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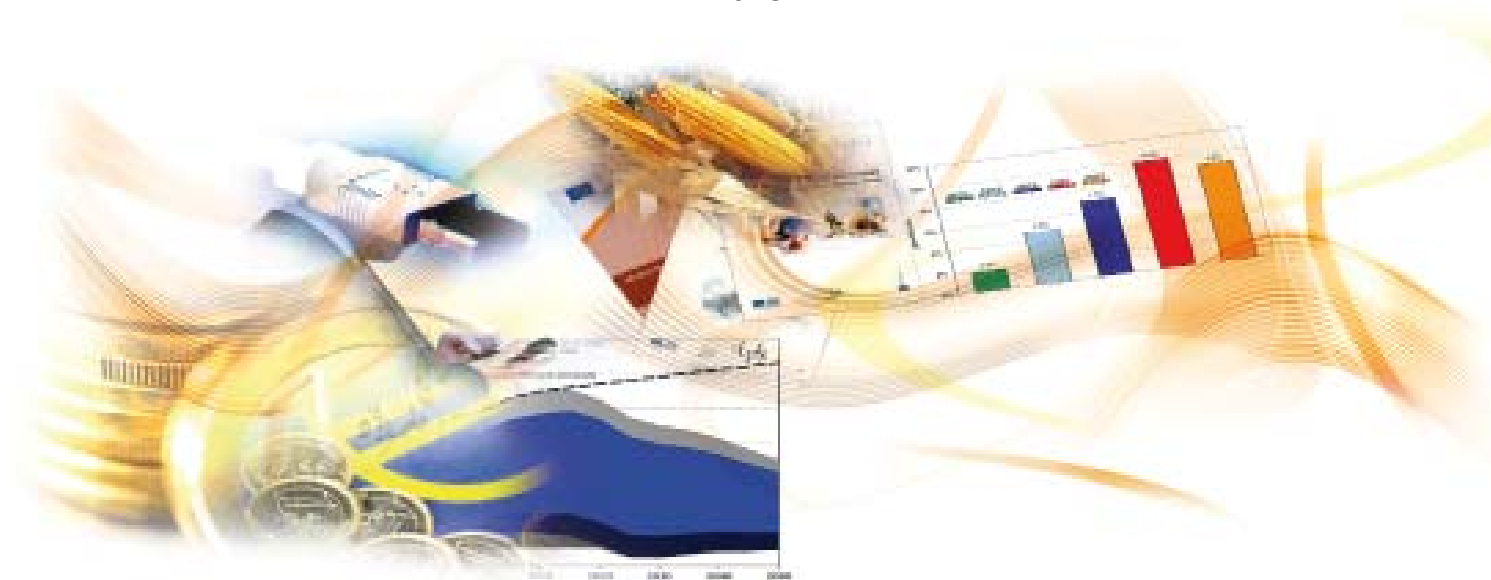
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Overview and Analysis of Practices with Open Educational Resources in Adult Education in Europe

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PREFACE

On 25 September 2013, the Commission presented a new Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on “Opening up Education: Innovative teaching and learning for all through new technologies and Open Educational Resources”, COM(2013) 654 final.¹ The aim of the initiative is to bring the digital revolution to education with a range of actions in three areas: open learning environments, open educational resources, and connectivity and innovation. The initiative contributes to the Europe 2020 strategy, acknowledging that a fundamental transformation of education and training is needed to address the new skills and competences that will be required if Europe is to remain competitive, overcome the current economic crisis and grasp new opportunities. Innovating in education and training is a key priority in several flagship initiatives of the Europe 2020 strategy.

The Opening up Education initiative also highlights the importance of better knowledge and stronger evidence-based policies for teaching and learning to ensure that all benefit from new technologies and Open Educational Resources.

This report presents an overview and analysis of Open Educational Practices for Adult Learning in Europe. It is a contribution to the construction of a knowledge base on Opening up Education and is part of a wider scientific agenda on ICT and Learning being developed at IPTS,² mainly in collaboration with DG Education and Culture.

Progress on related studies can be followed on the project webpage:

<http://is.jrc.ec.europa.eu/pages/EAP/eLearning.html>

Yves Punie
Project Leader, ICT for Learning and Inclusion

¹ http://ec.europa.eu/education/news/doc/openingcom_en.pdf

² The Institute for Prospective Technological Studies (IPTS) is one of the seven scientific institutes of the European Commission's Joint Research Centre (JRC). IPTS consists of five research units, one of which is the Information Society Unit.

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First and foremost we would like to thank our colleagues for their valuable comments and feedback, both in shaping the project and in revising its subsequent drafts. We are furthermore indebted to Jonatan Castaño Muñoz, Christine Redecker and Yves Punie for their support in conducting this research project and their critical review of previous versions of this report which have contributed to substantially improving its content, scope and quality.

We would also like to thank all members of the Advisory Group for their valuable input and reflections. Furthermore, we are grateful to all respondents in the survey for their willingness to participate in this research and to share their experiences with us. Without them this research could not have been done. Thank you!

However, as ever, the views and conclusions expressed in the report, together with any errors or omissions, are the responsibility of the authors.

EXECUTIVE SUMMARY

OER4Adults aimed to provide an overview of Open Educational Practices in adult learning in Europe, identifying enablers and barriers to successful implementation of practices with OER.

The project was conducted in 2012-2013 by a team from the Caledonian Academy, Glasgow Caledonian University, funded by The Institute for Prospective Technological Studies (IPTS).

The project drew on data from four main sources:

- OER4Adults inventory of over 150 OER initiatives relevant to adult learning in Europe
- Responses from the leaders of 36 OER initiatives to a detailed SWOT survey
- Responses from 89 lifelong learners and adult educators to a short poll
- The Vision Papers on Open Education 2030: Lifelong Learning published by IPTS

Interpretation was informed by interviews with OER and adult education experts, discussion at the IPTS Foresight Workshop on Open Education and Lifelong Learning 2030, and evaluation of the UKOER programme.

Analysis revealed 6 tensions that drive developing practices around OER in adult learning as well 6 summary recommendations for the further development of such practices.

Open versus free

There is considerable confusion between ‘free’ (no financial cost) and ‘open’, which is compounded by lack of clear licensing information on many OER. Low awareness of licensing is pronounced among adult educators and lifelong learners; common practice is to use free (no cost) resources without worrying unduly about IPR.

The confusion underlies restrictive but ‘free’ practices (such as many MOOCs), is a barrier to collaboration across sectors that can produce OER of value to adult learners, and hinders the collection of evidence of the benefits of OER with a consequent threat to funding streams.

Traditional versus new approaches

The majority of OER providers have traditional Higher Education views of teacher-directed pedagogy that are out of line with the direction in which adult learning is heading. Furthermore, the question of credit for OER study that is appropriate to lifelong and workplace learners is seldom tackled.

The findings raise the possibility that approaches that work well in a university context may be less appropriate elsewhere. Cross-sector collaboration between universities and those who know the lifelong learning context could lead to more effective resources.

Altruism versus marketisation

Individuals working in OER initiatives are strongly altruistic in their motivations, and these ideals engender strong commitment and team working. However, they tend to overlook the wider social context in which open learning initiatives are being supported by institutions primarily because of

the brand recognition they create, and the importance of brand, as opposed to quality, in learner choice of resources. Brand is particularly significant for adult learners whose digital literacy tends to be low.

Community versus openness

Community-building is seen by initiatives as essential for successful uptake of OER. Communities can raise awareness, spread practice, and boost confidence. But equally a community can, by its norms, be closed in practice to 'others'. Transferring resources produced in one community such as a university to another such as a group of workplace learners can be difficult. This makes collaboration across sectors particularly important at resource development stage. The open licence is essential in enabling such collaboration.

Mass participation versus quality

The ability of the masses to participate in production of OER – and a cultural mistrust of getting something for nothing – give rise to user concerns about quality. Commercial providers/publishers who generate trust through advertising, market coverage and glossy production, may exploit this mistrust of the free. This is particularly significant given the low ability to lifelong learners to evaluate resources for themselves.

Belief in quality is a significant driver for OER initiatives, but the issue of scale-able ways of assuring quality in a context where all (in principle) can contribute has not been resolved, and the question of whether quality transfers unambiguously from one context to another is seldom surfaced. A seal of approval system is not infinitely scale-able, while the robustness of user reviews, or other contextualised measures, has not yet been sufficiently explored.

Add-on versus embedded funding

Initiatives focused on adult learning contexts tend to have more diverse funding streams than those focused on more formal educational contexts. They are less likely to be reliant on government funding and more likely to be involved in cross-sector partnerships or exchanges. They have a larger community base and greater embeddedness in ongoing practices, rather than being perceived as a one-off funded 'project' that comes to an end when the funding ends. They are less worried about the ongoing sustainability of their work.

Six summary recommendations for the advancement of OEP for adult learning in Europe

1. Recognise that 'learning' takes place everywhere
2. Extend the range of people and organisations who produce and use resources
3. Think of OER more broadly than as content
4. Promote awareness of open licensing and its implications
5. Improve the usability of OER
6. Plan for sustained change

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1 INTRODUCTION: AIMS, OBJECTIVES, AND PERSPECTIVE

The **aim** of OER4Adults was to provide an overview of Open Educational Practices in Europe by identifying, describing and classifying a comprehensive number of OER initiatives in Europe in the area of adult learning.³ Moreover, the study aimed to identify bottlenecks and barriers to the innovative implementation of OER in adult learning and to discuss factors for the successful implementation, up-scaling and mainstreaming of innovative practices with OER.

The detailed **objectives** of the study were:

1. To collect evidence of and record in a database OER initiatives in Europe and beyond, indicating in particular their duration, geographical scope, number of users, kind of users (learners, teachers, employees, general public etc.); learning setting (e.g. institutional or not), focus (creation, retrieval, use, re-use, sharing, adapting, etc.), funding and business models; impact and lessons learnt. This database or inventory was to be as comprehensive as possible and contain a minimum of 50 initiatives.
2. To develop a typology of educational practices with OER by classifying the initiatives recorded according to their most salient common and distinguishing features as these emerge from the evidence collected.
3. To provide, for each type of activity identified in objective 2, an analysis of the strengths, weaknesses, opportunities and threats of OER in supporting adult learning.

The project was conducted by a team from the Caledonian Academy, Glasgow Caledonian University, and funded by The Institute for Prospective Technological Studies (IPTS), one of seven European Commission research institutes and ran from August 2012 to July 2013. The project team was supplemented by an **Advisory Group** whose membership is listed in Annex 1.

1.1 Background

In recent years, sustainable social and economic development, and intercultural dialogue, have been sought through efforts to ensure universal access to high quality education (UNESCO, 2013; Europa 2009). In parallel, individual nations, and economic groupings such as the European Union, have been calling for a fundamental transformation of education to develop new competences among their citizens if they are to remain competitive. Educational innovation is a high priority contributing to key targets on adult learning, up-skilling and modernisation of training in the Europe 2020 strategy and the European agenda for adult learning (European Commission, 2013; Barroso, 2012; Council of the European Union, 2011).

The potential for open educational resources (OER) to play a major role in realising these ambitions has been canvassed ever since the first OER appeared in 2001 in MIT's Open Courseware initiative (Livingstone-Vale and Long, 2003). OER are defined by UNESCO as:

teaching, learning or research materials that are in the public domain or released with an intellectual property license that allows for free use, adaptation, and distribution (UNESCO, 2013).

³ Adult learning is defined in Section 1.2, and also at http://ec.europa.eu/education/lifelong-learning-policy/adult_en.htm

In 2007 the Organisation for Economic Co-operation and Development (OECD) concluded that the idea of 'giving knowledge away for free' had made considerable progress and advocated greater efforts to boost OER in order to improve global access to education, while UNESCO views OER as providing, 'a strategic opportunity to improve the quality of education as well as facilitate policy dialogue, knowledge sharing and capacity building' (OECD, 2007; UNESCO, 2013). Organisations such as UNESCO, OECD, ICDE are working collaboratively through projects such as the Open Educational Quality Initiative (OPAL) to raise the profile of OER, while some individual countries such as the Netherlands, Poland, and Brazil are developing national OER strategies and policies.

However, while OER are high on the agenda of educational policies, and potential benefits, such as encouraging innovation, promoting the concept of lifelong learning, enhancing the quality and flexibility of resources, and showcasing the institution have been recognised (OECD 2007; Yuan, MacNeil & Kraan 2008; McGill, et al 2010; McGill et al 2013a), OER have not been much exploited in the areas of adult education and lifelong learning (Minguillón, Rodríguez & Conesa, 2010). While there is recognition that the release of OER in itself will not automatically lead to use by others (Lane & MacAndrew, 2010; McGill et. al. 2010; Margaryan & Littlejohn, 2008), there is little evidence of how OER can be used to promote lifelong learning and adult education. To take action and realise the benefits of OER, policy makers require a much better understanding of the factors that influence OER usage. Although a number of technical barriers – such as lack of interoperability – have been identified (Niemann et al., 2010), the main problem is limited understanding of the practices around OER, particularly in the area of adult learning.

Understanding of what is encompassed by "practices around OER" is changing from a narrow view of educational practice which centres on the production of content, to a broader definition that encompasses all activities that open up access to educational opportunity in a context where freely available online content and services (whether 'open', 'educational' or not) are taken as the norm. This broader view is exemplified by the Cape Town Open Education Declaration,⁴ the OPAL Beyond OER Report (Opal, 2011), the UNESCO initiative taking OER beyond the communities (UNESCO, 2011), the Innovative OER in European HE project,⁵ and the UK JISC's case studies in open education (JISC, 2013).

From an OER provider viewpoint, OER initiatives have been categorised by Atkins, Brown and Hammond (2007) and by Bateman, Lane and Moon (2012). The Atkins et al classification is broader, encompassing five different types of initiative (building capacity, research, building awareness, developing infrastructure, developing resources), while Bateman et al essentially break the last of the Atkins categories down into stages (resource creation, organisation, dissemination, use). The experiences and evolving practices of OER providers across the UK have been extensively studied in a series of reports and papers (McGill et al, 2013a); Littlejohn et al, in press); Falconer et al, 2013). As practice evolved from 2009-2012, they found that,

'Particularly notable is the emergence of students as collaborators and co-creators of OER and shifts in who producers see as end-users. Both are key indicators for potential longer term impact. There was substantial evidence of increased confidence and enthusiasm for openness, in terms of attitudes to risk around sharing beyond subject and institutional domains, leading to enhanced student-centred approaches and partnerships, and greater marketing capacity and reputational gains for institutions.'(McGill et al, 2013a).

⁴ <http://www.capetowndeclaration.org/read-the-declaration>

⁵ <http://oer-he.blogspot.co.uk/>

Evidence of the practices of OER users is much sparser. Use and reuse of free (no financial cost) online content by educators is widespread in all areas of education, but awareness of IPR issues and open licensing is low, particularly in adult education (White and Manton, 2011; Masterman and Wild, 2011; Clark, 2013). Both White and Manton (2011), and Coughlan (2011), find that trust in the organisation providing OER is a strong factor in learner or educator choice of resources to use, but whereas among HE staff and students, a university origin engenders trust, this did not apply to the voluntary sector workers that Coughlan surveyed.

Research suggests that the development of innovative forms of teaching and learning is crucial for the success of OER, and that the development of practices that enable learners, trainers and institutions to engage with them are likely to be more important in enabling change, than is the provision of OER themselves (Dinevski, 2008; McAndrew, 2011). This finding is particularly relevant in the field of adult learning, where the wider learning context into which OER have to fit is diverging from the traditional formal educational model. The need for andragogic (self-directed by adult learners) rather than pedagogic (teacher-directed for children) approaches has been stressed since 1980 (Knowles, 1980). Recently Pawlak and Bergquist (2011) have pointed out that both pedagogy and andragogy assume a deficit in the learner; they advocate complementing andragogy with an 'appreciative' approach that gives *'voice to the wisdom (insights, knowledge, skills) that [the adult learner] already possesses. Furthermore, this wisdom is uncovered and appreciated within a specific context that is co-created by the "student" and "tutor" or within a cohort of learners.'* Their emphasis on emergent co-creation of knowledge by learners, and on the contextual specificity of learning, echoes Engestrom's (1987) description of the expansive learning that already takes place in informal and workplace settings. Their work presents challenges to the effectiveness in an adult learning context of a traditional content-focused view of OER, challenges that are borne out by the experiences of the UKOER programme discussed above (McGill et al, 2013a)

1.2 Approach to 'OER'

The approach of the project as a whole was informed by approaches to two key terms: that of 'OER' and that of 'adult learning' (discussed in the next section).

In the context of this study, OER are visualised as the conjunction of practices around open *content* with practices around open *learning* more broadly (Figure 1). In relation to open content, questions centre around what is special about educational content and how it is made openly available, licensed and distributed or shared. In relation to learning practices, investigation focuses on how practices around content contribute to or are supported by other practices across the sphere of learning activities.

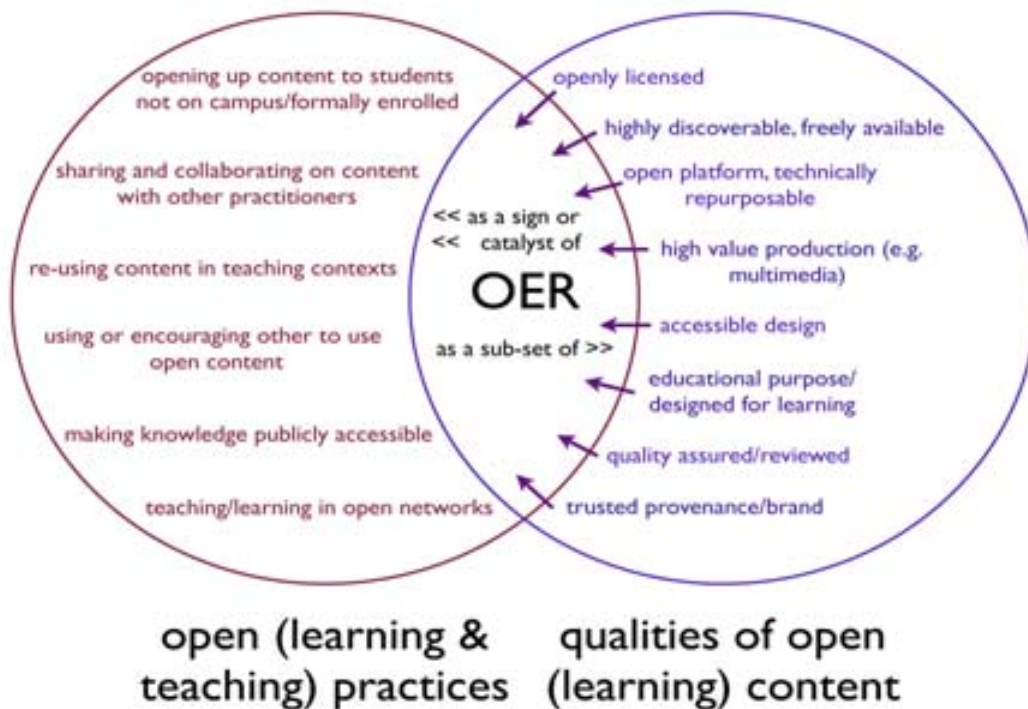


Figure 1: Issues of OER in relation to open content and open practices (Beetham et al, 2012)

Understanding of the mutual relations between open content practices and learning practices was built using the social focus of the OER impact model (figure 2) developed during UKOER evaluation and synthesis (McGill et al, 2011), continuing to highlight aspects of practice around OER for different sectors and perspectives and consideration of the ways in which practices around OER impact individuals, institutions, and organisations.

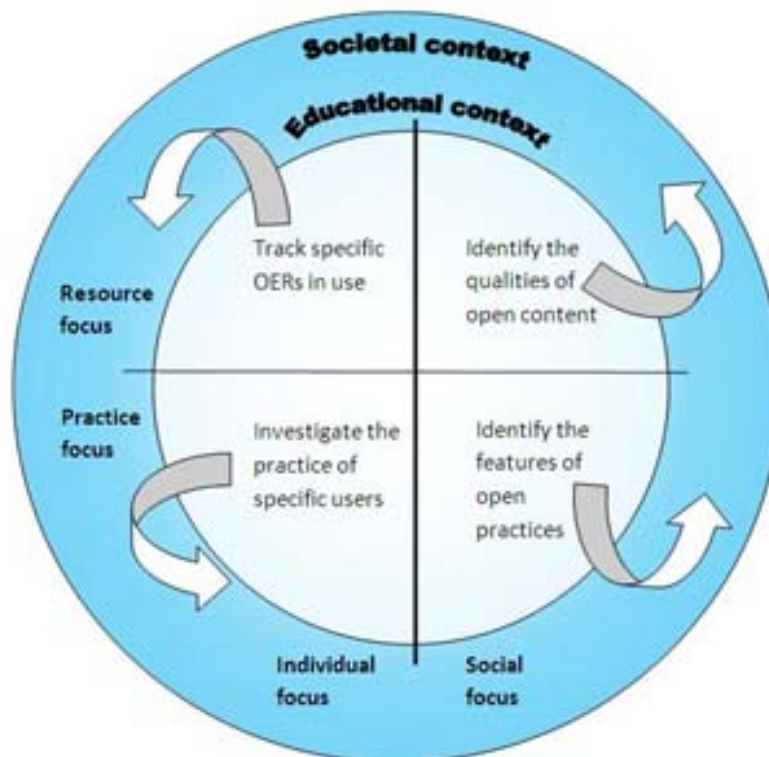


Figure 2: UKOER Impact Model

1.3 Approach to Adult Learning

The European Commission (2013) defines Adult Learning as covering:

- formal, non-formal and informal learning for improving basics skills, obtaining new qualifications, up-skilling or re-skilling for employment.
- participating in social, cultural, artistic and societal learning for personal development and fulfilment.

As regards age, it refers to all learning undertaken by adults after they have left their initial education and training.

As a baseline simplification the project focused on the learning of individuals – while recognising that they will often be in a social context. It was not interested in the learning of organisations or networks as a whole.

At a high level learning was defined as a *process* through which the individual changes. At a lower level this process could be understood as a socio-cultural one conceptualised in terms of activity theory. The outcome of learning will be a change, but might be a change in any one of a number of characteristics of the individual, such as their: knowledge (i.e. their personal synthesis of information/data into beliefs about the world); competence (ability to perform tasks); behaviours; ways of thinking; identity as perceived by themselves; identity as perceived by others; or some combination of these.

A further simplification of the project was to focus only on OER usage scenarios and resources where learning is the *intended* outcome. Thus formal learning and nonformal learning were included, but informal learning was excluded.⁶

IPTS has other projects looking at current practice in school level education, and higher education (HE), and also at future scenarios in lifelong learning.⁷ Thus OER4Adults focused on current formal and nonformal learning, but excluded formal learning provided within schools and universities. However, since increasingly universities provide nonformal learning opportunities for the wider community, such opportunities fell within the scope of the project.

⁶ Wikipedia provides the following definitions of these terms:

Formal learning: *Main article:* [Education](#)

Formal learning is learning that takes place within a teacher-student relationship, such as in a school system.

Nonformal learning: *Main article:* [Nonformal learning](#)

Nonformal learning is organized learning outside the formal learning system. For example: learning by coming together with people with similar interests and exchanging viewpoints, in clubs or in (international) organizations, workshops.

Informal learning: *Main article:* [Informal learning](#)

Informal learning occurs through the experience of day-to-day situations (for example, one would learn to look ahead while walking because of the danger inherent in not paying attention to where one is going). It is learning from life, during a meal at table with parents, [play](#), exploring, etc

⁷ <http://blogs.ec.europa.eu/openeducation2030/>

2 METHODOLOGY

2.1 Developing the inventory

Evidence was collected through a literature search, and through social networks. The coverage of OER was benchmarked in the initial inventory against existing OER classifications by Atkins et al (2007) and by Bateman, Lane and Moon (2012), against European countries, and against educational sectors, in order to ensure coverage of different models of practice and perspectives around OER. Gaps in coverage were identified and additional effort put into filling them.

The focus of OER4Adults was usage in adult learning. Initiatives were mapped against their main areas of evident usage in adult learning (learning scenarios in the typology discussed in Section 4).

The majority of OER initiatives discovered appear to be pitched at those studying at school or university. In this respect they would seem out of scope. However, they also play a role (often explicitly) in professional development of teachers and lecturers, and thus in the lifelong learning of these users. They were thus included in the inventory.

Geographically, the OER4Adults focuses on adult education and lifelong learning in Europe. Discovery of initiatives focused on initiatives that are both based in Europe and aimed at European learners. However, many OER initiatives, often based in the USA, have worldwide audiences, and a selection of these were included, since they help both to define the scope of the typology and to understand the potential of OER in adult education and lifelong learning.

2.2 Developing the typology

The OER4Adults typology of OER initiatives drew on the project's literature search,⁸ experience of trying, usefully, to classify the 159 initiatives in the OER4Adults inventory,⁹ and the OER4Adults framework (see Annex 2). The framework approach was similar to that used in the UKOER Evaluation and Synthesis project, and built on the framework developed and validated through UKOER (McGill et al, 2013b). By these means five broad areas of interest were identified: 1) Practice change; 2) OER release and publishing models; 3) Strategies, processes and policies; 4) Motivations, barriers and enablers; and 5) Technological aspects

Literature that proved particularly useful includes:

Carpentieri, Litster and Brooks' (2010). *Study on European Terminology in Adult Learning*, the *European Adult Learning Glossaries* (Brooks & Burton, 2010; Litster, Brooks & Burton, 2010)

Pawlak and Bergquist's (2011) *Four models of adult education*, and the typologies by Atkins, Seeley Brown and Hammond (2007) and Bateman, Lane and Moon (2012).

Recent discussions among the OER community initiated by Athabasca University about the possibility of producing an OER world map were also drawn on. Many contributions to the discussion suggested typologies of initiatives (Efquel, 2012). However, the resultant OER4Adults typology did not directly mirror any of these existing typologies, as the focus on adult learning practices necessitated differences.

⁸ See Mendeley group at <http://www.mendeley.com/groups/2522111/oer4adults/>

⁹ See Annex 4.

2.3 Developing the SWOT analysis

The SWOT analysis drew together evidence from four main sources of data in reaching conclusions about the strengths, weaknesses, opportunities and threats of OER for adult education and lifelong learning in Europe. Of these, the first two were the most important; the remaining two were complementary.

1. OER4Adults inventory of over 150 OER initiatives of relevance to adult education and lifelong learning in Europe, discussed in Section 3 below;¹⁰
2. Responses from the leaders of 36 OER initiatives that focus on adult and lifelong learners in Europe to a detailed SWOT survey, discussed in Section 5 below. The SWOT survey drew on the framework and typology discussed in the previous section. It covered major fields in the typology;
3. Responses from 89 lifelong learners and adult educators to a short poll about their practices with free (no cost) resources, circulated in five languages (English, French, Greek, Italian, Spanish).¹¹ These are discussed in Section 6;
4. The Vision Papers on Open Education 2030: Part 1: Lifelong Learning published recently by IPTS (2013).

Interpretation of this data was informed by interviews with five experts with a wide experience in OER and adult education,¹² by discussion at the IPTS Foresight Workshop on Open Education and Lifelong Learning 2030¹³ and by previous evaluation and synthesis of the UKOER programme.¹⁴

¹⁰ See Annex 4.

¹¹ <http://www.surveymonkey.com/s/99CVQFY>. An attempt was made to distribute this survey to those outside the usual OER community. The relatively high awareness of OER among respondents (32%) suggests that this attempt was not entirely successful. The survey and its results are reported in a forthcoming paper (Falconer et al, in preparation).

¹² Rory McGreal, UNESCO chair in Open Educational Resources; David Kernohan, programme director of the JISC UKOER programme; Alastair Clark, until recently digital lead at the National Institute of Adult Continuing Education; Mike Feerick, founder and chief executive of ALISON; Patrick McAndrew, Professor of Open Education, UK Open University).

¹³ Seville 29-30 April 2013. See <http://blogs.ec.europa.eu/openeducation2030/>

¹⁴ UKOER was a £13M programme, funded by the UK Joint Information Systems Committee, and the UK Higher Education Academy, which ran from 2009 to 2012 and involved over 90 institutions (McGill et al 2013c).

3 INVENTORY

The OER initiatives inventory¹⁵ contains 159 initiatives, of which 114 were deemed relevant to adult learning in Europe (see Annex 4). They were distributed across at least 17 different European countries,¹⁶ and 26 initiatives based elsewhere, predominantly in the USA (18). The UK and France have far more single-country initiatives than anywhere else (33 and 15 respectively).¹⁷ In the case of the UK this reflects the Joint Information Systems Committee's decision to fund a large number of small-scale initiatives rather than a few large ones. In the case of France the emphasis appears to be on providing resources that are in French, rather than relying on resources in the dominant English language.

The dominant language of the initiatives is English (66%) with about 16% in French, and Czech, Dutch, Finnish, French, German, Greek, Italian, Norwegian, Polish, Spanish also represented.

At least 50% of the initiatives are based in higher education institutions (universities).

Just over a quarter (30/114) of the relevant initiatives were assigned to a high priority group, being centrally relevant to adult learners in Europe. They met the three criteria of: 1) providing materials or access to materials and courses that are openly licensed; 2) being developed for, or having a significant number of users among, adult learners; 3) being based in Europe.

The remaining relevant initiatives (84/114) were less obviously focused on adult learning in Europe, and fell into one or other of the following categories:

1. Initiatives aimed at school and HE teachers. Teachers are a special case of lifelong learner. There are a multitude of initiatives aimed at them and their professional development;
2. Initiatives that open up HE-type education to those not enrolled at university;
3. Initiatives aimed at adult learning but not apparently fully open. A number of the initiatives claim to provide free (no charge) materials, but their licencing terms are either restrictive or not apparent;
4. Initiatives aimed at lifelong learning but US based. A number of initiatives originate and are based in the USA, but have users across Europe.

¹⁵ See Annex 4.

¹⁶ Many of the initiatives span a number of different countries; only the lead country has been recorded here

¹⁷ The large number of English initiatives led to a preponderance of English survey respondents (14/37), which has affected findings.

4 TYPOLOGY

The typology of initiatives has at its broadest level three overarching areas: 1) Content; 2) Activities; and 3) Agents and five major activity types differentiating initiatives shown in Table 1 below.

Whilst information about all of these areas was gathered in the SWOT survey, the project emphasis on practices around OER means that the major focus was on Activities. The following diagram reflects the prioritisation of this area but reflects how this relates to the other two areas.

Initiatives can be mapped by their primary activity on to the diagram as in the example below.



Figure 3: Diagram of the OER4Adults typology, mapping four example initiatives

While collecting the inventory, all initiatives had been mapped against the typologies of Atkins et al (2007) and Bateman et al (2012).¹⁸ This exercise demonstrated that the Atkins et al typology was more useful in distinguishing between initiatives than was the Bateman et al (2012), but that the typology required modification to fit the initiatives in the inventory, leading to the five major activity types that differentiate initiatives shown in Table 1 below.

Note that all initiatives also encompass other activities that cut across the five activity types here (and hence are not particularly useful in differentiating between initiatives). An example of such a cross-cutting activity would be knowledge creation, which happens within each of the activity areas.

The content area was characterised by seven dimensions of OER content: 1) Class of learning (formal, nonformal, informal); 2) Pedagogic model; 3) Granularity; 4) Licence; 5) Language; 6) Subject/discipline; 7) Quality indicators.

¹⁸ See annex 4 for further details.

The agent area was more complex with agents divided into OER **providers**/facilitators (i.e. the leaders of OER initiatives), and **users** of OER initiatives (mainly learners using resources, but this would also include users of OER platforms, research, skills workshops, etc.).

The providers are characterised by their: 1) Geographic base; 2) Organisational setting; 3) Educational level; 4) Collaborations; 5) Motivation; 6) Subject/discipline; 7) Funding model; 8) Sustainability; 9) Barriers encountered.

Users are characterised by their: 1) Location (geographic proximity to the providers); 2) Organisational (learning) setting; 3) Occupational description (teacher, parent, manual worker, etc.); 4) Educational level; 5) Learning scenario (e.g. ‘for credit - not for credit’, ‘teacher led – self-directed’); 6) Learner enablers; 7) Learner barriers; 8) Learner benefits; 9) Effect on learner of technical decisions by initiatives.

Table 1: Activity types of the OER4Adults Typology

OER4Adults activity type	Exemplar
Content publishing This activity encompasses OER content creation, management, organisation, discoverability, dissemination, and hosting.	Khan Academy
Technical infrastructure This activity encompasses development of technical areas of infrastructure to support the creation, discoverability, etc. of OER content. Thus it includes not only software and middleware services, but also legal, IPR, quality and curriculum development processes.	Ariadne; ARROW OERTest
Skills and competence This activity is about building skills and competences at all levels (policy makers to learners) and stages of the OER lifecycle (developers and producers to consumers). It is about building the knowledge and skills that enable effective embedding of OER – in policy making, in strategic decisions, in curriculum design, in learning.	Digital Futures in Teacher Education UNESCO OER community
Research and understanding This activity type takes OER and practices around OER as an object of enquiry. It encompasses evaluation of OER initiatives, and research into practices around OER.	OLNet
Community building for OER use Use is the main capacity-building activity not covered by other headings. Initiatives that attempt to build capacity for use inevitably do so through community formation, whether this is based in a particular corporate or professional body or in a distributed network.	Lemill OER-U

The learning scenarios of user characteristic (5) were based on seven dimensions relevant to adult learners that were derived from the literature and discussed with the Advisory Group: for credit—not for credit; prerequisites—no prerequisites; teacher-directed—self-directed; teacher-structured—self-organised; solitary activity—social activity; work-related—not work related; cost of traditional resources borne by institution—cost of traditional resources borne by learner.

Note that assignment of characteristics to the users of initiatives relied on the perceptions of the initiatives about who their users might be. No direct access to the users of the initiatives was available.

5 SWOT SURVEY

5.1 The survey questions

The survey was administered using SurveyMonkey during February 2013. It comprised 56 questions covering all areas of the typology. However, it had a branched structure with a strand corresponding to each primary activity type. This meant that no respondent had to answer more than 19 questions. After five common questions, the branches were:

- Publishing strand,
- Technical infrastructure strand,
- Skills and competence strand,
- Research strand,
- Community building strand.

5.2 The survey respondents – geographic base

The survey was sent to 104 initiative leaders. Thirty-six initiatives responded of which 19 came from the high priority group (response rate 53%), and 13 came from other initiatives in the inventory (response rate 36%).¹⁹ The remaining four came from owners of initiatives in the inventory, but they chose to respond about other initiatives that mapped more closely to the focus area of adult learning, i.e. they brought themselves into the high priority group.

The initiatives that responded are detailed in Annex 3.

The country-base of the initiatives is shown in the following table:

Table 2: Survey respondents by country

Country	No. Responses	No. invited
Czech Republic	1	1
Estonia	1	1
France	3	9
Germany	1	1
Greece	3	7
Netherlands	2	5
Norway	1	2
Republic of Ireland	1	1
Spain	1	4
UK	14	24
USA	2	7
EU	6	15

¹⁹ See Annex 3 and 4 for more details.

The high number of initiatives based in the UK reflects the UK Joint Information Systems Committee's decision to fund a large number of small initiatives rather than a few large initiatives. The relatively high response rate from the UK may be due to the OER4Adults team being relatively well known among the UK OER community.

The dominance of the UK among survey respondents is a limitation that has to be borne in mind when interpreting the results.

5.3 Type of learner focus

The primary focus of the initiatives as indicated by their websites was:

Adult education and lifelong learning: 18

Higher education: 9

Schools: 7

However, these proportions were not entirely borne out by the responses to survey questions about their envisaged users, which suggest a stronger focus on formal higher education and school contexts. These showed that registered students were the the most frequent envisaged user type among the publishing and community strands, followed by HE teachers and lifelong learners. Initiatives were asked to rank their five most important envisaged user groups. Weighted totals were calculated for each user group. For example, professional workers were ranked as the most important user (weight 5) by one initiative, as the second most important user type (weight 4) by two projects, as the third user type (weight 3) by one project, as the fourth user type (weight 2) by one project, and as the fifth user type (weight 1) by two projects; thus the total weight for professional workers is $5 \times 1 + 4 \times 2 + 3 \times 1 + 2 \times 1 + 1 \times 2 = 20$. When the weighted totals are charted, the lifelong learners are shown to be a significantly less important target audience than registered students, or school and HE teachers (see Figure 4).

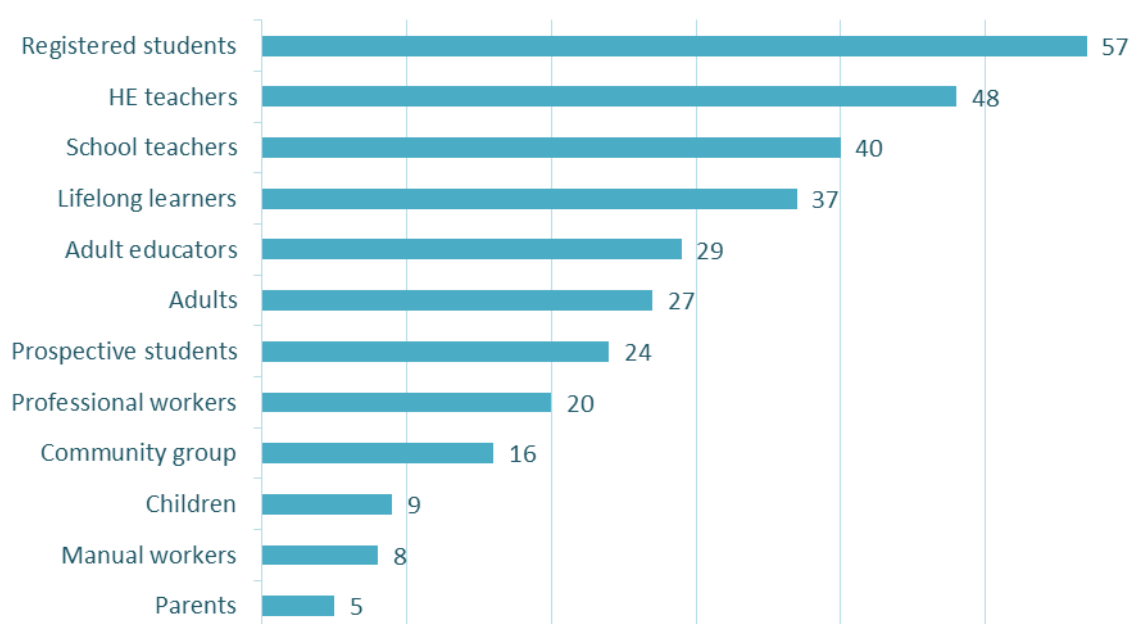


Figure 4. Types of learners that the publishing and community strand initiatives are focusing on.

Respondents were asked to rank their five most important user types, and weighted totals were calculated from these rankings.

On the basis to their answers to these questions, the 23 Publishing and Community strand initiatives²⁰ were categorised into three groups: those focusing on lifelong learners (the LL group), those focusing on learners in formal higher education and school contexts (the HES group) and an intermediate group whose focus was equally balanced between the two contexts. This categorisation was carried out by dividing the possible user types into two: those based, or potentially based, in formal school and HE either as learners or as teachers (ie. registered students; prospective students; school teachers; HE teachers; children); and those based outside formal school or HE (ie. adult educators; professional workers; parents; manual workers; adults; lifelong learners; community group).

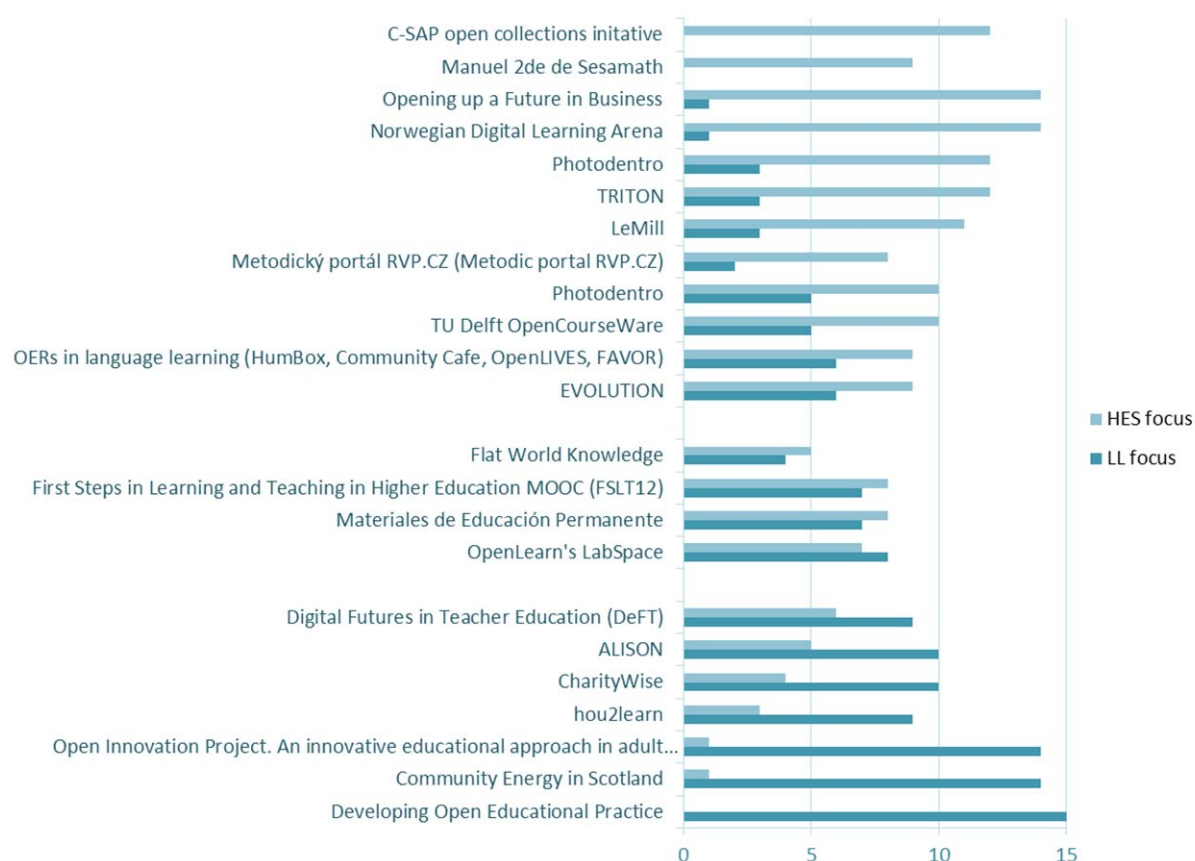


Figure 5. Chart showing the emphasis of the 23 publishing and community strand initiatives on formal HE and school contexts, and on adult education and lifelong learning contexts

For each initiative, their emphasis on these two audiences was calculated and plotted in the chart above (Figure 5). Thus, for example, the Canal Educatif initiative ranked school teachers as their most important users (weighted 5) followed by HE teachers (weighted 4) and registered students as their fifth most important users (weighted 1) so their total emphasis on formal school or HE was $5+4+1=10$. They ranked parents as their 3rd most important users (weight 3) and adults as their fourth most important users (weight 2) so their total emphasis on adult and lifelong learners was $3+2=5$. Plotting the emphasis of each initiative on the two audience types shows that the initiatives can be categorised into three groups: those (on the left of the plot) that have a clear focus on adult and lifelong learners (**the LL group**); those that are evenly balanced (in the middle

²⁰ The other three strands had been presented with different user options so their responses could not be aggregated in the same way. Two of the community building initiatives did not answer the question about envisaged users, so had to be excluded from this analysis.

of the plot); and those (on the right) that have a clear focus on formal school or HE contexts (**the HES group**).

This analysis suggests that at least 60% of the initiatives are primarily focused on formal school or higher education contexts (the HES group). They comprised 11 from the publishing strand and one from the community strand. However, these initiatives are also open to use by lifelong learners, and/or offer professional development (lifelong learning) for school or university teaching staff. Only around 30% of initiatives expect their main users from adult education and lifelong learning (the LL group). In this group there were four from the publishing strand and three from the community strand. Examples of specific sectors addressed by the LL group include: charity workers, community energy groups, tourism workers, architecture professionals, office workers.

The LL group and HES group are compared in some of the analyses below. Where significance values (p values) are quoted for these comparisons, these were derived using Fisher's exact test which was specifically chosen because it is appropriate for two-way comparisons between small datasets (Fisher, 1922). These values are often quoted even when they do not achieve the conventional level of significance ($p=0.05$). Sometimes this is to demonstrate that effects that are visible in the charts are not likely to be statistically significant. More often relatively high p values (eg. $p=0.2$) are given when there is other supporting evidence to suggest that there might be an effect; the small sample size in the survey means that p values tend to be high, but further investigation with a larger sample is needed to establish whether they are genuinely significant.

A similar categorisation into LL and HES groups could not be applied to the remaining three strands (technical infrastructure, skills and competence, and research) since the user options presented to them in the survey differed, and numbers in each strand were too small for a strand by strand categorisation.

Initiatives whose primary activity was developing technical infrastructure seem to be aiming at (possibly particular) communities, rather than at individuals (either publishing or learning). Educators sourcing, and communities sourcing, OER are the clear top user groups (Figure 6).

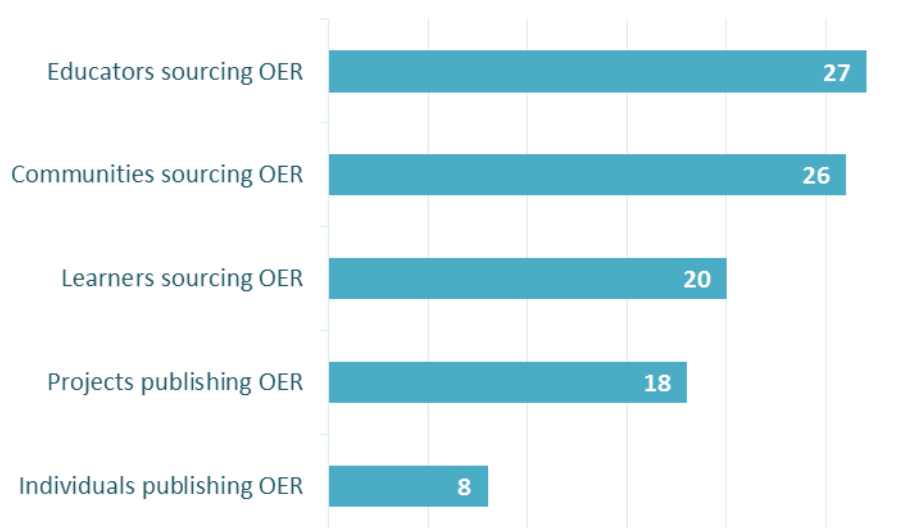


Figure 6: Weighted totals for envisaged users among the technical infrastructure strand initiatives

5.4 Initiative activities

As shown in Figure 7, 50% of the 36 initiatives are primarily focused on creating, organising and disseminating OER content. Infrastructure development and community building for OER use are the main focus for above 15% each, with OER skills development and research accounting for less than 10% each.

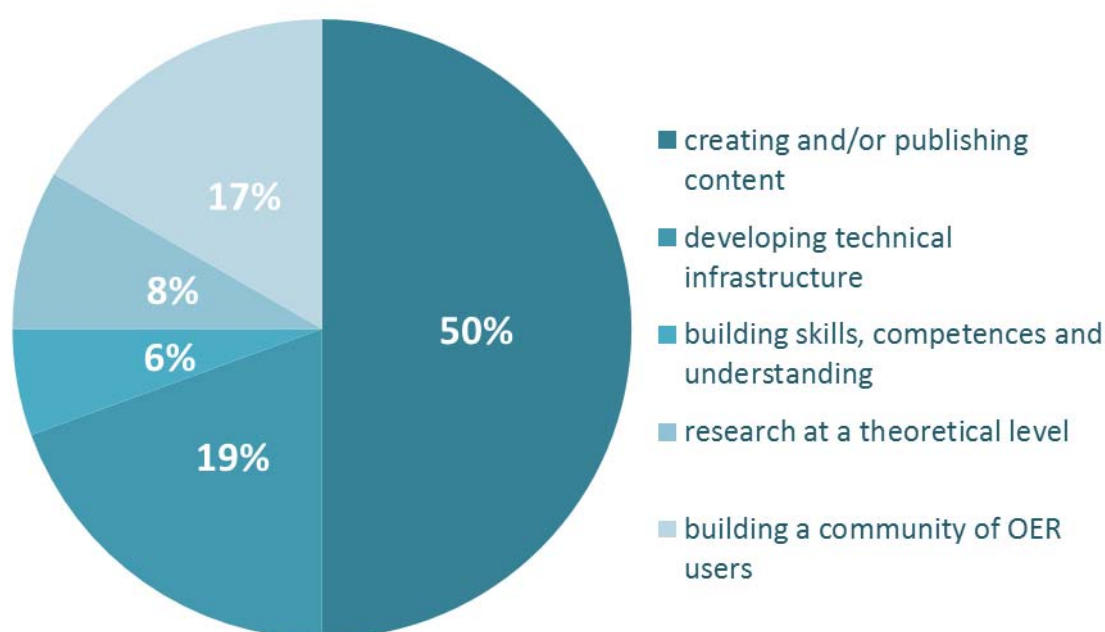


Figure 7: Primary activity of the initiatives

However, a more detailed breakdown of their activities shows that community building, especially, was a major activity even for the publishing initiatives; a large number of initiatives ranked it second or third (Figure 8). Research was, overall, the least important activity, suggesting possibly that lack of reflection and evaluation may be a weakness.

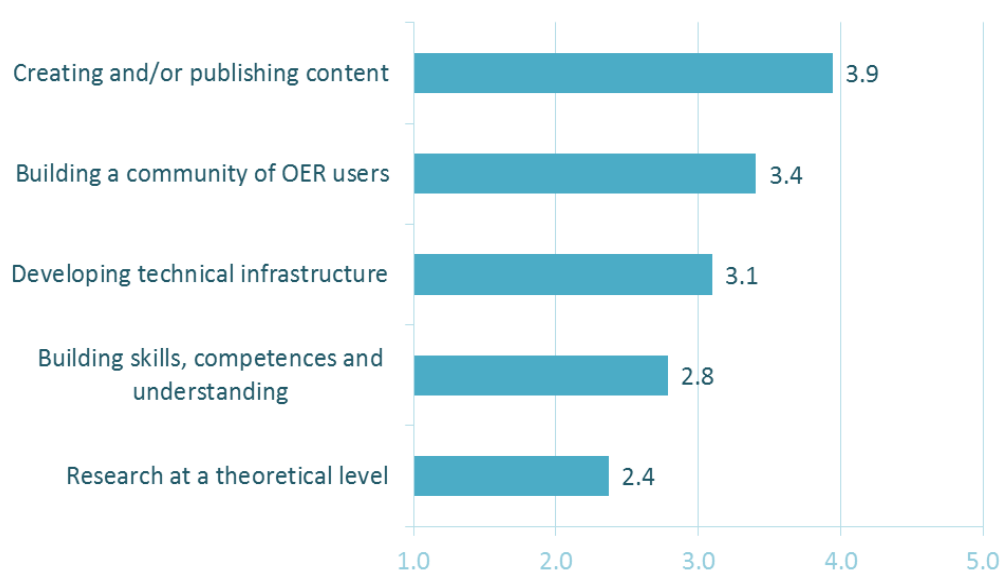


Figure 8: Distribution of activities within the initiatives

Initiatives were also asked about the phasing of their activities through the duration of the initiative. The options were different for the different strands, so no direct comparisons can be made. However, the publishing strand, with 18 respondents, was large enough for some general observations to be made. Results for the publishing strand showed the expected emphasis throughout on creating and managing content. However, responses also showed that dissemination was often something that initiatives hadn't realised the need for in advance. This is clear in Figure 9 where the second and fourth bands in each row highlight the things initiatives hadn't initially planned but realised later that they would have to do. This exemplifies the 'make it available and the users will come' mentality that predominated in much early OER work (Lane & McAndrew, 2010). Responses also suggested that initiatives are doing their own hosting, with little collaboration – which reinforces the need for greater coordination that emerged later in the survey (see Section 5.15).

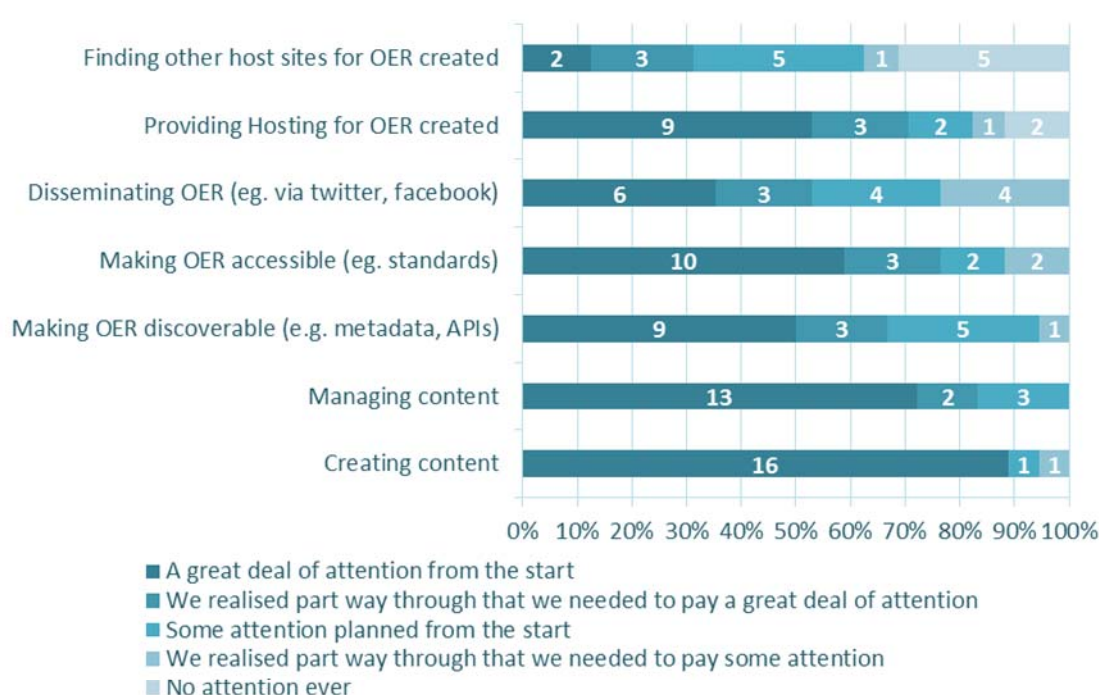


Figure 9: Responses of the publishing strand to the question, 'how much attention did you pay to the following activities in your initiative?'

5.5 Initiative funding models

More than 50% of initiatives receive some or all of their funding from government sources; 50% receive funding from their institutions; 30% through partnerships; 15% through membership; 15% through a 'freemium' service.²¹ As shown in Figure 10, the funding profiles of the LL group were notably more diverse and less reliant on government than the HES group, and this was reflected in their significantly lower concern about lack of ongoing investment as a barrier (see Section 5.7 below). None of the three community-building-focused initiatives within the LL group relied on government funding.

²¹ A 'freemium' service is one where the core resources are provided free, but users are invited to pay for add-on extras, such as exams, nicely-produced certificates, personal or group tuition.

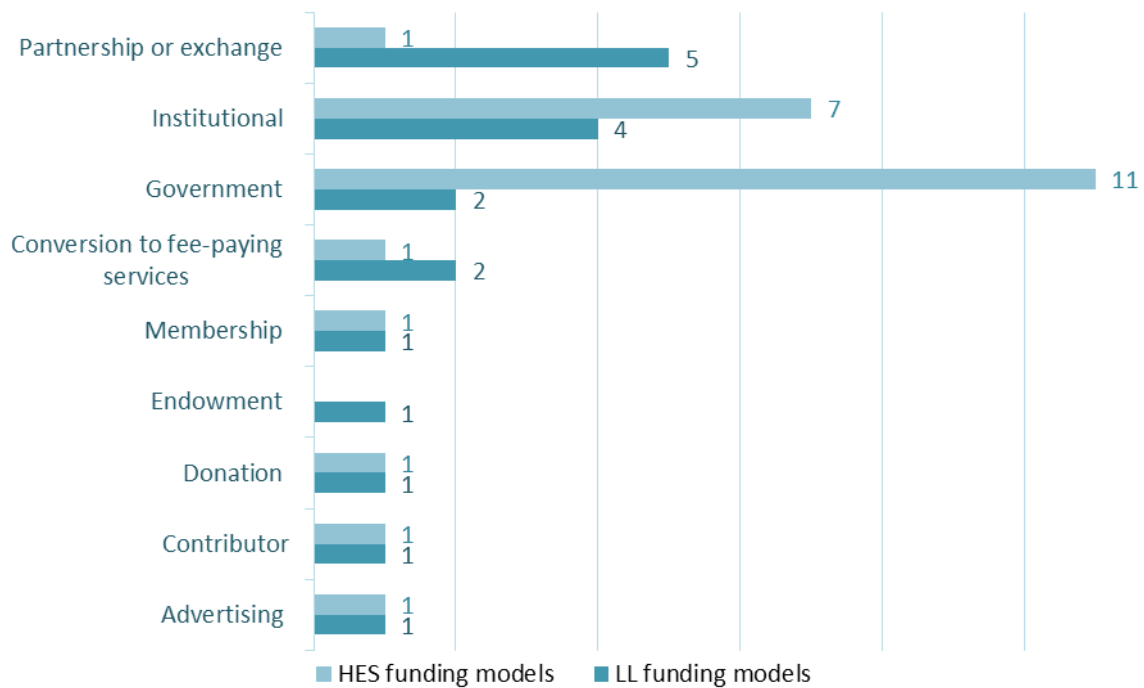


Figure 10: Comparison of the distribution of funding models for the LL group and the HES group.

5.6 Initiative motivations

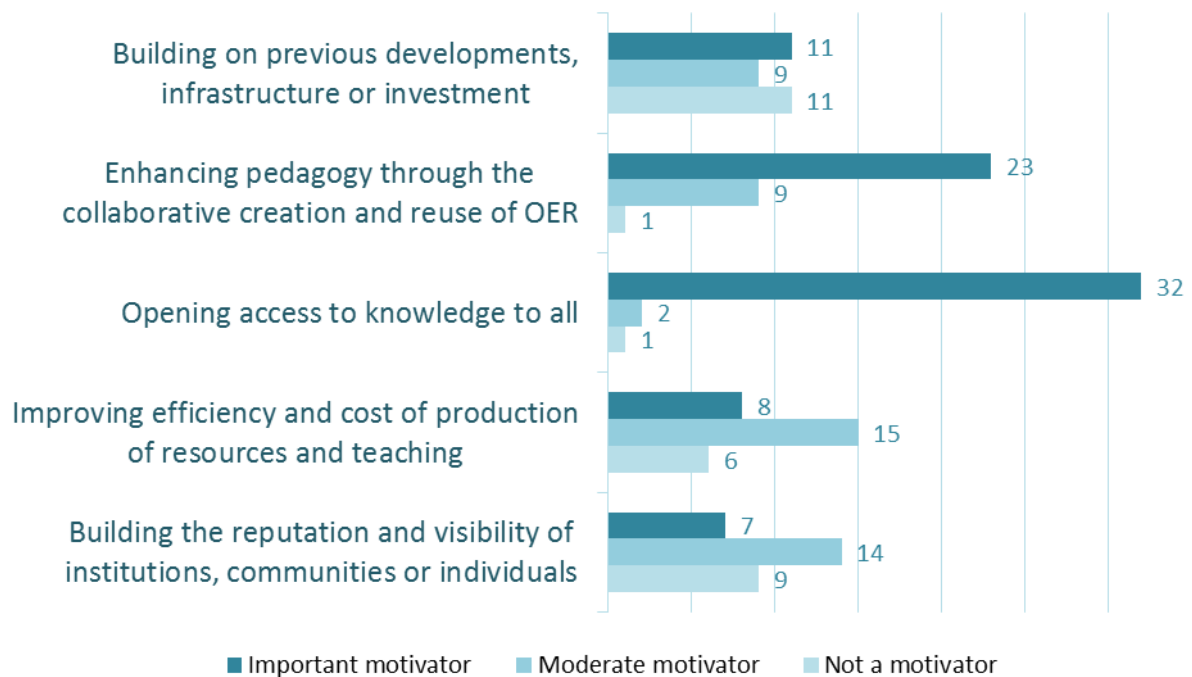


Figure 11: Ranking of motivations of the 36 survey respondents

The survey presented possible motivations for initiatives that derived from the literature and from analysis of the UKOER programme (Falconer et al, 2013). Figure 11 shows that, overwhelmingly, the two important motivators for respondents, on behalf of their initiatives, are the altruistic ones –

opening access to knowledge, and enhancing pedagogy. Note that the survey was answered by individuals – there is a need to check their (strong) beliefs against the evidence of what the initiatives were actually doing to assess the validity of their stated motivations or the attitudes and approaches with which they further those motives. Note also that the motivations of the individuals may differ from that of the institutions within which they are situated (Falconer et al, 2013). There were no significant differences in motivation between the HES and LL initiatives.

5.7 Initiative barriers

Overall, lack of awareness of OER, legal issues, sustainability and lack of ongoing investment are major concerns. Figure 12 shows the results across all initiatives. While lack of awareness has been a major issue across all types of initiative, they do not envisage it as significant in the future, suggesting a perception that awareness of OER is rising generally. The same applies to legal issues. Concerns around sustainability are the most important current concern, mirrored in the importance of lack of investment as the most important future concern.

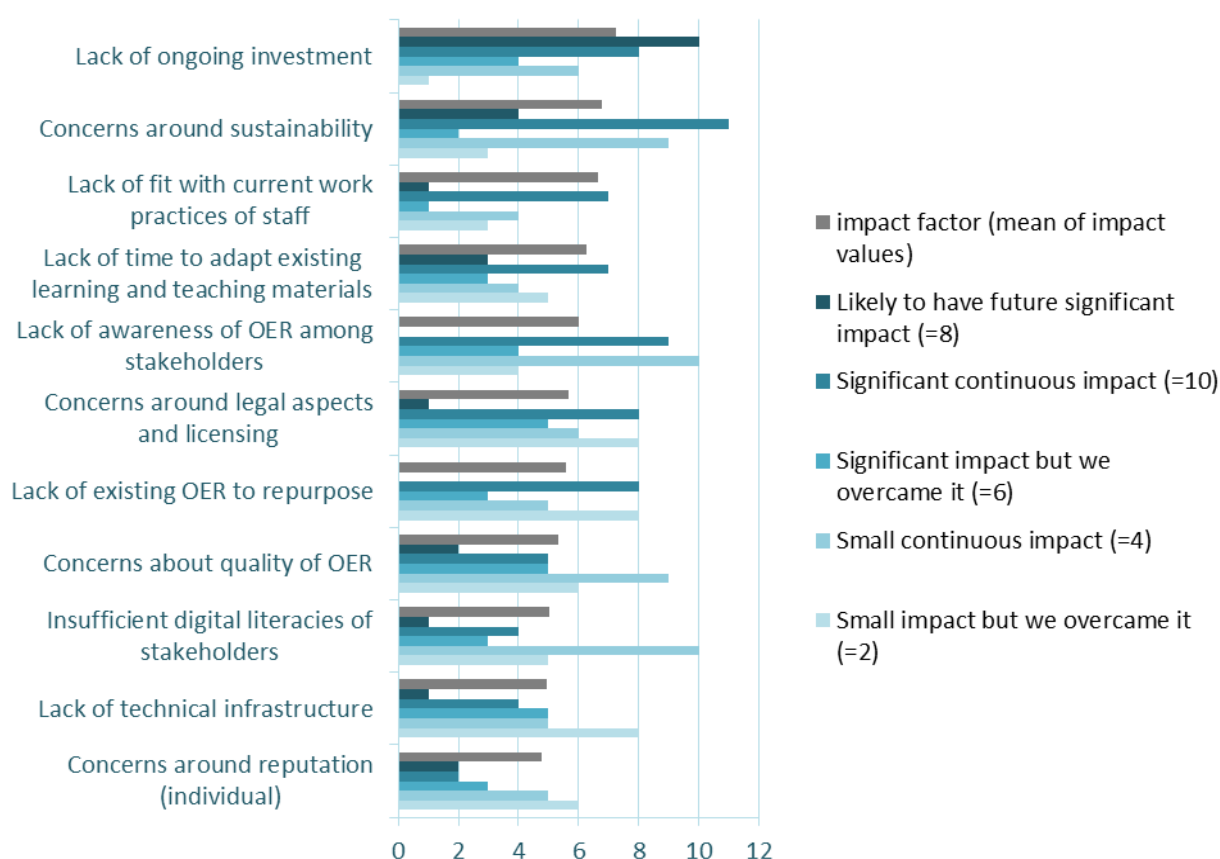


Figure 12: Barriers encountered and envisaged by the 36 surveyed initiatives, ranked by perceived impact of these barriers

The concern with sustainability and lack of investment is hardly surprising when many initiatives do not seem to have found a sustainable funding model outside government and institution funding (see Section 5.5 above). However, comparison between the HES and LL groups indicates that there may be some differences in their views. In Figure 13 each barrier is represented by two pairs of bars. The lighter coloured bars indicate the number of initiatives in each group considering this only a minor barrier; the darker coloured pairs represent the number of initiatives considering it a major barrier. This comparison suggests that the LL initiatives are significantly less likely to view lack of

ongoing investment as a major barrier than are the HES initiatives ($p=0.06$). This finding probably reflects the possibly more diverse funding models of adult learning-focused initiatives. There was a noticeable difference, also, in the views of the two groups on sustainability, but these did not approach statistical significance. The LL group were also more likely to view lack of existing OER to repurpose as a concern, possibly reflecting the presence in this group of initiatives focused on community building rather than content publishing. Whether this is a genuine difference between the two groups requires more research ($p=0.2$).

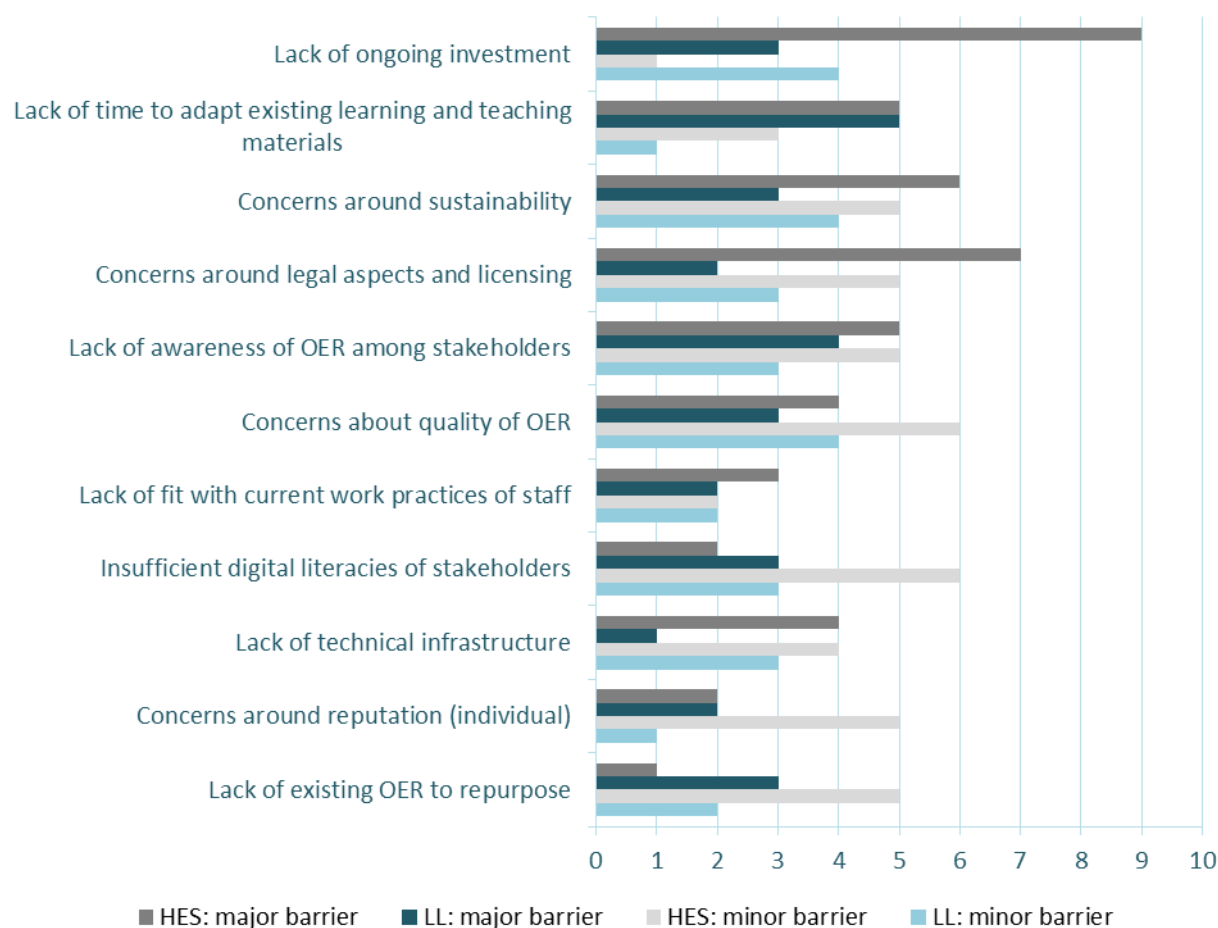


Figure 13: Chart comparing the views of the LL group (blue) and the HES group (grey) on initiative barriers.

There is a big mismatch between those who see lack of fit with current work practices of staff as having significant continuous impact (these are in the community building strand and some of the publishing strand), and those who don't think it is applicable. The latter respondents formed a high proportion of the HES group (50%). This gives an insight into the origin of some of the many differences between the two groups. These were initiatives which had staff specifically employed to produce OER, hence there was no question of lack of fit. They are thus less likely also to be concerned about lack of OER to repurpose, which emerged as a major barrier for the LL group, or with lacking the confidence to release their OER (see Section 5.11).

Concerns around legal issues and licensing have high impact, especially on the HES group. A lesser concern among the LL group is visually noticeable in Figure 13, but is nowhere near significance ($p=0.43$). However since it aligns with Clark's survey that suggests a lesser awareness and more cavalier attitude among adult educators to licensing conditions it might be worthy of further

research (Clark, 2013). Note also that legal issues and licensing are not seen as a barrier to users (Section 5.11) indicating another possible mismatch.

5.8 Initiative enablers

The commitment of initiative staff emerged from the survey as a standout strength (Figure 14), and correlates well with the evident strongly altruistic motivations of these initiatives (Section 5.6 above). Communities and collaborative approaches are also highly rated. Technical infrastructure has impact but is comparatively less important – correlating with the lack of emphasis on technical infrastructure as the way forward (Section 5.15) – it is a necessary but far from sufficient condition.

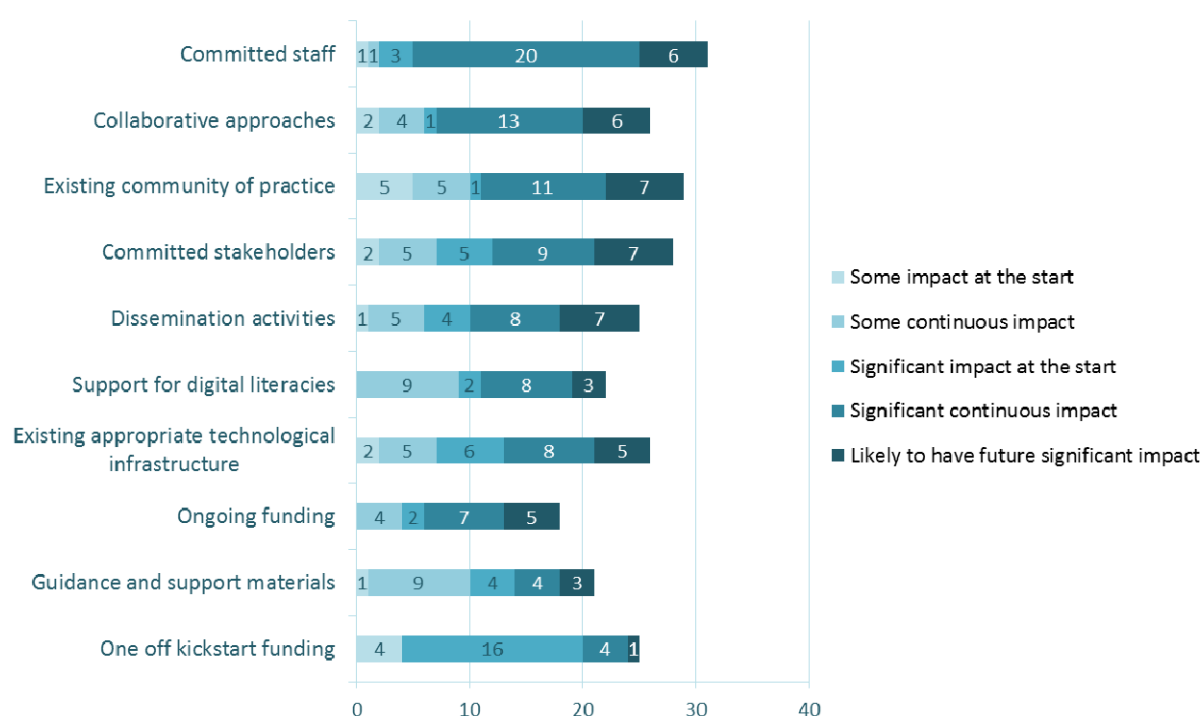


Figure 14: Enablers encountered and envisaged in the future (N=36)

A comparison of the LL and HES groups showed that the two groups were broadly similar in their views, with the LL group possibly less likely to value committed stakeholders, and to have benefited from kick-start funding; although the significance of the result is not high ($p=0.24$) it might correlate with their broader funding base but further research with a larger sample would be needed to establish whether it was a real difference.

5.9 User motivations

Possible responses to user motivation differed between the five strands (since the users of OER are likely to be looking for different things from the users of infrastructure development). Only in the publishing strand were there sufficient respondents to make general observations on the results. Among the publishing strand initiatives, freedom from IPR and copyright issues emerged as of surprisingly low importance (Figure 15). This correlates, however, with legal issues not being seen as a barrier to use (Section 5.11), and implies that they are not a barrier because users are not particularly bothered about them.

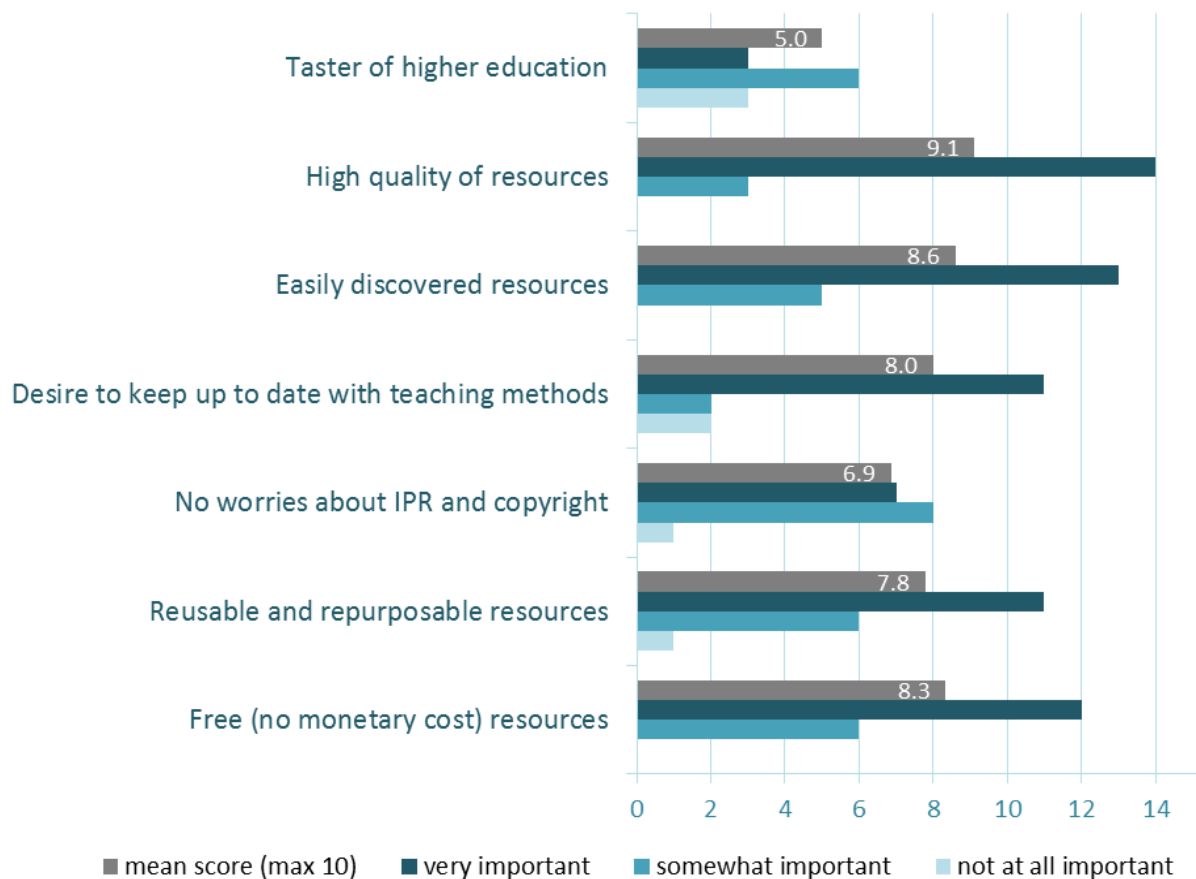


Figure 15: Publishing strand initiatives' perceptions of the motivations of their users

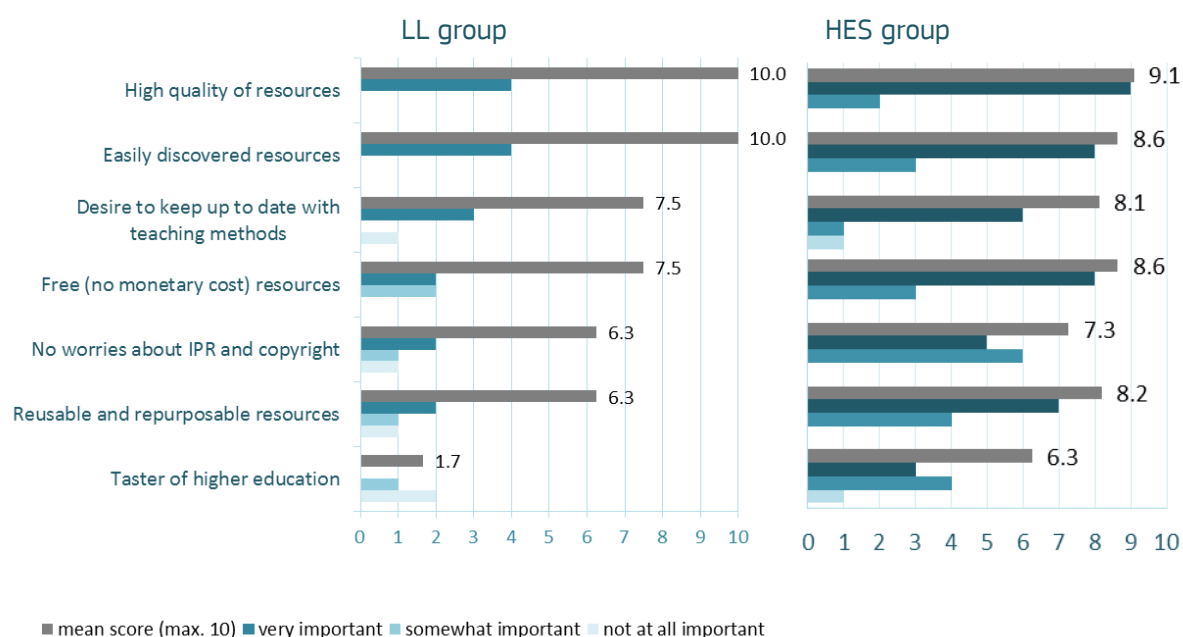
Lack of concern with IPR as a user motivator is lower among the four publishing strand initiatives in the LL group than the 12 in the HES (Figure 16),²² although the significance of the result is not high ($p=0.27$) and further research with a larger sample would be needed to establish whether there is a real difference here. This may reflect common practice among adult educators and lifelong learners, of using material that is available for free (no cost) without worrying unduly about IPR (evidenced, for example, in Clark, 2013).

Similarly, the visual results suggest a perception that reusable or re-purposable resources are less of a user motivator in the LL group. However the statistical significance of this result is low ($p=0.25$); if further research showed that there is a real effect here, it might be because these initiatives are not aiming at teachers who might wish to repurpose materials and there seems little evidence among either group of a concept of learners as producers.

Unsurprisingly, the LL group and HES group also differed considerably ($p=0.09$) over the importance of their OER as a taster of higher education, with half of the LL group judging this not at all important and 25% as somewhat important, compared with 60% of the HES viewing it as either somewhat or very important (Figure 16 below).

²² This analysis could not be conducted with the full LL and HES groups since the community strand were presented with different response options to this question; hence only the publishing strand members of the groups could be compared.

Conversely, there was agreement that users are very motivated by resources that are free, high quality, and easily discovered. Interestingly, the quality and discoverability of resources were



considerably more important than their cost among the LL group, i.e. the key group for lifelong learning and adult education.

Figure 16: Comparison of user motivations from the publishing strand LL group (left) and HES group (right)

5.10 User enablers

Possible responses for user enablers were the same across the publishing and technical infrastructure strands. Across these strands, good discoverability, easy view/download, and quality assurance are clearly viewed as the biggest user enablers, and this correlates well with the perception of discoverability and quality as important user motivations (Figure 17).

These perceptions by the initiatives can be evaluated against the results of the short poll of learners discussed below in Section 6.1. The importance of discoverability is reinforced by the predominance of Google as the means by which learners discover resources. However the short poll also suggests that trust in an organisation as a whole may be a more important criterion in learner choice than the quality of particular resources.

However, it is not clear how the crucial quality assurance is achieved, especially as user reviews are seen as only moderately important; this suggests a traditional ‘expert’ view of quality assurance that assumes that providers know what is best for users. This assumption is called into question by the results of the expert interviews discussed in Section 6.2 below, and by Coughlan’s (2011) finding university-produced materials are not necessarily the resources of choice among voluntary sector workers.

The four publishing strand initiatives in the LL group and the eleven in the HES group differed in their view of the importance of teacher/facilitator support ($p=0.09$) with the LL group unanimous that this is an enabler, and of effective metadata ($p=0.15$) this time with 90% of the HES group viewing this as a major enabler while 50% the LL group either did not have effective metadata or

did not think it an enabler.²³ A larger sample would be needed to tell whether these differences are genuine, but the results may suggest a lower degree of computer literacy among the LL group respondents than among the HES group.

Considering the emphasis on teachers as users (see Section 5.3), and the call for better coordination (see Section 5.15), the lack of teacher/facilitator support and of appropriate APIs is surprising and a definite gap.

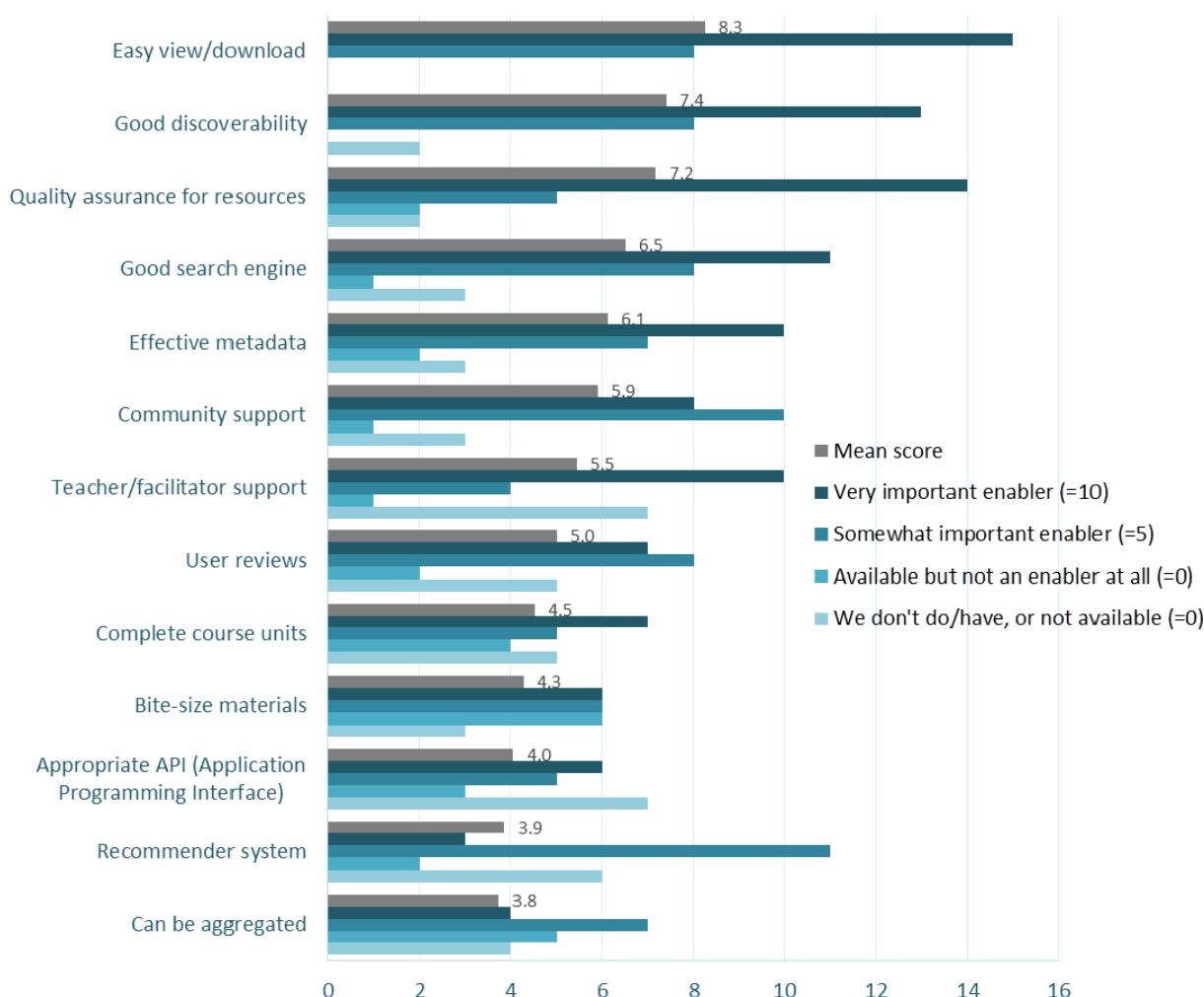


Figure 17: User enablers as perceived by the 18 publishing and 7 technical infrastructure strand initiatives

5.11 User barriers

Across the publishing and community-building strands, lack of awareness stands out as overwhelmingly the most important user barrier – which correlates well with the conflicting perceptions of the importance of legal and IPR issues to users, and the relative blindness of many of the initiatives to the need for dissemination. It may suggest that the proponents of OER are doing themselves no favours by badging them as ‘special’.

²³ This analysis could not be conducted with the full LL and HES groups since the community strand were presented with different response options to this question; hence only the publishing strand members of the groups could be compared.

The counter -argument here is that by not making the open licence – and its importance and significance – very visible on resources, initiatives are perpetuating confusion and lack of appreciation of the distinction between ‘open’ and ‘no cost’, and making it harder to track OER usage and demonstrate their benefits.

Legal issues appear surprisingly lowly rated as a barrier by these strands. It is not clear whether this is because users aren’t bothered about them, or because appropriate licences remove this as a barrier. However, responses to the user motivation question (Section 5.9 above) may suggest that users are not bothered about legal issues, and this is borne out also by the relatively low awareness of licensing among learners and adult educators shown by the short poll results (Section 6.1 below).

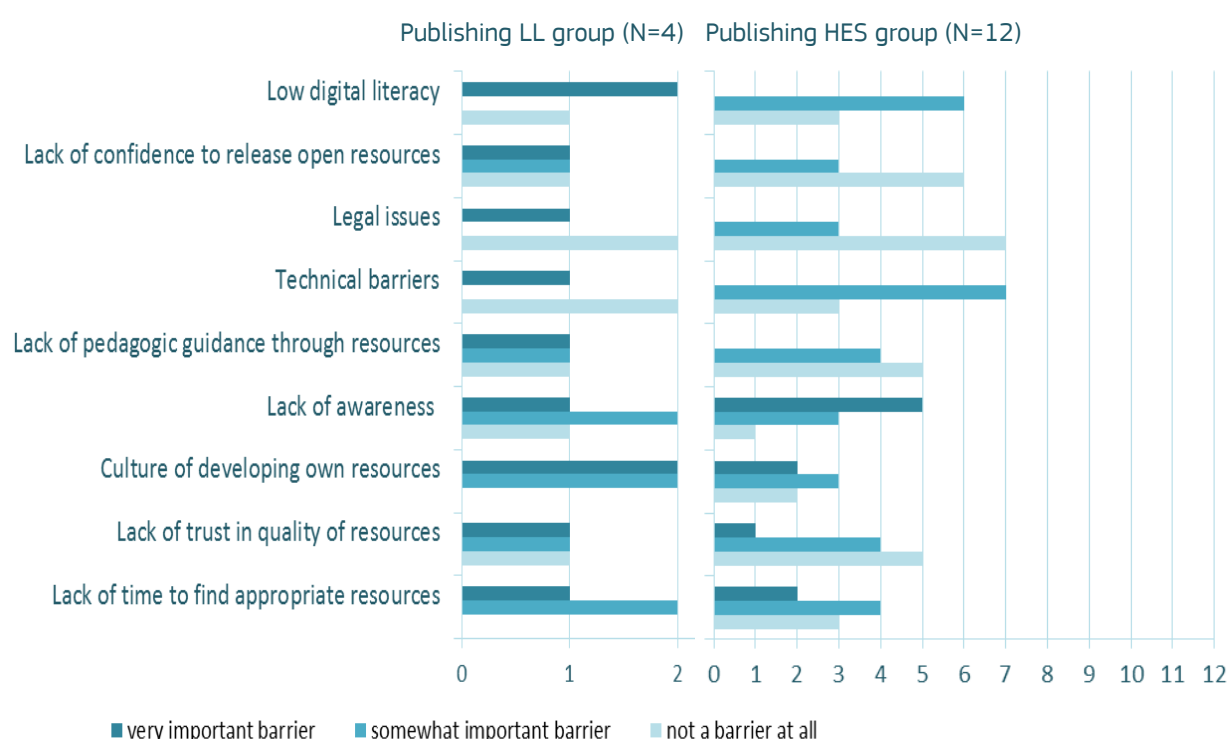


Figure 18: Comparison of user barriers perceived by the LL and HES groups in the publishing strand

Lack of confidence to release openly is not seen as an issue by the publishing initiatives – but evidence for this barrier has previously come from UKOER (Littlejohn et al., in press), suggesting the possibility that these initiatives are not highly sensitive to cultural issues. Comparison of the four publishing initiatives within the LL group with the 11 in the HES group suggests that there may possibly be a difference here although the statistical significance is not high ($p=0.22$), with lack of confidence being seen as a barrier by the LL group but not by the HES group. If this proves to be a genuine effect, it probably reflects different models of initiative with many of the HES initiatives employing people specifically to develop resources, as suggested in Section 5.7 above.

The barrier presented by lack of awareness of the initiative demonstrates a need for much more dissemination activity (and note that this is an activity that many projects had not planned for in advance – see Section 5.4)

5.12 User/stakeholder benefits

There were visible differences in the views of the LL group and the HES group on some user benefits (Figure 19). The HES group were significantly more likely than the LL group to regard opportunities to be involved in OER initiatives as a benefit to their stakeholders ($p=0.04$). Once again this largely reflects the views of initiatives whose sole purpose was producing OER, rather than initiatives for whom OER were a by-product of everyday learning and teaching practices. The HES group may possibly also be more likely to view enhanced quality, seeing knowledge in new contexts, and freedom of access as an important benefit, though these indications were not highly significant ($p=0.35$, $p=0.25$, $p=0.36$ respectively), while the LL group may be more likely to regard authentic or real life learning opportunities as a benefit ($p=0.24$) – this last point may have implications for the taking forward OER in the arena of workforce development. Larger samples are needed to establish whether these are genuine differences.

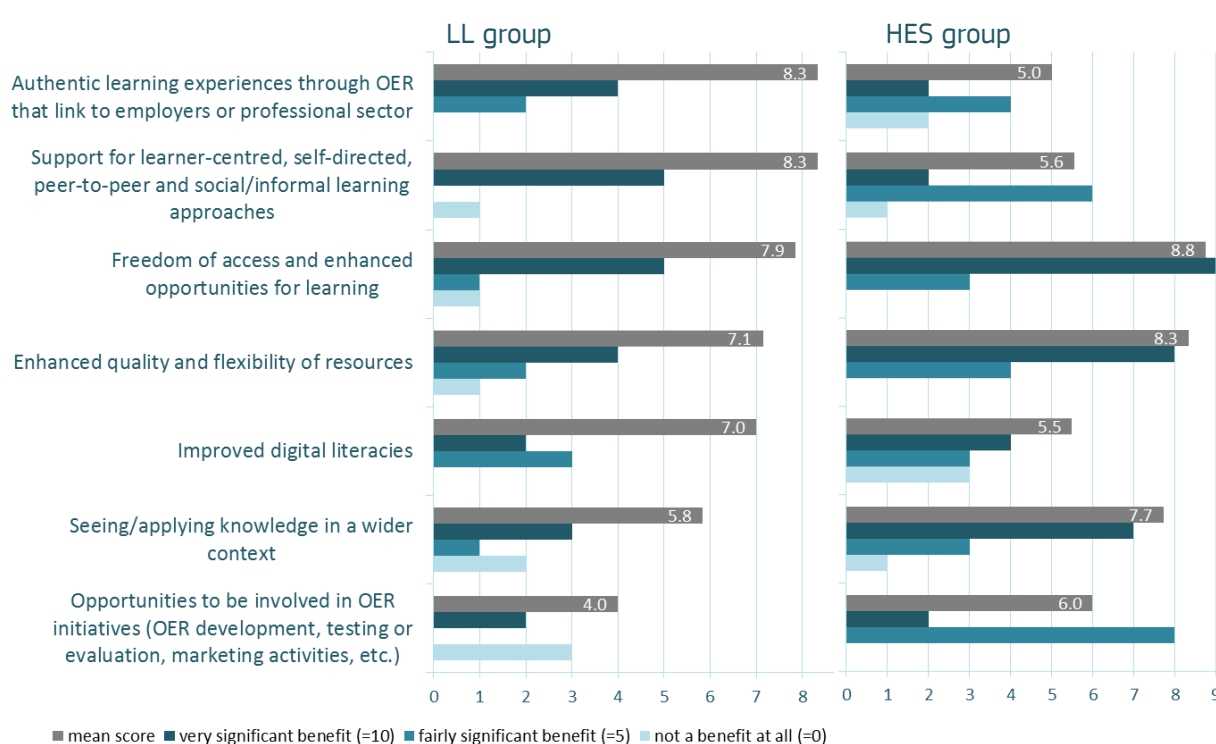


Figure 19: Comparison of perceived user benefits between the LL group (left) and HES group (right) initiatives

The perceived very significant benefits are a good match for initiative motivations (see Section 5.6 above) – which illustrates the point made in McGill et al (2013a), that the one merges into the other, especially when initiatives do not have good evidence from their users of the actual benefits.²⁴

Among technical infrastructure, skills and competence, and research strands, which had the same user-benefit options, the low perception of reputation as a user benefit (Figure 20) correlates with the low perception of recognition and reward as a user enabler (Section 5.10), and with the low emphasis on reputation as a motivator (Section 5.6). The community building strand recognises it to a degree as a user motivator (Section 5.9). This low perception suggests either that the

²⁴ For a discussion of the theoretical relation between anticipated benefits and motivation see Falconer et al (2013).

respondents are idealists who don't recognise such motives, or involvement with, and use of, OER does not receive recognition and reward – a threat to ongoing sustainability.

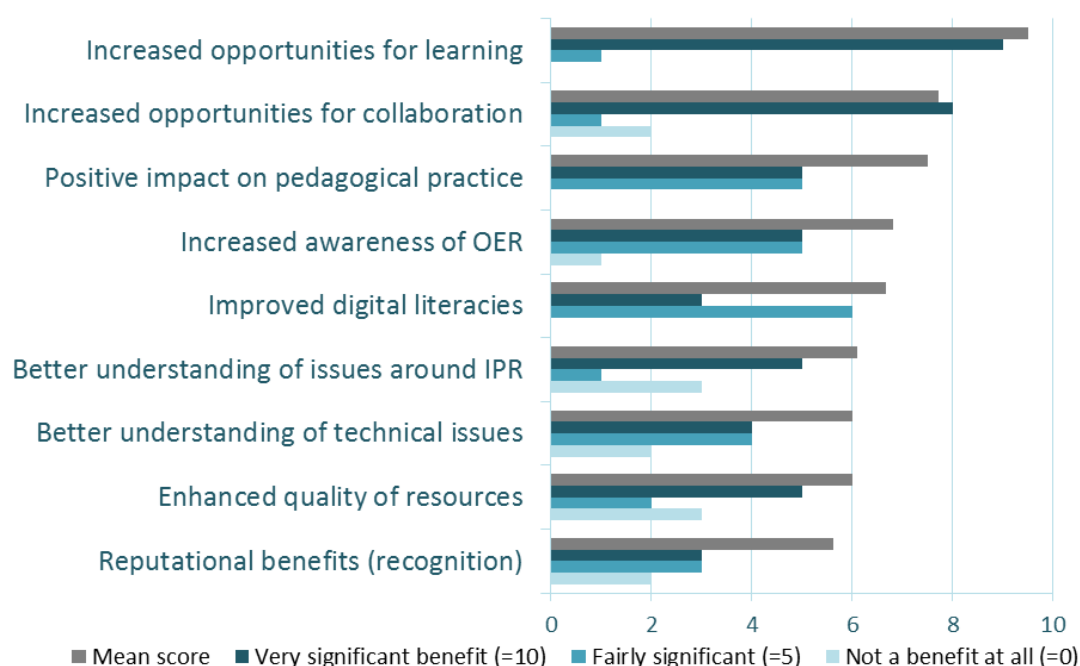


Figure 20: User benefits perceived by the technical infrastructure, skills and competence, and research strands

5.13 Learner context

The publishing strand initiatives were asked about the context in which they envisaged their resources being used. Overall, the results in Figure 21, where negative scores indicate disagreement while positive scores indicate agreement, show that the initiatives have a strongly traditional view of learners and their learning context.

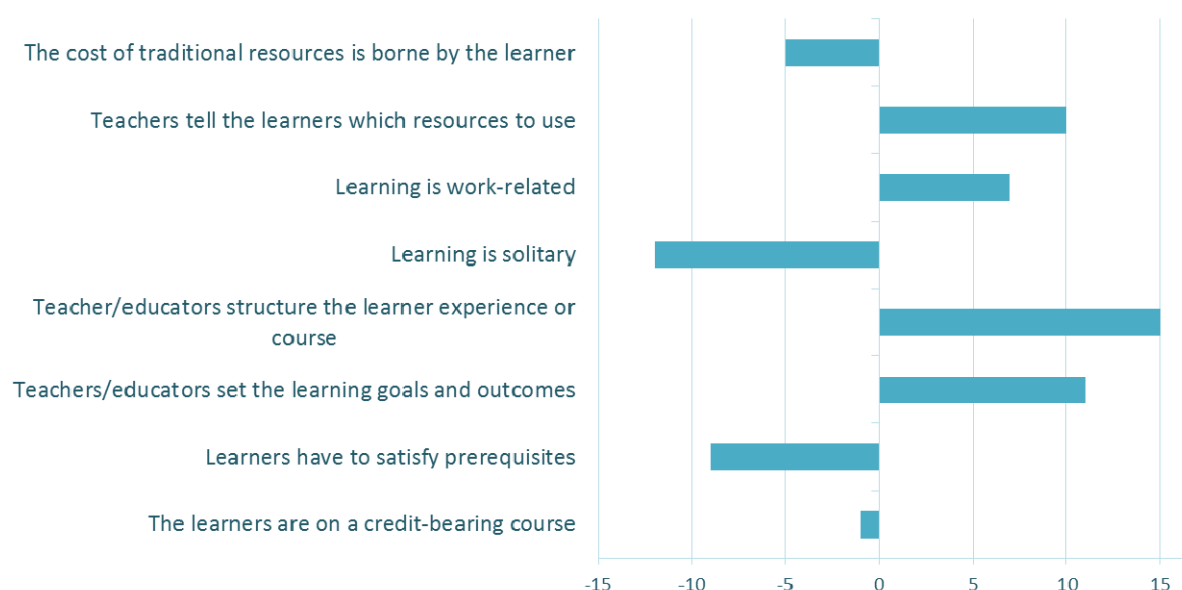


Figure 21: The learning context envisaged by initiatives publishing resources.

However these overall publishing strand figures mask significant differences between initiatives in the LL and HES groups. Fifty percent of the initiatives in the HES group agreed that learners would be on a credit-bearing course, and this may underlie many of the differences in expected learning and teaching practices. The most significant differences were that the LL group were more likely to disagree that teachers/educators structure the learner experience ($p=0.06$), and more likely to agree that learning is work-related ($p=0.03$). They may possibly also be less likely to tell the learners which resources to use ($p=0.19$). In other words, the contexts envisaged by the LL group are more in line with the vision statements, than are the contexts envisaged by the HES group.

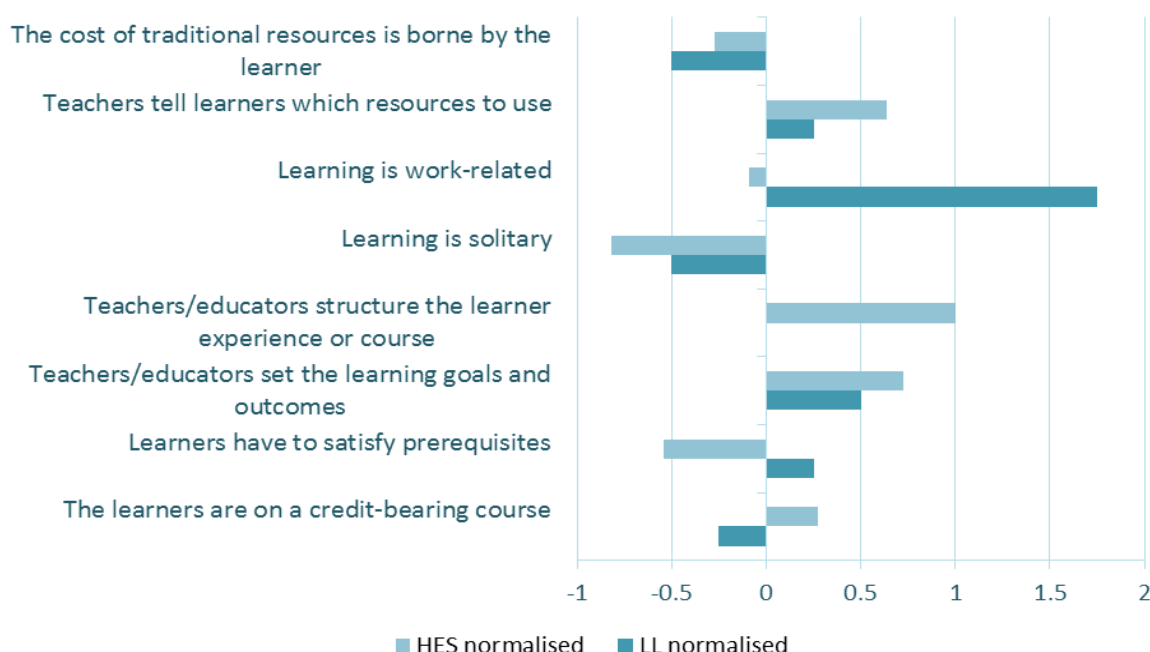


Figure 22: Comparison of the responses of the publishing strand initiatives in the LL and HES groups to the learning scenario questions

5.14 User evidence base

The low response rate to this question (65% compared with 95-100% for other questions) may suggest that many initiatives know very little about their users. A respondent's free text answer to Q12 sums up the experience of many initiatives: *'I could have answered I don't know to all of these questions as I don't know where our OER are being used so I answered based on what I do know of their use.'*

Many initiatives collect download statistics and use google analytics, but have very little information on the ways in which users are using OER, or of why users do not come flooding to repositories.

Evidence gathering is more difficult because of the relative lack of traceability of resources.

5.15 The way forward

Initiatives were asked, 'How effective do you think the following would be in taking forward open educational resources and practices in adult and lifelong learning?' All suggestions received a lot of support as 'very effective'. However, 'specific investment to develop new OER' was ranked noticeably lower than the others, and its distribution is more skewed to the 'not at all effective' end

than the others. Evaluation of existing initiatives was, to a lesser extent, also not viewed as as effective as other ways forward (Figure 23).

Developing communities, better coordination of initiatives, and integration of OER into the broader ecosystem are the stand-out favourites for the way forward.

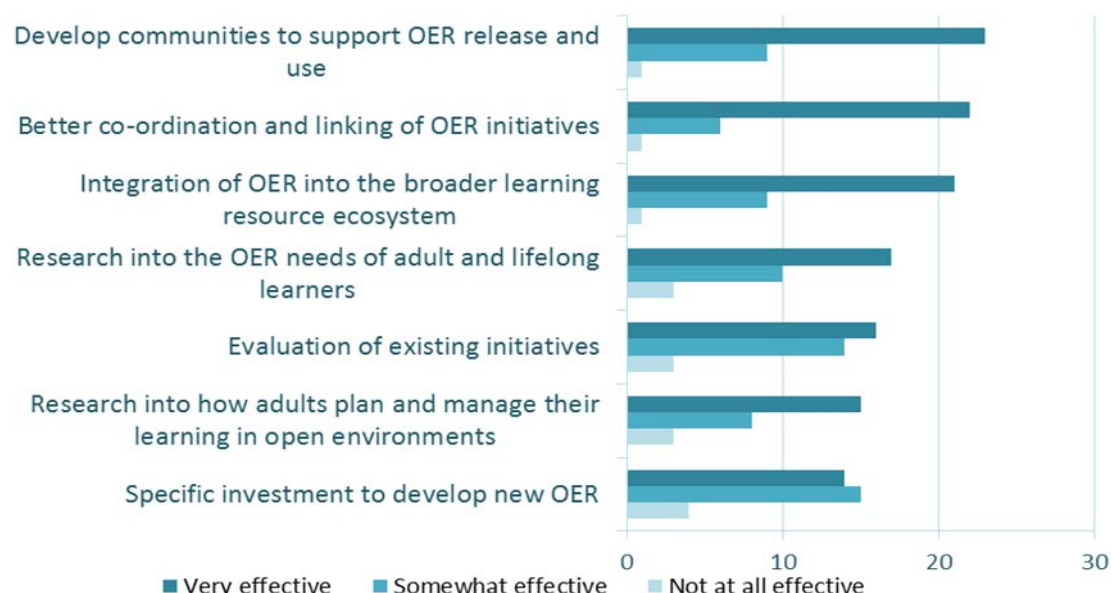


Figure 23: Views of all 36 initiatives on the most effective measures for taking forward OER in adult education and lifelong learning

Comparison suggests that the LL group may recognise a real need for research into the OER needs of adult and lifelong learners, and into how adults plan and manage their learning in open environments; the HES group are a bit more ambivalent ($p=0.15$; $p=0.10$ respectively) (Figure 24). Since this second group, not currently much engaged in adult education, are bigger in number in the overall survey sample, they may be having an effect on the overall results that is greater than their expertise in this area warrants.

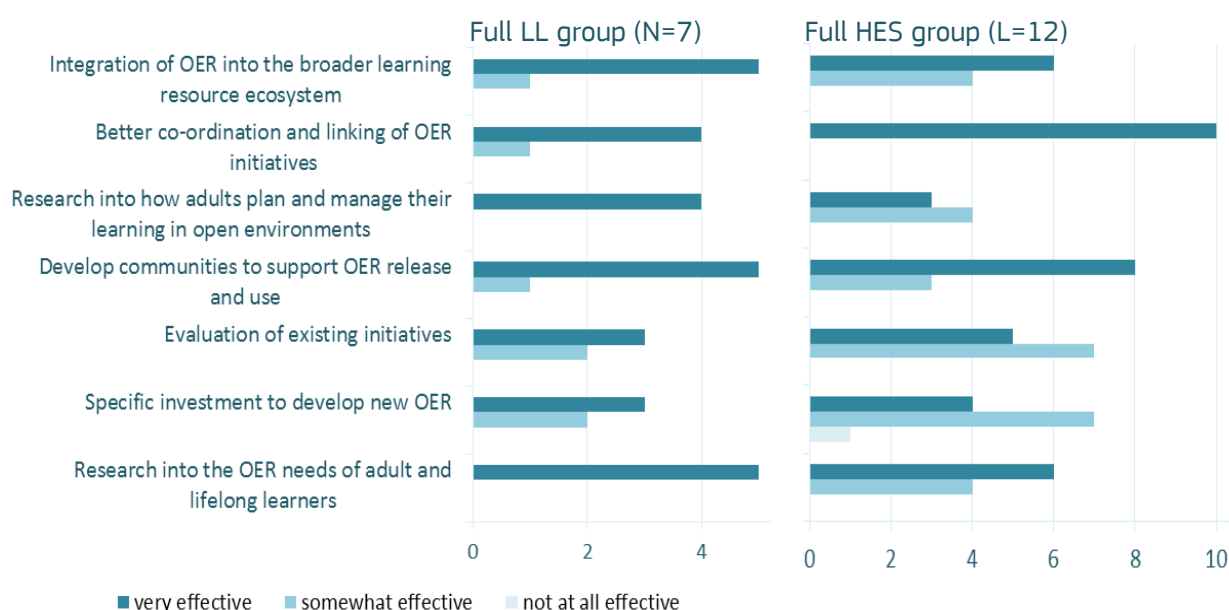


Figure 24: Comparison of the LL and HES group views on the most effective ways of moving forward with OER in adult education and lifelong learning

6 EVIDENCE FROM OTHER SOURCES

6.1 Evidence from the short poll to the learners

To complement the OER4Adults SWOT survey, the team sent out a short poll. It was designed to target adult learners in Europe and therefore was distributed in English, French, Greek, Spanish and Italian. Initial distribution was by emailing a link to the survey adult educators and lifelong learners known to the team in different countries in Europe. A snowball method was adopted where existing survey participants were asked to recruit future subjects by disseminating the link to the survey further. Subsequently, a second round of dissemination involved an embedded link of the survey within the OER4adults blog, Twitter and Facebook account.²⁵ The link to the survey remained open for three months. No incentives to participate were offered. Eighty-six responses were received.

The results suggest that lifelong learners and adult educators find free (no cost) resources using google (100%), online repositories such as flickr, YouTube, Wikipedia (70%), repositories of learning resources (25%) or asking a friend (25%).



Figure 25: Short poll responses to the question, ‘How do you discover learning materials? Please tick the 3 most important.’

In quality terms, their primary reason for choosing a resource is that it comes from an organisation they trust (65%), or that it comes near the top of the search engine results (53%); only 27% were directed to resources by a teacher. For only 30% is viewing the resource and evaluating its quality a major criterion, suggesting that organisational brand is more important in learner choice than is the quality of particular resources. This finding may be compared with perception of initiatives in the SWOT survey that quality is a major user enabler (Sections 5.9, 5.10) and their low concern with building reputation or brand (Section 5.6) indicating a possible weakness in the approach of many funded initiatives.

²⁵ The team did not use their personal Twitter or Facebook accounts since many of their followers are HE teaching staff and heavily engaged in the OER movement, whereas the idea of the survey was to reach outside this narrow group.

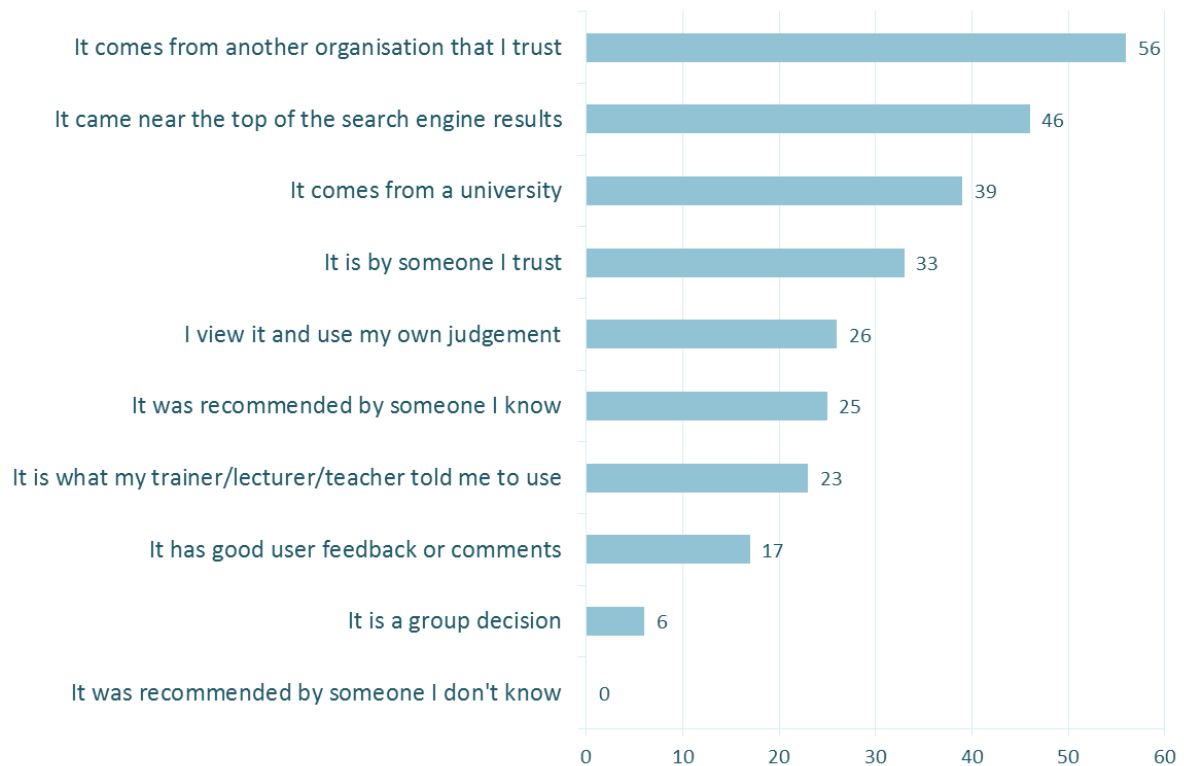


Figure 26: Short poll responses to the question, ‘Which of these influence your choice of materials? Please tick the 3 most important.’

Of the 29 respondents who claimed to develop resources and make them available via personal, community or institutional websites, 13 give them an open licence (e.g. CC-BY-SA), two a restricted licence (e.g. CC-BY-NC-SA) and eight admit to not bothering with licensing. The remaining six did not answer the licensing question; it seems likely that they know nothing about licensing. These findings support the suggestion made in discussion of the SWOT survey results (Sections 5.9, 5.11) that legal issues may be of relatively little concern to users who are not bothered about licensing.

Although low, the awareness of licensing displayed in these results is nevertheless higher than expected. It may demonstrate that efforts to target respondents outside the OER community were not entirely successful, rather than an encouraging level of awareness of legal issues among adult learners.

6.2 Points made in the interviews with experts

To probe some of the SWOT survey findings, interviews were conducted with five experts with a wide experience in OER and adult education.²⁶ Many points made in the interviews were generic to OER across all education contexts and have been incorporated into the overall interpretation of the results. However, the following points were specific to the adult education and lifelong learning contexts.

Some community-based OER initiatives, such as the OER-U, that exist explicitly to cater for lifelong learners outside formal educational structures, might be considered as parasitic on traditional

²⁶ Rory McGreal, UNESCO chair in Open Educational Resources; David Kernohan, programme director of the JISC UKOER programm; Alastair Clark, until recently digital lead at the National Institute of Adult Continuing Education; Mike Feerick, founder and chief executive of ALISON; Patrick McAndrew, Professor of Open Education, UK Open University).

universities, relying on OER that are funded by universities. If successful in attracting students away from traditional universities they might, in the longer term, destabilise these universities allowing in commercial providers who put a lot of money into marketing and brand recognition.

Adult education is very diverse and there are large numbers of educators and learners doing their own thing with whatever is freely and easily available, whether it is openly licensed or not. Awareness of IPR issues is particularly low in this area.

Adult educators lead a very unstable existence in comparison to their colleagues in schools and universities, and tend to be more receptive to OER (or at least free materials) for the cost and time saving they offer, than are staff in more mainstream education.

Adult educators are a largely part time workforce. There is less cultural prestige attached to producing their own resources than among academics, and they tend to be more proud of creating engaging and effective learning journeys for their learners, wherever the material comes from.

Creating good self-study materials for independent lifelong learners requires the input of good instructional designers and not many institutions have these. Directed learning is more necessary at low literacy levels – but even here good instructional design can make self study feasible and much of the ‘teaching’ at such levels is done by volunteers who also benefit hugely from well-designed self-study materials.

In adult learning skilled (non-traditional) teaching/facilitation may be even more necessary than in formal education because these are people for whom established educational institutions haven’t worked. It is a mistake to think that one can give them online resources and they will learn – they are likely to need handholding (this implies that an expectation of teaching/facilitation of OER is not a problem but producing HE-type resources might be).

Collaboration of educational institutions with industry and professional bodies is providing some examples of interesting funding models, for example with the carpenters union, and with architectural professional organisations. The real challenge and opportunity is to expand across all areas – e.g. corporate qualifications etc. To achieve this, a vast amount of awareness raising with industry and professional bodies is needed since OER are virtually unknown there.

Most learning is acquired through work experience. What is needed is dynamic accreditation that is acceptable across the EU to unleash people with more appropriate skills across EU. New forms of assessment are appropriate and can be made available through OER sites. Digital traces are one such, another is as on-demand competency-based tests that can be accessed and administered by employers at job selection or promotion stage. This can demonstrate that learners have acquired the skills; how they acquired them is less important.

It is a mistake to think that OER can be provided to lifelong learners and they will learn in isolation. In order to internalise learning, a group is needed to discuss ideas with.

Establishing trust among lifelong learners in the quality of OER is a big issue, but lots could be done for very little money by giving official (government) recognition to quality OER sites.

6.3 Evidence from the vision papers

In February 2013 IPTS released a call for vision papers on Open Education 2030 (IPTS, 2013). The OER4Adults team analysed the key themes in the 16 papers submitted to the lifelong learning strand, finding that they were remarkably coherent in envisaging a future for lifelong learning in 2030 which requires:

- The learner to be in control;
- Teachers to become mentors or facilitators of learning rather than directors;
- Open access to information;
- Production/provision of OER and other data by individuals as well as institutions;
- Recognition/reputation for developing/contributing/repurposing and sharing OER;
- Credibility and recognition of assessment by peers, competency, microcredits, badges;
- Open media to be dynamic not static;
- Open access to be financially sustainable;
- Infrastructure and support tools to be in place that enable the above.

This is the backdrop against which strengths, weaknesses, opportunities and threats were judged.

7 SWOT ANALYSIS

7.1 Strengths

OER have multiple strengths, but these have been packaged here under two main headings:

1. The **open licence** is a major strength of OER from which initiatives and users have benefited. It:
 - Provides **free (no cost) access** to an enormous variety of resources for both learners and teachers. The majority of initiatives regarded free resources as the strongest user motivator and benefit, although it took second place to discoverability and quality for the initiatives most focused on lifelong learners.
 - Places **no restrictions** on the ways in which these resources may be adapted and re-used to suit learner or teacher context. This is particularly valuable given the diversity of contexts of adult education and lifelong learning.
 - Lets teachers and learners see a variety alternative approaches, **broadening and enriching the curriculum**.
 - Provokes **sharing of practice, improving quality and lowering cost** of curriculum development, which is very important in the perennially tight funding environment of adult education.
 - Lowers barriers (cost, availability) **enabling collaborative projects** that are particularly valuable when they cross sectors (e.g. university-industry partnerships) enabling production of resources particularly suited to particular professional or workplace settings.
 - Lowers barriers enabling **mass participation** which can spread far beyond the confines of traditional formal education.
 - **Promotes academic freedom** by offering greater choice, and reducing time spent in curriculum development, which is particularly important to part-time adult educators.
2. The twin ideals of providing **open access to knowledge** and of **enhancing pedagogy** through collaborative development and sharing of resources are another major strength, engendering strong altruistic commitment among initiative staff and stakeholders which has contributed largely to the initiatives' success. These commitments are particularly important in supporting initiatives until they achieve financial sustainability. The low barrier to participation, and number of issues involved in developing and publishing OER have encouraged development within collaborative teams that cross sectors from education to professional bodies and workplace organisations, and a belief that the resultant resources are of higher quality and better suited to the contexts of situated groups of lifelong learners than those developed by an individual. Sharing these resources openly then enables spread of the improved practice.

7.2 Weaknesses

1. The learning context and pedagogic approach envisaged by OER initiatives is a traditional institutional and teacher-directed one. This is at odds with the direction in which approaches to adult education are moving and with the practice of lifelong learners, as evidenced by the vision papers and short poll. As part of a wider ecosystem of OER the existence of such

traditional resources is not problematic, but the comparative absence of well-designed self-study materials may be. The majority of OER are being created by traditional teaching staff without a strong background in adult education or instructional design; they appear to be making resources according to traditional HE approaches. The technical infrastructure initiatives also concentrate on institutional users, and make little provision for individuals as either OER developers or learners. There was a notable difference in the learning contexts envisaged by the HES and LL groups, with the LL group significantly less inclined to agree that teachers structure the learner experience, and less likely to agree that teachers set the learning goals or tell the learners which resources to use. In other words the LL group – who are in a minority among the inventory initiatives, are more likely to be aligned in their approach with the Vision Statements, than are the HES group.

2. **The concept of OER is novel and confusing**, and stakeholders and users find it difficult to understand the potential. The distinction between free (no cost) and openly licensed is not appreciated, and this is especially noticeable among adult educators and lifelong learners. Among the academic teaching staff who might engage in collaborations and help develop quality OER for lifelong learners, they are often viewed a threat to teachers and their professionalism and to educational institutions, and of no immediate financial benefit.
3. **Lack of quality assurance processes for OER** and the consequent low quality of many existing resources is an issue, and the dangers are exacerbated by the low ability of lifelong learners to evaluate quality for themselves. Initiatives surveyed feel that the resources are of high quality, but a principle of OER is that they can be produced by anyone. Current quality processes are based within initiatives or institutions and are applied only to their own resources; they are neither scalable nor unproblematically applicable to open release and this may render university-developed resources less useful to lifelong learners.²⁷ User reviews and recommendations would be possible but are not much used at present either by OER providers or by lifelong learners.
4. **The effort required for awareness-raising and supporting practice change is underestimated.** There has been an assumption that the strengths of OER use were self-evident, and that once published, users would come. This has proved not necessarily to be the case, and lifelong learners largely remain unaware of OER. Dissemination, and supporting use and practice change, stand out as activities that OER initiatives did not plan for in advance, or devoted insufficient effort to, and realised only later that they were necessary for success. The change in professional practice for teaching staff using OER is considerable and was not recognised by many of the initiatives. Developing communities to support OER use is seen by initiatives as the most effective action that that could be taken to further OER in lifelong learning, but needs to be conducted with caution; while communities can help engagement, trust and sustainability, resources developed within them can be narrowly context-specific and less usable outside the community (Margaryan et al, 2008; Littlejohn et al., in press).
5. **Lack of coordination between OER initiatives** has resulted in different technical specifications and standards, increasing the difficulty of making OER easily discoverable by search engines or aggregable into special interest clusters, thus reducing their external visibility and making it much more difficult for learners to structure their own learning experiences. The LL group are particularly unlikely to have considered the importance of such issues. Previous attempts to develop some sort of standardisation have failed, though the current Learning

²⁷ See for example, Coughlan (2011)

Resource Metadata Initiative may be successful. Better coordination and linking of initiatives was seen as the second most effective action to further OER in lifelong learning.

6. **Lack of a direct business model for OER.** There is no direct perceived connection between developing OER and getting the benefits of them; OER can seem like giving something away for nothing. It is difficult to get potential OER providers to see beyond short term problems of lack of funding and many are suspicious of the motives of some of those promoting and funding them. Reputation-building can be an incentive for institutional funding (and for some individuals) and the effort to attract new student populations can have some benefit for lifelong learners, but these motives are fundamentally at odds with the idealism that motivates the initiatives (Falconer et al., 2013), and are little recognised by them.
7. **The narrow funding model** of most OER initiatives – heavily reliant on government and institutional funding, and funded for short term rather than ongoing initiatives, gives rise to prominent concerns about sustainability. Government and institutions have yet to be persuaded that investment in OER might be a viable, and cheaper, alternative to spending money on commercial text books. Initiatives funded by government and institutions have been slow to develop alternative revenue streams such as conversion to paying services, partnerships with other sectors, advertising or membership. This appears to reflect an HE or school mindset: the LL group have a much more diverse funding stream than the HES group and are notably less concerned about ongoing sustainability. None of the community-building initiatives had received government funding.
8. **Lack of evidence** of the ways in which OER are being used, and the extent and nature of their use, makes it difficult to support claims for the strengths and benefits of OER and hence to make the case for ongoing support or funding. Initiatives generally have little knowledge about their users beyond what download counts or google analytics can tell them. Nor can OER be easily traced through iterations of re-use, as the original attribution is easily lost and authorship becomes complex (Bacsich et al., 2011). The ways in which OER are used by adult and lifelong learners constitute a particularly unexplored area as these learners are difficult to access through formal channels.

7.3 Opportunities

1. **OER are a simple idea, easy to do, enabling mass participation** which will, long term, drive change as lifelong learners integrate their use and production into their everyday practices.
2. **Crowdsourcing and crowd-funding.** The opportunity to benefit from the crowd is already being realised by some initiatives, and is particularly relevant given the vast size of the lifelong learning community.²⁸ Significant impact can be achieved for very little money.
3. **Official recognition and quality schemes could increase the credibility of OER at very little cost**, raising awareness and increasing trust and consequent uptake. This is indicated especially by the finding that the main reason for lifelong learners to choose a resource is that it comes from a trusted organisation.

²⁸ E.g. ALISON has user volunteers translating its resources into every EU language by the end of the year; the ds106 open course/community website was funded through a kickstarter campaign <http://bit.ly/WyQEak>

4. **Innovative tests and assessments can increase the usefulness of OER to lifelong learners.** The ability of employers, and the wider public, to recognise the value of learning through OER is linked to having credible forms of assessment. At present the degree is the gold standard of post-compulsory education, but it is not an appropriate format for most lifelong learning. Recognition of far smaller units of credit, competency-based credit, peer review, and wide availability of competency-based testing are called for.²⁹ Aptitude testing can help learners choose OER that are likely to be most suited to them.
5. **Collaborations across sectors to develop and use high quality OER that are appropriate for lifelong learners.** The LL group have shown that dialogue is particularly valuable where it crosses sectors, for example between university teachers and workplace trainers. Many initiatives believe that the high quality of their OER is a significant user benefit, but their appropriateness for lifelong learners is seldom proven.
6. Achieve higher visibility, discoverability, and accessibility for OER through coordinated development of infrastructure and adoption of standards. Visibility and discoverability are major user enablers for lifelong learners, who are generally in the situation of seeking out resources for themselves rather than being told by a teacher what to use.

7.4 Threats

1. **Lack of public awareness and understanding of OER.** Initiatives have found that the majority are unaware of open licences, and of the distinction between resources that are openly licensed and resources that are free (no cost). This was particularly evident in the LL group. Consequently teachers and learners are not motivated to seek out openly licensed resources, or to support OER projects; the attention of funders is easily diverted to other projects (e.g. xMOOCs) that provide free, but not necessarily open, learning.
2. **Vested interests**, particularly from commercial publishers, have become more sophisticated than outright opposition to lucrative education markets moving in this direction. If they see an opportunity to move in and make a profit from an education system that has been destabilised by OER and MOOCs, they will.³⁰ This is particularly so in the current situation where lifelong learners appear more concerned with quality (which they may judge by trust in a high profile commercial publisher) and discoverability than with the cost (or lack of cost) of resources. The availability of high quality materials under CC-BY licences is a (possibly minor) additional enabler of this scenario.
3. **Low digital literacy and lack of public understanding of IPR** means that many lifelong learners and adult educators are not able to source and evaluate OER that would benefit them. Confusion over the different types of licence available leaves many potential participants in OER exposed to the risk of copyright infringement, and a panic reaction against OER more widely

²⁹ E.g. ALISON offers a low-cost, always on, competency-based testing service to employers wishing to verify that an ALISON certificate holder possesses the relevant knowledge; the site freelancer.com offers low cost, always on, competency-based tests to freelancers wishing to raise the credibility of their tenders; linkedin allows peer endorsement and recommendation.

³⁰ See, e.g. <http://n.pr/11nrpt6> ; <http://bit.ly/XJaTpK> ; and 'Murdoch signals push into education', *Financial Times* (London, England) - May 24, 2011

4. **Lack of cultural recognition that ‘learning’ can take place outside formal structures** with consequent low confidence among lifelong learners and many adult educators in their ability to take maximum advantage from the flexibility offered by OER.
5. In a European context two further factors add a layer of complexity that could slow development compared to the rest of the world:
 - Demand for multi-lingual resources,³¹
 - Bureaucracy involved in coordination between countries.

³¹ Note Zouro’s vision paper (2013) ‘Due to their lower numbers of speakers and learners, less used languages have limited capacities for developing OER at the same speed and intensity as dominant languages.’ ALISON is solving this issue by mobilising its user community to translate the resources into all European languages.

8 CONCLUSIONS

The SWOT analysis revealed a series of tensions that drive developing practices around OER in adult learning. They arise from the interaction of OER use with the wider socio-cultural context.

8.1 Open versus free

There is considerable confusion, even among OER practitioners, and even more among the public, between ‘free’ and ‘open’. This is compounded by lack of clear licensing information on many OER, even on resources that we know to be openly licensed; there is little appreciation among those releasing OER of the need to make the licence very visible to the user in order to raise awareness.

The relatively low importance assigned to IPR and copyright as a user motivation correlates with legal issues not being seen as a barrier to use, and implies that they are not a barrier because users are not particularly bothered about them. This lack of concern with IPR issues appears to be particularly pronounced among lifelong learners; lack of concern with IPR as a user motivator is noticeably lower in the LL group than in the HES group. This probably reflects common practice among adult educators and lifelong learners, of using material that is available for free (no cost) without worrying unduly about IPR.³²

Use of the term ‘Open’ in MOOC is further blurring the distinction between what is ‘free’ and what is ‘open’. MOOCs are explicitly aimed at lifelong learners. While many are free of charge, the resources within these courses are often not ‘open’ in the sense of being openly licensed – many have very restrictive licences. Will mass participation push forward on this area? In other words, will the large numbers of people involved in MOOCs make it irrelevant that the resources in a MOOC are not open?

8.2 Pedagogy versus appreciation

The term ‘appreciation’ comes from Pawlak and Bergquist’s fourth model of adult learning (Pawlak & Bergquist, 2011). They contrast a traditional pedagogic approach based on teacher direction of school children or undergraduates, with an appreciative approach which focuses on the assets adult learners bring to a situation rather than assuming they are deficient in knowledge, skill or understanding.

The vision papers for lifelong learning 2030 were remarkably coherent in assuming that the learner would be in control and that teachers would not be playing a traditional directing role. Yet at least 50% of OER initiatives in the inventory are based in universities. Responses to the SWOT survey suggest that these OER providers have traditional views of university teaching and (often) a lack of expertise in instructional design. They also envisage traditional forms of assessment/credit – and hence the issue of credit for OER study that is appropriate to lifelong and workplace learners is seldom grappled with.

The production by universities of OER for lifelong learners appears to rest on an assumption that universities are best placed to produce materials of high quality and are trusted institutions. This assumption often overlooks the possibility that resources that work well in a university context may be less appropriate for lifelong learners. However Coughlan’s survey of voluntary sector workers

³² See, for example, Clark (2013).

provides evidence that university-produced materials are not necessarily the resources of choice for adult and lifelong learners (Coughlan, 2011), correlating with the short poll finding that 50% more learners chose resources because they ‘come from another institution I trust’ than chose them because they ‘come from a university’.

8.3 Altruism versus marketisation

There is a tension between two key motivations to release OER: altruism and marketisation, where ‘altruism’ is the desire to open access to knowledge worldwide and enhance pedagogy through collaboration; and ‘marketisation’ is where institutions and individuals want to build a ‘brand’, and measure success in terms of money and efficiency.

The SWOT survey responses suggest that the initiatives were strongly altruistic in their motivations, and that these ideals engendered strong commitment and team working. However, it overlooks the wider social context in which open learning initiatives are being supported by institutions primarily because of the brand recognition they create, and the desire to convert nonformal lifelong learners to registered students.³³ While individuals may be altruistic, they frequently get institutional buy-in because of the perceived reputational benefits. Conflict between the two motivations has been shown to have real impact on practices around OER and could ultimately limit the usefulness of OER, and in particular their adoption of social or appreciative learning approaches (Falconer et al., 2013).

8.4 Community versus openness

There are some tensions around using communities to develop and release OER. This approach can help engagement, trust and sustainability but can result in context specific OER that are less relevant outside that community. This is true for different types of community (defined broadly - to include communities within sectors, geographical regions, subject-disciplines, professional bodies, community within an educational institution).

Community-building was the second most important activity engaged in by initiatives responding to the SWOT survey. Even where this was not the primary activity, it was a significant one, and initiatives that neglected it were aware that they suffered as a consequence: *‘We have failed at implementing the community piece of our initiative, and we are paying dearly for very little commitment to this effort.’* (survey respondent 28)

Community approaches can raise awareness within the community, spread practice, and boost confidence – it becomes the norm within the community. But equally community can, by its norms, be closed in practice to ‘others’. It can be hard work transferring resources produced for one community such as a university and make them suitable for another such as a group of workplace learners: *‘universities may offer some of the best training but often bespoke or other solutions are more apt,’* and *‘training needs to be locally and context specific’* (Coughlan, 2011). This makes collaboration across sectors, from those with the educational expertise to those who know the lifelong learning context, particularly important at resource development stage.

The difficult collaboration and transfer is facilitated by the open licence, OER can act as social objects (Engeström, 2005) around which the transfer of knowledge and expertise takes place. The

³³ See, for example, Davis (2013).

open licence is essential in lowering the barriers to such use and enabling collaboration between educational providers and workplace trainers and learners.

8.5 Mass participation versus quality

The ability of the masses to participate in production of OER – and a cultural mistrust of getting something for nothing – give rise to concerns about quality (evident as a relatively high user barrier in the SWOT survey responses) – and commercial providers/publishers who generate trust through advertising, market coverage and glossy production, may exploit this mistrust of the free. This is particularly significant given the low ability to lifelong learners to evaluate resources for themselves.

Yet quality-assured resources are seen by the initiatives responding to the SWOT survey as a major user enabler – although they are not clear how the quality is assured, by what criteria quality is judged, etc. It seems likely that standard HE quality control processes are used, or that collaborative production of resources within a project is assumed to generate quality. The issue of whether quality transfers unambiguously from one context to another did not surface, and there is relatively little regard for user reviews and recommender systems that might give an insight into this question.

Yet lifelong learners appear to have low skills in evaluating resources, as indicated by Coughlan's survey (Coughlan, 2011), and the user barriers in Section 5.11 of the SWOT survey. Data from the short poll showed twice as many lifelong learners choosing resources on the basis of the organisation (generally not a university) that it came from or the visibility in google, as relying on their own judgement. Should effort focus on improving the digital literacy of lifelong learners to source and evaluate the massive amount of free (not necessarily open) material available?

Lack of confidence in the quality of one's own resources – and hence reluctance to share them openly – was a factor mitigating against mass participation. Here there may be a difference between the LL and the HES groups, with lack of confidence being seen as a barrier by the LL group but not by the HES group. This may reflect different models of initiative with some HES initiatives employing people specifically to develop resources and/or a lower confidence among adult educators than HE teaching staff.

The problem remains of supporting quality enhancement or assuring quality of OER in a context where all (in principle) can contribute. A seal of approval system is not infinitely scalable, while the robustness of user reviews and 'likes' have not yet been sufficiently tested; a 'massive stamp of approval' does not always signal quality.

8.6 Add-on versus embedded funding

Comparing the LL and HES groups suggests that the LL initiatives tend to have a much more diverse funding stream than the HES initiatives. The HES initiatives are more reliant upon government (at all levels) or institutional funding, whereas the LL initiatives are more likely to be involved in cross-sector partnerships or exchanges; their reliance on government funding is relatively low.

Possibly correspondingly, the LL group have a significantly lower concern about lack of ongoing investment as a barrier. Does this reflect their larger community base and greater embeddedness in ongoing practices, rather than being perceived as a one-off funded 'project' that comes to an end when the funding ends?

9 RECOMMENDATIONS

1. Recognise that ‘learning’ takes place everywhere

- **Clarify thinking in EU Member States on what ‘adult education and lifelong learning’ encompasses.** Learning takes place not just in formal educational institutions. Currently educational institutions hold a pole position in cultural definitions of learning, to the extent that in situations, such as the workplace, where learners frequently do plan their own aims and the actions needed to achieve these, the activity is often not recognised as “learning”. Thus the recognition of what constitutes learning needs to be broadened to encompass activity outside formal educational institutions if learners are to recognise that this is what they are doing and gain the corresponding confidence in their ability to do it. Organisations that support formal learning must be encouraged to take a wide view of their place in the learning ecosystem. Consider especially nonformal learning and adding ‘learning for life’ to the traditional categories of ‘work related learning’ and ‘leisure learning’.

2. Extend the range of people and organisations who produce and use resources

- **Encourage a broad range of people to produce and release OER.** People in a wide range of organisations could release resources that are useful for learning (see recommendation 2.2 below). Ideally this group would be broader than academics and support staff in universities and colleges and would extend to learners themselves.
- **Encourage OER development by organisations and communities outside mainstream education.** An assumption we often encountered is that universities are best placed to produce quality OER. However, during our study we sourced excellent examples of different types of organisations producing OER specifically for lifelong learners – sometimes in partnership with professional educators, but often in fields not normally touched by mainstream education. These organisations included private sector companies, public sector institutions, professional bodies and third sector organisations (e.g. Social Care Institute for Excellence, OpenScout, C4EO). All types of organisations should be encouraged to consider their contributions to learning, triggering a re-evaluation of inter-relationships.
- **Encourage HE institutions to collaborate with organisations in other sectors to produce OER.** We identified numerous potential benefits of collaboration of HE institutions with public, private and third sector organisations to produce OER. These benefits include: an increase in the number and range of resources available for adults and lifelong learners; development of resources that can improve the employability of registered students in HE institutions; useful links and networks for learners involved with their potential future sectors; improved understanding of academic and industry/sector needs which can impact on curriculum development to reflect better sector requirements; new business models for the production of OER.
- **Encourage lifelong learners to develop OER** Learner development of OER would ideally be within social, appreciative learning contexts, as suggested by the Vision Papers, enhancing learner confidence, digital literacy and OER awareness

3. Think of OER more broadly than as content

- **Promote digital literacy among lifelong learners.** OER and open learning in general offers opportunities for lifelong learning. However, to capitalise on these opportunities, learners have to be capable of planning and directing their own learning. They have to have confidence and ability to structure their own learning or, where appropriate, elect to participate in formal education. Education institutions – schools, colleges and universities – should focus on helping learners prepare to learn throughout their lives.
- **Explore new assessment and accreditation processes that are appropriate to lifelong learners.** If learning is to be extended beyond formal learning institutions, then assessment processes have to be revised. Smaller units of credit, competency-based credit, peer review, competency-based testing, and dynamic tracking of online activity, may be valuable for learners using OER.
- **Establish research into the practices of lifelong learners with OER.** OER is largely understood from an information science perspective, with resources being viewed as digital content. This narrow view seems compelling, because data around OER as content (for example the number of resources produced or number of downloads) is easier to measure and interpret than more complex data around social processes (e.g. whether OER supports learning and how). However, this narrow view closes down opportunities around emerging practices of open learning. It needs to be complemented with research that begins with the users, their experiences and practices, rather than with the providers, and with paradata studies that use analytics to study social processes.³⁴

4. Promote awareness of open licensing and its implications

- **Encourage people to differentiate between resources that are openly licenced and those that are free of charge.** This understanding is particularly important to adult educators who are likely to be wanting to adapt and repurpose resources to particular workplace or training contexts; they have the legal freedom to do so with OER, but do not with materials that are merely free of charge.
- **Make OER producers aware of the importance of making the licence prominent and embedding it in the metadata.** This then raises user awareness and enables better tracking of OER usage, and a better evidence-based case for OER policies, funding and support. Such tracking is essential to get a better grasp of the way OER are actually being used in adult education and lifelong learning, outside the control of mainstream institutions and supports research on practices of lifelong learners with OER (see recommendation 3 above).
- **Endorse use of a metadata standard that will carry the licence with it** and ensure that there is an open licence attached to the metadata as well so that it, too, can be reused. OER producers must be aware of the importance of making the licence prominent and embedding it in the metadata.

³⁴ Paradata is defined in Wikipedia:

http://en.wikipedia.org/wiki/Paradata_%28learning_resource_analytics%29. It has emerged in the US and there is growing interest in the UK, evidenced in the UKOER 3 programme.

5. Improve the usability of OER

- **Establish a coordinating space that will be very visible to the public.** This would be particularly valuable to lifelong learners who are seeking resources without teacher direction. The space ideally would be a portal/library/meeting place that provides access to OER communities, resources, finding aids, aptitude testing to help learners choose OER suited to them. This space could link to the OER map being discussed in the OER-community mailing list (Efquel, 2013). Establishing such a space is dependent on development of standards and tools in the next two recommendations.
- **Achieve higher visibility, discoverability, and accessibility for OER through coordinated development of infrastructure and adoption of standards.** Particularly important is support for the development of technical standards for OER that facilitate aggregation and discoverability. A critical factor, especially for lifelong learners, is the ability to discover resources without teacher direction, and aggregate them to aid a specific learning context. Standard APIs would greatly facilitate the aggregation of OER into large, collections or portals that provide a very visible 'one-stop shop' to lifelong learners
- **Support the development of tools to reduce the burden on OER authors of adhering to metadata and other standards.** The application of metadata to individual OER is time consuming and can decrease people's motivation to produce and release OER. This is particularly important when the authors are adult educators, often part-time and time-poor, or when the authors are lifelong learners themselves whose technical expertise may not be high. This is also particularly true when granular resources are released because time is required to apply metadata to each resource. Such tools will enable improvements to the quality, discoverability and ability to aggregate resources.
- **Explore processes for quality assurance of OER for adult education and lifelong learning.** We identified a lack of appropriate quality assurance processes and a lack of capacity for assuring large volumes of resources. Yet quality assurance is critical to gain the trust, particularly of lifelong learner whose ability to evaluate for themselves may be low, and of adult educators who have little time to sample large numbers of resources. New quality systems should be conceptualised and tested to balance the need for assuring resources are suitable for these users, offer a quality learning experience, and meet the principles of mass participation.
- **Encourage the development of OER in more European languages.** This could be achieved through community involvement that could promote OER awareness and use while keeping costs under control. Be aware that the capacity of communities working in less used languages to develop OER is lower than that of the dominant languages, leading to a danger of increasing the current imbalance between language communities.

6. Plan for sustained change

- **Use funding to seed sustainable practice-change initiatives within organisations.** One example is the UKOER programme, which ran from 2009-12 at a cost of £15million. Rather than fund a few big projects, the programme seeded change in over 90 organisations (universities, colleges, profession bodies, occupational communities, third sector organisations)

across the UK. This approach to change has still to be tested long term but could be more effective than large scale dedicated OER production.

- **Monitor and evaluate the emergence of new and sustainable funding and business models for OER in adult and lifelong learning**, disseminating this information in order to raise awareness among providers to alternatives to the traditional grant-funding approach. We found that initiatives that were more strongly focused on lifelong learners already tend to have more diverse and sustainable funding models, and there are ideas here that could contribute to the development of OER use in the lifelong learning and adult education sector.
- **Ensure that awareness-raising and community-building is a major activity of funded initiatives**. In this study, leaders of OER projects identified community building as a key enabler of change that they had not always factored into project planning from the outset, and lack of user awareness as a major potential barrier.

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ANNEX 1: THE ADVISORY GROUP

The group advised on our approach to the project through a virtual meeting on 24 September 2013; and through feedback on the evaluation framework, and on the SWOT survey questions. Three members of the group were interviewed as part of the SWOT analysis and two attended the IPTS workshop 29-30 April 2013. The members of the group were:

- Professor Stefanie Lindstaedt, Director of the Know Centre, Austria's competence centre for knowledge management and knowledge technologies and Professor at Graz University, Austria. Stefanie is a board member of STELLARNet: <http://www.stellarnet.eu/>
- Professor Tobias Ley, University of Tallinn, Estonia. Tobias' research focuses on how information technologies impact organizational and individual learning. The University of Tallinn is connected with the Teacher Education Policy in Europe network (TEPE) and is the centre of lemill.net network of 76k teachers spread across 70 countries who share OERs.
- Professor Erik Duval, Katholieke Universiteit Leuven, Belgium. Erik's research is on massive hyper-personalization (Snowflake Effect), learning analytics, openness and abundance.
- Professor Peter Sloep, Open University of the Netherlands, programme director Learning Networks for Professional Development and a partner in TENComptence.
- Dr.Donatella Persico, Istituto Tecnologie Didattiche which leads ShareTec: Sharing Digital Resources in the Teaching Education Community: <http://www.share-tec.eu/>
- Dr Francesca Pozzi, Institute for Educational Technologies (ITD), Italy's National Research Council (CNR).
- Professor Patrick McAndrew, UK Open University, Director of the Open Learning network (OLnet) and of Research and Evaluation for OpenLearn.
- David Kernohan, UK JISC, programme manager of the UKOER programmes.
- Paul Bacsich, Project Manager of POERUP <http://www.poerup.info/> and Higher Education Consultant at Sero.
- Professor Rory McGreal, professor in the Centre for Distance Education at Athabasca University, and UNESCO/COL Chairholder in Open Educational Resources.
- Dr Stefania Bocconi, Istituto Tecnologie Didattiche.
- Prof. dr. Fred Mulder, University Full Professor, UNESCO Chair Open Educational Resources.

Languages covered by the Advisory Group

Dutch, English, French, German, Greek, Italian, Spanish (some), Portuguese (access to).

ANNEX 2: OER4ADULTS EVALUATION FRAMEWORK

This framework, developed from the UKOER evaluation frameworks, was presented to the OER4Adults Advisory Group and modified in the light of their feedback. It informed development of the OER4Adults typology and the SWOT survey questions.

Focus area	Scope and coverage
Practice change	<ul style="list-style-type: none"> • Practices around both use/re-use/repurposing and release of OER. • Practices around OER - learner and teacher awareness of OER, engagement, digital literacy. • Practices around OER being influenced by subject discipline. • How do users develop awareness of, and get engaged with, practices around OER? Are there support activities, or psychological predispositions, that are important? • Synergies between changing learner behaviours and open content. • Cultures of different stakeholders - individual, groups/communities, institutions, sectors, regions, countries. • Intercultural exchange. • Trust issues between stakeholders.
OER release/publishing models	<ul style="list-style-type: none"> • How OER are made available, organised, made accessible, adaptable, including discipline differences, collection building, filling gaps, responding to need for different kinds of OER (big/little, low/high quality, chunks/packaged, etc.). • How adoption/use/re-use/repurposing depends on release models (or, what choices do learners make between release models when using/re-using/repurposing OER). • External impacts affecting motivations. models and approaches. • Users reusing/repurposing and releasing OER and the support that might be needed to enable this. • Models that might be relevant include: <ul style="list-style-type: none"> ○ funding models; ○ pedagogic models; ○ development models (big OER/little OER); ○ hosting models (repository/content management/open web); ○ distribution models (limited openness/global/institutional); ○ sharing models; ○ institutional models (mandated/not mandated, central/distributed); ○ community/partnership models;

	<ul style="list-style-type: none"> ○ licensing models; ○ consumer/production/supply models.
Strategies, processes & policies	<ul style="list-style-type: none"> • Strategic usage of OER by: <ul style="list-style-type: none"> ○ Adult education institutions and organisations; ○ Non formal learners as individuals or social groups; ○ Business, industrial, professional training; ○ International, national, regional government. • The business models and anticipated benefits underlying such strategic usage. • Adoption/use/re-use/repurposing of OER in the different curriculum processes, policies, pedagogic approaches in formal and non-formal learning. • OER usage and formal accreditation. • Ownership issues and legal issues across institutional, sectoral, regional and country boundaries.
Motivations, barriers & enablers	<ul style="list-style-type: none"> • Benefits of different models to different groups of stakeholders, links also to motivations, barriers and enablers. • Different models and benefits encountered by adult learners in non-formal contexts. • Trust and quality issues between stakeholders and motivations to share. • Identification of contextual enablers and barriers on OER use/re-use/repurposing and release. • Wider stakeholders include: individual educators; individual learners (formal or non-formal); those supporting educators and students within institutions; institutional managers (middle and senior levels); Communities of Practice (CoPs) - subject discipline, sectors, professional; those outside the education sector - public bodies (like NHS, skills councils), commercial (like employers and industry), and voluntary (like charities).
Technological aspects	<ul style="list-style-type: none"> • Decisions and issues around broad areas - content management and surfacing, content description, content discovery and retrieval (covering accessibility, interoperability, reusability, quality, storage, search and retrieval, access, interoperability, licensing). • Use/reuse/repurposing of OER based on different technical choices. • Adults also have a range of choices in which technologies they might adopt to engage with OER. • Skills in using technologies are likely to be pertinent and accessibility barriers may be a factor affecting use.

ANNEX 3: THE SURVEY RESPONDENTS

Thirty-six initiatives responded to the SWOT survey. They are detailed in the table below:

Name of initiative	URL of initiative	Comments	Licence type	Focus of initiative (Atkins classification)	Focus of project (Bateman et al classification)	Where is the initiative based?	Where are the users based?
ALISON,	http://alison.com/	ALISON* is the world's leading free online learning resource for basic and essential workplace skills. ALISON provides high-quality, engaging, interactive multimedia courseware for certification and standards-based learning.	Free but not open licence	infrastructure; content creation	organisation, dissemination, utilisation	Republic of Ireland	world wide
Bridge to Success	http://b2s.aacc.edu/	Bridge to Success (B2S) offers free, open educational resources to prepare adults to successfully and confidently transition to a college environment, to pursue advanced qualifications, or to be successful in their chosen careers. Results from a collaboration between Anne Arundel Community College, the Open University (UK), University of Maryland University College (UMUC) and Massachusetts Institute of Technology (MIT)	CC-BY-NC-SA	content	creation, utilisation	UK, USA	world wide
Canal Educatif	http://canal-educatif.fr/index.php	aims to provide free, quality, educational videos on the internet, aimed at school level	not clear	content	-	France	-
CharityWise	http://www.open.ac.uk/blogs/CharityWise/	initiated by the (UK) South West Forum, collaborating with the UK Open University Open Learn team	CC-BY-NC-SA	awareness, content	-	UK	-
Community Energy Scotland	-	A collaboration between CES and the Open University in Scotland to develop materials to support 'facilities projects', that is smaller scale community projects that are looking to improve the energy performance of their building or install new energy generation equipment (see Macintyre 2012)	CC-BY-NC-SA	awareness, content	-	Scotland	-
CSAP open collections	http://csapopencollections.wordpress.com/ and http://methods.hud.ac.uk/	part of the UKOER program. The C-SAP collections project seeks to make available open collections of social sciences research methods by embracing Web 2.0 technology and OER-related, sustainable solutions.	various	research, awareness	Organisation; Dissemination	UK	-
Delivering Open Education Resources for	http://www.bath.ac.uk/idmrc/delores/	JISC UKOER2 created static and dynamic collections of university-level Open Educational Resources (OERs) and other openly available resources relevant to Engineering Design	various CC and similar open licences.	infrastructure	organisation (dynamic selection of OER	UK	-

Engineering Design (DELORES)			Licencing information given for each resource		collections), Dissemination		
Developing open educational practice		Based at Open University in Scotland, includes a collaboration between GMB (a general trades union) and the Open University in Scotland using OU-produced OER in workplace learning in the food and drink industry (see Macintyre 2012)				Scotland	
Digital Futures in Teacher Education	http://www.digitalfutures.org/	The aim of this project is to produce an open textbook 'Digital Literacy (DL) for Open and Networked Learning' based upon two strands of development that are mutually reinforcing: the first is to create materials for a module accredited by the two partner HEI for trainee teachers on their PGCE courses, in line with the HEA Professional Standards Frameworks and the Professional Standards for Teachers, involving the (re)use of OERs and associated pedagogical design; and the second is to develop guidance on practice in teaching and learning in the school sector involving digital literacy.	CC-BY-NC-SA	capacity building; content creation	creation; dissemination; utilisation	UK	
Ed2.OWork	http://www.ed2owork.eu/	Ed2.OWork is a European Union funded education network that has two missions: To create a network that spans education and the world of work and is designed to improve the use of Web2.0 tools in both fields. To create a set of tools for the empirical evaluation of Web2.0 tools The project will create a network between stakeholders in the education and work sectors that will examine how both should be using Web2.0 in the education and work environments. Educators and employers can get involved in this project from the earliest stages	Not clear	Capacity building	utilisation	EU	
Edutags	http://edutags.de/	collaborative project. Social bookmarking for teachers, enabling them to bookmark, tag, rate, comment, form groups and collaborate around resources	-	infrastructure, awareness	-	DE	-
European Schoolnet Learning Resource Exchange	http://lreforschools.eun.org	a service that enables schools to find educational content from many different countries and providers. Anyone is able to browse content in the LRE federation of repositories and teachers that register can also use LRE social tagging tools, rate LRE content, save their Favourite resources and share links to these resources with their friends and colleagues	various	infrastructure, content	-	EU	-
EVOLUTION	http://www.uclan.ac	JISC UKOER1 An early UKOER project looking at FE as well as HE.	various CC	awarene	Dissemination;	UK	-

project	uk/lbs/about/evoluti on.php	Employability resources for HE and FE students and teachers	licences	ss, content	Organisation		
Flat World Knowledge	http://www.flatworldknowledge.com/	Since Flat World Knowledge began five years ago, our mission has been to publish high-quality, peer-reviewed, textbooks that represent the best value in the industry. Our business model has included a free online format, along with affordable upgrades to digital and print textbooks and study aids. As the transition to digital has changed student buying trends, one thing has become clear: the free format has become a barrier to our long-term growth and ability to offer a fair and affordable model that works for all our customers, from individual students and instructors to our institutional partners. A change is necessary. Starting January 1, 2013, we will no longer be providing students with free access to our textbooks. Yes, the free Web format is going away, but our mission to provide high quality course materials at affordable prices remains as strong as ever. Students can read a complete online textbook with our Study Pass product, which includes note-taking, highlighting and study aids, for only \$19.95. Our prices remain significantly lower than the \$100+ that students are used to paying for other commercial textbooks.	Not open	infrastructure	dissemination; utilisation	USA	world wide
FSLT12 MOOC	http://openbrookes.net/firststeps12/	First Steps into Learning and Teaching in Higher Education, is targeted at new lecturers, people entering higher education teaching from other sectors and postgraduate students who teach. We also welcome experienced lecturers to update and share their knowledge and expertise.	CC-BY-SA	Awareness, content	-	UK	-
Floss Manuals	http://flossmanuals.net/	free manuals and educational materials about free software	Not clear	content	Creation, Organisation, Dissemination	Netherlands	-
Hou2Learn	http://hou2learn.eap.gr	Welcome to hou2learn, an open educational social platform. This platform focuses on issues related to Software Engineering, Software Quality and Software Quality Metrics. It runs under the supervision of Alexandros Soumplis, Ph.D candidate at the Computer Science Department of the Hellenic Open University It is supported by Software Quality Research Group Hellenic Open University	Not clear	Awareness		Greece	Greece
HUMBOX	http://humbox.ac.uk/information.html	UKOER, impact study, and SCORE involvement. The HumBox project aimed to publish a bank of good quality humanities resources	CC-BY-NC-SA	infrastructure,	Organization; Dissemination;	UK	-

		online for free download and sharing, and in doing so, to create a community of Humanities specialists who were willing to share their teaching materials and collaborate with others to peer review and enhance existing resources. Usage reports on their website		awareness	Utilization		
ITYPA MOOC	http://itypa.mooc.fr/	MOOC on how to learn using the Internet	CC-BY	capacity	utilisation	France, Canada	-
LeMill	http://lemill.net/	web community for finding, authoring and sharing learning resources for school teachers. Creative Commons case study at http://wiki.creativecommons.org/Case_Studies/Le_Mill	CC BY-SA 2.5	capacity, content, awareness infrastructure	creation, organisation, dissemination, utilisation	Estonia	
Materiales de Educación Permanente	http://www.juntadeandalucia.es/educacion/permanente/materiales/	A public education authority in a big and diverse region whose priority is to reach every corner of it, giving adults the possibility to participate in formal and non formal Lifelong Learning studies/training.	Free to download and adapt	Content, infrastructure	Creation, organisation, dissemination, utilisation	Spain	Spain
Metamorphosis	http://metamorphosis.med.duth.gr/	a Semantic social environment to share educational resources based on linked data	various - depends on resource	infrastructure	-	GR	-
Metodický Portal Digitalní učební materiály RVP	http://dum.rvp.cz/index.html	resources, learning designs and professional development for school teachers	CC-BY-NC-ND and CC-BY-NC-SA	content, awareness	-	Czech Republic	-
Norwegian National Digital Learning Arena (NDLA)	http://ndla.no/en	The Norwegian National Digital Learning Arena (NDLA) is an open educational resources (OER) project and open source platform for sharing OER in secondary education. It is a joint initiative by different provinces in Norway that allocates a portion of state funds to ensure free access to textbooks for Norwegian students and to develop digital resources (or purchase from publishers or other producers) that are released under CC Attribution-ShareAlike. In just a few years, the project has produced a large amount of OER	CC-BY-SA	infrastructure	creation	Norway	Scandinavia
OERTest	http://www.oer-europe.net/	EC-funded project that will create a framework for provision of OER within Europe through the: - creation of a single portal for accessing Euro-centric OER content - development of quality standards, assessment guidelines, financial models, curricular provisions and any other administrative requirements necessary to allow for HEIs within the EU to assess learning received exclusively through OER - assessment of the feasibility for EU HEIs to offer assessment	CC-BY-SA	Awareness	Dissemination, Utilization	EU	-

		services for OER - establishment of a European network to promote and follow the development of OER and Open Educational Practices within the EHEA					
Open Innovation Project		An innovative educational approach in adult education: bringing the principles and tools of open innovation in lifelong learning. Inercia Digital S.L provides specialization e-learning about open innovation and e-business for SMEs, offering specialized training with more than 40 courses in the areas of marketing in the Internet, online entrepreneurship, electronic commerce and digital open innovation. Inercia Digital is the coordinator of Open Innovation in Adult Learning Course (OPEN) Project supported by the European Union under Grundtvig Learning Partnership 2012 of the Lifelong Learning Programme of the European Commission which aims to design a course about Open innovation in for the adult.		Content, capacity building	Creation, utilization	EU	EU
Opening up a Future in Business	http://www.jisc.ac.uk/whatwedo/programmes/ukoer3/futureinbusiness.aspx	UKOER3 The focus of the project is to collate and produce an OER to enable 16-19 year olds, thinking about their future, to move forward with confidence in to studying Business and Management topics in Higher Education. The project will use the concept of the SME to inform the business understanding of prospective students. It will feature contributions from current project students, alumni, and the employers engage with them and also those who have successfully set up a Micro business	-	content, awareness	-	UK	-
OpenLearn Labspace	http://labspace.open.ac.uk/	The collaborative and community area of OpenLearn, for repurposing and development of resources. Includes outputs of some collaborations between the OU and adult education providers	CC-BY-NC-SA	content, infrastructure, capacity, awareness	-	UK	-
Photodentro	http://photodentro.edu.gr/jspui/	The Fotodentro is the National Digital Learning Objects Repository for primary and secondary education. Designed and developed in the framework of 'Digital School' to be the central point of access to digital educational content and is open to everyone, students, teachers, parents and anyone interested.	not clear	infrastructure	-	Greece	-
Role	http://www.role-project.eu/	European project. Responsive Open Learning Environments (ROLE) is a European collaborative project with 16 internationally renowned research groups from 6 EU countries and China. ROLE technology is centred around the concept of Self-regulated learning	-	infrastructure	-	EU	-

		that creates responsible and thinking learners that are able to plan their learning process, search for the resources independently, learn and then reflect on their learning process and progress. Given this task, ROLE's main objective is to support teachers in developing the open personal learning environments for their students where they can train each of the phases mentioned					
Sesamath	http://www.sesamath.net/	'Mathematics for all'. French, voluntary funded, community collaborative development of maths OER at school level	mostly open/free, but not indicated clearly on the resources	content	-	FR	-
Triton Project	http://openspires.ox.ac.uk/triton/	JISC UKOER2. HE level This project aims to rapidly increase the awareness and use of OER material within the Politics and International Relations (IR) subject community by bringing high-quality reusable scholarly resources to learners and teachers	CC-SA and various in OER collections	infrastructure, content	Creation; Dissemination; Organisation	UK	-
TU Delft OpenCourseWare	http://opencourseware.eu/	The main objective of the project is to support virtual mobility on the basis of OpenCourseWare. On top of that, an improved European OCW network will improve conditions for Lifelong Learners, who are an important user group of OCW...One of the desired outputs is for the project to be a starting point for the initiation of a European affiliate for the global OCW-Consortium, OCWCE. This will appeal to a broad European basis and contribute significantly to the sustainability of the project.		Awareness	Utilisation	EU	
UKOER Synthesis and Evaluation Project	https://oersynth.pbworks.com/w/page/29595671/OER%20Synthesis%20and%20Evaluation%20Project	JISC UKOER Evaluation & Synthesis project		Research, awareness		UK	
University of the people	http://www.uopeople.org/	University of the People (UoPeople) is the world's first tuition-free, non-profit, online academic institution dedicated to opening access to higher education globally for all qualified individuals, despite financial, geographic or societal constraints.	not clear	capacity building	utilisation	USA	world wide
wikiwijs	http://www.wikiwijs.nl/home/	open, internet-based platform, where teachers can find, download, (further) develop and share educational resources. The whole project is based on open source software, open content and open standards.	CC-BY (mostly)	infrastructure, content	-	Netherlands	-

ANNEX 4: OER4ADULTS INVENTORY OF OER INITIATIVES

In the table below a colour code system is used.

Minimum criteria for pursuing further through the project were:

- Be explicitly about learning (ie. Wikipedia is not in; wikiversity is in)
- Be about materials or courses that are digital (ie. online information about face to face courses is not in; online information about online courses is in)
- Provide materials or services that are free (no charge)
- Be either based, or have a significant number of users in, Europe

Sites that do not match even these minimum criteria are marked **red**. They helped to define the borders of the landscape, but were not followed further. There are 25/159 such initiatives in the table

OER4Adults relevant criteria were:

- Provide materials, or access to materials and courses that are openly licenced
- Be developed for, or have a significant number of users among, adult and lifelong learners
- Be based in Europe

Initiatives that match these more stringent criteria are marked **green** in the table below. There are 30/159 such initiatives in the table. They were core to the project and were targeted in the SWOT survey.

Other initiatives were:

- Initiatives aimed at school and HE teachers. Teachers are a special case of lifelong learner. There are a multitude of initiatives aimed at them and their professional development
- Initiatives that open up HE-level education to those not enrolled at university
- Initiatives aimed at lifelong learning but not apparently fully open. A number of the initiatives claim to provide free (no charge) materials, but their licencing terms are either restrictive or not apparent
- Initiatives aimed at lifelong learning but US based. A number of initiatives originate and are based in the USA, but have users across Europe.

These initiatives are not highlighted in the table below. They were sent the SWOT survey but not reminders and the response rate was lower.

Initiative descriptions in the table below are taken from initiative websites.

Name of initiative	URL of initiative	Comments	Licence type	Where is the initiative based?	Where are the users based?
Aful	http://aful.org/gdt/educ	Association Francophone des Utilisateurs de Logiciels Libres	-	FR	-
ALISON, Advance Learning Interactive Systems Online	http://alison.com/	ALISON* is the world's leading free online learning resource for basic and essential workplace skills. ALISON provides high-quality, engaging, interactive multimedia courseware for certification and standards-based learning.	not clear	Republic of Ireland	world wide
Anadolu University	http://www.anadolu.edu.tr/en/	case study in Lane (2011) http://oro.open.ac.uk/30282/1/OERHE_Best_Practice_Report_1.pdf	not clear	Turkey	-
April	http://www.april.org/	promoting open software. French organisation	-	FR	-
Archives Jean Piaget	http://www.archivesjeanpiaget.ch/	online archive of Jean Piaget's work	-	CH	-
Ariadne Foundation	http://www.ariadne-eu.org/content/about	not for profit association. ARIADNE has created a standards-based technology infrastructure that allows the publication and management of digital learning resources in an open and scalable way. The vision that drives the continuous development of this infrastructure is to provide flexible, effective and efficient access to large-scale educational collections in a way that goes beyond what typical search engines provide. ARIADNE was initially set up by a network of European stakeholders, expanding now into a global network of member institutions sharing the same vision.	-	EU	-
ARROW	http://www.arrow-net.eu/	tool(s) for facilitating the rights clearance for orphan works	-	EU	-
BBC Languages	http://www.bbc.co.uk/languages/	free language courses in a number of languages	closed	UK	-
BBC Worldservice	http://www.bbc.co.uk/worldservice/learningenglish/	free English courses	closed	UK	-
Bildung	http://www.bildung.at/	Austrian government portal on e-learning for school level education	-	Austria	-
Book camping	http://bookcamping.cc/	Bookcamping is a collaborative digital library review and uses resources mostly graduates with open licenses. It is also a tool, a place, a community, a device where you can enter unfinished download, upload, group and label documents that contribute to a common fund open to help us rethink the world.	CC-BY-SA	Spain	-
Bridge to Success	http://b2s.aacc.edu/	Bridge to Success (B2S) offers free, open educational resources to prepare adults to successfully and confidently transition to a college environment, to pursue advanced qualifications, or to be successful in their chosen careers. Results from a collaboration between Anne Arundel Community College, the Open University (UK), University of Maryland University College (UMUC) and Massachusetts Institute of Technology (MIT)	CC-BY-NC-SA	UK, USA	world wide
C4EO ELearning	http://www.c4eo.org.uk/	The Centre for Excellence and Outcomes in Children and Young People's Services	open	UK	UK

	elearning/	provides a range of products and support services to improve outcomes. For the first time, excellence in local practice, combined with national research and data about 'what works' is being gathered in one place. C4EO shares this evidence and the best of local practice with all those who work with and for children and young people and provides practical 'hands on support' to help local areas make full use of this evidence.	government licence for public sector information		
Canal Educatif	http://canal-educatif.fr/index.php	aims to provide free, quality, educational videos on the internet, aimed at school level	not clear	France	-
CERIMES	http://www.cerimes.fr/	Facilitate access for teachers, researchers and students of higher education in the audiovisual and multimedia resources and help integrate them into teaching. In this capacity, he participated in the identification of these resources, their organization and indexing, management, dissemination and valorisation, particularly in regard to the resources produced by institutions of higher education and research	not open http://www.cerimes.fr/droits-dexploitation.html	France	-
CharityWise	http://www.open.ac.uk/blogs/CharityWise/	initiated by the (UK) South West Forum, collaborating with the UK Open University Open Learn team	CC-BY-NC-SA	UK	-
Cinematic	http://cinematic.ens-lyon.fr/	French science resources. Site not updated since 2006	no evidence of licence	France	-
COMC – Coventry Open Media Classes	http://www.jisc.ac.uk/whatwedo/programmes/ukoer3/comc.aspx	A UKOER3 project. Open classrooms in media subjects.	CC-BY-SA	-	-
Community Energy Scotland	-	A collaboration between CES and the Open University in Scotland to develop materials to support “facilities projects”, that is smaller scale community projects that are looking to improve the energy performance of their building or install new energy generation equipment (see Macintyre 2012)	CC-BY-NC-SA	Scotland	-
connexions	http://cnx.org/	content services the educational needs of learners of all ages, in nearly every discipline, from math and science to history and English to psychology and sociology. Connexions delivers content for free over the Internet for schools, educators, students, and parents to access 24/7/365	CC-BY	USA+worldwide	world wide
Consorti de biblioteques universitaries de Catalunya	http://www.cbuc.cat/cbuc_en	The first activity of the CBUC was to create the Collective Catalogue of the Universities of Catalonia (CCUC). Shortly afterwards the Consortium considered that it would be feasible and beneficial to organize an interlibrary loan program. The positive results of these two initial programs led the Consortium to venture into new activities (joint purchases of equipment, training, benchmarking...), and to draw up of the project for the Digital Library of Catalonia.	various, some CC	Spain	Spain
Cosmos portal	http://www.cosmosportal.eu/	educational community on teaching science. COSMOS portal is an experimental laboratory for students and teachers, aiming to improve science instruction by expanding the resources for teaching and learning in schools and universities, providing more challenging and authentic learning experiences. Join the COSMOS educational community and explore new ways of teaching science!	various	EU	HE
Cours en ligne	http://cel.archives-	Free, open courses for doctoral students	no evidence of	France	-

	ouvertes.fr/index.php?halsid=31k1ojnu50mi6igim37vqliden0&action_todo=home		licence		
Coursera	https://www.coursera.org/	We are a social entrepreneurship company that partners with the top universities in the world to offer courses online for anyone to take, for free. We envision a future where the top universities are educating not only thousands of students, but millions. Our technology enables the best professors to teach tens or hundreds of thousands of students.	not stated, but believed not open	USA	world wide
Cross Boarder Virtual Incubator	http://www.eadtu.nl/cbve/default.asp?page=1 and http://www.eadtu.eu/cbvi.html	Two related projects, one about incubation and one developing usage in learning and support for entrepreneurship - for lifelong learners and professional development of academic teaching staff	not clear	EU	-
CSAP open collections	http://csapopencollections.wordpress.com/ and http://methods.hud.ac.uk/	part of the UKOER program. The C-SAP collections project seeks to make available open collections of social sciences research methods by embracing Web 2.0 technology and OER-related, sustainable solutions.	various	UK	-
Delivering Open Education Resources for Engineering Design (DELORES)	http://www.bath.ac.uk/idmrc/delores/	JISC UKOER2 created static and dynamic collections of university-level Open Educational Resources (OERs) and other openly available resources relevant to Engineering Design	various CC and similar open licences. Licencing information given for each resource	UK	-
Digital Futures in Teacher Education	http://www.digitalfuture.s.org/	The aim of this project is to produce an open textbook "Digital Literacy (DL) for Open and Networked Learning" based upon two strands of development that are mutually reinforcing: the first is to create materials for a module accredited by the two partner HEI for trainee teachers on their PGCE courses, in line with the HEA Professional Standards Frameworks and the Professional Standards for Teachers, involving the (re)use of OERs and associated pedagogical design; and the second is to develop guidance on practice in teaching and learning in the school sector involving digital literacy.	CC-BY-NC-SA	UK	trainee teachers
Distance Learning Portal	http://www.distancelearningportal.eu/	a clearing house for distance learning courses - some of them open	-	-	-
Diva portal	http://www.diva-portal.org/smash/search.jsf	Open access to research outputs	-	SE	-
Economists online	http://www.economistsonline.org/home	open access to economics research outputs	not clear	EU	-
EDUCATE (Environmental	http://www.educate-sustainability.eu/about	collaborative project for curriculum development in architecture, for HE, professional architects and the general public	restricted licence	Multiple	-

Design in University Curricula and Architectural Training in Europe)			http://www.educate-sustainability.eu/terms		
Edutags	http://edutags.de/	collaborative project. Social bookmarking for teachers, enabling them to bookmark, tag, rate, comment, form groups and collaborate around resources	-	DE	-
edutorials.gr	http://www.edutorials.gr/	tutorials in use of various openly licenced software	mostly CC-BY-NC-SA	Greece	-
EdX	https://www.edx.org/	edX is a not-for-profit enterprise of its founding partners, the Massachusetts Institute of Technology (MIT) and Harvard University that offers online learning to on-campus students and to millions of people around the world. To do so, edX is building an open-source online learning platform and hosts an online web portal at www.edx.org for online education.	not clear	USA	world wide
ELLAK	http://www.ellak.gr/	consortium of 26 partners for promoting OER in Greece - but seems to be more about open software than OER. The aim is to collate information about other open projects, rather than to provide resources themselves. The initial list of projects contains less than 20	CC-BY-SA	Greece	-
EMU (Eastern Mediterranean University) OpenCourseWare	http://opencourses.emu.edu.tr/	open courseware from the Eastern Mediterranean University	CC-BY-NC-SA	Turkey	turkey
ENSTA Open Courses	http://www.dfr.ensta.fr/Cours/cours_en_ligne.php	Ensta's open courses online. HE level	not clear	France	HE
epaideia.net	http://www.e-paideia.net/Vortal/default.asp	aimed at school children, their teachers and parents	not an open licence http://www.e-paideia.net/Help/oroi.asp	Greece	-
Epics	http://epics-ve.eu/	European project on virtual exchange. A clearing house for information about virtual courses across Europe - but not clear how open the courses are	-	EU	-
Europa	http://ec.europa.eu/information_society/events/cf/ictpd12/item-display.cfm?id=8974	proposal only/not yet implemented. A pan-european continuously Open Online Course System for Public Administrations	-	Greece	EU
European Schoolnet Learning Resource Exchange	http://lreforschools.eun.org	a service that enables schools to find educational content from many different countries and providers. Anyone is able to browse content in the LRE federation of repositories and teachers that register can also use LRE social tagging tools, rate LRE	various	-	-

		content, save their Favourite resources and share links to these resources with their friends and colleagues.			
European Volunteering School Online	http://www.ev-school.com/	In the framework of the European Year of Volunteering 2011, the Fundación Voluntarios por Madrid, presented the project to the European Commission to create the first European School of Volunteering On-line with other 5 community partners: Centre for the development in Mediterranean (Greece), Euro-net (Italy), Riga City Council (Latvia), Vilnius City Council (Lithuania) and the Red Cross in Sibiu (Romania). One initiative that came after the experience of the Fundación Voluntarios por Madrid, which managed the Volunteering School of the Madrid Council during 2008 and 2009, a community resource, which handled more than 21,000 people	not clear	Spain	EU
Europeana	http://www.europeana.eu/portal/	Europeana is a single access point to millions of books, paintings, films, museum objects and archival records that have been digitised throughout Europe. It is an authoritative source of information coming from European cultural and scientific institutions	metadata for cultural objects released under Creative Commons CC0 Public Domain Dedication	EU	-
EVOLUTION project	http://www.uclan.ac.uk/lbs/about/evolution.php	JISC UKOER1 An early UKOER project looking at FE as well as HE. Employability resources for HE and FE students and teachers	various CC licences	UK	-
Finnoa	http://www.finnoa.fi/	Open access to research outputs	-	FI	-
Flat World Knowledge	http://www.flatworldknowledge.com/	Since Flat World Knowledge began five years ago, our mission has been to publish high-quality, peer-reviewed, textbooks that represent the best value in the industry. Our business model has included a free online format, along with affordable upgrades to digital and print textbooks and study aids. As the transition to digital has changed student buying trends, one thing has become clear: the free format has become a barrier to our long-term growth and ability to offer a fair and affordable model that works for all our customers, from individual students and instructors to our institutional partners. A change is necessary. Starting January 1, 2013, we will no longer be providing students with free access to our textbooks. Yes, the free Web format is going away, but our mission to provide high quality course materials at affordable prices remains as strong as ever. Students can read a complete online textbook with our Study Pass product, which includes note-taking, highlighting and study aids, for only \$19.95. Our prices remain significantly lower than the \$100+ that students are used to paying for other commercial textbooks.	said to be open	USA	world wide
Floss Manuals	http://flossmanuals.net/	free manuals and educational materials about free software	no evidence of licence	Netherlands	-
FoSentHE (Fostering Entrepreneurs in HE)	http://web.fosenthe.efzg.hr/	ongoing EC project. The underlying idea of the project is to incite students' entrepreneurial activity: the best way to improve business theory (education) and practice at the same time is to ensure their continuous interaction and mutual upgrading. To this end, the project develops the 5e5 outcome model. Developing	not clear	Croatia	University of Zagreb

		online course in entrepreneurship.			
Frama Ecole/Frama DVD	http://framadvd.org/framadvd-ecole	Openly licensed DVDs for schools to aid IT teaching. L'idée originale, le choix des contenus et l'essentiel de la réalisation est l'œuvre de Cyrille Largillier, professeur des écoles, avec l'appui technique de Pierre-Yves Gosset, permanent de Framasof	open	FR	-
FSLT12 MOOC	http://openbrookes.net/firststeps12/	First Steps into Learning and Teaching in Higher Education, is targeted at new lecturers, people entering higher education teaching from other sectors and postgraduate students who teach. We also welcome experienced lecturers to update and share their knowledge and expertise	CC-BY-SA	-	-
Fundacja Orange	http://akademiaorange.pl/	sponsors cultural activities and events for children, the outputs of which (mainly photos) may be shared	Creative Commons Attribution 3.0 Poland	Poland	-
HAL archives ouvertes	http://hal.archives-ouvertes.fr/	HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research papers, whether they are published or not, and for PhD dissertation.	not clear	France	-
HELDA	https://helda.helsinki.fi	open access to research outputs in Finland	-	FI	-
Humanities Network with their project "Open Educational Resources for Complementary Curriculum: A case study in Heritage Studies" (Herbert, 2010)	http://www.eadtu.eu/eadtu-info.html	Humanities network of EADTU; http://markusmind.files.wordpress.com/2012/01/rapport-3_versie-2okt.pdf EU Humanities network of EADTU	-	EU	-
HUMBOX	http://humbox.ac.uk/information.html	UKOER, impact study, and SCORE involvement. The HumBox project aimed to publish a bank of good quality humanities resources online for free download and sharing, and in doing so, to create a community of Humanities specialists who were willing to share their teaching materials and collaborate with others to peer review and enhance existing resources. Usage reports on their website	CC-BY-NC-SA	UK	-
i-cleen	http://www.icleen.museum/web/guest	I-CLEEN I-CLEEN is a collaborative project among teachers, willing to create a free database of resources (an information gateway) already tested in the classrooms, aiming to an interactive education of Earth System Science topics. I-CLEEN is a web project by the Science Museum of Trento(former Tridentine Museum of Natural Sciences). The project won the eLearning award 2010. All the parts that make up the project and all their respective activities are fully dealt with using an open source web platform called LifeRay specifically implemented for this project. Resources are licensed under CC Attribution 3.0 (Italy)	BY	Italy	teachers

ict@innovation	http://www.ict-innovation.fossfa.net/	ict@innovation is an African capacity building programme of FOSSFA and GIZ, which supports small and medium IT-enterprises and aims to encourage the growth of African ICT industries.	said to be open	germany, africa	Africa
IPR for Educational Environments	http://learningspace.falmouth.ac.uk/course/view.php?id=739	JISC UKOER1&2 One of the few projects to tackle open peer feedback in their platform. OpenSpace materials for the public, and CPD for (HE) teachers	CC-BY-SA	UK	-
IT skills for the food and drink industry	-	A collaboration between GMB (a general trades union) and the Open University in Scotland using OU-produced OER in workplace learning in the food and drink industry (see Macintyre 2012)	-	Scotland	workplace learners (non accredited)
iTunes U	http://www.apple.com/education/itunes-u/	Free university materials via the Apple iTunes store	various including CC	USA	world wide
ITYPA MOOC	http://itypa.mooc.fr/	MOOC on how to learn using the Internet	CC-BY	France, Canada	-
JBB toolset	http://www.heacademy.ac.uk/projects/detail/oer/OER_IND_York	JISC UKOER1 a model integrating development of resource with open source community for development of software	-	UK	-
JORUM	http://www.jorum.ac.uk/	UK HEFCE funded national repository. Through Jorum, you can find and share learning and teaching resources, shared by the UK Further and Higher Education community	various CC	-	-
Khan Academy	http://www.khanacademy.org/	The Khan Academy is an organization on a mission. We're a not-for-profit with the goal of changing education for the better by providing a free world-class education for anyone anywhere. All of the site's resources are available to anyone. It doesn't matter if you are a student, teacher, home-schooler, principal, adult returning to the classroom after 20 years, or a friendly alien just trying to get a leg up in earthly biology. The Khan Academy's materials and resources are available to you completely free of charge.	CC-BY-NC-SA	USA	world wide
Korea University Open Courseware	http://ocw.korea.edu/ocw/	open courseware from Korea University	CC-BY-NC-SA	Korea	Korea
KU Leuven case study in Lane	http://oro.open.ac.uk/30282/1/OERHE_Best_Practice_Report_1.pdf	KU Leuven is exploring use of OER to support its widening participation and other university policies	not clear	Netherlands	Netherlands

Lara	http://lara.inist.fr/	open access to scientific reports	-	FR	-
Le Portail Universités Numériques thématiques	http://www.universites-numeriques.fr/fr	The portal of digital thematic Universities	limited licence http://www.canal-u.tv/infos-legales/	France	-
Learning from Woerk	http://cpdoer.net/	UKOER 2 project. Managed through the Teaching and Learning Directorate at University of Plymouth and involving a cross-University team and a number of key employers, the project developed and published open resources to support learning in the workplace and continuing professional development. The resources, though developed for tutors in HE, are directly accessible by learners but generally assume a level of tutor or work-based trainer / supervisor involvement	CC-BY-NC-SA	UK	-
LeMill	http://lemill.net/	web community for finding, authoring and sharing learning resources for school teachers. Creative Commons case study at http://wiki.creativecommons.org/Case_Studies/Le_Mill	CC BY-SA 2.5	Estonia	school teachers
Leuphana University MOOC: creating the ideal city of the 21st century course	-	German initiative announced, no url yet. Course scheduled for January 2013 with credits.	-	-	-
LORO	http://loro.open.ac.uk/	ressources for language teaching available to reuse	CC-BY-NC-ND or CC-BY-NC-SA	UK	HE
Mediterranean Open Access network	http://www.medoanet.eu/	promoting open access to the outcomes of research	-	European project, multiple sites	-
Mesi	http://smart.mesi.ru/	Case study in Lane (2011) http://oro.open.ac.uk/30282/1/OERHE_Best_Practice_Report_1.pdf	not clear	Russia	-
Metamorphosis	http://metamorphosis.med.duth.gr/	a Semantic social environment to share educational resources based on linked data	various depends on resource	GR	-
Metodický Portál Digitalní učební materiály RVP	http://dum.rvp.cz/index.html	resources, learning designs and professional development for school teachers	CC-BY-NC-ND and CC-BY-NC-SA	Poland	-
Miksike Lefo	http://lefo.net/	educational community developing free and paid for worksheets at school level in the Baltic states	not clear	Estonia	-
MIT Open Courseware	http://ocw.mit.edu/index.htm	MIT OpenCourseWare (OCW) is a web-based publication of virtually all MIT course content. OCW is open and available to the world and is a permanent MIT activity	CC-BY-NC-SA	USA	world wide
MOODLE	https://moodle.org/	Moodle is a Course Management System (CMS), also known as a Learning Management System (LMS) or a Virtual Learning Environment (VLE). It is a Free web	open source, GNU public	Australia	world wide

		application that educators can use to create effective online learning sites			
Multilingual Open Resources for Independent Learning (MORIL)	http://morileadtu.nl/	Resources not currently available. Multilingual Open Resources for Independent Learning (MORIL) to provide a gateway to university education for a broader range of target groups, facilitate international learning experiences, brand Open and Distance Teaching Universities, and gain enhanced experience with OER.	Not clear in absence of resources, but presumed openly licenced (because of surrounding support information)	EU	-
Narcis	http://www.narcis.nl/	open access to research outputs in the Netherlands	-	NL	-
National Repository of Online Courses	http://www.montereyinstitute.org/nroc/	The National Repository of Online Courses (NROC) is a growing library of high-quality online course content for students and faculty in higher education, high school and Advanced Placement*. This non-profit project, supported by The William and Flora Hewlett Foundation, is an Open Educational Resource (OER) and facilitates collaboration among a community of content developers to serve students and teachers worldwide.	closed, but cost-free to individuals	USA	USA?
NORDLET project	http://wiki.teria.no/display/nordletsummit/Summit	The main goal of the NORDLET project is to build a Nordic-Baltic network and Community of Practice set to develop and harness a region-specific perspective on the use of technology in Learning, Education and Training.	-	-	-
NordplusOnline	http://www.nordplusonline.org/	Lifelong learning, but not clearly OER. The Nordplus Programme offers financial support to a variety of educational cooperation between partners in the area of lifelong learning from the eight participating countries in the Baltic and Nordic regions.	-	Nordic and Baltic countries	-
Norwegian National Digital Learning Arena (NDLA)	http://ndla.no/en	The Norwegian National Digital Learning Arena (NDLA) is an open educational resources (OER) project and open source platform for sharing OER in secondary education. It is a joint initiative by different provinces in Norway that allocates a portion of state funds to ensure free access to textbooks for Norwegian students and to develop digital resources (or purchase from publishers or other producers) that are released under CC Attribution-ShareAlike. In just a few years, the project has produced a large amount of OER	CC-BY-SA	Norway	school teachers, pupils
OCW Consortium Europe	http://opencourseware.eu/	The main objective of the project is to support virtual mobility on the basis of OpenCourseWare. On top of that, an improved European OCW network will improve conditions for Lifelong Learners, who are an important user group of OCW...One of the desired outputs is for the project to be a starting point for the initiation of a European affiliate for the global OCW-Consortium, OCWCE. This will appeal to a broad European basis and contribute significantly to the sustainability of the project.	-	EU	-
OER Teachers Network	http://oertn.eun.org/node/2	NB. A useful project to explore for user feedback on resources (by teachers). The OER (Open Educational Resources) Teachers' Network project was looking at how teachers identified resources that could 'travel well' and be used in different countries. Our focus group of teachers from Australia, Africa, Europe and the USA identified and	-	Eu; worldwide	-

		rated over 250 of these and you can find a small selection of some of the most highly rated on the home page			
OERTest	http://www.oer-europe.net/	EC-funded project that will create a framework for provision of OER within Europe through the: creation of a single portal for accessing Euro-centric OER content development of quality standards, assessment guidelines, financial models, curricular provisions and any other administrative requirements necessary to allow for HEIs within the EU to assess learning received exclusively through OER assessment of the feasibility for EU HEIs to offer assessment services for OER establishment of a European network to promote and follow the development of OER and Open Educational Practices within the EHEA	CC-BY-SA	EU	-
OER-U	http://wikieducator.org/OER_university/Home	The OER university is a virtual collaboration of like-minded institutions committed to creating flexible pathways for OER learners to gain formal academic credit.	CC-BY-SA	USA and Pacific Countries	World wide
OKFN LOCAL	http://gr.okfn.org/en/	greek part of the global open knowledge foundation - activities promote open data, linked data, etc rather than providing OER	-	Greece	-
OLCOS	http://www.olcos.org/english/home/index.htm	OLCOS, the Open eLearning Content Observatory Services project (1/2006-12/2007) is co-funded under the European Union's eLearning Programme and aims at building an (online) information and observation centre for promoting the concept, production and usage of open educational resources, in particular, open digital educational content (ODEC) in Europe.	CC-BY-SA	EU	-
OLNET	http://www.olnet.org/	OLnet is an international research hub for aggregating, sharing, debating and improving Open Educational Resources (OER). The aim of OLnet is to gather evidence and methods about how we can research and understand ways to learn in a more open world, particularly linked to OER, but also looking at other influences	CC-BY	UK & USA	-
OPAL Open Educational Quality Initiative	http://132.252.53.70/ or http://www.oer-quality.org/	an international network to promote innovation and improved quality in education and training through the use of open educational resources.	-	Eu; worldwide	-
Open Access.se	http://www.kb.se/openaccess/	promoting open access to research outputs	-	Sweden	-
Open Courseware in Management	http://opencim.grenoble-em.com/	OER in management for teachers, students and independent learners	various licences	CC France	-
Open Discovery Space	http://opendiscoveryspace.eu/project.html	Open Discovery Space: A socially-powered and multilingual open learning infrastructure to boost the adoption of eLearning resources. Funded by: CIP-ICT-PSP-2011-5, Theme 2: Digital Content, Objective 2.4: eLearning Objective 2.4	-	EU	world wide
Open Discovery Space	http://opendiscoveryspace.eu/	integrated access point for eLearning resources from dispersed educational repositories	various	EU	EU
Open Educational Innovation and Incubation	http://www.eadtu.eu/oeii.html	European project. Open Educational Innovation & Incubation (OEII) is a European project on the modernisation of education. The project is committed to the requirements and design of an organisational interface, which (more) effectively translates market-specific requirements into the delivery of content, courses, classes, modules or programmes, at a distance, blended, or in a mixed mode	-	EU	-

Open Source Ecology	http://opensourceecology.org/	Open Source Ecology is a network of farmers, engineers, and supporters that for the last two years has been creating the Global Village Construction Set, an open source, low-cost, high performance technological platform that allows for the easy, DIY fabrication of the 50 different Industrial Machines that it takes to build a sustainable civilization with modern comforts. The GVCS lowers the barriers to entry into farming, building, and manufacturing and can be seen as a life-size lego-like set of modular tools that can create entire economies, whether in rural Missouri, where the project was founded, in urban redevelopment, or in the developing world.	open source	USA	world wide
openaccess.gr	http://www.openaccess.gr/	promoting open access, especially to journals	-	Greece	-
OpenAIRE	http://www.openaire.eu/	European project promoting open access to outcomes of EU research projects	-	European project, multiple sites	-
Openaire	http://www.openaire.eu/	EU project. Open infrastructure for research in Europe	-	EU	-
openED 2.0	http://www.open-ed.eu/	openED 2.0 is a FREE and OPEN online course for business students and practitioners alike. The course consists of 10 distance learning modules which should each last between 2-3 weeks.	open	EU	-
OpenER	http://www.slideshare.net/guest2503e3/opener-oer-ounl	OpenER based at OUNL. Case study in Lane (2011) http://oro.open.ac.uk/30282/1/OERHE_Best_Practice_Report_1.pdf	CC-BY-NC-SA	Netherlands	-
OpenFieldwork project	http://openfieldwork.org.uk/	JISC UKOER2 The Fieldwork Education Resource Collection (FERC) brings together fieldwork education resources that are publicly available on the web to allow easy discovery, and to facilitate reuse in the GEES and wider HE community	various open and some not open licences. Each resource has licence clearly indicated	UK	-
Opening up a Future in Business	http://www.jisc.ac.uk/whatwedo/programmes/uk_oer3/futureinbusiness.aspx	UKOER3 The focus of the project is to collate and produce an OER to enable 16-19 year olds, thinking about their future, to move forward with confidence in to studying Business and Management topics in Higher Education. The project will use the concept of the SME to inform the business understanding of prospective students. It will feature contributions from current project students, alumni, and the employers engage with them and also those who have successfully set up a Micro business	-	-	-
OpenLearn	http://www.open.edu/openlearn/	The UK Open University's repository of OERs, aimed at individual independent learners. Resources are at HE level and produced by the OU (see also labspace)	CC-BY-NC-SA	UK	-
OpenLearn Labspace	http://labspace.open.ac.uk/	The collaborative and community area of OpenLearn, for repurposing and development of resources. Includes outputs of some collaborations between the OU and adult education providers	CC-BY-NC-SA	-	-
OpenScout	http://www.openscout.net/	OpenScout stands for "Skill based scouting of open user-generated and community-improved content for management education and training". OpenScout has been co-funded by the European Commission within the eContentplus Programme as a	CC-BY-NC-SA	EU	-

		Targeted Project in the area of Educational Content (Grant ECP 2008 EDU 428016). OpenScout has been a three year project, running from September 2009 until August 2012. OpenScout's activities are now continued the Special Interest Group (SIG) Open Content for Business and Management.			
openstudy	http://openstudy.com/	OpenStudy is a social learning network where independent learners and traditional students can come together in a massively-multiplayer study group. Through OpenStudy, learners can find other working in similar content areas in order to support each other and answer each others' questions. OpenStudy supports a number of study groups, including those focused on several MIT OCW courses	CC-BY-NC-SA	USA	world wide
Orbi	http://orbi.ulg.ac.be/	University of Liege open access repository	-	Belgium	-
ORBIT	http://orbit.educ.cam.ac.uk/wiki/Home	The ORBIT project develops an "Open Resource Bank for Interactive Teaching" (ORBIT) (and an associated programme) to promote interactive teaching for primary and secondary schools. ORBIT is aimed at use in formal HE teaching (PGCE), use in training schools and by teacher mentors, as well as continuing professional development for in-service teachers. ORBIT makes existing higher education expertise on teacher education as widely available as possible to other teacher education providers	CC-BY-SA and CC-BY-NC	UK	trainee teachers
organic Edunet	http://portal.organic-edunet.eu/	Vocational education explicitly included. Organic.Edunet is a learning portal that provides access to digital learning resources on Organic Agriculture and Agroecology and aims to facilitate access, usage and exploitation of such content. Learning resources published are appropriate for school and university level, thus targeting pupils, students, teachers and researchers, apart from general learners	various	EU	-
P2PU	https://p2pu.org/en/	The Peer 2 Peer University is a grassroots open education project that organizes learning outside of institutional walls and gives learners recognition for their achievements. P2PU creates a model for lifelong learning alongside traditional formal higher education. Leveraging the internet and educational materials openly available online, P2PU enables high-quality low-cost education opportunities.	Creative Commons Attribution Share Alike 3.0 Unported	-	-
Patrice Thiriet	http://www.youtube.com/user/Anatomie3DLyon	Individual website	YouTube licence	France	-
Persee	http://www.persee.fr/web/support/apropos	electronic publication of scientific journals	-	FR	-
Photodentro	http://photodentro.edu.gr/jspui/	The Fotodentro is the National Digital Learning Objects Repository for primary and secondary education. Designed and developed in the framework of "Digital School" to be the central point of access to digital educational content and is open to everyone, students, teachers, parents and anyone interested.	not clear	Greece	-
Plos Open for Discovery	http://www.plos.org/	We are a nonprofit publisher and advocacy organization. Our mission is to accelerate progress in science and medicine by leading a transformation in research communication. Every article that we publish is open-access - freely available online for anyone to use. Sharing research encourages progress, from protecting the biodiversity of our planet to finding more effective treatments for diseases such as cancer.	CC-BY	USA, UK	world wide
Portal de Corsos en Abierto de la	http://ocw.innova.uned.es/ocwuniversia	Case study in Lane (2011) http://oro.open.ac.uk/30282/1/OERHE_Best_Practice_Report_1.pdf	various CC licences	Spain	-

UNED					
Psydok	http://psydok.sulb.uni-saarland.de/	German open access repository to psychology research	-	DE	-
Role	http://www.role-project.eu/	European project. Responsive Open Learning Environments (ROLE) is a European collaborative project with 16 internationally renowned research groups from 6 EU countries and China. ROLE technology is centred around the concept of Self-regulated learning that creates responsible and thinking learners that are able to plan their learning process, search for the resources independently, learn and then reflect on their learning process and progress. Given this task, ROLE's main objective is to support teachers in developing the open personal learning environments for their students where they can train each of the phases mentioned	-	EU	-
Sakai project	http://www.sakaiproject.org/	Historically, the community has aligned around a single project, the Sakai Collaboration and Learning Environment (CLE). This project has also drawn in the Open Source Portfolio (OSP), including it in the Sakai CLE. Today, while continuing to enhance and improve the Sakai CLE, the community is also developing a new product, the Sakai Open Academic Environment (OAE) that reimagines the approach to scholarly collaboration.	open, CC-BY	US	world wide
Saylor: harnessing technology to make education free	http://www.saylor.org/	The mission of the Saylor Foundation is to make education freely available to all. Guided by the belief that technology has the potential to circumvent barriers that prevent many individuals from participating in traditional schooling models, the Foundation is committed to developing and advancing inventive and effective ways of harnessing technology in order to drive the cost of education down to zero.	CC-BY	USA	-
Sesamath	http://www.sesamath.net/	"Mathematics for all". French, voluntary funded, community collaborative development of maths OER at school level	mostly open/free, but not indicated clearly on the resources	FR	-
Sesame	http://www.tall.ox.ac.uk/research/current/sesame.php	The Sesame project is a JISC-funded initiative that will produce a rich and sustainable source of open educational resources (OER), aimed at adult learners and their tutors, but of use to all, across a broad range of subject disciplines. The resources will be made freely available for others to view, download, repurpose, and incorporate in to their own learning and teaching	-	UK	-
SIG OER Surfspace	https://www.surfspace.nl/sig/5-open-educational-resources/	a Dutch OER SIG	-	NL	-
Slidestar	http://www.slidestar.de/	online magazine re educational opportunities	not clear	DE	-
SLOOP2DESK	http://www.sloop2desc.eu/en.html	Some SME involvement. The main objectives of the Sloop2desc project are: to improve European teachers' knowledge of the new systems of qualification and competencies developed and/or adopted in Members States; to innovate the pedagogical competencies of teachers and trainers through the acquisition of new digital	not clear	Slovenia	-

		competencies, of new languages and communication tool to spread the practice of sharing and developing Open Educational Resources cooperatively' to foster a debate between the education world and the labour market around the potential benefits of the European systems of certification.			
Spanish direct	http://www.spanishdict.com/learn	SpanishDict is the world's largest Spanish-English dictionary, translation, and language learning website. We develop and provide reliable, accurate, easy-to-use resources for learning Spanish. We also aim to cultivate a fun and active community where members can ask and answer questions, practice with each other, and experience the joy of using a new language.	closed	USA	-
Spiral	http://spiral.unistra.fr/index.php	language center of the University of Strasbourg. Free, but not online	-	FR	-
Startup	http://startup-eu.net/	EU project. The StartUp_EU project is designed to motivate secondary school students by replicating the excitement and creative innovation of a new startup company. The project aims at creating an educational game to develop entrepreneurial skills on a Web2.0 technology platform, to support an international competition of young people across Europe.	not clear	EU	HE
Study Spanish	http://www.studyspanish.com/	Launched in 1998, studyspanish.com was a pioneer in educational websites. Over the years, we have provided free web-based services to millions of Spanish students and teachers.	not clear, probably closed	USA	world wide
Support Centre for Open Resources in Education (SCORE)	http://www8.open.ac.uk/score/	SCORE is based at the UK Open University and funded by HEFCE as a three year project (2009-2012) to support individuals, projects, institutions and programmes across the higher education sector in England as they engage with creating, sharing and using open educational resources (OER).	-	UK	-
Swepub	http://swepub.kb.se/	Swedish open access repository	-	SE	-
TARGET	http://www.reachyourtarget.org/	ongoing EC project. The main aim of the TARGET Project is to research, analyse, and develop a new genre of Technology Enhanced Learning (TEL) environment that supports rapid competence development of individuals, namely knowledge workers within the domains of living labs (innovation) and project management. The TARGET environment is conceived as a complex learning process supported by the TARGET platform, which consists of a set of innovative and advanced tools and services. Here, the learner is presented with complex situations in the form of game scenarios: interacting with the game results into enriched experiences that are gradually leading to knowledge acquisition	not clear	EU	-
Tel Archives ouvertes	http://tel.archives-ouvertes.fr/	open access to French doctoral theses	-	-	-
Tesis Doctorals en Xarxa	http://www.tdx.cat/	TDX (Theses and Dissertations Online) is a digital cooperative repository of doctoral theses presented at some Spanish universities. The consultation of theses is opened and allows the user to construct searches on the complete text of the files by author, advisor, title, knowledge area, university and department of publication, year of defense, etc.	various, some CC	Spain	-
Textus	http://textusproject.org/	an open source platform for working with collections of texts. It harnesses the power of semantic web technologies and delivers them in a simple and intuitive interface so	-	UK	-

		that students, researchers and teachers can share and collaborate around collections of texts. TEXTUS is a project of the Open Knowledge Foundation			
The situation of OER in German-speaking countries: A Delphi study	http://ifbm.fernuni-hagen.de/lehrgebiete/mediendidaktik/dokumente/potenziale-und-hemmnisse	"The situation of OER in German-speaking countries: A Delphi study" Case study in Lane (2011) http://oro.open.ac.uk/30282/1/OERHE_Best_Practice_Report_1.pdf	-	Germany	-
Theseus	http://www.theseus.fi	open access to research outputs	-	FI	-
Triton Project	http://openspires.oucs.ox.ac.uk/triton/	JISC UKOER2. HE level This project aims to rapidly increase the awareness and use of OER material within the Politics and International Relations (IR) subject community by bringing high-quality reusable scholarly resources to learners and teachers	CC-SA and various in OER collections	UK	-
Udacity	http://www.udacity.com/	We believe university-level education can be both high quality and low cost. Using the economics of the Internet, we've connected some of the greatest teachers to hundreds of thousands of students in almost every country on Earth. Udacity was founded by three roboticists who believed much of the educational value of their university classes could be offered online for very low cost. A few weeks later, over 160,000 students in more than 190 countries enrolled in our first class, "Introduction to Artificial Intelligence." The class was twice profiled by the New York Times and also by other news media. Now we're a growing team of educators and engineers, on a mission to change the future of education.	not clear	USA	world wide
UKOER evaluation and synthesis project	https://oersynth.pbworks.com/w/page/29595671/OER%20Synthesis%20and%20Evaluation%20Project	JISC UKOER Evaluation & Synthesis project	-	UK	-
Unesco OER Community	http://www.wsis-community.org/pg/groups/14358/open-educational-resources-oer/	This WSIS OER Community is the new UNESCO-supported Community encouraging practitioners, researchers, decision- and policy-makers, teachers, and learners to contribute their knowledge on OER	-	All	-
Unison-Open University partnership	http://www8.open.ac.uk/choose/unison/	collaboration between Unison (public services union) and the UK Open University	CC-BY-NC-SA	UK	-
UNIT portal	http://www.unit.eu/fr	Thematic digital university for engineering and technology	licences vary but are clearly indicated and mostly open	France	-
Université Numérique Francophone des	http://www.unf3s.org/	French "digital university" specialising in medical and sports science. Acts as a portal to resources from a number of universities	not clear	FR	-

Sciences de la Santé et du Sport					
Université Numérique Juridique Francophone	http://www.unjf.fr/	French "digital university" specialising in HE level materials for law.	Most materials are Only some available to nonregistered students, but licencing is not clear	FR	-
Universite ouverte des humanites	http://www.uoh.fr/front	The Open University of Humanities (Humanities Open University) indexes, coproduces (icts with partner institutions) and makes digital learning material available for free to teachers and students.	not clear	FR	-
University of the people	http://www.uopeople.org/	University of the People (UoPeople) is the world's first tuition-free, non-profit, online academic institution dedicated to opening access to higher education globally for all qualified individuals, despite financial, geographic or societal constraints.	not clear	USA	world wide
Virtual Open Access Agriculture & Aquaculture Repository	http://voa3r.cc.uah.es/	Sharing Scientific and Scholarly Research related to Agriculture, Food, and Environment.	various (from open access repositories)	EU	EU
Widening Participation, Inclusion and Social Media	http://stage.uninettunouiversity.net/Portal/it/propetto_psico_inclusione.aspx	UTIU radio stations and social media. Case study in Lane (2011) http://oro.open.ac.uk/30282/1/OERHE_Best_Practice_Report_1.pdf and also in http://markusmind.files.wordpress.com/2012/01/rapport-3_versie-2okt.pdf	not clear	Italy	-
Wikipedia	http://www.wikipedia.org/	free, collaboratively edited, and multilingual Internet encyclopedia supported by the non-profit Wikimedia Foundation. Its 23 million articles, over 4.1 million in the English Wikipedia alone, have been written collaboratively by volunteers around the world.	CC-BY	USA & worldwide	world wide
wikiversity	http://en.wikiversity.org/wiki/Wikiversity:Main_Page	wikimedia foundation project for community development of learning materials	CC-BY-SA	-	-
wikiwijs	http://www.wikiwijs.nl/home/	open, internet-based platform, where teachers can find, download, (further) develop and share educational resources. The whole project is based on open source software, open content and open standards.	CC-BY (mostly)	Netherlands	-
Wolnelectury	http://wolnelektury.pl/	Wolne Lektury is a free online library open 24 hours a day, 365 days a year. It archives books, including set readings recommended by the Ministry of National Education which have fallen in the public domain.	out of copyright & CC-BY-SA	Poland	Poland ?
Youtube Education	http://www.youtube.com/education	YouTube EDU brings learners and educators together in a global video classroom. On YouTube EDU, you have access to a broad set of educational videos that range from academic lectures to inspirational speeches and everything in between.	YouTube licence or CC	USA/world wide	World-wide
Yunus Emre New Age Learning Portal	http://yunusemre.anadolu.edu.tr/Eng/Sayfalar.aspx?id=2	case study in Lane (2011) http://oro.open.ac.uk/30282/1/OERHE_Best_Practice_Report_1.pdf	-	Turkey	-

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Title: Overview and Analysis of Practices with Open Educational Resources in Adult Education in Europe

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Abstract

This report synthesizes the findings of the 'OER4Adults study', a study conducted in 2012-13 by a team from the Caledonian Academy, Glasgow Caledonian University, under a contract with the European Commission Joint Research Centre IPTS, and in collaboration with DG Education and Culture. The project aimed to provide an overview of Open Educational Practices in adult learning in Europe, identifying enablers and barriers to successful implementation of practices with OER. The report identifies over 150 Open Educational Resources (OER) initiatives, and develops a typology that classifies them primarily by their main activity type. A survey based on the typology drew 36 responses from initiative leaders, and these are analysed against a context of developments in adult learning to arrive at an analysis of strengths, weaknesses, opportunities and threats facing OER in adult learning in Europe. The analysis reveals six tensions that drive developing Open Educational Practices in adult learning; open versus free; traditional versus new approaches; altruism versus marketisation; community versus openness; mass participation versus quality; add-on versus embedded funding. The report recommends: 1. Recognising that 'learning' takes place everywhere; 2. Extending the range of people and organisations that produce and use resources; 3. Thinking about OER more broadly than as content; 4. Promoting awareness of open licensing and its implications; 5. Improving the usability of OER; and 6. Planning for sustained change.

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