

Príloha 1

(prevzaté zo správy predsedu TC3 pre IFIP GA, Poľsko, september 2013)

Participation of TC3 in the WSIS+10 event at UNESCO

UNESCO was holding in Paris, France, 25-27 February 2013, the first WSIS + 10 Review event, 10 years after the World Summit on Information Societies, held in Geneva, Switzerland. The event was about **“Towards Knowledge Societies for Peace and Sustainable Development”**. IFIP TC3 held a session during this event: **“The place of Education in Knowledge Societies: Changing Educational Paradigms, Managing sustainable Education”**.

The session was organized by Prof. Bernard CORNU, France, TC3 Chair, together with Sindre Roesvik, Norway, TC3 vice-Chair, and Prof. Don Passey, UK. The other contributors were Prof. Andrej Brodnik, Slovenia; Prof. Maciej Syslo, Poland; Dr. Mary Webb, UK; Prof. Carlos Delgado Kloos, Spain; Eric Sanchez, France; Prof. Ivan Kalas, Slovakia; Ass. Prof. Denise Leahy, Ireland; Dr. Anna Grabowska, Poland; Prof. Roumen Nikolov, Bulgaria. It was a strong collaboration between TC3 working groups.

This WSIS+10 session, based on reflections of TC3 working groups, was seeking to discuss the role and place of education and schools in Knowledge Societies. Three main ideas were highlighted:

- Knowledge has a new status in our societies: it has become an economic good; access to knowledge has changed, and there is an increasing risk of confusion between information and knowledge.
- There is an increasing gap between technology and pedagogy: technology changes very quickly, pedagogy stays as it has always been! The issue is not to modernize traditional pedagogies, but to design new enriched pedagogies for the learner of tomorrow!
- The school will survive only if it sticks to its main fundamental characteristics, such as being the guarantor for relevant knowledge, for the construction of knowledge, for formal learning, for developing collective intelligence.

Part 1: Changing Educational Paradigms

What kind of societal changes require a change in education? What technological changes have direct or indirect consequences for education? How do we need to change the paradigm of education? The session presented some trends on developments of public and private services, structural and content changes related to citizens and institutions. UNESCO's four pillars of learning are still relevant, but need to be transcribed for the 21st century knowledge society. Educational institutions are utilizing online resources and there are a growing number of remote, online students. We observe a globalisation of education and learning environments. However, education is becoming personalized and collaborative practises are growing (in communities of practice).

Computers and mobile devices are increasingly commonly used by students in both formal and informal learning settings. Formal and informal elements must be seen as integral parts of lifelong learning. The competences of teachers are challenged and need to be enriched to respond to new demands. The teacher is the key factor of education and competence programs for teachers must be an institutionalized on-going part of their work i.e. pedagogical lifelong learning programs. Students must be educated according to needs of 21st century citizens and the labour market. This implies developments for curriculum and assessment, through related research. Digital literacy and computer science (informatics) must gain a more specific focus.

See recommendations 1, 2, 3.

Part 2: Management for sustainable education

What makes education sustainable and manageable? How does e-learning support management of sustainable education? Emerging factors imply the need to enhance lifelong and intergenerational learning approaches. Vision and leadership are critically important – for all stakeholders, and all will need to develop evolving ICT skills. Sustainable education will rely on ways to manage three key curriculum elements: formal (classroom); non-formal (after-school club and society); and informal (home and other location) activities. Universities regularly review curriculum, assessment and certification procedures; they adopt informal and non-formal curriculum practices increasingly. E-learning technologies now allow policy makers from national to school levels to consider blended models best suiting and benefiting specific learner groups. Private tutoring and digital resources are acquired increasingly by parents. But neither parents nor students have a portal advising how they might approach these burgeoning resources.

See recommendations 4, 5, 6.

Recommendations

Recommendation 1: Redefine education: School systems should enable teachers and students to integrate formal, non-formal and informal learning supporting new approaches offered through new media and learning technologies. Revision of policies and procedures should take place at multiple levels: national state/provincial and local. (<http://edusummit.nl/results2011>).

Recommendation 2: Integrate learning and research – in design-based research: Support collaborative research, of practitioners and researchers, addressing learners' effective use of new technologies in formal, non-formal and informal learning; developing a formative, performance based culture of assessment utilizing tools for learning together, including analytical techniques and gamification. Professional development of teachers is a key factor.

Recommendation 3: Curriculum development – digital literacy and informatics: Develop a curriculum for teaching digital literacy and computer science/informatics that will allow children in K12 education to have access to knowledge that will enable them to be creators of technology – not just its consumers.

Recommendation 4: Describe different ICT-based blended education models, their educational organisation, content, knowledge and communication management, for distinctive stakeholder groups – parents as well as school and educational managers, teachers, advisers and policy makers.

Recommendation 5: Regularly define the ICT skills needed by different stakeholder groups to engage with and support lifelong learning needs.

Recommendation 6: Identify evolving practices of intergenerational learning with digital technologies that support educational practices across generations