

Mainstreaming Open Educational Practice

Recommendations for Policy

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1. INTRODUCTION

Open Educational Resources, and open education more generally, is considered to have huge potential to increase participation and educational opportunities at large and to promote widening participation and lifelong learning. At the same time the past decade has shown that openness in itself is not enough to unfold these potentials. A number of elements need to be taken into account in order to move from OER to Open Educational Opportunities. These elements and strategies have been the subject of a two year project, the Open Education Quality Initiative, OPAL, the findings are summarised in this paper. The intended audience of this report is policy makers in the field of education, and science and technology. On the basis of the experience of the Open Educational Quality Initiative we are arguing that the focus of OER work to date has largely been on access to and the availability of OER, We argue that it is important to shift the focus more to the actual open practice of using, reusing, or creating Open Educational Opportunities: Open Educational Practice.

2. GETTING DOWN TO THE FACTS: OVERVIEW OF OPEN EDUCATIONAL RESOURCES (OER)

2.1 Definition

The main properties of OER are: free access 'enabled by information and communication technologies' and a 'non-commercial purpose' (UNESCO, 2002). OER is intended to make "high-quality educational material freely available worldwide in many languages". (Keller & Mossink, 2008) McAndrew, et al argue that despite some terminological differences (Hylén, 2006) open educational resources are largely digital assets (music, images, words, animations) put together into a logical structure by a course developer who has attached an open license to it. In other words, the content is openly available (it can readily be found or discovered), is openly accessible (it is in a form which others can take it away) and openly re-usable (the user can easily modify it and is allowed under the license to do certain things with it without having to ask the creator's permission first).

2.2 Scale and Scope

Since the coinage of the term Open Educational Resources in 2002, Open Educational Resources have spread around the globe, and achieved significant economies of scale. Four fronts have emerged in the liberalisation of knowledge, namely:

- e **Open Courseware** – the release of the core teaching materials from classes at any level of education around the world
- e **Open Publishing** – the publication of journal materials, text-books, and 'gray' material without the need to pay any sort of licence or access fee

- e **Open Artefacts** – these are individual resources which may be used for learning, which are not necessarily part of a larger whole. They might include image libraries, data-sets, etc.
- e **Open Support** – the supporting materials and tools for learning including methodological guides for the assurance of the quality of education and educational practices, software tools etc.

While no definitive overviews are available, some indicators can be found as following:

- e The Open Educational Quality Initiative mapped nearly 400 different OER Initiatives (defined as projects which promote, supply or support OER) in over 120 countries.
- e At the end of 2011, the Open Courseware Consortium, hosted 6500 different course modules (which usually include lecture notes, videos and/or exercises) from 65 different sources
- e The registry of Open Access Repositories at the University of Southampton, records over 2700 separate open access repositories globally as at the end of 2011. The ten largest repositories on this list host in excess of 15 million records between them
- e Sourceforge a global repository of open-source software, lists over 1300 different software applications under the heading of 'Education'

3. BENEFITS AND LIMITATIONS

3.1 Benefits of Open Educational Resources

A number of the arguments for OER stem from moral and/or ethical considerations, and are often rooted in rights arguments. Thus, the OER movement has been successful in promoting the idea that knowledge is a public good, expanding the aspirations of organisations and individuals to publish OER.

Various studies have documented additional benefits of the adoption of Open Educational Resource principles. Thus, it has been argued that OER increases the innovation impact of work by stimulating cooperative work (Larsen & Vincent-Lancrin, 2005). A review of studies on open publishing found consistent increases in the number of downloads from open access journals as compared to subscription-model journals. It also listed 10 different studies which claim that free or open access to scientific publications leads to a significant increase in article citations. (Davis & Walters, 2011) Importantly, the data collected in the same review seems to indicate that open access of data makes a larger impact in non-scholarly contexts.

In addition, the increasing scope of Open Educational Resources, increases opportunities for access to education, and potentially widens participation. (Lane, 2008) (Atkins, Brown, & Hammond, 2007)

Recognition of the importance of investment and effort into promotion of the use and uptake of OER is evident in the prominence given to OER developments in a recent major report on Cyberlearning, commissioned by the UK National Science Foundation (NSF, 2008). One of the five higher-level recommendations in the conclusion to the report is to 'adopt programs and policies to promote Open Educational Resources.'

3.2 Current Limitations of OER

From the current research into the field of OER we can deduce that up to now a main focus has been on building access to OER, building infrastructure, tools and repositories. On a policy level this can be viewed through public funding schemes (analysed by Stacey 2010) and on a private level through private foundation funding (ibid.)

Based on this approach alone, the potential of OER to transform educational practice has not yet been realised. In particular, the foremost reason for not using OER, as identified by teachers in a major study was that they did not support existing teaching approaches (Harley, 2008). An OPAL project study confirmed result, finding that the main barrier to adoption of Open Educational Resources was in fact the lack of ability to integrate them into courses. (Carneiro, Nozes, Policarpo, Cerol, & Correia, 2011)

4. MOVING TOWARDS OPEN EDUCATIONAL PRACTICE

We conclude that OER is currently in an intermediate phase which we would like to call phase 1, which, while succeeding in liberalising access to information, is still lagging behind on realising the potential of such liberalisation for continual educational and societal transformation. Phase two is about using OER in a way that learning experiences improve and educational scenarios are innovated. The new term "Open Educational Practices" (OEP) has been established by numerous stakeholders in research and policy for this concept. In short, open educational practices are usage of resources in the frame of open learning architectures. It is the next phase in OER development which will see a shift from a focus on resources to a focus on open educational practices being a combination of open resources use and open learning architectures to transform learning into 21st century learning environments in which universities', adult learners and citizens are provided with opportunities to shape their lifelong learning pathways in an autonomous and self-guided way.

Phase 2 is characterized by the following aspects:

- e OER is the means and not an end, in order to transform educational practices in schools and HEIs
- e Goes beyond access into open learning architectures
- e The focus is on combining formal and informal learning learning, learning is predominantly seen as construction + sharing
- e OEP allows for quality improvement in education through external validation, as all resources and also practices are shared and possibility for feedback is opened.
- e Focus is on a change of educational cultures more than on mere resource availability
- e OER as value proposition for institutions

OEP are more and more defined nowadays as practices which support the (re)use and production of OER through institutional policies, promote innovative pedagogical models, and respect and empower learners as co-producers on their lifelong learning path. OEP address the whole OER governance community: policy makers, managers/ administrators of organisations, educational professionals and learners (Ehlers, 2011).

5. RECOMMENDATIONS FOR MAINSTREAMING OPEN EDUCATIONAL PRACTICES

OER and open education are challenging traditional structures of traditional HE institutions as well as learning and training in all other educational sectors. Recognition of prior learning achievement, as well as competences and experiences attained during practice phases, and all forms of assessment of non-classroom or seating based learning forms have to be radically new developed. Revenue and finance schemes for higher education, also for those forms which are today state financed, will change in the future in that regard, that certification and assessment might develop into the major source of income whereas the traditional lecture based model and a model where credits are based on attendance might fall behind.

Based on the experiences of the OPAL project, which included involvement of hundreds of institutions in surveys, webinars, conferences and other consultation activities, we make the following recommendations for mainstreaming OEP, which includes improving access, use and re-use of OER.

Enabling Legislation to Facilitate OEP: This falls into three categories:

- **Incentivising OEP through Legislation**

Challenge: individual authors, especially those in highly commoditised education system, have little incentive to produce OER or use OEP

Recommendation: in research, legislate Open Access mandates for publicly funded research. In teaching, legislation on cost-efficiency of teaching resources in publicly-funded education would stimulate demand for open-textbooks, and stimulate partnerships for their creation.

- **Reducing Legislative Burdens through Harmonisation**

Challenge: there are currently a bevy of different copyright jurisdictions within the EU, and open licences have different legislative status in different jurisdictions.

Recommendation: Harmonise Open Access licenses across the EU, through agreements on standards, and work on an EU-level Creative Commons licence.

- **Rethinking Intellectual Property Law for the 21st Century**

Challenge: the digital revolution has changed the way we create, use and reuse knowledge. However, most of the Intellectual Property legislation which has been designed to address it has focused on the protection of rights holders, particularly in the creative industries. the link between research, teaching and innovation has been largely ignored from an IP point of view. Outdated IP practices are stifling innovation, and limiting the growth potential of the knowledge economy.

Recommendation: Launch a major consultation exercise with stakeholders in education, research training, as to possible reforms to IP law to enhance innovation

Empowering Learners to take up OEP: Lifelong learners are a major beneficiary of Open Educational Practice. As already discussed, a host of difficulties is leaving uptake of OEP far below potential:

- **Addressing Fragmentation in Learning Resources**

Challenge: Despite the large number of resources available, they are distributed using a multitude of standards, in independent repositories, and they are of vastly differing quality.

Recommendation: Support the creation of 'learning exchanges' – specialised directories linking to only high-quality¹ repositories, and using commonly agreed standards for classification and sharing

- **Promoting the provision of Open Educational Assessment**

Challenge: Unless taking place as part of an existing course in a formal educational institution, learning using OER goes unrecognised. While recognition of prior learning goes some-way to address this, it is overly complex, expensive and too unevenly implemented to address the issue

Recommendation: Share best practice, and suggestive regulatory frameworks to allow for the unbundling of course design, provision and certification, so as to allow OER assessment to happen on a credit-equivalence basis by independent providers.

Strengthening the Evidence-Base of OEP: While studies clearly show the benefits of adopting Open Educational Practices in the broad sense, specific elements of practice have yet to be mainstreamed, and significant doubts still remain as to 'what works':

- **Helping institutions nurture OEP**

Challenge: the current level of knowledge on institutional support strategies is insufficient to foster OEP.

Recommendation: commission research, and support best-practice exchange in the area.

- **Addressing Sustainability Concerns**

Challenge: Despite widespread publication of OER, moving this from a niche activity in to mainstreamed OEP requires proof of financial, organisational (in terms of governance) and technical (in terms of archiving, access etc) sustainability.

Recommendation: set up a pool of experts working specifically on this area. Organise peer-learning events to share practice. Commission feasibility analysis of various models.

- **Making the Societal Benefit Explicit**

Challenge: Several studies hint that one of the main benefits of OER and OEP is the breaking down of the 'ivory-tower' and the increased impact of scholarly activity on the wider society. However, these have not yet been quantified, leading to difficulties in estimating the appropriate level of public support for OEP from a scientific standpoint.

Recommendation: Propose a set of indicators to measure impact of open access on wider society, and set up monitoring system to address them.

¹ As defined by appropriate standards

Culturing Innovation through Networks: Open Education is a major enabler of collaborative innovation, which in turn feeds back to and improves open education (known as the peer-production phenomenon). Such a cycle can be largely self-sustaining, given the removal of a few constraints:

- **Supporting Truly Open Collaboration**

Challenge: Many of the supporting initiatives for networking are limited to particular types of institution, have geographic boundaries, or other similar 'eligibility' limitations. OEP in particular is the focus of multi-stakeholder global innovation, and needs to be addressed as such.

Recommendation: future support initiatives for OER/OEP should increasingly focus their attention on partnerships with a wide range, typology and diversity of institutions to various other forms of networks of innovation, and enabling communities of practice shaped around collaborative OEP

- **Building a Coalition of Stakeholders around Principles of Openness**

Challenge: there is no European lead-organisation, trade-body or industry grouping that is responsible for the openness agenda. This leads to inefficient stakeholder consultation and slow impact on the policy process

Recommendation: Create an EU-level stakeholder forum or expert-group on open education, tasked with mapping the field and reporting back to the Commission with recommendations on evidence-based policy actions.

Improving Trust in OEP: OEP is still in its infancy, and therefore suffers from issues arising from a lack of trust in open education:

- **Integrate OEP into Institutional Quality Procedures**

Challenge: Traditional academic (and scientific) quality assurance procedures rely on a formal hierarchical system of peer-review and external assessment. Collaborative co-creation upends this quality model

Recommendation: Develop specific quality schemes, for Open Educational Practice, particularly by moving concepts from recent EU projects such as CONCEDE, OPAL, OERTest etc. from pilot into operational phases

- **Create Open Academic/Scientific Trust Infrastructures**

Challenge: Academic performance is tied to research activity, as measured by citation counts and impact factor studies. These are managed by a closed network of academic publishers, with an inherent interest in opposing openness.

Recommendation: Support pilot projects to create a European citation and academic peer-review system based on an open citation database, and community peer-review. Once best approach is determined, launch EU-run academic impact service which encompasses all academic knowledge (open and closed)

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