



SharedOER (A study for IPTS by SERO Consulting)

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0. Summary

This report is the first deliverable (out of three) of the study called *A scoping study on the potential of shared, cross-border OER and syllabi in Europe* – in short, *SharedOER* – that was carried out by Sero Ltd during 2014. The study was commissioned by the Institute for Prospective Technological Studies, based in Seville, Spain, a part of the Joint Research Centre of the European Commission (<https://ec.europa.eu/jrc/en/institutes/ipts>).

The purpose of this Deliverable is to understand the extent of the development of syllabi that cross national, regional, linguistic or cultural borders and offer the prospect of more unified curricula whose currency can be more internationally applied, making it easier to assess the relative abilities of a student from one country with a student from another.

This report (Deliverable 1 of *SharedOER*) reviews initiatives relevant to Shared OER, concentrating primarily on the member countries of the Lifelong Learning Programme, with some detail also across other continents. The USA is not covered comprehensively, because the Common Core Standards are reviewed in Deliverable 2.

The study work for this Deliverable was mainly conducted during late summer and autumn 2014 and does not claim to be comprehensive: it was limited by time and budgetary constraints.

Four initiatives are covered in particular detail: the Learning Resource Exchange, the International Primary Curriculum, ENRIC-NARIC and Commonwealth of Learning. Between them these provide an entry point to each of the main educational sectors, including Vocational Education and Training, and are exemplars which give pointers to potential future developments which are discussed in Deliverable 3, the final report for *SharedOER*.

The initiatives described in the text are tabulated in an Inventory (the Appendix).

The initiatives, the selection of which is limited and cannot be considered as an exhaustive list, are grouped into five sections:

1. Shared examinations and/or curriculum – 34 entries
2. Shared OER – 27 entries
3. MOOCs – an illustrative listing of 10 entries, some of which overlap with SharedOER
4. Information initiatives: websites and organisations giving links to courses and information on accreditation – 6 entries
5. Current projects relevant to SharedOER.

Note that this Deliverable is not designed to be a comprehensive list of OER and MOOC resources. Entries for OER and MOOCs are made only if in the opinion of the authors there is a ‘shared’ aspect to such entries. For much more comprehensive lists of OER and MOOCs the reader is referred to the reports and tables in the POERUP project (<http://poerup.referata.com>) and to specialised databases such as the MOOC List (<https://www.mooc-list.com>).

1. Introduction and overview

In terms of resources, there has never been a better time to be a teacher. There is a vast array of OER available to teachers. But teachers have little time to trawl through this large mass to find the few pearls that would enhance their lessons. Their first question is, “Will this resource fit in with the syllabus I’m teaching?”

The first step towards making a resource more widely used is therefore to establish which part of which curriculum it can support. It is this element which is sadly lacking in the vast majority of Open Educational Resources. It is made even worse by the fact that there are so many different curricula ‘out there’. Too many curricula and too many unmapped resources makes for a morass of content in which a teacher can get lost before he or she even starts teaching a class.

There is, however, one chink of light: the development of syllabi that cross national, regional, linguistic or cultural borders and offer the prospect of more unified curricula whose currency can be more internationally applied, making it easier to assess the relative abilities of a student from one country with a student from another.

These cross-border curricula clearly have the potential of simplifying the link between syllabus and content, once repositories, content providers or users provide accurate mapping. There is some evidence that this is beginning to happen, with the Common Core State Standards in the USA, and also with the International Baccalaureate, IGCSE, IELTS, TOEFL and other schemes discussed later.

Unfortunately there is a worldwide counter-trend that, far from moving towards more collaboration, seems to be heading towards further fragmentation as nations (and regions within them) seek greater autonomy. This is clear in Africa (West and East) and the Pacific, where the joint examination councils, which reflected a colonial past, are to some extent in retreat and being replaced by separate national bodies. On the other hand, some larger nations like Australia are moving to a more unified federal system in terms of education.

It may be that, rather than cross-border examinations generally helping towards greater uptake of Open Educational Resources, it is the existence of OER that might lead national examination bodies to merge their standards to conform to the freely available resources. Accredited MOOCs and Digital Badges such as those offered by Mozilla (<http://www.openbadges.org>) may also accelerate this bottom-up progression towards cross-border qualifications.

Within the time available it was not possible until late in the project to follow up possible relevant developments in Spanish-speaking countries in terms of the Bachillerato, in German-speaking and other countries in terms of the Matura, and in French-speaking countries in terms of the Baccalauréat. Material on these was added to the Second Edition of this Deliverable, as Section 8.

In addition to the desk research, conversations were held with a number of authorities. Some useful information for the first edition was gleaned from conversations with members of the UK Open Education SIG at the ALT-C 2014 conference in Warwick in September 2014. Discussions at the Online Educa conference (December 2014) and at meetings in Paris and Sweden in early 2015 generated additional detailed information for the second edition, but did not change the overall thrust of the report.

Focus

The countries we focus on are the member countries of the Lifelong Learning Programme (EU, EEA, Switzerland and Turkey) plus the more advanced countries in the rest of the world (OECD, BRIC and similar) with linguistic, economic or cultural similarities to EU member states. The US is not looked at in detail because there is a specific case study report (Deliverable 2) on the Common Core State Standards and their relevance to OER.

Former world tours

The most relevant example of a former world tour is the Re.ViCa Handbook: *Reviewing the Virtual Campus phenomenon: The Rise of Large-scale e-Learning Initiatives Worldwide*. This was published

in late December 2009, so just over five years ago. It is the most recent global analysis of HE online providers available either publicly or privately. See especially Chapter 4 (pp. 33-58): *A World Tour of Virtual Campuses: A Summary of Key Initiatives, Market Leaders and Large-Scale Providers*. (Available at <http://revica.europace.org/Re.ViCa%20Online%20Handbook.pdf>.)

There is a more recent report for VISCED (2011) but it focuses on provision of online learning in non-HE post-secondary education (VET) and in schools. This is volume 1 of the VISCED Handbook: *Virtual Schools and Colleges – Providing Alternatives for Successful Learning*. (Available at http://www.virtualschoolsandcolleges.info/sites/default/files/VISCED_Handbook-Volume-1.pdf.) Chapter 2 (pp. 19-56) is entitled *The Virtual School Phenomenon across the World*.

Interestingly the POERUP project does not have a ‘World Tour’ deliverable but it does have a World Atlas – <http://www.poerup.org.uk> – and we shall use the Continents and Georegions breakdown from that.

All OER and MOOC initiatives discussed by POERUP are on the POERUP wiki – <http://poerup.referata.com> (see the Category *Open Education Initiatives*) – and the OER Map Tool – <http://www.poerup.org.uk>.

Initiatives described in detail

Four of the initiatives in this ‘world tour’ are described in particular detail:

1. **The Learning Resource Exchange** (<http://lreforschools.eun.org>)
2. **The International Primary Curriculum** (<http://www.greatlearning.com/ipc/>)
3. **ENIC-NARIC** (<http://www.enic-naric.net>)
4. **Commonwealth of Learning** (<http://www.col.org>).

These particular initiatives give useful pointers to potential future developments, which are discussed in the final Deliverable (Deliverable 3) for the project.

2. Europe

Open Education Europa

This portal (http://www.openeducationeuropa.eu/en/about_this_portal) was launched by the European Commission in September 2013 as part of the ‘Opening up Education’ initiative to provide a single gateway to European OER.

The main goal of the portal is to offer access to all existing European Open Educational Resources in different languages in order to be able to present them to learners, teachers and researchers.

The portal is structured in three main sections:

1. The FIND section showcases MOOCs, courses, and Open Educational Resources by leading European institutions. Each institution is also featured in this section alongside the MOOCs, courses, and the Open Educational Resources it provides. There are 615 courses which users can filter by subject: Social sciences (173), Science and technology (133), Humanities (106), Applied sciences (98), Business (60), Mathematics and statistics (56), Natural sciences (55), and Arts (19). Users can also filter by level (from Primary to Higher Education), by institution and by language: English (288), Spanish (82), Italian (75), French (59), German (26), Portuguese (24), Polish (16), Dutch (14), Finnish (6), Slovak (5), Croatian (4), Estonian (4), Hungarian (4), Latvian (4), Czech (1), Greek (1), Maltese (1), and Swedish (1). Although the majority of courses are in Higher Education, there are courses for other sectors: Higher Education (545), Vocational Education and Training (185), Adult Learning (139), Secondary (48), and Primary (17). Content is searchable by the same parameters, but not by syllabus, whether national or international.
2. The SHARE section is where portal users discuss solutions for a range of educational issues by posting blogs, sharing events, and engaging in thematic discussions.
3. The IN-DEPTH section hosts eLearning Papers, an exhaustive list of EU-funded projects, and the news about open education as well as recent scholarly articles.

The main goal of the Open Education Europa portal is to grant access to all existing high-quality European OER repositories in different languages in order to make them easily accessible for learners, teachers and researchers. The aim is to foster the wide use and creation of OER in several languages, for all educational sectors and disciplines, and to help overcome the current fragmentation of European OER use.

Free Technology Academy

The **Free Technology Academy** (<http://www.freeknowledge.eu>) is a joint initiative of the Free Knowledge Institute and several European universities to provide masters-level education on Free Software, Open Standards and related subjects. All FTA course books are openly published under ‘copyleft licences’, making them freely available to be modified, and requiring all modified and extended versions to be free as well. Moreover, the FTA partners together with several other institutions have started a Taskforce for the collaborative design of an International Master Programme in Free Software. The Free Knowledge Institute is an international institute with bases in Amsterdam and Barcelona. The institute aims to be a platform to promote new projects on Free Knowledge in different countries and to offer space for cross-initiatives among people and groups that are already working in these areas.

OpenupEd

OpenupEd (<http://www.openuped.eu>), launched in 2013, is a portal for pan-European MOOCs (Massive Open Online Courses), with potential to obtain a formal certificate, i.e. official credits that can count towards a degree. The 11 launch partners (mostly open universities) are based in France, Italy, Lithuania, the Netherlands, Portugal, Slovakia, Spain, and the UK, and outside the EU in Russia, Turkey and Israel.

Ploteus

The Ploteus portal (<http://ec.europa.eu/ploteus/>) provides information and links to opportunities to learn or study in another EU country. Some 2210 courses can be searched by subject, education level and country: Austria (284), Belgium (772), Cyprus (3), Czech Republic (8), Germany (37), Ireland (207), Latvia (251), Portugal (378), Sweden (236), and Iceland (34). Many of the courses, from Basic to Masters level, are of a vocational nature. There are some countries conspicuous by their absence here, including France, Spain, Italy and UK.

The portal, whose name means *navigator* in ancient Greek, provides links to national education and training websites, offering a wide range of free information. Along with a database of job offers, PLOTEUS allows users to access learning opportunities and employment offered by utilities from 30 countries among the Member States of the EU and EFTA and candidate countries.

2.1 Western Europe

This region covers all the EU and EEA countries and Switzerland, together with their dependencies, autonomous entities and the microstates included within these countries – together with Turkey. It is called ‘NWS Europe’ in the POERUP database and map.

The Western Europe-wide **ENIC-NARIC** (ENIC: European Network of Information Centres in the European Region; NARIC: National Academic Recognition Information Centres in the European Union) is a fusion of ENICs and NARICs (<http://www.enic-naric.net>).

ENICs provide information on:

- the recognition of foreign diplomas, degrees and other qualifications
- education systems in both foreign countries and each ENIC’s own country
- opportunities for studying abroad, including information on loans and scholarships, as well as advice on practical questions related to mobility and equivalence.

NARICs aim at improving academic recognition of diplomas and periods of study in the Member States of the European Union (EU) countries, the European Economic Area (EEA) countries and Turkey. The network is part of the Community’s Lifelong Learning Programme (LLP), which stimulates the mobility of students and staff between higher education institutions in these countries.

All member countries have designated national centres, the purpose of which is to assist in promoting the mobility of students, teachers and researchers by providing authoritative advice and information concerning the academic recognition of diplomas and periods of study undertaken in other States. The main users of this service are higher education institutions, students and their advisers, parents, teachers and prospective employers.

United Kingdom

The UK has developed a system for comparing qualifications within its borders, covering the different education systems in England, Scotland, Wales and Northern Ireland: QCF, NQF and EQF (<http://ofqual.gov.uk/qualifications-and-assessments/qualification-frameworks/>).

Qualifications and Credit Framework (QCF)

This is used at present in the UK, but (<https://www.gov.uk/government/speeches/qualifications-place-in-a-high-performing-vocational-system>) is likely to change soon.

Qualifications that use the QCF rules are made up of units. This provides flexible ways to get a qualification. Each unit has a credit value which tells users how many credits are awarded when a unit is completed. The credit value also gives an indication of how long it will normally take students to prepare for a unit or qualification. One credit will usually require 10 hours of learning.

Units build up to qualifications. There are three different types of qualification in the QCF: Award, Certificate and Diploma. Students can achieve an Award with 1 to 12 credits; for a Certificate they will need 13–36 credits and for a Diploma they will need at least 37 credits. Units and qualifications are each given a level according to their difficulty, from entry level to level 8. The title of a qualification will tell students its size and level.

If a qualification includes a unit that students have already been awarded, they can use the unit they have already taken towards that qualification. Units awarded by different awarding organisations can be combined to build up qualifications.

The National Qualifications Framework

Qualifications that do not meet the rules of the Qualifications and Credit Framework (QCF) are developed to fit the National Qualifications Framework (NQF). The NQF provides an indication of the relative demand of different qualifications.

Qualifications in the NQF are grouped together according to their difficulty. They are given a level from entry level to level 8. The levels are based on the standards of knowledge, skill and competence needed for each qualification. Qualifications at the same level can be very different in terms of content and the length of time they take to complete. The levels of the NQF and QCF can be seen at <http://ofqual.gov.uk/help-and-advice/comparing-qualifications/>.

The European Qualifications Framework (EQF)

This compares the level of qualifications across Europe making it easier to understand their value ([http://ec.europa.eu/ploteus/search/site?f\[0\]=im_field_entity_type%3A97](http://ec.europa.eu/ploteus/search/site?f[0]=im_field_entity_type%3A97)). Eight European reference levels are described in terms of learning outcomes: *knowledge*, *skills* and *competences*. This allows any national qualifications systems and qualifications in Europe to relate to the EQF levels. Learners, graduates, providers and employers can use these levels to understand and compare qualifications awarded in different countries and by different education and training systems.

Each country has worked out how to compare its qualification levels to those in the EQF. The organisations responsible for this in the UK are:

- England and Northern Ireland: Ofqual (The Office of Qualifications and Examinations Regulation) and CCEA (Council for the Curriculum Examinations & Assessment)
- Scotland: Scottish Credit & Qualifications Framework Partnership
- Wales: Department of Education & Skills, Welsh Government.

International Primary Curriculum

The IPC (<http://www.greatlearning.com/ipc/>) is the fastest growing independent primary curriculum in the world and is now used by more than 250,000 children in 1,600 member schools in 92 countries.

It began in the 1980s with the introduction of the UK National Curriculum to Shell's English-speaking schools located around the world. It is underpinned by the desire for high levels of engagement, international-mindedness and personal development.

The Learning Goals are the foundation on which the International Primary Curriculum is built; they define what children might be expected to know, what they might be able to do and the understandings they might develop as they move through school. Within the Learning Goals are the subject goals which cover knowledge, skills and 'the understandings' (the deeper awareness of key concepts which develops over time). There are subject Learning Goals for Language Arts, Mathematics, Science, Information Technology, Design Technology, History, Geography, Music, Physical Education, Art and Society.

IPC Accreditation focuses on improving children's learning. It highlights a level of quality in the use of the IPC to improve children's learning in a school. To help schools achieve this, the IPC provides a series of IPC Self-Review rubrics to help deliver the IPC in the best possible way for improving

children's learning. The IPC Self-Review and Accreditation protocol sets out nine different elements, including assessment and evaluation, shared outcomes and an appropriate balance between knowledge, skills and reflection.

The Self-Review protocols help schools to define whether they are at *beginning*, *developing* or *mastering* level in their implementation of the IPC, which leads to IPC Accreditation.

Twinkl (<http://www.twinkl.co.uk/resources/internationalprimarycurriculum-ipc/ipc-early-years>) provides some free resources for pupils aged 3-12 following the IPC curriculum, but offers more through two levels of subscription service. These resources are *not* copyright-free: they must not be reproduced, shared or altered in any form, nor hosted without prior permission.

TES offers 8,742 free Key Stage 2 IPC resources, including lesson plans, worksheets, revision and teaching ideas (<http://www.tes.co.uk/ks2-international-primary-curriculum-themes-primary-teaching-resources/>)

British Council

The British Council (<http://www.britishcouncil.org/exam>) offers internationally recognised examinations: IELTS and Aptis.

IELTS (<http://www.ielts.org/>) – the International English Language Testing System – is an internationally recognised test for non-English speakers. It is accepted as evidence of English language proficiency by over 9,000 organisations worldwide. In 2013, more than 2.2 million tests were taken globally. IELTS is jointly owned by the British Council, IELTS Australia (a subsidiary of IDP) and Cambridge English Language Assessment. It operates through more than 900 test centres and locations in over 130 countries. Government and professional registration bodies who recognise or require applicants to hold an IELTS test report form include: Citizenship and Immigration Canada; Australian Department of Immigration and Citizenship; UK Border Agency; New Zealand Immigration Service; National Council of State Boards of Nursing USA; Australian Health Practitioner Regulation Agency; General Medical Council UK; and International Monetary Fund.

Practice materials are available for purchase from the website.

A search (<http://www.tes.co.uk/TaxonomySearchResults.aspx?area=resources&keywords=IELTS>) on TES reveals only 4 free resources for IELTS. However, **ALISON** (<http://alison.com/publisher/british-council/>) provides free access to many of the English Language courses published by the British Council.

Aptis (<http://www.britishcouncil.org/aptis>) is designed to help organisations and institutions identify standards of English and select the staff or students with the right skills. It is engaged in testing English levels from A1–C on the Common European Framework of Reference for Languages (CEFR). Aptis is an English test for adults (16+), which can assess ability in all four language skills: *speaking*, *listening*, *reading* and *writing*. Aptis for Teachers is a variant of Aptis general. It can be used by Ministries of Education and educational institutions around the world to test the English skills of their teachers, or students in teacher training programmes. Practice tests are freely available on the British Council website (<http://www.britishcouncil.org/aptis/preparation-material>).

Citizen Maths

Citizen Maths (<http://citizenmaths.com>) is an open online Mathematics course developed by Calderdale College, Institute of Education, CogBooks, and the awarding body OCR, with funding from the Ufi Charitable Trust. The course is at NVQ level 2.

The course is short (5-10 learning hours) and went live in September 2014. If successful the intention is to develop another 20-40 learning hours of content in 2015. All content is licensed by Creative Commons and all course videos will be freely available on YouTube. The aim is to give learners the feeling that they are in a one-to-one tutorial. So Citizen Maths is made of very short instructional videos by two 'to-camera' tutors.

Citizen Maths is structured according to the OECD's PISA Assessment and Analytical Framework for Mathematics, Reading, Science, Problem Solving and Financial Literacy (http://www.oecd.org/pisa/pisaproducts/PISA%202012%20framework%20e-book_final.pdf), which provides an internationally recognised framework for mathematical content.

The target audience is self-motivated individuals whose level of mathematical capability is at or above NVQ Level 1, but is not yet at NVQ Level 3, and who want to improve it. (Level 2 is the level that 16 year old school leavers are expected to achieve. In the UK, about 60% do so.)

UK Open University: OpenLearn

OpenLearn (<http://www.open.edu/openlearn/>) offers a wide range of free courses in Health, Sports & Psychology; Education; History & The Arts; Languages; Money & Management; Nature & Environment; Science, Maths & Technology; and People, Politics & Law. However, it is not possible to gain any qualifications through OpenLearn. For that it is necessary to register for an Open University course to become a student, have the support of a tutor, sit examinations and gain qualifications.

Ireland

ALISON

Advance Learning Interactive Systems Online (ALISON, <http://alison.com>) is the world's leading free online learning resource for basic and essential workplace skills with over 5 million learners in 200 countries. It was launched in 2007 in Galway, Ireland. It provides free certified education and workplace training skills through over 600 online courses, some from the British Council and Microsoft. It is the Further Education equivalent to the much-heralded Khan Academy in the US, which is aimed more at secondary schools. The courses focus on employability skills: vocational, ESOL, Languages, Mathematics and Sciences. Although the courses are free, there is a charge for paper certificates. Furthermore, its resources are not open in the sense of being copyright-free or easy to re-purpose.

Netherlands and Flanders

European Association of History Educators – EUROCLIO

EUROCLIO (<http://euroclio.eu/new/>), the European Association of History Educators, was established in 1992 to build bridges between history education professionals from all parts of the then recently reunited Europe. It started as an umbrella organisation gathering 14 Associations from 14 predominantly Western countries and has now grown to become a network of 44 member Associations and 15 associated members from 52 countries. It supports the development of responsible and innovative history, citizenship and heritage education by promoting critical thinking, multiple perspectives, mutual respect, and the inclusion of controversial issues.

It hosts **Historiana** (<http://euroclio.eu/new/index.php/work/historiana>), an on-line tool that offers students multi-perspective, cross-border and comparative historical sources to supplement their national history textbooks. There is a preponderance of material on the Balkans and Eastern Europe, investigating the origins of recent disputes. History educators and historians from more than 30 countries have actively contributed to the present on-line tool. Recently also, educators from India, Middle East, North Africa and the United States have expressed an interest in contributing to the website. Historiana will continue to grow as more and more contributors upload suitable material.

Klascement – Flanders and now Netherlands

Available in English and Dutch, KlasCement (<http://www.klascement.net/?hl=en>) offers 33,218 educational resources shared by 74,175 members and grouped by education level, subject and resource type. It is funded now by the Flanders government and based in Brussels but it stresses that

“Without the users there is no content! Members share their learning objects and tips for free with other members.” Users rate resources according to a 5 star system.

Recently Klascement has extended its services to teachers in Netherlands (<http://www.klascement.nl>). To support this activity, Kennisnet supplied the subject list and list of educational levels used in the Netherlands and then advised on the integration of these with the lists for Flanders. Kennisnet now lists Klascement (<http://www.kennisnet.nl/sectoren/mbo/educatie/lesmateriaal/lesmateriaal/>) on its set of educational resource collections.

European Schoolnet

The **Learning Resource Exchange** (LRE: <http://lreforschools.eun.org>) is an infrastructure managed by European Schoolnet. The LRE federates systems that provide learning resources, e.g. learning resource repositories, authoring tools. It offers almost 130,000 learning resources/assets from over 25 providers. Resources can be searched by keyword, language, subject or provider. Tags can also be used. However tags do not exist for International Baccalaureate or IGCSE. It is, however, possible to limit your search to the ‘travel well’ collection: just select the **Search only travel well** resource box.

LRE also pinpoints some useful criteria for resources that ‘travel well’ across national and cultural borders, with examples for each criterion.

European Schoolnet has found that some resources in the LRE ‘travel well’ and have the potential to be used in different countries and educational contexts. European Schoolnet is continuing work to define ‘travel well’ quality criteria so that Ministries of Education and other LRE content partners can more easily identify those resources that can be shared and reused by teachers and learners across Europe.

Criteria and examples of resources that ‘Travel Well’ include the following.

1. Trans-national topics – must be present

The resource addresses curriculum topics that could be considered trans-national. For example, teaching multiplication and division is usually covered in every national curriculum, but teaching the folklore of a very specific region is not. It can also be a resource well suited for use in multi-disciplinary or cross-curricular contexts.

Example: [Pony Division](#): This resource from Academic Skill Builders is a division game for primary school students.

2. Knowledge of a specific language is not needed (language independence) – must be present

The resource can be used without having to translate accompanying text and/or the resource is available in at least 3 European languages. For example, this might be a video where the narrative can be turned off, or it employs icons, images, animations, maps, etc. making its contents understandable for everyone.

Example: [Tangram Puzzles](#): This resource from NLVM is available in three European languages (English, Spanish, French) as well as Chinese.

3. Stored as a file type that is usable with generally available software

The resource can be used in any environment (online and off-line) and runs on multiple platforms (also hand-held, IWB).

Example: [Ape Clarification](#): This resource from the Khan Academy plays in any environment.

4. Methodological support for teachers is not needed

Subject teachers can easily recognise how this resource meets their curriculum requirements or how this resource could be used in a teaching scenario without further instructions. This criterion should not be used to evaluate the usability (technical qualities) of a resource.

Example: [Tepla Fronta](#): This resource from Animovana Fyzika clearly relates to a curriculum with topics on atmospheric phenomenon.

5. Intuitive and easy to use

The resource is intuitive to use in the sense that it has a user-friendly interface and is easy to navigate for both teachers and students without having to read or translate complex operating instructions.

Example: [ChemSoc Timeline](#): This resource from the Royal Society of Chemistry presents a timeline users can browse with simple point and click commands.

6. Interactivity with no possibility of feedback

This kind of resource invites or requires a significant degree of user input or engagement, other than just reading something on a page and responding to it in an online or offline environment. Forms of feedback can be simple or complex. Simple forms can be feedback on correct or incorrect answers in a drill/practice scenario. Complex forms can be lab activities that produce different results depending on user actions or hints to help learners complete tasks successfully. An example would be a geometric 3D shape that can be moved and turned. Examples of non-interactive resources include a worksheet lecturers print out to hand out to students or a Power Point presentation used in a lecture but the presentation does not respond to student input.

Example: [How Many Ducks](#): This resource from A+ Math is a simple interactive form providing feedback on correct or incorrect answers in a drill/practice scenario.

7. Clear license status

The user can easily find information about the license/rights (sometimes called Terms of Use or Copyright) for this resource. These statements explain if users or educators are allowed to make copies, or remix or redistribute a resource, or use images from the site in a blog without contacting the photographer, or if they can put this resource in a Moodle, etc. This license/rights information should be understandable for a typical user.

Example: [Diffusion](#): This resource from the University of Alberta provides a Terms of Use/Copyright statement specifying how the resource can be used by educators and what may be considered a copyright infringement.

The OER Teachers' Network project (<http://oertn.eun.org>) looked at how teachers identified resources that could 'travel well' and be used in different countries. A focus group of teachers from Australia, Africa, Europe and the USA identified and rated over 250 of these. Although the OER Teachers' Network project has now finished, European Schoolnet is taking forward the work on the 'travel well' resources and features in a new project called eQualityNet (eQNet).

eQNet (<http://eqnet.eun.org>) is further developing quality criteria for educational resources in the LRE and national repositories.

Universities

The **Open University of the Netherlands** offers distance learning to Netherlands, Flanders and outside Europe to Curaçao (Caribbean) and Suriname (South America). It is very active in OER and MOOCs.

German-speaking nations

Iversity (<https://iversity.org>) offers many free academic online courses on a range of subjects including medicine, computer science, economics, physics, law, design and philosophy. It is the only MOOC platform so far to have courses that offer credits through the European Credit Transfer System (ECTS: http://ec.europa.eu/education/tools/ects_en.htm) – a tool that helps to design, describe, and deliver study programmes and award higher education qualifications. The use of ECTS, in conjunction with outcomes-based qualifications frameworks, makes study programmes and qualifications more transparent and facilitates the recognition of qualifications across national borders.

The **FernUniversität** (<http://www.fernuni-hagen.de/english/>) offers distance learning to Germany, Austria, Switzerland, Hungary, Latvia and Russia. It is active in OER.

France

The French use the term *FOAD* (Formation Ouverte À Distance) for Open Online Distance Learning.

Centre International d'Etudes Pédagogiques

CIEP (Centre International d'Etudes Pédagogiques, <http://www.ciep.fr>) offers a series of internationally-recognised Language tests and qualifications corresponding to the 6 levels of the *Common European Framework of Reference for Languages*. It relies on a network of national and international experts and partners, as well as on its staff of 250. Founded in 1945 and a national public institution since 1987, CIEP is recognised both in France and abroad for its evaluation, training, assessment, and management of international projects. CIEP operates under the auspices of the Ministry of Education, Higher Education and Research. It is also the main operating partner of the Ministry of Foreign Affairs and International Development. CIEP administers DILF (Diplôme initial de langue française), DELF (Diplôme d'études en langue française), and DALF (Diplôme approfondi de langue française), a set of official French proficiency tests, the French equivalent of the English proficiency test TOEFL. They can be used as an alternative to a French university's language entrance exam.

Agence Universitaire de la Francophonie

The Agence Universitaire de la Francophonie (AUF, <http://www.auf.org>) has 800 member institutions distributed in 100 countries, of which 63 are members of the International Organisation of la Francophonie. As such, it is one of the largest associations of higher education and research institutions in the world.

It contributes to the international influence of the French-speaking scientific community by promoting its international expression on topics related to higher education and the development of societies, including professional training and employability, university ranking and the role of digital education.

Besides headquarters in Montreal and Paris, it also has regional offices in every continent. Along with scholarships and grants, it offers open and distance learning through a set of Open Distance Learning bachelors, masters and doctorate courses. It offers study grants to the best candidates to selected universities, covering a large part of the teaching and registration fees for diplomas. Its Francophone digital campus is free to selected candidates. These courses are taught remotely through digital technologies. However, the exams are in a conventionally monitored room. The degrees offered remotely have the same academic value as conventional qualifications.

Distance learning

Formasup (<http://www.formasup.education.fr>) lists the open and distance learning programmes offered by institutions of higher education (French Digital Program Campus), the National Centre for Distance Learning (CNED), the Conservatoire National des Arts et Métiers (CNAM) and the Interuniversity Federation for Distance Learning (FIED).

FIED (<http://www.fied.fr>), the Federation of Inter-University Distance Learning, is a network of 37 French universities that have developed distance education variously called *Tele-Education Centre Universitaire* (WTC), *Service-Learning* or *Department of Distance Education*. In some cases, UFR (Units for Training and Research) and Departments organise distance education in their area.

These services offer a complete distance education provision:

- Courses developed by university teachers and broadcast in various media (correspondence courses, handouts, CD-ROMs, Internet, audio/video cassettes, etc)
- Educational support through various media throughout the training process.

The network provides 330 courses and 425 stand-alone modules.

CNAM, the National Conservatory of Arts and Crafts, an institute of higher education (<http://www.cnam.fr>), delivers predominantly technical and professional teaching qualifications to engineer level. CNAM has signed 140 cooperation agreements, training and research in 50 countries. Its partners are universities, training organisations, public or private companies. CNAM offers *Validation of Acquired Experience* (VAE) – Accreditation of Prior Experiential Learning – to obtain all or part of an engineering degree, a PhD, a degree, a masters, a professional title Level III to Level 1 or a degree of establishment etc. VAE allows students to obtain professional certificates by producing evidence based on prior experience, evaluated by a jury. The skills certificates issued by CNAM are recognised by companies in technical, scientific and commercial sectors.

CNED (<http://www.cned.fr>), the National Centre for Distance Education, is part of the Ministry of Education providing distance training from elementary school to higher education level, as well continuing professional development. CNED cannot award degrees, however, since these are exclusively allocated by the partner universities.

Other initiatives

CampusFrance (<http://www.campusfrance.org>) was created by the French Ministry of National Education, Research and Technology and Foreign Affairs in November 1998. The Agency is available to international students who wish to study in France and has three objectives: to promote the potential of training and scientific expertise in France; to offer international students a comprehensive service during their stay in France; and to coordinate the availability of French education in engineering.

Mission Laïque Française (MLF, <http://www.mlfmonde.org>) is a non-profit organisation that establishes and runs French schools abroad in coordination with the Ministry of Education. Its aim is the dissemination of French language and culture through the medium of education. The schools it runs are divided into two major networks: traditional institutions and business schools, set up to meet the needs of French and foreign companies who wish to educate their children abroad.

Iberia (Spain and Portugal)

Spain

Spain is well-served by two open university online providers – **UNED** in Madrid (<http://www.uned.es>) and **UOC** in Barcelona (<http://www.uoc.edu>) – and a range of other innovative HE online education providers both public and private, active despite the recession. The easy links to Hispanic America are part of their business models.

Portugal

Portugal has its own open university, **Universidade Aberta** (<http://www.uab.pt>), which was a traditional print-based provider: it went through an innovative phase recently but then seemed to be focussing more on research – now it is refocusing on teaching.

For comprehensive reports on OER and MOOCs, with maps and tables, in Spain and Portugal see <http://poerup.referata.com/wiki/Spain> and <http://poerup.referata.com/wiki/Portugal> respectively.

Andorra

Andorra has a university including a centre for distance studies – <http://virtualcampuses.eu/index.php/Andorra>. Many high schools in Andorra look to France or to Spain for their approach and qualifications.

OportUnidad

OportUnidad was a bottom-up approach in Latin America and Europe to develop a common Higher Education approach to Open Educational Practices (<http://www.oportunidadproject.eu>).

Latin America partners were: Universidade Federal Fluminense, Brazil; Universidad Estatal a Distancia, Costa Rica; Universidad Técnica Particular de Loja, Ecuador; Fundación Uvirtual, Bolivia; Universidad Virtual del Tecnológico de Monterrey, Mexico; Universidad de la Empresa, Uruguay; Universidad Inca Garcilaso de la Vega, Peru; and Universidad EAFIT, Colombia.

EU partners were: Università degli Studi *Guglielmo Marconi*, Italy; Universitat Oberta de Catalunya (UOC), Spain; Universidade de Lisboa, Portugal; and University of Oxford, United Kingdom.

OportUnidad explored the adoption of strategies and channels that embrace the principles of openness and reuse in the context of educational institutions.

The project aimed to promote the adoption and implementation of open educational practices (OEP) and open educational resources (OER) in Latin America as a bottom-up approach to develop a Common and Public Higher Education space. The initiative also aimed to open the possibility of providing free educational resources for self-taught learners in terms of informal learning and lifelong learning.

Scandinavia (Norway, Sweden and Denmark)

None of the three countries has a central provider of university-level distance education, but in Sweden and a lesser extent in Norway several higher education institutions are active in this area, including university colleges and private institutions. (There are also a few virtual schools for K-12.)

Additionally, none of the three countries are particularly active in OER and there is also minimal activity in MOOCs despite the 2013 MOOCs report in Norway (https://www.regjeringen.no/globalassets/upload/kd/time_for_moocs.pdf).

The recent NMC Horizon report for Scandinavia does not mention MOOCs at all, but does mention a small number of OER projects targeted at schools, including:

NDLA.no (National Learning Digital Arena), Norway's publicly funded portal, offers free digital learning resources for 40 upper secondary education subjects using an open licensing model: go.nmc.org/ndlano.

A project of the Danish Ministry of Education, EMU.dk is Denmark's public portal for open content with an educational focus, offering resources, training manuals, and news: go.nmc.org/emu.

Spindeln is a search service for open educational resources for students and teachers in Sweden. Lärarspindeln ('teacher spider') is a new service that allows teachers to share their own Creative Commons-licensed digital learning resources: go.nmc.org/spider.

The first is the best known outside Scandinavia. The POERUP reports give more details.

Surprisingly also, since Scandinavian countries are used to working together on many matters, they do not seem to do so at an official level in the areas of ICT, MOOCs or OER. However, we know that under the surface there is a considerable amount of informal collaboration, some via regional projects such as Nordic OER (<http://nordicoer.org>) and also through EU-funded projects (though Sweden is not very active in these). Note also that there are 250,000 Swedish speakers in Finland (Swedish is an official language of Finland) and a Swedish-speaking university (Åbo Akademi, <http://www.abo.fi>).

One key point is that there is considerable mutual intelligibility between Norwegian, Danish and Swedish. Wikipedia reports and discussions with Swedish/Norwegian academics confirm that:

*Generally, speakers of the three largest Scandinavian languages (Danish, Norwegian and Swedish) can **read** [our stress] each other's languages without great difficulty. This holds especially true of Danish and Norwegian. The primary obstacles to mutual*

comprehension are differences in pronunciation. Danish speakers generally do not understand Norwegian as well as the extremely similar written norms would lead one to expect. Many Norwegians – especially in northern and western Norway – also have problems understanding Danish, but according to a recent scientific investigation Norwegians are better at understanding both Danish and Swedish than Danes and Swedes are at understanding

Norwegian. (http://en.wikipedia.org/wiki/Comparison_of_Norwegian_Bokm%C3%A5l_and_Standard_Danish and <http://www.listlanguage.com/swedish-written-language.html>)

Within Sweden having nearly double the population of Denmark and Norway, it is also the largest publisher of academic textbooks, though reportedly rather slow to take up e-books (<http://www.universityworldnews.com/article.php?story=20101210215659293>).

Finland and the Baltic States

Finland (population 5.4 million) has a long tradition of distance learning and considerable activity in OER including EDU.fi and Le Mill (<http://poerup.referata.com/wiki/Finland>), although the future of Le Mill is not clear at the date of finalising this report – the site stated that “You can browse LeMill, but not log in or edit content. Announcement about the future of LeMill will be made in this space during week 8-12.12. 2014” (<http://lemill.net>).

The Baltic States are Estonia, Latvia and Lithuania (with populations of 1.3, 1.9 and 2.9 million respectively). All have a tradition of distance education, both at university and school level; all are active in ICT in education. The HITSA Foundation in Estonia is particularly active in the area of ICT and OER (<http://www.hitsa.ee>) and Tallinn University is a member of EADTU. Lithuania has an active Association of Distance and E. Learning (LieDM, <http://liedm.net/en/about>). Riga Technical University in Latvia has a Distance Education Study Centre and there are several distance high schools also.

None of the Baltic States was highly active in OER but there do not seem any up to date detailed reports (the last such report on Lithuania, by UNESCO, was done in 2011 – see <http://iite.unesco.org/pics/publications/en/files/3214687.pdf>). The LangOER project has a useful annex on OER in these countries (http://langoer.eun.org/c/document_library/get_file?uuid=db61536a-3132-4ad3-a481-ad337a30bcb1&groupId=395028).

Finland and Estonia

A key issue in Finland-Estonia collaboration is languages. Finnish and Estonian are Finnic languages, within the wider Uralic (Finno-Ugrian) group which also includes Hungarian and some less-used languages such as Sami and others spoken in parts of Russia. There seems to be anecdotal information but a lack of scientific research into mutual intelligibility of languages, though some research (<http://www.tlu.ee/UserFiles/Eesti%20Keele%20ja%20Kultuuri%20Instituut/ETF8240/Kaivapalu/Noordand%202013.pdf>) concluded that:

The Finns understand the Estonian written text better than Estonians understand the Finnish text. Finns are more likely to see complete similarity, Estonians partial similarity.

The similarity of vocabulary and the structural proximity of the two languages as well as the general knowledge – such as familiarity of historical events – appears to help the learner in the comprehension process.

For more research into this matter see <http://neon.niederlandistik.fu-berlin.de/ss19/paper/1143>. Note that the emphasised phrase makes it particularly unwise to judge such matters from the anecdotal evidence of students, expatriates or immigrants learning one of the languages as a foreign language.

Finland-Estonian cooperation might usefully take place round schools repositories such as Koolielu (<http://koolielu.ee/waramu>). It will also be useful to investigate machine translation. Google Translate (<https://translate.google.com>) will translate Finnish to Estonian and vice versa. (Many other

translation tools will not do this, instead going via English or French, which will give much poorer results.) One might hope that translation between such similar languages would be of high quality.

Lithuania and Latvia

There is an existing cross-border collaboration, **eBig3**, on e-learning, t-learning (TV) and m-learning (http://www.ebig3.eu/v2/page.php?page_id=18). In such collaborations language issues are crucial.

Lithuanian is closely related to Latvian; however, they are *not* mutually intelligible. *Britannica* observes that: “The differences between Lithuanian and Latvian can be summarised in very broad terms by saying that Lithuanian is far more archaic than Latvian and that modern written Lithuanian could in many instances serve as a *protolanguage* for it”

(<http://www.britannica.com/EBchecked/topic/50949/Baltic-languages/74884/Comparison-of-Lithuanian-and-Latvian>). There is also the issue of Latgalian, spoken in the eastern part of Latvia. Wikipedia notes that “It is debated whether it is a separate language or a dialect of Latvian.” However, its “standardized form is recognized and protected as a variety of Latvian language by Latvian law.” (http://en.wikipedia.org/wiki/Latgalian_language).

Wikipedia notes (http://en.wikipedia.org/wiki/Latvian_language) that “differentiation between Lithuanian and Latvian started after 800, with a long period of being one language but different dialects. At a minimum, transitional dialects existed until the 14th century or 15th century, and perhaps as late as the 17th century.” In UK terms, this would make the issue of language comprehension by a Modern English speaker lie somewhere along the axis of difficulty from Anglo-Saxon (impossible except for scholars) to Middle English (the language of Chaucer, taught until recently in England’s schools, but dying out fast) to Shakespeare’s English (taught to all England school students and known to the educated public).

However it seems from the information earlier that even for Latvians reading Lithuanian there will not be intelligibility. In such situations machine translation will be essential. It may well give good results, depending on the algorithms used. Google Translate will translate Lithuanian to Latvian and vice versa. One again might hope that translations between similar languages were of higher quality.

Greek-speaking lands

Greece

There is a Hellenic Open University (<http://www.eap.gr>) but there is little other distance learning. There is an active set of private HE providers but the government is reluctant to accept their qualifications. For a report on OER in Greece see <http://poerup.referata.com/wiki/Greece>.

Cyprus

Cyprus has an Open University (<http://www.ouc.ac.cy/web/guest/home>). There is nothing known by us about whether there is coordination of school-leaving exams in Cyprus with those in Greece.

Switzerland

Switzerland is an interesting microcosm with four official languages (German, French, Italian and Romansh). Thus its educational system has to look in many directions.

Distance education appears to be blossoming. Among the distance learning providers are the **Open University of Switzerland** (the Academy of Business Management, <http://www.abmswiss.com/ABMS/About-ABMS>) and **UniDistance** (<http://unidistance.ch>), formerly CRED, Centre Romand d’Enseignement à Distances, teaching in French and German and until recently collaborating with the German Open University (FernUniversität) which also directly offers services and has study centres in Switzerland.

OER are not well developed in Switzerland but several leading universities have MOOCs (<https://www.eduhub.ch/wp-content/uploads/2013/06/MOOCsinSwitzerlandOpenDocument.pdf>) including University of Zurich, EFP Lausanne, University of Geneva and ETH Zurich.

Turkey

Anadolu University, the open university and main distance learning provider, is active in European projects and in MOOCs (<https://www.anadolu.edu.tr/en>). There is a 2011 report on OER in Turkey (https://www.academia.edu/2648345/Open_Educational_Resources_Opportunities_And_Challenges_For_Turkish_Higher_Educational_Institutions).

2.2 Eastern Europe

This includes all other countries in Europe, in a wide sense, beyond the EU/EEA/Switzerland and Turkey.

The European Higher Education Area (<http://www.ehea.info>), the georegion where the Bologna Process holds sway, extends well beyond the EU and EEA and indeed somewhat beyond the geographic boundaries of Europe. The current list of members (<http://www.ehea.info/members.aspx>) includes Turkey, the Caucasus countries and many of the countries of the former Soviet Union including Russia, Ukraine, Moldova and Kazakhstan.

Russia

Perhaps the best-known and best-connected (politically) university in Russia with online learning capability is **MESI** – the Moscow State University for Economics, Statistics and Informatics, a member of EADTU. Their Online external studies are summarised at <http://III-portal.eadtu.eu/exploring-strategies-and-business-models/examples-of-implementation/25-guide-of-III/exploring-strategies-and-business-models/examples-of-implementation/64-moscow-state-university-for-economics-statistics-and-informatics-mesi-online-external-studies> – and note that they offer MOOCs (<http://lms.mesi.ru>).

There is a useful UNESCO report in OER in Russia, *Educational Portals and Open Educational Resources in the Russian Federation* (<http://iite.unesco.org/publications/3214704/>).

Caucasus states

These countries are Armenia, Azerbaijan and Georgia. Perhaps not surprisingly, the countries have less developed online learning provision than some might expect. Many will know that the Caucasus georegion contains ‘frozen conflict’ autonomous regions. For a hopefully balanced view of e-learning within these autonomous regions, follow the links from www.virtualschoolsandcolleges.eu/index.php/Category:Commonwealth_of_Unrecognized_States to the specific territories of interest and the e-learning activities known there (as of 2009).

3. Africa

OERAfrica (<http://www.oerafrica.org>), based in Nairobi, Kenya, plays a leading role in supporting higher education institutions across Africa in the development and use of OER to enhance teaching and learning.

WES (World Education Services, <http://www.wes.org/ewenr/ResourcesAfrica.htm>) provides a useful list of educational resources across the continent as well as in each individual country. WES also provides more than 100,000 evaluations of international credentials each year which are accepted by thousands of academic institutions, employers, licensing and certification boards and government agencies in the U.S. and Canada.

3.1 North Africa

North Africa comprises, moving west to east, Western Sahara, Morocco, Algeria, Tunisia, Libya, Egypt, and Sudan (but not South Sudan).

Recent developments across the breadth of Mediterranean North Africa have not been kind to e-learning developments. France is still active in educational circles in some countries, and also the British Council (<http://www.britishcouncil.org/blog/can-digital-learning-improve-education-maghreb>).

Inland, Sudan is very poor and the secession of South Sudan and the subsequent civil war there leaves several unresolved issues. The Arab Open University was considering opening a branch in Sudan for some years – eventually it opened one (https://www.arabou.edu.kw/index.php?option=com_content&view=article&id=2477&Itemid=998&lang=en). There is also a **Sudan Open University** (<http://www.ous.edu.sd/en/>).

3.2 Southern Africa

South Africa

SAIDE (South African Institute for Distance Education, <http://www.saide.org.za>) contributes to the development of new models of open and distance education practice and the appropriate use of technology in education. It helped to set up **OER Africa** and **African Storybook** (<http://www.africanstorybook.org>) to provide African children with enough stories in a language familiar to them to practise reading.

Siyavula (<http://www.siyavula.com>), based in Cape Town, produces openly licensed Mathematics and Science textbook materials in English and Afrikaans. They are available in hard copy, PDF, web books and EPUB, for use by secondary school students (Grades 4-12, age 10-18).

The project **Research on Open Educational Resources for Development** (<http://roer4d.org>), hosted by the University of Cape Town, coordinates research from a number of countries in South America, Sub-Saharan Africa and Southeast Asia.

There is a thorough report on OER in South Africa done for POERUP by a South African expert (http://poerup.referata.com/wiki/File:OER_South_Africa_Report-Dec2012-pdf.pdf).

Other countries in Southern Africa

The combined population of Botswana, Lesotho, Namibia and Swaziland is around 7.5 million, as opposed to over 51 million in South Africa. Hence South Africa is the dominant player in this subregion. Each of the countries has activity in distance education but there is a need for higher education in subjects that cannot be sourced locally. The ability to pay is more of an issue.

3.3 Mid Africa

Commonwealth West, Central and East Africa

This comprises the countries of Cameroon, The Gambia, Ghana, Kenya, Malawi, Mauritius, Mozambique, Namibia, Nigeria, Rwanda, Seychelles, Sierra Leone, Tanzania, Uganda, Zambia, and Zimbabwe.

There was an **East Africa Examinations Council**, but exams are at present nationally-focussed. During the colonial period and the immediate post colonial period, the East African countries were integrated in the provision and training services through a harmonised curriculum and through established regional organisations and institutions. The East African National Examination Council (http://www.eac.int/education/index.php?option=com_content&id=73&Itemid=145) ensured standardisation and quality assurance of education in East Africa. The University of East Africa served the region in higher education needs. The various colleges of the university were located in the then three Partner States each specialising in a specific discipline. This cooperation occasioned many interactions amongst the people of East Africa, but with the break-up of the old East African Community in 1977, this interaction was ceased. Interestingly the East African Community was re-launched in 1996, comprising Uganda, Kenya, Tanzania, Rwanda and Burundi (<http://www.eac.int>) there are ongoing studies into integrating educational provision at school and higher education level (www.eac.int/education/index.php?option=com_docman&task=cat_view&gid=30&Itemid=144).

The West African Examinations Council (<http://www.ghanawaec.org>), with its headquarters in Accra, Ghana, was established in 1952 by the Governments of Ghana, Nigeria, Sierra Leone and The Gambia. Liberia became the fifth member of the Council in 1974. Its accreditation includes Basic Education Certificate Examination (BECE) for pupils in the third year of Junior High Schools; The West African Senior School Certificate Examination (WASSCE) for pupils in the third year of their West African Senior School courses; The General Business Certificate Examination (GBCE) – equivalent to GCSE; and Advanced Business Certificate Examination (ABCE) – equivalent to A levels. Its vision is to be a world-class examining body, adding value to the educational goals of its stakeholders. Its mission is to remain Africa's foremost examining body, providing qualitative and reliable educational assessment, encouraging academic and moral excellence and promoting sustainable human resource development and international cooperation.

The African Virtual University (<http://oer.avu.org>), based in Nairobi, Kenya, aims to significantly increase access to quality higher education and training through the innovative use of Information and Communication Technologies. It is a partnership of Amoud University, Somalia; East Africa University, Somalia; Jimma University, Ethiopia; Université Cheikh Anta Diop, Senegal; University of Hargeisa, Somalia; University of Nairobi, Kenya; Universidade Pedagógica, Mozambique; Université Antananarivo, Madagascar; Kyambogo University, Uganda; Open University of Tanzania, University of Zambia and University of Zimbabwe. Founded in 1997, AVU has graduated 43,000 students across Africa and established the largest network of Open Distance and eLearning institutions in over 30 countries in Sub-Saharan Africa. AVU works across borders and languages in Anglophone, Francophone and Lusophone Africa. It offers 73 modules in each of the 3 languages (English, French and Portuguese): 46 in Mathematics and Sciences; 4 in ICT Basic Skills; 19 in Teacher Education professional courses; and 4 in integration of ICTs in Education.

AgShare (<http://www.oerafrica.org/agshare>) aims to create a scalable and sustainable collaboration of existing organisations for African publishing, localising, and sharing of teaching and learning materials that fill critical resource gaps in African MSc agriculture curriculum and that can be modified for other uses. Partner institutions include Haramaya University, Ethiopia; Makerere University, Uganda; Moi University, located in Eldoret, Kenya; and United States International University, situated in Nairobi, Kenya.

TESSA (Teacher Education in Sub-Saharan Africa: <http://www.tessafrica.net>) is a multilingual Open Educational Resource bank, modular and flexible in format, that is freely available to all teachers in the region.

KNUST Open Educational Resources (<http://web.knust.edu.gh/oer/pages/index.php>) is hosted by Kwame Nkrumah University of Science and Technology in Ghana, to promote open learning, enabling faculty, students and the global academic community to access open licensed educational resources. It offers many courses from its College of Health Sciences.

Supporting free content is available from a wide variety of international sources.

Nigeria

The Ibadan-Swansea Partnership (<http://isp.swanhi.org>), based at the College of Medicine, University of Ibadan, Nigeria, is a partnership in eLearning between Swansea Medical School, Swansea, UK and the College of Medicine, University of Ibadan, Nigeria. It provides modules in priority topics for international health. The modules are designed for self-study by health students and professionals working anywhere in the world. The modules are freely available and the content is copyright-free, using a simple, widely-available format: PowerPoint. This allows the module content to be changed easily to suit the needs of students and staff in specific settings.

Nigeria also has a National Open University (<http://www.nou.edu.ng>) with much activity in OER (<http://www.nou.edu.ng/oer/events.html>).

Non-Commonwealth West, Central and East Africa

Francophone countries

The **West African e-twinning project** (http://www.elearning-africa.com/eLA_Newsportal/west-african-e-twinning-project-makes-gains/) is an ongoing e-twinning pilot study involving hundreds of 9–13 year olds at ten schools in Burkina Faso, France, Senegal and Togo. Coordinated by the Paris-based Association for the Promotion of Free Educational Resources (Apréli@), the study evaluates the experiences of learners and teachers when digital teaching resources are produced through virtual collaboration. During the study, the participating teachers upload course materials onto a Wiki – <http://wiki.aprelia.org/tiki-index.php>. Different teachers focus on different aspects of the curriculum, and comprehensive lesson plans are developed. Creating a stock of free digital resources enables students and teachers to access a shared pool of knowledge, but it also allows partner schools deeper involvement with each others' teaching and cultural practices. The resources are available in both French and English.

The Apréli@ e-twinning scheme is an African initiative that implements ways of using ICT adapted to African educational needs. The intention is to develop innovative teaching practices focused on promoting active learning pedagogies centred on the learner.

4. Americas

4.1 North America

United States

Since the **Common Core State Standards** are the subject of a separate case study, the entries for the US are limited to a selected few that are directly relevant to the topic of this study.

The **Khan Academy** is in the process of mapping all their relevant resources to the Common Core standards (<https://www.khanacademy.org/about/our-content-specialists>).

TOEFL (<http://www.ets.org/toefl>) Test of English as a Foreign Language test is an English-language test recognised by more than 9,000 colleges, universities and agencies in more than 130 countries, including Australia, Canada, the U.K. and the United States. The *TOEFL iBT* (internet Based Test) is administered via the Internet and measures ability to use and understand English at university level. It evaluates how well students combine listening, reading, speaking and writing skills to perform academic tasks. It is administered by ETS (Educational Testing Services), which was founded in 1947 and based in Princeton, New Jersey. ETS develops, administers and scores more than 50 million assessment tests annually in more than 180 countries, at more than 9,000 locations worldwide. It employs more than 2,500 people worldwide. TOEFL sell their own educational resources (<http://www.ets.org/toefl/ibt/prepare/>) but also offer some free resources, including sample questions from all four sections of the test and a planner that helps students set weekly practice goals for themselves. **TestWise** (<http://www.testwise.com/review.html>) offers free TOEFL practice tests.

The **Saylor Foundation** (<http://www.saylor.org>) is a non-profit organisation that produces new open-source educational content and curates existing open resources to support college-level courses. Its course outlines are licensed under a CC-BY license, making those outlines open-source curricula. The Saylor Academy offers 317 university, K-12 and Professional Development courses, using open educational resources (OER) to supply the course with lectures, texts, and other resources. This makes Saylor one of the largest collections of free courses on the web. If suitable texts and documents are not found, the foundation compiles new materials under a Creative Commons licence. Each course is also accompanied by an assessment that learners can use both to test their knowledge and to officially demonstrate the knowledge they have gained. The Academy plans to use Mozilla Open badges (<http://openbadges.org>) as a form of alternative accreditation.

Connexions (<http://cnx.org>) is a repository of educational content hosted by Rice University in Houston, Texas. The content in what is now called OpenStax CNX comes in two formats: modules, which are like small ‘knowledge chunks’, and collections, which are groups of modules structured into books or course notes, or for other uses. The open licence allows for free use and reuse of all content.

The **Open Content Curriculum Project** (http://wiki.bssd.org/index.php/Main_Page) was initiated with MediaWiki software in 2005, and offers a standards-based K-12 curriculum that is collaboratively edited, contains teacher- and student-created resources, assessment rubrics, lesson plans, and instructional resources. All 15,291 pages of content, and 8,558 file uploads are Creative Commons licensed, and the system is used daily by the Bering Strait School District, an Alaska school district. The project welcomes use and active contributions by outside teachers, students and other interested parties. There are currently 3,817 registered users in the database.

The American Chemical Society (<http://www.acs.org/content/acs/en/education.html>) offers resources and courses for students at primary, secondary, under-graduate and post-graduate level. It provides guidelines for Bachelor’s Degree programmes to be approved at www.acs.org/content/acs/en/about/governance/committees/training/acsapproved/degreeprogram.html. ACS authorises the chair of the ACS-approved programme to certify graduating students who complete a bachelor’s degree meeting the ACS guidelines. Graduates who attain a certified degree must often complete requirements that exceed those of the degree-granting institution. A certified

degree signifies that a student has completed an integrated, rigorous programme which includes introductory and foundational course work in Chemistry and in-depth course work in Chemistry or chemistry-related fields. The certified degree also emphasises laboratory experience and the development of professional skills needed to be an effective chemist. Certification helps in the transition from undergraduate studies to professional studies or employment.

Curriki (<http://www.curriki.org>) is structured as a non-profit organisation to provide open educational resources primarily in support of K-12 (primary and secondary) education. Some of its resources are aligned to the USA's Common Core Standards. In fact Curriki's Standards feature claims to be "the first-of-its kind K-12 open source correlation engine." Resources on Curriki can be aligned to state standards for the four core subjects and technology for all fifty of the United States plus Washington, D.C. A teacher can **Browse Resources by Standard** to access resources that have been aligned to a state's standards in a specific subject and grade. But there is no obvious way to search Curriki resources according to other curricula. It provides one link to an International Baccalaureate resource, IB Chemistry Online (<http://www.ibchemistryonline.com>) but this is neither free nor Open Source.

MIT OpenCourseWare (<http://ocw.mit.edu/index.htm>) makes the materials used in the teaching of almost all of the Massachusetts Institute of Technology's subjects available on the Web, free of charge. It provides materials from more than 2,200 courses. It includes a section for High School teachers (<http://ocw.mit.edu/high-school/>) but the resources are not explicitly aligned to other curricula.

There is a comprehensive collection of US OER and MOOC projects on the US page on the POERUP wiki (http://poerup.referata.com/wiki/United_States), also plotted on the POERUP OER Map (<http://www.poerup.org.uk/mapCountry/?code=us>).

Canada

Internationally-focussed projects

Commonwealth of Learning (COL, <http://www.col.org>) is dedicated to sharing the knowledge of member states of the Commonwealth of Nations through distance education. It encourages the development and sharing of open learning/distance education knowledge, resources and technologies. COL is helping developing nations improve access to quality education and training. Bringing together around 1.7 billion people of many faiths, races, languages, traditions and levels of economic development, the Commonwealth represents almost one-third of the world's population.

Hosted by the Government of Canada and headquartered in Vancouver, Canada, the Commonwealth of Learning (COL) is the world's only intergovernmental organisation solely concerned with the promotion and development of distance education and open learning.

COL has been involved in the creation of course materials with many partners. More recent and popular materials are listed below. Most are freely available as Open Educational Resources for download and adaption, but some carry restrictive licenses.

Courses and materials cover a very broad range of subject areas and levels and are of particular interest since they include a large number of VET-based topics, in particular:

- (A-E) Basic Trades for Small Island Nations: Working with Concrete, Timber, or Small Engine User Maintenance; CEMBA/CEMPA; Child Health; Commonwealth Computer Navigator's Certificate (CCNC); Communicable Diseases; Counselling for Caregivers; Drug Management and Rational Use; Environmental Engineering Modules;
- (I-S) Integrated HIV/AIDS Prevention, Treatment and Care; Learning about Small Business; Learning for MDGs: Online Modules; Legislative Drafting; Linux for IT Managers; Malaria Prevention, Control and Management; Management of Drug Supplies; Small Scale Business Management (SSBM);

- (T) Tourism: Introduction to Tourism; Communicating Effectively to Tourists; Setting up a Tourism Project; Starting Your Own Business; Tour Guiding;
- (W-Z) Water Safe (Introduction to Water Quality Issues) and Food Safe (A Response to the Training Needs of Food Service Workers); Writing Skills for Business English; and
- Into the Commonwealth and the Millennium with STEP (Surgeons-in-Training Education Programme).

There is a wide variety of school-level programmes, including: Hardap Educational Multimedia Project (HEMP) Video Series for Grade 6 English and Mathematics; Secondary School Level Education Quality Learning Materials; Learning for Secondary Education, an Educational Multimedia Video Programme; Science, Technology and Mathematics Programme 2000+.

The COL Open Schools Initiative launched an Open Educational Resources (OER) Project to provide materials under the Creative Commons licence agreement to support independent study in 17 secondary school subjects. Funded by the William and Flora Hewlett Foundation its aim is to broaden access to secondary education through the development of high quality Open Distance Learning (ODL) or self-study materials. The OER subjects include: Commerce; Coordinated Science (Biology, Chemistry and Physics); English; English as a Second Language; Entrepreneurship; Food & Nutrition; Geography; Human Social Biology; Life Science; Life Skills; Mathematics; Physical Science; Principles of Business; and Spanish.

These Open Educational Resources are free to use and adapt. They are designed to be accessible for use in six countries: Botswana, India, Lesotho, Namibia, Seychelles and Trinidad & Tobago. Anyone else can use the materials, but some contextual adaptation might be needed to maximise their benefits in different countries.

Teacher training and higher education resources include:

- Commonwealth Certificate for Teacher ICT Integration (CCTI); Education for a Digital World; Green Teacher: Diploma in Environmental Education; Distance Learning Programme for Educators; Master of Arts in Teacher Education (International)
- the Open University of Sri Lanka & COL NAMCOL videos: Mathematics, English, Physical Science and Accounting; OER for Open Schooling; Open Resources for English Language Teaching (ORELT) Portal; Practitioner Research and Evaluation Skills Training
- (PREST); Training Educators to Design and Develop ODL Materials; Technical and Vocational Teacher Training (In-Service) (TVET).

A selection of other programmes includes: Kwazulu-Natal Training Materials for Women Managers; Supporting Distance Education Through Policy Development; COL Videos (including Education Leadership and Management – COL video series 2012); Virtual University for Small States of the Commonwealth (VUSSC); Introducing Distance Education; Disaster Management; Life Skills Development.

National programmes

The Red Seal Program (<http://www.red-seal.ca/w.2lc.4m.2@-eng.jsp>) sets common standards to assess the skills of tradespeople across Canada. Tradespeople who meet the Red Seal standards receive a Red Seal endorsement on their provincial/territorial trade certificates. There are currently 57 designated Red Seal trades. The site provides free sample exam questions and free PDFs of the National Occupational Analyses for each trade – an essential resource for studying as the Red Seal examinations are based on it.

TELUQ (Télé-Université Québec, <http://www.teluq.quebec.ca>), founded in 1992, provides both distance education and research.

Athabasca University (<http://www.athabascau.ca>) is the leading distance teaching university in Canada and **Thompson Rivers University** (<http://www.tru.ca>) is a leading dual-mode university (<http://www.tru.ca/distance/>): both are active in OER in general and OER U in particular.

4.2 Caribbean

English-speaking Caribbean

Caribbean Examinations Council

The **Caribbean Examinations Council** (CXC, <http://www.cxc.org>) was established in 1972. It is an examining body that provides educational certifications in 16 English-speaking Commonwealth Caribbean Countries and Territories and has replaced the General Certificate of Education (GCE) examinations used by England and some other members of the Commonwealth. The Participating Territories are: Anguilla; Antigua and Barbuda; Barbados; Belize; British Virgin Islands; Cayman Islands; Dominica; Grenada; Guyana; Jamaica; Montserrat; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Trinidad and Tobago; and Turks and Caicos Islands. Members of the Council are drawn from the 16 territories and the region's two universities, the University of Guyana and the University of the West Indies.

CXC provides resources, but these are under strict copyright control. However the **OECS** (Organisation of Eastern Caribbean States) **OER Textbook and Repository** (<http://www.caribbeanoer.org>) provides a collection of 517 Mathematics resources under Creative Commons 4.0 licence for the CXC's Caribbean Secondary Education Curriculum (CSEC) Mathematics syllabus. Topics include: Computation; Number Theory; Consumer Arithmetic; Sets; Measurement; Statistics; Algebra; Relations; Functions & Graphs; Geometry and Trigonometry; and Vectors & Matrices.

CaribExams.org (<http://www.caribexams.org>) provides all CXC CSEC (The Caribbean Secondary Education Certificate) exam candidates with open access to an online library of high quality multimedia resources for the CXC CSEC exams.

Other projects

Notesmaster Caribbean (<http://caribbean.notesmaster.com>) is a freely accessible e-learning platform, designed to contribute to the growth of a Global Education Network for secondary level students. The platform enables students and educators from across the Caribbean to learn and share resources. Practice questions are currently available for English Language, Mathematics, Chemistry, and Information Technology.

The **e-learning Jamaica project** (<http://www.e-ljam.net>) has free resources for students sitting the CXC CSEC exams. In addition it has developed a resource bank of questions with answers in open, essay and multiple choice formats in each subject for each grade to facilitate preparation and correction of tests. Subjects include English, Information Technology, Mathematics, Biology, Social Studies, Geography, Spanish, Physics, Integrated Science, Chemistry and Building Technology.

The **University of the West Indies** (<http://www.uwi.edu>) is the university serving the whole English Caribbean region with a combination of distance learning and campus provision: it is supported by the governments of the following countries and territories: Anguilla; Antigua; Bahamas; Barbados; Belize; Bermuda; British Virgin Islands; Cayman Islands; Dominica; Grenada; Jamaica; Montserrat; St. Kitts & Nevis; St. Lucia; St. Vincent; Trinidad & Tobago; and Turks & Caicos. There have been discussions on OER with Athabasca University (<http://ijedict.dec.uwi.edu/viewarticle.php?id=1585>).

French and Dutch Caribbean

The **Open University of the Netherlands** is active in the Dutch Caribbean (with study centres at Curaçao and on the South America coast in Suriname) and some Dutch OER will have percolated there.

The **Baccalauréat** is of course offered in French overseas territories in the Caribbean such as Guadeloupe and Martinique.

4.3 Latin America

Brazil

The **Virtual School for Latin America and the Caribbean** (<http://escuelapnud.org>) offers complete courses each lasting 10-13 weeks in Human Development, Democratic Governance, Crisis Prevention and Recovery and Information Technologies and Communication. It is the first United Nations virtual learning platform and helps to train UN staff and partners.

Hispanic America

There should be considerable scope for shared OER in Spanish across Hispanic America but information is scarce on the sharing aspect.

CIESS (Centro Interamericano de Estudios de Seguridad Social, <http://ciess.campusvirtualsp.org>) is a network across Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Mexico, Paraguay, Peru, Puerto Rico and Uruguay to create, collaborate and share in public health learning and education, using materials licensed by Creative Commons.

Temoa (<http://www.temoa.info>), based in Monterrey, Mexico, offers 1,579 free courses, topics and activities, as well as 528,912 open educational resources, at all education levels.

POERUP has comprehensive reports on Argentina and Mexico which may give some clues to future researchers: see http://poerup.referata.com/wiki/File:OER_in_Argentina.pdf and http://poerup.referata.com/wiki/File:OER_Mexico_Edition_2.pdf respectively. Several Mexico-based universities are active in several other Hispanic American countries.

5. Asia

A general theme in Asia is that there are several countries where distance education is specifically regulated and pure online distance learning is prohibited or culturally discouraged. This is likely also to act as an inhibiting factor for OER and MOOCs.

5.1 West Asia

Turkey and the Caucasus have been dealt with under Europe.

Arab Middle East

The **Arab Bureau of Education for the Gulf States** (<http://www.abegs.org>) is an intergovernmental network of seven Member States: United Arab Emirates; the Kingdom of Bahrain; Republic of Yemen; Saudi Arabia; Kuwait; Oman; and Qatar. It aims to enhance cooperation in the fields of culture, education and science, including joint curriculum development and implementation. It also hosts an 'E-Learning Oasis' of resources (<http://old.abegs.org/el>).

The **Arab Open University** (<https://www.arabou.edu.kw/index.php?par=1>) is active across many Arab countries: Kuwait, Saudi Arabia, Bahrain, Oman (but not UAE or Qatar), and also Egypt, Jordan, Lebanon and Sudan. It exercises a standardising influence on university-level studies since the syllabus is the same across all the countries it operates in.

Detailed reports on each Gulf State country, and Saudi Arabia, are available on the POERUP wiki, linked from http://poerup.referata.com/wiki/Gulf_States. There is also *Opening Up Education in Jordan* (http://poerup.referata.com/wiki/File:Opening_Up_Education_in_Jordan_Edition_2.pdf), a related report.

Israel

Despite the long tradition of distance learning with the **Open University of Israel** (<http://www.e.openu.ac.il>) and activity in MOOCs starting (<http://www.jpost.com/National-News/Open-University-begins-offering-MOOCs-courses-327855>) there is relatively little OER activity in Israel, and little scope for Shared OER across conventional borders, though possibilities with the Jewish diaspora.

5.2 South Asia

India

Computer Masti (<http://computermasti.in>) is a programme to teach computer science in schools. It is currently being used by over 500,000 students spread across India. Its E-Books have been downloaded in more than 130 countries. The programme is available for IGCSE.

The **national and regional open universities** in India, in particular Indira Gandhi Open University (IGNOU, <http://ignou.ac.in>), are likely to play an increasing role to play in SharedOER. For example at a meeting of Indian Open University Vice-Chancellors in 2012 the following topics were discussed (<http://www.ignou.ac.in/?q=ignou/bulletinboard/news/latest/detail/336>):

- Developing a Common Curriculum for Undergraduate Programme
- Creating Open Education Resource available through a dedicated a web portal.

There is also likely to be scope for the **TESS-India** project on OER for teacher training to encourage standardisation and sharing across the states of India (<http://www.tess-india.edu.in>).

5.3 South East Asia

Thailand

The **Thailand Cyber University Open Courseware** site (<http://www.thaicyberu.go.th/courseware/main.php>) contains two courses available in OCW format: Accessible Courseware Development and e-Learning Thai Language. Like several other countries in and beyond the EU, the nationally-specific language gives little scope for sharing mother tongue OER across borders.

Indonesia

The Re.ViCa/VISCED wiki page on Indonesia was updated in 2012 by an Indonesian student from one of the project's partners – <http://virtualcampuses.eu/index.php/Indonesia>. The scope for sharing OER is likely to be between the states of Indonesia, not beyond the borders. **Universitas Terbuka** is the Indonesian Open University (<http://www.ut.ac.id/en/>), very active in distance learning and OER.

Malaysia

For Malaysia there is a useful ICDE report at http://www.icde.org/projects/regulatory_frameworks_for_distance_education/country_profiles/malaysia/. In addition the COL report *Open Educational Resources: An Asian Perspective* has useful sections on these countries and several others – http://www.col.org/PublicationDocuments/pub_PS_OER_Asia_web.pdf

Philippines

There are indigenous online education providers – both a **University of the Philippines Open University** (the 'fifth campus' of the UP system, <http://www.upou.edu.ph>) and a **Polytechnic Open University** (<http://www.pup.edu.ph/OU/>). The linguistic situation is complex, with many local languages and a bilingual policy for education in Filipino and English. Spanish is now little spoken but many loan words from Spanish are used in the other languages and creoles.

Vietnam

Vietnam OER (<http://www.voer.edu.vn>) offers 21,753 modules from 4,729 authors, many of which can be combined to form a course/textbook. 508 collections of modules are available. The content is flexible for publishing, using and reusing under the Creative Commons licence. Again, the nationally-specific language gives little scope for sharing mother tongue OER across borders.

5.4 East Asia

Mongolia

The Mongolia-Cambridge initiative, signed in April 2014, aims to introduce Mongolian-English bilingual education into state schools in Mongolia and align the national education system of Mongolia to Cambridge international education standards. It is opening a group of new state schools which will offer young Mongolians the opportunity to follow a Mongolian-English bilingual programme of education aligned to international standards (<http://www.mongolianbritishcc.org.uk/members/cambridge-assessment/>). In this and some other educational aspects Mongolia looks increasingly to Europe. In OER, a workshop on OER in Mongolia took place in 2010 sponsored by IDRC of Canada (<https://wiki.creativecommons.org/Mongolia>) and has been followed by workshops in subsequent years.

South Korea

The **Academic Credit Bank System** (ACBS: http://www.cb.or.kr/creditbank/info/info7_1.do) initiated in 1998, now awards roughly 8% of all degrees in South Korea, second only to the Korea National Open University (KNOU). It has curricula for over 200 individual fields of study, and increasingly, the ACBS target audience is older and more female, with more and more degrees coming in areas like social work and early childhood education. The ACBS is an open educational system which recognises diverse learning experiences gained not only in-school but also out-of-school. When a learner accumulates the necessary ACBS-approved credits, he/she can be awarded a degree.

Korea is active in OER and MOOC consortia (e.g. KAIST, <https://www.coursera.org/kaist>) but Korean is a nationally-specific language (to the two Koreas) and so cross-border activity in Korean is not likely beyond the Korean peninsula. (Note that there is some internet access in North Korea, but access is tightly controlled – <http://www.bbc.co.uk/news/world-asia-30584093>.)

6. Oceania

For this study (as in POERUP) *Oceania* contains *Australasia* (Australia, New Zealand and Papua New Guinea) and *Pacifica* (the island nations of American Samoa, Cocos Islands, Cook Islands, Christmas Island, Fiji, Micronesia Federated States, Guam, Kiribati, Marshall Islands, Northern Mariana Islands, New Caledonia, Norfolk Island, Nauru, Niue, French Polynesia, Pitcairn, Palau, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna).

6.1 Australasia

Australia

Schools

The **Australian Curriculum, Assessment and Reporting Authority** (ACARA, <http://www.acara.edu.au>) is developing **The Australian Curriculum** (<http://www.australiancurriculum.edu.au>), a national curriculum for schools in all states and territories of Australia, from Kindergarten to Year 12. Education in Australia is primarily the responsibility of the states and territories. Each state or territory government provides funding and regulates the public and private schools within its governing area. As of 2012, the Australian National Curriculum, under development and trial for several years, has already been adopted by some schools and will become mandatory soon.

ACARA also runs the national assessment programme (<http://www.nap.edu.au>) – the national tests students take in school, which is the measure through which governments, education authorities and schools can determine whether or not young Australians are meeting important educational outcomes. The National Assessment Program – Literacy and Numeracy (NAPLAN) is an annual assessment for students in Years 3, 5, 7 and 9. It has been an everyday part of the school calendar since 2008.

Example NAPLAN tests and answers are freely available from <http://www.nap.edu.au/naplan/the-tests/the-tests.html>.

Some free resources are available from <http://www.naplanresources.com.au>, though the website also charges for other materials.

Universities

Open2Study (<https://www.open2study.com>), based in Melbourne, offers a wide range of free courses in a wide range of subjects including Science and technology, business, management, finance, advertising, education, nursing and Arts and Humanities. However it cannot provide accreditation.

New Zealand

New Zealand has little standardisation of its syllabi, in part due to the need for multi-community education for the Maori and Pacifica communities, and in part to a tradition of a high degree of autonomy for each school.

At the university/polytechnic level, New Zealand is very active in OER U.

6.2 Pacifica

Commonwealth Pacific islands

These are the English-speaking islands associated directly or indirectly with the UK, mostly via the Commonwealth of Nations.

Schools

The Secretariat of the Pacific Board of Educational Assessment

(<http://www.spbea.org.fj/Home.aspx>) was set up in 1980 to assist the Pacific region and its member countries develop assessment procedures towards their national / or regional certificates. SPBEA has a membership of nine countries (Fiji, Kiribati, Nauru, Tokelau, Tonga, Tuvalu, Samoa, Solomons, Vanuatu), plus Australia and New Zealand who are the main donors. These countries are now able to develop their own national 'form 6' (equivalent to grade 12) qualification beginning in 2013, whilst the 'form 7' qualification (SPFSC) will continue to be administered by SPBEA.

The South Pacific Form Seven Certificate (SPFSC, <http://www.spbea.org.fj/Our-Work/SSSQ/SPFSC.aspx>) will generally be taken by students at the end of Form 7 (Year 13) although some may be able to take some subjects at the end of Form 6.

The qualification serves a number of purposes:

- certification at end of secondary (secondary leaving certificate)
- entry qualification to university and other tertiary institutions
- use by employers for employment selection.

The main objective of the SPFSC is for the region to have a qualification that is regionally and internationally recognised and accepted, and more importantly one that is appropriate for the students of the region.

The **Pacific Senior Secondary Certificate** (PSSC, <http://www.spbea.org.fj/Our-Work/SSSQ/PSSSC.aspx>) is an examination that used to be awarded by the Secretariat of the Pacific Board for Educational Assessment to students in the Pacific region. Specifically, the countries that were presenting candidates to the examination were Tonga, Samoa, Solomon Islands, Kiribati, Vanuatu, Tuvalu and Nauru. As of 2013, however, PSSC examination has been "nationalized", which we take to mean that the exam is now handled by each country directly.

Universities

The University of the South Pacific (<http://www.usp.ac.fj>) is a leading provider of online learning across English-speaking Pacifica and is now a member of OER U.

Other Pacific islands

These include the Francophone islands and the US-facing English-speaking islands such as American Samoa. For these we have no information on SharedOER but we expect that there are aspects of sharing OER with France and the US respectively.

7. International initiatives

7.1 International Baccalaureate

The **International Baccalaureate**, founded in Geneva, Switzerland in 1968, offers education programmes to more than one million students at 3,880 schools in 148 countries (<http://www.ibo.org>). It offers a continuum of education, consisting of four programmes for students aged 3 to 19. The United States has the largest number of IB programmes (approximately 1/3) in both private and public schools. Countries with over 100 participating schools include Australia, Canada, India, Mexico and the UK.

The main sources of income are authorisation and evaluation fees, workshops and conferences, publications, annual school fees, examination fees and donations.

The four programmes are:

- The IB Primary Years Programme, for students aged 3 to 12, which focuses on the development of the whole child as an inquirer, both in the classroom and in the world outside. It has been available since 1997.
- The IB Middle Years Programme, for students aged 11 to 16, which provides a framework of academic challenge that encourages students to embrace and understand the connections between traditional subjects and the real world, and become critical and reflective thinkers.
- The IB Diploma Programme, for students aged 16 to 19, an academically challenging programme of education with final examinations that prepares students for university and beyond.
- The IB Career-related Certificate, for students aged 16 to 19, the newest offering, which incorporates the vision and educational principles of the IB Programmes for students who wish to engage in career-related learning.

IB World Schools pay an 'annual school fee' for each programme they are authorised to teach. Current rates are as follows: Diploma Programme €7,490; Middle Years Programme €6,270; Primary Years Programme €5,475; IB Career-related Certificate €950 (fees valid to August 2015).

IB Resources are available from <https://store.ibo.org> but these are not free.

However WikiBooks (http://en.wikibooks.org/wiki/International_Baccalaureate) provide study guides, education resources and revision notes created for the International Baccalaureate Diploma.

ITS Education Asia (<http://www.itseducation.asia/ib/>), due to the large increase in schools that have recently begun to offer the International Baccalaureate (IB) in Hong Kong, has created a large collection of useful links and free resources for the IB.

There is also a website specifically focused on IB Mathematics resources: <http://ibmathsresources.com>.

7.2 International GCSE

The Cambridge **IGCSE** (<http://www.cie.org.uk/programmes-and-qualifications/cambridge-secondary-2/cambridge-igcse/>) is the world's most popular international qualification for 14 to 16 year olds. It is recognised by leading universities and employers worldwide, and is an international passport to progression and success. It was developed over 25 years ago. Over 10,000 schools in over 160 countries around the world offer Cambridge qualifications. There are more than 750,000 subject entries for Cambridge IGCSE exams each year. There are over 70 subjects available at Cambridge IGCSE, including 30 languages, and schools can offer them in any combination. It is taken in over 140 countries and in more than 5000 schools around the world. There was a massive increase in UK

students taking IGCSE in 2014, partly because IGCSE was immune to the tougher standards now being imposed in the UK on GCSE exams by Ofqual (Office of Qualifications and Examinations Regulation).

CIE qualifications are recognised for admission by UK universities (including Cambridge) as well as universities in the United States, Canada, European Union, Middle East, West Asia, New Zealand, India, Pakistan, Bangladesh, Sri Lanka and around the world.

CIE has had a long partnership with the Ministry of Education in Singapore. The Singaporean variant of A-Level and O-level examinations is also compulsory for all Singaporean students. CIE also offer 'N' (Normal) Levels, which are taken before the O-level in Singapore for some students. It also offers Cambridge Pre-U, an alternative to the A-levels in the United Kingdom. Cambridge International AS and A Levels are taken in 127 countries with more than 430,000 subject entries each year.

CIE started a primary years' programme in 2004 called Cambridge Primary to affiliate primary schools and provide curriculum support to them. There is a Cambridge Primary curriculum framework for each subject: English; English as a Second Language; Mathematics; and Science. Cambridge International Examinations is now the world's largest provider of international education programmes and qualifications for 5 to 19 year olds.

Teachers registered with Cambridge can access a password-protected Teacher Support site, where a much wider selection of syllabus materials is available to download.

TES offers 1549 free resources for IGCSE

(<http://www.tes.co.uk/TaxonomySearchResults.aspx?area=resources&keywords=IGCSE>). Most of these are produced in standard Microsoft formats, so are simple to adapt.

IB Maths resources (<http://ibmathsresources.com>) also offer a wealth of free resources for the Maths IGCSE (though it is primarily focused on the International Baccalaureate).

7.3 Bottom-up initiatives

In addition to the general trend towards uniformity promoted by increasing student use of Wikipedia, two initiatives that should be listed separately are the Open Education Consortium and Wikiversity.

The Open Education Consortium (<http://www.oeconsortium.org>) is an international community of higher education institutions and associated organisations, offering OpenCourseWare (OCW) educational materials for colleges and universities, organised as courses. The Consortium offers 25516 courses from 80 providers. Courses can be searched by Subject, provider Institution or language but they are not linked to cross-border curricula.

The 'Sustaining' Members of the Consortium are: The African Virtual University; Community College Consortium for Open Educational Resources; Delft University of Technology; Fundação Getulio Vargas FGV Online; Japan OpenCourseWare Consortium; Johns Hopkins Bloomberg School of Public Health; Korea OpenCourseWare Consortium; Massachusetts Institute of Technology; Netease Information Technology; Open University of the Netherlands; Organisation Internationale de la Francophonie; Taiwan OpenCourseWare Consortium; Tecnológico de Monterrey; Tufts University; Universia; Universidad Politécnica de Madrid; University of California Irvine; and University of Michigan.

Wikiversity (http://en.wikiversity.org/wiki/Wikiversity:Main_Page) provides 26,928 Open Educational Resources for all ages, from pre-school to tertiary level. They are grouped according to the following subjects: Humanities; Physical Sciences; Life Sciences; Practical Arts and Sciences; Mathematics; Computer Science; Engineering and Technology; Interdisciplinary Studies; Social Sciences; Education; Media; Professions; Learning Projects; Learning Materials; Research; and Informatics. However they are not currently mapped to specific curricula, whether national or international.

7.4 ICT training programmes

The first three of these are vendor programmes centred on the IT products of the companies; although the training courses are not free and not, at present, OER, this raises the interesting possibility that future cross-border syllabi might be vendor-led. This theme will be developed in Deliverable 3.

Java Developer Tutorials and Training (<http://www.oracle.com/technetwork/java/index-jsp-135888.html>) offers courses and certification in Java SE (Standard Edition 7), Java EE (Enterprise Edition), Java ME (Mobile Edition) and Enterprise Architecture. There are a number of free resources to learn Java Programming available from Oracle and an ‘Oracle University’ with contacts and chat lines in many countries globally, including the entire EU.

Microsoft Learning (<https://www.microsoft.com/learning/en-gb/default.aspx>) offers IT certifications in 5 categories: Server, Desktop, Applications, Database and Developer. The American Council on Education (ACE) has approved college credit for select Microsoft Certifications.

The **Cisco Networking Academy** (<http://www.cisco.com/web/learning/netacad/index.html>) organises 10,000 academies in 165 countries, helping more than 5 million individuals prepare for industry-recognised certifications and entry-level information and communication technology (ICT) careers.

The **European Computer Driving Licence** (ECDL, http://www.ecdl.org/programmes/ecdl_icdl) has certification programmes that have been delivered to over 13 million people, in 41 languages, across 150 countries, through a network of over 24,000 test centres. The programmes are vendor-neutral and offered through the ECDL Foundation – again, although the resources are not OER at present, this is one of the relatively few Foundations to operate in Europe.

8. European shared examinations

In this section, added for Edition 2, we discuss the Matura and some related exams shared, to a greater or lesser extent, across countries of continental Europe.

8.1 Matura

The **Matura**, or a similar term (*Mature*, *Matur*, *Maturita*, *Maturità*, *Maturität*, *Mamypa*), is the common name for the high-school exit exam or ‘maturity diploma’ in various countries, largely, though not exclusively, in eastern and south-eastern Europe. These countries include:

- EU Member States: Austria, Bulgaria, Croatia, Czech Republic, Hungary, Italy, Poland, Slovakia, Slovenia
- EEA and Switzerland: Liechtenstein, Switzerland
- rest of former Yugoslavia: Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro, Serbia
- other countries in eastern Europe: Albania, Ukraine (diaspora only).

The Matura is taken by young adults (usually aged from 17 to 20) at the end of their secondary education, and generally must be passed in order to apply to a university or other institutions of higher education. Matura is a matriculation examination and can be compared to A-Level exams or Abitur.

Slovenia has a particularly useful and detailed site on the Matura, in English (http://www.ric.si/general_matura/assessment/). Another good site is that for Macedonia (<http://www.dic.edu.mk/en/state-matura>), which describes an interesting choice in the language and literature paper between Macedonian, Albanian and Turkish.

In the Matura, there are a number of components which are common to all, or almost all of the countries. Mathematics is compulsory throughout (though only voluntary in the Czech Republic) and proficiency in the native language is tested in all the countries. Sciences are compulsory in some but not all countries – however, even where they are optional the same STEM subjects appear in the curriculum.

Proficiency in a non-native language is a common feature in all countries. In many of them a range of languages is available and it is reasonable to assume that in those countries where no particular languages are listed – e.g. the Czech Republic, Hungary and Slovakia – the possibilities will be similar to those commonly listed for other countries. The table below lists the foreign languages cited as available in the ‘Matura’ countries:

<i>Foreign language</i>	<i>Countries</i>
English	Austria; Bulgaria; Croatia; Macedonia; Poland; Slovenia
French	Austria; Bulgaria; Croatia; Macedonia; Poland; Slovenia
German	Bulgaria; Croatia; Macedonia; Poland; Slovenia
Italian	Austria; Bulgaria; Croatia; Poland; Slovenia
Russian	Bulgaria; Macedonia; Poland; Slovenia
Spanish	Austria; Bulgaria; Croatia; Poland; Slovenia
‘a foreign language’	Czech Republic; Hungary; Slovakia
ancient languages	Austria

The apparent similarities diminish when one looks into the internal workings of the Matura in specific countries and the history of the examination in each country, with many twists and turns. In particular the balance between school-based and national examinations varies between countries, dates and subjects. Thus whilst the variants of the Matura may not offer a realistic opportunity for the development of common syllabi across the spectrum of subjects, the commonalities clearly offers the possibility of developing OER to serve specific areas where there is more standardisation: languages, the sciences and Mathematics.

8.2 Bachillerato

The **Bachillerato** is the main school-leaving examination in Spain for those students heading for university. Eurypedia notes

(<https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Spain:Glossary>):

The Bachillerato is the general – or academic – branch in Upper Secondary Education. Students holding the ‘Lower Compulsory Secondary Education certificate’ gain access to this education level. Bachillerato comprises two academic years, which are usually studied when students are between 16 and 18. It comprises the following modalities: Arts, Sciences and Technology, and Humanities and Social Sciences. The students holding a positive qualification obtain the ‘Bachillerato certificate’.

The Bachillerato is common to some other Spanish-speaking countries. Within Europe, in Andorra it seems that the Andorran and Spanish schools follow the same approach.

In Mexico the relevant entry (<http://www.classbase.com/countries/Mexico/Education-System>) notes:

The Academic track provides students with a general academic curriculum for the first two years of study, followed by more specialized study in the final year. Foreign Language is compulsory and students are awarded the Bachillerato certificate and certificado de estudios (transcript) upon completion. The General Baccalaureate system is administered by the Secretariat for Tertiary Education and Scientific Research (SESIC). In the professional track, Professional Technical Institutions provide technical preparation that prepares students to work immediately following completion.

The Wikipedia article in Spanish indicates that examinations with that name are found across Hispanic America (<http://es.wikipedia.org/wiki/Bachillerato>). However, in Chile the university entrance is handled by a different exam (http://en.wikipedia.org/wiki/Education_in_Chile)

There is a single, transparent admission system used by 33 universities (all 25 ‘traditional’ universities and eight private ones which joined in 2011). The test, called PSU, an acronym for University Selection Test (Prueba de Selección Universitaria) is designed and evaluated by the University of Chile, while the system itself is managed by the Ministry of Education (Ministerio de Educación).

*The test consists of two mandatory exams, one in Mathematics and one in Language. There are also two additional specific exams, Sciences (including Chemistry, Physics and Biology fields) and History, depending on which undergraduate program the student wishes to apply to. The cumulative grade point average achieved during secondary school is also taken into account in the final admission score, as well as the student’s relative position in his class and two previous promotions. Every university assigns different weightings to the results of the various exams for the various programs offered. **Some universities may require additional (non-PSU) tests or personal interviews for admission to some programs.***

In order to establish how widespread the Bachillerato examination is and how similar it is in the different countries of the Hispanophone world, considerable additional research would be required.

8.3 Baccalauréat

The **Baccalauréat** is a school-leaving qualification which students in France take at the end of the lycée (High School). It is the main qualification required to pursue university studies. It has a long history. The Eurypedia entry for France notes

(https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/France:Assessment_in_General_Upper_Secondary_Education):

The end of upper secondary studies is sanctioned by the baccalauréat. This diploma, which was created by the decree of 17 March 1808, also conditions access to higher studies and represents the first university grade.

There are three types of baccalauréat, corresponding to the three paths of studies in the lycée:

- *general baccalauréat;*
- *technological baccalauréat;*
- *professional baccalauréat.*

The general and technological baccalauréats are very clearly oriented for continuing with higher education (university, preparatory classes for the grandes écoles, advanced vocational courses, technological university institutes).

In order to obtain the baccalauréat, pupils must take a national examination.

It might be expected that the Baccalauréat would exist in adjacent French-speaking lands, namely the Wallonia community of Belgium (3.5 million, more populous than Lithuania and six other EU Member States) and the Francophone region of Switzerland (Romandy, 1.5 million French-speakers, more populous than Estonia and three other Member States).

For Wallonia, the official descriptions (e.g. Eurypedia, https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Belgium-French-Community:Secondary_and_Post-Secondary_Non-Tertiary_Education) and Wikipedia are strangely silent on the style of examination systems in Wallonia; however, indications from individual school sites are that the Baccalauréat is offered, though whether the French form or a specific Walloon form is not clear. There are also indications of the Baccalauréat being offered online in Belgian lycées by CNED (see later).

In Romandy, the Eurybase entry suggests (https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Switzerland:Organisation_of_General_Upper_Secondary_Education) that the Baccalauréat is used, although other sources suggest that the Matura is the dominant style: one site uses the phrase “certificat de maturité” and indicates comparability with the Matura (http://fr.wikipedia.org/wiki/Maturit%C3%A9_%28certificat%29).

Outside Europe, the situation seems clearer. In his masterly 2008 study for the World Bank, *At the Crossroads: Choices for Secondary Education in Sub-Saharan Africa*, Adriaan Verspoor observes (<https://openknowledge.worldbank.org/bitstream/handle/10986/6537/453970PUB097801E0ONLY10Aug029102008.pdf.page.186>) that (our emphasis):

*In Francophone SSA countries, French curriculum structure, content, and related examinations still exert considerable influence. French secondary education provides seven years of schooling (four plus three). Junior secondary education, the collège, leads to the Diplôme National du Brevet, which is based on an examination in six or seven subjects composed by national education authorities. Senior secondary education, the lycée, leads to the baccalauréat, which is diversified into streams. **Most Francophone countries in SSA follow this model and attempt to keep standards similar to those in France through coordination and through formal and informal exchanges of practices between the academics of the African countries and their French colleagues.***

While there could have been changes since 2008 in Francophone border-crossing examination systems similar to the sort under way in Anglophone Africa, the likelihood of this is rendered slightly less plausible when reviewing more recent Francophone country data – for example on Senegal (http://www.ibe.unesco.org/fileadmin/user_upload/Publications/WDE/2010/pdf-versions/Senegal.pdf) or Madagascar where the Baccalauréat is mentioned.

It is also possible to obtain a Baccalauréat anywhere in the world by distance online study from the CNED (<http://www.letudiant.fr/bac/cours-par-correspondance-le-bac-sans-aller-au-lycee-13974.html>). This does mean that if one takes a global rather than EU view there are considerable possibilities for shared international OER corresponding to the Baccalauréat.

9. Key points

It is the task of Deliverable 3 (the Final Report of *SharedOER*) to provide conclusions and recommendation; so here we just summarise some of the key points that have appeared in this report.

9.1 Shared curriculum and examination arrangements

The **Common Core State Standards** Initiative is discussed separately (in Deliverable 2).

The **International Primary Curriculum** is the fastest growing independent primary curriculum in the world and is now used by more than 250,000 children in 1,600 member schools in 92 countries.

The Cambridge **IGCSE** is the world's most popular international qualification for 14 to 16 year olds. There are over 70 subjects available at Cambridge IGCSE, including 30 languages, and schools can offer them in any combination. It is taken in over 140 countries and in more than 5000 schools around the world.

The **International Baccalaureate**, founded in Geneva, Switzerland in 1968, offers education programmes to more than one million students at 3,880 schools in 148 countries. It offers a continuum of education, consisting of four programmes for students aged 3 to 19.

The **International English Language Testing System** – IELTS – is an internationally recognised test for non-English speakers. It is accepted as evidence of English language proficiency by over 9,000 organisations worldwide. In 2013, more than 2.2 million tests were taken globally.

The **Bachillerato** from Spain has very little spill-over market in Europe but similar qualifications appear to be offered in many Spanish-speaking countries of Latin America.

The **Baccalauréat** from France has a little spill-over in Europe (parts of Belgium and Switzerland) and naturally in French overseas territories across the world (essentially part of France); more importantly the qualification is also offered in a coordinated way across Francophone Africa.

The **Matura** is offered in various forms across many European countries but in a less coordinated way than other examination qualifications.

The **West African Examinations Council** was established in 1952 by the Governments of Ghana, Nigeria, Sierra Leone and The Gambia, with Liberia joining later. It has a compelling vision and mission. The former **East Africa Examinations Council** may return in some form as a result of consultations between members of the re-launched East African Community.

The **Caribbean Examinations Council**, established in 1972, is an examining body that provides educational certifications in 16 English-speaking Commonwealth Caribbean Countries and Territories.

The **Australian Curriculum, Assessment and Reporting Authority** is developing **The Australian Curriculum**, a multi-state curriculum for schools in all states and territories of Australia.

The **Pacific Board of Educational Assessment** has a membership of nine countries (Fiji, Kiribati, Nauru, Tokelau, Tonga, Tuvalu, Samoa, Solomons, Vanuatu), plus Australia and New Zealand who are the main donors. It is active in developing shared exams and harmonisation of national developments.

Vendor qualifications with world-wide grasp are growing, including **Java Developer Tutorials and Training**, **Microsoft Learning** and **Cisco Academy**.

The **European Computer Driving Licence** certification programmes (vendor neutral) have been delivered to over 13 million people, in 41 languages, across 150 countries, through a network of over 24,000 test centres.

9.2 Relevant georegional entities

The large open and distance universities covering large geographical regions are of key relevance to the SharedOER mission as they offer a common higher education curriculum across borders. These include:

- UK Open University (English-speaking world)
- Open University of the Netherlands (Dutch-speaking world)
- CNED (France and Francophone countries)
- UNED and UOC in Spain, with coverage of Hispanic America
- Other Eurasian open universities including FernUniversität (Germany), Anadolu University (Turkey) and Universidade Aberta (Portugal)
- Arab Open University
- University of the South Pacific
- University of the West Indies (Caribbean)
- The Indian National and Regional Open Universities
- Universitas Terbuka in Indonesia
- The two Philippines Open Universities.

Bottom-up initiatives

These include:

- Commonwealth of Learning
- Learning Resource Exchange from European Schoolnet
- ALISON, the world's leading free online learning resource for basic and essential workplace skills with over 4 million learners in 200 countries
- Klascement in Netherlands and Belgium
- the various OER and MOOC consortia – Coursera, Open Education Consortium, FutureLearn, iVersity, etc.

Appendix: Inventory of initiatives

The inventory that follows is a snapshot of initiatives relevant to SharedOER. The initiatives mentioned in the main text of this report are grouped into five sections:

- SHEXAM Shared examinations and/or curriculum – 34 entries
- SHOER Shared OER – 27 entries
- MOOC MOOCs – an illustrative listing of 10 entries, some of which overlap with SharedOER
- INFO Information initiatives: websites and organisations giving links to courses and information on accreditation -6 entries
- PROJ Current projects relevant to SharedOER.

Note that some columns are largely incomplete, owing to the time constraints on this study. Nevertheless, it is hoped that the Inventory provides a useful starting point for referencing SharedOER initiatives. Information and addresses were collected in early autumn 2014 and were believed correct at the time, but projects and addresses change and no warranties can be given as to accuracy. Enquirers wishing a Word version or Excel version of the table should contact the authors at Sero. Apologies for those who wish geocodes for mapping but nowadays these are quick to find from the address.

No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
34		SHEXAM				Shared Examinations / curricula					
1	#IPCU	SHEXAM	UK	International Primary Curriculum	info@greatlearning.com	The IPC is the fastest growing independent primary curriculum in the world and is now used by more than 250,000 children in 1,600 member schools in 92 countries.	World Class Learning Group	18 King William Street, London, EC4N 7BP, UK	Intl		1990
2	#IELT	SHEXAM	UK	IELTS	http://www.ielts.org/	The International English Language Testing System is an internationally recognised test for non-English speakers. It is accepted as evidence of English language proficiency by over 9,000 organisations worldwide.	British Council, IELTS Australia and Cambridge English Language Assessment	Bridgewater House, 58 Whitworth Street, Manchester, M1 6BB, UK	Intl		

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
3	#APTI	SHEXAM	UK	APTIS	http://www.britishcouncil.org/aptis	Testing English levels from A1-C on the Common European Framework of Reference for Languages (CEFR), Aptis is an English test for adults (16+)	British Council	Bridgewater House, 58 Whitworth Street, Manchester, M1 6BB, UK	Intl		1934
4	#CITM	SHEXAM	UK	Citizen Maths	http://citizenmaths.com	Open online Mathematics course, structured according to the OECD's PISA Assessment and Analytical Framework for Mathematics, Reading, Science, Problem Solving and Financial Literacy, which provides an internationally recognised framework for mathematical content.	Ufi Trust	Ufi Charitable Trust, 26 Red Lion Square, London, WC1R 4AG, UK	National		2014
5	#CIEP	SHEXAM	France	CIEP	http://www.ciep.fr/	Centre International d'Etudes Pédagogiques offers a series of internationally-recognised Language tests and qualifications corresponding to the 6 levels of the <i>Common European Framework of Reference for Languages</i> . CIEP administers DILF (Diplôme initial de langue française), DELF (Diplôme d'études en langue française), and DALF (Diplôme approfondi de langue française), a set of official French proficiency tests, the French equivalent of the English proficiency test TOEFL. They can be used as an alternative to a French university's language entrance exam	Ministry of Education, Higher Education & Research, France	Centre international d'études pédagogiques, 1 avenue Léon-Journault, 92318 Sèvres, France	Intl		1945

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
6	#ENIC	SHEXAM	Europe (hosted in Italy)	ENIC-NARIC	http://www.enic-naric.net/	ENIC: European Network of Information Centres in the European Region; NARIC: National Academic Recognition Information Centres in the European Union) ENICs provide information on: the recognition of foreign diplomas, degrees and other qualifications; education systems in both foreign countries and the ENIC's own country; opportunities for studying abroad, including information on loans and scholarships, as well as advice on practical questions related to mobility and equivalence. NARICs aim at improving academic recognition of diplomas and periods of study in the Member States of the European Union (EU) countries, the European Economic Area (EEA) countries and Turkey.	Ministry of Education, Higher Education and Research, France	Département reconnaissance des diplômes, Centre ENIC-NARIC France, 1 avenue Léon Journault, 92318 Sèvres Cedex, France	Intl		1984
7	#AUFR	SHEXAM	Global – HQ in Canada & Paris	Agence Universitaire de la Francophonie	http://www.auf.org/	Besides scholarships and grants, it offers open and distance learning through a set of Open Distance Learning bachelor, masters and doctorate courses. It offers study grants to the best candidates to selected universities, covering a large part of the teaching and registration fees for diplomas. Its Francophone digital campus is free to selected candidates. These courses are taught remotely through digital technologies. The degrees offered remotely have the same academic value as conventional qualifications.	AUF	4, place de la Sorbonne, 75005 Paris, France	Intl		1989
8	#FIED	SHEXAM	France	FIED	http://www.fied.fr	Network of 37 French universities that have developed distance and online education: 330 courses and 425 stand-alone modules.	French Ministry of Higher Education and Research		Intl		1987

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
9	#CNAM	SHEXAM	France	National Conservatory of Arts and Crafts	http://www.cnam.fr	An institute of higher education which delivers predominantly technical and professional teaching qualifications to engineer level. CNAM has signed 140 cooperation agreements, training and research in fifty countries. Its partners are universities, training organisations, public or private companies. It offers Validation of Acquired Experience (VAE/APL) to obtain all or part of an engineering degree, a Ph.D., a degree, a master, a professional title Level III to Level 1 or a degree of establishment etc. VAE allows students to obtain professional certificates by producing evidence based on prior experience, evaluated by a jury. The skills certificates issued by CNAM are recognised by companies in technical, scientific and commercial sectors.	Conservatoire national des arts et métiers	Conservatoire national des arts et métiers, 292 rue Saint-Martin, F-75141 Paris Cédex 03, France	Intl		1794
10	#WAEC	SHEXAM	Ghana	West African Examinations Council	http://www.ghanawaec.org/	Established in 1952 by the Governments of Ghana, Nigeria, Sierra Leone and The Gambia. Liberia became the fifth member of the Council in 1974. Its accreditation includes Basic Education Certificate Examination (BECE) for pupils in the third year of Junior High Schools; The West African Senior School Certificate Examination (WASSCE) for pupils in the third year of their West African Senior School courses; The General Business Certificate Examination (GBCE) – equivalent to GCSE; and Advanced Business Certificate Examination (ABCE) – equivalent to A levels.			Geo region		1952

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
11	#AFVU	SHOER SHEXAM	Kenya	African Virtual University	http://oer.avu.org/	A partnership of Amoud University, Somalia; East Africa University, Somalia; Jimma University, Ethiopia; Université Cheikh Anta Diop, Senegal; University of Hargeisa, Somalia; University of Nairobi, Kenya; Universidade Pedagógica, Mozambique; Université Antananarivo, Madagascar; Kyambogo University, Uganda; Open University of Tanzania, University of Zambia and University of Zimbabwe. Founded in 1997, AVU has graduated 43,000 students across Africa and established the largest network of Open Distance and eLearning institutions in over 30 countries in Sub-Saharan Africa. AVU works across borders and languages in Anglophone, Francophone and Lusophone Africa. It offers 73 modules in each of the 3 languages (English, French and Portuguese): 46 in Mathematics and Sciences; 4 in ICT Basic Skills; 19 in Teacher Education professional courses; and 4 in integration of ICTs in Education.	18 African governments	Kenya	Continental		
12	#KNUS	SHEXAM	Ghana	KNUST Open Educational Resources	http://web.knust.edu.gh/oer/pages/index.php	KNUST Open Educational Resources promotes open learning, enabling faculty, students and the global academic community to access open licensed educational resources. It offers many courses from its College of Health Sciences.	Kwame Nkrumah University of Science and Technology	Accra Rd, Kumasi, Ghana	National		

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
13	#IBSW	SHEXAM	Nigeria	The Ibadan-Swansea Partnership	http://isp.swanih.org/	A partnership in e-learning between Swansea Medical School, Swansea, UK and the College of Medicine, University of Ibadan, Nigeria. It provides modules in priority topics for international health. The modules are designed for self-study by health students and professionals working anywhere in the world. The modules are freely available and the content is copyright-free, using a simple, widely-available format: MS Power Point. This allows the module content to be changed easily to suit the needs of students and staff in specific settings.	College of Medicine, University of Ibadan, Nigeria	Ibadan, Nigeria	Intl		
14	#TOEF	SHEXAM	US	TOEFL	http://www.ets.org/toefl	An English-language test recognised by more than 9,000 colleges, universities and agencies in more than 130 countries, including Australia, Canada, the U.K. and the United States. The <i>TOEFL iBT</i> (internet Based Test) is administered via the Internet and measures ability to use and understand English at university level. It evaluates how well students combine listening, reading, speaking and writing skills to perform academic tasks.	ETS (Educational Testing Services, New Jersey	Registration Office, P.O. Box 6151, Princeton, NJ 08541-6151, US	Intl		1947

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
15	#SAYL	SHEXAM	US	The Saylor Foundation	http://www.saylor.org/	A non-profit organisation that produces new open-source educational content and curates existing open resources to support college-level courses. Its course outlines are licensed under a CC-BY license, making those outlines open-source curricula. The Saylor Academy offers 317 university, K-12 and Professional Development courses, using open educational resources (OER) to supply the course with lectures, texts, and other resources. This makes Saylor one of the largest collections of free courses on the web. If suitable texts and documents are not found, the foundation compiles new materials under a Creative Commons licence. Each course is also accompanied by an assessment that learners can use both to test their knowledge and to officially demonstrate the knowledge they have gained. The Academy plans to use Mozilla Open badges as a form of alternative accreditation.	Michael Saylor's Constitution Foundation	1000 Wisconsin Avenue, NW, Suite 220, Washington, District of Columbia 20007, US	Intl		1999
16	#OCCP	SHEXAM	US	The Open Content Curriculum Project	http://wiki.bssd.org/index.php/Main_Page	A standards-based K-12 curriculum that is collaboratively edited, contains teacher- and student-created resources, assessment rubrics, lesson plans, and instructional resources. All 15,291 pages of content, and 8,558 file uploads are Creative Commons licensed, and the system is used daily by the Bering Strait School District, an Alaska school district. The project welcomes use and active contributions by outside teachers, students and other interested parties. There are currently 3,817 registered users in the database	Bering Strait School District	P.O. Box 225, Unalakleet, AK 99684, US	National		2005

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
17	#AMCS	SHEXAM	US	American Chemical Society	http://www.acs.org/content/acs/en/education.html	Offers resources and courses for students at primary, secondary, undergraduate and post-graduate level. It provides guidelines for Bachelor's Degree Programs to be approved. ACS authorises the chair of the ACS-approved program to certify graduating students who complete a bachelor's degree meeting the ACS guidelines. Graduates who attain a certified degree must often complete requirements that exceed those of the degree-granting institution	American Chemical Society	1155 Sixteenth Street, NW, Washington, DC 20036, US	National		1876
18	#ECDL	SHEXAM	Ireland, Belgium, Singapore	European Computer Driving Licence	http://www.ecdl.org/programmes/ecdl_icdl	ECDL's certification programmes have been delivered to over 13 million people, in 41 languages, across 150 countries, through a network of over 24,000 test centres.	ECDL Foundation	The Grange, Stillorgan Road, Blackrock, Co. Dublin	Intl		1997
19	#IBAC	SHEXAM	Switzerland, Netherlands, Singapore, USA, Argentina	International Baccalaureate	http://www.ibo.org/	offers education programmes to more than one million students at 3,880 schools in 148 countries. It offers a continuum of education, consisting of four programmes for students aged 3 to 19. The United States has the largest number of IB programmes (approximately 1/3) in both private and public schools. Countries with over 100 participating schools include Australia, Canada, India, Mexico and the UK. ITS Education Asia has a large collection of links and free resources for the IB. There is also a website specifically focused on IB Maths resources.	IB Foundation	International Baccalaureate, Route des Morillons 15, Grand-Saconnex, Genève, CH-1218, Switzerland	Intl		1968

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
20	#IGCE	SHEXAM	UK	International GCSE	http://www.cie.org.uk/programmes-and-qualifications/cambridge-secondary-2/cambridge-igcse/	The world's most popular international qualification for 14 to 16 year olds. It is recognised by leading universities and employers worldwide. Developed over 25 years ago, over 10 000 schools in over 160 countries around the world offer Cambridge qualifications. TES (http://www.tes.co.uk) offers 1549 free resources for IGCSE	University of Cambridge	1 Hills Road, CB1 2EU Cambridge, Cambridgeshire, UK	Intl		1858
21	#COLE	SHEXAM	Canada	Commonwealth of Learning	http://www.col.org	The world's only intergovernmental organisation solely concerned with the promotion and development of distance education and open learning. COL has helped create many course materials. Most are freely available as OERs for download and adaption, but some carry restrictive licenses.	Commonwealth	1055 West Hastings Street, Suite 1200, Vancouver, BC V6E 2E9, Canada	Intl		1989
22	#RSEA	SHEXAM	Canada	Red Seal program	http://www.red-seal.ca/w.2lc.4m.2@-eng.jsp	Sets common standards to assess the skills of tradespeople across Canada. Tradespeople who meet the Red Seal standards receive a Red Seal endorsement on their provincial/territorial trade certificates. There are currently 57 designated Red Seal trades. Also provides free sample exam questions and free PDFs of the National Occupational Analyses for each trade.	Red Seal Secretariat	Labour Market Integration Directorate, Employment and Social Development Canada, 140 Promenade du Portage, 5th floor, Phase IV, Gatineau, Quebec K1A 0J9, Canada	National		1952
23	#FORM	SHEXAM	France	Formasup	http://www.formasup.education.fr/	Lists the open and distance learning programmes offered by HE institutions (French Digital Campus Program), the National Centre for Distance Learning (CNED), the Conservatoire National des Arts et Métiers (CNAM) and the Interuniversity Federation for Distance Learning (FIED).	French Ministry of Higher Education and Research	6, avenue Pasteur – 92170 Vanves, Paris, France	Intl		

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
24	#CARI	SHEXAM	Former British Caribbean territories	Caribbean Examinations Council	http://www.cxc.org	Caribbean Examinations Council (CXC) was established in 1972. It is an examining body that provides educational certifications in 16 English speaking Commonwealth Caribbean Countries and Territories and has replaced the General Certificate of Education (GCE) examinations used by England and some other members of the Commonwealth. Members of the Council are drawn from the 16 territories and the region's two universities, the University of Guyana and the University of the West Indies.		The Garrison, St. Michael, Barbados BB14038	Geo region		1972
25	#VCAR	SHEXAM	Colombia	Virtual School for Latin America and the Caribbean	http://escuelapnud.org	Complete courses each lasting 10-13 weeks in Human Development, Democratic Governance, Crisis Prevention and Recovery and Information Technologies and Communication. It is the first United Nations virtual learning platform and helps to train UN staff and partners.	United Nations Program for Development	Gethsemane Convention Center, Of. 161 Cartagena de Indias, Colombia	Inter continental		2006
26	#JAVA	SHEXAM	US	Java Developer Tutorials and Training	http://www.oracle.com/technetwork/java/index-jsp-135888.html	Courses and certification in Java SE (Standard Edition 7), Java EE (Enterprise Edition), Java ME (Mobile Edition) and Enterprise Architecture. There are a number of free resources to learn Java Programming available from Oracle	Oracle Corporation	500 Oracle Parkway Redwood Shores, CA 94065, US	Intl		2010
27	#CISC	SHEXAM	US	Cisco Networking Academy	http://www.cisco.com/web/learning/netacad/index.html	10,000 academies in 165 countries, helping more than 5 million individuals prepare for industry-recognised certifications and entry-level information and communication technology (ICT) careers.	Cisco Systems, Inc.	Corporate Headquarters, 170 West Tasman Dr., San Jose, CA 95134, US	Intl		1997

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28	#AOUN	SHEXAM	Kuwait, Saudi Arabia, Egypt, Jordan, Lebanon, Bahrain, Oman and Sudan	The Arab Open University	https://www.arabou.edu.kw/	Active across many Arab countries and exercises a standardising influence on university-level studies since the syllabus is the same across all the countries they operate in. The AOU has more than 28,460 students in eight countries and has celebrated graduation of more than 20,690 students, more than 50% of which are females.	8 branches (Kuwait, Saudi Arabia, Egypt, Jordan, Lebanon, Bahrain, Oman and Sudan)	Ardiya Industrial Area, Farwanya, P.O. Box 3322 Al-Safat 13033, Kuwait	Continental		2002
29	#COMA	SHEXAM	India	Computer Masti	http://computer.masti.in	Programme to teach computer science in schools. It is currently being used by over 500,000 students spread across India. Its E-Books have been downloaded in more than 130 countries. The Program is available for IGCSE.	IIT Bombay InOpen Technologies Pvt. Ltd.	M-03, 3rd Floor SINE, CSRE IIT Bombay, Powai, Mumbai, Maharashtra 400076, India	National		2009
30	#MICR	SHEXAM	US	Microsoft Learning	https://www.microsoft.com/learning/en-gb/default.aspx	IT certifications in 5 categories: Server, Desktop, Applications, Database and Developer. The American Council on Education (ACE) has approved college credit for select Microsoft Certifications.	Microsoft	One Microsoft Way, Redmond, WA 98052-6399, US	Intl		1992
31	#ABEG	SHEXAM	Gulf States	Arab Bureau of Education for the Gulf States	http://www.abegs.org/	intergovernmental network of 7 Member States: the United Arab Emirates, the Kingdom of Bahrain, Republic of Yemen, Saudi Arabia, Kuwait, Oman, and Qatar. It aims to enhance cooperation in the fields of culture, education and science, including joint curriculum development and implementation. It also hosts an 'E-Learning Oasis' of resources: http://old.abegs.org/el	Arab Bureau of Education for the Gulf States	Diplomatic Quarter, Riyadh 11614, PO Box 94 693, Saudi Arabia	Continental		1975

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
32	#ACBS	SHEXAM	South Korea	The Academic Credit Bank System (ACBS)	http://www.cb.or.kr/creditbank/info/info7_1.do	Open educational system which recognises diverse learning experiences gained not only in-school but also out-of-school. When a learner accumulates the necessary ACBS-approved credits, he/she can be awarded a degree. It now awards roughly 8% of all degrees in South Korea.	Ministry of Education, Science and Technology	2557, Nambusunhwan-ro, Seocho-gu, Seoul, South Korea	National		1998
33	#ACAR	SHEXAM	Australia	Australian Curriculum, Assessment and Reporting Authority (ACARA)	http://www.acara.edu.au/	Developing The Australian Curriculum, a national curriculum for schools in all states and territories of Australia. Education is currently the responsibility of the states and territories. The Australian National Curriculum has been adopted by some schools and will become mandatory soon.	Education Council	Level 10 255 Pitt Street Sydney NSW 2000, Australia	National		2009
34	#PBEA	SHEXAM	Fiji, Kiribati, Nauru, Tokelau, Tonga, Tuvalu, Samoa, Solomon s, Vanuatu	Secretariat of the Pacific Board of Educational Assessment	http://www.spbea.org.fj/Home.aspx	Set up in 1980 to assist the Pacific region and its 9 member countries develop assessment procedures towards their national / or regional certificates. These countries are now able to develop their own national form 6 qualification beginning in 2013, whilst the seventh form qualification (SPFSC) will continue to be administered by SPBEA.	Secretariat of the Pacific Board for Educational Assessment (SPBEA)	Level 5 Vanua House, Victoria Parade, Suva, Fiji	Geo region		1980

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
27		SHOER				Shared OER					
1	#FTEK	SHOER	Netherlands / EU	Free Technology Academy	http://www.freeknowledge.eu/	A joint initiative of the Free Knowledge Institute and several European universities to provide master-level education on Free Software, Open Standards and related subjects	Free Knowledge Institute + several European universities		Europe		2007
2	#ALIS	SHOER	Ireland	ALISON	http://alison.com/	Over 5 million learners in 200 countries. It was launched in 2007 in Galway, Ireland. It provides free certified education and workplace training skills through over 600 online courses, some from the British Council and Microsoft. It is the Further Education equivalent to the Khan Academy in the US, which is aimed more at secondary schools. The courses focus on employability skills: vocational, ESOL, Languages, Maths and Sciences. Although the courses are free, there is a charge for paper certificates. Furthermore, its resources are not open in the sense of being copyright-free or easy to re-purpose.	Mike Feerick	Level One Building, Galway Technology Park, Parkmore, Galway, Ireland	Intl		2007

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
3	#ECLI	SHOER	Netherlands / EU	EUROCLIO	http://euroclio.eu/new/	EUROCLIO, the European Association of History Educators, was established in 1992 to build bridges between history education professionals from all parts of the then recently reunited Europe. It started as an umbrella organisation gathering 14 Associations from 14 predominantly Western countries and has now grown to become a network of 44 member Associations and 15 associated members from 52 countries. It supports the development of responsible and innovative history, citizenship and heritage education by promoting critical thinking, multiple perspectives, mutual respect, and the inclusion of controversial issues.	EU	Riouwstraat 139, 2585 HP, The Hague, the Netherlands	Europe		1992
4	#KLAS	SHOER	Belgium	KlasCement	http://www.klascement.eu	Available in English and Dutch, KlasCement offers 33218 educational resources shared by 74175 members and grouped by education level, subject and resource type	Flemish Ministry of Education and Training	Hendrik Conscience Building – King Albert II, 15-1210 Brussels, Belgium	Regional		1998

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
5	#LREX	SHOER	Belgium	The Learning Resource Exchange	http://reforschools.eun.org/	An infrastructure managed by European Schoolnet. The LRE Federates systems that provide learning resources, e.g. learning resource repositories, authoring tools. It offers almost 130,000 learning resources/assets from over 25 providers. Resources can be searched by keyword, language, subject or provider. Tags can also be used. However tags do not exist for International Baccalaureate or IGCSE. It is, however, possible to limit your search to the “travel well” collection, select the “Search only travel well resource” box. LRE also pinpoints some useful criteria for resources that ‘travel well;’ across national and cultural borders, with examples for each criterion: European Schoolnet has found that some resources in the LRE “travel well” and have the potential to be used in different countries and educational contexts. European Schoolnet is continuing work to define “travel well” quality criteria so that Ministries of Education and other LRE content partners can more easily identify those	European Schoolnet	EUN Partnership AISBL, 61 Rue de Trèves, B-1040 Brussels, Belgium	Intl		1997
6	#OERA	SHOER	Kenya	OERAfrica	http://www.oerafrica.org/	Plays a leading role in supporting higher education institutions across Africa in the development and use of OER to enhance teaching and learning.	OERAfrica	3rd Floor, Belgravia Block, 14 Riverside Drive, Chiromo, Nairobi, Kenya	Continental		
7	#SAID	SHOER	South Africa	South African Institute for Distance Education	http://www.said.org.za/	Contributes to the development of new models of open and distance education practice and the appropriate use of technology in education. It helped to set up OER Africa and African Storybook to provide African children with enough stories in a language familiar to them to practise reading	NGO	14th Floor, Rennie House, 19 Ameshoff Street, Braamfontein, Johannesburg, South Africa	South Africa		

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
8	#SIAY	SHOER	South Africa	Siyavula	http://www.siyavula.com/	Based in Cape Town, produces openly licensed Mathematics and Science textbook materials in English and Afrikaans. They are available in hardcopy, PDF, web books and EPUB, for use by secondary school students (Grades 4-12, age 10-18).	Siyavula Education	Open Innovation Studio, 27 Buitenkant St, Cape Town, South Africa	South Africa		
9	#KHAN	SHOER	US	Khan Academy	https://www.khanacademy.org/	The Khan Academy is in the process of mapping all their relevant resources to the Common Core standards.	Salman Khan	PO Box 1630, Mountain View, California 94042, US	Intl		2006
10	#CURR	SHOER	US	Curriki	http://www.curriki.org/	Open educational resources primarily in support of K-12 (primary and secondary) education. Some of its resources are aligned to the USA's Common Core Standards. In fact Curriki's Standards feature claims to be "the first-of-its kind K-12 open source correlation engine."	Curriki	20660 Stevens Creek Boulevard, #332, Cupertino, CA 95014, US	Intl		2006
11	#TWIS	SHOER	US	TestWise	http://www.testwise.com/review.html	Free TOEFL practice tests. Also sells other TOEFL resources	University of California, Davis	1 Shields Ave, Davis, CA 95616, US	Intl		
12	#EQNE	SHOER	EU	eQNet	http://eqnet.eu.org/	Building on past work of the OER Teachers' Network project, EQnet is further developing quality criteria for 'travel well' educational resources in the LRE and national repositories.	European Schoolnet	EUN Partnership AISBL, 61 Rue de Trèves, B-1040 Brussels, Belgium	Europe		2009
13	#CNED	SHOER	France	CNED (National Centre for Distance Education)	http://www.cned.fr	Distance training from elementary school to higher education level, as well continuing professional development. CNED cannot award degrees, however, since these are exclusively allocated by the partner universities.	Ministry of National Education, Higher Education and Research	BP 60200, 86980 Futuroscope, Chasseneuil Cedex, France	France		

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
14	#COER	SHOER	Former British Caribbean territories	CaribExams.org	http://www.caribexams.org/	Provides all CXC CSEC (The Caribbean Secondary Education Certificate) exam candidates with open access to an online library of high quality multimedia resources.	Dr Kathy-Ann Daniel-Gittens	The Garrison, St. Michael, Barbados BB14038	Geo region		2007
15	#EJAM	SHOER	Jamaica	e-learning Jamaica project	http://www.e-ljam.net/	Free resources for students sitting the CXC CSEC exams. In addition it has developed a resource bank of questions with answers in open, essay and multiple choice formats in each subject for each grade.	Agency of the Ministry (Telecoms)	PCJ Building, Ground Floor, 36 Trafalgar Road, Kingston 10, Jamaica	Geo region		2005
16	#CIES	SHOER	Latin America	Centro Interamericano de Estudios de Seguridad Social	http://ciess.compuvirtualsp.org/	Network across Latin America to create, collaborate and share in public health learning and education, using materials licensed by Creative Commons.	Pan American Health Organisation (PAHO)		Inter continental		2003
17	#ECLI	SHOER	Canada	Eclipse IDE	http://www.eclipse.org/downloads/	Open-source project of the Eclipse Foundation for Java Developers. The IDE is a powerful programming tool which will help with syntax. It debugs and compiles on the fly while you program, and makes suggestions to fix errors in your program.	Eclipse Foundation, Inc.	102 Centrepointe Drive, Ottawa, Ontario, Canada, K2G 6B1	Intl		2004
18	#MITO	SHOER	US	MIT OpenCourse Ware	http://ocw.mit.edu/index.htm	Materials used in the teaching of almost all of the Massachusetts Institute of Technology's subjects available on the Web, free of charge. It provides materials from more than 2,200 courses. It includes a section for High School teachers	Massachusetts Institute of Technology	77 Massachusetts Avenue, Cambridge, MA 02139-4307, US	Intl		2002
19	#TESS	SHOER	Kenya	TESSA (Teacher Education in Sub-Saharan Africa)	http://www.tessafrica.net/	A multilingual Open Educational Resource (OER) bank, modular and flexible in format, that is freely available to all teacher educators and teachers in the region	Open University UK	The Open University, Stuart Hall Building, Milton Keynes MK7 6AA, UK	Inter continental		

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
20	#ACDE	SHOER	Kenya	African Council for Distance Education (ACDE)	http://www.acde-africa.org/	Organisation comprising African universities and other higher education institutions, which are committed to expanding access to quality education and training through open and distance learning.	Egerton University	Egerton University – Nairobi Campus, Stanbank House, 9th Floor – Opp Hilton Hotel, Moi Avenue, PO Box 8023 – 00100, City Centre, Nairobi Kenya	Inter continental		
21	#THUT	SHOER	South Africa	Thutong Education Portal	http://www.thutong.doe.gov.za/	Wide range of resources on teacher development, curriculum, legislation, educational policy, administration, links to external web resources on the internet, etc	Dept of Basic Education	Sol Plaatje House 222 Struben St., Pretoria 0001, South Africa	South Africa		
22	#SCSA	SHOER	South Africa	SchoolNet South Africa	http://www.schoolnet.org.za/	Creates learning communities of educators and learners who use ICT to enhance education	Department of Education	14th Floor Rennie House, 19 Ameshoff Street, Johannesburg, 2017, South Africa	South Africa		
23	#LECH	SHOER	South Africa	The Learning Channel	http://www.learning.co.za/	Free downloadable workbooks for matriculation subjects	SABC		South Africa		
24	#WAET	SHOER	Burkina Faso, France, Senegal and Togo	West African e-twinning project	http://wiki.aprelia.org/tiki-index.php	Involves hundreds of 9-13 year olds at ten schools in Burkina Faso, France, Senegal and Togo. Coordinated by Paris-based Association for the Promotion of Free Educational Resources (Apréli@). Stock of free digital resources also allows partner schools deeper involvement with each other's teaching and cultural practices. Resources available in both French and English.	Apréli@ (Association for the Promotion of free educational resources Africaines, in partnership with TESSA		Inter continental		2011

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25	#VIET	SHOER	Vietnam	Vietnam OER	http://www.voe.r.edu.vn	Offers 21,753 modules from 4,729 authors, many of which can be combined to form a course/textbook. 508 collections of modules are available. The content is flexible for publishing, using and reusing under the Creative Commons licence.	Vietnam Foundation	9th floor, Newtaco Bld., 21 Lang Ha, Ba Dinh Dist., Hanoi, Vietnam	National		2008
26	#CONX	SHOER	US	Connexions	http://cnx.org/	The content in what is now called OpenStax CNX comes in two formats: modules, which are like small “knowledge chunks,” and collections, which are groups of modules structured into books or course notes, or for other uses.	Rice University	Connexions, IBC Plaza Houston, 5615 Kirby Drive, Suite 350, Houston, TX 77005, US	Intl		1999
27	#APCE	SHOER	US	AP Central	http://apcentral.collegeboard.com/home	Helps more than seven million students prepare for a successful transition to college through programs and services in college readiness and college success – including the SAT and the Advanced Placement Program. AP Central offer some free practice questions, but OERs for AP are available elsewhere.	The College Board	45 Columbus Avenue, New York, NY 10023, US	Intl		1900

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
10		MOOC									
1	#OPEN	SHOER MOOC	EU	Open Education Europa	http://www.openeducation.eu/en/about_this_portal	The main goal of the Open Education Europa portal is to offer access to all existing European Open Educational Resources in different languages in order to be able to present them to learners, teachers and researchers. The portal is structured in 3 main sections. The FIND section showcases MOOCs, courses, and Open Educational Resources by leading European institutions. Each institution is also featured in this section alongside the MOOCs, courses, and the Open Educational Resources it provides. The SHARE section is where portal users discuss solutions for a range of educational issues by posting blogs, sharing events, and engaging in thematic discussions. The IN-DEPTH section hosts eLearning Papers, an exhaustive list of EU-funded projects, and the news about open education as well as recent scholarly articles.	EU		Europe	EU	2013
2	#OPST	MOOC	Australia	Open2Study	https://www.open2study.com	Wide range of free courses in a wide range of subjects including Science and technology, business, management, finance, advertising, education, nursing and Arts and Humanities. However it cannot provide accreditation.	Open Universities Australia Pty Ltd	GPO Box 5387, Melbourne, Australia, 3001	National		2013
3	#THOC	MOOC	Thailand	Thailand Cyber University Open Courseware	http://www.thaicyberu.go.th/courseware/main.php	Contains two courses available in OCV format: Accessible Courseware Development and e-Learning Thai Language.	Commission on Higher Education	328 Sri-Ayutthaya Rd., Ratchathewi, Bangkok 10400	National		2005

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4	#UDEM	MOOC	US	Udemy	https://www.udemy.com/	Offers 18,000 courses to over 3 million students with Certificate of Completion. Course Instructors determine the fees to be charged for a Course, but some are free, including Java Tutorial for Complete Beginners.	Udemy founder Eren Bali	360 3rd St. Suite 400, San Francisco, CA 94107, US	Intl		2010
5	#OEDC	MOOC	US	The Open Education Consortium	http://www.oecconsortium.org/	International community of higher education institutions and associated organisations, offering OpenCourseWare (OCW): educational materials for colleges and universities, organised as courses. The Consortium offers 25516 courses from 80 providers.	OCW Consortium	PO Box 251, Newton, Massachusetts, US	Intl		2005
6	#WIKI	MOOC	US	Wikiversity	http://en.wikiversity.org/wiki/Wikiversity:Main_Page	Provides 26,928 Open Educational Resources for all ages, from pre-school to tertiary level. However they are not mapped to specific curricula, whether national or international, so "at the moment you cannot earn credentials here. But you can learn here and then earn your credentials elsewhere."	Wikimedia Foundation, Inc.	149 New Montgomery Street, Floor 6, San Francisco, CA 94105, US	Intl		2007
7	#OPLE	MOOC	UK	OpenLearn	http://www.openlearn.edu/openlearn/	Wide range of free courses in Health, Sports & Psychology; Education; History & The Arts; Languages; Money & Management; Nature & Environment; Science, Maths & Technology; People, Politics & Law. However, it is not possible to gain any qualifications through OpenLearn. It is necessary to register for an Open University course to become a student, have the support of a tutor, sit examinations and gain qualifications.	OU (UK)	The Open University, Walton Hall, Milton Keynes, MK7 6AA, UK	Intl		1999

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
8	#OUED	MOOC		OpenupEd	http://www.openuped.eu/	Portal for pan-European MOOCs (Massive Open Online Courses), with potential to obtain a formal certificate, i.e. official credits that can count towards a degree. The 11 launch partners (mostly open universities) are based in France, Italy, Lithuania, the Netherlands, Portugal, Slovakia, Spain, and the UK, and outside the EU in Russia, Turkey and Israel.	OUs in several countries		Europe		2013
9	#MESI	MOOC	Russia	Moscow State University for Economics	http://ms.mesi.ru (for MOOCs)	MOOCs in Economics and Finance, Russian as a Foreign Language, Computer Science and Applied Informatics, Basics of Distance Education and ICT competence.;	Moscow State University for Economics	119501, Moscow city, Nezhinskaya st., 7, Russia	Intl		
10	#IVER	MOOC	Germany	Iversity	https://iversity.org	Offers many free academic online courses on a range of subjects including medicine, computer science, economics, physics, law, design and philosophy. It is the only MOOC platform to have courses that offer credits through the European Credit Transfer System (ECTS) – a tool that helps to design, describe, and deliver study programmes and award higher education qualifications. The use of ECTS, in conjunction with outcomes-based qualifications frameworks, makes study programmes and qualifications more transparent and facilitates the recognition of qualifications.	iversity GmbH	iversity GmbH, Breitscheidstraße 51, 16321 Bernau bei Berlin, Germany	Intl		2011

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
6		INFO				Sites and organisations providing information on qualifications etc					
1	#PLOT	INFO	EU+	Ploteus	http://ec.europa.eu/ploteus	Provides information and links to opportunities to learn or study in another EU country. 2210 course can be searched by subject, education level and country: Austria (284) Belgium (772) Cyprus (3) Czech Republic (8) Germany (37) Ireland (207) Latvia (251) Portugal (378) Sweden (236) Iceland (34). Many of the courses, from Basic to Masters level, are of a vocational nature. There are some countries conspicuous by their absence here, including France, Spain, Italy and UK.	EU		Europe	EU	2002
2	#CAFR	INFO	France	CampusFrance	http://www.campusfrance.org/	For international students who wish to study in France: to promote the potential of training and scientific expertise in France; to offer international students a comprehensive service during their stay in France; and to coordinate the availability of French education in engineering.		28 Rue de la Grange aux Belles, 75010 Paris, France	Intl		1998
3	#QCFR	INFO	UK	QCF	http://ofqual.gov.uk/qualifications-and-assessments/qualification-frameworks/	System for comparing qualifications within its borders, covering the different education systems in England, Scotland, Wales and Northern Ireland	OFQUAL		UK		2006

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No	hashtag	Type	Countries	Name	URL	Summary	Owner	Address	Scale	Funders	Start
4	#NQFR	INFO	UK	NQF	http://ofqual.gov.uk/qualifications-and-assessments/qualification-frameworks/	<p>Qualifications that do not meet the rules of the Qualifications and Credit Framework (QCF) are developed to fit the National Qualifications Framework (NQF). The NQF provides an indication of the relative demand of different qualifications.</p> <p>Qualifications in the NQF are grouped together according to their difficulty. They are given a level from entry level to level 8.</p>	OFQUAL	UK	UK		2006
5	#EQFR	INFO	EU	EQF	http://ec.europa.eu/ploteus/search/site?f[0]=im_field_entity_type%3A97	<p>Eight European reference levels are described in terms of learning outcomes: knowledge, skills and competences. This allows any national qualifications systems and qualifications in Europe to relate to the EQF levels.</p>	EU		EU		2008
6	#WESE	INFO	US	World Education Services	http://www.wes.org/ewen/ResourcesAfrica.htm	<p>Lists educational resources across the continent and in each individual country. WES also provides more than 100,000 evaluations of international credentials each year which are accepted by academic institutions, employers, licensing and certification boards and government agencies in the U.S. and Canada.</p>	World Education Services	Bowling Green Station, PO Box 5087, New York, NY 10274-5087, US	Intl		1974

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4		PROJ				Relevant projects					
1	#MONG	PROJ	Mongolia	The Mongolia-Cambridge initiative	http://www.mongolianbritishc.org.uk/members/cambridge-assessment/	Introduces Mongolian-English bilingual education into state schools in Mongolia and align the national education system of Mongolia to Cambridge international education standards.			National		2014
2	#ESKI	PROJ	Belgium, EU	eSkills	http://eskills-week.ec.europa.eu/learn;jsessionid=65447986B8E8ADC8D84F3B3AAC47ABF5	Major EU campaign involving 30 countries, to bridge the gap between e-skills and youth employment opportunities in ICT jobs.	EU Commission's Enterprise and Industry Directorate General	Av. d'Auderghem 45, 1040 Brussels, Belgium	Europe		
3	#EUSK	PROJ		The European e-Skills Association	http://eskillsassociation.eu/	Community of stakeholders supporting the development of e-skills and digital literacy in Europe. It works in partnership with the European Commission, public authorities across Europe, SMEs and all relevant stakeholders to build upon the European Commission recommendations and other initiatives on e-skills.	European e-Skills Association (EeSA)	Rue de la Loi 221, B – 1040 Brussels – Belgium	Europe		2007
4	#OPOR	PROJ	EU / Latin America	OportUnidad	http://www.oportunidadproject.eu/	The project aims to promote the adoption and implementation of action open educational practices (PEA) and open educational resources (OER) in Latin America as a bottom-up approach to develop a Common and Public Higher Education. The initiative also opens the possibility of providing free educational resources for self-taught in terms of informal learning and lifelong learning.	Università degli Studi Guguelmo Marconi	L'Università degli Studi Guglielmo Marconi, Via Plinio, 44, 00193 Rome, Italy	Continental		