IFIP TC3 was created in 1963. 51 years old in 2014!

http://ifip.org/tc/?tc=tc3
http://ifip-education.ning.com

1. TC3 meeting held since last report

5-6 July 2014, Potsdam, Germany. 24 participants were attending (21 members, 3 guests). The meeting was held in connection with the KEYCIT Conference (Potsdam, Germany, 1-4 July 2014).

A TC3 Executive Committee meeting was held in Poitiers, France, 24-25 January 2014.

2. Next TC3 meeting

The 2015 TC3 Annual Meeting will be held in Vilnius, Lithuania, Potsdam, Germany, 4-5 July 2015, in connection with the IFIP TC3 event DTCOL, to be held in Vilnius, Lithuania, 6-8 July 2015.

3. Changes in Membership

TC3 has a new member:
Nigeria: Adesina S. Sodiya

Iceland, Serbia and Thailand are no longer IFIP member states, but we have TC3 members from these countries. They will stay as “observers”, and we hope that their country will soon be a member again.

4. TC3 Officers

Chair: Prof. Bernard Cornu, France (1st term: 2009-2011; 2nd term: 2012-2014)
Chair-elect and Vice-chair: Mr Sindre Roesvik, Norway (will be the TC3 Chair for 2015-2017)
Vice-chair: Prof. Valentina Dagiene, Lithuania
Secretary: Prof. Ana A. Carvalho, Portugal
Special Consultant: Prof. Raymond Morel, Switzerland
Special Consultant: Prof. Anton Knierzinger, Austria (Conference Management System)
Special Consultant: Arthur Tatnall (EAIT Journal)
Special Consultant: Marta Turcsanyi-Szabo
WG chairs and vice-chairs (see below).

5. In Brief: TC3 Events

IN BRIEF: TC3 Events

2009:
- WCCE 2009, Bento Gonçalves, Brazil, 27-31 July 2009 ; « Education and Technology for a better World ».

2010:
- Workshop in Amiens, France, 28-30 June 2010 (WG 3.1, 3.3, 3.5, 3.8, 3.9): “New Developments in ICT and Education”
2011:
- WG 3.3 Workshop, Research in Digital Technologies, futures and education, Nashville, USA, 6-7 March 2011 (in association with SITE – Society for information Technology in Teacher education).
- TC3 meeting and Seminar, Torun, Poland, 2-5 June 2011.
- AGORA-MATURE Workshop, Barcelona, Spain, 13-14 October 2011.

2012:
- TC3 sponsored and participated in the CSEDU – 4th International Conference on Computer Supported Education, Porto, Portugal, 16-18 April 2012.
- 18-20 April 2012, WITFOR 2012, Delhi, India.
- 6-7 July 2012, TC3 Annual Meeting, Manchester, UK.
- 5th to 10th August 2012: the tenth WG 3.7 ITEM conference, Bremen, Germany and Enschede, the Netherlands.

2013:
- WCCE 2013, “Learning while we are connected”, Torun, Poland, 2-5 July 2013.

2014:
- 1-4 July 2014, KEYCIT (Key Competencies in Informatics and ICT) Open Conference, Potsdam, Germany (Lead: WG 3.1).
- 1-4 July 2014, KCICTP (Key Competencies for Educating ICT Professionals) Workshop, Potsdam, Germany (Lead: WG 3.4).
- 1-4 July 2014, ITEM (Key Competencies in Informatics and ICT: Implications and Issues for Educational Management) Workshop, Potsdam, Germany (Lead: WG 3.7).

2015:
- 6-8 July 2015, IFIP Working Conference (WG 3.1 and 3.3), Vilnius, Lithuania. “Digital technologies, towards a new culture of learning: Computing for the next generation (DTCOL)“.

2016:
- Hawaii, IFIP WG 3.4 Conference
- ITEM WG 3.7 Conference

2017:
- WCCE 2017, June 2017, Dublin, Ireland

2018:
- A TC3 Open Conference is planned in Australia

6. IFIP awards

Silver Core:
2 TC3 Colleagues were awarded in 2013 with the IFIP Silver Core:
Pieter Hogenbirk, Nick Reynolds.

OSA:
4 TC3 Colleagues were awarded in 2013 with the IFIP Outstanding Service Award (OSA):
Ivan Kalas, Mike Kendall, Don Passey, Maciej Syslo.

7. The TC3 Strategy; working groups and task forces.

After the reorganization of TC3 decided last year, we now have 4 working groups in 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).

The working groups have rewritten their title and their aims and scope, and have established their priorities from the next years.

After the last WCCE held in Torun, 2013, TC3 has produced the “Torun Vision”. From this vision, some “hot topics” have been identified, and will be addressed through appropriate “task forces”:

1. Curriculum - deeper understanding of roles of CS/Informatics (a task force is launched by WG 3.1 and WG 3.3).
2. Digital pedagogies (will be addressed by WG 3.1 and 3.4).
3. Digital Equity (which can be an IFIP project in cooperation with other TCs; Raymond Morel will take the lead).
4. Stakeholders of Digital education (WG 3.7 will lead this task force).
5. Digital Security and Education (a task force is established).

The Vilnius DTCOL Conference (“Digital technologies, towards a new culture of learning: Computing for the next generation), Vilnius, Lithuania, 6-8 July 2015, will be an opportunity to work on these topics. The 5 topics may likely be the main streams of WCCE 2017 in Dublin.

8. TC3 Strategy – The “Torun Vision”.

An Open Torun Vision - International Federation for Information Processing (IFIP) Technical Committee 3 (TC3) - 2013 to 2017 Educational stakeholders and purpose: who and what can be supported better by computers?
Arising from the wide experiences and outcomes of the World Conference on Computers in Education (WCCE) 2009 in Bento Gonzales, and the WCCE 2013 in Torun, Poland that focused on ‘Learning while we are connected’, this Open Torun Vision directs us towards the future WCCE 2017 in Dublin, Ireland.
The « Torun Vision » is attached as an Annex to this report.


WCCE 2017 will be held in Dublin, Ireland, last week of June 2017.
The IPC Chair is Don Passey.
The OC Chair is Denise Leahy.

10. WCC 2015.

WCC will take place in Daejeon, Korea on October 4th till October 7th, 2015. It will include a topic about « K-12 creative IT education ».
TC3 is willing to contribute. Don Passey and Nick Reynolds are ready to be involved.

11. Working Groups Reports.

WG 3.1 - Informatics and digital technologies in School Education.

Chair: Sigrid Schubert (Germany) (First term: 2013-2015)
Vice-Chair: Eric Sanchez (France).

Social web:
Ning: http://ifip-education.ning.com/
LinkedIn: http://www.linkedin.com/groups?gid=3372223&trk=hb_side_g

Last AGM: AGM 2014 was held in Potsdam, Germany, during KEYCIT 2014, July 2nd 2014
Next AGM: AGM 2015 will be held in Vilnius, Lithuania, July 2015.

New members
New Aims and Scope

AIMS
- To provide an international viewpoint to the debate of informatics education in all levels of school pedagogies including research activities and best practise experience.
- To promote the acquisition and updating of appropriate knowledge and expertise by all whose teaching environment requires contact with computer-based systems.
- To consider the nature, content and method of delivery for school education, within informatics (computer science) and digital technologies (digital humanities, media literacy), which will enable learners to become discerning digital citizens who are able to act in a complex and digitalized world.

SCOPE
- Early childhood and school education, including related informal learning contexts.
- Informatics education and digital literacy.
- The integration of digital technologies in education.
- The professional development of teachers.
- The provision of pre-service and in-service teacher education to enable educators to use and contribute to the development of digital educational resources, including professional learning networks.

Activities and Events

- WG members contributed to “Structuration and ways of working of TC3”.

- 2014, July 1-4, Joint IFIP Working Conference “Keycompetences innformatics and ICT (KEYCIT)”, University of Potsdam, Germany, WG 3.1, WG 3.2 and WG 3.3;
  - IPC: Torsten Brinda (IPC chair for WG 3.2), Peter Michelez (IPC vice chair for WG 3.1), Mary Webb (IPC vice chair for WG 3.3), Ralf Romeike (Proceedings Editor), Nick Reynolds (Proceedings Editor), Andreas Schwill (NOC chair) and Yvonne Buettner
  - As the main focus of the conference we had in mind skills and capabilities (competencies) that are necessary or at least beneficial to do computer science or to master the IT world, i.e. problem solving, structured thinking, creativity, modeling, planning, thinking in processes and much more. Contributions on analysing necessary skills and teaching them in different subjects in school, in university and in enterprise are welcome.

Keywords for TC3, and hot topics for WG 3.1

1. Key competences in Informatics and ICT
2. Reviewing the IFIP curriculum
3. Learning 3.0 (Political, social and cultural issues)

WG 3.3 - Research into Educational Applications of Information Technology

The group will continue to lead, monitor, identify, discuss and evaluate approaches to researching educational applications of information technology:
- Looking outward at the leading research which is going on worldwide as well as working within IFIP
- Organising WG3.3 meetings and conferences as standalone events or in collaboration with other working groups or in conjunction with other organisation/events that have similar or complementary goals.
- Publishing our work in a range of leading journals and as books.

Officers:
Chair: Mary Webb, UK (2nd term 2013-2015)
Vice-chair: Nicholas Reynolds, Australia
Vice-chair: Andrew Fluck, Australia

Website:
http://www.ifipwg3-3.org/
Group networking area: http://ifip-education.ning.com/group/wg33

Last AGM: The 2014 Annual General Meeting took place by e-mail from June 2014 and at KEYCIT 2014.
Next AGM: 2015 –to be decided.

Main Activities 2013-2014:
- EDUsummIT 2013 Research-informed Strategies to address Educational Challenges in a Digitally Networked World – took place on 1-2 October 2013 Washington DC. The results and action agenda can be found at http://www.edusummit.nl/resources/results-edusummit-2013/.
A special issue of Education and Information Technologies, based on the outcomes, is in preparation. EDUsummIT 2015 is in preparation – see item 6 on the agenda.
- 2014 – Potsdam conference in conjunction with 3.1 and 3.2 "Key Competencies in Informatics and ICT" 1 – 4 July 2014

Future Events 2014-2015:
- Edusummit 2015 will be held in Bangkok, Thailand 14/15 September 2015.

Other Future Activities 2014-2015:
Developing an online database (with links) of tools for researching Into Educational Applications of Information Technology. Niki Davis will start this using Google spreadsheet.

Hot Topics Suggested at Potsdam AGM
Creativity
Powerful Knowledge
Curriculum and Standards
Computational thinking
Mobile learning
Professional Development
Assessment as, for and of 21st Century Learning
Observatories for researching impact of It in education
Big data/Analytics
Digital citizenship
New Systems for Learning (that includes, New Systems for Schooling, MOOCS, Mobile Learning)
Digital Pedagogy – Possibly should be Pedagogy rather than Digital Pedagogy
Leadership

New members:
Raymond Morel, Switzerland
Anthony Maina Gioko, Kenya
Halvdan Haugsbakken, Norway
Ivan Kalas, Slovak republic
Ana Amélia Carvalho, Portugal

New corresponding members:
Janet Price-Glick, Australia
Seeta Jaikaran-Doe, Australia
Augusto Chiocciariello, Italy
Blupindar Singh, India
Keith Turvey, UK
Una Cunningham, UK
Janine Barnes, UK
Lynne Dagg, UK
Sue Cramer, UK
Paul Curzon, UK

WG 3.4 - Professional and Vocational Education in ICT.

Officers:
Chair: Arthur Tatnall, Australia (2nd term: 2014-2016)
Vice-chair: Bill Davey, Australia

AGM: Last meeting held in Torun, 2013

Events:
In 2014, WG 3.4 is taking part in the TC3 KEYCIT conference in Potsdam. We are currently doing some preliminary planning with Martha Crosby (University of Hawaii and TC9) for a larger WG 3.4 conference. We are thinking in terms of running this conference in conjunction with the Hawaii Information Systems Conference (HISC) in Hawaii in January 2016. We aim to attract participants from the USA as well as Europe and the rest of the world and the time and location are under consideration with this in mind.

Strategy:
Working Group 3.4 needs to change its name (at least slightly) in order to attract new members. The original concept of the group was to cater for those interested in educating students for careers in ICT, whether at university level or in industry training. The name ‘Professional and Vocational’ was intended to allow for this. One problem though is that the word ‘Vocational’ means different things in different countries. In Australia and parts of the USA, for example it often refers to lower level post-secondary school and industry training in specific areas such as maintenance or computer networks. We now believe that this word should be removed from the group’s title. Furthermore, with the demise of WG3.2 on University Education (particularly Computer Science) we would like to encourage these people to join WG3.4. At university (or higher education) level, the goal of courses in Information Systems, Computer Science and Software Engineering is to produce ICT Professionals; to lead to careers in various forms of ICT. Other university courses involving some computing (such as various post-graduate and other courses) can also lead to careers in ICT. WG3.4 needs to attract people involved in all areas relating to the education/training of ICT Professionals.

Aims and Scope:

Aims
- WG3.4 is focused on professional and vocational education in ICT – education leading towards careers, or professional development involving some form of computing, rather than on specific teaching of informatics or use of computers in different subject areas in primary and junior secondary schools.
- Our goal is to promote the acquisition and updating of appropriate ICT knowledge and expertise by all whose working environment requires professional contact with computer-based systems.
- To consider the nature, content and method of delivery of professional and vocational education within the ICT sector, which will enable learners to achieve their employment expectations.
- To promote the effective use of ICT as a medium for the delivery of professional and vocational education.
- To foster professional development and life-long learning in ICT-related areas.
- To examine the activities of ICT professional bodies concerning the professional development and certification of their members.
Scope
- The on-going professional development and life-long learning of ICT practitioners.
- The integration of ICT knowledge and practice with other vocational and professional education.
- The provision of initial and on-going IT training and education for ICT professionals to enable them to use and contribute to the development of ICT systems.
- The use of computer-based training methods in the delivery of professional and vocational education.
- The membership of WG3.4 comprises academics in computer-related disciplines (e.g. Computer Science, Information Systems, Computer Engineering) as well as ICT Trainers and ICT Practitioners.
- Members’ interests include senior secondary school curriculum leading to careers in computing, the on-going professional education of ICT professionals, the activities of national ICT professional bodies, the delivery of effective ICT vocational education to post-secondary learners, the use of computer-mediated education and the integration of ICT into other tertiary curricula.

New members:
Jaana Holvikivi, Finland
Paolo Rocchi, Italy
Andreas Schwill, Germany
Denise Leahy, Ireland
Torsten Brinda, Germany
Marie Iding, USA
Javier Osorio, Spain

New Corresponding Members:
Angela Lee, Malaysia
Tony-Ming Lim, Malaysia
Simone Opel, Germany
Simon Sodiya Adesina, Nigeria

To be removed:
Lauri Fontell, Finland
Judy Hammond, Australia

WG 3.7 - Information Technology in Educational Management (ITEM)

Officers:
Chair: Prof. Dr. Andreas Breiter (1st term: 2011-2013; 2nd term: 2014-2016)
Vice-chair: Prof. Don Passey.

Website: http://www.informatik.uni-bremen.de/agim/ifip/cms/index.php

AGM:
The AGM 2013 was run online between 9th July and 9th August 2013. There were 15 members and 8 guests present, and 1 guest apology was received.
The AGM 2014 was held in Potsdam, Germany, July 2014.

New aims and scope:
AIMS
To promote effective and efficient use of Information and Communication Technologies (ICT) within the management and policies, development of and planning for educational institutions;
To promote the use of ICT, including current and emerging technologies to support school and institutional improvement and accountability;
To promote the use and advancement of decision support systems and knowledge management within educational management;
To investigate the potentials of mobile technologies to support managerial and administrative work for educational institutions;
To investigate human, social, and ethical aspects of ITEM systems and to provide recommendations for their adequate integration in educational settings;
To investigate aspects of security and privacy of ITEM systems and to provide recommendations for their adequate integration in educational settings;
To develop and improve qualitative and quantitative empirical methods to understand the role of digital literacy and ICT in the management of teacher and tutor education in educational organizations;
To encourage international exchanges of information and co-operation on state of the art research, development and implementation of ITEM systems;
To propose themes for international, collaborative research and development in ITEM and to seek funding for such research and development from national and international bodies;
To provide advice and support to developing countries, educational systems and institutions in the developmental stages of their ITEM systems.
SCOPE
The whole range of educational institutions and institutions concerned with education, from kindergarten to higher education, adult education, professional development and training settings;
The educational management of ICT used within lifelong, formal and informal settings;
Local education authorities, school districts and those concerned with developing and integrating educational policies, including policy makers, advisers, parents, administrators, teachers other and education providers, and learners;
Local, regional, national, international research and development institutions;
Academic, government, non-profit and commercial organizations.

Events:
Members of WG 3.7 contributed to the WCCE 2013 held in Torun, Poland, between 2nd and 5th July 2013. A WG 3.7 symposium within the WCCE 2013 conference held in Torun, Poland in July 2013 was led by the vice-chair and Anna Grabowska. Following this symposium, papers were sought for a special edition of the IFIP journal, Education and Information Technologies, on intergenerational learning and digital technologies. The vice-chair acted as guest editor for this special edition. Five papers for this special edition have now been published in online first format. The editorial and the five papers will be published in an upcoming volume of the journal.
WG3.7 is contributing a conference stream (Key Competencies in Informatics and ICT: Implications and Issues for Educational Management) to the KEYCIT 2014 conference to be held in Potsdam, Germany, 1st to 4th July 2014. The chair and vice-chair have been programme committee members for this stream. In collaboration with WG3.4, papers from ITEM 2014 will be published by Springer in a post-conference proceedings book, edited by Arthur Tatnall and Don Passey.

At the AGM 2014, WG 3.7 will consider a number of possible future events:
- WG 3.1 is leading a conference in 2015 in Vilnius, Lithuania, with possible opportunity for co-operation.
- WG 3.3 is leading an EDUSummit conference in 2015 in Bangkok, Thailand, with possible opportunity for co-operation.
- An ITEM 2016 conference.
- WCCE 2017, Dublin, Ireland.
- A TC3 open conference with UNESCO in 2018 in Melbourne, Australia.

Membership:
A number of new members were agreed by their national representatives and by WG 3.7 in previous meetings: Alan Strickley (UK); Antonio Castro (PT); Kim Schildkamp (NL); Cevat Celep (TR); Elif Tanrikulu (TR); Michael Wilmes (DE); and Christian Kiock (DE). Following WCCE 2013, Therese Keane, Swinburne University in Melbourne, and Robert Gajewski, Warsaw University of Technology were nominated as members, and during the AGM, Dale Casey, Hordaland Fylkeskommune, and Tuğba Konaklı, Kocaeli University were nominated as members. Anna Grabowska (PL) and Denise Leahy (IR) joined the group as members, being previous members of WG 3.9.
At the 2014 annual meeting, new members were nominated:
Arne Schultz (DE); Monica Banzato (IT).
Corresponding members: Tijen Tülübaş (TR); Tong-Ming Lim (MY); Angela Lee Siew Hoong (MY). Sindre Røsvik, Norway.

12. TC3 Country Reports

Country Reports available at: http://ifip-education.ning.com/page/member-country-reports
Every year, the 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. TC3 has the feeling that such information should be more widely disseminated and used.

13. Liaison with UNESCO.

TC3 has permanent connection with UNESCO:
- Unesco has a representative in TC3: Cedric Wachholz.
- TC3 signed a new “Memorandum of Understanding” together with IITE, the UNESCO Institute for Information Technology in Education, Moscow.
- TC3 contributed in the reflection of UNESCO about the future of IITE, and helped establishing the new strategy for the institute.
- 2 TC3 members have been appointed as members of the IITE Governing Board (Bernard Cornu and Ivan Kalas). Bernard Cornu is the Chair of IITE Governing Board (Term ending on 1st January 2014).
- Several TC3 members are involved in IITE Projects.

Recent activities:
- IFIP Governing Board meeting in Moscow, 13-14 September 2013.
- IFIP-TC3 participation in the IITE “ICT Primary Project, under the leadership of Ivan Kalas. As an output of this project, a MOOC was designed by IITE and the University of London.

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

In last year’s report I described Issues 1 and 2 for 2013; Issue 2 being a Special Issue titled: ‘Educational challenges: ICT-based responses’ and Guest Edited by Christine Redman and David Benzie. Issue 3 was titled ‘ICT: from E-readers and Computer Games to Basketball’ and contained 8 very diverse articles covering a range of topics relating to ICT and Education. Issue 4: ‘Social Technologies, Videoconferencing, Online and Blended Learning and Modelling’ also contained 8 articles. We are now regularly publishing 8 (or more) articles per issue (but Special Issues may contain more or less articles).

The first two issues for 2014 have now been published. Issue 1 was a bumper issue containing 15 articles on issues including the use of Facebook, online learning, m-Learning, problem-based learning, learning packages involving computer-based training and learning packages for strategic decision-making by NATO staff. Issue 2 contained 12 articles on computer education topics including pedagogy, learning styles, blogging, English language learning, in-service education, ‘serious’ games, educational technology adoption, Bioinformatics and Geo-Informatics, knowledge representation, interactive white boards and use of mobile phones. Issue 3 is planned to be a double Special Issue on ‘Mobile and Panoramic Video in Education’ Guest Edited by Jari Multisilta, and ‘Intergenerational Computing’ Guest Edited by Don Passey.

Springer is still working on getting the journal listed by Thomson Reuters (formerly ISI), but this process takes quite some time. The journal is currently listed in: SCOPUS, INSPEC, Google Scholar, EBSCO, Academic OneFile, ACM Digital Library, British Education Index, Computer Science Index, CSA Environmental Sciences, Educational Research Abstracts Online (ERA), ERIH, Expanded Academic, Higher Education Abstracts, MathEDUC, OCLC, SCImago, Special Education Needs Abstracts and Summon by ProQuest.

The number of submitted articles continues to grow with good articles coming from around the world. Currently Springer Online First has 80 accepted articles waiting for publication (~ this includes those for the forthcoming Special Issue), and this list continues to grow with 30 more than this time last year despite the journal rejecting over 60% of submitted articles. Springer is happy with this as it indicates the popularity of the journal and means that publication is assured for the next two years at least. It is also likely to be in our favour in getting the journal listed by Thomson Reuters (formerly ISI) as apparently the journal was not listed in the past primarily because its publication was quite irregular, often with only three issues coming out each year. This is no longer a problem, but one potential problem is waiting time by authors for publication. This does not, however, seem to have deterred many authors as yet (~ many other journals also have a long waiting time for publication).

For 2015 we have, at this stage in addition to our regular issues, one Special Issue on the results of EDUsummIT 2013 titled: ‘Educational Challenges in a Digitally Networked World’. This will be Guest Edited by Joke Voogt, Gerald Knezek and Natalie Pareja Roblin. We also have a proposal (that we are currently considering) for a Special Issue on ‘Social Network Sites in Education’.

As I reported last year and the year before, the number of articles coming from IFIP TC3 Working Groups has been disappointingly low. I again request that each of the WG chairs (~ all of whom are also on the journal’s Editorial Board) encourage their members to write for the journal on working group activities but also on their own research in the area. As TC3 is the official sponsor of the journal there should be more good articles coming from TC3 members.

15. The IFIP ILC.

Bernard Cornu, TC3 Chair, is a member of the IFIP ILC (International Liaison Committee)

16. TC3 Budget.

For 2013, the TC3 fund is as follows:
2013 income: 10 980.25 euros
10 665 as 75% of 14 220 euros (Event Proceeds 2013: OST’12, ITEM 2012, AECRICT’12, WCCE 2013)
315.25 as 25% of 1261 euros (Royalties 2103: OST’12, ITEM 2012)
2013 expenses: 1816.64 euros (Ning subscription, executive expenses)
TC3 fund on 31st December 2012: 14 747.98 euros.
TC3 fund on 31st December 2013: 23 911.59 euros.

As usual, there is a loss on years without a WCCE, and a surplus on years with a WCCE!

In 2013, TC3 could get 1 630 euros from the IFIP DCSC fund, in order to fund participants from developing countries for presenting a paper at WCCE 2013 in Torun.
In 2014, TC3 could get 2250 euros from the DCSC fund, for the KEYCIT Conference in Potsdam, Germany. Unfortunately, due to no-shows, we could only use 810.46 euros.
### ANNEX 1: National members (2014)

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<th>Country:</th>
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<td>Argentina</td>
<td>Nick Reynolds</td>
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<td>Australia</td>
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<td>CLEI (Peru)</td>
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<td>Finland</td>
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<td>Vassilios Makrakis</td>
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<td>Hungary</td>
<td>Marta Turcsanyi-Szabo</td>
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<td>(Iceland)</td>
<td>Anna Kristjansdottir (Observer)</td>
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<td>India</td>
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<td>Ireland</td>
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<td>Italy</td>
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<td>(Serbia)</td>
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<td>Sweden</td>
<td>Lena Olssom</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Raymond Morel</td>
</tr>
<tr>
<td>(Thailand)</td>
<td>Srisakdi Charmonman (Observer)</td>
</tr>
<tr>
<td>Country</td>
<td>Elected Member</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>UK</td>
<td>Mike Kendall</td>
</tr>
<tr>
<td>UNESCO</td>
<td>Cedric Wachholz</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>Alain Senteni</td>
</tr>
<tr>
<td>USA - ACM</td>
<td>Mihaela Sabin</td>
</tr>
<tr>
<td>USA - IEEE</td>
<td></td>
</tr>
<tr>
<td>Ukraine</td>
<td>Zoya Dudar</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>Gilford Hapanyengwi</td>
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TC3 elected members (2014):

<table>
<thead>
<tr>
<th>Country</th>
<th>Elected Member</th>
</tr>
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<tbody>
<tr>
<td>France</td>
<td>Bernard Cornu</td>
</tr>
<tr>
<td>Norway</td>
<td>Sindre Roesvik</td>
</tr>
<tr>
<td>Austria</td>
<td>Anton Knierzinger</td>
</tr>
<tr>
<td>Finland</td>
<td>Mikko Ruohonen</td>
</tr>
<tr>
<td>Australia</td>
<td>Arthur Tatnall</td>
</tr>
</tbody>
</table>
**ANNEX 2: Attendance at TC3 Meetings**

Y = attended  
P = apology

| Country       | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | Total |
|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|     |
| Argentina     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0   |
| Australia     | Y  | Y  | Y  | Y  | P  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | P  | Y  | Y  | Y  | Y  | 22  |
| Austria       | Y  | Y  | Y  | P  | Y  | P  | P  | P  | Y  | Y  | Y  | Y  | Y  | Y  | P  | Y  | Y  | Y  | P  | Y  | Y  | Y  | 17  |
| Belgium       | Y  | Y  | Y  | Y  | P  | Y  | P  | P  | P  | P  | Y  | Y  | P  | P  | Y  | Y  | P  | P  | Y  | P  | 8   |
| Brazil        |    |    |    |    |    | Y  | Y  | Y  | Y  | P  | P  | P  | P  | P  | Y  | P  | P  |    |    |    |    |    | 5   |
| Canada        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0   |
| Chile         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0   |
| CLEI (Peru)   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0   |
| Czech Rep     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0   |
| Denmark       | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | P  | Y  | Y  | Y  | Y  | 14  |
| Egypt         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0   |
| Ethiopia      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0   |
| Finland       | Y  | Y  | P  | Y  | P  | P  | Y  | Y  | Y  | Y  | Y  | P  | Y  | Y  | P  | Y  | P  | Y  | P  | Y  | 16  |
| France        | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | P  | P  | Y  | Y  | P  | P  | Y  | P  | Y  | Y  | Y  | P  | 20  |
| Germany       | Y  | Y  | Y  | Y  | Y  | P  | Y  | P  | Y  | Y  | P  | Y  | Y  | Y  | Y  | P  | Y  | Y  | Y  | Y  | 19  |
| Greece        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 2   |
| Hungary       | Y  | P  | P  | Y  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 2   |
| Iceland       | P  | P  | P  | P  | P  | P  | P  | P  | Y  | P  | Y  | P  | P  | P  | Y  | P  | Y  | P  | P  | P  | 4   |
| India         | P  | P  | P  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0   |
| Ireland       |    |    |    |    |    |    |    |    |    |    |    |    |    | Y  | P  | Y  | Y  | Y  | Y  |    |    |    | 4   |
| Israel        | Y  | Y  | Y  | P  | P  | Y  | P  | Y  | P  | P  | P  | P  | Y  | P  | P  | P  | P  | P  | P  | P  | 6   |
| Italy         | Y  | P  | P  | P  | Y  | Y  | Y  | Y  | P  | Y  | P  | Y  | Y  | Y  | Y  | Y  | Y  | P  | P  | P  | 10  |
| Japan         | Y  | P  | P  | P  | P  | Y  | Y  | P  | Y  | P  | Y  | P  | Y  | P  | P  | P  | P  | Y  | Y  |    | 8   |
| Korea         | P  | P  | P  | Y  | Y  | P  | P  | P  | P  | P  | P  | Y  | P  | P  | P  | P  | P  | P  | P  | P  | 4   |
| Lithuania     |    |    |    |    |    |    |    |    |    |    |    |    |    |    | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | 10  |
| Malaysia      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0   |
| Mauritius     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0   |
| Netherlands   | Y  | Y  | Y  | Y  | P  | Y  | P  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | P  | P  | Y  | 15  |
| New Zealand   | P  | Y  | P  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 4   |
| Nigeria       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 1   |
| Norway        | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | P  | 22  |
| Poland        | Y  | Y  | P  | Y  | P  | Y  | Y  | Y  | P  | Y  | P  | Y  | Y  | Y  | P  | Y  | Y  | Y  | Y  | Y  | 14  |
| Portugal      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 6   |
| Russia        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0   |
| Serbia        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0   |
| Singapore     |    |    |    |    |    |    |    |    |    |    |    |    |    |    | P  | Y  | P  | P  | P  | P  | P  | P  | 1   |
| Slovak Republic |    |    |    |    |    |    |    |    |    |    |    |    |    |    | P  | P  | P  | P  | P  | P  | P  | P  | 8   |
| Slovenia      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 2   |
| South Africa  | Y  | Y  | Y  | Y  | P  | P  | P  | P  | Y  | Y  | Y  | Y  | Y  | Y  | P  | Y  | P  | P  | P  | P  | 16  |
| Spain         | Y  | Y  | P  | Y  | P  | Y  | P  | P  | Y  | P  | P  | Y  | P  | Y  | P  | Y  | P  | P  | P  | P  | 10  |
| Sweden        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 7   |
| Country             | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | 25 |
| Switzerland         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  0 |
| Syria               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  2 |
| Thailand            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  0 |
| Tunisia             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  2 |
| Ukraine             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  0 |
| United Arab Emirates|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  1 |
| United Kingdom      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 20 |
| USA - FOCUS         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  9 |
| USA - ACM           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 10 |
| USA IEEE-CS         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  6 |
| Zimbabwe            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  3 |
| UNESCO              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  1 |

<table>
<thead>
<tr>
<th>TC3 Officers :</th>
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<tbody>
<tr>
<td>Bernard Cornu</td>
</tr>
<tr>
<td>Sindre Roesvik</td>
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<tr>
<td>Valentina Dagiene</td>
</tr>
<tr>
<td>Ana Carvalho</td>
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<td>Raymond Morel</td>
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<td>Anton Knierzinger</td>
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<tr>
<td>Mikko Ruohonen</td>
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<tr>
<td>Arthur Tatnall</td>
</tr>
<tr>
<td>Marta Turcsanyi-Szabo</td>
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<tr>
<th>WG Chairs or vice-chairs :</th>
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<tbody>
<tr>
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<td>WG 3.2</td>
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<td>WG 3.8</td>
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ANNEX 3: THE "TORUN VISION"

An Open Torun Vision - International Federation for Information Processing (IFIP)
Technical Committee 3 (TC3) - 2013 to 2017

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

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

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

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

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

Stakeholders supporting learning can use both CS and ICT to benefit lifetime learners, including seniors, adopting lifelong and intergenerational practices. At the same time, differences in communities across the world are respected, accounting for language, cultural, and institutional values, including those that do not recognise a need for either CS or ICT as basic requirements; and in this spirit, this vision promotes informing through robust concepts and knowledge rather than through shallow advocacy. The Open Torun Vision calls for a focus on five key elements – collaboration, creativity, deeper understanding, expansion, integration – which will be aided through the creation, working and reporting of taskforces – focusing on stakeholders and professional development, pedagogy, curriculum, security and other social implications, and equity.

The Open Torun Vision points to balance rather than dichotomy – the need to accommodate and explore how to integrate CS as well as ICT in education; to consider the world of work, informal,
CS and ICT in education can be blended, rather than arguing a ‘one or the other’ case. But elements of the vision need to be accommodated in the more specific contexts of working groups and national policies and plans.

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

1. Move from consuming to innovating, creating, conceptualising, and producing using programming (CS) as well as ICT applications.
   - Identify the development of knowledge and creativity that has been widened beyond current levels, and how education and professional development has been enhanced through effective communication of CS and ICT practices and approaches.
   - Understand more the role of computers in positively supporting early child exposure to environment affecting subsequent development.
   - Have a wider consideration of educational theories relevant to the field, in a way to discover and develop digital pedagogies.

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