

# “Opening up Education: Implications for VET and AL”

Background paper for meeting of Working Group on Adult Learning  
20-21 January 2014

## Introduction

Policymakers, experts and practitioners all agree: Europe needs a radical rethink on how education and training systems can deliver the skills needed for empowered citizens with an active, meaningful role in the labour market. Digital technologies are embedded in the way people interact, work and trade; yet they are not being fully exploited in education and training systems across Europe.

A new digital divide in the EU, between those who have access to innovative, technology-based education and those who do not, is on the rise as a consequence of fragmentation of approaches and of markets. The Bruges communiqué specifically points to the use of ICT to maximise access to training and to promote active learning, as well as to develop new methods in both work- and school-based VET, in order to facilitate the participation of "at risk" groups; yet only few countries have taken measures to better use the potential of ICT to help at-risk groups learn<sup>1</sup>.

The EU also risks lagging behind other regions of the world. The USA<sup>2</sup> and some Asian countries are investing in ICT-based strategies to reshape education and training. They are transforming, modernizing and internationalising education systems with tangible effects in schools and universities on access to and cost of education, on teaching practices and their worldwide reputation or branding.

Modern education and learning systems in the forefront already include seamless access to learning with maximised re-use of open content and learning analytics used to enable personalised learning. This document points to much more basic elements that have to be in place **to make adult learning and VET outcomes relevant for current and emerging economic and societal need**; strong organisations with visionary leaders, skilled teachers and learners and necessary resources to benefit from the possibilities of ICT. It provides the basis for a discussion about the scope for further developing the roles played by the different actors in this endeavor and background information to support this discussion.

## Policy context

The EU 2020 Strategy to develop smart, sustainable and inclusive economic growth in Europe emphasises the need to develop and constantly update the current and future skills necessary for the workforce and society. The adult education focus has been emphasised as an important component of the ET 2020 strategy within the EU 2020 strategy, and it aims to strengthening participation in adult education by targeting a 15 % participation rate by 2020

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<sup>1</sup> From the unpublished Cedefop monitoring report...

<sup>2</sup> The US Department for Education already 2012 launched a project on “Open Educational Resources to Increase Teaching and Learning of STEM Subjects in Adult Education”. The project period is June 2012 to June 2015. There are also many initiatives on state level, such as <http://www.valrc.org/resources/technology.html>

## “Opening up Education: Implications for VET and AL”

Background paper for meeting of Working Group on Adult Learning  
20-21 January 2014

across the EU. There are expectations for the use of ICT to be instrumental in reaching that goal.

In the Renewed European Agenda for Adult Learning, the Commission recognises the potential of ICT in motivating people to take up learning opportunities as well as in widening access for new target groups, for example those with special needs or who live in remote areas. The potential of ICT is also seen in supporting the objective of ‘improving the quality and efficiency of education and training’.

The Renewed European Agenda for Adult Learning prioritises the development of digital literacy (CoEU 2011), where exploiting the potential of ICT in adult education is also one of the five priorities:

*“Making better use of ICT in the context of adult learning, as a means of widening access and improving the quality of provision, e.g. by exploiting new opportunities for distance learning and the creation of e-learning tools and platforms in order to reach new target groups, in particular, those with special needs or who live in remote areas.” (CoEU 2011, p.6)*

With regard to VET the Bruges communique lists “fostering innovation, creativity and entrepreneurship, as well as the use of ICT (in both I-VET and C-VET) as one of its strategic objectives for the period 2001-2020, with a short-term deliverable:

*“ICT should be used to maximise access to training and to promote active learning, as well as to develop new methods in both work- and school-based VET”.*

*Short-term deliverable 14:*

*"encourage effective and innovative, quality-assured use of technology by all VET providers (including public-private networking and partnerships) supported by the necessary equipment, infrastructure and networks, with continuing improvements that reflect developments in technology and pedagogical understanding;*

The Council Recommendation on Recognition and Validation of Non-formal and Informal learning (adopted in December 2012) is also relevant. The Communication supports the validation of knowledge, skills and competences which have been acquired through non-formal and informal learning including, where applicable, through open educational resources.

Finally, the Commission’s Flagship Initiative ‘Agenda for New Skills and Jobs’, also highlights the need for digital competences and again raises the call for wider access to Lifelong learning especially for disadvantaged groups.

## “Opening up Education: Implications for VET and AL”

Background paper for meeting of Working Group on Adult Learning  
20-21 January 2014

### Opening up Education: Innovative teaching and learning for all through new Technologies and Open Educational Resources

The Rethinking Education Communication in 2012 announced a new European initiative on Opening up Education which was the subject of a subsequent Communication in 2013. The basis for Opening up Education was that national and EU policies were not being fully successful in promoting the use of ICT in education and training systems at a large scale.

The Communication proposes a number of specific actions to support the development of OER at the EU and national levels:

- *Helping learning institutions, teachers and learners to acquire digital skills and learning methods;*
- *Supporting development and availability of open educational resources;*
- *Connecting classrooms and deploying digital devices and content; and*
- *Mobilizing all stakeholders (teachers, learners, families, and economic and social partners) to change the role of digital technologies at education institutions”. (EUROPE 2013d)*

The Opening up Education agenda is to be seen as a starting point. In the longer term, technological change will radically affect education and research in ways that are difficult as yet to predict, and sustained effort and on-going international cooperation is required to improve our knowledge-base and take full advantage of the impact of technology on education.

Past lessons show that merely introducing technology into classrooms is not enough. Only an integrated approach, where the right level of digital skills, access to digital content, ICT infrastructure, and the right organisational strategies are secured, can generate an educational offer able to sustain innovation. The large-scale sustainable changes needed requires shared efforts and focused actions, involving and engaging national, regional and local authorities, social partners, business, students learners, teachers, school managers, trainers, new educational providers, families, educational policy makers and the local communities.

### Actions identified in Opening up Education

The following text summarises the Communication, indicates some specific areas of concern for Adult Learning and Vocational Education and Training and actions put in place since its launch last year and gives some good-practice examples from Member states and projects funded by and carried out under the Lifelong Learning Programme. Among the studies foreseen in the Communication, were one on Adult Learners in a Digital Environment,<sup>3</sup>. This

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<sup>3</sup> Adult Learners in a Digital Environment (EAC-2013-0563), Bertelsmann Stiftung/Ecorys

## “Opening up Education: Implications for VET and AL”

Background paper for meeting of Working Group on Adult Learning  
20-21 January 2014

study was launched in January 2014 and will be presented in 2015. Some preliminary findings are cited in the following text.

The Communication highlights that **education and training institutions need to review their organisational strategies and embrace the potential of ICT**. There are huge expectations that ICT in AL and VET can reduce costs and increase flexibility in terms of time and space, enabling personalised learning "anytime, anywhere". This requires bold leadership and strategic visions accompanied by organisational change. A survey carried out by the ongoing study on Adult Learners in a Digital Environment<sup>4</sup>, shows that only 27% of the institutions who responded has an ICT policy or strategy in place. Also, the character of ICT usages in various educational sectors needs to be kept in mind. A simple transfer of solutions for ICT-enhanced learning from other educational sectors (such as MOOCs and OER used in higher education) to adult or vocational education may not be entirely realistic, and different types of ICT tools may prove more useful within particular adult or vocational education settings but not necessarily in others.

One of the deliverables of the study mentioned above is an online bench-learning tool for providers, including good practice examples. It will help them assess their position in relation to the use and/or the development of ICT- and OER-enhanced learning with other practice. It will also include issues that adult learning providers will need to consider when deciding on how to develop innovative learning environments for their learners. There will also be a handbook, assisting policymakers in understanding how providers have overcome barriers around issues such as ICT infrastructure, ICT devices, accessibility issues, and legal, copyright and financial issues relating to OER.

**Teachers and trainers should be able to acquire high digital competences in order to be the leaders of change in AL and VET institutions**, and the Communication mentions the importance of including digital skills and teaching with ICT in both initial and continuous teacher training. Studies show that 70% of teachers in the EU would like to have professional development on ICT skills, and teachers' lack of skills is a concern also for providers. In the above mentioned survey, the AL providers cited “lack of staff with ICT competence” as the second<sup>5</sup> most important barrier preventing institutions from using ICT in adult education and only 28 % of them had an established staff training programme. Since the launch of the Communication, The European schoolnet<sup>6</sup> Academy has been further developed and the European MOOCs<sup>7</sup> mentioned in the Communication are already in place, training secondary school teachers in specific skills so as to contribute to boost their digital skills. Communities of practitioners at EU level have worked well to support exchange of good practices and for peer support in the field of general and Vocational education<sup>8</sup>. For the AL sector the recently

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<sup>4</sup> EAC-2013-0563)

<sup>5</sup> Lack of funding was cited as the most important (58%)

<sup>6</sup> Network of 30 European Ministries of Education dedicated to the innovative use of educational technology

<sup>7</sup> <http://www.europeanschoolnetacademy.eu/web/general-navigation/courses>

## “Opening up Education: Implications for VET and AL”

Background paper for meeting of Working Group on Adult Learning  
20-21 January 2014

launched EPALE (Electronic Platform for Adult Learning in Europe<sup>9</sup>) multilingual platform will offer possibilities to network to the AL and CVET community.

**Learners expect to acquire the digital skills for the 21st century.** Studies show that, on average, only 30% of students in the EU can be considered as digitally competent and as earlier discussed in the Committee, the results of PIAAC identified that the digital skills needed to use ICT technologies effectively are lacking in 25% of the EU adult population. This hinders the productivity and innovation capacity at the workplace, and limits the participation in society for 70 million EU citizens. This challenge has been addressed by the Digidel 2013<sup>10</sup> campaign in Sweden. The campaign was formed by a network of NGOs, libraries, companies, adult education providers and authorities, and the objective of this joint effort was that 500 000 individuals who up to then had not been using the Internet would get online by the end of 2013. The parts of the campaign that have been evaluated show that this target is reached and exceeded<sup>11</sup>.

**High-quality European OERs** are identified in the Communication as essential for modernising education in all fields. Combined with traditional educational resources, OERs allow for blended forms of face-to-face and online learning, with the additional potential of reducing the costs of education and educational materials. In the past decade, the supply of OERs in the world has grown exponentially, however this is not evident in the AL and VET field.

Opening up Education points to the important issue of sharing educational materials freely with peers through the use of open licenses<sup>12</sup> encourages stakeholders involved in the provision of 'traditional' educational materials to help making high-quality digital content more available. The Open Education Europa<sup>13</sup> portal announced in the Communication is now online, offering a single gateway for OERs produced in Europe, among which there are 222 VET resources and 156 AL resources. A good practice example from the ongoing study is Spain, where there are initiatives to address these challenges at national<sup>14</sup>, as well as at regional level. INTEF<sup>15</sup> offers over 1000 educational resources oriented towards teachers, kids, young adults and parents, and the region of Andalucía offers a framework for blended and online formal and non-formal teaching and learning for adults<sup>16</sup>.

In terms of quality assessment of content, the Communication points out those quality frameworks for OER and mapping with curricula still need to be developed. The German

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<sup>9</sup> <http://ec.europa.eu/epale/en>

<sup>10</sup> <http://www.digidel.se/eng/>

<sup>11</sup> <http://www.digidel.se/wordpress/wp-content/uploads/Utvärdering-av-Internetfondens-Digidelprojekt.pdf>

12As defined by OECD: "Open licensing provides a way of controlled sharing with some rights reserved to the author. Open licenses have the benefit of introducing certainty and clarity into the process of obtaining permission to use the work of others".

<http://www.oecd.org/edu/cei/37351085.pdf>

<sup>13</sup> <http://openeducationeuropa.eu/>

<sup>14</sup> Procomún <http://procomun.educalab.es/comunidad/procomun/acerca-de>

<sup>15</sup> Instituto Nacional de Tecnologías Educativas y de Formación del Profesorado

<sup>16</sup> <http://www.juntadeandalucia.es/educacion/permanente/materiales/>

## “Opening up Education: Implications for VET and AL”

Background paper for meeting of Working Group on Adult Learning  
20-21 January 2014

Federal authority for distance learning<sup>17</sup> protects learners against unreliable distance learning courses by checking the quality of courses and by checking the contract between the student and training provider.

**Enhancing local ICT infrastructure** (broadband, content, tools) is still needed in some parts of Europe, which hinders the optimal use of technology and impairs the potential to use OER and educational software. This infrastructure divide not only creates equity problems among learners but also erodes the potential gains from a greater participation by citizens in the economy.

### Trends and challenges

A recent report<sup>18</sup> describes trends and challenges in European schools for the coming five years. The report is co-authored by the European Commission and the New Media Consortium (NMC). The NMC Horizon Report series charts the five-year horizon for the impact of emerging technologies in school communities across the globe. Experts agreed on two major imminent trends in Europe: the changing role of schoolteachers as a result of ICT influence, and the impact of social media platforms, such as Facebook and Twitter. The changing role of school teachers are among the most imminent trends in the global schools and global HE versions of the report, why one can assume that this has some relevance also for the AL and VET sectors. Looking in the mid-term period, two to three years away, an increasing focus on open educational resources (OER) and on the use of both traditional and virtual learning methods are expected to have a strong impact in Europe. These trends are also identified at the global level for having the potential to stimulate new models of teaching and learning by tapping the wealth of content accessible through the Internet.

Several of the top-ranked challenges identified by the Horizon Project Europe Expert Panel were unique to Europe, and solidly based in local realities. Concerns about student competency in the digital arena surfaced as a solvable challenge in Europe, largely due to ongoing actions of stakeholders and policymakers across the continent, such as the e-competence framework<sup>19</sup>. On the other hand, having students actively participating in the design of learning activities is considered to be a more difficult challenge and it lacks a clear strategy to solve it.

In view of the trends and challenges observed, the panel also signalled the technological developments that could support these drivers of innovation and change. Cloud computing and tablet computing are expected to be increasingly adopted by schools in one year's time or less to make use of services such as Google Apps for Education, Skype, and Dropbox. The time-to-adoption for educational games is estimated within two to three years, while personalised learning and virtual and remote laboratories are expected to be mainstream in schools within four to five years.

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<sup>17</sup> Zentralstelle für Fernunterricht, [www.zfu.de](http://www.zfu.de)

<sup>18</sup> [The NMC Horizon Report Europe: 2014 Schools Edition](#)

<sup>19</sup> <http://www.ecompetences.eu/>

## **“Opening up Education: Implications for VET and AL”**

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20-21 January 2014

### **For the WG meeting 20 January**

**Please be prepared to give a brief overview to what extent national and/or local strategies or policies that focus on the use of innovative learning technologies in adult education and training are in place in your country. This might for example include strategies to widen access to education for adult learners, focus on specific priority groups or areas such as basic skills or general digital skills.**

## “Opening up Education: Implications for VET and AL”

Background paper for meeting of Working Group on Adult Learning  
20-21 January 2014  
Definitions

### ICT Enhanced Learning

There is a wide range of ICT tools or methods available to support the delivery of more efficient and effective learning outcomes in the adult learning sector. A useful distinction can be made between “*ICT supported learning*” and “*ICT enabled learning*” (Reddi 2007):

- “*ICT supported learning refers to the use of ICT tools in supporting learning content, usually in a formal learning context, for example by providing supplementary multi-media content. ICT can also be used to increase visualisation and variation in many subjects not only through classroom-based approaches but also through the use of ICT in the home.*”
- “*ICT enabled learning refers to any educational programme that is purely delivered through ICTs, or with ICT delivered content as the primary method of the learning approach. This form of learning typically involves the provision of online courses and therefore requires ICT access. Courses are typically structured as regular (often weekly) online meetings and interaction with the course tutor and other students takes place in a virtual learning environment. A benefit of online courses is that learners can study at a time which is best for them*”. (Scheuermann and Pedró 2009)

Reflecting the OECD’s focus on innovative learning (but also cautioning that the definitions provided may focus too much on old types of learning delivered through new media), it is important to understand how ICTs are being used to deliver new types of learning, and to then to explore how adult learning providers are using such approaches.

### OERs

Open Educational Resources, which come under the category of ICT enabled learning, are increasingly recognised as a major opportunity to enhance the scope of opportunities in the adult learning sector. The definition of OER currently most often used is:

*“Digitised materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research. OER includes learning content, software tools to develop, use and distribute content, and implementation resources such as open licences. This report suggests that “open educational resources” refers to accumulated digital assets that can be adjusted and which provide benefits without restricting the possibilities for others to enjoy them.” (OECD 2007)*