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Open educational resources

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Abstract

This paper focuses on the significant developments in the area of open education, in particular the role that Open Educational Repositories (OER) can play in higher education, teaching, learning and scholarship. The National Digital Learning Resources service (NDLR) in Ireland is presented as a case study of a best practice model for such an OER service.

1. Introduction

A significant development in recent years to emerge from the Web 2.0 trend and focusing on facilitating 'openness', along with easy access to a wide range of teaching and learning materials in higher education, has been the availability of Open Educational Resources (OERs). The term Open Educational Resources (OER) was coined at UNESCO's 2002 Forum on Open Courseware and designates

teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions. Open licensing is built within the existing framework of intellectual property rights as defined by relevant international conventions and respects the authorship of the work. (UNESCO, 2012).

In the past year there has been much activity in the area of OER, including the drafting of a declaration on OER for presentation to a world OER congress that UNESCO convened in Paris in June 2012. The purpose of the declaration was to encourage governments to commit to promoting OER and the Open Licensing of Educational materials. OER have great potential for reducing the cost of expanding quality education. It is hoped that after the Paris congress that governments will adopt a declaration urging that educational materials produced with public funds be made available under open licenses. Government backing for open licensing is essential if OER is to become the normal way of making digital teaching and learning material available instead of a donor dependent phenomenon. This joint UNESCO/ Commonwealth Of Learning project aimed to bring OER into the mainstream of education (UNESCO, 2012). Some months on it is difficult to see what the outcome has been, but the work has begun and OERs are now on the higher education agenda. There are many definitions of OERs. For the purposes of this paper the Higher Education Authority (HEA) of Ireland (2009, p. 4) define OERs as "teaching, learning, and

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research resources that reside in the public domain or have been released under an intellectual property license that permits their free use or repurposing by others". The HEA (2009) advise that OERs are usually made available under what are known as 'Creative Commons' licenses, which means they are available for reference and educational use at no cost to the user. This paper reports on the National Digital Learning Resources (NDLR) service, an OER service funded by the HEA and used by the twenty-one higher education institutions of Ireland.

2. The value of open educational repositories and resources

At a global level, the argument for open educational repositories is being won. It is recognized across all levels of the education community that to achieve one of the millennium goals, education for all, that OERs will need to be used to their full advantage. The UNESCO World Open Educational Resources Congress in Paris (2012) produced a declaration, which encourages countries to:

- Foster awareness and use of OER.
- Facilitate enabling environments for use of Information and Communications Technologies (ICT).
- Reinforce the development of strategies and policies on OER.
- Promote the understanding and use of open licensing frameworks.
- Support capacity building for the sustainable development of quality learning materials.
- Foster strategic alliances for OER.
- Encourage the development and adaptation of OER in a variety of languages and cultural contexts.
- Encourage research on OER.
- Facilitate finding, retrieving and sharing of OER.
- Encourage the open licensing of educational materials produced with public funds.

3. Open educational repositories: The NDLR service

The National Digital Learning Resources (NDLR) service, funded by the HEA of Ireland, is an open educational resource service, providing an open online repository and community portal, shared between the seven Universities and the fourteen Institutes of Technology of Ireland. The NDLR service was set-up and funded by the HEA in 2005 as a pilot project and went to full service in 2010. The NDLR service promotes and supports higher education staff in the collaboration, development and sharing of learning resources and associate teaching practices. The NDLR service currently hosts over 27,000 digital teaching and learning resources developed by higher education staff. The initial agenda of the NDLR service was influenced by the work of JOURM's 'Learning Objects Repository' (JOURM, 2012) in the United Kingdom, of course JORUM's 'repository' was in turn-greatly influenced by the 'Open Educational Resources' movement originated in the late 1990s with the first major initiative coming from the Massachusetts Institute of Technology (MIT) in 2002, when MIT released 50 freely available courses through the Open Course-Ware initiative (Goldberg & LaMagna, 2012).

The NDLR service comprises an oversight committee, made up of teaching and learning related academic post holders within higher education in Ireland. The NDLR service is run by five core team members, the NDLR Manager based in Trinity College; the NDLR Training Coordinator based in Dublin Institute of Technology; and three posts based in the University of Limerick, the Open Education Resources Advocate; the ICT Policy Advocate; and the PR Coordinator. The NDLR also appoints a NDLR 'Institutional Coordinator' in each of the twenty-one higher education institutions in Ireland. Predominantly, these NDLR Institutional Coordinators take on the NDLR post as an additional task within the remit of their academic/support post within the higher education institution (Diggins et al., 2011). The NDLR Institutional Coordinators carry out a range of NDLR related activities within their institutions ranging from managing digital projects; disbursing of NDLR funds to academics to develop digital projects (Griffin & Diggins, 2012); educational ICT training and support. The NDLR has over 1,000 active

members across the higher education community in Ireland and beyond. Approximately 75% of the budget directly funds local and national learning innovation projects (Diggins et al., 2011). From 2005-2012 the HEA provided the NDLR service with approximately €5,301,500 from the HEA 'top slice of core grant' for higher education (HEA, 2012). To draw down annual funds from the HEA, the NDLR service is more or less self-evaluated on an annual basis through the submission of an end of year report to the HEA. The evaluation is predominantly based on the number and quality of resources developed by academics within the year, for example, in 2011, the NDLR service hosted over 27,000 digital teaching and learning resources. On an international basis, the NDLR service has been deemed a success to date in that it is unique for higher education in Ireland as it enables development and sharing of Open Educational Resources (OERs) between ALL of the HEIs in Ireland (ceFIMS, 2011).

3.1 National and local supports

The NDLR supports the educational rationale (OECD, 2001; NCCA ,2004; Gregoire et al, 1996; Tondeur et al, 2007; ICT Ireland, 2011) by focusing on the enhancement of the teaching and learning experience in three main ways.

1.   The first is through the provision of training, in relation to the enhancement of teaching and learning through digital formats. This training is carried out by the NDLR Training Coordinator or by the Institutional Coordinators and is hosted throughout the twenty-one higher education institutions of Ireland. Through this training the NDLR service supports eSkills; digital literacy; fostering developments in learning management systems; and new learning environment (Education and Culture, 2008).
2.   The second is through the provision of an online open repository and portal, where academics can upload and share their digital resources, as well as join one, or more, of the thirty communities of practice on the portal (Diggins et al., 2011). The NDLR's portal and repository provides academics with the ICT Infrastructure to disseminate new and best practice digital teaching and learning resource development amongst the higher education academic community (Education and Culture, 2008).
3.   The third is through the provision of local and national annual funding for the development of digital teaching and learning resources. The NDLR service provides each of the twenty-one higher education institutions with local annual funding to develop digital teaching and learning resources. The NDLR service also provides national competitive funding, which supports collaborative projects amongst the higher education institutions and industry that develop digital teaching and learning resources (Griffin & Diggins, 2012; Marcus-Quinn et al., 2012; Proceedings: Irish National Digital Learning Resources Conference: NDLR Fest 2012,).

4. The future of open educational repositories

The financial circumstances that Open Educational Services are faced with are challenging. At a global level the Common Wealth of Learning (UNESCO, 2012), and at a National level in Ireland, the programme for government recognises that making access to Digital Learning Resources is a priority. The creation and dissemination of Open Educational Resources (OER) should therefore be a key focus for educational institutions and their stakeholders (Strunz, 2012). The international OER community recognizes that the NDLR service is a best practice model for the sharing of resources for research, teaching and learning (McAvinia & Maguire, 2011). The NDLR service has evolved into a successful and internationally unique model for an open and shared service that facilitates the creation and dissemination of OER in Irish education. In 2012, the NDLR service was tasked with providing its funding body, the Higher Education Authority, with a model for its sustainability. The service model that currently supports the activities of the NDLR was not thought-out in advance of its implementation, nor could it have been. The current NDLR service model evolved over a period of time in response to the NDLR environment and it continues to evolve. The existence of the NDLR service is based on the NDLR service being integrated into the

daily working of the higher education institutions in Ireland. It cannot continue to exist if it seen as a separate entity competing for funding with the twenty-one higher education institutions.

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