

News

Editor: Eduard Dundler eduard.dundler@ifip.org

International Federation for Information Processing

June 2020 http://www.ifip.org

We will never go back to the way we worked before - say Ireland's IT leaders

'We will never go back to the way we worked before', is the message from Ireland's top CIOs who met remotely at the Irish Computer Society to discuss their experiences.

"Covid-19 has accelerated the move towards more remote working by 10 years in the space of a few weeks," said Jim Friars, CEO of the Irish Computer Society.

Central Bank CIO, Louise Dennehy and Head of IT Strategy, Linda Harmon led the survey research on behalf of the ICS CIO Forum. "Overall, Irish CIOs report that the move has been a positive one. IT systems have enabled their teams to hit the ground running and have worked well", said Dennehy.

"It is really useful for CIOs to know how others are dealing with these challenges, you never stop learning in IT."





Irish CIOs report an increased focus on security and resilience, but supporting remote staff has meant an increased workload for IT teams.

"The unimaginable speed of the move to working from home has meant that a patchwork of software options, including various video conferencing solutions, came into use," said ICS CIO Forum Chair, Kevin Cooney.

Even tech leaders point out that 'you can't beat the phone sometimes' though.

"The pandemic has increased emphasis on staff engagement, which has let to morale being kept high in teams," said Friars, "however, communication in meetings is harder."

Some staff reported struggles with home internet and their facilities not being suitable for homeworking.

CIOs are aware of staff wellbeing, as employees report being as productive as they are in the office but experiencing fatigue and the pressure to be 'always on'.

Overall, CIOs have shown that IT teams have great resilience and ability to cope with such a different situation. Continued working from home will be a core part of future business plans.

The pandemic may have pushed us to innovate differently and earlier than planned but coping under pressure is what IT does best. As one CIO mentioned, "there is nothing like a crisis to force through innovation and changed ways of working."

Read the full article on the ICS website: https://www.ics.ie/news/survey-irish-cios-covid-19

Page 2 IFIP News June 2020

IP3 News



From the Chair - Moira de Roche

These have been strange days indeed. Stuck at home during lockdown, so not attending any meetings in person. Nonetheless, there have been so many Zoom meetings that we all seem to have been busier than ever.

Talking of Zoom, which is a widely used virtual meeting platform, it has brought up the issue of the Duty of Care everyone shares. A couple of months ago a South African parliamentary session which was run on Zoom, was hacked and pornographic images were shown. Imagine! But it turns out that one of the members had shared joining details on Twitter – so it was not even a real hack, rather carelessness – and lack of knowledge – by one of the participants

IP3 are committed to the **Digital Skills for Everyone**, **Everywhere project**. The COVID-19 pandemic has accelerated the move to digital technologies, so the need for everyone to have the necessary digital skills is even more crucial.

Digital Skills for Everyone, Everywhere project

The project is led by IP3 Director Liesbeth Ruoff (KNVI & CEN)

It uses OECD 2015 report "The future of productivity report", as well as the ITU Digital Skills Assessment Guidebook as resources.

The goals and deliverables set in the 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

The goals will be revised and expanded as we interact with partners

Looking for partners

- Bring leaders from the ICT world (IFIP) and leaders in profit and non-profit organizations (e.g. Rotary) together to cooperate and exchange knowledge.
- Contact was made with Rotary in the Netherlands, and the reaction was positive. We will work toward applying for Global Grant
- Staying in touch with CSTD (this project was originally inspired by the presentation by Shamika Sirimanne of CSTD, at WCC2018, Poznan). We are also pleased to enjoy the advice and guidance of IFIP's A Min Tjoa, who is also vice chair of CSTD.

First activities

- Aim of applying for a global grant create digital capacity and prevent a "digital divide" what is the need?
- Explain to potential partners that we mean to build a capacity that is not dependent on the commitment and goodwill of (one of) the "big 5 tech" companies.
- Emphasis had to be on "implementing", which costs time and money
- · Implementation must match needs with a starting position of a community, region, or country
- Possible pilots in Botswana, Rwanda, and Tanzania, leveraging the contact IFIP already has in these regions
- A successful program set up in Ghana could possibly be replicated and extended to meet our goals
- Desk research

Page 3 IFIP News June 2020

(Continued from page 2)

Current situation

- Dr Audrey Masizana (CSB & University of Botswana)
 - Wanted Botswana to be a Pilot, and will participate first interview call took place
 - Second call, two representatives from Rotary Botswana and the ICT community represent ed by Dr Tshiamo as well as Dr Masizana
 - They have offered to conduct a first assessment on which of the needs are the most urgent and fitting in the setting of the Global Grant. The OECD framework: *Going Digital* will be used.
- In a speech by the incoming Rotary chairman worldwide Holger Knaack, he acknowledged that "The
 digital revolution has affected us much harder than we anticipated, because of the impact of COVID19, and that Rotary cannot look away.

If any readers of this newsletter would like to become involved, you will be very welcome. Please contact mderoche@jpthree.org.

World Summit for Information Society

The forum was postponed from April to August 2020 due to the outbreak of COVID-19 but was later cancelled and replaced with a virtual event.

The opening Ceremony was held on 22 June 2020, followed by three Thematic Workshops scheduled each day. The high-Level dialogues and other plenaries will take place from 27 July to 11 September 2020. Click here for the full agenda. IFIP will be participating in the **High-Level Policy Session: Ethical Dimensions of Information and Knowledge Societies** to be held on Tuesday 28 July 2020 from 14:00 to 15:00 (CET). Click here for more information on this High-Level session and to register. Please join the audience to hear what various players, including Government, International Organisations, Civil Society and Business are doing to support Ethics.

IP3 will be hosting a Thematic Workshop "Living the standard – how can the Information and Knowledge Society live to an ethical and FAIR Standard and leave nobody behind?"

- What role does a Codes of Ethics play?
- The role of Law and Regulation in complementing Codes of Ethics to improve the public's trust in goods and services that use technologies including AI.
- How can we create Trust in Digital?
- Does a digitally skilled citizenry drive economic growth in all countries?

We will discuss:

- Capacity Building, specifically building capacity and trust in the supply-side of ICT (WSIS AL C4)
- Building confidence & security in use of ICTs (AL C5). What concrete steps can be taken by different parties in the wake of the growth of cyber-crime, which has surged during the COVID-19 pandemic. Can IFIP, AI for Good, Rotary and security specialist organizations such as ECSO work together to reduce the scourge. Confidence and trust will be built as the Information Society including consumers and users becomes better educated on Digital Skills*.
- Ethical Dimension of ICT (AL C10). Digital Ethics and Trust are being spoken about at every level. But how do we live an ethical life, without having to consult a Code of Ethics. Is Trust reinforced by ethical behaviour?

We will ask the following questions:

- Should an exemplar Code of Ethics, recently created by IFIP, be used as a starting point and if necessary be amended and augmented to suit specific situations? The plethora of Codes of Ethics some 180+, does not improve the situation and allows people to pick the one that suits them best.
- Should we create and refine a body of knowledge, and an education program around how to behave

Page 4 IFIP News June 2020

(Continued from page 3)

as an ICT professional? The FAIR principal should dominate, must be included to the benefit of all: FAIR – Findable, Accessible, Interoperable, Reusable. Although this standard was set for data, it is applicable to every digital resource.

*The Digital Skills Everywhere for Everyone project will be introduced, and we will explore how this will reinforce all the above.

Panellists:

- Moira de Roche IP3 chair will chair the workshop
- Project Partner Rotary Senior official representing organizational leaders (To be confirmed)
- CSTD & IFIP: A Min Tjoa Vice chair CSTD representing the IT community
- Don Gotterbarn ICT Ethics specialist chair and writer of ACM and IFIP code of conduct (To be confirmed)
- Liesbeth Ruoff member of CEN TC 428 representing the perspective of ICT professionalism
- Anthony Wong Vice President IFIP, technologist and lawyer, speaking on "As generally Codes of Ethics are not legally binding, have Law and Regulation stepped in to complement the gaps to improve the public's trust in goods and services that use new technologies including AI?"

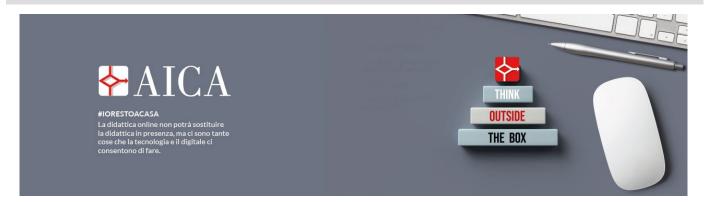
The workshop will be held on 15 July from 12:00 to 13:00. We urge you to join the session so that there can be robust discussion on these issues. Register for the session.

What has IP3 Vice-Chair, responsible for Strategic Relations been up to?

Although travel is restricted, Stephen is as busy as ever with virtual events. A select few of his many activities include:

- Authored IT World article on: Digital Transformation accelerated in a post-COVID World: https://www.itworldcanada.com/blog/digital-transformation-accelerated-in-a-post-covid-world/430863
- Working is progressing daily on EIS20 where Stephen is founding Chairman YPO EU Impact Summit Advisory Board which is working daily on implementing solutions to global challenges. The work is partially public through the UN Agency partner, ITU, who is hosting the public site for YPO EIS20 https://www.itu.int/en/ITU-T/Workshops-and-Seminars/20201019/Pages/default.aspx. YPO is the largest private CEO community consisting of 29K CEOs of larger companies with US \$ 9 Trillion annual revenue across 130 countries. EIS20 in June has gone from regional EU to global. Stephen is active launching also the of the YPO World Beyond Covid-19 https://www.youtube.com/watch?v=mgu1CXjheWE&feature=youtu.be
- Stephen is invited in weekly scheduled meetings hosted by WHO leadership, with leaders from private industry, on active support for COVID
- Stephen was invited to the WHO global roundtable in June, bringing together global leaders to work on solutions in world healthcare. As vice-chair, WHO/ITU Focus Group AI for Health, working on using AI for solutions in healthcare https://www.itu.int/en/ITU-T/focusgroups/ai4h/Pages/default.aspx
- As founder AI for Good, there is the continual weekly AI for Good digital talks and judging at the AI for Good Innovation Factory all hosted by the UN Agency, ITU https://aiforgood.itu.int/
- Producing regular unscripted video dialogues with global leaders appearing in non-profits such as chats since 2011 be found in the ACM. can ACM Learning https://learning.acm.org/resources under Interviews by Stephen Ibaraki and they also appear in the weekly education bulletins going out to 200K registered users. Stephen also is the founder of the oversight practitioner board task force for the Future of Computing Academy (FCA) Career Paths project. Space did not allow for a list of the interviews, but you are encouraged to visit the resources page the ACM Learning Center.

Page 5 IFIP News June 2020



U4JOB ESSENTIALS, A TRAINING COURSE FOR DIGITISATION IN SCHOOLS

The School is among the most proven areas of the Covid-health emergency situation that has occurred since February in Italy.

AICA, that for almost sixty years is active in the dissemination of digital culture and skills, on this emergency situation has made available to the Schools concrete proposals and solutions free of charge, aimed at "promoting the development of digital culture and the dissemination of digital skills for students, teachers and non-teaching staff", also in implementation of the Memorandum of Understanding in place with the Italian Ministry of Education.

Within the framework of digital solidarity and together with the Labor Agency "Umana", AICA has made available to Italian teachers and their students an e-learning five modules course: U4JOB Essentials, a more compact version than the one aimed at companies, public administration and universities, particularly suitable for secondary school students.

The course addresses the issues of digital awareness, big data, cybersecurity, agile thinking and coding.

This version of the course, combines AICA's scientific skills with Umana's ability to orient the new generations towards the labor market. At a difficult time for the country and the school system, the initiative U4JOB Essentials, contributes to the enrichment of the educational offer through an e-learning tool dedicated to important aspects of students' current and future lives.

U4JOB, created by Umana and AICA starting from the e4job standard (www.aicanet.it/e4job), is a multimedia course for all professionals who, although they have a basic knowledge in the use of information technology, feel the need to acquire more vision about the impact of new technologies. In the full version, companies, business associations, public administrations and universities have used the U4JOB platform.

AICA Digital Academy: a new challenge

AICA Digital Academy represents a new challenge, decided by the Executive Committee of the Association: namely intervening directly in the field of digital competence training. A crucial field for the country since "the level of basic and advanced digital skills of Italians is below the EU average", as the 2019 DES report (Digital Economy and Society Index) indicates for Italy. We started working on it towards the end of 2019.

The emergency of these lockdown months has confirmed the importance of such a choice. Companies, schools, public administrations, individuals have employed energy and creativity to carry on "remote" activities, but the lack of wide digital competence has not allowed to reach the due results of such a great effort.

People and organizations were not "ready".

AICA Digital Academy aims to help fight the digital divide and, for this reason, is a project belonging to "Repubblica digitale" (the Digital Republic), the strategic initiative of MID, the Italian Ministry for technological Innovation and Digitization, aimed at the digital transformation of the country.

Page 6 IFIP News June 2020

(Continued from page 5)

AICA Digital Academy aims to establish a distributed netnated by an AICA team - to offer consultancy and training services to individuals, schools, DA in the consultance of the consul ing services to individuals, schools, PA institutions and digital academy companies with reference to European frameworks: DigComp, DigCompEdu, DigCompOrg, e-CF.





AICA central team designs and provides this network with a catalogue of certified training courses and carry out training for trainers.

The role of the school is decisive in preparing young people for a world in which knowing how to use digital - and how to use it creatively - is fundamental to make the country grow. For this reason, we started from schools and teachers by making available a site rich with videotutorials and pedagogical indications to accompany teachers and students during the closure of schools - www.aicaneti.it/didatticainrete - and now we have been carrying out a course on distance education.

THE 7TH EDITION OF THE CONTEST "WEBTROTTER - AROUND THE WORLD IN 80 MINUTES" TOOK PLACE REMOTELY.

Now in its 7th edition, the team competition "Webtrotter - Around-the-world in 80 minutes", aimed at students in the first three years of the secondary school, despite the health emergency, took place regularly, in online mode for the first time, without sacrificing the quality of the competition.



The need for remote collaboration added complexity to the competition, in which 335 teams participated; each team has been composed by 4 students with the supervision of one teacher.

The objectives of this competition, which AICA carries out in agreement with the Italian Ministry of Education, are those of the classic school research based on intelligent data and information web datamining, carried out in groups, using the new digital tools.

The awareness of the use of the new tools together with the ability to work in groups and problem solving are the skills that teams must put in place.

The goal is therefore cultural in nature, but the competition also has a playful character: it is a challenge, with non-trivial questions that arouse curiosity and interest in students, and guide them to the discovery of tools and information resources available through any device connected to the Internet.

In this edition, the teams competed on the theme: "Language and communication, their evolution over time".

As every year, the award ceremony will be held on the occasion of the annual national AICA conference Didamatica which this year will take place online, hosted by the University of Trieste, on 12 and 13 November, as part of the Trieste European Capital of Science programme, identified for this role by the European Science Open Forum (ESOF).

Page 7 IFIP News June 2020

INTERACT 2019

We are happy to announce the release of the book "Human Computer Interaction and Emerging Technologies" Fernando Loizides, Marco Winckler, Usashi Chatterjee, Jose Abdelnour-Nocera, Antigoni Parmaxi (eds.).







Human Computer Interaction and Emerging Technologies

Adjunct Proceedings from the INTERACT 2019 Workshops

Edited by

Fernando Loizides Marco Winckler Usashi Chatterjee Jose Abdelnour-Nocera Antigoni Parmaxi

This volume contains the Adjunct Proceedings to the 17th INTERACT Conference, and comprises a series of papers from the workshops. It follows the INTERACT Conference tradition of the publication of adjunct proceedings by a University Press which has a connection to the conference itself. This tradition has been established to enhance the outreach and reputation of the University Press chosen.

The INTERACT Conferences are an important platform for researchers and practitioners in the field of human-computer interaction (HCI) to showcase their work. They are organised biennially by the International Federation for Information Processing Technical Committee on Human–Computer Interaction (IFIP TC13), a committee of 30 member national societies and 9 Working Groups. The 17th IFIP TC13 International Conference on Human-Computer Interaction (INTERACT 2019) took place during 2-6 September 2019 in Paphos, Cyprus. The conference was held at the Coral Beach Hotel Resort, and was cosponsored by the Cyprus University of Technology and Tallinn University, in cooperation with ACM and ACM SIGCHI. With an emphasis on inclusiveness, these conferences work to lower the barriers that prevent people in developing countries from participating in conferences. As a multidisciplinary field, HCI requires interaction and discussion among diverse people with different interests and backgrounds.

Page 8 IFIP News June 2020

IFIP TC3 - New Executive Committee

IFIP TC3 has a new Executive Committee (EC). TC3 is concerned with endeavours that take forward important contemporary needs that we all face and confront in the field of computing in education. The members who have kindly agreed to play their part in the new Executive Committee (EC) are:

chair (Don Passey, national representative of the United Kingdom); vice-chair (Rosa Bottino, national representative of Italy); secretary (Sharon Singh, national representative of Australia); working group liaison (Christophe Reffay, national representative of France); website liaison (Mary Webb, chair of the task force on the computing curriculum).

From top-left in clockwise order, here is the new EC in its first full meeting - Don, Christophe, Rosa, Sharon, Mary.



The EC team is concerned with supporting strategic direction, supporting the work of TC3 and its WGs, and ensuring that recommendations and focus are aligned with wider concerns of IFIP and with the interests of as many individuals and groups within TC3 as possible. We all have our parts to play in helping TC3 to achieve its aims and goals.

Rosa, the vice-chair, says that she will "support the chair and, in particular, sustain regular development of conferences and specific events". Sharon, the secretary, says she will "focus on communication, disseminating relevant information to all TC3 members via emails, the website and IFP News bulletins – and, of course, document TC3 meetings". Christophe, the working group liaison representative, says that he intends to "fruitfully nurture important dialogue, about projects, needs and questions, between each WG and the EC". Mary, the website liaison representative, says that she will "coordinate the web liaison group to facilitate TC3's communication, as well as champion TC3's leadership in the development of computer science education".

We all look forward to supporting TC3 at this important time!

Page 9 IFIP News June 2020

IFIP Working Group 10.4 Project on Intelligent Vehicle Dependability and Security

WG.10.4



Working Group 10.4 (Dependable Computing and Fault Tolerance) is pleased to share this note about a new project, Intelligent Vehicle Dependability and Security (IVDS). Through its workshops, its affiliations with larger conferences, and landmark publications by many of its members, WG 10.4 has contributed significantly to both R&D and application of highly dependable and secure computing systems.

The vision of this new project is the realization of highly dependable and secure operation of intelligent vehicles (IVs), verified and validated with respect to strict dependability (particularly safety) and security requirements by rigorous state-of-the-art methods. Types of vehicle intelligence assumed in the vision are mainly those associated with SAE Driving Automation Levels 3-5, per SAE Int'l Recommended Practice J3016.

The project's mission is to facilitate awareness and provide pro bono counsel to both automotive stake-holders and relevant standardization/regulatory bodies. Avenues for such provision include the invitation of researchers and government/industry stakeholders to workshops regarding specific IVDS issues. These will be organized either by WG 10.4 or jointly with other professional groups having similar interests, e.g., WGs in IFIP TCs such as TC 11 (Security) and TC-12 (AI), and IEEE TCs such as Self Driving Cars (IEEE Intelligent Transportation Systems Society), Autonomous Ground Vehicles and Intelligent Transportation Systems (IEEE Robotics and Automation Society), Fault Tolerant and Dependable Computing (IEEE Computer Society), and the ACM SIG on Artificial Intelligence (ACM). Another important avenue is meeting with industry and government in their own environments, e.g., IV-related conferences and workshops organized by industrial groups and governmental agencies.

The goals of the project correspond to acquiring and disseminating knowledge with respect to a number of important concerns regarding dependable and secure IVs, including Measures, Standards, Employment of Machine Learning Algorithms, Key Design Methods, and Assurance and Certification.

Contacts

IVDS Project Lead: Dr. Jaynarayan Lala Jay Lala@raytheon.com

Standards: Prof. John Meyer jfm@umich.edu

Security & Publications: Dr. Carl Landwehr carl.landwehr@gmail.com

Communications: Dr. Charles Weinstock weinstock@sei.cmu.edu

Website

WG 10.4: https://www.dependability.org/wg10.4/index.html

Page 10 IFIP News June 2020

HBMSU developed a Certified Online Educator program to empower educators to design, develop and deliver online learning.

Developments in digital technologies over the past decades have produced profound changes in the

structure, design, and delivery of teaching and learning. Education institutions need to adapt to the rapid growth in emerging technologies and utilize online and smart learning to deal with the new digitally oriented learners. Educators need to understand new technologies and their impact on learners and their learning experiences and enhance their existing skill sets. To this end, the Certified Online Educator program has been developed by Hamdan Bin Mohammed Smart University to assist educators to acquire the latest techno-pedagogical skills and knowledge needed to ensure a successful and satisfying teaching and learning experience in an online/smart learning environment. The certificate is aimed at empowering teachers to comprehend the basics of online learning as well as analyze situational scenarios to design, develop, and deliver online learning which will eventually enable them to be more competent online educators in their respective fields.

Upon completion, participants will be able to:

Address the challenges facing educators and learners in transitioning to online learning;

Comprehend the importance of using current technologies for online learning;

Analyse effective synchronous and asynchronous online learning designs;

Analyse effective delivery of synchronous and asynchronous online sessions.

The program is fully online with a series of videos and educational resources. It takes approximately two weeks to complete and leads to a certification "Certified Online Educator" by Hamdan Bin Mohamed Smart University. The program is available at: https://cloudcampus.hbmsu.ac.ae



Page 11 IFIP News June 2020



IFIP 17th International Conference on Product Lifecycle Management 5-8 July 2020, Rapperswil, Switzerland



From July 5th to 8th the 17th IFIP International Conference on Product Lifecycle Management will take place as a virtual event, organized by HSR (University of Applied Science Rapperswil). The <u>PLM International Conference</u> connects various representatives of its community from research and industry who contribute to its state-of-the-art research questions investigation. This year, 62 research papers in the wide filed of PLM will be presented along with our keynotes. A full program is accessible through our website.

As part of the virtual edition we will present open webinars, free for everyone, on every day of the conference. Experts from industry share their experience in implementing PLM and BIM:

Roland Dinner and Marco Frick form Bühler AG will talk about Efficiency in Plant Engineering through Configurable Products. They will explain how they realized a high level of internal standardization of products through configuration, while acting as flexible engineering company towards their customers.

Thorsten Strathaus from Amstein+Walthert will share his experience with BIM, managing complex projects in retail refurbishing. Also emphasizing the effort to improve standards in BIM, nationally and internationally.

Roman Hänggi from the DigitalLab@HSR will show is experience and the challenges of implementing concepts of the smart factory in different existing production environments with existing IT infrastructure, existing business processes and different business needs.

The webinars can be joined by following this link: https://www.plm-conference.org/open-webinars.

Towards Inclusive Co-Creation of Inclusive Games.

At ICEC 2019 in Peru we invited Franco Garcia (PhD) to run a workshop: Towards Inclusive Co-Creation of Inclusive Games. The idea of co-creation is to diversify design teams and thus achieve more inclusive game designs. We were delighted that the workshop had about 50 attendees. As this was at least twice as many as expected the session turned into a seminar for practical reasons. A related co-design approach was recently explored in another study as well [1]. These results inspires us when looking ahead for the next ICEC conference, when we aim to have a follow-up session for inclusive game design and how to bridge gaps between disabled players, game industry and academia.

Jérôme Dupire (chair) & Thomas Westin (vice chair)

IFIP Entertainment Computing: TC 14.9 Game Accessibility

[1] https://eudl.eu/doi/10.4108/eai.30-7-2019.162948

Page 12 IFIP News June 2020

The IFIP 10.4 WG Announces the Jean-Claude Laprie Award Winners for 2020



About the Jean-Claude Laprie Award

The Jean-Claude Laprie Award in Dependable Computing is awarded annually since 2012 by the IFIP Working Group

on Dependable Computing and Fault Tolerance in his honor. The award recognizes outstanding papers that have significantly influenced the theory and/or practice of Dependable Computing. It takes the form of a memorial plaque presented to the author(s) at the Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN).

Any paper relating to dependable and secure computing, and published at least 10 years prior to the award year (e.g., 2010 or earlier for the 2020 award) is eligible for the award

The award seeks to recognize papers that have had a significant impact in the intervening years in one or more of the three following categories:

Technical/scientific research impact
Industrial/commercial product impact
Broad impact on the dependable computing community

Winner of the 2020 Jean-Claude Laprie Award

For 2020, the Award Committee has unanimously decided to select the following paper:

Ateniese, G., Di Pietro, R., Mancini, L. V., Tsudik, G. Scalable and Efficient Provable Data Possession.

In Proc. 4th Intl. Conf. on Security and Privacy in Communication Networks (SecureComm), Istanbul, Turkey (September 2008), Art. No.9, pp.1-10, https://doi.org/10.1145/1460877.1460889.

The Award Citation:

"Scalable and Efficient Provable Data Possession" by Giuseppe Ateniese, Roberto Di Pietro, Luigi V. Mancini, and Gene Tsudik established the basis for provable data possession based on highly-efficient symmetric key cryptography. The paper was seminal in allowing the outsourcing of dynamic data, i.e., by efficiently handling operations such as block modification, deletion, and append. This is the first solution to provide these properties and is still unsurpassed. The paper had a considerable impact on the field. In addition to the academic impact (1300+ citations), the proposed PDP method is at the core of the many solutions that remotely check data consistency (e.g., distributed databases, online social networks, remote data backup), and is finding its way in blockchain technologies. More broadly, the paper is instrumental in forming a bridge between the research communities on security and on dependable systems and networks. As Jean-Claude Laprie used to remind us, security is indeed one of the five fundamental attributes of dependability. For these reasons, the selection committee has unanimously selected this ground-breaking publication which is well-deserving of this award."

DSN-2020 Jean-Claude Laprie award Committee

Chair: Xavier Defago, Tokyo Institute of Technolgy, JP

Members:

Sonia Ben Mokhtar, LIRIS/CNRS, FR
António Casimiro, University of Lisbon, PT
Pascal Felber, University of Neuchâtel, CH
Yennun Huang, Academia Sinica, TW N
obuyasu Kanekawa, Hitachi, Ltd., JP
Richard D. Schlichting, U.S. Naval Academy, US
Tatsuhiro Tsuchiya, Osaka University, JP

Citations and complete information on the Jean-Claude Laprie awards can be found on the award web page: http://jclaprie-award.dependability.org/

Page 13 IFIP News June 2020

Ukrainian Federation of Informatics participates in the Ukrainian National Digital Coalition.

In recent months, the Ukrainian national IT society, the Ukrainian Federation of Informatics, has been part of the Ukrainian National Digital Coalition.

On September the 5th 2019, the Memorandum on the creation of the Ukrainian National Digital Coalition "Digital Transformation Coalition" was signed at the "Ukrinform" news agency in Kyiv. The High-Tech Office Ukraine and the PO "Ukrainian Association of Information Technology Professionals" were selected as a coordinating partner.

Ukrainian Federation of Informatics Director Igor Grebennik and member of the UFI board Olena Chaikovska attended the signing ceremony of the Memorandum.

The main objective of the Digital Transformation Coalition is to consolidate and coordinate the initiatives and efforts of all partners in the field of digital development and integration of Ukraine into the European Digital Space (EU Digital Unified Market).



The main directions of cooperation of the partners of the National Coalition are:

Dissemination of information about modern digital technologies and their practices;

Creation and development of appropriate infrastructure for acquiring and improving the digital skills of youth and society as a whole in order to increase the employment rate of the population and the effective use of digital opportunities

Harmonization with the Digital Agenda and the Digital Unified Market of the European Union;

Improving access to digital infrastructure and the Internet;

Integration of digital technologies into production processes, or digitization of industry;

Promoting the digital development of settlements and regions;

Digitalization of science, development of Ukrainian e-infrastructures;

Promoting the development of creative industries, cybersecurity systems and other areas of Ukraine's digital transformation;

Developing international cooperation in the field of digital technology development and digital skills.



Since 2018, the Ukrainian Federation of Informatics is an associated partner of the Erasmus + project: KA2 CBHE) dComFra - Digital competence framework for Ukrainian teachers and other citizens 598236-EPP-1 -2018-1-LT-EPPKA2-CBHE-SP.

The National Coalition was established at the initiative of the dComFra project working group under the EU funding program.

Page 14 IFIP News June 2020

(Continued from page 13)

Members of the Ukrainian National Coalition for Digital Transformation are involved in discussing and participating in overcoming current global challenges. They constantly cooperate with representatives of government agencies, professional communities and all interested stakeholders to discuss e-Skills, as well as meetings with the Ministry of Digital Transformation of Ukraine, the Ministry of Education and Science of Ukraine, the National Qualifications Agency.

IFIP Joint Working Conference 2020 goes Online

The uncertainties arising due to the COVID-19 pandemic have failed to dampen the spirits of IFIP Working Groups 8.2, 9.1, and 9.4 which are collectively organizing a Joint Working Conference during 10-11 December 2020. The conference, which was initially scheduled to be held in Hyderabad, India will now be held online.

The conference theme, "The future of digital work: The challenge of inequality" has become even more relevant in the current COVID situation, as many new dimensions have emerged that demand scholarly attention. The conference seeks to encourage discussion and debate around the challenges and issues arising from digitalization of private and professional life, such as better/worse quality of life and work, social inclusion/exclusion, (non)discrimination, (un)employment, and civic (non)participation.

The call for research-in-progress (RIP) papers is now open, and will close on September 10, 2020 (midnight Central European Time, GMT+1). RIP papers should be in the form of extended abstracts, with a maximum length of 2000 words plus references. Selected RIP papers will be worked on in thematically grouped Paper Development Sessions in a roundtable format.

The keynote address for the conference will be delivered online by social activist, Renana Jhabvala, and Professor at the University of Cambridge, Michael Barrett. Online panel discussions are also scheduled during the conference.

For more details and updates, please check http://www.ifipjwc2020.org/

Program chairs: Eric Monteiro, Stefan Klein, Shirin Madon, Rajendra Bandi and Ranjini CR

Important dates:

September 10, 2020 October 20, 2020 December 10 – 11, 2020 Deadline for submitting research-in-progress papers Notification of accepted research-in-progress papers

Online Conference

Page 15 IFIP News June 2020

PRESS RELEASE:

Top remote worker cyber risks and solutions

The Institute of Information Technology Professionals South Africa (IITPSA) outlines safer online meeting and home network measures



Home-based workers are at increased risk of cyber attack, but there are several measures they can take to reduce risk.

This is according to Bryan Baxter, a corporate IT business development manager and IITPSA KZN chapter committee member, who was addressing an IITPSA KZN Chapter webinar last week.

The webinar, focusing on cybersecurity and etiquette for remote work and meetings, outlined a significant shift in cyber risk facing companies and their employees.

"The abrupt move to remote working and cloud has driven many companies to try and do in a matter of months what others took years to achieve," Baxter said. This move has strained IT resources and highlighted vulnerabilities in home IT environments, which cyber criminals were taking advantage of.

"Security and communications at home are typically not sufficient for corporate usage," Baxter warned.

Reducing home worker cyber risk

Corporate data is at risk in home user environments due to common vulnerabilities in home networks, and the fact that many users were unaware that their personal information may already have been compromised, Baxter said.

Baxter said key risks among remote workforces included vulnerable endpoints, data leakage, password compromises, the use of shadow IT, a lack of corporate VPNs and insecure meeting solutions.

"A layered defence approach is needed to protect users, data, networks, devices and technology," he said. "IT professionals need to make users' lives easier and they must make it easy for end users to stay secure, or we will see the emergence of shadow IT and greater risk."

He recommended a number of ways to mitigate risk in home user environments: "Enhance user awareness training, implement stronger two-factor authentication and keep personal and work systems separate. Corporates should ensure that they have classified their data and that sensitive data is adequately protected from employees working at home. Regularly backing up both work and private data is essential. Use a VPN to access important systems, and secure home routers and wireless devices. Updated endpoint protection such as anti-virus and host based firewalls are important. These are now moving to more advanced threat protection such as ERD or endpoint detection and response. This is important because standard AV does not pick up shell scripting compromises. Home systems must be patched and kept up to date, and ideally home users should create separate admin and user accounts on their home computers."

He also emphasized the need to change the default admin password on the home router; enable WAP2 encryption; and use a strong password for the home wireless network.

Selecting safer virtual meeting solutions

With a webinar participant poll revealing that 38% of participants most often use Microsoft Teams, 42% use Zoom, and 9% use Google Meet for video conferencing, Baxter noted that selecting the right solutions for enterprise use was crucial for security and data protection.

He highlighted cases in which meetings had been compromised and videos of meetings posted online. "If you're going to have a board meeting or talk about your financial results, you need to think about the solution you're using," he said.

"Enterprises need to look first at the vendor – asking what is their support like, and can you trust them. Then consider the solution – asking how good is the product, how is it rated and how secure is it?" Considerations should include whether the solution was fit for purpose, its cost and the ease of integration and mobility options.

Factors that should be considered include whether the video conferencing solution offers full end to end encryption, where data is be stored and whether this data would remain private, if meetings could be password protected, the level of host control to mute, block and drop attendees, the visibility of attendees, and if information could be protected from unauthorised modification, access and disclosure.

Page 16 IFIP News June 2020

(Continued from page 15)

Etiquette for online meetings

Baxter recommended several basic measures to improve security and effectiveness of online meetings: "Test the technology before the meeting; have a plan and agenda; appoint a moderator; only invite participants who need to be there; and lock the conference and put passwords on entry. Inform participants if you are recording the meeting and introduce everyone at the beginning. Participants should have a clean, work appropriate background for the video call; be aware of their audio and video settings; they should look into the camera and not at themselves while speaking; and they should eliminate distractions and focus on the agenda: be present, mute your mic when not speaking and don't do other work during the meeting," he said.

The IITPSA KZN chapter webinar was one of a series of new webinars IITPSA is rolling out to enhance communication and knowledge sharing among members. The Institute of Information Technology Professionals South Africa (IITPSA) CEO Tony Parry noted that the Institute is also increasing the frequency of its new Tabling Tech webinars, designed to give in-depth insights into emerging technologies.

For more information visit www.iitpsa.org.za or https://www.iitpsa.org.za/upcoming-events/

PRESS RELEASE:

SA tech community throngs to help govt fight Covid-19 threat

Hundreds of tech professionals are volunteering their skills to help combat the impacts of pandemic, DevConf hears



The Institute of Information Technology Professionals South Africa (IITPSA) is delighted to hear that hundreds of South African tech professionals are thronging to a new community to volunteer their services to help the government fight the spread and impacts of the Covid-19 pandemic. This is according to Malan Joubert, co-founder of tech job portal OfferZen, who opened the first virtual DevConf Life developer conference this morning.

Joubert said the Covid-19 pandemic had driven down local industry demand for tech professionals by 50% virtually overnight, but that OfferZen and other ICT industry stakeholders had quickly moved to work together to look for ways to help address the impacts of the crisis.

"We saw a request from the University of Pretoria for assistance, and we quickly made a WhatsApp group of people who wanted to help," he says. But the group grew so quickly that OfferZen had to spin out an app using no-code/low-code tools to manage all the volunteers and their inputs. Joubert reports that within days, the volunteers had contributed data, tools and skills to develop a vulnerability map that illustrated the communities most at risk from the pandemic. This was presented to a Presidential planning meeting. "They were very excited that they could get answers so quickly, and officially requested OfferZen's assistance in recruiting and coordinating volunteers from the tech community to support government in combating this threat," he says.

"We decided to call it 'Project Unlockdown' – this was before the lockdown, and we thought the name was hilarious at the time, and we set out to recruit volunteers from the community, coordinate them and help solve problems. We now have six OfferZen staff and hundreds of people from the tech community involved," Joubert said. Among the projects the volunteers are now working on are a track and trace project, coordinating the maker community to rapidly manufacture medical equipment, and projecting the economic impacts of the pandemic.

Joubert called on all South African tech professionals to volunteer their services at Project Unlockdown. "South Africa need you, and you can help," he said. To sign up, go to https://www.offerzen.com/community/unlockdown/volunteer/

IITPSA, a partner in this year's #DevConf, lauded South African ICT professionals for stepping up to apply their skills to overcoming the crisis. "We believe ICT professionals have a duty of care to use their skills and tools for the good of society, and initiatives such as this one illustrate how quickly and efficiently we can address problems if we work together for a common good," said Tony Parry, IITPSA CEO.

Page 17 IFIP News June 2020

PRESS RELEASE:

Al in business – inevitable, but not for everyone right now

Artificial Intelligence (AI) can revolutionise business, but it should not be deployed unless there is a solid business case for it.



This is according to Johan Steyn, chair of the Institute of Information Technology Professionals South Africa (IITPSA)'s AI and Robotics special interest group (SIG), who was addressing the Institute's first Tabling Tech webinar this week.

Steyn said Al could improve business in areas ranging from HR, sales and finance through to R&D and customer service.

In fields such as Human Capital Management, Al could enhance recruitment by scanning candidates' social media feeds and monitoring their micro-expressions during interviews; it could help personalize training and development programmes and pre-empt the loss of key skills. In sales, Al could ensure products and services met customer needs and wants; and predict market changes. Research and Development (R&D) could use Al to extract intelligence from existing innovations, evaluate initial ideas and even suggest new ideas based on patterns. In IT Operations AlOps could predict outage times and prevent operational problems and security breaches. And Al was already effectively in use in contact centres and to support accounting and finance functions.

However, deploying AI could be challenging if the business was not at the right stage of readiness. "AI is inevitable, but it may not be right for every business right now," he said. "You have to look at it from a business perspective, you have to be technically and culturally ready, and you need to partner with the right organisation to roll out any AI implementation," he said.

"It takes time and planning to take AI into a traditional business. You need to have defined, mature processes in place first, your organisation, systems and data need to be ready, and you need to understand the business problem you are trying to address. You need to assess whether you have the necessary skills and must consider the legal and regulatory implications."

Steyn noted that cultural readiness was one of the biggest hurdles to be overcome when deploying AI in an organisation. "Many people do not understand exactly what AI is, and fear that it will replace them at work. Introducing AI can have a massive cultural impact on the organisation, so it is important not to take a big bang approach. Start with a small pilot project that proves it doesn't threaten jobs, but in fact helps people to do their jobs better, then only roll out over the larger organisation."

Steyn also stressed the importance of choosing the right implementation partner when implementing an AI project. "It should be more than a vendor relationship – it should be a partnership. Organisations should look at finer details like who will own the IP, and whether they will upskill your staff," he said.

IITPSA's new Tabling Tech webinars will become a regular feature to inform both ICT professionals and business decision makers. "The rationale behind the Tabling Tech sessions is to bring topics of ICT interest (both technical and business related) to the table for exploration and discussion, to create greater awareness and better understanding. It is a great opportunity for our members and other industry professionals to remain connected and to share knowledge and ideas," said IITPSA CEO, Tony Parry.

IT Professionals interested in participating in the Tabling Tech webinars can contact alice@iitpsa.org.za or visit www.iitpsa.org.za

Page 18 IFIP News June 2020

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

Automata 2020 https://automata2020.weebly.com/	AUTOMATA2020	10/08-12/08 2020 Stockholm, SE	Oxford Immune Algorithmics
IFIP Summer School on Privacy and Identity Management https://www.ifip-summerschool.org	IFIPSC	17/08-21/08 2020 Brno, CZ	none confirmed yet
International Cross Domain Conference for Machine Learning & Knowledge Extraction https://cd-make.net/	CD-MAKE 2020	25/08-28/08 2020 Dublin, IE	IFIP WG8.4 / IFIP TC8
Advances in Production Management Systems https://www.apms-conference.org/	APMS	30/08-02/09 2020 Novi Sad, RS	IFIP WG5.7 / IFIP TC5
The 19th conference on electronic government and the 12th conference on electronic participation http://dgsoc.org/egov-2020/	EGOV	31/08-02/09 2020 Linkoping, SE	IFIP WG8.5 / IFIP TC8
IFIP TC7 conference on System modelling and optimization https://modemat.epn.edu.ec/ifip_tc7_2020/	IFIP TC7	31/08-04/09 2020 Quito, EC	Sociedad Ecuatoriana de Matematica / IFIP TC7
4th IFAC Workshop on Maintenance Engineering, Services and Technologies https://www.ifm.eng.cam.ac.uk/events/maintenan ce-in-the-digital-era/	AMEST 2020	10/09-11/09 2020 Cambridge, GB	IFAC
35th IFIP TC-11 SEC 2020 International Information Security and Privacy Conference https://sec2020.um.si/	IFIP SEC 2020	21/09-23/09 2020 Maribor, SI	IFIP TC11
European Conference on Service-Oriented and Cloud Computing https://esocc-conf.eu/	ESOCC	28/09-30/09 2020 Heraklion, GR	ICS-FORTH
28th IFIP/IEEE International Conference on Very Large Scale Integration http://vlsi-soc.pe/	VLSI-SoC	05/10-07/10 2020 Salt Lake City, US	IEEE CASS; IEEE CEDA
ETRIA World Conference TRIZ Future 2020 https://tfc20.eu	TFC2020	14/10-16/10 2020 Cluj-Napoca, RO	ETRIA European TRIZ Association
16th International Conference on Network and Service Management http://www.cnsm-conf.org/2020/	CNSM 2020	02/11-06/11 2020 Izmir, TR	IEEE ComSoc IEEE CS
IFIP Internet of Things 2020 http://ifip-iotconference.org/	IoT 2020	05/11-06/11 2020 Amsterdam, NL	IFIP DC IoT / being negotiated: KNVI, AIOTI, others
INTERNATIONAL CONFERENCE ON INTEROPERABILITY FOR ENTERPRISE SYSTEMS AND APPLICATIONS http://iesa2020.enit.fr	I-ESA2020	17/11-19/11 2020 Tarbes, FR	I-VLAB, PGSO
21st IFIP / Socolnet Working Conference on Virtual Enterprises http://www.pro-ve.org	PRO-VE 2020	14/09-16/09 2020 Valencia, ES	SOCOLNET - Society of Collaborative Networks
Brazilian Symposium on Computing Systems Engineering	SBESC	24/11-27/11 2020 Florianopolis, BR	Brazilian Computing Society (SBC) / IEEE Industrial Electronics Society (IES)

Page 19 IFIP News June 2020

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

	I	I	
Working conference on the Practice of Enterprise Modelling https://poem2020.rtu.lv	PoEM 2020	25/11-27/11 2020 Riga, LV	IFIP WG8.1 / IFIP TC8
8th International Conference on Human-Centered Software Engineering https://hcse-conference.com/	HCSE 2020	30/11-02/12 2020 Eindhoven, NL	IFIP WG13.2 / IFIP TC13
9th International Conference on Performance Evaluation and Modeling in Wired and Wireless Networks https://sites.google.com/view/pemwn2020/home	PEMWN 2020	01/12-03/12 2020 Berlin, DE	Ecole Nationale des Sciences de l'Informatique (ENSI), Tunisia / Inria, Paris, France / Freie Universität Berlin, / Einstein Center Digital Future (ECDF), Berlin
5th IFIP Conference on Information Technology in Disaster Risk Reduction http://itdrr.unwe.bg/	ITDRR-2020	03/12-04/12 2020 Sofia, BG	IFIP WG 5.15 / Science Research Center for Disaster Risk Reduction / University of National and World Economy, Sofia, Bulgaria
Histories of Computing in Asia http://ifipwg97.org/workshops/hca2020/	HCA2020	05/12-08/12 2020 Guangzhou, CN	IFIP WG9.7 / IFIP TC9
The 32nd IFIP International Conference on Testing Software and Systems http://home.ing.unisannio.it/ictss2020/	IFIP-ICTSS 2020	09/12-11/12 2020 Napoli, IT	Università di Napoli Federico II Università del Sannio / Università della Campania Luigi Vanvitelli
: IFIP Joint Working Conference on the Future of Digital Work: the Challenge of Inequality www.ifipjwc2020.org	ifipjwc2020	10/12-11/12 2020 Hyderabad, IN	IFIP WG8.2, WG9.1 and WG9.4
9th International Precision Assembly Seminar https://www.ipas-seminar.com	IPAS 2020	13/12-15/12 2020 Kitzbuhel, AT	CIRP (TBC)
IFIP WG8.6 WORKING CONFERENCE 2020 https://www.iimtrichy.ac.in/	IFIP WG8.6	18/12-19/12 2020 Tiruchirappalli, IN	IFIP WG8.6 / IFIP TC8
Wireless On-demand Network systems and Services http://2021.wons-conference.org/	WONS	09/03-11/03 2021 Klosters, CH	IFIP WG6.3 / IFIP TC6
International Conference on New Technologies, Mobility and Security http://www.ntms- conf.org/ntms2020/	NTMS	19/04-21/04 2021 Paris, FR	EFREI, TELECOM ParisTECH

Contacts:

IFIP President: Dr. Mike Hinchey (IRL) mike.hinchey@lero.ie

Secretary: Prof. Max Bramer (UK) Max.bramer@port.ac.uk Treasurer: Declan Brady (IE) bradydt@eircom.net

Newsletter Editor: Eduard Dundler (AT) eduard.dundler@ifip.org

IFIP Secretariat:

Hofstraße 3, A-2361 Laxenburg, Austria e-mail: ifip@ifip.org Tel.: +43 2236 73 616