

Inspiring Science Learning: Designing the Science Classroom of the Future

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Abstract. *Powerful methods for scaling-up and transferring pilot implementations and for evolving the public's conceptions of learning and schooling are essential to take full advantage of the opportunities ICTs pose. This work describes what may be its key contribution to the evolution of schools innovation and improvement: a new approach to stimulating, incubating, and accelerating innovation, which is strongly driven by users' needs. The aim of this work is a) to capture what we know so far about the process of encouraging schools to become more innovative b) to describe the Discovery Space Innovation Model which is built upon these understandings and c) to describe the practical programme of work which utilizes this model. Taking advantage from the current reform efforts in science and mathematics education in many European countries and the implementation of some major re-schooling initiatives, our aim is to develop an innovative science and mathematics learning environment, which integrates modern technologies with the aim to create an open technology-enhanced classroom that builds on the strengths of formal and informal teaching and learning strategies in ways that can support learning of all individual students. This environment is embedded with interactive learning artifacts and assessment tools. 100 such classrooms have been set in operation in the most innovative schools in Europe. If we want a powerful innovative culture in schools which is self-sustaining we have to empower system-aware practitioners, working ever more closely with the service users, to create it. And to avoid simply creating interesting but isolated experiments, we have to design in collaborative ways of learning and enquiry between professionals – a “pull” rather than “push” approach.*

Keywords. Advanced Technologies, Practitioner Led Innovation, Science Education.