



A world map of Open Educational Resources initiatives:
Can the global OER community design and build it together?

Summary report of an international conversation: 12 – 30 November 2012

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Some background to the discussion

At the heart of the movement toward Open Educational Resources is the simple and powerful idea that the world's knowledge is a public good and that technology in general and the World Wide Web in particular provide an extraordinary opportunity for everyone to share, use, and reuse knowledge. OER are the parts of that knowledge that comprise the fundamental components of education—content and tools for teaching, learning, and research.²

In 2005 the International Institute for Educational Planning (IIEP) of UNESCO convened an international OER community with the objective of raising awareness of Open Educational Resources. Almost 500 individuals joined the first discussion and by late 2009 when the project concluded, the community numbered almost 1,000 members. Over the four-year period, members had engaged in a series of short focused discussions on issues that concerned them, and a report from the early years was published as a record of this informative and stimulating interaction – [Open Educational Resources: Conversations in cyberspace](#).

To build on the work of the international IIEP OER community and to create a Network of UNESCO Chairs in OER, application was made for two Chairs – one at Athabasca University in Canada and one at the Open Universiteit of the Netherlands. Aligned with UNESCO priorities, UNESCO Chairs function as a network and are intended to act as think tanks and bridge builders. When the Chairs were awarded in 2011, a concrete joint plan of action was determined by the two Chair holders in conjunction with the network of partner institutions.

The UNESCO/Commonwealth of Learning Chair in OER at Athabasca University (AU) was created with a focus on promoting OER at institutional, national and international levels. Ongoing support for interaction in an international OER community was one of the activities. One way of supporting communication and connection in both the international community and the network of the Chairs would be to map the landscape of institutional OER initiatives, and to do so collaboratively. The growth of the OER movement over the past decade has meant that it has become more and more difficult to have an overview of OER initiatives globally, and even locally. A map of the “OER world” could illuminate its scope, making initiatives or projects more visible and enabling connection, collaboration and partnerships. The AU project set out, as a first step, to explore whether the global OER community could work together to build a geographic world map of institutional OER initiatives.

Mapping the global OER landscape is an important and very useful activity that we should undertake. In the past we have seen various efforts to study a wide variety of OER projects or even to create an overview of the major OER initiatives, both institutional and national or regional. Those efforts, however, were scattered, fragmented, and incidental. We are now at the stage that we could build on all those experiences and could create in a collective manner a well-and-straight-designed map of relevant OER initiatives around the world. It is important that this global OER map will be maintained and kept current, also and again in the community that feels dedicated to this action line. Having smooth and easy access to such a global up-to-date OER map will show the rapid expansion of the OER movement to all who are interested and will further accelerate it by facilitating others to develop their new OER activities, learning from and building on the practices available in the map. (Fred Mulder, UNESCO Chair in OER, Open Universiteit of the Netherlands)

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² http://www.hewlett.org/uploads/files/Hewlett_OER_report.pdf

As the other UNESCO/COL Chair in OER, I would like to support Fred's remarks and our strong support for this mapping initiative. It is an integral part of the UNESCO Chair's initiative ... The Chair's programme is charged with helping to build the international OER movement in support of UNESCO's millennium goals. The mapping exercise will help us to identify collaborators and others in the worldwide OER community that will provide an impetus to the sharing, use, reuse, adaptation, localisation and translation of OER. When we know about each other we can do amazing things together. (Rory McGreal, UNESCO/COL Chair in OER, Athabasca University, Canada)³

The process of reflecting on the topic began with a period of collaboration between the AU OER mapping project and the [OLnet project](#) at the UK Open University (OU), a partner institution of the UNESCO Chairs in OER. I had the privilege of having an OLnet fellowship at the OU, and worked with Patrick McAndrew, Simon Buckingham Shum and Teresa Connolly, along with some of their colleagues at the [Knowledge Management Institute](#). Options were explored for organising and supporting a discussion of mapping in the OER community. We debated whether to use an existing map or to create a sample map for the purpose of the discussion. We considered the advantages and complications of mapping OER initiatives, as well as some of the alternative approaches to visualising data. In the end, Teresa Connolly created a geographic map with information on the global OpenCourseWare Consortium (OCWC), just as an example for the purpose of the community discussion.

The procedure envisioned for the consideration of the potential utility and design of an OER world map was to *consult* the international OER community mailing list maintained by AU, and to invite other interested individuals and groups to join. The discussion was intended to *define* what would constitute a useful and feasible OER world map. Following the interaction in the international community, members would be invited to use the draft report of the discussion to *consult* locally with colleagues, communities or networks – and then to provide any feedback from their own perspective to *refine* the draft for a final version of the report. Then the report would be released to the OER community for sharing widely and seeking support to move forward.

In the past, the OER community had proved its capacity to collaborate by designing a resource, [A DIY resource for OER](#), and by self-organising to translate a report of its opinions, [Open Educational Resources: The way forward](#), into 12 languages. This time, the community was invited to take on a more complex task – to engage in a reflection on whether it would be desirable to build together an OER world map of initiatives, and to begin to define what it should look like and how to proceed.

1. A rationale for building an OER world map collaboratively

The interaction in the Athabasca University OER community of almost 900 members was organised over a three-week period with a suggested focus for each week:

*What could an OER world map look like?
 Could a world map be built collaboratively?
 Reflection and next steps*

The discussion opened with an initial question: *How would a visual OER world map be useful in your own setting and from your own perspective?* In response, members made some general comments on the value of mapping the landscape of institutional OER initiatives, as put forward in the excerpts below.

While the term 'open educational resources' has now been around for a decade, it is only now that I find that it is becoming part of the mainstream discussion around long-range planning, resource allocation and pedagogical practices within many ministries of education. The upcoming effort to explore some sort of 'OER world map' could be an important tool to inform such discussions, helping to broaden considerations around this important topic beyond just the committed stalwart institutions and individuals who have been so instrumental in developments over the past decade. ... The OER community has been inspirational for many of us looking for guidance and examples on how open approaches to information sharing can work in actual practice. The new initiative ... to map OER initiatives globally would provide a great tool for policymakers to be better able to locate where related innovations are occurring, so that related lessons can inform and inspire innovative approaches to providing students and teachers with the tools they need to succeed. (Mike Trucano, World Bank)

³ Throughout the report, quotes from participants in the discussion are presented in this format. The archives of the discussion are available at <https://unescochair.athabascau.ca/oer-discussion-archives/>.

Let me share with all you what's my experience sometimes while I'm traveling in our countries. Many times while I'm visiting in official mission our countries I get in contact with amazing professionals, institutions and projects. Very strong institutional initiatives that most of the time are not as known as they should by others colleagues trying to work on the same field outside their own country. (Cecilia Martins, Organization of American States)

I intuitively knew that something like OER could be transformative in so many places around the world in need of high quality, customizable educational resources. ... We have seen how OER has become a global movement and become part of policy conversations and classroom activities alike. As these projects have proliferated, so has the need to see what activities are going on in various places and in different languages, and to see how these contributions are interconnected. (Kathy Nicholson, The Hewlett Foundation)

The OER community has grown significantly over the last decade. However, it is not always easy to get information on the players and their activities. Collaboration is a key success factor for developing and using OERs, this is the main reason why AVU has been supporting the rationale for an OER world map since 2011. More specifically, an OER world map will assist in creating an enabling environment for collaboration and knowledge sharing. (Bakary Diallo, African Virtual University)

In 2009, OER Africa was launched to support African institutions of higher education in creating and using OER as a means of improving teaching and learning. We quickly set about the launch of a proof of concept pilot project. ... I have no doubt that pockets of OER projects and initiatives, not dissimilar to what I have described, abound across the whole world. Many are visible only to a small circle of participants. An OER world map of institutional initiatives might allow not only greater visibility to such projects, but greater access to valuable resources that others might not otherwise have. It is only a substantive body of OER work that will allow us to foster useful research on the development, use, evaluation and re-contextualisation of OER, as recommended by the 2012 OER Paris Declaration. A world map of OER initiatives could thereby contribute to strengthening the evidence base for public investment in OER and encourage governments to adapt an implement OER policies to promote better teaching and learning in publicly funded institutions of higher education. (Catherine Ngugi, OER Africa)

We think that such a map can serve both internal and external needs of the OER community. As the movement is maturing, more and more people are interested in what OER is, what projects are underway, who is participating and how the movement is growing and changing. A global OER map will provide a snapshot to this information - a gateway to understanding the worldwide dimensions of OER. In service to the OER community, a map can help foster new collaborations between projects around the world by allowing us to quickly identify projects we may not otherwise know about that could complement and strengthen our own work. As a living example of OER, this map may spur new cooperative efforts between those already engaged in OER and those interested in it. I hope it will also serve as a catalyst for gathering and sharing more kinds of data on OER, which will help us improve OER projects and enhance our arguments for their importance. (Mary Lou Forward, OpenCourseWare Consortium)

During the early days of the discussion, there was a largely positive response to the idea of creating a geographic OER map, with members citing what it could contribute to the OER movement and to the community members themselves. As it progressed, the interaction diverged into two threads, with some members commenting on mapping OER initiatives and others commenting on finding individual resources. As there are other initiatives aimed at improving the discoverability of resources, the focus of this specific discussion remained on OER initiatives.

There was some reflection on what was needed – whether it was a geographic map or a database of OER projects. In fact, a map is generated from a database, but these remarks point to the fact that the community may wish to have various representations and these may be textual or visual. For example, it would be useful to have a listing of initiatives by country, or by initiative language.

Community members expressed a range of reasons to support mapping OER initiatives globally. And there were also several cautionary comments.

Yes, an OER world map would be helpful to:

- + make visible the scale and geographic range of OER initiatives;
- + broaden the OER scenario beyond the well-known projects and players;
- + trace the life cycles of OER projects over time;
- + identify a global roster of OER experts;
- + enable collaboration and partnerships among OER people and projects.

And a map would serve as a tool for:

- + awareness raising to educate those outside the OER community;
- + communication and advocacy with policy and decision makers;
- + inclusive community-building based on a common goal.

But,

- + the global mapping exercise should be simple – “it is an extreme undertaking”;
- + the map should have the capacity to connect to or draw from other information sources – for example, UNESCO is developing a directory function on the [WSIS KC platform](#);
- + for a sustainable map, people need to be motivated to contribute and update information – everyone needs a return on investment, and those who contribute must gain something in return.

2. Essential information

Building up maps of initiatives and the actions they are taking could turn out to be a big task and the temptation is to gather more and more data. ... if you ask too much of participants then you will end up with partial data ... (Patrick McAndrew, UK)

Taking into consideration the cautionary comment above, community members were asked identify “essential” – as opposed to “nice to have” – information for each initiative or project. To facilitate the reflection, the [sample map](#) was put forward. Representing OCWC members worldwide, it was indicative of what a global map could look like. Clicking on [three member institutions](#) showed three different levels of information – see below. This was intended to stimulate debate on possible data elements, and the implications of increasing the amount of information to be collected.

<i>1 Basic information (MIT)</i>	<i>2 Enhanced information (AVU)</i>	<i>3 Further enhanced information (OU)</i>
OER initiative name	OER initiative name	OER initiative name
OER initiative web site	OER initiative web site	OER initiative web site
Institution name	Institution name	Institution name
Institution web site	Institution web site	Institution web site
Geographic coordinates	Geographic coordinates	Geographic coordinates
	<i>OER initiative contact and email</i>	OER initiative contact and email
	<i>OER initiative start and end date</i>	OER initiative start and end date
	<i>OER initiative language(s)</i>	OER initiative language(s)
		<i>OER initiative case study</i>

Community members were also invited to consider a mapping initiative for the Open Access movement, which could serve as a model for the development of an OER world map.

Open Access (OA) is now a global movement and initiatives are springing up across the world. It is important to have a single location where OA initiatives can be discovered. The OA Map allows users to conduct searches or obtain overviews of Open Access developments around the world. This will help to prevent duplication, enhance collaboration and generally enable an approach where new projects properly build upon existing or completed ones.⁴

The [Open Access Map](#) was developed by Alma Swan of Key Perspectives Ltd. and Leslie Chan of the University of Toronto Scarborough.

We wanted to create a visual representation of how Open Access is progressing globally. A geographical map seemed the most appropriate way to represent OA (though we will be adding a timeline when we get a bit more funding). ... The data in the Map can be re-used by anyone to do research or build new services. We think we've achieved a fairly complete representation of the infrastructural elements that support progress on OA. (Alma Swan, UK)

⁴ <http://www.openaccessmap.org/about/>

The Open Access and OER movements have much in common, and promoting interaction between them makes sense. Commenting after the discussion, Leslie Chan shared some advice for both movements: “My common suggestion is to make things module, open and "pluggable" and with open data, our imagination is our limit”.

As the discussion continued, more and more information was proposed to describe OER projects. Knowing the language(s) of initiatives or projects was of high concern for promoting collaboration and networking. The start date and end date would enable tracking the pattern of projects over time. A general description of each initiative would be helpful. Many felt that discipline/subject area was essential information. Other proposed data elements included the level of education addressed by the project, and whether the project aimed at formal or informal education. The longer the discussion continued, the more information was identified as desirable, and this is understandable, given the geographic spread of community members and the range of their interest and concerns.

3. Visual presentation

The challenge we were set, as I see it, is to try to specify a mapping process that would be of use to the growing OER movement or community. We have been presented with one or two exemplars and some discussion of what it should feature but I want to go back to some first principles about why mapping could be a useful venture. Maps are representations of the world as we find it, to help us make sense of that world and to act within that world. They are partial snapshots of that world and depend to a large degree on the representativeness and relevance of the data and/or information used to construct them. That data can also be quantitative (numbers in most cases) or qualitative (words in most cases) that are arranged in some spatial form. They are also normally either representations of what the world is like or what we think it ought to be like but should not mix the two together. The value of maps and many other types of diagrams is that they show the relationships between things as well as the things themselves. And in particular where there are lots of things and lots of relationships map are able to show patterns that are not so evident from the ‘raw’ data. That is why data visualisation is becoming an important area of study.

So maps are there to help us ‘see’ things we may not otherwise have seen and to make connections we might not otherwise have noticed. (Andy Lane, UK)

Many community members felt that a world map would be a useful visual representation of OER initiatives. The sample map presented the institutional members of the OpenCourseWare Consortium, but reference was made to other maps – including [Serendipity](#), the [Evidence Hub for OER](#), and the [Open Access Map](#), all of which are based on Google Maps. It was suggested that Free and Open Source Software (FOSS), such as Open Street Map would be more appropriate. Two maps from the UNESCO [Institute of Statistics](#) and [Gapminder](#) offer excellent examples of interactivity.

A visual presentation of OER initiatives worldwide could communicate different stories or messages, and a well-drawn picture conveys its message largely without words. Maps can present different combinations of data to give different pictures or perspectives. Geographic representation of projects by country would present one picture, while representation by the working language of projects would present another. A timeline created from information on the launching of projects would indicate, for example, periods of intense development and highlight new initiatives.

The different techniques used in mapping – such as colour coding or size of marker – all contribute to conveying a message, and there are many options for presenting data visually. [Gapminder](#) is a powerful example of using both marker size and colour to tell a story.

One important point was raised with respect to the visual presentation of data – accessibility is an essential consideration for those who are visually impaired.

I really can't check and enjoy this tool, maps are still not accessible for us, people with visual disability. However I think maps provides an important support to the initiatives, giving to them additional value. ... Allow me to share a dream, I see without use my eyes, more and more people with disabilities studying and improving their own lifes and our poor community, because the support services at the universities and others leave the starters phase and finally improve. (Esperanza Villafuerte, Peru)

4. Organisational approach

Our aim was to crowdsource the venture, so individuals can submit the details of their own project, journal, repository, service, etc. We have an editorial step, where Leslie or myself approves the submission: often these need a bit of correction, checking or chasing up, so it is not labour-free. I'm just saying that in case you envisage doing something similar. The most common thing that needs completing is the georeference of the submission: despite the submission page having boxes for latitude and longitude, and a link to a service that provides these things for each city/town in the world, many submitters leave this step out – and this service they want to be represented on is a map! Ah well... As well as the public submissions, we draw data (daily) from a number of registries, such as the Registry of Open Access Repositories (ROAR), the Directory of Open Access Repositories (OpenDOAR), ROARMAP (list of OA policies) and the Directory of Open Access Journals (DOAJ). (Alma Swan, UK)

The organisational approach used to create the Open Access Map was put forward as a potential model and a point of departure for discussion of what might be appropriate for a collaborative mapping of OER initiatives.

Members of the community proposed that mapping OER projects might be best done at the local, national and/or regional levels – making use of existing activities and networks to collect information, and ensuring its quality.

I think that educational institutions will be able and willing to establish a database of OER. For example, Georgian Technical University, which is one of the largest technical universities in the Caucasus region could establish and maintain the pool of OER, of course in cooperation with all the interested organization. We can do a research in order to clarify what institutions would be willing to participate. (Tamar Lominadze, Georgia)

I think the idea of collecting data locally/regionally is excellent because it enables the voices of the ones who are not part of this online community due to language barriers for example to be heard. There may be interesting open educational practices taking place out there that are still unknown to many of us. Should it is decided to involve educational communities locally/regionally in this venture I'd be happy to contribute and also contact existing networks in my current region. (Andreia Inamorato dos Santos, Brasil)

We would like to explore the idea of collecting information in our region collaboratively with countries and other institutions. (Cecilia Martins, Organization of American States)

Great initiative definitely by the OAS, it will be great to see the AU [African Union] initiate something similar in Africa using our various regional blocks. (Poncelet O. Ileleji, the Gambia)

To follow up on the several messages related to how to create an OER Map, I agree with the concept "Crowdsourcing" as for "working communities" sharing information to create a list of OER initiatives. We can organize collaboration in a regional or national level (depending on the political issues as it has been mention before). I think this can be easier and more successful for all of us. In my case, for example, I could provide data from OER initiatives and OER materials in Catalonia and to mix this information with other colleagues from other *regions* of Spain (we have already networks to communicate each other). (Gema Santos-Hermosa, Spain)

The experience of building the Open Access Map points to the importance of a centralised function for final quality control and loading of the data. This suggests that an optimal organisational approach for collecting and updating information on OER initiatives might be a combination of a central hub with local/regional hubs or partners responsible for local data collection by means of a standard data entry form. Data might be loaded into the database either locally or centrally.

5. Abiding concerns

Although it has been a decade since the term Open Educational Resources was coined and initially defined, a number of issues surface regularly in exchanges about OER.

This discussion highlighted the ongoing frustration with finding OER, which led to a reflection on the importance of standardised metadata. The growing number of OER initiatives and individual open resources are of no use if they are hard to find. The work on metadata by several organisations was identified, and a discussion ensued on the [Learning Resource Metadata Initiative](#) (LRMI) and related initiatives. One participant called for a search engine for OER. Copyright was a thread that ran through all the discussions of the IIEP UNESCO OER community between 2005 and 2009. At that point in the movement, energy was focused on creating and sharing OER and copyright was an impediment if the materials to be released as OER contained

third party copyright material. In the current conversation, a number of participants engaged in an informative exchange on the topic of licensing. The interaction sought to clarify the implications of the various licenses, particularly related to commercial and noncommercial use, which led to comments on the concepts of “open” and “free”.

6. A sense of agreement

The invitation to participate in the OER community discussion took as its context the phenomenon of the global growth in OER projects and the increasing challenge of making these OER projects visible for awareness raising action and advocacy, as well as for networking and collaborating. A resource was proposed – “A world map of Open Educational Resources initiatives”, and a question posed – “Can the global OER community design and build it together?”

Judging from the thread of the conversation, a number of participants felt that there were numerous reasons to collect information for a database of OER initiatives to generate a visual illustration of the OER landscape on a world map. Such data would, of course, generate various other visual and text representations, such as lists of initiatives by country or by language.

The first point of consensus was that Free and Open Source Software (FOSS) be used for the mapping exercise – for both the development of a database and for any visual representations of the data. Information should be described by the appropriate metadata, and classified using open international standards.

Second, the projects and initiatives to be included in the initial stage of development of the map need to be clearly defined, and the different nature of projects as institutional, consortia, or networks must be taken into consideration. A form could be designed and used for data collection. Data could also be drawn from other sources (such as OLnet or the UNESCO directory currently being developed).

Third, and most importantly in a global undertaking, a limited amount of data should be collected to provide basic information about each project and a person for further information/collaboration:

- OER initiative name
- OER initiative web site
- OER initiative working language(s)
- Contact person name
- Contact person email
- Latitude and Longitude

Fourth, organised with some central coordination, and local data collection, quality control and updating, the mapping exercise will engage and enlarge the global OER community – offering members connection with each other and an open tool for their own local or specific purposes. It can also engage other communities, such as librarians.

i feel like the simplest activity - mapping initiatives and projects in a collaborative manner is not redundant and still very necessary. it is my experience that we still know very little of what happens in many locations and do not have a place to go to to establish contacts and find out about projects and people.

a suggestion - could we not think of this as less of a map, and more of a data-base? in the sense that if we have the data we can then organize it in multiple ways:

- mapping the database (visualization)
- establishing a social network (collaboration)
- enhancing it with (any sort of) metadata (connection)
- allowing folks to collaboratively engage with the "platform"...

if people are willing to share this data according to some defined schema we define, and is OPEN (continuously), it can be used to create a mapping of the initiatives, but also many other things we or others might envision.

i have a feeling that this is sorely needed, mostly to help us "see" what initiatives exist in many locations around the world, in levels outside of higher education, especially in non-english languages. (Tel Amiel, Brazil)

Finally, it is important to recognise that there are multiple efforts to describe aspects of the OER movement that can be linked or included, and replication of effort should be avoided.

So I would ask that any such map also ***export*** its data in a machine-readable format (plain XML will do, as would JSON, an RSS or Atom Extension, or pretty much any structured representation) along with licensing that allows it to be harvested and reused (pick whatever license you want). This would allow an OER data owner to submit ***once*** and have the data available for any number of maps.

I would also recommend:

- a mechanism that allows the OER data owner to update or edit records already submitted, so they can stay current
 - an export mechanism, or a stand-alone record-creator, so an OER data owner can create the structured representation and store it on his or her own website
 - a mechanism whereby databases of OER data repository information can publish and harvest each other's data, thus essentially enabling them to sync records, so all databases will contain all OER information, no matter which database the record was originally added to
- In redundancy is reliability. In synchronization is strength. In distribution is durability. In structured representation is stability. (Stephen Downes, Canada)

Summary comments and next steps

The many messages and the various threads of our conversation mean that a brief report cannot possibly capture the richness of the discussion and the amount of information shared. As we interacted in this international community, it was not only educational resources we were talking about sharing – we were sharing our own experience, ideas, opinions and advice.

While the intent of this specific discussion was to explore whether visualising OER initiatives as a world map would constitute a useful tool, another tool was identified during the conversation – a “roster of OER experts”. So while a map could be useful to communicate messages or pictures of the OER movement, having a contact person for each initiative would allow us to better connect and communicate with each other. It is not enough to know about the projects; we need to know about the people too. Furthermore, enabling colleagues who work in the same language to identify each other's projects and connect is one more way to promote networking and collaboration.

The effort of undertaking a global mapping of OER projects and people must be feasible and sustainable. That translates into collecting a small amount of information, and updating it regularly – out of date or broken links do not contribute to improving communication or community building. And the database that generates a map or text should be built on Free and Open Source Software, and make use of international standards. The conversation over the three weeks provided both commentary and advice – enough to begin to sketch out a collaborative project for the OER community, one that would create a tool for all members of the OER community at large, and strengthen and enlarge the community itself through engagement in the mapping exercise.

And finally, it is important to think about connecting with the Open Access community, just as was done with the FOSS community in the early days of the OER community at IIEP. All three communities have commonalities of interest and effort, and there is much to be learned from connecting and sharing not only within these communities, but also across them.

Next steps

First, this report will be circulated to those who took part in the conversation. You are all encouraged to make use of it in your own context – share it widely with your colleagues and networks, translate it, adapt it.

Next, the report will be submitted for consideration to the William and Flora Hewlett Foundation, which has generously supported the work of this OER community since 2005, first at UNESCO and then at Athabasca University in the context of the UNESCO/COL Chair in OER. Other potential supporters will be contacted. And as this work progresses, the OER community will be informed and invited to engage in the next step.



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