train-the-trainer courses; a recent remarkable success was achieved by a new online training on how to involve students in coding.

- o Government engagement/projects

  - Several MoUs with Italian Government (Ministry of Education, Ministry of Labour, different Agencies…) regarding e.g. the International Olympiad of Informatics, contests, awards etc.

13.10 Information Processing Society of Japan (IPSJ)
(Yuko Murayama, IFIP representative of Japan)

Overview of Society

- o Society's vision/mission statement

  IPSJ promotes development of the arts, sciences, industry, and humanity through conducting various activities about information processing with computers and communications and providing resources for discipline and opportunities of cooperation with sister societies to members.

- o Link to Website: http://www.ipsj.or.jp/english/index.html

- o Which Technical Committee Working Groups do your members participate in?

  We have the IPSJ representatives to all the Technical Committees as well as IP3.

Key activities this year

- o Overview

  Information Processing Society of Japan (IPSJ) was founded in 1960 and has 19,862 individual members and 258 corporate members as of March 2019. IPSJ has an objective to contribute to the development of science, culture and industry through the promotion of academic and technical activities in information processing with a focus on computers and communication.

  IPSJ has a broad range of activities including 40 SIGs in the domains of Computer Science, Information Environment and Media Informatics, annual national conventions, hosting of international conferences, contribution to international standards, and contribution to IT education. IPSJ publishes IPSJ Magazines, Journals of Information Processing (JIP), Transactions in 10 areas, Journals of Digital Practices and DP Reports.

  IPSJ aims to enhance its value by providing services to public society such as proposals to Japanese government, as well as extending collaboration with professionals in industry through the event of Software Japan, the communities called IT forums, and the certification of high level IT Professionals called Certified IT Professional, CITP.

  IPSJ has a global relationship with IEEE-CS, ACM, KIISE, CCF, etc.

  Now that Internet of Things, Big Data and AI are popular issues in societies and IPSJ is leading those issues providing events and seminars. Moreover, we have made a great effort to keep the number of members in particular those in younger generation. As a result, we are pleased to report that it stopped decreasing the number of members with a slight increase in 2018.

- o Events
  - o **IPSJ SIGs in 2018**
    - ・40 SIGs (Special Interest Group) in three Domains and 4 small SIGs (Appendix 1)
    - ・Registered Members : 19,862 (individual members) and 258 corporate members
    - ・SIG meetings: 158 times/year ,

      Technical reports 3,421, attendees 8,375
    - ・SIG Conferences & Symposia

22 times held, papers 1,452, attendees 3,967

- o **Annual National Convention (March, 2019)**
  - · National Convention in spring
  - · Generally held in Tokyo area for 3days, but this time in Fukuoka, in southern Japan
  - · 81th National Convention,
  - · March 2019 at Fukuoka University, Fukuoka Prefecture
  - · 1,192 papers presented with 2,905 attendants
  - · KISSE(Korea), CCF(China) and IEEE-CS representatives gave speech.
  - · The event in the main hall was broadcasted by Niconico Internet Broadcasting.
- o **Forum on Information Technology (September 2018)**
  - · National Convention in autumn
  - · Held jointly with IEICE for 3days
  - · Forum on Information Technology (FIT2018)
  - · 19-21 September 2018 at Fukuoka Institute of Technology
  - · 508 papers presented with 1,069 attendants
- o **International Conferences in 2017-2019**

  [sponsored]
  - · **APSEC2018**
    25th Asia-Pacific Software Engineering Conference
    4-7 December, 2018, Nara, Japan

  [technical co-sponsored]
  - · **COMPSAC2019**
    The 43rd Annual IEEE International Computers, Software, and Applications Conference
    July 15-19, 2019, Milwaukee, Wisconsin, USA
  - · **COMPSAC2018**
    The 42nd Annual IEEE International Computers, Software, and Applications Conference
    July 23-27, 2018, Tokyo, Japan
  - · **COMPSAC2017**
    The 41st Annual IEEE International Computers, Software, and Applications Conference
    July 4-8, 2017, Torino, Italy

  [co-sponsored]
  - · **CollabTech 2019**
    The 11th International Conference on Collaboration Technologies and Social Computing
    Kyoto, Japan - September 4-6, 2019
  - · **IWSEC2019**
    The 14th International Workshop on Security
    August 28-30, 2019, Tokyo, Japan
  - · **ASP-DAC2019**
    24th Asia and South Pacific Design Automation Conference
    21-24 January, 2019, Tokyo, Japan
  - · **ICMU2018**
    The 11th International Conference on Mobile Computing and Ubiquitous Networking
    October 5-8, 2018, Auckland, New Zealand
  - · **CollabTech 2018**
    The 10th International Conference on Collaboration Technologies and Social Computing
    Costa de Caparica, Portugal - September 5-7, 2018

- · **IWSEC2018**
  The 13th International Workshop on Security
  September 3-5, 2018, Sendai, Miyagi, Japan
- · **HPCAsia2018**
  International Conference on High Performance Computing in Asia Pacific Region
  January 29-31, 2018, Tokyo, Japan
- · **ICMU2017**
  The 10th International Conference on Mobile Computing and Ubiquitous Networking
  October 3-5, 2017, Toyama, Japan
- · **IWSEC2017**
  The 12th International Workshop on Security
  30 August - 1 September, 2017, Hiroshima, Japan
- · **CollabTech 2017**
  The 9th International Conference on Collaboration Technologies and Social Computing
  University of Saskatchewan, Canada, August 8-10, 2017
- · **ASP-DAC 2017**
  21st Asia and South Pacific Design Automation Conference 2017
  January 16-19, 2017, Chiba, Japan
  - o **Global Presentation**
    - · Global relationship event at CCF CNCC2018 (October) with KIISE.
    - · Global relationship event at KIISE KSC2018 (December).
- o Projects
  - o Publication
    - ▪ IPSJ Magazine
      - • Japanese / Monthly
      - • 260 items / 1,100 pages per year
      - • Published as paper magazine
    - ▪ Online Publication
      - • Started online publishing in 2008 through IPSJ Digital library
      - • Available at Apple AppStore
    - ▪ JIP (Journal of Information Processing)
      - • Online English journal
      - • IPSJ Digital Library Open and Free!
      - • http://www.jstage.jst.go.jp/browse/ipsjjip
      - • 75 papers per year / monthly
      - • No.1 ICT English journal in Japan
    - ▪ Transactions （non periodical）
      - • 10 transactions included 130 papers in 42 issues in this year.
      - • Edited by each SIG in Japanese(J) and English(E)
        1. IPSJ Trans on ACS(J/E) Advanced Computing Systems
        2. IPSJ Trans on PRO(J/E) Programming
        3. IPSJ Trans on TOM(J/E) Mathematical Modelling and its Applications
        4. IPSJ Trans on TOD(J/E) Databases
        5. IPSJ Trans on CDS(J/E) Consumer Devices & Systems

6. IPSJ Trans on CVA(E) Computer Vision and Applications
7. IPSJ Trans on TSLDM(E) System LSI Design Methodology
8. IPSJ Trans on TBIO(E) Bioinformatics
9. IPSJ Trans on DCON(J/E) Digital Contents Creation
10. IPSJ Trans on TCE(J/E) Computer and Education

- IPSJ Journal
  - Published through IPSJ Digital Library / Monthly
  - Online Japanese journal / includes pre-prints of JIP
  - 250 papers / 2,200 pages per year
  - Ranked No.1 on Google Scholar "Top publications – Japanese"

  http://www.ipsj.or.jp/english/jip/index.html

  http://scholar.google.co.jp/citations?view_op=top_venues&hl=ja&vq=ja

- o Programming Contest SamurAI Coding
  - The aim is to offer training fields to younger generations.
  - Participants / Teams compete in programming skill, algorithm, and AI strategy.
  - IPSJ held 6th International "AI programming contest" SamurAI Coding 2018-2019. http://samuraicoding.info
  - 45 teams signed and fought for preliminary and World Final.
  - World final on 15th March, 2019 at our National Convention in Fukuoka
- o Social Responsibility
  - o Contribution to ICT Education
    - Accreditation of Higher Education Programs
      - Follow-up of J07 university informatics curriculum based on IPSJ J97 and CC2001-2005.
      - Started J17 investigation for next step
    - Contribution to ICT Education at High Schools
    - JABEE: Japan Accreditation Board for Engineering Education
      - ICT fields - Joint evaluation by IPSJ, IEICE*,IEEJ* and FMES
  - o Junior Membership
    - Students under 20 (including junior school students)
    - Free online magazine and free SIG participation
    - 1642 members in 2018.
  - o Providing Services for Public
    - Proposals for Government
    - IPSJ Technology Road Map
  - o Extending Collaboration with Practitioners
    - Software Japan 2019, Feb, 2019
    - Four IT Forums : Service Science, Universal Design, Contact Center, Study Group and CITP(Certified IT professional)
  - o Contributions to International Standardization

- o Extending Global Collaboration
- o Thought leadership
  - o CITP® accredited by IFIP IP3
    - Certified IT Professional
    - Certified by IPSJ
    - High level IT human resource having competence of ITSS* level 4 or above
    - Equivalent to SFIA* level 5 or above
    - 3-year validity period
    - **Purpose**
      - Visualize high level IT professionals, and raise their social position (establish the profession)
      - Develop IT professional community
    - **Design policy**
      - Make full use of Japanese standards: ITSS and ITEE
      - To be accepted internationally: IFIP IP3 accreditation
    - **Two Operation Methods**
      - Direct Method (from 2013)
        - o IPSJ certifies professionals directly.
      - Indirect Method (from 2014)
        - o IPSJ accredits a certification scheme of a company, then certifies professionals certified by the company indirectly.
    - **Current Status**
      - 9400 CITPs have been certified.
      - 8 internal certification systems of companies have been accredited.
      - CITP Community was established in 2014.
- o Government engagement/projects
  - o Contribution to International Standardization
    - ITSCJ: Information Technology Standards Commission of Japan
      - One section of IPSJ for JTC1 standardization
    - Domestic
      - Number of Committees: 94
    - International
      - Number of Attending Meetings: 240 (per year)
      - Number of Japanese Delegates: 922
      - Number of Japanese Chairpersons:3
      - Number of Japanese Secretariats: 4
      - Number of Meetings hosted by ITSCJ: 7
    - Membership: 63 Companies

13.11 IT Professionals New Zealand (ITP NZ)
(Liz Eastwood, IFIP representative of New Zealand)

Overview of IT Professionals NZ

www.itp.nz

IT Professionals NZ (ITP NZ) is a community of professionals who work in the IT industry and care about professional practice, support professional development, set standards, and work hard to help other members get ahead. With a history spanning 58 years, ITP is the largest and most trusted tech body in New Zealand.

ITP NZ engages with government, the education sector, academia and the public at large to increase the education, professionalism and expertise of those working in the IT industry and advance education across the board in the interests of New Zealand.

ITP NZ also actively represents the profession and the sector on a range of education, policy and standards-setting boards across NZ, such as primary and secondary school curriculum re-development, immigration policy for IT Professionals and more.

ITP NZ offers tertiary degree accreditation aligned to the Seoul Accord (of which ITP is a provisional signatory) and member certification in the form of Chartered IT Professional NZ (CITPNZ) licensed from BCS, the Chartered Institute for IT at SFIA Level 5 and Certified Technologist (CTech) at SFIA Level 3. In addition, ITP NZ promotes IT as a career choice in schools and offers a mentoring programme and many other initiatives.

Individual New Zealand academics at Auckland, Wellington and Waikato Universities actively participate in IFIP Technical Committees 8 and 11.

Events this year

Local events:

141 local events and talks were organised in the last year, all around New Zealand, by the national office and 8 branch committees. Target audiences range from new entrants to senior management and government ministers. Most of these events are free to members. In addition, we run many regular short courses to upskill members and non-members alike https://itp.nz/courses/.

ITx Rutherford 2019:

ITx is the largest independent tech conference in New Zealand and attracts the best innovators, leaders and experts in our sector. **ITx Rutherford** is a spin-off of ITx, running in the year between the major biannual ITx conference.

ITx Rutherford captures the same focus on Innovation, Technology and Education but in more of a retreat format in one of New Zealand's most appealing conference and adventure cities, Nelson. Nelson is best known for its stunning natural landscapes, with diverse geography capturing everything from long golden beaches to untouched forests and rugged mountains. However, it's also home to a thriving tech scene.

ITx Rutherford brings IT professionals, decision-makers, leaders and academics together under one roof. This is where industry, academia and government come together to network, learn and engage.

Social Responsibility

ITP NZ engages with government, the education sector, academia and the public at large to increase the education, professionalism and expertise of those working in the IT industry and advance education across the board in the interests of New Zealand.

Examples of projects are provided in the following sections.

Thought leadership

ITP NZ runs many events with senior thought leaders talking about all aspects of IT, including industry leaders, experts, politicians, senior government officials and others. ITP NZ also hosts technology political debates featuring the ICT spokespeople of all major political parties talking about their policies and direction in relation to information technology, including the main debates prior to the 2017 national elections.

ITP NZ produces a weekly update to members and others about what's happening in the industry, plus produces the widely read ITP TechBlog (https://techblog.nz/).

ITP NZ also appears regularly in national and local media with appearances on TV news, a regular tech slot on radio and being quoted regularly in newspapers and various online news services (tech, business and general).

Government engagement

ITP NZ continues to be at the forefront of sector representation to Government. For example, ITP NZ is a founding member of the *Digital Skills Forum* – a group of senior policymakers from a number of Government agencies and sector bodies working to align skills development initiatives across Government and the private sector. ITP NZ representatives also meet with Government Ministers and other Members of Parliament on a regular basis.

The majority of other engagement has been with the Ministry of Education and related agencies, the Ministry of Business Innovation and Employment (MBIE), Immigration NZ, the office of the Government CIO, Tertiary Education Commission, Department of Internal Affairs, Cyber Security Taskforce, Department of Prime Minister and Cabinet and various others.

Key Projects

Degree Accreditation

The Degree Accreditations Board continued to progress well this year. ITP NZ is a provisional member the Seoul Accord working towards full signatory status. The Accord has appointed reviewers to visit New Zealand and review our processes. The Accord will consider our application and the reviewers' report at the Seoul Accord meeting in June 2020.

Qualifications Review

ITPNZ and the Government's NZ Qualifications Authority National Qualifications Service, as co-developers of sub-degree computing qualifications in New Zealand, have undertaken significant industry consultation and created additional Diploma-level qualifications in **Software Testing** and **Cybersecurity**. This year, we are reviewing all sub-degree IT-related qualifications to ensure they continue to meet industry needs.

SFIA adoption

ITP NZ has supported and promoted the adoption of SFIA by both Government and Industry in New Zealand for a number of years. NZ Government's policy setting agencies have endorsed SFIA as the tool that Government agencies should use for the evaluation of tech skills.

ITP NZ is pivotal in the forming of a SFIA taskforce within Government to increase adoption by government ministries and agencies.

ITP NZ is providing a free service to our Corporate Partners to help establish SFIA-based professional development and career progression programmes within organisations, and is planning to implement SFIA self-assessment later this year or early 2020.

Digital Technologies Curriculum in Schools

ITP NZ has led industry input into what has become a transformational change in the school curriculum in New Zealand, including Digital Technologies becoming a compulsory subject from Years 1 to 10 (Primary School, Intermediate School and early Secondary School).

123Tech Challenge in schools

ITP's TechHub CREST Challenge has now become the highly successful *Tahi Rua Toru Tech Challenge* recently winning the prestigious "engaging NZ in Technology award" at the CIO Awards. "Tahi Rua Toru" translates from New Zealand's indigenous Māori language (te reo māori) to "1 2 3". The name of the challenge was chosen as it represents the inclusive nature of the programme which is available in both English and te reo māori. 123Tech, which is jointly funded by the Ministry of Education and the IT industry, was created to support the introduction of the new Digital Technologies curriculum content which becomes compulsory in New Zealand schools at all levels of primary and high school from 2020.

The challenge takes two different forms, the first sees teams of primary school students undertake activities that teach computational thinking and Digital design principles without the need for a computer. The other format involves students at senior Primary, right through to Senior high school working in teams of 3-4 to identify a problem in their local school or community and solve that with a digital technology solution which they research, design, develop and then test. Students present their work to a panel of judges to compete for regional and national titles.

Now in its second year, the programme currently has over 1,100 teachers and 5,000 students involved in the challenge along with over 200 IT Professionals working as mentors to the students and teachers.

Immigration Qualifications Assessment

ITP provides a Qualifications Assessment for the NZ Government's Immigration authority. This means ITP undertakes assessments for those looking to work in New Zealand to determine whether their qualifications are sufficient. This is a significant project and growing.

ITP has also been successful in having international Seoul Accord-accredited degrees as well as those with CITPNZ (plus a degree) automatically recognised for immigration skills purposes.

Engagement with indigenous New Zealanders (Māori)

ITP NZ has strengthened our engagement with the Māori (indigenous New Zealand) IT community by providing a mentoring programme and working to ensure the organisation, and the industry, was seen to be open and welcoming to people from all cultures and genders.

ITP NZ was honoured by being gifted a te reo Māori (indigenous) name *Te Pou Hangarau Ngaio* which we now use alongside our English name. This roughly translates as the organisation is a central support to its members who are IT specialists. ITP NZ is working on activities to promote the IT profession as a rewarding career option for Māori youth.

13.12 Koninklijke Nederlandse Vereniging van Informatie-professionals (KNVI) (Royal Netherlands Association of Information Professionals)
(Wouter Brongeest, IFIP representative of the Netherlands)

Overview of Society
The Royal Netherlands Association of Information Professionals (KNVI) is a professional association for individuals employed as information professionals or who are interested in this field in all its facets.
The Association has set the following objectives:
   a) Contributing to the professionalization of employees in the field in general and of its members in particular;
   b) Representing the interests of the professional field in the event of (domestic and European) policy changes and exercising control over policymaking;
   c) Liaising with key partners;
   d) Promoting domestic and international cooperation;
   e) Promoting interaction between the members;
   f) Raising awareness among members of their social responsibility;
   g) Providing opportunities for personal certification in accordance with the ISO 17024 standard within the information technology (IT) field.

The Association will attempt to achieve its mission in the following ways:

a) Sharing knowledge, or facilitating such knowledge-sharing, through both face-to-face and virtual meetings (including conferences, workshops, field trips, etc.);
b) Issuing, or facilitating the issuance of, publications relevant to the professional field;
c) Promoting training and education;
d) Collaboration with other domestic and international organisations;
e) Establishing departments, Interest Groups (IGs) and Regions.

At the moment the board members are:
- Chair: Wouter Bronsgeest and Paul Baak (duo-chair)
- Treasurer: John Sudirman
- Secretary: Sandra de Waart
- Board members: Eric Kokke, Tom Dalderup, Marthe Tholen, Nynke Beentjes, Marco Dumont, Tony Wildvank, Hilde Klein.

KNVI has 4500 members. Website: https://www.knvi.nl/

KNVI has four magazines for members to choose from. Non-members can also get these magazines, for a subscription fee.
- AG Connect (https://www.agconnect.nl)
- Informatie Professional (IP) (https://informatieprofessional.nl)
- Overheids Documentatie (OD) (http://www.od-online.nl/)
- IT-Infra newsletter (login members only)

These magazines also publish articles about KNVI and IFIP on a regular basis. Examples are (in Dutch only):
https://www.agconnect.nl/artikel/nieuwe-journal-moet-it-onderzoek-meer-zichtbaar-maken
https://www.agconnect.nl/artikel/ifip-afgevaardigde-wil-nederland-koppositie-teruggeven
https://www.agconnect.nl/artikel/leon-strous-krijgt-hoogste-ifip-onderscheiding

The KNVI has been founded more than 100 years ago. In the beginning of 2017 former Dutch IFIP member society NGI-NGN merged with the smaller KNVI and SOD.

The name KNVI has been chosen, because of two main reasons; First, the 'I' standing for 'Information professional'. This overarching description of the profession makes all member recognise the core of their profession and connects them to the goal of the KNVI-organisation. Second, the long history of information professionals, starting at the beginning of the last century. ICT did not exist yet, but information was the basis for all development in society. The fact that the KNVI has a more than 100 year history makes the organisation a formal Royal organisation.

Part of the legacy of KNVI is the Van Wijngaardenpenning, a prestigious award named after Prof. Dr. Ir Adriaan van Wijngaarden (1916 - 1987). He was the founder of the 'Mathematisch Centrum', now the Centrum voor Wiskunde en Informatica (CWI) and the Nederlands Rekenkundig Genootschap (NRMG), later Ngi, and then Ngi-NGN. He was also one of the founding fathers of IFIP and played an important role in developing the AGOL-60 and AGOL-68 computer language. The award was introduced in 1998 by the former Ngi, and approximately every five years is the prize, a bronze statue made by artist Hanneke van den Bergh, is awarded.

Award winners are Joep van Oosterom, Eckhart Wintzen, Ton Risseeuw, Maarten Looijen (2001), Andrew Tanenbaum (2002), Nancy Lynch and Persi Diaconis (2006), Éva Tardos and John Butcher (2011). In 2016 Sara van de Geer and Xavier Leroy were awarded during the 70th year anniversary of the Centrum Wiskunde & Informatica (CWI) in Amsterdam and celebration of the 100th birthday of Van Wijngaarden[1].

Key activities this year

KNVI has facilitated around **100 events** in the Netherlands in 2018/2019. Some of these events were relatively small scale or working groups of professionals getting together to discuss a specific theme. Other events were large, attracting up to almost 800 participants. In our annual report part some of these events are described.

A small selection of our key events end 2018 and first half 2019:
- Business Process Transformation – Nijkerk (27-11-2018)
- Law meets data science – Tilburg University (29-11-2018)
- Smart Humanity event in Eye Film museum – Amsterdam (13-12-2018)
- Quantum Computing, from theoretical concept to commercial reality (IBM Amsterdam) (22-01-2019)
- Seminar IT Governance Maturity (23-01-2019)
- Limburgs IT event (26-02-2019)
- Common Spring meeting (11-03-2019)
- Service Management day - Utrecht (27-03-2019)
- Privacy Management (16-04-2019)
- CBD: Transition from data driven to data centric (08-09-2019)
- Crowd management and libraries (06-06-2019)
- Quality aspects – durable architectures (13-06-2019)
- Self-Driving challenge (17-09-2019)
- IT Infra day of the year (10-10-2019)

KNVI has also published the **'IT manifest for Government'**, an initiative to make government more aware of the importance of IT and the way IT-projects should and could be managed. As an answer to a governmental report by the 'Commissie

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[1] https://www.cwi.nl/news/2016/cwi-commemorates-100th-anniversary-of-computer-pioneer-van-wijngaarden-special-book-and-
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Elias'- that investigated IT-projects in Dutch government, the KNVI published this short and concise manifest. The main focus points are (1) to choose organisational goals before IT-goals, (2) to co-create on basis of trust, not just in the basis of legal contracts, (3) to choose for smaller project and co-creation in value chains, (4) to put craftsmanship above reputation, and (5) to choose for change and agility above rigid planning processes.

KNVI published a number of **books** over the years:
- Duuren, N. van, Pous, V. (ed.), Multidisciplinary Aspects of Blockchain, deLex B.V.
- Duuren, N. van, Pous, V. (ed.), Multidisciplinaire aspecten van blockchain, deLex B.V.
- Op de Coul, J., Oosterhout, C. van, Werken in een digitale wereld - Het KNVI Competentie Model: Alles over functies, taken, rollen en competenties
- Bronsgeest, W.L., Wesseling, M., De Vries, E., Maes, R., Informatieprofessional 3.0, 2e geheel herziene druk.
- De Pous, V. (red.), Digitaal recht voor IT professionals
- Verhagen, E., Geheugentrommels, CWI
- Bronsgeest, W.L. (red.), Wegwijzer voor Evalueren van IT projecten, Van Haren Publishing.
- Driel, M., Gils, B., Oor, E., (ed.), Wegwijzer voor methoden bij enterprise-architectuur - 2de herziene druk

Soon to be published:
- Duuren, N. van, Pous, V. (ed.), Artificial Intelligence. Expected: January 2020.
- Smits, D., Bronsgeest, W.L. et al. Governance: De menselijke maat genomen. Expected: 14-11-2019
- Bronsgeest, W.L. (ed.), Smart Humanity. Expected: summer 2020

Multidisciplinary Aspects of Blockchain is a book that KNVI distributes for free. In the IFIP newsletter we had a link published for our international colleagues. It has been published as part of a series of the Royal Dutch Society for Computer and Information Professionals. Blockchain, which reportedly changes society as the ultimate disruptor and most important invention after the introduction of the World Wide Web of Internet. Blockchain is a collective term for digital databases, which are distributed, mathematically-protected and chronological in nature.

At least in theory, the technology has the ability to overcome a broad problem: a lack of confidence in digital systems. At the same time, blockchains can initiate new business and process models, because the technology unlocks different ways of organizing, thanks to the immutable registration of traceable data without the intervention of a trusted third party. Money matters without a bank.
The new book is, edited by Natascha van Duuren and Victor de Pous, who also wrote chapters on digital regulation and smart contracts, focuses for the

first time on societal, technical and legal aspects of this peer-to-peer database technology.

An information technology that creates trust and puts an end to bureaucracy seems a valuable but unlikely proposition. Blockchain applications exist and range from the 1600+ virtual currencies to the step-by-step registration of transactions in supply chains. But that is only the beginning. At this time ranks do not close. Some are hesitant and want to see first before believing that blockchain manifests itself as a true game changer, just as the Internet, smart phones and cloud computing turned out to be earlier.

Even pragmatists, however, do not seem to turn against blockchain technology as such. In fact, virtually everyone — executive officer, lawmaker, and politician — are keeping the door open for the very potential of this high-profile technology. While the Dutch central bank (De Nederlandsche Bank) does not consider virtual currencies (fit) to be money, Amsterdam Airport Schiphol was the first European airport to install a crypto ATM, so that passengers can exchange their remaining euros for bitcoins or etherium, and vice versa.

What makes this book special and distinguishes it from other publications on blockchain is the multidisciplinary — societal, technical and legal — approach indeed. This way, everyone who needs a broader and more comprehensive understanding of the technology can benefit.

See: https://www.knvi.nl/nieuws/133746/Multidisciplinaire-aspecten-van-blockchain

KNVI participates in activities in the Netherlands for the **European Computer Driving Licence** (ECDL). KNVI is the owner of the national licence for ECDL.

Furthermore, KNVI was active in implementing the **European Competence Framework (e-CF)**. KNVI is the official national professional organisation that helps implementing this framework. A Special Interest Group of KNVI is active in organising the network and lobbying in Brussels (EU). Members of KNVI have been especially active in contacts about the e-CF framework.

Next to the contacts in Brussels, KNVI has been supporting the **ISO/NEN organisation**, translating the e-CF 4.0 into Dutch. Furthermore KNVI supports different working groups of the ISO-organisation in the Netherlands and in Europe, recently in the further development of ISO 38500.

In the European field, KNVI supports the **Declaration on IT Professionalism for Europe**. We are a member of IT Professionalism Europe (ITPE), a network of leading stakeholders committed to the advancement of IT professionalism in Europe. Recognising that the world is being changed profoundly by new technologies and the digitalisation of industry, and that today's working conditions

and job dynamics are set to change significantly, the ITPE members believe that it is imperative that IT professionalism receives greater focus and priority in Europe as well as globally.
See: http://www.itprofessionalism.org/sign-the-declaration

KNVI participated the 8th-13th of April in the session of IFIP-IP3 during the WSIS-congress in Genève. **World Summit on the Information Society (WSIS)** Forum is a global United Nations (UN) multi-stakeholder platform facilitating the implementation of the WSIS Action Lines for advancing Sustainable Development Goals (SDGs). See also: https://www.itu.int/net4/wsis/forum/2019/

The KNVI has regular talks with policy makers. A selection of initiatives are:
- Involvement in the **Dutch Digital Delta (DDD)** of the Ministry of Economic Affairs. Part of this programme is the *Dutch Blockchain Coalition* and the *Human Capital Agenda (HCA)* of the Netherlands.
- Together with *Business University Nyenrode* we organise a **Master class Digital Leadership**. Twice for professionals and students in the profit sector, and twice for professionals and students in the public sector.
- For the *University of Twente* and *Vrije Universiteit Amsterdam* our members give special master classes ICT, Governance and Innovation.
- Support of the *National Legacy Coalition*
- Support of the *Secure Software Development (SSD)* manifest of the Centrum Informatiebeveiliging en Privacybescherming (CIP)

In the Netherlands, KNVI tries to **liaison with other associations**. Different talks have been initiated to work together with other organisations in the Netherlands. These contacts resulted in joint events and the intention to work together. One example is the partnership of KNVI with the *Foundation for Responsible Robotics (FRR).* The partnership will aid FRR to achieve its mission to shape the future design, development and use of robotics in a responsible way and widen its network of professional practitioners. In turn, FRR broadens KNVI's network into the robotics domain and provides insight into the newest digital transformations.

In 2018 KNVI signed a partnership with the **Digisterker Foudation**, to be able to focus more on developing skills. This foundation runs a digital skills programme in all public libraries in the Netherlands, helping people to develop their digital skills.

Many members of KNVI play a part in agenda setting. In 2019 KNVI, in co-operation with First Life, has two **National Debates**. One on the effects of *Blockchain* (14th of May 2019) and one on *Artificial Intelligence* (8th of October 2019), organised and co-hosted by our Interest Group IT & Law (Victor de Pous and Natascha van Duuren c.s.). KNVI is also participating in the **AI4Good organisation**. Our ambassador Frits Bussemaker is one of the founding fathers of this community, and helps organising international conferences on behalf of IA4Good.

Ethics is a topic KNVI is investing in. KNVI contributes to the Dutch "**Ethical Manifesto for Architects**" and to the development of a Code of Conduct within the EU. The Ethical manifesto is a Dutch national initiative of the professional associations KNVI and NAF and of Sogeti. In the EU, KNVI represents CEPIS in the workgroup of TC 428 on Ethics, thus ameliorating one of the four pillars of IT-professionalism. KNVI stresses in his contributions the importance of open ethical standards and of a practical toolkit for the daily work of information professionals, and proposes a draft of such a toolkit.

KNVI participates with the Koninklijke Hollandsche Maatschappij der Wetenschappen (KHMW) for the **Young Talent Prices and Master thesis prices**.

Young Talent Prices Informatics and technical information science in 2018 went to:
- Malina Chichirău (University of Groningen)
- Joris Goddijn (Eindhoven University of Technology)
- Yannik Marchand (Leiden University)
- Mathias Parisot (Vrije Universiteit Amsterdam)
- Lucas Riedstra (University of Amsterdam)
- Arthur Rump (University of Twente)
- Maarten Al Sadawi (Utrecht Univerity)
- Steven Wallis de Vries (Radboud University)
- Amir Zaidi (Delft University of Technology)

Thesis prices went to:
1st price:
Meike Nauta (University of Twente): Temporal Causal Discovery and Structure Learning with Attention-Based Convolutional Neural Networks

2nd   price:
Govert Brinkmann (Leiden University): Interactive Visualization of Large Networks on a Tiled Display System

3rd price:
Thijs van Ede (University of Twente): Detecting Adaptive Data Exfiltration in HTTP Traffic

KNVI has its own award for active members that help to develop KNVI as an organisation and support the board of KNVI in an exemplary way: the **Jan Boersprijs**. Award winners are:
- 2017   C.P.M. Busker
- 2016   Lex Schampers
- 2015   Tjerk Terpstra
- 2014   Gert de Gruyter
- 2009   Paul Teeuwen
- 2008   Arend Warmels
- 2007   Carel Daams

IFIP events in NL in 2018 and 2019

For 2018 and 2019 one IFIP-event has been organised in the Netherlands (source: IFIP Calendar of Events):

12th International Conference on Graph Transformation, Eindhoven. See also: https://sites.google.com/site/icgt2019/

KNVI plans on some extra efforts to get IFIP events organized in the Netherlands in the forthcoming period. Special attention will be paid to the IFIP jubilee year 2020.

Previous years: 2010 (3), 2011 (4), 2012 (6 incl. WCC), 2013 (2), 2014 (1), 2015 (3), 2016 (1), 2017 (0), 2018 (0), 2019 (1).

Smart Humanity

In 2018, KNVI inspires the profession of the information professional with a new annual theme: Smart Humanity. Smart Humanity emphasises the permanent and central position of humanity in our digital society. Smart Humanity was also the theme of the annual congress at the end of 2018, in Eye film museum in Amsterdam.

Five working groups of KNVI started to discover and define Smart Humanity in 2018, using five different perspectives:
- Smart GLAM (Galleries, Libraries, Archives, Museums)
- Smart Me & Ethics
- Smart Mobility
- Smart Industries
- Smart Cities

In 2019 the perspectives our scholars and professionals are working on the following perspectives:
- SMART CITIZEN (happy civilians and digital participation for all)
- SMART USER (Users and usability, digital skills and inclusion)
- SMART ETHICS (Practical human, 'hectic' ethics for professionals)
- SMART DATA (The wise researcher and data-isme)
- SMART PRO (powerful professionals, and working on competencies & lifelong learning)

What does KNVI mean by **'Smart Humanity'**? A short introduction:

Society is changing under the influence of digital technology, thereby altering the role and position of humanity itself. Opinions on these alterations, however, differ. Some people expect robots and algorithms to take over the world, others envision a beautiful amalgamation of humanity and cybernetics, while yet others imagine humanity using IT to restore polluted Earth to a state of biological balance. No matter which scenario will prevail, humanity is central in our information society and should remain central in all current and future changes.

The role of the information professional is important, but society cannot allow digitisation and these changes to happen without its involvement. Everyone has a responsibility, everyone will have to learn to position themselves relative to technological possibilities. 'Everyone has to develop an awareness of the issues that new technology, new business models and new ways of communication will entail.

The KNVI has put forward and elaborated on the concepts 'Information professional 3.0' and 'Digital transformation' in various policy papers and publications. 'The essence of the first, but especially the second disruptive wave of change has had an unprecedented impact on professionals and the organisations where these people work. The information professional 3.0 carries a great responsibility,' according to Wouter Bronsgeest, one of the two chairmen of the Royal Dutch Association of Information Professionals (KNVI).

Information professionals and KNVI play a vital role in promoting the awareness outside the information professions. It is a role that government and the private sector have not yet adopted and a subject that science has only recently has begun to explore. Smart Humanity means people who are able to use digital developments in society. A society that uses technology in an ethically responsible manner. A society that knows how to balance Earth and its resources. A society which uses technology to stop pollution and depletion of Earth's resources. A society which uses innovation to combat injustices and to give all individuals, without exception, the chance to live a life in dignity.

IFIP, KNVI and Europe

IFIP's IP3 is part of the European initiative IT Professionalism Europe ("ITPE"). This is a network of organisations who are interested in and committed to furthering IT professionalism in Europe and promoting best practice in managing IT staff. The European Competence Framework (e-CF) is a strong component of this and represents the initial focus of ITPE. In the view of ITPE professionalism encompasses not only competence development, skills frameworks and standards but also key topics such as education and training (certification, qualifications, continuous professional development), professional ethics and bodies of knowledge.

The link between IP3 and ITPE is also a valuable connection to the European body of knowledge and the network of the European Commission.

In Europe, KNVI is a member of TC 428: CEN/TC 428 - Digital Competences and ICT professionalism. In this position, KNVI fulfils a key position between TC 428 CEN NEN and IP3/IFIP. Chair of the KNVI Interest Group Digital Skills Liesbeth Ruoff is liaison for IFIP, KNVI and ITPE.

TC 428 organises many expert group sessions, an KNVI-members take part in the sessions.
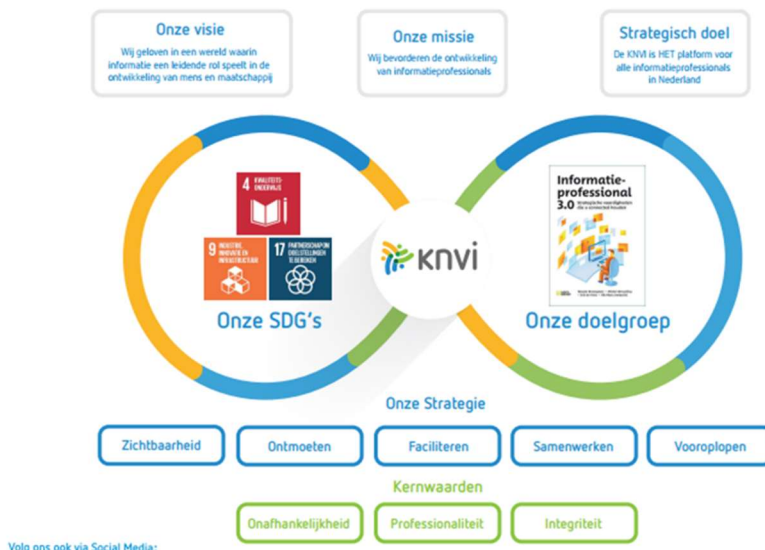
- Bramjan Mulder: Expert group for new e-CF release end of 2019
- Anneke Hacquebard : expert in user support group.
- Liesbeth Ruoff, on behalf of KNVI and IP3: expert groups Datascience, Edison project, Cyber Security and ECSO.
- KNVI also joins more informal working groups in order to do further research into themes like e-leadership, Digiframe, Women in ICT, EuroDig

Sustainable Development Goals (SDG's)

KNVI has integrated three Sustainable Development Goals with the KNVI vision, mission and strategy:
- SDG #4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all,
  Because we believe that the development of Information professionals needs quality education and lifelong learning
- SDG #9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
  Because we believe that digitalisation leads to innovation and a sustainable world
- SDG #17:Strengthen the means of implementation and revitalize the global partnership for sustainable development
  Because we believe we need partnerships to realise these goals.

We have a strategy plan that visualises the way KNVI's vision, mission and strategic goals are interlinked with the SDG's and Information professionals.

SDG's and International initiatives

KNVI and its Interest Group International Liaisons works on two initiatives to help Information professionals worldwide:

- We have an active role in the NGO Climbing the Right Tree. This NGO supports ICT initiatives in Ghana, and recently helped to introduce Exin in Ghana
- We are researching how to get involved in supporting ICT-based projects in West Papua, the easternmost province of Indonesia, working together with SDSP, Foundation for Sustainable Development in West Papua.

IFIP – KNVI members in Technical Committees and Working Groups

KNVI is represented in many TCs and WG's of IFIP.

IP 3 - the International Professional Practice Partnership
Liesbeth Ruoff: Board member
Frits Bussemaker: Member of IFIP/IP3 Global Industry Council, founded by Stephen Ibaraki.

TC-1 Foundations of Computer Science
Jos C. M. Baeten
Jan van Leeuwen
Grzegorz Rozenberg

TC-2 Software: Theory and Practice
Johan Jeuring

TC 3 – Education
-

TC5: Information Technology Applications
Hamideh Afsarmanesh

TC6: Communication Systems
Aiko Pras

TC7: System Modeling and Optimization
Adrie J.M. Beulens

TC8: Information Systems
Henk Sol

TC9: ICT and Society
-

TC10: Computer Systems Technology
Henk J. Sips

TC11: Security and Privacy Protection in Information Processing Systems
Abbas Shahim

TC12: Artificial Intelligence
Joost Kok

TC13: Human-Computer Interaction
Regina Bernhaupt

TC14: Entertainment Computing
Matthias Rauterberg

KNVI – representation in IFIP GA

In 2017 Leon Strous handed over the GA representation to Wouter Bronsgeest, chair of KNVI. During 2017 and 2018 they had bilateral meetings with a number of official TC representatives for the Netherlands. These meetings were very useful to learn first-hand what issues are keeping them busy. In 2018 these meetings were continued. The rich collection of comments and suggestions are not only useful for the KNVI in its relationship with the TC representatives but are also very useful for IFIP, both for the member societies and for the TC's.

Furthermore, the KNVI installed a new 'Special Interest Group'(SIG) in May 2018: SIG International Liaisons. Members are:
- Leon Strous (Chair)
- Klaas Brongers
- Frits Bussemaker
- Liesbeth Ruoff
- Jos Timmermans
- Perry Moree
- Wouter Bronsgeest

This SIG has the objective to co-ordinate the international activities of KNVI, support other SIGs of KNVI with their international activities and advise the chairman of KNVI on a variety of international matters. Co-ordination is important, since next to the IFIP membership, KNVI is also member of CEPIS and represented in IFLA (International Federation of Library Associations and Institutions) and ECDL (European Computer Driving Licence). The ECDL is transforming into ICDL, focussing more on information and integration of digital skills.

KNVI has several members active in the international arena of ICT organisations. The chair of the Advisory Committee of KNVI is Marietje Schaake (until summer 2019), member of the European Parliament and responsible for the European Digital Agenda.

Based upon the talks with the Dutch representatives, there are a few topics KNVI wants to address in this annual report relevant for the General Assembly of 2019. Most of these topics were already addressed in our annual report for GA 2018. We bring them again (updated) to the attention of GA because we feel there is still a lot of work to be done on the issues raised.

A. Open access for scientific publications

Comments

KNVI supports the vision of the European Union, as put down in the Horizon 2020 programme and the views on Open Science (see: http://ec.europa.eu/programmes/horizon2020/en/h2020-section/open-science-open-access). Also researchers and research institutions start initiatives (see for instance the Fair and Open Access Alliance https://fairoa.org/). IFIP should not lag behind, and Dutch representatives of IFIP address this as one of the 'top-of-mind' issues for IFIP. Open access does not have to be for free but pricing should be open and transparent and moreover fair compared to the work to be done for publishing, promoting and indexing papers / books. IFIP should become less dependent on commercial publishers and speed up initiatives to realize this.

Suggestions

1. IFIP should not be a follower of the discussion but take a pro-active role and initiate and guide discussions, e.g. in co-operation with organisations such as UNESCO. Talks to the IFIP publisher and other publishers about future options and models should be continued.

2. Consider options for a financial model for IFIP where IFIP no longer needs income from publications for the operational expenses.

3. There is an offer from a Dutch TC representative to work on a proposal for the IFIP Publications Committee based on the Fair Open Access Alliance ideas.

4. KNVI urges IFIP to work on a financial model for open access that will also benefit the IFIP Digital Library.
   An example of a useful open access publication is the proceedings of the first conference organized by the Domain Committee on the Internet of Things (IoT). This event was part of the World Computer Congress 2018 and the proceedings include also some WCC sessions (keynote, panel discussion on AI and a session on professionalism). The proceedings can be accessed via https://www.springer.com/978-3-030-15650-3 or http://link.springer.com/openurl.asp?genre=issue&issn=1868-4238&volume=548
   Open access for this book was made possible due to a personal sponsorship of the chair of the Domain Committee but that is not a sustainable model.

B. Status of IFIP in the academic world

Comments

IFIP is seen as the international federation that provides a platform free from political and commercial influences for academics worldwide. Although in principal seen as worldwide some consider the participation from European countries relatively big compared to the rest of the world.

Academics appreciate the IFIP activities and the opportunities to have (their students) papers presented at conferences and the networking with colleagues in IFIP groups. Where some TCs and Working Groups are active and have a prestigious reputation,

others are not active (enough) or the quality of the work is not (perceived as) good enough to compete with conferences of our (bigger) member societies. This is also the case for the flagship events of IFIP. Possible reasons are insufficient consistency in timing, organizational aspects and programming.

Some academics see their volunteer role as representative in a TC as a way to "give back" some time and knowledge to colleagues that also help them in their work.

Suggestions

1. Provide more clarity and easier accessible information about the internal functioning of IFIP: good practises, "job" profiles for TC and WG members, and share information among TCs and WGs about the approach taken by those groups that are successful and have an excellent reputation.

2. Do more quality control on the organization of events and consider for instance the establishment of steering committees for those events that IFIP wants to be acknowledged by the outside world as a series of consistent, high quality, regular editions.

3. Have the groups more explicitly choose for what they want to achieve and what they want to be, e.g. organizer of very high quality events, forum for PhD students, informal discussion group, focus on writing white papers, etc. Being more clear and explicit helps profiling and promoting the group.

4. Increase promotion of the role and unique position of IFIP on a global scale. Using the credit of IFIP organization to establish contacts with a few high impact journals for each of the good conferences organized by IFIP members (while each conference will itself provide you with the name of these potential journals). This would help the program committee of the conference with increasing the possibility of publishing 1 or 2 special issues of Journals every year from the extended version of a number of best papers from the conference proceedings. We can then even get to announce the name of these journals in the Call for Paper of our conferences and attract more academic people to the conference.

5. Creating the possibility of partially covering the financial risk that may be encountered by a well-established IFIP conference for a year or two by its related TC. For instance this can be supported through yearly savings from the conference's contribution to its related TC.

6. Finding a way to have all IFIP proceedings indexed by the ISI Web of Science. Currently, proceedings published by Springer are automatically indexed by SCOPUS, but not by Web of Science
(We are aware that conferences sponsored by IEEE are automatically indexed all the time, without any action from the organizers. So, we guess that IEEE has established some direct channels with ISI/Clarivate. Therefore, we hope that the same would be possible for IFIP (perhaps via Springer). This is very important for the academic people attending our conferences, as many universities give preference to the publications in Web of Science.)

C. Link between IFIP and member societies

Comments

TCs and WGs (and representatives / members) could cooperate more in a number of ways. Sometimes IFIP groups organize events in the country while the member society is not aware of this. Also on topics of general interest and/or with a big societal impact the interests of member societies and of IFIP are often similar. Suggestions include themes like professionalism, digital society, AI, robotics, Internet of Things.

Suggestions

1. IFIP representatives to liaise with (the board of) the member society more frequent about the output (papers, proceedings, etc.) of both, about developments, reports, requests from government, positions towards government, starting joint activities.

2. Make better use of the communication means of both (journals, newsletters, websites) to promote each other's work.

   A good start has been made by IFIP right after the GA in 2017. A Communications Committee has started, chaired by Max Bramer, presenting the first results in 2018 (website, leaflets, etc.).

3. Following the examples of the IFIP statements on IoT and on eWaste, continue to identify topics where a joint statement could benefit both in their positions towards their constituencies and towards the government / government bodies. Think about concerns with regard to the priorities of governments in funding research, in key areas of attention and in addressing the possible consequences of technological developments.

   An example of an initiative in the Netherlands is the (free available) book on Blockchain that has been published by KNVI and has been distributed via IFIP channels via the IFIP-newsletter. In 2020 KNVI will follow up with a book on Artificial Intelligence.

   Another example is the way KNVI started to promote the theme Smart Humanity, and the way the organisation is involving prominent (IFIP-)members to act as spokes persons to the national media.
   .

13.13 Norwegian Computer Society (NCS)
(Sindre Roesvik, GA representative Norway)

Overview of Society

Society's vision/mission statement
The NCS is the largest special interest society for information technology (IT) in Norway. It is an open, independent forum for Norway's IT professionals and advanced IT users. The society encompasses the IT industry, corporations in general ad research and development institutions. The NCS is an independent and wholly self-financed society with more than 7,500 registered members and more than 1,200 company members.

To offer our members updated information, through our 60 SIGs (Special Interest Groups) within their field of interest and a chance to develop their level of competence through seminars, conferences, colloquium and network building.

Activities towards governmental and political authorities
NCS works toward politicians, governmental and public institutions in order to influence the legislation made in relation to telecommunication and national IT strategies. The Society has a good working relationship with the different sections of the government and is engaged in the follow-up of policy decisions and legislation. NCS works toward putting IT political matters on the national agenda.
https://www.dataforeningen.no

Which Technical Committee Working Groups do your members participate in?
TC1 Foundation of Computer Science
TC2 Software: Theory and Practice
TC3 Education:
Sindre Røsvik, Giske kommune
TC5 Computer Applications in Technology:
Kesheng Wang, NTNU
TC6 Communication Systems:
Finn Arve Aagesen, NTNU
TC7 System Modelling and Optimization
TC8 Information Systems:
John Krogstie, NTNU
TC9 Relationship between Computers and
Society:
Bernt Nilsen, Datakortet AS
TC10 Computer Systems Technology:
Olav Landsverk, NTNU
TC11 Security and Protection in Information:
Audun Jøsang, University of Oslo
TC12 Artificial Intelligence:
Agnar Aamodt, IDI, NTNU
TC13 Human Computer Interaction:
Dag Svanæs, IDI, NTNU
TC14 Entertainment Computing:
Geir Egil Myhre, Bluegarden AS

Key activities 2019
Events
• Software-conference
• Yggdrasil

- Ark
- eHealth
- Make Data Smart
- AI-conference
- Tool-support for Service Management
- Security Symposium
- Cyber-security in the

Board Room
- ERP & ERP-Directions

Social Responsibility
Collaboration with the Norwegian Center for Information Security to teach citizens and SMEs to have better IT security.

Government engagement/projects
Several meetings with the Minister of Digitalisation Nikolai Astrup and with the Ministry of Local Government and Modernisation. Two collaborative projects with the Directorate for Administration and ICT (Difi)

Submissions/hearings:
- Proposal for a new law on the Intelligence Service
- Advice/input to the government's AI strategy

13.14 Slovak Society for Computer Science (SSCS)
(Igor Privara, IFIP Representative of Slovakia)

Overview of Society
o The **mission of SSCS** is to contribute to favourable conditions for the development of informatics and information technologies in Slovakia. The imperative is the support of progressive information methods and technologies in all areas of Slovak economy.

SSCS is constituted as the professional organisation covering all areas of informatics and information technologies, mainly theoretical and applied informatics, computer engineering, software engineering, information systems, communication systems and education. SSCS presents its statements and proposals to the state and public institutions and helps them in coordination and solution of the basic issues of the development of informatics and information technologies. SSCS enables the development of the young people in informatics supporting their participation in professional activities and organisation and support of competitions.

o **Webpage** of SSCS is www.informatika.sk

Key activities this year
o The biggest **event** was the participation of SSCS on the special conference ITAPA 2019 (IT and Public Administration) in May where president of SSCS served as the moderator for three sections on Smart Cities and Regions. He also took part in the final roundtable discussion on the development of public electronic services and the Strategy of digital transformation in Slovakia passed in the Slovak government this year. SSCS also took part on the celebration of 30th anniversary of CEPIS which took place in May in Brussels combined with the discussion of presidents of Member Societies on the future CEPIS strategy 2030. SSCS became the member of the platform slovak.AI with the ambition to contribute to the development of AI in academic and business environment.

o There are three **projects** in which SSCS is actively involved.
The first is the project Digital Skills for Life carried out in Bratislava self-governing region. The project started in November 2016 and will be finished in October 2019. The project is funded by the budget of the region and provides in average four ECDL modules to 600 students of secondary schools in the region and 40 teachers in 8 schools.

The second project is the replication of the first one in the frame of Nitra self-governing region with even more success the in Bratislava region. The project is implemented by very active Accredited Test Centre which has accomplished in half year so much education and so many tests as in Bratislava region for two years.

The third project is the national EU funded project IT Academia
focused on secondary schools and university students with the goal to increase their interest in STEM and IT subjects. Part of the project in cooperation with SSCS provided digital skills with four ECDL modules until now for almost 2.000 students in all regions of Slovakia without Bratislava. The project will last until October 2020 and many more students are eligible to get certification of the acquired digital skills.

o The strongest example of **social responsibility** is the support for the Olympiad in Informatics starting from the local rounds, eight regional rounds and National Olympiad in March 2019. The winners took part in the International Olympiad in Informatics in Kazachstan. Slovak students usually score very successfully as proved by the gold, silver and bronze medals in last 25 years. SSCS supports the Olympiad by the

organization activities of its members and also financially. This year SSCS has also organized the round of Central European Olympiad in Informatics with active participation of 12 countries not only from Central Europe. The event was rated very high by the participants and their accompanying teachers.

o SSCS has active cooperation with the **Government,** especially with the Office of Deputy Prime Minister responsible for Investment and Informatics. SSCS contributed to the
finalisation of the document Public Procurement in IT where we served as the mediator between the approaches of the IT entrepreneurs and influential NGO Slovakia.Digital. The biggest effort from our side has been invested in the comments to the government Strategy of Digital Transformation and its action plan both passed in the government in the first half of the year. SSCS is also a member of the Implementation group for these documents. SSCS president is the member of the Government Advisory Body on the Digitalisation of Public Administration and Single Digital Market where all the important documents in informatization must be approved.

13.14 Institute of Information Technology Professionals South Africa (IITPSA)

(Rossouw von Solms, IFIP representative of South Africa)

IITPSA is a South African Qualifications Authority recognised professional body, and our professional designation (PMIITPSA) is registered on the National Qualifications Framework. Established in 1957, and registered on 01 April 1958, IITPSA aims to represent the interests of all ICT professionals in South Africa, fostering professional relationships with other like-minded organisations and setting standards of practice, conduct and ethics for the ICT profession. Memoranda of Understanding have been signed with ISACA (SA Chapter), ISC^2 (Gauteng Chapter), the South African Institute of Electrical Engineers, etc. The Institute is also a recognised voluntary body of the South African Council for Natural and Scientific Professions.

Our total membership count sits at a little over the 10 500 mark, with members found throughout the Republic of South Africa, as well as some neighbouring territories (albeit in quite small numbers) – e.g. Namibia, Botswana, Zimbabwe and Swaziland. Our main Chapters (or branches) are found in Johannesburg (Gauteng) and Cape Town (Western Cape), with smaller concentrations in Durban (KwaZulu-Natal) and Port Elizabeth (Eastern Cape).

Society / Institute's vision/mission statement

Vision: To be the best at building and sustaining a professional ICT community.

Mission: Being the authoritative voice of the ICT professional community in South Africa, that leads professional development and good practice in ICT.

Society / Institute's Website
Our Institute's main website is www.iitpsa.org.za
We also run a Women in IT Forum at www.womeninit.org.za

Technical Committee Involvement
IITPSA has appointed country representative in: TCs 2, 3, 6, 8, 9, 11, 12, 13 and 14.

Key activities this year

Events
IITPSA hosts numerous Chapter and Special Interest Group events throughout the year, with our flagship event being the Annual President's Awards held in November. The awards aim to recognise excellence in the management, usage and practice of ICTs in South Africa.

A large South African contingent attended the World Computer Congress hosted at the University of Technology in Poznan, Poland, and the IITPSA GA Representative and the IITPSA CEO were awarded the opportunity to make a short presentation to the General Assembly about the Institute (IITPSA).

One IFIP event was organised in South Africa during the past year:

- IFIP Masters and Doctoral Symposium 2018, 5 September 2018, Johannesburg, South Africa.

Projects

IITPSA continues with its drive to improve gender equality in our profession through its Women in IT Forum, which operates under our umbrella as a Chapter and is geared towards growing awareness and encouraging women to join (and remain in) the ICT profession.

We also continue to work on activities and initiatives to grow the base of holders of our professional designation (PMIITPSA).

IITPSA is again collaborating with the Joburg Centre for Software Engineering at Wits University (JCSE) on an Annual ICT Skills Survey in the country, which is very well regarded.

At the 31 July 2019 Annual General Meeting, IITPSA launched its first full Annual Report of the activities of the Institute, covering the 2018/19 year.

During August 2019, a brand new professional designation for Chief Information Officers was launched by the Institute, and the first six CIOs to be awarded this designation received their certificates at a public launch event

Social Responsibility

In Jan 2017 IITPSA awarded its first ever full bursary to a young black woman studying first year computer science at the University of the Witwatersrand. During 2018, a second bursary award was made to another young black women studying for a Bachelor of Commerce degree in Information Systems at the University of Cape Town. IITPSA also supports approximately ten learners each year at secondary education level by enabling them to study the subject Information Technology online as their schools do not offer IT as a subject. In addition, IITPSA has made a significant research grant to a female Master's Degree student at the Nelson Mandela University in Port Elizabeth.

For the last two years, IITPSA has been a contributing sponsor to the annual South African Computer Lecturers Association Conference (SACLA).

The Institute is also a major sponsor of the annual Computer Applications Olympiad. Both the Computer Applications Olympiad and the Computer Programming Olympiad are run as projects of IITPSA.

Government engagement/projects

IITPSA has nominated representation on the Broad-Based Black Economic Empowerment ICT Sector Council, the South African Bureau of Standards Technical Committees, the Media, Advertising, Information and Communications Technology Sector Education Training Authority (MICT SETA), the University Council of the Vaal University of Technology, and the IITPSA CEO has been the Interim Chairperson of the Governance and Security Chamber of the National ICT Forum which is constituted and run under the (then) Department of Telecommunications and Postal Services.

13.15 Dataföreningen I Sverige (The Swedish Computer Society)
(Jan Gulliksen, IFIP representative of Sweden)

Overview of Society
- Society's vision/mission statement
    A digitalization that empowers people, businesses and society

- Link to Website
    https://dfs.se/

- Which Technical Committee Working Groups do your members participate in?
    o Swedish member of the IFIP GA, General Assembly – Jan Gulliksen
    o TC 1, Foundation of Computer Science – No representative
    o TC 2, Software Theory and Practice – Ivica Crnkovic
    o TC 3, Education – Lena Olsson
    o TC 5, Information Technology Applications – Jad El-Khoury
    o TC 6, Communication Systems – Gunnar Karlsson
    o TC 7, System Modelling and Optimization – No representative
    o TC 8, Information Systems – Anna Ståhlbröst
    o TC 9, Relationship between Computers and Society – Christina Mörtberg
    o TC 10, Computer Systems Technology – Jan Torin
    o TC 11, Security and Protection in IP Systems – Simone Fischer-Huebner
    o TC 12, Artificial Intelligence – Amy Loutfi
    o TC 13 Human Computer Interaction – Jan Gulliksen
    o TC 14 Entertainment Computing – Annika Wærn

Key activities this year
- Events
    The Swedish Computer Society organizes over 150 events yearly (group meetings, conferences, training programs and certifications)

- Projects
    Digitala lyftet ("The Digital Lift") for increasing work force digital skills

- Social Responsibility
    The Swedish Computer Society participates in nation-wide campaigns to highlight public awareness of cyber threats.

- Thought leadership
    The Swedish Computer Society is a major player on the Swedish market for lifelong learning among ITC professionals

- Government engagement/projects
    The Swedish Computer Society is engaged in the EU initiative Digital Skills and Jobs Coalition and the CEPIS Digital Skills Task Force

13.16 Schweizer Informatik Gesellschaft (SI)
(Raymond Morel, IFIP representative of Switzerland)

	Geneva, 7th of October 2019

	IFIP General Assembly 12-13 of October 2019
	National Report
	September 2018 – September 2019
	
	Country: SWITZERLAND
	
	Representative **: Raymond MOREL (CH)**
	   Swiss Reps at IFIP GA and member of ILC,
	   DEC, MSA and Board of IP3
	Raymond.Morel@unige.ch

Table of content :

- **The SI (Swiss Informatics Society) :**
    - **the Swiss IFIP Member p2**

- **The Swiss IFIP Committee (SIC) p4**

- **Feedbacks IFIP during 2018 – 2019 in Switzerland**
    - **LEVEL SWITZERLAND p7**

- **Feedbacks IFIP during 2018 – 2019 from Switzerland**
    - **LEVEL INTERNATIONAL p29**

- **Miscellanous - AOB – References p93**

The full report : http://www.ict-21.ch/l4d/pg/file/read/921133/ifip-general-assembly-1213-of-october-2019-national-report-september-2018-september-2019-country-switzerland

13.17 British Computer Society (BCS)
(Andrew McGettrick, IFIP representative of UK)

Overview of Society

To quote from the Institute's Annual Report and Consolidated Financial Statements, dated 31st August 2018:

> The Institute is incorporated by Royal Charter and is a registered Charity [..]. Its objectives are prescribed by the Royal Charter and the main objective is 'to promote the study and practice of computing and to advance the knowledge and education therein for the benefit of the public'. It serves three main constituencies: IT professionals, employers of IT professionals and society at large. Its governing documents are the Royal Charter, Bye-Laws and regulations.

The Society operates through a number of Boards/Committees: the BCS Academy of Computing, the Community Board, Board, the Organisation and Employers Board, the Society Board (established in August 2017), the Registration and Standards Committee, the Risk Audit and Finances Committee, and the BCS Council represents the members and comments on the direction of the Society. The overall purpose is seen as 'making IT good for society'.

The number of members in 2018 was 65,991.

BCS website

This is: www.bcs.org

Technical committee involvement

(A rough outline of) UK involvement in IFIP Technical Committees and Working Groups is identified in Annex A.

Key activities this year

Events

The BCS President, Chris Reed, gave presentations across many countries and identified ethics, including the ethics of AI, and health informatics as key areas.

During the year the Institute through its member groups ran around 60 events per month on a vast range of topics. The events included the UK IT Industry Awards event which aims to celebrate excellence within the IT profession.

The BCS Security & Privacy Executive Committee is planning to address cyber security professionalism and the future of data protection.

Projects

There are various projects to mention, all run under the BCS Academy of Computing, and indeed the Computing At School initiative (CAS) within the Academy:

- CAS membership: Membership reached over 30,000 in August 2018. Over 80% are schooltechers, the remainder being academics or IT professionals. There are now 240 local CAS hubs where teachers meet regularly and there are over 4,200 resources available.

- Network of Teaching Excellence in Computer Science (NoE). Funded by the Department of Education (DfE) this was to encourage both primary and secondary schools towards excellence in their teaching of computer science. It ended on 31st March 2018.

- BCS Teaching Scholarships: This DfE grant is to run teaching scholarships to the BCS for trainee computing teachers for the period 2018-21, each scholarship being worth £28,000 and being tax-free.

- Barefoot Computing: Funded by the DfE this is to demonstrate how learning in English, Mathematics, Science and Hiistory can be improved through the teaching of computer science. Barefioot Computing in Scotland is an extension of the above that operated in Scotland

- Quantum: 'tests worth teaching to' This is funding to CAS from Microsoft, Google and ARM so that teachers can develop and refine classroom teaching materials.

- BCS Shadbolt review: This government initiated review of Computer Science degree accreditation resulted in the BCS piloting a new accreditation scheme at the University of Bath.

Social Responsibility

The Institute continues to issue the Chartered Engineering (CEng), Chartered IT Professional (CITP) and Chartered Scientist (CSci) designations to members who are suitably qualified. Part of the role of the Chartered status is to provide the public with the confidence that individuals possess the competence necessary to carry out tasks.

The Registration and Standards Committee maintains oversight of the Chartered IT Professional status and Registered IT Technician as well as policies regarding membership of the Institute.

The Organisation and Employers Board had a remit to 'champion the involvement of the IT profession and promote the value, innovation, excellence, rigour and creativity of IT for the benefit of society as a whole'.

The new Society Board has taken on responsibility to 'ensure societal activities are effective, impactful and strategic, and champion BCS in civil society'.

Thought Leadership

Four immediate challenges for the Institute had been identified: Education, Capability, Personal Data and Health & Care. Of these

- Education: relates to the education of every child and in particular their proficiency in computing

- Capability: about supporting members through training courses etc and this has involved the Institute in becoming involved in the technician and apprenticeship arenas

- Personal data: concerned with raising awareness of issues associated with the collecting and the use of personal data

- Health & care: addresses the challenging area of health informatics where the Institute wishes to be seen to be active and to contribute

Government engagement/projects

BCS Health & Care continues to have an impact with the launch of the Federation for Informatics Professionals (Fed-IP) in Health and Social Care working with other professional institutions and the National Health Service.

Explanatory Note

The information contained herein relies heavily on the BCS Annual Report and Consolidated Financial Statements for the year ended 31st August 2018.

14. Technical Committee Reports

14.1 TC1: Foundations of Computer Science
(Luis Soares Barbosa, Chair of TC1)

Introduction
Established as Special Group (SG14) in 1989 and approved as a Technical Committee in 1996, TC1 aims at supporting the development of Theoretical Computer Science as a fundamental science, and its engineering, as well as the design of bridges with other sciences and their applications.

This annual activity report, covering essentially the period from 1 July 2018 - 1 July 2019, will be presented to the IFIP General Assembly, to be hold in Kiev, Ukraine, from 10 to 13 October 2019.

Organisation of TC1 and Membership
A number of changes in both the coordination and membership structure of TC1 occurred in this period:

- Luis Soares Barbosa (www.di.uminho.pt/~lsb/), former representative of Portugal and a member of WG 1.03, was elected Chair in January, 24.

- Under his proposal, in the 2019 business meeting, held in Paris on the 14th June 2019, Jacques Sakarovitch, the former TC1 Chair, was appointed, by an unanimous vote, as Vice-Chair specially in charge of the membership process within TC1.

- In June 2019, Thomas Studer, from the University of Bern, was nominated as the Swiss national representative, following the resignation of Gehard Jäger

.
- Joaquim Gabarro, former representative of Spain, resigned as Spain left IFIP.

An up-to-date member list is available from the TC1 web page at ifip-tc1.org. Nominations of representatives for other member societies, as well as membership renovation in general, are currently under process. As this is a time-consuming process that needs to be handled in an informed and smooth way, it was decided to appoint a Vice-Chair specially in charge of these issues. TC1 maintains a web page at ifip-tc1.org, and meets regularly twice a year, alternating a presential meeting, typically co-located with a major Computer Science event, and a virtual one conducted in an asynchronous way, and complemented, if necessary, by a short video conference. The last Business Meeting took place at T_el_ecom ParisTech, Paris during the morning of 14th June 2019.

Working Group administration and dynamics
The scientific activity of TC1 takes places in its Working Groups. All of them have either their own flagship conferences (WG 1.02, 1.03, 1.05) or they are deeply involved in the organization of conferences with which they collocate their own workshops and business meetings (WG 1.03, 1.06, 1.07, 1.08, 1.09, 1.10).

The period covered by this report witnessed the re-establishment of WG 1.10 (String Algorithmics & Applications). Jan Holub, from Czech Technical University in Prague, was elected its Chair for a three years mandate. The re-established WG has 21 members, a new website at http://www.stringology.org/ifip/ and a mailing list. A first meeting will be held in the Summer of 2019.

The following changes in the WG coordination took place:

- In February 2019, Pedro P. Balbi de Oliveira, from Universidade Presbiteriana Mackenzie, was re-elected for a second term as Chair of WG 1.05.

- In June 2019, Sebastian Alexander M odersheim, from Technical University of Denmark, was elected Chair of WG 1.07, replacing Riccardo Focardi.

The list of Working Groups of TC1, with their chairs, vice-chairs and secretaries as of 1 July 2019, is thus established as follows.

WG	Chair / Vice Chair	Secretary
1.02 Descriptional Complexity	Martin Kutrib Rogerio Reis	Andreas Malcher
1.03 Foundations of System Specification	Lutz Schröder Markus Roggenbach	
1.05 Cellular Automata and Discrete Complex Systems	Pedro Balbi de Oliveira Nazim Fates	Katsunobu Imai
1.06 Rewriting	Georg Moser	Martin Avanzini
1.07 Theoretical Foundations of Security Analysis and Design	Sebastian Mödersheim Veronique Cortier	Luca Vigano
1.08 Concurrency Theory	Ilaria Castellani Mohammad Reza Mousavi	
1.09 Verified Software	Jean-Christophe Filli^atre Jim Woodcock	Natarajan Shankar
1.10 String Algorithmics & Applications	Jan Holub	

The up-to-date member lists for each WG are available the corresponding web pages (accessible from the TC1 web page at ifip-tc1.org).

IFIP web page: www.ifip.org/bulletin/bulltcs/memtc01.htm gives the member list for every Working Group as well.

14.2 TC2: Software: Theory and Practice

(Jerzy Nawrocki, Chair of TC2)

IFIP TC2 officers, elected in 2017 and approved subsequently by IFIP

Chair:	Prof. Jerzy Nawrocki, Poznan University of Technology, Poznan, Poland
	Prof. Ina Schaefer, Technische Universität Braunschweig, Germany, was elected chair during the meeting.
Vice Chair:	Prof. Michael Goedicke, University of Duisburg, Germany
	Stefan Biffl, Technische Universität Wien, Austria
Secretary:	Dr. Julia Lawall, Sorbonne Universites / INRIA, Paris, France

New Chairmen of Working Groups:
The TC2 Chair appointed, upon recommendation of TC2, the following persons as the new Chair of a Working Group:

WG 2.2: Antonin Kucera (Masaryk University)
WG 2.4: Philip Levy (Adobe Systems Inc.)
WG 2.11: Jacques Carette (McMAster University).

IFIP Awards:
It was proposed to nominate Michael Goedicke for an IFIP Service Award for his work as Chair, and Robert Wrembel for an IFIP Service Award for his work in organizing the WCC in Poznan.

IFIP World Computer Congress.
Held in Poznan in September 2018. 11 conferences, 2 contests, and participants from many countries.

Recent TC2 conferences.
OSS was located with ICSE (May 26-27)

Next TC2 meeting.
Planned to be in Europe. The date and location will be discussed by email.

Manfred Paul Award.
None seems to have been given out. A strategy for selecting the awardee was proposed by Jane Cleland-Huang and was approved.

14.3 TC3: Education
(Sindre Røsvik, Chair TC3)

1. TC3 meeting held since last report
The annual meeting was organised 27-28 April 2019, Zanzibar Tanzania following the TC3 conference "Sustainable ICT, Education and Learning" - https://suza2019.org/ . The executive committee has had Skype meetings during the year discussing business issues and following upcoming events.

2. Next TC3 annual meeting
Next annual meeting was planned to take place in Mumbai, India in January but an alternative was launched to move it to Genève following the WSIS summit in April 2020. New country representatives: Bent Andresen, Denmark and YounJun Lee, Korea.

3. TC3 Officers
Chair: Mr Sindre Røsvik, Norway (re-elected for 2nd term: 2018-2020)
Vice-chair: Prof. Don Passey, United Kingdom / **chair elect**
Vice-chair: Prof. Rosa M. Bottini, Italy (new from 2019 – and IPC chair for WCCE 2021)
Secretary: Dr. Mary Webb, United Kingdom
Special Consultant: Prof. Bernard Cornu (Liaison), France
Special Consultant: Arthur Tatnall (EAIT Journal), Australia
Special Consultant: Prof. Raymond Morel (Digital equity/security), Switzerland
Other consultants according to priorities.
WG chairs and vice-chairs (see below).

4. In Brief: TC3 Events
2017: WCCE 2017, 3rd to 6th July 2017: Tomorrows Learning: Involving Everyone, Dublin, Ireland
2018: TC3 Open Conference in Linz, Austria 25 – 28 June: Empowering learners for life in the digital age.
2019: SUZA2019 Open conference in Zanzibar, Tanzania 25 – 27 April 2019
2020: OCCE 2020 Empowering Teaching for Digital Equity and Agency, Mumbai, India 6 – 8 January 2020.
2020: Session at WSIS 2020 3rd April and TC3 workshop 4th to 5th in Genève
2021: WCCE 2021 Hiroshima, Japan, 22 – 25 August

5. OCCE 2018
TC3 have decided to have an Open Computer Conference on Education (OCCE) in between WCCE. WGs can and ought to organise workshops on their own or as part of the OCCE. The first conference labelled OCCE was held in Linz in Austria 25 – 28 June 2018: Empowering Learners for Life in the Digital Age – a very well organised conference. According to tradition, TC3 offered a doctoral symposium the day before the actual conference and the approx. 10 students gave good feedback to this part of the event. In addition to conference proceedings, it was produced a post conference Springer book with the title of the conference.

6. SUZA 2019
April 25 – 27 TC3/WG 3.4 organised SUZA2019 "Sustainable ICT, Education and Learning" in cooperation with our partner State University of Zanzibar. This working conference gathered about 40 participants from different continents and included 28 sessions. The conclusion was that this was a fruitful and productive event with a truly international atmosphere.

7. Workshop WG 3.1 – ICT in School Education
The event took place 4 June 2019 in Paris, France under the title "Learning Computational Thinking from Kindergarten to University: Experience reports and scalability".

8. Working groups of TC3

WG 3.1 - Informatics and digital technologies in School Education
WG 3.3 - Research into Educational Applications of Information Technology
WG 3.4 - Professional and Vocational Education in ICT
WG 3.7 - Information Technology in Educational Management (ITEM)

TC3 members are deeply involved in computer science, informatics and not least ICT in education broadly spoken.
Several members are involved in UNESCO activities, EDUsummIT, IOI (International Olympics in Informatics), ISES (Information Security Education & Solidarity) and activities focusing on developing computer science etc. Our aim is to develop further the relations with UNESCO and with IOI.

TC3 emphasize and increase focus on doctoral students by including doctoral consortiums at our events, with a special attention to students from developing countries. For many years, we have received DCSC grants for our events.

➢ https://www.ifip-tc3.org/

WG 3.1 - Informatics and digital technologies in School Education.

Chair: Torsten Brinda (2019 - 2021)
Vice-Chair: Peter Micheuz (Austria)

Social web:
LinkedIn: http://www.linkedin.com/groups?gid=3372223&trk=hb_side_g

WG report: After SUZA2019 28th April 2019

New members:
Ellie Overland (UK),
Yaakov Katz (ISR)

Next events
- OCCE 2020 in Mumbai
- WCCE 2021 in Hiroshima

WG 3.3 - Research into Educational Applications of Information Technology

Officers:
Chair: Cathy Lewin UK (2019- 2021)
Vice/chair: Hasan Selcuk, Czech Republic

➢ *Website:* http://www.ifipwg3-3.org/

New full members:
Hasan Selcuk, Charles University Czech Republic
Therese Keane, Swinburne University of Technology, Australia
Ellie Overland, Manchester Metropolitan University, UK
Amina Charania, Tata Trusts, Tata Institute of Social Sciences, India

Next events
- OCCE 2020 in Mumbai
- WCCE 2021 in Hiroshima

WG 3.4 – Professional, Higher and Vocational Education in ICT

Officers:
Chair: Jaana Holvikivi, Finland (2018-2020)
Vice Chair: Nicholas Mavengere, Finland
Secretary: Marie Collins, Ireland
WG report: 28th April 2019 at AGM 2019
New Member:
Sayaka Tohyama, Shizuoka University, Japan

Next events
- OCCE 2020 in Mumbai
- WCCE 2021 in Hiroshima

WG 3.7 - Information Technology in Educational Management (ITEM)

Officers:
Chair: Prof. Don Passey, UK (1st term from 2017-2019) Vice-chair: Prof. Javier Orosio, ES.

Website: http://www.informatik.uni-bremen.de/agim/ifip/cms/index.php)

The AGM held during SUZA 2019
WG report: 28th April 2019 at AGM 2019
New member:
Paolo Tasato, Italy

Next events
- OCCE 2020 in Mumbai
- WCCE 2021 in Hiroshima

9. TC3 Country Reports
 Some TC3 National Members provide a report about the developments, trends and main successes of ICT in
Education in their country. Such reports constitute a very interesting set of data and facts, in order to have a good and precise feeling of the development of ICT in Education around the world. Vice chair Don Passey edit the reports.

10. Liaison with UNESCO.
TC3 has permanent connection with UNESCO.
- UNESCO representative in TC3: Zeynep Varoglu
- TC3 chair Røsvik and Bernard Cornu (Liaison) follow up cooperation initiatives.
- Bernard Cornu is liaison contact

11. The EAIT Journal
Education and Information Technologies
The Official Journal of the IFIP Technical Committee on Education
ISSN: 1360-2357 (print version)
ISSN: 1573-7608 (electronic version)
Editor in Chief: Arthur Tatnall (Australia) Associate Editors: Bill Davey, Tony Jones
Report added.

12. TC3 Budget.
For 2018 the TC3 fund was as follows:
    2018 Income: € 2 177,50 (WCCE 2017 royalties)
            Expenses: - € 953,30
    2018 Result: € 1 224,20 DCSC support 1 332,31

Development of TC3 Fund over the last years
    TC3 fund on 31st December 2015: 13 001.83 € TC3 fund on 31st December 2016:   8 488.22 € TC3 fund on 31st December 2017: 6 372.70 €

Budget 2019
TC 3 Budget 2019
    1.   Income
        a)   Royalties   €   125 (25% of € 500)
        b)   Event OCCE 2018/ € 2.355 (75% of € 3.140)
    2.   Expenses   - € 1.000
    3.   Result   € 1.480

14.4 TC5: Information Technology Applications
(Tadeusz Czachórski, Chair of TC5)

TC5 meetings
IFIP TC5 EXCOM Teleconference, June 20, 2019, 12:00-14:00 (GMT)
58th IFIP TC5 Full Meeting: September 22th, Poznan 15.00-19.00 POLAND

Next Full meeting: November 2019, Vienna, also a short meeting on 11th October in Kiev
Next teleconference: April 2020

New members:
Klaus-Dieter Thoben (WG 5.7 Vice-Chair for Europe) is the new German representative to TC5.

Change of WG5.5 and WG5.8 chairmanships:
WG 5.5. Prof. Hamideh AFSARMANESH, University of Amsterdam replaced Luis Camarinha-Matos
WG5.8 Dr Georg WEICHHART Flexible Production Systems PROFACTOR replaced Lea Kutvonen
Nominations were approved by TC5 and its Executive Committee

A proposition of a new WG 5.15.
The a pre-demand of Yuko Murayama as the Chair of the IFIP Domain Committee on IT in Disaster Risk Reduction, to transform this Committee into TC5 Working Group on Information Technology in Disaster Risk Reduction WG5.15 was discussed inside TC5. The Committee fully supports this demand and submits it to the Technical Assembly. Sent to TA Chair, Michael Goedicke.

TC5 Officers:
Chair: Prof.   Tadeusz CZACHÓRSKI, Poland
Vice-Chair: Dr. György
                 L. KOVACS, Hungary
Vice-Chair for New Activities and Interdisciplinary Cooperation:
                 Prof. Dr. Dimiter VELEV, Bulgaria
Secretary :   Dr. Philippe DALLEMAGNE, Switzerland
Communications Officer : Dr. Ronald WAXMAN, US
Publications & Events Officer**:** Prof. Gaetano CASCINI, Italy
WG chairs (see below).

Working Groups

WG 5.1: Information Technology in the Product Realization Process, Abdelaziz Bouras

WG 5.4: Computer Aided Innovation, Denis Cavallucci

WG 5.5: Cooperation infrastructure for Virtual Enterprises and electronic business (COVE), Hamideh Afsarmanesh

WG 5.7: Advances in Production Management Systems, Dimitris Kiritsis

WG 5.8: Enterprise Interoperability, Georg Weichhart

WG 5.10: Computer Graphics and Virtual Worlds, Andres Iglesias

WG 5.11: Computers and Environment, Ioannis Athanasiadis

WG 5.12: Architectures for Enterprise Integration, Peter Bernus

WG 5.13: Bioinformatics and its Applications, Kamal Raj Pardasani

WG 5.14: Advanced Information Processing for Agriculture, Daoliang Li

TC5 Budget 2019
Royalties from publications 6 799 euro
Proceeds from activities 11 060 euro
Funded expenses 750 euro

Estimated TC5 Budget for 2020
1. Income
a) Royalties 2000 Euro (25% of 8 000 Euro)
b) Event proceedings 1200 Euro (75% of 1600 Euro)
2. Expenses   3200 Euro
Result   0

TC5 Events organised after GA and AT meetings in Poznan, September 2019

International Conference on Computer and Computing Technologies in Agriculture
CCTA, WG5.14, 15/11-18/11 2018, Nanjing, CN, Daoliang Li

TRIZ Future Conference, **TFC2018**
WG5.4, 29/10-31/10 2018, Strasbourg, FR Pei ZHANG

13th OTM / IFAC / IFIP International Workshop on Enterprise Integration, Interoperability and Networking, **EI2N2018**
WG5.8 24/10-25/10 2018, Valletta, MT, Georg Weichhart

International Conference on Application of Information and Communication Technology and Statistics in Economy and Education, **ICAICTSEE 2018**
TC5, 18/10-20/10 2018, Sofia, BG   Dimiter G. Velev

2018 International Conference on Cyberworlds, **CW 2018**
WG5.10, 03/10-05/10 2018, Singapore, SG Alexei Sourin

4th IFIP Conference on Information Technology in Disaster Risk Reduction, **ITDRR-2019,**
TC5,   09/10-10/10 2019, Kyiv, UA, Dimiter G. Velev

TRIZ Future 2019, **TFC2019**
WG5.4 09/10-11/10 2019, Marrakech, MA, Rachid Bemoussa

20th IFIP/Socolnet Working Conference on Virtual Enterprises, **PRO-VE 2019**
WG5.5, 23/09-25/09 2019 Turin, IT, Luis M. Camarinha-Matos

Advances in Production Management Systems, **APMS**
WG5.7 01/09-05/09 2019, Austin, US, Farhad Ameri

9th IF AC Conference on Manufacturing Modelling, Management and Control MIM 2019, **MIM 2019**
WG5.7 28/08-30/08 2019, Berlin, DE, Dmitry Ivanov

Asian Pacific Conference of Prognostics and Health Management 2019, **PHMAP19**
WG5.7, 21/07-25/07 2019, Beijing, CN, Zongchang Li

IFIP 16th International Conference on Product Lifecycle Management, **PLM2019**
WG5.1 08/07-12/07 2019, MOSCOW, RU Clement FORTIN

Doctoral Conference on Computing, Electrical and Industrial Systems **DoCEIS`19**
WG5.5 08/05-10/05 2019, Caparica (Lisbon), PT, Pedro Miguel Ribeiro Pereira

Approved TC5 events in the nearest future (2019-2020)

4th IFAC Workshop on Maintenance Engineering, Services and Technologies **AMEST 2020**
WG5.7 10/09-11/09 2020, Cambridge, GB, Ajith Kumar Parlikad

Doctoral Conference on Computing, Electrical and Industrial Systems, **DoCEIS`20**
WG5.5 06/05-08/05 2020 Caparica (Lisbon), PT Pedro Miguel Ribeiro Pereira

INTERNATIONAL CONFERENCE ON INTEROPERABILITY FOR ENTERPRISE SYSTEMS AND APPLICATIONS **IESA2020**
WG5.8, 26/03-27/03 2020, Tarbes, FR, Bernard ARCHIMEDE

9th International Precision Assembly Seminar **IPAS 2020**
WG5.5 15/03-18/03 2020 Kitzbuhel, AT, Nancy Martin

International Symposium on Environmental Software Systems 2020 **ISESS 2020**
WG5.11, 05/02-07/02 2020 Wageningen, NL, Ioannis Athanasiadis

International Conference on Application of Information and Communication Technology and Statistics in Economy and Education, **ICAICTSEE 2019**
TC5, 24/10-26/10 2019, Sofia, BG, Dimiter G. Velev

14th OTM/IFAC/IFIP International Workshop on Enterprise Integration, Interoperability and Networking, **EI2N 2019,** WG5.8, 23/10-24/10 2019, Rhodos, GR, Georg Weichhart

International Conference on Intelligent Agriculture **ICIA,**
WG5.14, 18/10-21/10 2019, Beijing, CN, Daoliang Li

Number of events: 21 (approved: 21, rejected: 0, undecided: 0)

14.5 TC6: Communication *Systems*
(Burkhard Stiller, Chair of TC6)

This report summarizes major TC6-related topics that are considered relevant for the IFIP GA in 2019. Additionally it does provide key details regarding the organization of conferences, since these determine the flagship events of IFIP TC6 and key Working Groups.

The major publicly is still available information set is technically maintained at the following URL by the University of Hamburg: https://ifip.informatik.uni-hamburg.de/ifip/tc/6 and received input from all TC6 officers as well as national representatives, who own a personal log-in. Major IFIP TC6 events — including the IFIP Networking flagship event — and related information are available besides a welcome to all active TC6 Working Groups:

Working Group 6.1 : Architectures and Protocols for Distributed Systems
Working Group 6.2: Network and Internetwork Architectures
Working Group 6.3: Performance of Communication Systems
Working Group 6.6: Management of Networks and Distributed Systems
Working Group 6.8: Mobile and Wireless Communications
Working Group 6.9: Communications Systems for Developing Countries
Working Group 6.10: Photonic Networking
Working Group 6.1 1: Communication Aspects of the E-World
Working Group 6.12: Services-Oriented Systems

Relevant events, officers, and members are listed and made available in their main function as well as with important details on the events themselves.
Note that due to retirements of past TC6 members within the last 12 month

s a number of changes within the organization of TC6 have started to be implemented, which includes the set-up of new mailing lists with certain groups of people, the clearing of member lists of Working Groups, and the formal confirmation of roles held of people involved within TC6. This procedure had started and is not yet completed.

In Memoriam
Unfortunately, during early 2019 one of the three past IFIP Networking 2018 T PC Co-chairs, namely James P.G. Sterbenz, The University of Kansas (KU), Lawrence, Kansas, U.S.A., had passed away unexpectedly. The community did remember his dedication, his pinpointing way of addressing technical problems — among other events especially in Zürich, while organizing and running a panel on IOT to be remembered — and his support and discussion with colleagues on their various research and career paths.

During the IFIP Networking 2019 event in Warsaw, Poland (see below) James' field of research was memorized specifically via a small exhibition of papers over-viewing his research, combined with a poster, and an obituary within the program's booklet. This text is attached to this report as an annex in memory of a phantastic, open-minded, helpful, and technically always up-to-date colleague of the TC6 community of Communication Systems.

Major TC6 Conferences

As indicated, the TC6 Web site as indicated above does list all events from TC6 and relevant details may be accessed there.

The TC6 flagship conference "IFIP Networking" took place in Warsaw, Poland, in May 20-22, 2019 with the General Chair Krzysztof Szczypiorski, Warsaw University of Technology, Poland. Thus IFIP Networking 2019 event did see 3 keynotes from academia on "New Research Directions in Routing: Beyond Sequence Numbering, Routing Modalities, and Destination-Based Routing Table", "Toward Self-* Networks", and "User-centric Privacy and Security in the Networked World" complemented with a little smaller program this year within one track and with overall 7 full paper sessions and a poster session.

While the general information on the IFIP Networking series are accessible at https://networking.ifip.org/, all further details on IFIP Networking 2018 are available at the URL: http://networking.ifip.org/2019/ .

Additionally, the long term IFIP Networking Steering Committee Chair Jordi Domingo-Pascual, UPC, Spain had been acknowledged for his dedication to prepare, run, and supervise the past IFIP Networking events closely. After his term, by now the new IFIP Networking Steering Committee Chair became Andrea Passarella, IIT-CNR, Pisa, Italy, who was welcomed cordially during the past IFIP TC6 Meeting, collocated with IFIP Networking 2019 in May 2019 in Warsaw.

TC6 Support of the IFIP Domain Committee for IOT

The Domain Committee for IOT had been founded by Leon Strous and the TC6 participation included Tibor Cinkler, Augusto Casaca, and Neuman Souza in 2017/18. After the first conference on "First Cross-domain IFIP Internet of Things (IOT)", which took place last year within the context of WCC2018 (IFIP's World Computer Congress) during September 17-21 , 2017, the 2nd IFIP International Internet of Things (IOT) Conference will take place October 31 to November 1, 2019 in Tampa, Florida, U.S.A. One of the program co-chairs for this follow-up event was appointed from TC6 again: Augusto Casaca, INSEC-ID/INOV, Portugal. Congratulations!

IFIP 'TC6 Open Access Digital Library

In view of the past 2018 report of TC6 no dedicated news have to be added to those past statements made wrt the IFIP TC6 Open Digital Library (accessible at the URL: http://dl.ifip.org/). Still, it is of crucial importance for TC6 as well as IFIP as a whole.

The current DL is still a very important source of research papers and research findings, which mainly contains and maintains TC6 papers, but is — as usual — open to other IFIP TC events. Since no complete progress had been made to migrate reliably all existing data and material to the new INRIA-HAL library, the former IFIP TC6 Chair Aiko Pras still maintains the inclusion of new proceedings within a few hours (highly efficient), while an e-mail sent to him - including the conference data, PDF papers, and minimal meta data — enables such a step effectively. This is incomparable fast and very reliable.

General Observations

Unfortunately, the past year's trend of smaller participations of TC6 supported events — as seen with many other societies' events, too — had not been stopped. TC6 was

able to put force on the quality argument, such that an event cancellation was considered better than running a way too small event. Still, travel funding restrictions of TC6 representatives may be considered as one major reason for that situation, but a vast amount of competitive and keyword-driven, short-termed pop-up events are happening, too, which do not care that much about any society labeling and branding, while indicating explicitly here that not only IFIP is effected by that.

It may be suggested to consider — from an IFIP perspective — an additional service for IFIP Events, such that a financial support may be granted. There are, indeed, a wider variety of alternative paths to think about and discuss, however, a comparative view on the different IEEE societies and the ACM indicate that risk mitigation measures for smaller events or even larger ones show at this very moment some measurable advantages for event organizers with them. This is especially important during times, where organizations typically those from which the General Chair originates from — are hesitating to take financial risks on the organization of events. It is very clear at the same time that such a decision cannot be taken out of the blue and that drawbacks and advantages will have to be discussed carefully, while exploiting potentials and mitigating organizational risks at the same time.

Furthermore, the general problem to find reliable experts to review papers at a quality level which benefits the IFIP Event and the authors submitting a paper continues to exist. The incentives for individuals to perform a "free" review differ vastly, but cannot be controlled by any means, except by a quality and visibility perspective. Nevertheless, many dedicated community members invest time, effort, and expertise in the respective IFIP events, their supervision, and support to counter-attack this trend.

The participation in TC6 in general, the take up of officers' into existing positions, replacing people due to end of term elections, and the support of events as such can be considered as successful. However, the reduction of IFIP member states — and the respective IFIP bylaws — does lead to situations, where active people and personnel cannot be re-elected in the future. Thus, the future may guide IFIP in general and the TCs to situations, where the pool of experts will shrink due to budgetary restrictions, way outside the control of IFIP itself. Nevertheless, it is recommended that the IFIP GA will discuss and consider new paths of making IFIP attractive to the research at the base of the community! Only if the individual will see a valuation of his/her work, an attachment to the society can be created and a future advertising will happen under positive constraints.

Unfortunately, the role of National Representatives as defined within the IFIP Bylaws seems to lead to more "quiet participations" than active ones. This basically means that for an ever growing number of existing National Representatives — here especially within the TC6 case — the set of active members shrinks, too. A visible number of those does not even interact via e-mail or react on TC6 mails and information some now for years. Thus, the existing rules and regulation may have to be considered in such a way that inactivity should potentially lead to decisions to be prepared and taken, which are clearly not in favor or inactive representatives, while at the same time TC started a process, as indicated above, to identify the current situation's details and reasons in full.

General Perspective

The future for TC6 as a technical committee with those working groups listed above can be considered for the next years as still reliable and most likely successful, since a core of WG officers and National Representatives show dedication, support, and interest. Thus, these persons shall be addressed within this annual report for TC6 with a wholehearted Thank You! We all know that next steps and future ideas' implementations only work if after a discussion someone takes the proposal and implements it.

The involvement of new, young members, and professionals, however, still needs to see a continued action — although TC6 did see some election results on that side already. Thus, only if young members do see the advantages of a TC, a Working Group, or IFIP as a whole, they can live in that spirit and dedicate some of their time to that type of community work. Therefore, learning on how to attract and win new members in the future is one piece of a larger puzzle.

14.6 TC7: System Modelling and Optimization
(Łukasz Stettner, Chair of TC7)

There was not too much activities since Committee used to work biannually and this year was mainly devoted to prepare activities in 2020.

Major prepared activity for 2020 is 29th biannual IFIP TC7 Conference on System Modeling and Optimization to be held in Quito Ecuador, on the campus of the Escuela Politécnica Nacional from August 31st to September 4th 2020 (see webpage https://modemat.epn.edu.ec/ifip_tc7_2020/general_information).

The local organizer is Juan Carlos de los Reyes Chair of Centro de Modelización Matemática (MODEMAT) in Escuela Politécnica Nacional. All members of TC7 were involved in selection of plenary speakers. After a discussion the following procedure was accepted: we allowed local organizers to choose 5 speakers (mainly from Central and South America) and then we had an internet voting for another 4 speakers (at the first stage the names of potential speakers were collected and then we had a secret internet voting).

Right now all speakers are nominated and we started to share the information among all former participants. TC7 has also its own webpage http://ifip-tc7.impan.pl/ .

There is a discussion about location of the next 2022 IFIP TC7 Conference on System Modeling and Optimization. One of the possibilities is Warsaw using facility of Warsaw Technical University.

The Working Groups were not very active in the above-mentioned period.

We have 8 Working Groups. Last year we suspended Working Group 7.1 Modeling and Simulation, changed Working Group 7.7, Stochastic Control and Optimization and opened Working Group 7.8 Nonlinear Optimization. These groups are after finishing some organization works are planning to start with activities in January 2020.

Working Group 7.7 is organizing a school at University of Leeds ('Leeds Winter School on Theory and Practice of Optimal Stopping and Free Boundary Problems' (LWSOSFBP)), with organizer Tiziano De Angelis - event no. 04407.

Working group 7.8 is planning to organize a workshop in January 2020 currently we are organizing a joint workshop with the new WG 7.8 on Nonlinear Optimization in January 2020 in Essen (https://www.uni-due.de/mathematik/agclason/ifip2020.php) jointly with Working Group 7.4 Inverse Problems and Imaging (which organized former IFIP TC7 Conference).

The working group WG 7.2 is organizing workshop at WIAS in January (28th-30th), 2020 on "PDE-constrained optimization under uncertainty".

The working group WG 7.3 Computer System Modeling held its Performance Conference on June 24-28 in Phoenix, AZ, 2019.

The Working Group WG 7.5 Reliability and Optimization of Structural Systems is organizing the 20th IFIP WG7.5 Conference will be held in Kyoto, Japan, in August 2020 (the organizer of the conference is Prof. Chul-Woo Kim (Department of Civil and Earth Resources Engineering, Kyoto University).

I have no info about working groups 7.6. Shall try to contact the chair personally.

Summarizing working groups by various reasons were not very active in 2019 but are planning to enhance their activities in 2020.

14.7 TC8: Information Systems
(Isabel Ramos, Chair of TC8)

The 50th meeting of the National Representatives of Technical Committee 8 took place in Stockholm, Sweden, June 15, 2019. In the meeting the various action-items defined in the 49th meeting were discussed by the attending members. The main acumens from the discussions are:

- The TC8 working groups reported about their activities as usual. They all are active in implementing annual conferences and workshops.

- The new WG 8.12: Industrial Information Integration will organize its first conference in 2020, on March 2020 in Dubai.

- TC8 nominated Ulrike Schultze for the IFIP Silver Core in 2019.

- The TC8 Summer School took place in Acra, Ghana, on June 19-20, at University of Ghana. It was held in conjunction with the WG8.6 working conference "ICT unbounded, Social Impact of Bright ICT Adoption".

- In the 50th TC8 meeting, the attending members focused the vision for the future. From the brainstorming session the following guidelines emerged:
  - TC8 WGs conferences should explore formats that encourage collaboration (ex: workshops to develop the writing skills of young researchers; workshops to develop ideas that can be implemented in developing countries);
  - TC8 will collect and disseminate opportunities to support visiting scholars offered by universities;
  - TC8 will be more active in disseminating information about the WGs' conferences;
  - Whenever feasible taking into consideration the local availability to manage effectively the logistics of the conference, WGs are encouraged to organize their events in developing countries.

- Pending budget approval, the following were adopted as continuing initiatives for the upcoming year :
  - 3000 € for continued improvements and operations for the TC 8 Website.
  - 4000 € to support the attendance of colleagues from developing countries that get papers accepted at TC 8 conferences. Each WG can apply for 1000 € to fund the travel of a colleague from a developing country to present his or her accepted paper at the WG's conference.
  - 6000 € to support summer program for PhD students at universities in developing countries.
  - 1000 € for WGs trying new conference formats that differ from the traditional predefined theme and tracks, proceedings, fixed time, fixed location format.
  - 1000 € to support the attendance of colleagues from developing countries to the TC8 meeting.

14.8 TC9: ICT and Society
(David Kreps, Chair of TC9)

Overview
- IFIP – CSTD Collaboration begins with AI & Ethics presentation in Geneva
- WG9.4 on ICT4D conference in Tanzania
- IFIP Position Paper on E-Waste
- Many people involved in TC9 are in demand for working collaboratively with other events/associations e.g., ETHICOMP, ICT4S, IS4IS and AIS events outside of IFIP.

Activities upcoming 2019-2020
- HCC14 in Tokyo, Japan, Sept 2020, hosted by IPSJ Rep to TC9, Taro KOMUKAI, and co-Chaired with long-time Indian TC9 member Gopal TADEPALLI
- WG9.7 lead a project to create a TC9 book, with chapters from each WG
- Continued development of new TC9 website
  - TC9 Working Groups lining up to hold workshops alongside HCC14
    - WG9.1 – a CNoW workshop
    - WG9.2 – First workshop led by new Chair
    - WG9.5 – First workshop led by new Chair
    - WG9.8 – First workshop led by new Chair
    - Potential UK-Japan Special Interest Group Inaugural Workshop

- Many working groups have other planned events/activities in the agenda already for 2019-2020, including
  - WG9.1 Changing Nature of Work (CNoW) conferences Munich & Marrakech as well as a workshop at HCC14
  - WG9.4 on ICT4D Workshop in UK, Summer 2020
  - WG9.6/11.7 Summer School in Switzerland August 2019
  - WG9.7 Conference Autumn 2020 – potentially co-located with HCC14, or else in Chinao WG9.8 Workshop Autumn 2019
  - WG9.10 Workshop in Namibia 2020

National Societies and International Members at Large
- Written reports received from Australia, France, South Africa, UK(BCS), and
- from ACM.
- Verbal reports from other National Representatives made at the 14th June 2019 TC9 meeting: Finland, Sweden

Working groups and SIG
- Written reports received from WG9.1, WG9.5, WG9.6/11.7, WG9.7, WG9.8 and WG 9.10.
- Verbal reports for WG 9.2, SIG9.2.2 and WG9.4 made at TC9 Meeting 14/6/19
  - WG 9.1 – feared dormant, but communication now resumed
  - WG 9.3 has been dormant for many years
  - WG 9.9 re-established with new Chair at HCC13 – progress slow.

TC9 Activities October 2018 - September 2019
- IFIP – CSTD Collaboration begins with AI & Ethics presentation in Geneva
- WG9.4 on ICT4D conference in Tanzania
- IFIP Position Paper on E-Waste
- National Societies and International Members at Large
- Working Groups and SIG

IFIP-CSTD Collaboration
In May 2019 members of TC9 presented to the United Nations Commission for Science, Technology and Development at the U.N. Building in Geneva, Switzerland.

At the World Computer Congress (WCC) 2018 in Poznan, Poland, September 2018, Shamika N. SIRIMANNE, the Director of the Division on Technology and Logistics at UNCTAD, called for Collaboration between the United Nations Commission on Science and Technology for Development (CSTD) and IFIP. As IFIP is an UNESCO affiliated body, closer links between the organisations are being sought and forged from both directions.

The two priority themes and two additional concerns for the 22nd session of CSTD, in May 2019, were:
- Assessing the impact of rapid technological change on sustainable development;
- Defining the role of science, technology and innovation in building resilient communities, including through the contribution of citizen science.
- Exploring frameworks for monitoring AI and machine learning algorithms;
- Identifying how frontier technologies might increase or decrease existing digital divides.

TC9 was therefore the stand-out part of IFIP that should lead the response to this call for collaboration, and David KREPS, as TC9 Chair, has been responsible for spearheading this response.

As a part of this activity Professor Mike HINCHEY (President of IFIP, President of Irish Computer Society), Emeritus Professor Don GOTTERBARN (ACM Representative on TC9, Chair SIG 9.2.2) Professor Chrisanthi AVGEROU (Past TC9 and WG9.4 Chair), and David KREPS (TC9 Chair) presented to the 22nd Session of the CSTD on the afternoon of 14th May 2019 in the Palais des Nations in Geneva, on the theme of "AI & Ethics in the developing world".

It was an excellent hour attended by over 50 delegates from around the world, along with Shamika SIRIMANNE and representatives from the UN Secretariat.

WG9.4 on ICT4D conference in Tanzania
"Strengthening Southern-Driven Cooperation as a Catalyst for ICT4D" the 15th IFIPWG 9.4 International Conference on Social Implications of Computers in Developing Countries, was held in Dar es Salaam, Tanzania, May 1–3, 2019. The Proceedings published by Springer IFIPAICT, volume 551, which was available as a free eBook download until the end of May 2019. The conference was a great success, and included Robert DAVISON (Chair WG9.4), Richard HEEKS, Chrisanthi AVGEROU, and many scholars from around the developing world, along with a paper delivered over Skype by David KREPS.

IFIP Position Paper on E-Waste
The creation of this IFIP position paper was led by David KREPS. Along with the support of Leon STROUS, (IFIP Past President), contributors over the sixteen months of its development since its inception, following a presentation by David KREPS at the IFIP General Assembly in Colombo, Sri Lanka, September 2017, have included Robert DAVISON (Chair WG9.4), Per FORS (WG9.9), Thomas LENNERFORS (WG9.9), Norberto PATRIGNANI (TC9 Italy), Maja van der VELDEN (Chair WG9.9), and Chris ZIELINSKI (WG9.2), from TC9; George M. KASPER and Ulrike SCHULTZE of TC8; and the Technical Assembly of IFIP, who considered and commented upon a draft at

the TA Meeting on 22nd September 2018. Members of the General Assembly made comment on a presentation by David KREPS of the highlights of this paper at the GA Meeting on 24th September 2018 in Poznan, Poland, after which this final version was prepared, and approved by the IFIP Board in March 2019.

Information and Communication Technologies (ICT) are often presented as tools that are put to use towards desirable outcomes, such as efficiency, development, security, and now also sustainability. ICT for sustainability and Green IT are increasingly promoted as fields that will produce new knowledge for more sustainable products and practices, countering current challenges such as climate change and nonrenewable energy use. In the discourse on the new role of ICT, the sustainability of ICT itself remains invisible. For example, in 2016, the world produced almost 50 million tons of electronic waste, of which a large part is considered hazardous waste. Currently, 80% of e-waste is unaccounted for in terms of sustainable management and recycling [1]. Electronic waste is the fastest growing waste stream. At the same time, there are only five top-of-the line facilities in the world that can recycle e-waste with minimal release of dioxins. The sustainability of the design, production, and consumption of ICT should therefore be perceived as a priority in tackling e-waste. See the Position Paper on the IFIP website or download it direct.

Working Group Activities
- Written reports received from WG9.1, WG9.5, WG9.6/11.7, WG9.7, WG9.8 and WG 9.10
- Verbal reports for WG 9.2, SIG9.2.2 and WG9.4 made at TC9 Meeting 14/6/19

- **WG 9.1** Jungwo LEE, Chair, was not communicating with TC9, for quite some time, and it was decided at TC9 Meeting in June to make a final approach, with a deadline for response, before proceeding with a new appointment. It transpired, however, that the WG has in fact been very active and continues to be so. As a result of the final approach, communication has been reestablished, now, and it is hoped that better engagement will unfold, going forward. We are told, since 2015, "The first meeting of 16 member has now grown to around 80 people gathering up every year, and also many inquiries are being made to us for the workshop and IFIP group as well as topics and issues." The flag ship conference of the WG, CNoW, appears to be very active, and in future these conferences and workshops should be put through the IFIP Event Approval process as normal.

- **WG 9.2 Social Accountability and Computing**: Jani KOSKINEN was elected Chair of this WG at a WG Business Meeting in Stockholm, Sweden, after the June 2019 TC9 Meeting. He attended the TC9 Meeting to get a flavour of TC business.

- **SIG 9.2.2 framework for the ethics of computing**: Don GOTTERBARN, Chair, held a WG Business Meeting in Stockholm, Sweden, after the June 2019 TC9 Meeting. Don presented at Geneva in the 'AI & Ethics' panel for CSTD, and will present to IFIP GA in Kiev, September 2019, on a potential IFIP Code of Ethics.

- **WG 9.4 Social Implications of Computers in Developing Countries**: Robert DAVISON, Chair, made a verbal report in Stockholm, Sweden, at the June 2019 TC9 Meeting.
  - Membership is roughly 50/50 global north and global south - 75-80 membership-qualifying participants

- o Conference is steady at 150 people. Tanzania conference a success.
- o Hoping to go to South America for next biennial conference; 2007 in Rio; 2021 maybe in Lima, (Kenya and South Africa also bid but willing to delay).
- o This could potentially be an HCC15/9.4 joint conference if things go well with CSTD.
- o No clash with Japan in 2020 as this would likely be a rather different
- o set of people for HCC.

- **WG 9.5** A proposal to change the name, aims and scopes of this WG to reflect changes in the world since its revival with the current name, aims and scopes in 2008 was put forward by the new WG Chair in the Autumn of 2018, following the last TC9 Meeting in Poznan, Poland, at WCC. This change is key to the WG's promotion of a revamped working group and they would therefore like it to happen asap. However, the plan to present the new name, aims and scopes at a planned virtual TA Meeting in March 2019 could not take place, as no virtual TA Meeting took place. Eduard DUNDLER then suggested, at the TC9 Meeting in Stockholm in June, that the proposal could be circulated amongst the membership of the TA by email, with a deadline for objections, and this was undertaken by the TC9 Chair in July. However, at the point of announcing no objections had been received and the proposal should be carried, TA Chair intervened, asserting that the proposal be presented to TA Meeting in Kiev in October. Hopefully then the rebooting of WG9.5 will finally be able to begin from October 2019.

Working groups either dormant or in the process of revival
- **9.3 Computers and Home**. **Relaunching 2019/20.** David KREPS (TC9 Chair) and Oliver BURMEISTER (Australia Rep on TC9) will seek to relaunch WG9.3 looking into Smart Homes, during the course of 2019/2020, with a new name: "Intelligent Communities." Proposal to be put to TA Meeting in Kiev in October.

- **9.9 Sustainability and ICT**. **Relaunching 2019/20.** Maja van der VELDEN hasagreed to Chair and relaunch this Working Group beginning in 2019/20.

Status of WG chairs
- **TC9: Chair began first term 1.1.18.** Vice-Chair appointed Jan 2018. Secretary appointed September 2018.
- **9.1: Chair began second term 1.1.19** Jungwo LEE Chair since 1.1.16 (appointed Dec 2015)
- **9.2: New Chair to begin first term 1.1.20**. Jani KOSKINEN (appointed June 2019)
- **9**.3: **Chair began first term 1.1.19** David KREPS
- **9**.4: **Chair began first term 1.1.18**. Robert DAVISON (appointed May 2017)
- **9.5: Chair began first term 1.1.19**. Petros CHAMAKIOTIS, Vice-Chair Brad McKENNA, Secretary Kathrin BEDNAR
- **9.6: Chair began first term 1.1.18**. Kai RANNENBERG
- **9**.7: **Chair began first term 1.1.18**. Chris LESLIE
- **9**.8: **Chair began first term 1.1.19**. Sisse FINKEN, with VC Johanna SEFYRIN and Secretary Charles ESS leading the relaunch of this WG.
- **9**.9: **Chair began first term 1.1.19**. Maja van der VELDEN
- **9**.10: **New Chair to begin first term 1.1.20**. Brett van NIEKERK (appointed June 2019)

National computing societies and International Members at Large

Some national representatives have expressed interest in being more involved and to feed their countries' input into the upcoming trends and directions. There have been some changes in representation, and some countries that had representation have yet to propose new representatives. TC9 Chair trying to encourage this.

- New Representative for France, Dominique DESBOIS, in good contact with TC9, including addition of many relevant publications to TC9 website, and activities in CREIS http://www.lecreis.org/
- Still exploring possible replacements for Dutch and Canadian representatives.

- **Kai Kimppa– FIPA (Finnish Information Processing Association)**. Finnish society new Chair is active and keen. May adopt ACM code as Finnish Code – funding for translation being sought.

-
- **Christina Moertberg** – **Sweden** – reporting through Johanna SEFYRIN - she's trying to retire, and therefore trying to find a replacement for her, in the Swedish Information Society (Dataföreningen).

- **Jackie Phahlamohlaka** – **South Africa**. SA had a strong representation at the gathering in Poland.

- **Don Gotterbarn -** ACM. Updated ACM Code of Ethics reported in Poznan, as part of keynote to HCC13. This Code was created with some 100 countries involved as an international code, with the ACM just the first to publish it. Now the Finnish Computer society is looking to adopt it and several other organisations – 'ACM' appears 4 times in the code and can simply be replaced.

Proposed upcoming activities: September 2019 – September 2020:

14th IFIP Human Choice and Computers Conference – Human-Centric Computing in a Data-Driven Society, 9th-11th September 2020
www.hcc14.net

Human Choice and Computers is TC9's flagship biennial conference. TC9 was formed in 1976 in response to the first HCC in 1974 and has run each HCC since. In February 2019, Gopal TADEPALLI (past India rep) along with a Japanese colleague, proposed an HCC in Japan. This was an opportunity too good to miss, and with timescale short, David KREPS, Kai KIMPPA, and Penny DUQUENOY decided to go ahead with developing the idea with Gopal TADEPALLI. When David KREPS brought Taro KOMUKAI (IPSJ representative to TC9) into the group, Gopal's almost retired Japanese colleague based in Malaysia dropped out to let Taro lead – and, crucially, host! – this HCC.

- It may be difficult for some Europeans to fund that distance, but they will be replaced by Indian and Japanese delegates, and this widens the story of HCC, which should be global, and was last outside Europe in 2010 (Australia) and 2008 (South Africa).
- Conference Chairs are Taro KOMUKAI, Gopal TADEPALLI, David KREPS and Kaori ISHII, with Main Editor of Proceedings, David KREPS.
- Plans are underway for at least two, and possibly four TC9 Working Groups to hold WG Workshops alongside HCC14, in Tokyo
  - Afternoon 8th September – 9.1 and/or 9.2
  - Afternoon 11th September – 9.5 and/or 9.8
  - Potentially more – 9.7 has also expressed interest

- Plans are underway for a potential TC9 UK-Japan Special Interest Group to hold an inaugural one-day Workshop on 7th September, pending funding support.
- The TC9 Annual Meeting for 2020 will take place on 8th September – the morning before the main conference.

Continuation of TC9 Reboot Initiative - David KREPS (then Chair of WG 9.5 Virtuality and Society) began leading a general TC9-reboot initiative in 2016. Members of TC9 (who attended the 7 September 2016 TC9 meeting and since) have been assisting. Using HCC13 as the vehicle, interest was stirred for a relaunch of three or four TC9 WGs. This initiative has been very successful.

- **WG 9.3** - Computers and the Home – new Chair, David KREPS, and Vice-Chair, Oliver BURMEISTER, formally appointed from 1.1.19
  - Little activity in 2019. Proposal for name change and new Aims and Scopes to be presented to TA Meeting in Kiev, October 2019
- **WG 9.5** - Virtuality and Society – new Chair Petros CHAMAKIOTIS Vice-Chair Brad MCKENNA, formally appointed from 1.1.19
  - Attendance at TC9 Meeting June 2019 and engagement with TC9 but little WG activity – awaiting change of name, aims and scopes with which to drive relaunch.
  - Proposal for name change and new Aims and Scopes to be presented to TA Meeting in Kiev, October 2019
  - Planning a Workshop in Tokyo alongside HCC14
- **WG 9.8** - Gender, Diversity and ICTs - new Chair, Vice-Chair and Secretary of WG9.8 formally appointed from 1.1.19
  - Revival underway with new members and a small workshop planned for Autumn 2019 in Scandinavia
  - Planning a Workshop in Tokyo alongside HCC14
- **WG 9.9** - ICT and Sustainability - new Chair formally appointed from 1.1.19
  - Vigorous activity from Chair Maja van der VELDEN and from Per FORS, member, towards the finalising of the Position Paper on E-Waste – many thanks to both Maja and Per for their input.

Continued development of TC9 Website
- TC9's IFIP 60th Anniversary marking will unfold in two strands
  - TC9 book – led by WG9.7
  - Development of TC9 Alumni section of Website: a growing series of potted biographies – photos, achievements – about current and past TC9 Chairs, WG Chairs, and high-achievers. This project will unfold from Oct 2020.

Upcoming activities of active TC9 Working Groups
- **WG 9.1** is very active, and will hold meetings in Munich (Dec 2019), Marrakech, Tokyo and Hyderabad in 2019 and 2020. https://sites.google.com/site/workshopcnow/
- **WG 9.2** continues to hold meetings and activities, as does the **SIG 9.2.2**
- **WG 9.4** continues to go from strength to strength and is now planning their 2020 conference in Lima
- **WG 9.6/11.7** continues to run its annual Summer School Early preparatory plans for 2020 summer school underway.
- **WG 9.7** Planning a workshop in either China or Tokyo in 2020
- **WG 9.10** continues to hold meetings and activities and is planning a conference in Namibia, but organized largely from South Africa, and possibly also in Tokyo alongside HCC14.

14.9 TC11: Security and Privacy Protection in Information Processing Systems

(Steven Furnell, Chair of TC11)

Meetings held and scheduled
- TC-11 held its annual 2019 meeting on Monday 24 June in Lisbon, Portugal, preceding the SEC 2019 conference.
- The next annual TC meeting is scheduled for 25 May 2020 in Maribor, Slovenia preceding the SEC 2020 conference, running from 26-28 May.
- The 2021 meeting is not yet scheduled, but will be held directly prior to SEC 2021 in
- Oslo, Norway.

Changes in membership and officers since GA 2018 (only TC members)
Changes in officers
- Paul Haskell-Dowland   Elected WGs Coordinator
- Eiji Okamoto (Japan)   Resigned
- Valentin Kisimov (Bulgaria)   Resigned
- Sihan Qing   Passed away
- Zlatogor Minchev (Bulgaria)   Nominated representative
- Isao Echizen (Japan)   Nominated representative

TC membership changes
Currently TC-11 is missing representatives of the IFIP full member societies from the following countries or member societies (list of August 2019: Brazil, China, Cyprus, Hungary, Iran, CLEI, Croatia, India, Ireland, Lithuania, Serbia, Singapore, Tunisia, Ukraine, and the United Arab Emirates.

Working groups
The fact sheets for all TC-11 working groups are included on our website; see www.ifiptc11.org under the button for the working groups.

Events
TC-11 activities since report for GA 2018

18-20 September 2018	WG 11.8	*11th World Conference on Information Security Education, in conjunction with IFIP SEC 2018*	Poznan, Poland
10-11 December 2018	WG 11.2	*12th WISTP International Conference on Information Security Theory and Practice*	Brussels, Belgium.
28-30 January 2019	WG 11.9	*15th Annual IFIP Working Group 11.9 International Conference on Digital Forensics*	Orlando, USA
11-13 March2019	WG 11.10	*13th Annual IFIP Working Group11.10 International Conference on Critical Infrastructure*	Arlington, USA

25-27 June2019	TC11	*SEC 2019:* *34th IFIP International* Information *Security Conference*	Lisbon, Portugal

TC-11 activities planned

15-17 July 2019	*WG 11.3*	*33rd Annual IFIP* *WG 11.3 Conference* *on Data and* *Applications Security* *and Privacy (DBSec 2019)*	*South Carolina,* *USA*
15-17 July 2019	*WG 11.12*	*13th Human Aspects* *of Information* *Security* *& Assurance*	*Nicosia* *Cyprus*
19-23 August 2019	*WG 11.6/11.7*	*14th International* *IFIP SummerSchool* *on Privacy and Identity* *Management – Data for* *Better Living: AI and* *Privacy*	*Brugg/Windisch,* *Switzerland.*
Autumn 2019	*WG 11.5*	*Digital Twins*	
5-6 October 2019	*WG 11.13/8.11*	*Dewald Roode* *Workshop on Information* *Systems* *Security Research*	*Bossier City,* *Louisiana,* *USA*
6-8 January 2020	*WG 11.9*	*Sixteenth Annual* *IFIP Working* *Group 11.9 International* *Conference on Digital* *Forensics*	*New Delhi,* *India*
16-18 March 2020	*WG 11.10*	*Fourteenth Annual* *IFIP Working* *Group 11.10 International* *Conference* *on Critical Infrastructure* *Protection*	*Arlington,* *USA*
26-28 May 2020	*TC11*	*SEC 2020:* *35th IFIP International* *Information* *Security Conference*	*Maribor,* *Slovenia*
May 2020	*WG 11.4*	*iNetsec 2020*	*To be co-located* *With IFIP SEC*
9-10 October 2020	*WG 11.13.8.11*	*Dewald Roode* *Workshop on Information* *Systems* *Security Research*	*Ames, Iowa, USA*

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Publications

Other publications (besides proceedings for previous events)

- The journal **Computers & Security (COSE)** started in January 1982. It is published by Elsevier and is the official journal of TC-11 since November 1983. Prof. Bart de Decker, KU Leuven, Belgium and TC-11 Vice-Chair has been the TC-11 Editor since June 2014. Prof. Eugene H. Spafford, CERIAS, Purdue University, USA is the Editor. Prof. Dr. Dimitris Gritzalis, Athens University of Economics and Business, Greece is the Academic Editor. For more details see www.elsevier.com/locate/cose .

- TC-11 launched **The International Journal on Critical Infrastructure Protection (IJCIP)** in 2008. It is the official journal of WG11.10, and IFIP past-president Leon Strous is the current Editor-in-Chief. The journal is published by Elsevier. For more details see www.elsevier.com/locate/ijcip .

TC-11 maintains a mailing list (see https://dlist.server.uni-frankfurt.de/mailman/listinfo/ifiptc11).

Date	Subscribers	Growth
15 August 2019	534	2%
29 August 2018	524	2%
15 August 2017	515	3%
29 August 2016	502	13%
14 September 2015	446	14%
15 August 2014	391	12%
28 August 2013	349	15%
7 September 2012	304	11%
11 August 2011	273	15%
September 2010	238	

f. Progress and status

TC-11 continues to run its flagship IFIP SEC conference, with the latest event having been in Lisbon in June 2019. 76 papers were received, with 26 papers accepted, acceptance rate 34%. The WG11.8 conference on security education (WISE 12) was also scheduled in parallel, and the overall result a was successful event.

Several other TC-11 Working Groups also continue to run successful events, and the TC is additionally linked to two successful journals (i.e. *Computer & Security* and *Journal for Critical Infrastructure Protection*). As such, in overall terms the TC is doing well in terms maintaining a useful presence that adds value to several topic communities within cyber security.

An additional activity in progress is the development of a series of thematic briefing papers addressing a range of topical cybersecurity issues (e.g. security in the Internet of Things, cybersecurity ethics, and the cyber skills shortage). The intention is for these to be published individually and collectively, with a view to further increasing both the visibility and contribution of TC-11 in the international context.

Any other items

The Kristian Beckman Award was established in 1992 by TC-11 to commemorate the first chair of the committee. The objective of the award is to publicly recognize an individual who has significantly contributed to the development of information security, especially achievements with an international perspective.

In 2019, the Kristian Beckman Award was awarded to Prof. Ravi Sandhu, Executive Director and Chief Scientist at the Institute for Cyber Security, University of Texas at

San Antonio, to recognise and honour his significant contributions to the field of Information security and privacy.

The full motivation for the award was as follows:

- He has made a significant and long-term contribution to the field of information security in research, education and promotion.
- He has made pioneering and seminal contributions in the area of access control and authorization systems, including role-based and attribute-based approaches.
- He has made significant contribution to the wider cybersecurity community, including his role as founding Editor-in-Chief of ACM Transactions on Information & Systems Security and as founder of several ACM conference events.
- He has made extensive contributions to the education of students and professionals, including the supervision of numerous doctoral dissertations, the development of cybersecurity curricula, and the ongoing delivery of advanced courses at University of Texas at San Antonio.

i. Website

The main website of TC-11 (www.ifiptc11.org/) continues to be hosted by Goethe University Frankfurt (Germany), Deutsche Telekom Chair of Mobile Business and Multilateral Security, with support from Ahmed Seid Yesuf as webmaster.

Gurpreet Dhillon has succeeded Carlos Rieder as the TC-11 Publicity Officer, and he will take on the task of running the www.ifipsec.org website and coordinating the spending efforts to advertise the site on major search engines.

14.10 TC12: Artificial Intelligence
(Eunika Mercier-Laurent, Chair of TC12)

TC12 organized the 1st AI IFIP Forum, Vienna, Austria May 8-9, 2019
Two Forums are planned in 2020 including 2nd in Vienna

WG12.1 Knowledge Representation and Reasoning
Chair Matthias Timm, University of Koblenz-Landau, Germany
Organised the third International Competition on Computational Models of
Argumentation (ICCMA'19, http://argumentationcompetition.org); the results of the
competition are presented at IJCAI'19 (August 12th 10:30-12:30; Room 2405).

WG12.1 hold its bi-annual working group meeting at KR'18 in Tempe, USA (Oct 30-
Nov 2).
The competition had nine submitted solvers, the working group meeting had 5
participants.

Future events:
- we are planning the fourth International Competition on Computational Models of
Argumentation (ICCMA) for 2021
- there will be the third workshop on Systems and Applications of formal argumentation
(SAFA) in 2020
- the next working group meeting is planned to be again co-located with KR in 2020.

WG12.2 Machine Learning and Data Mining – no report provided
Chair: Prof. Xin Yao, University of Birmingham, UK, email: x.yao@cs.bham.ac.uk
Vice-Chair Prof. A. Aamodt, NUST, N-7491 Trondheim, Norway, email:
agnar.aamodt@idi.ntnu.no
Secretary : Prof. Sunil Vadera, School of Computing, Science & Engineering,
University of Salford, M5 4WT, UK,   email : s.vadera@salford.ac.uk

WG12.3 Intelligent Agents - no report provided
Chair Professor Paulo Novias, Universidade do Minho, Escola de Engenharia,
Departamento de Informática / Centro ALGORITMI, Campus de Gualtar, 4710-057
Braga, PORTUGAL, email: pjon@di.uminho.pt
Vice-Chair Professor Jaime Sichman, Universidade de São Paulo, Escola Politécnica,
Depto. Eng. Computação e Sistemas Digitais (PCS), Av Prof. Luciano Gualberto, 158
travessa 3, BR-05508-970 SAO PAULO Brasil, e-mail: jaime.sichman@poli.usp.br

WG12.4 – Semantic Web shut down

WG12.5 AI Applications
Chair Dr. Ilias Maglogiannis, Greek Computer Society (GCS), Greece, email:
imaglo@unipi.gr
The main activity of WG12.5 was the WG flagship conference AIAI held in Crete 15th
IFIP Artificial Intelligence Applications and Innovations Conference (AIAI2019) 24 - 26
MAY, 2018 CRETE, GREECE, http://www.aiai2019.eu/ .
Next year the conference will be in Chalkidiki http://www.aiai2020.eu/

We had about 65 participants plus some guests.
The proceedings have already more that 50K downloads from Springer site.

WG12.6 Artificial Intelligence for Knowledge Management
Chair Eunika Mercier-Laurent, University of Reims Champagne Ardenne, France

Vice Chair Mieczyslaw Lech Owoc, University of Economics, Wroclaw, Poland
Secretary Gulgun Kayakutlu, ITU (Technical Institut of Istanbul), Istanbul, Turkey
Organized 7AI4KM on IJCAI 19, Macau, August 11, 52 participants
Published Extended papers from 5th AI4KM on IJCAI 17, Melbourne, Springer AICT 571
Next 8th AI4KM on IJCAI 20

WG12.7 Social Networking, Semantics and Collective Intelligence - no report provided
Chair: Dr. Pieter De Leenheer, VU University Amsterdam, De Boelelaan 1081a, NL-1081 HV AMSTERDAM, The Netherlands, email: pieter.de.leenheer@vu.nl
Vice-Chair Dr. John Breslin, NUI Galway, Galway City, Ireland, email: john.breslin@nuigalway.ie
Secretary :Christophe Debruyne, Vrije Universiteit Brussel, Pleinlaan 2, BE-1050 Brussels, Belgium, email: chrdebru@vub.ac.be

WG 12.8 Intelligent Bioinformatics shut down

WG 12.9 Computational Intelligence
Chair Dr Vasile Palade, Coventry University, UK, e-mail: ab5839@coventry.ac.uk
Vice-Chairs: Prof. Elizabeth Chang, Curtin University, Perth, Australia e-mail: elizabeth.chang@cbs.curtin.edu.au Dr. Vasile Palade, Dept. of Computer Science, University of Oxford, Oxford, United Kingdom, e-mail: vasile.palade@cs.ox.ac.uk Dr. Masoud Nikravesh, University of California Berkeley, CA, e-mail: nikraveshucb@gmail.com
Secretary Dr. Kit Yan Chan, Curtin University, Perth, Australia e-mail: Kit.Chan@curtin.edu.au
Organized CD MAKE, Canterbury, August 29, 2019, Annual IFIP TC12 Meeting,

Next planned
December 2019, at IEEE ICMLA 2019, Florida, USA
July 2010 at IEEE WCCI 2020
August 2020, at CD-MAKE 20202 in Dublin, Ireland

WG 12.10 AI and Cognitive Science
Chairs
Dr Maria Vasardani, VC Research Fellow, Department of Geospatial Science, RMIT University, Australia, mvasardani@rmit.edu.au
Dr.-Ing. Kai-Florian Richter, Associate Professor, Department of Computing Science, Umea University, Sweden, kai-florian.richter@umu.se

Activities of the last year
Group was formally established at the Technical Assembly in October 2018. However, discussions about establishing the group had started already in 2017, so we conducted some activities before the official start of the WG, without publicly labeling them as such of course.

1st InternationalWorkshop on Spatial Cognition and Artifcial Intelligence at Spatial Cognition 2018, Toubingen, Germany
-   We count this workshop as being a working group activity, however, since the WG had not been formally established yet, we did not really announce it as such.
-   This half-day workshop had approximately 20 participants. Prof Christian Freksa of the Bremen Spatial Cognition Center (Germany) gave a keynote on the concept of strong spatial cognition and the consequences for classic spatial

AI, followed by relevant discussions with the rest of the participants. Then, separated in small groups, we discussed the challenges surrounding autonomous cars' representation of events and spatio-temporal information, as well as challenges in human interaction with such vehicles.

- As a result of the workshop, the WG chairs jointly with several leading researchers in Spatial Cognition and GIScience submitted a response to the Open GeoSpatial Consortium's proposal for a Artificial Intelligence in Geoinformatics Domain Working Group, in which we highlighted several severe issues with the proponents' view on AI and its use. We count this response as a WG activity, though the document does not actually mention the WG for the same reasons as above.

2nd International Workshop on Spatial Cognition and Artifcial Intelligence
at the Conference on Spatial Information Theory (COST) 2019, Regensburg, Germany

- This full-day workshop had approximately 30 participants. Dr Zoe Falomir of the Bremen Spatial Cognition Center started the day with a keynote on new qualitative algorithms to solve spatial reasoning problems in video-games. The qualitative reasoning methods used contrast with other more elaborate, classic AI solutions, however, they are effective for solving spatial problems regarding object perspectives, object rotation, and paper folding.
- In small groups, participants discussed and developed concepts for a smart home system scenario, looking at what kinds of spatial representations are necessary, exploiting space and spatial properties in solving tasks, and studying issues of establishing common ground between user and system.
- We are currently exploring options for a special issue in a relevant journal on the workshop's topics; this special issue would be open to anybody to submit, but we will encourage workshop participants, in particular, to submit.

Future plans
For the upcoming year (and beyond) we plan the following activities.

- Internal, i.e., activities to strengthen the working group and to foster collaboration between its members { We will continue and strengthen our efforts in recruiting members to the WG, especially since we have now `tested the waters' and established the idea that such a WG will be useful in the community. { Part of this effort will be creating a web presence for the WG, enabling members to pose interesting research questions and collaboration requests, and sending out a newsletter to all WG members at least twice a year.
- External, i.e., events and activities to further promote the importance of a strong collaboration between Artificial Intelligence and Cognitive Science { We will continue the workshop series with a 3rd International Workshop on Spatial Cognition and Artificial Intelligence. For now we consider either GIScience or Spatial Cognition as possible host conferences, both likely to be in September 2020. In fact, we hope to establish this workshop as a yearly event co-located with a relevant conference.

Proposal of new Working Group :
AI for Energy and Sustainability - expecting 50 members, Prof Gulgun Kayakutlu, ITU Turkey
This group will aim to create the standards and disseminate the mindfulness about innovative and correct use of Artificial Intelligence (AI) approaches and Deep Learning techniques in managing every company in the energy supply chain. The energy suppliers need the correct decisions in energy loads under local regulations to make profit with consideration of sustainability. Energy distributors have to invest in research and development with the correct demand prediction while getting concerned in

efficiency of the consumers. Energy service providers should learn knowledge management so that they can really help both investors of the renewable energy and heavy energy consuming industries. Regulators are to integrate with the European and Global networks for a sustainable future. Integrating power networks in Europe is introducing heavy use of data analytics, they are open to learn using deep learning for knowledge management. It is accepted by UN rules and EU memorandums that sustainable wealth and development is very much dependent on the predictions, researches and activities of the energy industry.

This group should cover network modelling, using a variety of machine learning (ML) techniques in energy generation, distribution and consumption systems and evaluate the big time series data. Load mix, scheduling, real time monitoring are some industrial applications leading for healthy decisions, hence, the need for deep learning and ensemble neural networks are to be discussed and clarified.

This group will start organising AI for Energy & Sustainability Workshop which will become an international conference in near future in order to disseminate

- a. The energy management activities for which artificial intelligence can be applied;
- b. AI use for sustainable development
- c. Deep Learning techniques used in
  - i. climate change mitigation and adaptation;
  - ii. energy industry applications;
  - iii. renewable energy and storage innovations;
  - iv. mitigation of energy use in transportation.
- d. Achieve a new creative opinion on the innovations and future of energy systems management in light of artificial intelligence improvements.

Publishing

Request of Anupam Biswas for publishing a book with AICT series on social networks – following up, IJCAI 19 workshop – best paper 7AI4KM + abstract workshop Springer

Other Events planned

- Austrian 2 Forum (Andreas Holzinger)
- 3rd International Conference on Computational Intelligence in Data Science' (ICCIDS 2020)20.2-22.2 2020 Chennai, organized by Aravindan Chandrabose.

14.11 TC13: Human-Computer Interaction
(Philippe Palanque, Chair of TC13)

This report has the purpose of showing the development within IFIP TC 13 on Human Computer Interaction during the last period (2018-2019) and the short-term plans for the future.

Among the important items to be reported, we highlight:
- Updates on the list of TC13 members.
- Two business meetings:
  - **Meeting N. 46** held in London, United Kingdom, on March 28th 2019;
  - **Meeting N. 47** held in Paphos, Cyprus, on September 7th 2019.
- The IFIP TC13 conference INTERACT 2019 held from September 2-6, 2019 in Paphos, Cyprus.
- TC13 Awards and INTERACT Awards delivered at INTERACT 2019 conference.
- Review of recent and future events, including the business meeting N.48 going to be held in Milan, Italy in March 27-28, 2020, with the Open Symposium occurring on March 26, 2020.

TC 13 Members and officers
(M) Philippe Palanque, France, IFIP TC13 **chair** (2016-2019)
(M) Jan Gulliksen, Sweden, IFIP TC13 **vice-chair for Growth and Reach out**
(F) Paula Kotze, South Africa, IFIP TC13 **vice chair for Awards**
(F) Simone Barbosa, Brazil, IFIP TC13 **vice chair for Working Groups**
(F) Virpi Roto, Finland, IFIP TC 13 **vice chair for finances**
(F) Helen Petrie, UK, **vice chair for Communications**
(M) Marco Winckler, France, **Secretary**
(M) Anirudha Joshi, India, **Chair of the INTERACT Steering Committee**

Updates on TC13 members
- **Aleksandar Jevremovic** (Serbia) https://singidunum.ac.rs/profile/ajevremovic) was appointed as new member by the Informatics Association of Serbia.
- **Frode Eika Sandnes** (Norway) (https://www.hioa.no/eng/employee/frodes) was appointed by the Norwegian Computer Society in replacement of Dag Svanaes.
- **Regina Bernhaupt** (The Netherlands)
- (https://www.tue.nl/en/research/researchers/regina-bernhaupt/) was appointed by the Nederlands Genootschap voor Informatica in replacement of Vanessa Evers.
- **Lara Piccolo** (Brazil) (http://kmi.open.ac.uk/people/member/lara-piccolo) was appointed by the Brazilian Computer Society in replacement of Milene Selbach Silveira.
- **Julio Abascal** (Spain) becomes Expert member during meeting #46, London, UK.
- **Torkil Clemmensen** (Denmark) becomes Expert member during meeting #46, London, UK.

TC13 business meeting (N. 46)
The business meeting N. 46 was hosted by the University of West London, London, UK, on March 28th 2019. This business meeting pre ceded the TC13 Open Symposium and the INTERACT 2019 program committee meeting.

TC13 Open Symposium, March 29th 2019: The TC13 Open Symposium on HCI is part of a series of annual events organized by the Technical Committee TC13 on Human-Computer Interaction of the International Federation for Information Processing (IFIP). It is a scientific event that is meant to create synergy between researchers, students, and industrialists who can meet and discuss hot topics on HCI with the IFIP TC13 representatives. The usual organization consists of a series of short presentations (~15 minutes) following by questions and a panel.

The 2019 editions of the TC13 Open Symposium counted 45 attendees and 13 speakers. The scientific program including an abstract of the talks is available at http://ifip-tc13.org/tc13-open-symposium-2019-london-uk-march-29th-2019/

The main items discussed during the TC13 business meeting N. 46:
Information of members about IFIP
- The TC13 members were informed that IFIP did not lose money with the organization of the World Computing congress in Poznan. They were also informed about the discussion of IFIP fees during the meeting in Poznan.
- Members were told that there will be no IFIP World Computing congress in 2020. In 2020 they will be celebrating 60 years of UNESCO. IFIP is member of the UNESCO and should participate of a celebration somehow, however it is not clear how this will take place.
- The working conference HCSE 2018 (working group 13.2) made a surplus of 1120€ which was credited to the TC13 IFIP. TC 13 members are invited to do the same for the conferences organized by working groups or for special events.
- TC13 members were also informed about the "e-journal" called IFIP-select comprising "best" papers from IFIP conferences. A paper to be appointed by the chair of the TC13, Philippe Palanque.

Organization of a student special interest group inside the WG 13.6
The chair of the WG 13.6 Barbara Barricelli proposed to organize a student special interest group inside the WG 13.6. This suggestion was unanimously approved.

Indexing of INTERACT proceedings at Scopus
Paula Kotzé (TC13 vice-chair for awards) and Philippe Palanque (TC13 chair) presented a report about the how conference proceedings are indexed by Springer. Indexing of proceeding is an important issue and recurrent concern for providing visibility and recognition of conference. A committee was created to discover how to index older proceedings in the Scopus database.

Overview of submissions for INTERACT 2019
Helen Petrie (as full papers chair) and Marco Winckler (as Technical Program chair) presented a report about the reviewing activities. Some numbers: 385 submissions, an increase of 23% on the number of papers from INTERACT 2017. These papers are from over 1000 authors (instances of authors, if a person is an author on several papers, they are counted several times) from 51 different countries. 3

Report of Steering Committee
The INTERACT Steering Committee chair, Anirudha Joshi, presented a report about the SC activities.

Review of countries membership
Jan Gulliksen, vice-chair for Growing and Reach out, made a report on the current situation of countries involving the following cases.

- CASE 1: countries are current members of IFIP but for which we don't have a national representative; i.e. China, Iran, Lithuania, Korea, Slovenia, Sri Lanka, and Zimbabwe.
- CASE 2: Countries used to be a member of IFIP but there are no longer members; i.e. Spain, Singapore, and Denmark.
- CASE 3: Countries representatives that haven't attended a meeting for a long time; i.e. Australia, Croatia, Ireland, New Zealand, Tunisia, United Arab Emirates, CLEI-Latin America, and Indonesia.
- Case 4: Newly appointed TC13 member representatives from member countries that have not yet participated in a meeting; i.e. Brazil, Belgium, Bulgaria, and Canada.
- Case 5: Countries that we would like to see members from but that are not (yet) members of Actions; i.e.: Malaysia.

Other membership issues: There is a problem justifying the national organizations to become or stay members of IFIP due to the fact that there is not enough contact from the IFIP secretariat to the national member organizations. All information is expected from the national representatives to provide, that are working on a volunteer basis.

Actions items were created on diverse members to take care of all these cases. The outcomes of these actions was presented at the business meeting N.47, on September 7th 2019.

Other business
Kaveh Bazargan volunteer to help with the legacy problems of INTERACT web sites.

Review of current meeting action items
The meeting ended with the review of past action items. Twenty (20) new action items were created at this meeting.

TC13 business meeting (N. 47)
The business meeting N. 47 was hosted at the Coral Beach Hotel & Resort in Paphos, Cyprus on September 7th 2019, immediately after the conference INTERACT held at the same place.

The main items discussed during the TC13 business meeting N. 47:

INTERACT 2019
The general chairs of INTERACT David Lamas and Panayiotis Zaphiris promised to provide a report about INTERACT 2019 on Monday September 9th 2019. Nonetheless, during the meeting they provided a few key figures. No big surprises with respect to the finances. More than half paid the full registration without using the discount imposed by IFIP to the affiliated computer science societies.

Jan Gulliksen and Anirudha Joshi praised the quality of the conference, especially the improvements with respect to the scientific quality of the program. The diversity of the program in terms of coverage of HCI topics, was also acknowledged. This was especially due to the new organization in sub-committees proposed by TPCs and the hard work form the paper chairs.

Suggestion has been raised to improve the presence of INTERACT conference on social media.

Report from the Steering Committee
The INTERACT Steering Committee chair, Anirudha Joshi, presented a report about the SC activities.

TC13 expressed the need to find a way to store the guidelines and decisions of the INTERACT Steering Committee and make them available to the members of the TC13. INTERACT misses a guideline for ethical alongside the reviewing process. Some examples to be found at ACM SIGCHI for reviewer conduct (see https://sigchi.org/2017/03/reviewer-conduct/) and CHI Steering Committee Policy Document. An action item was created to such guidelines for INTERACT SC.

It was suggested to the Steering Committee to create a template and establish some rules relating to reporting of session chairs, workshop organizers etc., so that at the end of INTERACT we have a clear idea about no-shows, attendance, problems etc. This should become the aforementioned guidelines
.
Cooperation between INTERACT and the Journal Behavior & Information Technology (B&IT)
We have undertaken a cooperation between INTERACT and the B&IT journal (Taylor & Francis). It has been offered to authors of B&IT papers slots in INTERACT program, to present their work at INTERACT 2019. The agreement with B&IT implies that authors of selected papers will be asked to submit an extended paper to B&IT. The TC13 approved the list of INTERACT papers to be sent to B&IT.

Report of INTERACT 2021
Venue is Bari, Italy, from August 30th to September 3rd 2021. See: http://www.interact2021.org/ TPC from INTERACT 2019 were selected taking into account the criteria set by the Steering Committee. Declaration of IFIP event is on the way by the time of the business meeting.

Bids timeline for INTERACT 2023
The chair of the INTERACT Steering Committee, proposed to have two rounds of bids for INTERACT 2023 including a phase of **expression of interests** and on which the SC will provide feedback and an invitation to come (or not) the hearing on March 2020 meeting for the **final selection** based on hearing of bids will occur in March 2020. This proposal of bids in two rounds was approved after a vote: 2 abstentions, 1 against and 26 yes.

Anirudha Joshi also proposed to investigate a federated conference from the IFIP TC 13 WG in 2022. The idea is to create a joint conference for the even years when INTERACT is not occurring. No decision was made but we have created on committee to investigate the interest of working groups to be part of such a federated conference.

Elections of the next TC13 chair
The term of Philippe Palanque as chair of TC13 is ending for that elections should be run during the next business meeting in 2020 (#48). Being asked, Philippe Palanque expressed interest to run a second term as TC13 chair.

We expect a presentation from the candidates with a vision about the future of TC13. It was unanimously decided who can cast votes: IFIP TC13 official representatives and expert members can cast votes provided they are physically present in the meeting, or synchronously attended remotely this section of the meeting (interruptions in the video conference would present them for voting).

Instructions will be sent to all members concerning voting rights and candidacy.

Review of countries membership
Jan Gulliksen, Vice-Chair for Growth and Reach out, provided an update on the actual membership at TC13.

There are several inconsistencies between the IFIP TC13 Web site and the IFIP Web site. The secretary Marco Winckler was prompt to get in touch with IFIP to fix them.

TC13 Finances
The vice-chair for finances, Virpi Roto, presented the budget which was unanimously approved.

Updates on Working Groups
Simone Barbosa, vice-chair for working groups, presented a report about working group's activities. The figure below summarize the main activities colored in green (for workshops), orange (for working conferences), and blue (showing a publication as outcome).

Simone talked with Janet Read, who wants to keep WG13.9 and committed to associating activities carried out around HCI for children with IFIP TC13.
Action items were also created to take care of less active working groups such as the WG 13.1 on Education in HCI and HCI Curriculum.

14.12 TC14: Entertainment Computing
(Rainer Malaka, Chair of TC14)

The twenty-seventh TC14 business meeting took place on May 17, 2019 via videoconferencing software.

TC officers:

Chair	Rainer MALAKA (Prof., Univ. of Bremen)
Vice-chair	Letizia JACCHERI (Prof., Norwegian Univ. of Science and echnology)
Vice-chair	Esteban CLUA (Prof., Federal Univ. Fluminense)
Vice-chair	Junichi HOSHINO (Assoc. Prof., Univ. of Tsukuba)
Secretary	Erik VAN DER SPEK (dr., Eindhoven Univ. of Technology)

National Representatives:

Austria	AT	Helmut HLAVACS (Univ. of Vienna)*
Brazil	BR	Esteban CLUA (Federal Univ. Fluminense)*
Germany	DE	Rainer MALAKA (Univ. of Bremen)*
Italy	IT	Paolo CIANCARINI (Univ. of Bologna)*
Japan	JP	Junichi HOSHINO (Tsukuba Univ.)*
Netherlands	NL	Matthias RAUTERBERG (Eindhoven Univ. of Technology)*

WG chairs:

WG14.5 Chair: Rod McCALL (Luxembourg Inst. of Science and Technology)*

Observers:

Alex CUADROS VARGAS (San Pablo Catholic Univ.)*
Nikitas SGOUROS (Univ. of Piraeus)*

TC14 meetings scheduled until next IFIP General Assembly

The 28th TC14 meeting will be held at the International Conference on Entertainment Computing Conference (co-organized with the Joint Conference on Serious Games) ICEC-JCSG 2019.

TC14 conferences held since 2018

Sponsored events No sponsored events since the ICEC conference of 2018.

Co-Sponsored events: No co-sponsored events.

TC14 conferences to be held

Sponsored events:
5.1.1 ICEC2019 will be held at the Universidad Católica de San Pablo, Arequipa, Peru
Date: November 11 – November 15

Co-sponsored Events: No Co-sponsored Events to be held.

Other TC14 activities

Conference Proceedings
The proceedings of ICEC2018 have been published from Springer as one of the LNCS series.

Publications
In 2009 TC14 and Elsevier started a new International Journal on 'Entertainment Computing'. Contracts have been signed and exchanged between IFIP, IFIP TC14 and Elsevier. Also we have composed a group of Editors-in-Chief, Co-Editors-in-Chief and Associate Editors. Already several issues of the journal have been published.