

Adult Learning in Digital Environments (ALIDE)

1.1 Introduction

The ALIDE project will contribute to the activity of the WG through a focus on three key terms of reference to provide:

- In-depth insights into the largely unexplored area of ICT-enhanced and OER-based adult education, thus complementing the basic research-work IPTS has already done: *What impact do ICT and OER have on adult education provision and uptake?*
- An analysis of the potential of ICT-enhanced and OER-based adult learning to raise the currently largely static participation rates towards the ET 2020 target of 15%, thus contributing to smart, sustainable and inclusive growth: *What potential have ICT-enhanced and OER-based adult learning to improve provision and increase uptake of adult education?*
- Recommendations on how to support the development of ICT-enhanced and OER-based adult education: *What can be learned from the outcomes of projects on ICT-enhanced and OER-based adult education and how can the sustainability of future projects be assured?*

A key deliverable expected from the project is “a proposal for a tool to assess the level and quality of ICT enhanced learning in adult learning (e-Maturity) to be used by either providers or policy makers”.

1.2 Objective of this engagement with the Working Group

The project has presented its Interim Report detailing the country desk research undertaken, the literature review which has involved also contributions from high-level experts, and the initial synthesis of key trends and issues. This has started to inform the development of the self-assessment tool, which is planned to have two main components:

- A mechanism for providers to assess their practice (**self-assessment**) against a range of indicators that will be determined through the collection and analysis of practice across Member States; and
- A **structured set of good practice** examples gathered from across the maximum number of Member States and providers. It is through the analysis of the good practice cases that the range of practice can be structured. The good practice provides a reference base for the providers when they self-assess themselves, and it also provides an overview for policy-makers of structured examples of good practice across Member States and beyond.

It is through the most comprehensive review of good practice cases that the project can ensure that the most thorough set of indicators is produced. To date, we have analysed the initial country research and communicated it in the Interim Report. Two key tables are annexed, showing an early set of good practice examples, plus a synthesis of the adult education policy landscape in Member States.

The Working Group is invited to:

1. **Note** the proposed structure of the online self-assessment tool (Section 1.4), and **provide comments** on the structure and potential utility of the tool;
2. **Note** the indicative examples of good practice (Section 1.6) and policy characteristics (Section 1.7). Then to: **provide further examples** from their Member State that will add to the body of evidence (this can involve providing links to documents, URLs, organisations etc., or asking their wider network of contacts to provide evidence); and, provide comments and clarifications on the country level policy characteristics. Material can be sent to Elizabeth.Kwaw@uk.ecorys.com ; and

3. **Review** the potential list of indicator themes (Section 1.5) that can be structured thus far from the body of evidence, and **provide comments and advice** on how this list can be developed and strengthened.

1.3 Information for the Working Group

Background information is provided to the Group:

- In section 1.4 we introduce the logic and proposed design of the self-assessment tool, noting that the design is based on the successful www.emqa.eu tool developed for the DG EAC Erasmus Mundus joint master degrees;
- In section 1.5 we note some potential indicators which cover areas of practice;
- In section 1.6 we provide selected examples of good practice from a subset of countries. This is a key area for the Working Group to help build a comprehensive set of practice; and
- In section 1.7 we provide the initial categorisation of issues and policy themes gathered from the country level literature review.

1.4 Self-assessment tool

The self-assessment tool will provide a structured Web interface to the best practice outcomes of the project. It will give providers the chance to check themselves against the principles and practice that is relevant for their users, particularly in the context of using OER and digital technologies, but more widely in the context of innovative learning approaches. The tool will encourage providers to learn from good practice (benchmarking), rather than being a normative benchmarking instrument. The logic behind this approach is based in the heterogeneity of 'adult education'. Because there is not a single generic form of 'adult education', and a proliferation of providers and users, there cannot be a single normative 'standard' against which providers can benchmark themselves.

The intervention logic for the tool is that:

Providers of adult education, will be able to benchmark education provision against a range of indicators which relate to adult education using innovative learning approaches, to prioritise areas where their practice could be improved, and both providers and adult education policy-makers will be able to understand the wider international practice through a range of excellent practice examples documented within the tool".

The tool needs to reflect the heterogeneity, and needs to help a range of providers check themselves against the principles and practice that is relevant for their users, particularly in the context of using OER and digital technologies, but more widely in the context of innovative learning approaches. The tool also needs to acknowledge other relevant resources that can be utilised. For example at an individual level "*charting is the process whereby an individual monitors and optimises their interaction with the people and resources who contribute to their learning and development*", and an open source tool is available¹. In the USA the Council for Adult and Experiential Learning (CAEL) markets a commercial tool for institutional providers². The University of Washington and the University of California, San Francisco have a tool to assess adult learners

¹ <http://www.caledonianacademy.net/spaces/charting11/> and <http://charting.gcu.ac.uk/>

² <http://www.cael.org/alfi#Order%20the%20ALF1%20Toolkit>

in a project focused on healthcare³. In Wales, UK, the Recognise and Record their Progress and Achievement (RARPA) tool is focused on adult education practitioners⁴.

Providers need to understand clearly the motivation to use the tool. Such a resource is most likely to be used where the benefits are clearly linked to funding. This was clearly the experience with the Erasmus Mundus site, where potential applicants for funding could learn from the wider practice and significantly improve the quality of their applications. This in turn drove up quality across existing courses because they needed to innovate faster to maintain their competitive edge. The tool being developed in this project would therefore have direct relevance if it was focused on the funding opportunities available for adult education in Erasmus+. Beyond funding, any altruistic motivation to improve practice the broader motivations (which would need to be widely publicised to potential users) for use would include:

- **Providers:** To provide good practice examples of how ICT and Open Education Resources (OER) are used by adult learning providers to enhance their adult education provision. There will be a self-assessment resource to help them assess their position in relation to the use and/or the development of ICT- and OER-enhanced learning with other practice. Providers can also upload examples of good practice that they wish to share with other users. 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; and
- **Policymakers:** To review examples of how providers across Member States have developed strategies and policies that harness the potential of ICT enhanced learning for the benefit of their target adult learners. And also, to understand how providers have overcome barriers around issues such as ICT infrastructure, ICT devices, accessibility issues, and legal, copyright and financial issues relating to OER.

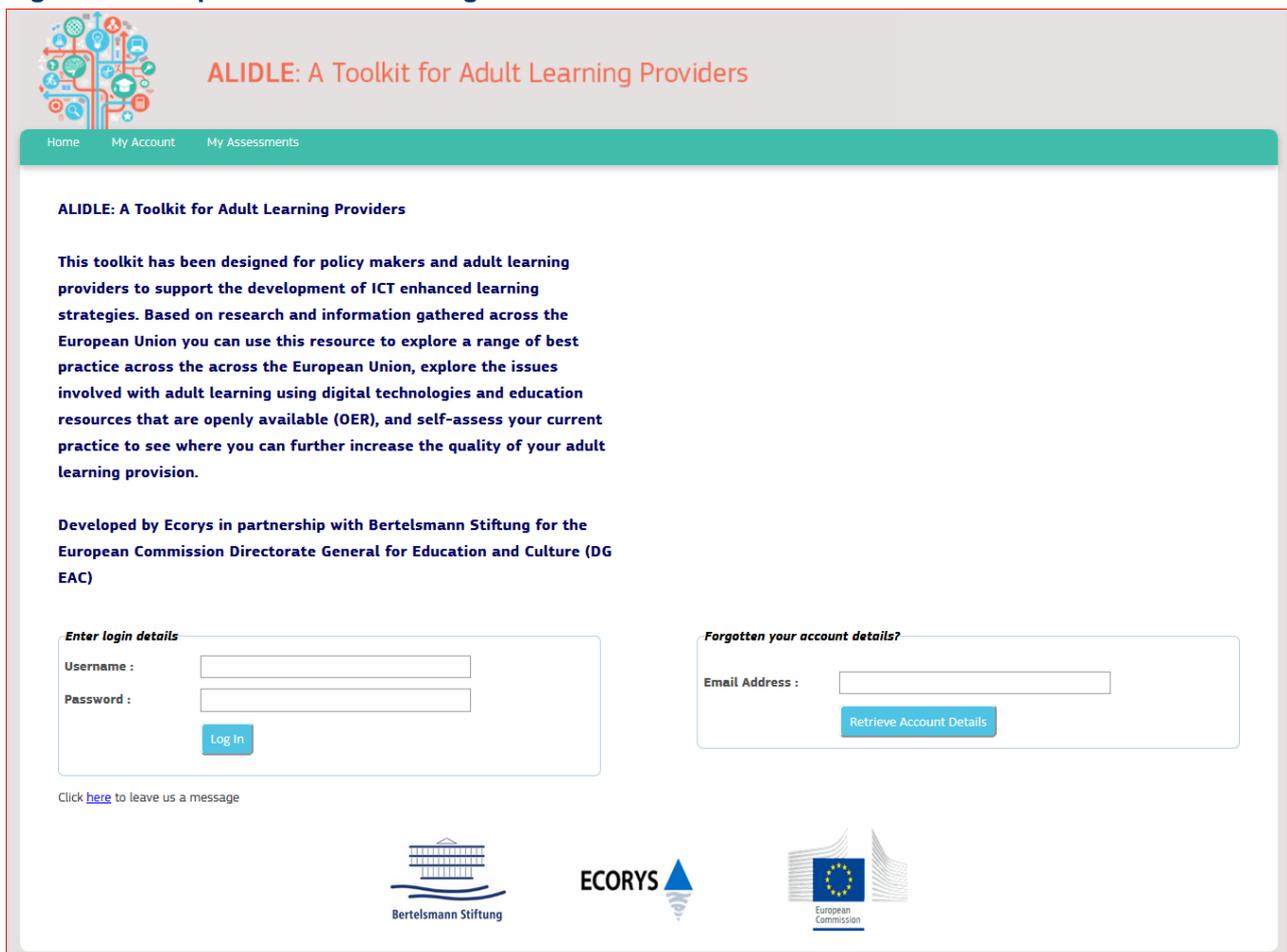
The tool will be focused on a range of good practice that is structured in the same way as the Erasmus Mundus QA (EMQA – www.emqa.eu) resource that is the model for this tool, following a similar format to the 2012 Master Handbook⁵. We aim to involve policymakers and providers during the design and development stage. Based on the EMQA model a possible home page could be:

³ <http://www.go2itech.org/HTML/TT06/toolkit/assessment/adults.html>

⁴ <http://www.niacecymru.org.uk/rarpa-toolkit>

⁵ http://eacea.ec.europa.eu/erasmus_mundus/tools/documents/repository/handbook_of_excellence_2012_master_en.pdf

Figure 1: Sample ALIDLE Home Page



Taking an example theme of delivering education resources to socially excluded adult learners the tool structure would be first to specify the theme or need, then to list the indicators involved in addressing the theme/need. There then will be a structured checklist of actions, followed by a summary of good practices. These elements form a Handbook (both PDF) and online formats. Figure 2 shows an example page from the Erasmus Mundus Handbook:

Figure 2: Structured Theme for Erasmus Mundus Master Courses



2.5 Shared Academic Cultures

2.5.1 Overall Challenge

- We identify why it is important that our consortium should deliver the Programme. We can state the European and Global value we bring, and how we will 'join up' our value through our shared academic cultures.

2.5.2 Checklist of Actions

- ✓ The academic, administrative and professional skills of the staff are detailed, and their combination clearly underpins a high-quality international joint Programme;
- ✓ The inter-linking of the research missions of each consortium partner delivers specific value to the overall coherence of the Programme;
- ✓ The respective academic, professional, organisational and sectoral cultures of each consortium partner institution are understood and it can be identified where each delivers value to the overall integrated Programme.

2.5.3 Good Practice

It is one thing for a consortium to agree to work together. It is another thing to make **'working together'** operationally successful. There are two elements to this. One is where the individual cultures of each partner and the students are understood, and their strengths and weaknesses are explored so that they make the maximum contribution to the programme. Then there is the formalisation of how the consortium as a whole works, and this is noted later in the context of the consortium agreement.

There are many ways for a consortium to build a common culture. On the MA-LL course in London at IoE it is normal practice for **staff to sit in on each other's lectures and to interact**. This can be extended to an activity where partners from different locations sit in on lectures, and this both shows students how staff **ensure connectivity between modules**, and encourages **students to interact with staff is a constructively critical dialogue**. Students are also made aware that living in London gives them access to a rich environment of lectures and seminars etc. at other Institutions in the city. At the course seminar for everyone during Semester 1 new students meet Dissertation students from a previous cohort, as well as Alumni. This gives an opportunity for **multiple cohorts of students to exchange experience and advice**, and helps the new students to hear from their peers about the dissertation opportunities, and overall values of the course.

Overall, then, courses aim to balance the rich experiences that students can gain about the teaching cultures at mobility locations, with a need to create the overall balance and consistency of the course. Students often note that the variety of experience makes them better 'international' people, so it is also important to introduce them to local teaching culture. For example, on Euroculture in Krakow students are introduced quickly to the academic culture of Poland, including the **expected etiquette** when addressing senior staff, and the 'Index (or Log) Book' which is a legal document where students and staff must record marks and comments.

The act of building these diverse competencies into a **'course identity'** is what then makes it possible to deliver not just a successful Master course, but a successful Erasmus Mundus Master Course. For the MERIT consortium, their joint membership of the Cluster.org meant that the consortium was already 'socialised' and could then accelerate the planning and delivery of an international Course. Cluster.org

- 17 -

A tentative structure for the Handbook material is:

- **Theme or need:** Addressing the needs of adult learners who are experiencing social exclusion
- **Overall Challenge:** We use the appropriate ICTs and content to meet the learning needs of a socially excluded group of learners.
- **Checklist of Actions:**

- The specific ICT skills requirements of the target learners are understood, and relevant training resources are made available;
 - The design of the learning resources is specifically targeted to be readily accessible through the ICT channels of choice for the target learners
- **Good Practices:** To be populated from the accumulated examples gathered in the literature reviews, the online survey, and the country studies.

In the online resource a four-question Likert scale⁶ is used to provide the graded practice (see the example below). A fifth not-applicable statement is used where the provider using the resource does not regard the theme as being important for their activity. For each theme or need there is an accompanying indicator and range of four indicative levels of practice from strong to weak. The Likert questions are developed once the full body of material has been gathered and analysed. An initial set can include the following, but a final set needs to be determined through the analysis of the results of the full evidence base, including the country surveys:

Indicator: We are sensitive to the ICT needs of adult learners who suffer from social exclusion.

Accompanying Range of Practice (Likert Statements):

1. We do not have a specific focus on providing education for socially disadvantaged groups.
 2. We aim to make our learning resources generally as usable as possible for all adult learners.
 3. We focus specifically on the learning needs of particular target groups who are excluded at a national or sub-national level.
 4. We focus at the European level on the learning needs of particular target groups who are socially excluded.
- n/a.** Not applicable for our learning provision. (Where a respondent selects n/a a pop-up box gives them the opportunity to explain why this indicator is not relevant for their adult education activities)

In the Erasmus Mundus version of this tool there were four major clusters of themes (called components) and sub-themes were provided under each. For each component a user of the tool could score a maximum 'score' if they regarded their practice as being all at the level 4. If they respond n/a then the tool would ignore the question when calculating the score. For example, if there are 8 sub-themes under a component, and a provider regards all their practice as being 4 then the score is $(32/32)*100$, or 100%. If they respond only to 6 themes of the 8 (noting two as being not applicable) and respond at level 4 to 4 questions, and 3 to two more than the score is $(22/26)*100$, or 85%. There would be four scores for each of the four components, visualised on a four-point star chart.

After discussion with the Client at the Interim Report stage, it was agreed that the complexity of the adult education landscape means that it is not easy to determine a set of four components of activity. Instead, the indicators will be produced as a 'vector' of indicators from which it will be possible to select those that relate to a particular adult learning provider in the context of innovative learning. Each provider will be able to select the indicators best suited to their activity, to 'score' themselves on each indicator, and to see an overall percentage score across the selected indicators. A small set of pre-determined entry points can also be provided.

Returning to the early observation that the tool is not a normative, the resulting scores will not provide a benchmarking metric for the users of the tool. More importantly, it will show them where they are performing best across the components, and also will show them where they may need to focus their resources to improve their practice. They can then turn to the Handbook of Excellence (online or in print) and link to relevant case studies and websites to understand how they can make the improvements. It may then be that

⁶ <https://www.surveymonkey.com/mp/likert-scale/> A Likert scale measures 'behaviours' that range from one extreme to another. Usually there is a range of 4-5 statements that define the range.

they return some time later to self-assess and find their scores have improved. This is bench-learning rather than benchmarking.

Furthermore, the tool will not just allow a provider to carry out a single self-assessment. Any 'participant' in the provision process (teaching staff, ICT specialists, content developers, users, reviewers etc.) can carry out their own self-assessment and 'share' their assessment results anonymously with a nominated main user (a super-user). In that way the opinions of all stakeholders can be heard and the resulting Excel spreadsheet explored to see where people agree or disagree about the 'practice' of the learning provision. In this context bench-learning is undertaken within the learning resource, further helping to identify priority areas for improvement. The tool will be linked to the Commission's Electronic Platform for Adult Learning in Europe (EPALE) which will be freely accessible to adult learning institution hence it will need to complement the design visualisation of EPALE.

There will not be a single set of themes and challenges that are applicable to all of the many types of adult education provision. So, while there will be a final population of theme/needs, there will be structured sub-sets which are more suited to types of providers. An early possibility (though the eventual number of question-sets will be determined by the final analysis of the combined results), could be to structure the tool across seven areas based on key components from the JRC/OECD framework (Scheuermann and Pedró 2009). Providers can select which question set is best suited their needs, or they can construct their own set of questions that are specifically relevant to their needs. For example the question sets could be as follows, with Figure 3 showing how they can be offered as entry points for self-assessment:

- *National* level strategies. Strategies developed by other Member States to drive ICT enhanced learning strategies, and the sequence of actions that need to be taken to develop these strategies; for example, how policies have addressed specific barriers such as legal, copyright or finance;
- *Local* level strategies. Focused on how national level strategies are being implemented at the local level, for example through infrastructure investment, support for the development of ICT-based learning skills, and the development of broader support structures;
- *Institutional* level. How provider strategies incorporate an explicit focus on the use of ICT.
- *Teacher* education level: strategies developed by adult learning providers that increase the competence of teachers in using ICT as part of the delivery of adult learning;
- *Learning* environmental level. How online environments are used for adult learning activities and how to focus on their specific advantages for adult learning;
- *Collective* level. How ICT is used in stimulating more collaborative work among adult learners. This includes content development, sharing and re-purposing;
- *Individual* level. The extent to which ICT has been used by adult learning providers to influence the take up of adult learning opportunities. (Scheuermann and Pedró 2009)

Figure 3: Self-assessment entry points

ALIDLE: A Toolkit for Adult Learning Providers

Home My Account My Assessments

Logged in as **Michael Blakemore**. [Click here](#) to logout.

My Assessments

Key :

- ✘ Not Started
- P In Progress
- ✓ Complete

		Create Date	Name	Description	Status
🔍	↺	27/09/2012 12:46:00	National Level Strategies	Strategies developed by other Member States to drive ICT enhanced learning strategies, and concrete steps that need to be taken to develop these strategies, such as how specific barriers around legal, copyright or financial have been addressed.	✘
🔍	↺	27/09/2012 12:46:00	Local level strategies	How national level strategies are being implemented at the local level, for example through infrastructure investment, support for training and the development of support structures.	✘
🔍	↺	27/09/2012 12:46:00	Institutional level	Examples of how provider strategies incorporate an explicit focus on the use of ICT.	✘
🔍	↺	27/09/2012 12:46:00	Teacher education level	Strategies developed by adult learning providers that increase the competence of teachers in using ICT as part of the delivery of adult learning. These include literacy indicators for teacher education, and how teachers are prepared to face the challenges in their practice as teachers.	✘
🔍	↺	27/09/2012 12:46:00	Learning environmental level	How online environments are used for learning activities and their contribution to enriching the learning process.	✘
🔍	↺	27/09/2012 12:46:00	Collective level	How ICT is used in stimulating more collaborative work among students; the extent to which students and teachers upload content produced in schools to the Web and share it with others; and the extent to which they reuse content that they find on the Web as part of their own learning activities	✘
🔍	↺	27/09/2012 12:46:00	Individual level	The extent to which ICT has been used by some adult learning providers to influence the take up of adult learning opportunities (building on the OECD framework to measure the influence of ICT approaches on the engagement and participation of adults in learning)	✘

If others have allowed you to be their Super User, a listing of their assessments can be found below. This information is anonymous - only numerical responses will be provided, not the name of the individuals.

📄 Export all assessments listed below into an Excel spreadsheet

No Assessments - No one has set you as a super user

These are not the only potential entry points into the range of themes and practices, but they do maintain the required focus for this study on providers. For example, entry points could be around levels of ICT-enabled innovation using the IPTS typology: Nature of innovation (incremental, radical, disruptive); Implementation phase (pilot, scale, mainstreaming); Access level (local, regional/national, cross-border); Impact area (process, service, organization); Target (single actors, multiple actors, a wide range of actors) (Kampylis, Bocconi, and Punie 2012).

The tool will also be participatory, providing users with an opportunity to provide their own good practice examples on the use of ICT and or OER in adult education. These examples can be checked for possible inclusion in the tool, and users could be invited to provide examples including: Impact examples: the benefits and risks of ICT and OER use for adult education; Policies and practices that support and enable the promotion and distribution of ICT-enhanced learning approaches and resources using OER (for example, IPR legislation, copyright and licensing); and, policies and practices that improve the skills and competences of providers and learners.

1.5 Indicators and Range of practice Likert Statements

Returning to the self-assessment element of the tool, a full range of indicators and Likert statements will be developed once the full range of material has been gathered from the survey and country case-studies. From the material reviewed to this stage of the study further indicative examples show how statements could be constructed. The development of a coherent set of indicators and Likert statements is an iterative process. As a new indicator is introduced it is important that the statements do not overlap or replicate other statements – making them robust and discrete is the key challenge. The following is a ‘starter set’ of indicators (a final list will be structured following the full analysis of the country surveys) under four main themes (sub-themes as bullets), with some indicative detail under some sub-themes show how the Likert statements can be constructed:

The adult education provider

- Provider – Skills (Human Capital)
- Provider – Training (Provider skills enhancement)
- Provider - Technologies and investment (Infrastructure)

The adult education provision

- Provision vision (Parochial ... Addressing European Europe 2020 objectives or ET 2020 objectives)
- Learning objectives ((tangible (to know, to do), intangible (to live together, to be)
- Recognition of prior learning (Assessing, accepting, understanding prior learning and existing skills of adults – not generically regarding them as all the same)
- Type of provision offered (Formal, Non-formal, Non-formal and non job-related, Non-formal job-related)
- Provision structure (Defined Programme, Pick-and-mix, generic, personalised)

The adult learners

- Age groups (noted here, but not included as a criterion)
- Types (clearly targeted groups: migrants, unemployed, older people and labour market re-integration etc.)
- Learner – Skill-development provided
- Learners – education levels targeted (Priority ones are low education, low skills? – see Mantas AES data analysis)

The adult education experience

- Use of Innovative Learning Technologies (ICTs)
- Use of Innovative Learning Resources (OER etc.)
- Use of Innovative Learning Techniques (Methodologies)
- Learning outcomes for target adults – targeted value added and assessment metrics
- Learning outcomes for target adults – qualifications and recognition

1.6 Selection of good practice drawn from US, Norway, Germany, UK

Country	Good practice description
United States	<p><i>(OER and Higher Education)</i> Northern Virginia Community College (NOVA) offers an OER General Education Certificate, which is designed to allow any student at NOVA to take one or more courses that utilize OER and do not require the purchase of additional materials. If taken as a series, students can satisfy the first year requirements for the Associates degree in General Studies. Plans for development of OER courses that satisfy the second year requirements for the Associates degrees in General Studies and Social Sciences are underway.</p>
	<p><i>(OER and Language Learning)</i> With funding from the William and Flora Hewlett Foundation, the Learning Games Network developed Xenos as an OER for language learning for English as a Second Language Learners (ESL) in the United States. As an alternative to ESL programs offered by community colleges and language centers in the U.S., Xenos was designed as an interactive virtual world that utilizes online single and multi-player games to teach English to Spanish-speaking learners. An evaluation of the pilot project found that approximately half of the participants who completed the program improved their English proficiency, and that while proficiency gains were comparable to those of learners participating in federally funded English language learning (ELL) programs, the Xenos program “<i>may be more efficient, with students making gains in 10- to 12-week sessions</i>” and “<i>data suggest that Xenos is effective in helping students who are sometimes difficult to reach: males, those under 30, those who dropped out from previous ELL programs, and the unemployed</i>” (RTI International 2013, p. 9).</p>
	<p><i>(OER Licensing)</i></p>

Country	Good practice description
	<p>The California Community College system voted to acquire a Creative Commons Attribution license for any works created under grants or contracts funded by the California Community Colleges Chancellor's Office. Composed of 72 districts and 112 colleges serving approximately 2.3 million students per year, California's community college system is the largest system of higher education in the United States.</p> <p><i>(OER Creation and Adoption)</i></p> <p>The Chancellor's OER Adoption Grant is a \$45,000 program launched in 2013 aimed at enlisting faculty from the Virginia Community College System to reduce costs for their students by adoption OER. Fifteen awards of \$3,000 each were awarded to faculty to customize existing OER and utilize them as the only required materials during the Fall 2013 semester.</p> <p><i>(Open Courseware)</i></p> <p>Tidewater Community College offers a "Z Degree" in business; all course materials consist of high quality open textbooks and other OER. To date, 400 students have completed the first semester of the pilot programme.</p> <p><i>(OER and MOOCs for Prisoner Education)</i></p> <p>The prison education system offers courses in accounting, business, baking, horticulture, and a General Equivalency Degree program. Among these course offerings, OER are used for the accounting and business programs, and to support the science and developmental math courses within the GED program. System administrators use Khan Academy Lite (offered by the Foundation for Learning Equality), Project Gutenberg, MIT and Stanford open courseware, the OpenStax Biology open textbook, and the entire PhET web site and simulations library. Other resources include the NROC repository, and the Dean is using the WiderNet program's eGranary, a curated set of resources available as an "Internet in a box," and Gapminder, an openly available data visualization tool that can be downloaded and used to teach statistics.</p>
Norway	<p><i>(National OER Portal)</i> www.ndla.no</p> <p>The Norwegian National Digital Learning Arena is a portal for OER in secondary education. It is a joint initiative between county councils in Norway that allocates a portion of state funds to ensure free access to textbooks for Norwegian students and to develop digital resources. In as much as adults follow the same curricula as youngsters for all subjects in primary, lower and upper secondary education, all of the materials included here are relevant for adult learning; although very few have specifically been tailored for the adult target group.</p> <p><i>(National Public Broadcasting OER Resources)</i> http://nrk.no/skole</p> <p>NRK, the Norwegian state broadcasting company provides OER services developed with public funding which are freely available to the public. Its resources consist of historical and contemporary video and audio clips linked to curriculum goals in primary and secondary schools. The content is organized under topics, people, programs and curricula.</p> <p><i>(OER Resource Sharing using ICTs)</i> www.delogbruk.no</p> <p>Delogbruk.no is a Norwegian Web 2.0 initiative which stimulates educators at all levels to share learning resources and experiences. The movement has a very active community of nearly 10,000 users. Several of the groups relate to formal adult learning.</p> <p>A very interesting project initiated by Vox (the Norwegian Agency for Lifelong Learning, which sits within the Norwegian Ministry of Education and Research) enables adults to "learn to read through writing", by making use of a digital application containing synthetic speech features.⁷ Vox is promoting the use of tablets and mobile apps for this target group and has created a successful community of practice among teachers of Path 1, some of whom are engaged in creating new eBooks adapted to the needs of their learners. Vox organises workshops on "Using iPad in Path 1"⁸ and the Facebook group created by the community is very active.⁹</p> <p><i>(OER, ICTs and language learning)</i></p> <p>An innovative tool for the acquisition of the Norwegian language has been made free available as OER. Created by the Norwegian University of Science and Technology, NTNU, the Computer-Assisted Listening and Speaking Tutor (CALST)¹⁰ helps adult learners acquire a basic vocabulary and offers exercises to specifically train listening skills for sound contrasts that do not occur in the</p>

⁷ Vox, Å skrive seg til lesing. Available at: <http://www.vox.no/Norsk-og-samfunnskunnskap/Metodisk-veiledning/Skrive-seg-til-lesing-STL/> (accessed 23.06.14)

⁸ Vox. Available at: <http://www.vox.no/kurs-og-konferanser/Bruk-av-iPad-pa-spor-1-/> (accessed 23.06.14)

⁹ Facebook, Alfagruppen I Vox. Available at: <https://www.facebook.com/#!/groups/539569686117979/?fref=ts> (accessed 23.06.14)

¹⁰ NTNU, Trondheim. CALST. Available at: <http://www.ntnu.edu/isl/calst-for-learners> (accessed 23.06.14)

Country	Good practice description
	<p>learner's mother tongue.</p> <p>(ICT learning – Maths for Adults) http://www.regnehjelpen.no/ www.leseogskriv.no Regnehjelpen¹¹ (Maths Aid), a digital learning tool which presents interactive tasks with topics from a variety of adult relevant arenas including recipes, online shopping, working life and personal economy. The objective is to give people an opportunity to refresh their own maths skills and also to improve their ability to help their children with their homework. In addition, the learning tool offers explanation of fundamental rules in maths through animations and different types of calculators. A similar portal also run by Vox, leseogskriv.no¹², provides free access to literacy training for adults.</p>
Germany	<p>(ICT Literacy Games for Socially Excluded Adults)</p> <p>Two innovative projects using game-based design specifically focus on socially disadvantaged groups and the training of basic skills. Winterfest is a standard single-player game and aims to help illiterate adults to develop basic literacy and numerical skills. This game was developed with BMBF funding. Good practice features include an engaging storyline, which gives all subsequent game challenges and the learning tasks related to them a profound purpose, attractive graphics and interesting tasks – consisting mostly of mini-games and riddles. Also the whole game interface is adapted to the needs of illiterate adults. The games navigation elements are self-explaining icons. Hopscotch developed by the Fraunhofer Institute for Digital Media Technologies on the other hand takes a much more innovative approach on game-based learning, combining motion-capture techniques and computer-assisted feedback to create an immersive learning setting in which basic skills can be trained collectively. It is on the verge of being scaled with the Fraunhofer institute who are looking for investors to take over the game.</p> <p>(ICT tools for vocational skills for young adults)</p> <p>Kompetenzwerkstatt is an ICT-based learning tool which provides users with learning materials that are structured according to complex relationships. It is an award winning (Digita 2013) open source software-framework modelled on Powerpoint. It allows providers as well as learners to embed all sorts of learning content in it (text, sound, graphics, animations, videos). In its initial version Kompetenzwerkstatt focuses on structured content delivery. A new version will include assessments as well. The tool was developed for vocational training with adolescents or young adults taking up a first or second chance apprenticeship programme. It is currently used for first apprenticeship training in professional schools, with adolescents as well as young adults up to 25 years.</p> <p>(ICT tools for collaborative learning)</p> <p>CROKODIL is a digital “bookshelf” which structures and manages content and allows users to review and comment on it. Its purpose is to support self-organized, resource-based learning and to enable collaborative learning via digital tools. Good practice features include that users can share their bookshelves with one another, which generates a crowd-based selection of the most relevant materials. Learners can classify materials and build scaffolds that others can use to navigate. The site fosters collaborative learning communities and helps integrate new resources into existing repositories. This way – and in conjunction with the embedded social networks - communities for collaborative learning are created that share resources via the storage and communication tools provided by CROKODIL.</p> <p>The tool was initially developed for students at universities, but the developers also promote its use for adult learning.</p>
United Kingdom	<p>(ICTs for developing digital competencies) http://www.bbc.co.uk/learning/adults/</p> <p>Developing skills to adults, in particular in digital skills, is present in the form of websites such as the BBC’s WebWise (http://www.bbc.co.uk/webwise/0/), which has online courses including ones on internet basics, and which also hosts its own webpage dedicated to Adult Learners www.digitalskills.com</p> <p>Digital skills is an initiative which aims to support the 1 in 5 adults who currently lack the Basic Online Skills to fully benefit from internet use. Their website (www.digitalskills.com), which is part of go ON UK, the UK’s Digital Skills Alliance, includes a wide variety of subjects, online courses and teaching methods including video guides, short challenges and online courses where users can answer a series of questions.</p> <p>http://maths4us.org/ http://www.mathseverywhere.org.uk/</p> <p>Maths4us is a NIACE-led initiative to raise awareness of the role, value and importance of maths for</p>

¹¹ Vox, Available at : <http://www.regnehjelpen.no/>. Short English version at <http://www3.vox.no/Mathsaid/> (accessed 23.06.14)

¹² Vox, Available at: <http://www.lesogskriv.no/> (accessed 23.06.14)

Country	Good practice description
	adults. It brings together a range of partners to support maths learning and develop a range of approaches, resources and training. Maths4us has introduced a range of mobile apps to help with maths learning. The partners have also developed an interactive learning tool called Maths Everywhere to help deal with the numbers and calculations in everyday life.

1.7 Key policy and target group characteristics

The following table summarises the key policy and target group characteristics that have emerged for the countries being studied. This information, based on the initial literature reviews, will be supplemented and enhanced by the further work being undertaken in the country case studies.

Key Policy, Implementation, and Target User Characteristics

COUNTRY	POLICY		IMPLEMENTATION			TARGET GROUPS	
	Adult learning policy	ICT agenda	Implementation	Key actors	Barriers	Target groups	Good practice
	<i>Does the country have a specific policy framework for adult education?</i>	<i>Does the country have elements of digital environment-based learning incorporated into their policy framework?</i>	<i>Is adult education (AE) centrally coordinated by government, or left to private sector initiatives, or again implemented via discreet activities (e.g. by NGOs)?</i>	<i>Who are the key actors behind the implementation of ICT-enhanced adult learning?</i>	<i>What are the key barriers to access to ICT-enhanced learning?</i>	<i>Who are the target groups identified by the general adult learning policy framework?</i>	<i>Target groups supported by good practice initiatives?</i>
Brazil	<ul style="list-style-type: none"> • Difficult to establish 	<ul style="list-style-type: none"> • Provisions on distance learning embedded within education policy 	<ul style="list-style-type: none"> • Difficult to establish • Efforts to mainstream distance learning 	<ul style="list-style-type: none"> • Private sector is the dominant player • Some state-owned universities have adopted digital learning technologies 	<ul style="list-style-type: none"> • Enrolment fees (participant side) • Production costs (deliverer side) • Time constraints • Ineffective QA mechanisms 	<ul style="list-style-type: none"> • ICT (distance learning) mostly used in higher education 	<ul style="list-style-type: none"> • Led by higher education institutions • Distance learning
Czech Republic	<ul style="list-style-type: none"> • National Strategy for Lifelong Learning 	<ul style="list-style-type: none"> • IT literacy courses for employability • Distance learning courses • Development of ICT infrastructure 	<ul style="list-style-type: none"> • Mainstreamed: ministries, national institutes and governmental agencies involved • However, multiple non-state actors involved (see implementation) 	<ul style="list-style-type: none"> • Primary and secondary schools • Language schools • Universities • Employers • NGOs and foundations • Private AE providers 	<ul style="list-style-type: none"> • Financial constraints (demand side) • Low awareness on digital learning • Lack of confidence on its effectiveness 	<ul style="list-style-type: none"> • Policy framework has strong component on equal access – vulnerable groups prioritised 	<ul style="list-style-type: none"> • Higher education students as targets • Main actors are universities
Estonia	<ul style="list-style-type: none"> • Estonian Life-long Learning Strategy 2014-2020; • Development Plan of the Information Society 2020 • Not specifically designed for adults but across-age policy 	<ul style="list-style-type: none"> • Public investments in e-learning approaches within formal education sector • Provision of ICT courses to tackle barriers to use among adults (cited as objective in national strategy) 	<ul style="list-style-type: none"> • Mainstreamed: ministerial coordination, including establishment of ad hoc consortia 	<ul style="list-style-type: none"> • Estonian e-University consortium and Estonian e-VET consortium • Upper secondary schools • Innovation Centre for Digital Education Schools (both ad hoc for adults and general schools with adult departments) • Association of 	<ul style="list-style-type: none"> • Perceived excessive costs (demand side) • Uneven access to digital infrastructures • Lack of basic digital skills 	<ul style="list-style-type: none"> • All age groups • No specific emphasis on adults 	<ul style="list-style-type: none"> • e-learning platforms in universities and vocational schools

COUNTRY	POLICY		IMPLEMENTATION			TARGET GROUPS	
	Adult learning policy	ICT agenda	Implementation	Key actors	Barriers	Target groups	Good practice
	<i>Does the country have a specific policy framework for adult education?</i>	<i>Does the country have elements of digital environment-based learning incorporated into their policy framework?</i>	<i>Is adult education (AE) centrally coordinated by government, or left to private sector initiatives, or again implemented via discreet activities (e.g. by NGOs)?</i>	<i>Who are the key actors behind the implementation of ICT-enhanced adult learning?</i>	<i>What are the key barriers to access to ICT-enhanced learning?</i>	<i>Who are the target groups identified by the general adult learning policy framework?</i>	<i>Target groups supported by good practice initiatives?</i>
				Estonian Adult Educators			
France	<ul style="list-style-type: none"> • Various laws underpinning AE policy • Emphasis on professional skills provision and equity/social mobility 	<ul style="list-style-type: none"> • No ad hoc national strategy, but elements of ICT-based learning in basic and higher education 	<ul style="list-style-type: none"> • State and Regions regulate and provide funds; • Enterprises/employers playing a prominent role in financing and delivering 	<ul style="list-style-type: none"> • Financing: enterprises/employers and Regions • Delivery: private agencies 	<ul style="list-style-type: none"> • Preference towards face-to-face training • Lack of a certification system for centre of formation (information asymmetries) 	<ul style="list-style-type: none"> • Priority groups are vulnerable/disadvantaged individuals 	<ul style="list-style-type: none"> • Higher education adults and low qualified professionals as main target; • Emphasis on open distance learning
Germany	<ul style="list-style-type: none"> • Various policy/regulations at the federal, regional and municipal level 	<ul style="list-style-type: none"> • No. left to education providers to adopt digital environment-based approaches 	<ul style="list-style-type: none"> • Decentralised to training providers and based on market forces 	<ul style="list-style-type: none"> • Training providers – could be public, part public/part private or private entities 	<ul style="list-style-type: none"> • Lack of affordable and suitable offerings • Insufficient financing for continuing education (all generic barriers) 	<ul style="list-style-type: none"> • Federal-level policy: unemployed and individuals with low qualifications and lacking basic skills. • Sub-state policy: across-the-board measures 	<ul style="list-style-type: none"> • Initiatives around OER and e-learning • Target groups are apprenticeship students (not necessarily adults) and adults lacking basic skills
Greece	<ul style="list-style-type: none"> • National Action Plan for Lifelong Learning 	<ul style="list-style-type: none"> • Some elements of ICT teaching and OER incorporated 	<ul style="list-style-type: none"> • Overarching policy exists, but evidence suggests that digital learning environments are not systematically mainstreamed (with the partial exception of some universities) 	<ul style="list-style-type: none"> • Formal sector deliverers: state-funded and private providers, universities • Informal sector deliverers: second chance schools, LLL centres, Prefectural Committees of Popular Education, Distant Adult 	<ul style="list-style-type: none"> • Lower than EU average usage of internet • Low quality of ICT-enhanced learning 	<ul style="list-style-type: none"> • Adult lacking basic skills (literacy) • Dropouts 	<ul style="list-style-type: none"> • University-led initiatives • Target: adult learners in higher education. • Revolves around ICT-based courses and distance learning

COUNTRY	POLICY		IMPLEMENTATION			TARGET GROUPS	
	Adult learning policy	ICT agenda	Implementation	Key actors	Barriers	Target groups	Good practice
	<i>Does the country have a specific policy framework for adult education?</i>	<i>Does the country have elements of digital environment-based learning incorporated into their policy framework?</i>	<i>Is adult education (AE) centrally coordinated by government, or left to private sector initiatives, or again implemented via discreet activities (e.g. by NGOs)?</i>	<i>Who are the key actors behind the implementation of ICT-enhanced adult learning?</i>	<i>What are the key barriers to access to ICT-enhanced learning?</i>	<i>Who are the target groups identified by the general adult learning policy framework?</i>	<i>Target groups supported by good practice initiatives?</i>
				Education & Training Centre			
Hungary	<ul style="list-style-type: none"> • 2013 Act on Adult Learning • 2011 Act on Vocational Education • Emphasis on employability/links to labour market 	<ul style="list-style-type: none"> • No specific reference to the development of ICT-enhanced learning or OER approaches 	<ul style="list-style-type: none"> • Discreet activities implemented by public and private entities – see ‘Key actors’ cell 	<ul style="list-style-type: none"> • Türr István Training and Research Institute • Universities • Private providers (employers, training centres) 	<ul style="list-style-type: none"> • Structural low participation of adult to LLL • Low proportion of employers providing training (generic barriers) 	<ul style="list-style-type: none"> • Unemployed and low-skilled 	<ul style="list-style-type: none"> • ICT-enhanced lifelong learning approaches for higher education students
Netherlands	<ul style="list-style-type: none"> • National adult policy co-exists with non-state-regulated sector 	<ul style="list-style-type: none"> • Some elements, but no overarching strategy to develop digital learning environments in AE 	<ul style="list-style-type: none"> • Combination of state-regulated and non-state-regulated (market driven) sectors 	<ul style="list-style-type: none"> • Private sector – the offer of digital learning material is vast and covers many areas of the adult learning spectrum • State-funded institutions (universities regional VET colleges) 	<ul style="list-style-type: none"> • Fragmented offer of ICT-based courses • Lack of transparency in learning trajectories • Low IT literacy, especially for disadvantaged groups 	<ul style="list-style-type: none"> • State-regulated & state-funded initiatives: people lacking basic skills, immigrants, elderly people, young mothers, long-term unemployed. • Non-state-regulated: no specific target group, driven by market dynamics 	<ul style="list-style-type: none"> • OER targeting individuals with basic skills gaps
Norway	<ul style="list-style-type: none"> • LLL key principle of Norwegian education policy 	<ul style="list-style-type: none"> • Use of digital tools has been mainstreamed as one of the main 	<ul style="list-style-type: none"> • Use of digital environment is mainstreamed but only at the level 	<ul style="list-style-type: none"> • Norwegian Centre for ICT in Education • Norwegian Agency for Lifelong 	<ul style="list-style-type: none"> • Production and promotion of digital learning materials is mainly directed at 	<ul style="list-style-type: none"> • Adults with low levels of qualification and/or low levels of basic 	<ul style="list-style-type: none"> • OER for immigrants • ICT-based teaching for individuals lacking basic skills

COUNTRY	POLICY		IMPLEMENTATION			TARGET GROUPS	
	Adult learning policy	ICT agenda	Implementation	Key actors	Barriers	Target groups	Good practice
	<i>Does the country have a specific policy framework for adult education?</i>	<i>Does the country have elements of digital environment-based learning incorporated into their policy framework?</i>	<i>Is adult education (AE) centrally coordinated by government, or left to private sector initiatives, or again implemented via discreet activities (e.g. by NGOs)?</i>	<i>Who are the key actors behind the implementation of ICT-enhanced adult learning?</i>	<i>What are the key barriers to access to ICT-enhanced learning?</i>	<i>Who are the target groups identified by the general adult learning policy framework?</i>	<i>Target groups supported by good practice initiatives?</i>
		competence in the basic skill-set of adult learners	of primary and secondary schooling	Learning <ul style="list-style-type: none"> Private entities 	primary and secondary education	skills; immigrants	<ul style="list-style-type: none"> Generally good practice is not designed for adults
Poland	<ul style="list-style-type: none"> Incorporated in various policy documents, but no specific policy on AE exists 	<ul style="list-style-type: none"> No specific policy in place Some elements of ICT-based learning are embedded in policy papers in the domain of employment, general education and economic development 	<ul style="list-style-type: none"> Given the cross-cutting nature of the provisions, various ministries at various governance levels are involved - centralised A taskforce has been recently established to enhance coordination 	<ul style="list-style-type: none"> Various ministries – Intersectoral Task Force for Lifelong Learning Deliverers: public institutions (schools, universities) and private providers 	<ul style="list-style-type: none"> Lack of coordination among the different ministries involved 	<ul style="list-style-type: none"> No specific focus on adults 	<ul style="list-style-type: none"> Projects co-financed by ESF in the domain of higher education, whereby ICT-enhanced approaches complement traditional learning modes
Portugal	<ul style="list-style-type: none"> Adult education policy coordinated by the National Agency for Qualification and Vocational Education and Training 	<ul style="list-style-type: none"> No specific policy for the development of digital learning/OER in AE Several national policies incorporate elements of digital skills provision 	<ul style="list-style-type: none"> AE centralised under the National Agency for Qualification and Vocational Education and Training, which operates under the joint supervision of the Ministry of Solidarity, 	<ul style="list-style-type: none"> National Agency for Qualification and Vocational Education and Training and relevant ministries Institute for Employment and Vocational Training Multitude of private 	<ul style="list-style-type: none"> Fragmented offer in the adult education system with policies focused on developing infrastructure in schools and Higher education 	<ul style="list-style-type: none"> Formal non-vocational education: adults without post-compulsory education, adults with low literacy levels ESF Framework: unemployed, migrants, handicapped, 	<ul style="list-style-type: none"> Open access archives maintained by various ministerial entities and third sector institutions (sometimes backed by state contributions); Mainly higher education sector

COUNTRY	POLICY		IMPLEMENTATION			TARGET GROUPS	
	Adult learning policy	ICT agenda	Implementation	Key actors	Barriers	Target groups	Good practice
	<i>Does the country have a specific policy framework for adult education?</i>	<i>Does the country have elements of digital environment-based learning incorporated into their policy framework?</i>	<i>Is adult education (AE) centrally coordinated by government, or left to private sector initiatives, or again implemented via discreet activities (e.g. by NGOs)?</i>	<i>Who are the key actors behind the implementation of ICT-enhanced adult learning?</i>	<i>What are the key barriers to access to ICT-enhanced learning?</i>	<i>Who are the target groups identified by the general adult learning policy framework?</i>	<i>Target groups supported by good practice initiatives?</i>
			Employment and Social Security and the Ministry for Education in articulation with the Ministry of Economy	and public (schools, universities) training providers		minorities, • NEETs	
Spain	<ul style="list-style-type: none"> • Organic Act on Education • Action Plan for Lifelong Learning 	<ul style="list-style-type: none"> • Recently, attention placed on distance learning (Organic Act on Education, Action Plan for Lifelong Learning) • OER approaches exist but are more oriented towards children and youth 	<ul style="list-style-type: none"> • Local authorities regulate AE provision and are responsible for its management, have the administrative tenure of the educational institutions of their territory, create and authorise them, manage staff, develop the educational curricula and are in charge of distance education 	<ul style="list-style-type: none"> • Departments of Education/Ministry of Education • Centre for Innovation and Development of Distance Education (for distance learning) • LAs and regions (see implementation and good practice cells) • Training providers: education and employment institutions 	<ul style="list-style-type: none"> • Limited awareness on OER's availability, accessibility and responsiveness • Limited use of open licenses and standards • Limited visibility of some OER initiatives 	<ul style="list-style-type: none"> • Individuals lacking basic skills or with low qualifications, including early school leavers • Training offered by employment authorities prioritises long-term unemployed, women, people over 45, low-skilled workers, immigrants and disabled people 	<ul style="list-style-type: none"> • Mostly Government-led initiatives • Include open-access archives, open learning for professional qualifications, distance LLL platforms • Some initiatives implemented by Regions

COUNTRY	POLICY		IMPLEMENTATION			TARGET GROUPS	
	Adult learning policy	ICT agenda	Implementation	Key actors	Barriers	Target groups	Good practice
	<i>Does the country have a specific policy framework for adult education?</i>	<i>Does the country have elements of digital environment-based learning incorporated into their policy framework?</i>	<i>Is adult education (AE) centrally coordinated by government, or left to private sector initiatives, or again implemented via discreet activities (e.g. by NGOs)?</i>	<i>Who are the key actors behind the implementation of ICT-enhanced adult learning?</i>	<i>What are the key barriers to access to ICT-enhanced learning?</i>	<i>Who are the target groups identified by the general adult learning policy framework?</i>	<i>Target groups supported by good practice initiatives?</i>
Sweden	<ul style="list-style-type: none"> • 2010 Education Act (which spans across all age cohorts) • 2011 Regulation on Adult Education 	<ul style="list-style-type: none"> • National ICT policy • Digital agenda • Incorporation of some ICT elements into adult curricula 	<ul style="list-style-type: none"> • The Swedish National Agency for Education oversees AE; it also supports the development and usage of IT in general education • The Ministry of Enterprise, Energy and Communications has overall responsibility for ICT policies • Municipalities delivers AE 	<ul style="list-style-type: none"> • Ministry of Enterprise, Energy and Communications • Swedish National Agency for Education • Municipalities 	<ul style="list-style-type: none"> • Lack of digital skills both on the teachers and students end • Limited technical equipment in schools • Lack of understanding on how to use computers as a pedagogical tool in teaching and on how schools should work to prevent violations online 	<ul style="list-style-type: none"> • Adult lacking basic skills (particularly Swedish, English and maths) • Immigrants 	<ul style="list-style-type: none"> • Schools as beneficiaries; • Government-led • Support in the form of ICT pedagogical support rather than funding
Turkey	<ul style="list-style-type: none"> • Adult learning not explicitly set out in national policy documents • However LLL policies in place: 	<ul style="list-style-type: none"> • 10th Development Plan provides for integration ICT into education system (curriculum, equipment) 	<ul style="list-style-type: none"> • In the domain of LLL, responsibility centralised within the General Directorate of Lifelong Learning 	<ul style="list-style-type: none"> • GDLL, Ministry of National Education • Universities (particularly Anatolian University) • Turkish Academy of 	<ul style="list-style-type: none"> • Lack of an accreditation system for e-learning courses • Gaps in IT infrastructure 	<ul style="list-style-type: none"> • People lacking basic education and skills 	<ul style="list-style-type: none"> • Mainly revolving around OER within higher education system

COUNTRY	POLICY		IMPLEMENTATION			TARGET GROUPS	
	Adult learning policy	ICT agenda	Implementation	Key actors	Barriers	Target groups	Good practice
	<i>Does the country have a specific policy framework for adult education?</i>	<i>Does the country have elements of digital environment-based learning incorporated into their policy framework?</i>	<i>Is adult education (AE) centrally coordinated by government, or left to private sector initiatives, or again implemented via discreet activities (e.g. by NGOs)?</i>	<i>Who are the key actors behind the implementation of ICT-enhanced adult learning?</i>	<i>What are the key barriers to access to ICT-enhanced learning?</i>	<i>Who are the target groups identified by the general adult learning policy framework?</i>	<i>Target groups supported by good practice initiatives?</i>
	10th Development Plan 2014-2018; Lifelong Learning Strategy Document	<ul style="list-style-type: none"> • However no specific reference to ICT/OER in AE • Use of ICT and OER is not common in public learning centres for adults; more emphasis on children/youth education 	(GDLL) of the Min. of Education <ul style="list-style-type: none"> • Public entities also deliver training 	Science (TÜBA)	<ul style="list-style-type: none"> • Specific barriers to OER: lack of adequate copyright and intellectual property laws, shortage of incentives to its use, lack of teachers' understanding on how to use ICT as a pedagogical tool 		
UK	<ul style="list-style-type: none"> • Adult learning has not been separately addressed as a single stream, but relevant initiatives still receive national funding 	<ul style="list-style-type: none"> • No overarching policy to promote digital environments in adult learning – Scotland partial exception 	<ul style="list-style-type: none"> • Adult learning sits under the Department for Business, Innovation and Skills (BIS) • Funding is provided by the Skills Funding Agency 	<ul style="list-style-type: none"> • Business, Innovation and Skills (BIS) • Skills Funding Agency • Local Authorities (LAs) • National Institute Adult Continuing Education • The Digital Skills Alliance 	<ul style="list-style-type: none"> • Low rates of ICT literacy • Lack of awareness of OER • Gaps in ICT infrastructures 	<ul style="list-style-type: none"> • Individuals with low skills • Young NEETs 	<ul style="list-style-type: none"> • Emphasis on provision of digital skills • Main actors: NIACE, Digital Skills Alliance, LAs
USA	<ul style="list-style-type: none"> • The Adult Education and Family Literacy Act 	<ul style="list-style-type: none"> • Some strategy papers focus on the role of ICT and digital learning environments in support of adult learning • Only a handful specifically mention 	<ul style="list-style-type: none"> • Most of the funds are allocated to states, which are required to match these federal funds and then provide sub-grants to local education 	<ul style="list-style-type: none"> • States and local education providers, particularly local education agencies and institutions of higher education 	<ul style="list-style-type: none"> • Lower literacy skills • Weaker numeracy vis-à-vis other industrialised countries • Below average problem-solving skills in technological 	<ul style="list-style-type: none"> • Adults whose literacy and numeracy skills are at or below the secondary school level • Adults who are not proficient in English • Out-of-school 	<ul style="list-style-type: none"> • Several community college systems adopted open textbooks/OER • Initiatives based on OER-enhanced learning within prisons and in the

COUNTRY	POLICY		IMPLEMENTATION			TARGET GROUPS	
	Adult learning policy	ICT agenda	Implementation	Key actors	Barriers	Target groups	Good practice
	<i>Does the country have a specific policy framework for adult education?</i>	<i>Does the country have elements of digital environment-based learning incorporated into their policy framework?</i>	<i>Is adult education (AE) centrally coordinated by government, or left to private sector initiatives, or again implemented via discreet activities (e.g. by NGOs)?</i>	<i>Who are the key actors behind the implementation of ICT-enhanced adult learning?</i>	<i>What are the key barriers to access to ICT-enhanced learning?</i>	<i>Who are the target groups identified by the general adult learning policy framework?</i>	<i>Target groups supported by good practice initiatives?</i>
		<p>OER</p> <ul style="list-style-type: none"> At national level, significant interest in digital badges for workforce skills development and programmes supporting careers in Science, Technology, and Maths 	providers		environments	adults	domain of food security