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How to cite:

Bradshaw, Peter; Younie, Sarah and Jones, Sarah (2013). Open education resources and higher education academic practice. *Campus Wide Information Systems*, 30(3) pp. 186–193.

For guidance on citations see [FAQs](#).

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Version: Accepted Manuscript

Link(s) to article on publisher's website:

<http://dx.doi.org/doi:10.1108/10650741311330366>

<http://www.emeraldinsight.com/journals.htm?issn=1065-0741&volume=30&issue=3&articleid=17085803&show=abstract>

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OPEN EDUCATION RESOURCES AND HIGHER EDUCATION ACADEMIC PRACTICE

Introduction

This paper reports on a project to develop a module of academic practice centred on the use, and re-use, of open educational resources (OERs). The project is funded by the United Kingdom (UK) Joint Information Systems Committee (JISC), UK Higher Education Academy (HEA), University of Bedfordshire and the IT in Teacher Education Association (ITTE). The main contractor is Core Education, UK. The project's lifespan was October 2011 to July 2012 and this paper reports on the initial ideas, approach and theoretical background. The collaborative approach to curriculum design is a key component of the approach taken. Later papers will report on the extent to the reflexive findings from the project team.

The project aims to provide materials that are cross-disciplinary, applied in an online context and which are used to support the development of understanding of the power of collaboration and the re-purposing of open educational resources (OERs). These aims are encapsulated in an online module designed to be part of a programme of "Academic Practice". This term refers, in England, to programmes which support the pedagogic development of staff new to teaching in higher education. The module's title, "Digital Literacy and Creativity", and its location as part of a programme of academic practice, in Higher Education emphasise its focus in the application of digital technologies in a creative or innovative way to enhance teachers' pedagogical understanding and use of such tools and approaches.

Assessment processes for the module induct participants into the re-use and publication of OERs for colleagues nationwide providing a self-renewing resource. The paper reports on the design philosophy for the module and the use of an online environment in developing a community of practice in their use.

The paper will also analyse the ways in which the OERs, and the module, align with the UK Professional Standards Framework (UKPSF) and how this in turn facilitates membership of the HEA. While this framework applies to academic staff in HEIs, the paper will also discuss the application of the OERs and module to initial teacher education and teacher training education programmes.

Theoretical framing

The term 'Open Educational Resource' appears to have been first coined by UNESCO (2002). They define them as "technology-enabled, open provision of educational resources for consultation, use and adaptation by a community of users for non-commercial purposes" (p.1). Atkins et al. (2007) refine this definition to include, as necessary, the domains of teaching, learning, and research resources. They give a list of examples of OERs that include course materials and that ranges from textbooks to videos and from software to other "techniques used to support access to knowledge" (p.4).

Taking these definitions one could argue that OERs are not new to education. Materials have always been freely shared amongst teachers, albeit at small localised levels or distributed through small networks of individual contacts. Central to the view

of the definition adopted by the project, however, is the use of technology for the creation, sharing and adaptation of OERs.

The extension of OERs by Atkins et al. (2007) to an Open Participatory Learning Infrastructure binds resources with an online environment for use by those who have access to them. This extension brings with it the notion of a community of people around the OERs which underpins the design of the module in this project and which resonates with the development, over the past twenty years, of computer-mediated activities in education that are collaborative, interactive, shared, focussed and analysed (Conole, 2007; Conole and Oliver, 2007; Laurillard, 2002; Salmon, 2000; Somekh, 2007; Wenger et al, 2002; Wenger et al, 2009). Within the particular realm of OERs this common learning goal is manifest in the shared use and development of the resources and the development of a community around them (Conole et al, 2008).

The project conceives of the use of OERs in this community-focused way. Here the community has three main constituents – those from whom the OERs are derived, those who are engaged in the design and presentation of an online teaching module and those who are learners or students of the module. These categories are not mutually exclusive – a learner may also contribute OERs. Indeed this would be an expected outcome of such a module. This model of membership goes some way to allaying the concerns Hylén (2006) raises with the use OERs – quality assurance and sustainability. Quality is assured through the development of the community's shared understanding of the purposes of OERs. Sustainability is promoted through the use of the module in empower the community to generate new resources. Margulies (2005) considers three aspects of OER deployment – tools, content and implementation. These will depend on a teacher's subject focus and the infrastructure at their institution. In this respect the use of OERs is inherently bound to curriculum (Pountney, 2009). The design of learning and the design of OER, especially in considering reuse and adaptation are intrinsically linked.

Project Overview

Project Summary

Digital technologies provide a wide range of tools which research shows can enhance and support teaching and learning. However, this knowledge is not uniformly available across disciplines. This project aims to provide materials which are cross-disciplinary in application and which, through a pedagogy which values collaboration and innovative assessment processes, supported by an online community, provide an environment for staff to develop an understanding of the power of collaboration and the re-purposing of OERs. The project was led by three stakeholders - the University of Bedfordshire in partnership with Core Education a not for profit company with expertise in digital technologies and ITTE which is the Association for Information Technology in Teacher Education - a national professional/subject association whose members are staff in UK universities. This partnership led the design of the module and facilitated the engagement of other higher education stakeholders in the online community for co-construction, evaluation and review of materials. Figure 1 indicates the scope of the project in terms of these stakeholders.

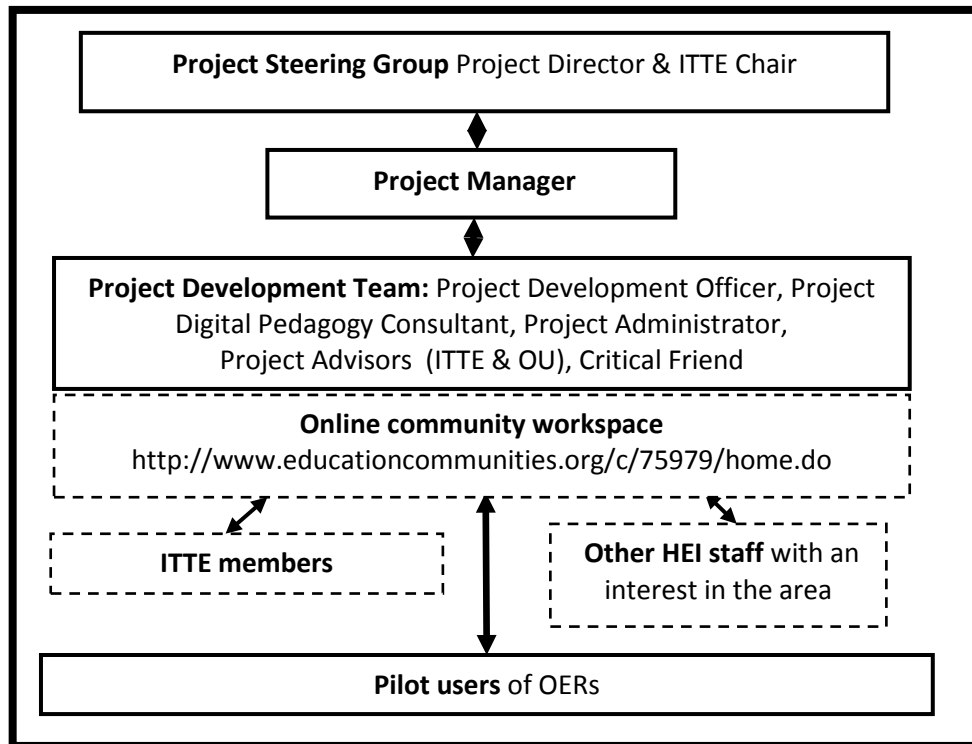


Figure 1. Project stakeholders

The aim of this project was to produce an online module to support the use of OER materials that will focus on the ways ICTs/digital technologies can support, teaching, learning and administration. The OERs that are created, collated and re-purposed were made available through a creative commons licence. The OERs can be used individually as well through the ‘Digital Literacy and Creativity’ module, accredited by HEIs. In this latter mode credit at postgraduate (Masters) level will be awarded. This is set at 30-credits on the UK qualifications framework, which would typically complement a further 60 credits for a generic Academic Practice course. Such awards, commonly known as Postgraduate Certificates in Higher Education or in Academic Practice, are accredited by the HEA and are mapped onto the UKPSF. A similar mapping was carried out in the design of this module.

The learning outcomes of the module were designed to raise the level of digital literacy for academic staff in the Higher Education sector and through this to raise the status and quality of teaching with university lecturers being as digitally competent as the students they teach. This project extends the use of the OERs beyond traditional HE practice as the module will also be used by ITTE initial teacher education (ITE) tutors in HEIs with students on education studies and teacher training education programmes. Assessment processes embedded in the module induct participants into the re-use and publication of OERs for colleagues nationwide providing a self-renewing resource.

Approach

The module framework was co-created through collaboration with experts in the fields of teaching and learning and the use of digital technology. This is enabled through ITTE being a project partner with its members’ expertise in this domain. The Education Communities online environment (www.educationcommunities.org),

hosted by the University of Bedfordshire, is being used to share resources and develop the module. The project launched with a workshop to collect and share ideas for the project leading to the development of a skeleton for the module. Initial feedback on the module was also collected and is discussed in the impact section below. This was complemented by a workshop at the ITTE conference in 2012, funded as part of the HEA seminar/workshop series.

Emerging from these workshops, and from ongoing discussions in the community, a structure of the module and the pedagogical approach were developed. The former consists of a nine discrete topics (or units), each drawing on the use of OERs and can be seen in Table 1 below. The content and activities in each section are supported by OERs.

This design is, to some extent, subject to the range of OERs being utilised (see Pountney, 2009 for the link between curriculum and OERs) and could change in subsequent iterations or in of the module validated at particular HEIs. It is expected that when the module is taken on by different members of the community from which it came it will also take on different emphases. This underlines the nature of the module as being both about open educational resources and being one itself. It is thus designed to be subject to adaptation and reuse.

1	Overview:	Introduction to digital literacy and creativity and expectations and role of university teachers in using digital technologies
2	Pedagogical approaches:	Enabling and supporting e-learning (general evaluation of emerging e-tools & online practices)
3	Online community working	Engagement with professional networks (professional versus social networking) for academics for CPD, and developing practice
4	Curriculum specific e-tools	Searching for, evaluating and applying resources via the internet
5	Assessment & feedback:	Developing and evaluating e-tools
6	Administration & data management	Using e-tools for support
7	Researching practice, collaboration and management	Using e-tools for module review, reflecting and transforming practice
8	Technology resources:	Identifying, selecting, modifying, using and applying technology resources, including OERs in practice (storing, using, sharing, evaluating: co-creation of OERs)
9	E-safety and ethics	Including digital footprint / identity

Table 1. Proposed module outline

The framework of the module, as manifested in the project can be taken, used and validated by any university as part of their provision. This is being piloted at one institution at the time of writing and a partner project at Sheffield Hallam University (UK) provides further collaboration opportunities and a particular location to test this model of reuse. The module can itself be considered an OER and this is an intentional part of its design.

Existing OERs

The project develops new OERs to support participants' study and draws on existing OERs and incorporate them as objects of study. These existing materials were drawn from a range of sources but particular attention was given to those developed by members of the community of practice that formed around the design process. Other OERs were drawn from other sources as suggested and provided by members of the project team and the wider community engaged in its development. One particular source is the Vital programme for CPD (see Bradshaw, Twining and Walsh, 2011; 2012) that has developed a wide range of open resources – self-study course materials, case studies, lesson ideas, recordings of TeachShares (ibid.). While such resources have been developed for school use and may not always be general applicable to higher education they will be usable by teacher trainers and will provide exemplars in the design and use of such materials in teaching more generally. A final source of OERs to support learning were commissioned items, specified by the project team and authored by ITTE members. These are available on the project website and on that of ITTE.

Outputs and preliminary findings

The project was conceived as a collaborative development with the primary output being the 30-credit postgraduate module on the use of OERs in higher education. This module has been produced and has been written in such a way that its structure can be used as a template for other similar modules. In this way it can be validated for use in any higher education institution that requires such a module in digital literacy and the use of OERs. The full module is designed as being one that carries 30 credits but elements of it could also be used for stand alone professional development or to supplement existing programmes.

The secondary outputs include the production of OERs, knowledge transfer and utilisation in programmes of school teacher (K-12) education. The OERs have been produced by the community that was brought together by the project and are available either through the resources section of the module or via the ITTE website. Through these means the wider higher education community has opportunities to use the resources through open access. This will enable those who are not engaged in formal programmes of study, perhaps being experience university teachers, to gain from the project.

Knowledge transfer opportunities come through the involvement of Core Education who work in other domains in a not-for-profit capacity. The experience gained by them on this project will be applicable to other contexts for their work.

Finally ITTE's role as a subject association focused on the initial education will facilitate impact on the pedagogical development of new school teachers. This in turn can be applied in the school situation where OERs may also be used and where digital literacy and creativity are key aspects of the curriculum review currently being undertaken (DfE, 2012).

Initial evaluation of the project has been undertaken through workshops at national and international conferences and through the project's independent evaluation (Terrell, 2012).

Two such workshops have been held, one at a UK conference with representatives of around 30 universities, the other at an international conference with similar numbers of participants. Evaluation via questionnaires and discussion at these workshops were analysed for the perceptions of the potential users. This showed that potential users of the module and resources felt that the module offered potential for their programmes of academic practice, with several attendees indicating that they would want to validate it within their institution. However it was also felt that the pedagogical approach may need to be adjusted for some contexts where such programmes do not wholly align the constructivist approach. This was particularly true for some respondents from outside of the UK. The final main finding from the workshops was that university lecturers who have ready access to other OER resources than those provided and used by the project felt that the design of the module allows for it to be easily tailored to use such resources.

The external evaluation report (ibid.) concluded that the module has a clear pedagogic framework which supports the development of evidence and practice that meets the requirements of the UKPSF. Thus it can support the professional development of teachers in UK Higher Education institutions and their application for professional recognition. That the module was designed by a community of professionals was commended as a means to allow it to be sufficiently flexible to be used in multiple contexts and for the module resources to be self-renewing and continuing.

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