Shaping the use of ICT in schools through R&D in Technology Enhanced Learning

Kaleidoscope Symposium
Stakeholders’ discussion

Moderated by:
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Objectives

- To discuss:
  - research priorities that are relevant for schools
  - To identify mechanisms to involve stakeholders in the definition of research priorities
  - How to ensure the take up of research results

- To contribute to the enrichment of the Kaleidoscope Scientific Vision document produced by the Kaleidoscope network
Organization of the day

- **Morning session (11:30 - 13:00)**
  - Short introduction by resource people
  - Working groups (researchers and school stakeholders): collaborative production of a list of written statements on research priorities, mechanisms to involve stakeholders and ways to ensure take up of research results.
  - Nominate a chairperson

- **Afternoon session (14:30 - 16:00)**
  - Each round table chairperson to report back on the statements produced to the whole group
  - Plenary discussion to agree on a short list of the most pertinent and relevant statements and to prioritize them (5-7).
  - Rapporteur to consolidate the list and report back to Plenary Session

- **Plenary Session (16:30 - 17:45)**
Research Questions/1

- How do we optimize pedagogic and collaborative support within intelligent TEL environments to support the development of scientific thinking?
- How do we support learners and their teachers in the use of mobile communications environments for collaborative inquiry-based learning, in collaborating on the design of such environments and tasks?
- To support learners in collaborative inquiry-based learning, we need to develop means of adaptive testing that not only take into account a learners’ end state of knowledge, but also the starting point of both the learner and the learning environment, which itself is changing.
- What are the social and cultural opportunities and constraints for the embedding of digital technologies in learning and teaching?
Research questions/2

- Research on forms of representation can be used to develop representation of learning design that enable the teaching community to treat teaching as a “design science”; what kind of learning design tools are needed to support and scaffold teachers in taking their place at the forefront of the pedagogical development and deployment of TEL?
- Can TEL be made more effective for low literacy, linguistic, and numeracy skills, by building on both the findings from cognitive neuroscience relating to capacity issues for such learners, and on the best practice of special needs teaching community?
- As “life blogs” mature, they can be extended with tools to support personal projects, becoming personal storehouses of memories and aids to remembering people and events. This activity poses a technical challenge for maintaining and organizing a useful database of experience of a lifetime, and raise deep philosophical, social, and ethical issues about the role and viability of technology as an extension of human cognition and memory.
Research Questions/3

- How can the substance of learning be transformed by the design of adaptive systems that take account of the social and cultural embedding of learners?
- How might digital technologies afford a wider range of educational possibilities in epistemology (what might be learned and how it might be negotiated) and equity (by whom can it be learned and when)?
- In what ways can digital technologies be deployed to foster more open and accessible routes for learners throughout the life course?
Research questions/4

- How does technology support the process of negotiation of meaning’ in the context of learning?
- Can we design methodologies for exploring the possibilities of more productive learning, i.e. learning which is more successful and efficient in achieving its intended outcomes?
- How does TEL support the role of teaching, by the teacher, and by peers?
- How can TEL be used to support every learner achieving their learning potential?