

## **Fostering Open Education in Europe: the research role of the European Commission's JRC IPTS**

**Andreia Inamorato dos Santos**

**Yves Punie**

JRC IPTS, Spain

andreia-inamorato-dos.santos@ec.europa.eu

### **The IPTS' ICT for Learning Unit**

The IPTS (Institute for Prospective Technological Studies) is one of the nine institutes of the Directorate General (DG) Joint Research Centre (JRC) of the European Commission and is located in Seville, Spain. Its mission is to conduct research to provide evidence-based policy support to various DGs of the European Commission in the field of social and economic sciences.

The *ICT for Learning* unit was formed in 2005 and is part of the Information Society unit of the Institute. Since then it has published over fifty scientific reports and/or articles with the aim to support DG Education and Culture (DG EAC) on the task of harnessing the potential of ICT to innovate education and training practices, improve access to lifelong learning and to deal with the rise of the new (digital) competences and skills needed for employment, personal development and inclusion.

In the 21st century not only digital skills are important, but also self-discipline, new forms of leadership, of collaboration, of building study and career paths as well as of making knowledge available, accessing and recognising it. ICT enable the construction of new and meaningful paths for the development of these skills at the same time contributing for the increase of access to education in both the formal and non-formal domains.

In September 2013 the Commission has launched the Communication "Opening Up Education: Innovative teaching and learning for all through new technologies and open educational resources" (European Commission 2013<sup>1</sup>). The Communication "sets out an European agenda for stimulating high-quality, innovative ways of learning and teaching through new technologies and digital content" (ibid). The Communication responds to the fact that recent developments in open education such as the rise of the MOOC movement highlight the need to develop economies of scale and remove barriers to access, use and sharing of knowledge across borders for education. It also highlights the need for new interactive content for teachers and learners and learning tools.

---

<sup>1</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1389115469384&uri=CELEX:52013DC0654>

The Communication is the result of an ongoing interest of DG EAC, and the acknowledgment of a trend that has been growing over the past five years: the open education movement. Open education is contemporarily realised by the use of open educational resources (OER), the provision of MOOCs and the emergence of newly unbundled services provided by higher educational institutions, mostly enabled by ICT. In order to cater for the need of research to inform policies in the area DG EAC has commissioned the IPTS to carry out two major studies: OEREU (2010-2014) and OpenEdu (2014-2016). These studies are complementary and look into the changing educational scenario that take place at different levels: schools, higher education institutions, learners needs and the learning society.

OEREU was a study based on a foresight methodology. The project had as main objective the provision of empirical evidence to policy makers in order to guide policies on the field of Open Education. It is focused on three educational levels: school education, higher education and lifelong learning. By calling the community to provide 'vision papers' and running workshops with expert groups OEREU has devised scenarios for the future of education in each of these educational levels. The main finding of the project is a trend for unbundling education, at all educational levels. A full report on these scenarios is intended to be published by JRC IPTS later in 2014. The vision papers can be found in the project blog<sup>2</sup>.

OpenEdu<sup>3</sup> follows up the research done on OERU but it brings the focus back to the present. If universities are to unbundle their services, students to get formal recognition for non-formal learning; and MOOCs, OCW and OER are to become common practice, then a comprehensive framework on opening strategies for postsecondary educational institutions is due. OpenEdu is set to develop such framework alongside the community and experts. This framework is constitutive of various dimensions of open education, which have evolved from OEREU. These are, to date: content, licensing, access, technology, business models, accreditation and recognition, pedagogy and leadership.

Finally, JRC IPTS has also been fostering the use of ICTs in education at school level, which in turn also contribute to a more democratic access to educational content. At this level two other projects have been carried out: "Up-scaling Creative Classrooms in Europe" (SCALE CCR) and DIGICOMP. SCALE CCR was carried out from December 2011 to June 2013 on behalf of European Commission DG Education and Culture. SCALE CCR had two main objectives: (1) a better understanding of the pedagogical, technological and organisational nature of ICT-enabled learning innovations that had already achieved significant scale and/or impact; (2) providing policy recommendations for the further integration of ICT in Education and Training in Europe. Outcomes of SCALE CCR project are a model for mapping ICT innovations in education, a model for holistic implementation

---

<sup>2</sup> <http://blogs.ec.europa.eu/openeducation2030/>

<sup>3</sup> <http://is.jrc.ec.europa.eu/pages/EAP/OpenEdu.html>

of innovative pedagogies in the classrooms ("creative classrooms) and 60 policy recommendations for further actions<sup>4</sup>.

The Digital Competence Framework<sup>5</sup> (DIGICOMP), released in 2013 by the European Commission, is part of a multi-year policy effort initiated by DG EAC and executed by JRC-IPTS to define digital competence in order to establish an umbrella for frameworks, curricula, and certifications in Europe. The framework identifies the key components of digital competence in terms of knowledge, skills, and attitudes divided into 5 areas (information, communication, content-creation, safety, and problem solving) and described according to 21 specific competences. The conceptual framework has been endorsed by EU Member States representatives in the Education and Training Programme (of ET 2020) Thematic Working Group on ICT and Education and several Member States are already using it. The framework is also being considered as an instrument for defining and mapping educators' digital competence.

## References

Panagiotis Kampylis, Nancy Law, Yves Punie, Stefania Bocconi, Barbara Brečko, Seungyeon Han, Chee-Kit Looi, Naomi Miyake (2013) : ICT-enabled innovation for learning in Europe and Asia: Exploring conditions for sustainability, scalability and impact at system level.

<http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=6362>

Ferrari, Anusca (2013) DIGICOMP: A Framework for Developing and Understanding Digital Competence in Europe <http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=6359>

---

<sup>4</sup> <http://is.jrc.ec.europa.eu/pages/EAP/SCALECCR.html>

<sup>5</sup> <http://is.jrc.ec.europa.eu/pages/EAP/DIGICOMP.html>