Thematic Working Group 1
Towards New Systems for Schooling in the digital age
Summary Report and Action Agenda

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1. Background: Setting up the stage

The aim of Thematic Working Group 1 was to identify the most effective policies and strategies to promote transformative and sustainable ICT-enabled changes in educational systems. This is important to help educational systems meet the needs of digital age learners and the challenges of a rapidly changing knowledge and technology-based global society.

Two essential questions were addressed during the EDUSummit 2013 and served as background for the work of TGW1:

- Question 1: To what extent and how do recent developments of education and digital technologies challenge and change systems of schooling?
- Question 2: How can research inform us about the potential of new forms of schooling supported by digital technologies?

Different perspectives on new systems of schooling in the digital age have been identified and confirmed by TWG1 participants as relevant approaches to answer the two questions mentioned above. These perspectives are related to institutions, actors, and practices. Aiming for an expeditious approach, Davis, Eickelmann & Zaka (2013) indicate the relevance of considering the co-evolution of pedagogy and technology. Because both education and digital technologies are evolving rapidly, the term co-evolution is adopted to describe the changing ICT applications and services as well as the changing scenarios leading to new systems and forms of schooling. In this context, co-evolution is defined by the interaction between the evolution of education and the evolution of digital technologies applied within education. Both education and digital technologies are evolving, and therefore changes in one have the potential to stimulate changes in the other one.

Examples of new technology developments that could have an influence on new systems of schooling include OER (Open Educational Resources) which are freely accessible, usually openly licensed documents and media that are useful for teaching, learning, assessment and research purposes. Another example are MOOCs (Massive Open Online Courses) which provide online courses aimed at large-scale open access via the web. Moreover, video-based learning settings as the ones implemented by the Khan-Academy or flipped classrooms illustrate how the use of new technologies enables more flexible forms of teaching and learning as well as new systems of schooling. Furthermore, a need has been identified to move beyond traditional conceptions of formal vs. informal learning, online vs. offline activities, and to develop new conceptions of what defines learning spaces across different locations and contexts (Erstad & Sefton-Green 2013; Fullan 2012).
This is important in order to help educational systems meet the needs of digital age learners and the challenges of a rapidly changing knowledge and technology-based global societies.

In this context, the following needs and unresolved issues have been identified by TWG1:

1) Necessity to make education more open and flexible, thereby facilitating personalization and student-centeredness.
2) Necessity to integrate formal, non-formal and informal learning with the support of technologies.
3) A lack of teachers’ and policy makers’ access to and understanding of research findings on new systems of schooling and its impact.
4) A lack of public funding and incentives focused on sustainable solutions that combine new pedagogies with new technologies (instead of only equipping schools with technology).
5) Necessity to develop open education resources adapted to traditions in different countries, also available in different languages.
6) The need to open curricula to new approaches of schooling supported by technologies, and to develop new pedagogies hand in hand with technological achievements.
7) The lack of support for the development of 21st century competencies in traditional systems of schooling, e.g. by not covering them in assessment and central examinations. The need to provide funds for ICT infrastructure for students in poor areas/countries.

2. Recommendations

Recommendations for researchers

a) Elaborate systematic reviews of literature and research on new forms of schooling with a specific focus on their impact and effect conditions.
b) Develop further mixed methods approaches and good qualitative research.
c) Make research accessible and understandable for schools (e.g., teachers and principals), but also for policy makers (find funding to re-write research for non-scholarly addressees)
d) Focus further research on new forms of schooling:
   a. Short term research where results are quickly available and can be used to inform further developments in schools/projects.
   b. Longitudinal research focusing on long term and sustainable change supported by ICT and new pedagogies.
e) Exchange and facilitate research between countries

Recommendations for policy-makers

a) Acknowledge the co-evolution of ICT and pedagogies, instead of just equipping schools without giving space and incentives to develop education.
b) Make education more flexible and use ICT-assisted learning concepts to support this (thereby contributing to make education and schooling more successful, also in terms of decreasing drop-out rates, increasing motivation etc).
c) Keep yourself informed about new systems of schooling and recent approaches such as 21st century skills, lifelong learning, integration of formal and informal learning as well as personalized learning and student-centered learning.
Recommendation for practitioners

a) Develop and co-construct pedagogical knowledge about new forms of schooling and new forms of teaching in this new environments.

b) Exchange knowledge within and between schools (e.g., in school networks).

c) Move away from content-orientation to student-centeredness.

d) Make education more flexible with ICT, and thereby more successful.

e) Connect practice with research in order to develop concepts and strategies to learn from research findings.

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g) Integrate informal and non-formal learning and by this take over the learners’ perspective.

h) School heads should leave room to experiment with new pedagogical approaches and back new developments up.

i) Involve parents, administrations, and other key stakeholders from the beginning and during the process of implementing new systems of schooling in your school.

3. Action plans

I. Encourage technology-based personalization strategies and bring up best-practice and models for new forms of schooling.

II. Provide incentives for new forms of schooling, develop concepts how to sustain them right from the beginning.

III. Develop curricula towards new systems of schooling that integrate informal and formal learning.

IV. Develop education and technology hand in hand (co-evolutionary), instead of only equip schools with technology.

Participants TWG1

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