The impact of OER on teaching and learning in UK universities: implications for Learning Design

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In recent years, universities in the UK have received significant funds for the production and release of open educational resources (OER). In acknowledgment of the growing need to explore the demand side, a small-scale qualitative investigation was conducted into the benefits of, and challenges to, incorporating OER into teaching and learning from the perspective of lecturers themselves. To capture a wide range of OER experience, we interviewed teaching staff who were already experienced users of OER, and held workshops with staff who were engaging with OER for the first time. This paper reports our findings, which show an unmistakable groundswell in favour of openness, and a receptivity to licensed resources from other institutions, despite the absence of a critical mass of materials in some disciplines. However, pedagogic intent, granularity and preserving one's distinctive 'teaching voice' are common concerns. The paper additionally considers the implications of these findings for the practice of Learning Design and outlines how digital tools can support the creation of open learning designs.

Keywords: Learning Design, OER, reuse, open educational practice, Learning Designer

Introduction: Expanding the focus from OER production to OER use

For a number of years, universities worldwide have been investing substantial resources in the production and release of open educational resources (OER), and UK institutions have been no exception. However, although a number of business cases and models have emerged to suggest that the sharing and repurposing of learning materials can become normalised practice (McGill et al., 2008), the lack of evidence of demand and use both by teaching staff and by learners has remained 'a major gap in understanding' (OER Synthesis and Evaluation Project, 2010), largely because of the difficulty of identifying users. Fortunately, the growing number of lecturers incorporating OER into their students' learning, particularly in the major institutions producing OER, means that the actual use of OER and their impact on academic practice have become easier to investigate. Studies that have already increased our understanding in the UK include Nikoi (2010), Beggan (2010) and Browne et al. (2010). This paper describes another: the OER Impact Study, a small-scale qualitative investigation conducted by a team from the University of Oxford into the benefits of, and challenges to, incorporating OER into teaching and learning from the perspective of lecturers themselves. Specifically, our research questions were:

1. What benefits can OER offer to educators and learners in HE in the UK?
2. What are the pedagogic, attitudinal, logistical and strategic factors conducive to uptake and sustained practice in the use of OER?

The paper reports those aspects of the study that we consider of greatest relevance to the Learning Design research community in relation to technologies, applications and approaches that support sharing, collaboration and open access to knowledge and resources. A comprehensive account of the full study, including a small amount of data gathered from students, can be found in Masterman and Wild (2011). The remainder of this paper places the study within its historical context, outlines the methodology and summarises the findings. It concludes by considering the relationship between those findings and the practice of Learning Design, and suggests how digital tools, exemplified by the Learning Designer (Bower et al., 2011), might support open Learning Design practice.

Background

The twin concepts of sharing and reuse that underpin OERs are not new: indeed, OER can be viewed as the latest in a number of initiatives to encourage good pedagogic practice, including the reuse of resources in general (McNaught, 2003; Malcolm, 2005); artefacts expressly designed and created as reusable learning objects (RLOs) (e.g. Boyle, 2003; Koper, 2003), and, of course, Learning Design (Agostinho, 2009; Conole, 2009; Dalziel, 2009).

Lane and McAndrew (2010) compare OERs with learning objects, noting similarities in the challenges to their widescale use (accessibility, discoverability, granularity and reusability), as well as differences: specifically, in recent years the expansion of Web 2.0 (social) technologies with the concomitant development of informal communities; greater individual innovation by teachers in their use of technologies in the classroom; and increasing ownership of personal technologies by students – as well as, of course, the open licensing. These, they imply, should be conducive to the expected greater success of OER in comparison with RLOs.

In relation to Learning Design, Lane and McAndrew (2010) suggest that the benefits of OER may lie in making it easier to view the praxis of other teachers (through shared, open learning designs) and to re-purpose (modify) individual resources. This, however, seems a somewhat restricted perspective on the relationship, and indeed Conole (2010) advocates a shift in attention away from the resources themselves towards the practices associated with the creation, use and management of OER: that is, open educational practices (OEP). This focus on practice was explored in more depth by the Open Education Quality Initiative (OPAL), the initial vision of which shows strong roots in the Learning Design approach: 'The vision of open educational practice includes a move from a resource based learning and outcomes based assessment, to a learning process in which social processes, validation and reflection are at the heart of education' (OPAL, 2010, p. 46). This definition has been revised to read: 'a collaborative practice in which resources are shared by making them openly available, and pedagogical practices are employed which rely on social interaction, knowledge creation, peer-learning and shared learning practices' (OPAL, 2011: p. 4). Once again, this is not in itself, a new endeavour (indeed, it also underpins the principle of Learning Design), but has been given an additional fillip by the production and release of OER.

Methodology

In keeping with its exploratory nature, the OER Impact Study adopted a primarily qualitative approach, collecting in-depth data on individual practice from a relatively small number of participants from a range of universities, whom we recruited using purposive sampling through a 'friend of a friend' approach. Data were gathered from three discrete groups of practitioners as follows: a) semi-structured interviews and focus groups with nine experienced users of OER; b) semi-structured interviews and focus groups with 10 senior staff responsible for implementing an institutional OER strategy; and c) two workshops with lecturers who had not previously used OER (nine and seven participants respectively).

The workshops enabled us to explore in vivo the pedagogic and logistical issues associated with OER use, as participants were given the task of searching for and evaluating OER for incorporation into a learning design that they had brought with them. We gathered data from short individual interviews conducted during the activity, written responses to a set of questions on completion of the task and collective reflections captured in focus groups moderated by the researchers. In addition, we obtained quantitative data about their attitudes to reuse through a preliminary online survey, and about the outcomes of their searches for OER which they recorded on log sheets (see Figure 1).

The qualitative data were analysed in two phases. First, the transcripts and online survey data were reviewed for emergent themes. These were then collated and refined into a list of categories which were used for in-depth coding in the second phase, which yielded the finer-grained analysis reported in the 'Findings' sections below. The quantitative data from the preliminary survey and from 101 searches recorded in the log sheets were imported into a spreadsheet for aggregation and analysis.

1.	(i) What are you looking for?		(ii) Where did you search for it? *(E.g. type "Search engine" or name of site, or paste the URL)*	(iii) What search term did you use?
	Something that explains Jakobson's theory of the poetic function language in as clear and simple a way as possible, suitable for beginners in this field		OER Dynamic Search Engine	jakobson poetic function language
	(iv) What did you find? *(Paste the URL)*	(v) Could this resource be useful to you? *(Select your response from the list)*	(vi) How did you arrive at this decision? *(Possible criteria might be: subject matter, pedagogic fit, provenance, granularity, media)*	
	http://oyc.yale.edu/english/introduction-to-theory-of-literature/content/transcripts/transcript-9-linguistics-and-literature	Yes, definitely	subject matter and pedagogic fit	

If you replied "Not really" or "No" to question (v), please go on to your next search.

(vii) How would you embed this resource in your curriculum? *(Select your response from the list)*	(viii) What would you need to do to this resource? *(Select your response from the list)*
In this plan: as a supplementary resource	Adapt it to suit my context/students

(ix) Any other comments about this resource:
Firstly, possibly rather too advanced, and the bit that interests me is embedded in a larger pedagogic fit (26 classes/lectures!) that doesn't fit my teaching objectives or resources (time, principally). Would need to highlight or extract relevantr section; and still would, I expect, need considerable class time to supplement it.

Figure 1: Entry in a log sheet completed during a workshop

In the sections that follow, participants are identified by codes as follows: Snn ('strategists'), Enn (lecturers experienced in using OER), Wnn (workshop participants: i.e. novice users of OER).

Findings (1): The benefits of OER to lecturers and their students

Unsurprisingly, the experienced OER users were in a stronger position to articulate the benefits of OER than the workshop participants. Combining the data from both groups enables us to summarise the key benefits of OER to individual educators as:

- Enabling resources to be used in full confidence of the copyright terms attached to them: 'Something that's available to be taken, reused, repurposed and repackaged and put together in a way that suits the person who's reusing the educational resource. So there's no copyright issues, there's no worries; it's freely available' (E03).

- Addressing learners' specific needs through providing opportunities for supplementary learning outside the classroom ('I'm always on the look-out for extra learning opportunities, for reinforcement and preparation': E01) and for the alternative presentation of content to address students' interests and preferences; for example:

  > Engineers are very visually driven and they're very kinematic learners so I need something for them to hang a concept off. So a lot of the OER I grab off the web is to allow me to explain things in a visual or in an interactive way so that they can interact with things (E04).

- Saving lecturers effort, through enabling them to offer their students learning materials where they lack the skills, the means or the time to create these themselves: 'if I can pick up three visualisations for one I've created it means potentially I'm reaching the students in a deeper way' (E04).

- Benchmarking their own practice in terms of content, approach and general quality when designing new programmes or modules: 'when you're starting off you look at more what level is appropriate. So I'd be looking […] to find learning outcomes to make sure that I was creating something that looked equivalent or better' (E04).

- Enabling them to teach topics that lie outside their current expertise: 'I was doing some lectures on nutrition and obesity, and I wanted to cover the genetics, but that's not my area, so I went on and found a module on genetics of obesity […] that was completely adequate' (E06).

- Stimulating networking and collaboration among lecturers, based on a 'give and take' (or, more accurately, 'take and give') principle: appropriating resources authored by others in order to fill a gap in one's own repertoire and, conversely, identifying a specific gap in the resources available to support a particular subject domain; contributing materials to fill that gap; and obtaining feedback on the quality of those materials: 'it's something where practitioners and support staff can put materials to be shared and distributed and put forward in a way that then allows feedback to come, so it's a two-way process; […] you can then look to improve it' (E12).

In relation to the question of effort, it is important to note that lecturers do not necessarily perceive OER as a means to save themselves time, at least, not in the short term 'because, you know, you do have to spend [time] finding stuff, evaluating it, maybe correcting it, and getting it into the shape that you want' (E06). Rather, the pay-off lies in 'adding richness to your course. You're probably spending just as long. I would never imagine it'd save time, it's just that you carry on just getting it better and better' (W12).

Despite these benefits, most of the experienced OER users admitted that they still own or create most of the materials they use for teaching: 'I would say 80% of what I produce is my own stuff, my own animation drawings, my own research, and, you know, 20% will come from elsewhere' (E06). Reasons for this include a need to preserve one's own 'teaching voice' (explored in the next section) and the cognitive-pedagogic benefits to be accrued to the lecturer where the learning involves the acquisition of novel concepts:

> … if it's relating to how you use a piece of software […] to me that would be fine to pull something from somebody else, if it was credited, and reuse that. If I was trying to explain a concept to somebody […] then I would need to think how to present that. And if I used somebody else's material in total, I probably wouldn't have thought through how I would explain it to the students (E04).

Findings (2): Enabling factors

Attitudinal

A positive disposition towards the reuse and sharing of learning resources, together with an essentially collaborative outlook (even if one is not actually co-designing or co-teaching at any given time), are essential prerequisites for the uptake of OER at both the individual and institutional levels. Our data indicate generally favourable attitudes among lecturers in this respect: indeed, survey data from the workshop participants suggest that they used others' materials at least 20% of the time, and at least one experienced OER user reported that sharing is part of general practice in his institution: 'I think everyone in the university does this local sharing with colleagues, emailing things around: "Have you seen this resource? Use this presentation"' (E06). However, although a substantial proportion of lecturers appear to be active in social networks (11 out of 16 workshop participants, according to the survey data), we did not have the opportunity to explore Lane and McAndrew's (2010) suggestion regarding the enabling role that socialisation in cyberspace might play in the uptake of OER relative to earlier initiatives in reuse.

In terms of the characteristics of this positive disposition, our data point towards the following:

- A conceptualisation of teaching as, *inter alia*, helping students to become self-directed, critical and confident lifelong learners. In this way, incorporating OER into one's teaching is a way to model appropriate practice: 'we could argue that we need to be empowering students to understand that they can do exactly the same thing. If they have a learning problem, a learning issue, […] then they can just find these things through Google' (E13).

- A recognition that combining materials that they have authored themselves with relevant materials from other sources may be both valuable (in enhancing the quality of students' learning) and a valid (acceptable) form of practice:

> If you can give someone a link to a TED lecture that's really, really good […] I think just having that kind of experience on a regular basis shows them that actually it doesn't matter who's actually giving them that experience but that they are getting it and they're being directed to it (E13).

- Confidence, both in their command of subject matter and in their teaching skills, to share their own materials and thereby to contribute to the collaborative construction of knowledge about, and resources for, teaching and learning in their domains: 'It's a growing culture now. Well, actually, we can do this. We can share. I can put stuff out there' (E06).

- Readiness to learn themselves, both from engaging with resources that others have made available ('it's that bit of not recreating the wheel and to be stimulated by my peers as to their orientations and perspectives': W14) and from obtaining feedback on the resources that one has shared with others.

That said, participants emphasised the vital importance of preserving the authenticity of their teaching (i.e. their own 'teaching voice'), which is not open to negotiation, still less surrender, in adopting OER since 'We haven't made it and used our thought processes to make it' (W05).

Pedagogic

Four main pedagogic factors are at play in the selection and evaluation of OER: provenance, goodness of fit to the lecturer's purpose, the pedagogic intent embedded in a resource itself and granularity.

In terms of provenance, OER produced by higher education institutions and other academic bodies (e.g. research institutes and learned societies) are perceived to have a stamp of pedagogic quality: 'I think the university brings it that stamp of authority and quality, and often it's been peer reviewed' (E06). Thus, they are generally preferred over resources from more 'general' sites.

Turning to the question of goodness of fit to the lecturer's purpose, it is essential that a resource fits in with the lecturer's own approach and the intended objectives of the learning session; otherwise, students' learning may be compromised: 'I worry if that my students look at this, or take this material they will think "That's what I've got to learn", whereas actually I'm asking them to look at the material from a different perspective, with a different level of details perhaps' (W19).

Relevance of content is also paramount; for example: 'Good content and easy to extrapolate from this particular example to examples which my students will know e.g. ref to Gettysburg' (log entry by W03). Resources score highly where they have contemporary relevance: 'These videos [on YouTube] could be used to explore the ethics behind the Vioxx situation in an online learning activity. The benefits of this will be to bring ethical considerations into real world situations' (log entry by W15). However, most lecturers are willing to compromise: 'a lot of time you just end up saying: "Well, it's close enough and it's better than nothing"' (E05).

We should note, too, that lecturers are interested in more than mere content: the workshop participants also hunted for resources that were either learning activities in themselves or inspired ideas for activities: 'I want different kinds of things that the students can be invited to engage with, different kinds of activities, tasks, me asking questions in a different way' (W02).

Lecturers appreciate resources that have a clear pedagogic intent embedded in them: that is, they have either been explicitly developed for educational purposes or can readily be co-opted for such a purpose. Poor pedagogic intent is noted in this log entry by W13: 'This resource is useful for giving an idea of what the lecture covered, but exactly how it did so is hazy at best.'

The problems of goodness of fit and pedagogic intent can be overcome by adapting a resource (copyright or feasibility permitting) or putting a *pedagogic wrapper* around it advising one's own students how to approach it; for example:

…this resource was written in the context of US compulsory schooling rather than higher education action research but it was still very relevant. What I would do is just say: 'Bear in mind that this is written on the context of US compulsory schooling but the ideas in it are still relevant', making it clear to them that they have to find the relevance and to make the connections with their own practice in this resource (E13).

The final pedagogic factor, granularity, has been has characterised by Weller (2010) in terms of 'big OER' – materials, often whole courses, that have 'explicit teaching aims' and are released by institutions as part of a major OER initiative – and 'little OER': 'individually produced, low cost resources' that may not necessarily be associated with explicit teaching aims or an overt context. Our data suggested some correlation between the granularity of a resource and its place within a learning design: as part of the core reading and activities, or supplementary to them (i.e. for students to access in their own time). When integrating OER into their core teaching lecturers tended to select little OER (except if teaching outside one's subject area: see 'Findings (1)' above); when seeking a means for students to practise and reinforce in their own time what they have learned in their course, lecturers might turn to big OER:

…my resources range from an image from a PowerPoint slide all the way through to a 70-minute lecture done by someone at [University A]. […] a 70-minute lecture […] would be supplementary teaching material; whereas, sometimes I'd be looking for ways to make my lectures more visually appealing, which would be more image- and small video-based (W09).

…the delivery of the course in an institutional setting is going to be so unique in terms of time available/teaching contact etc. that a set of online lectures from another institution could be challenging to integrate into effective teaching. At best a kind of back-up, secondary resource, or supplement (log entry by W203).

Where a little OER lacks explicit teaching aims, the lecturer can enjoy greater control over its use: 'I would be much more comfortable with small pieces so that I can control the context, so that I can assemble the framework myself' (W07).

These statements are not incompatible with lecturers' appreciation of (little) OER that have a clear pedagogic intent: 'pedagogic intent' is suggestive of an affordance (i.e. that something may be used for a particular purpose) while 'explicit teaching aims' imply that the resource has been designed for learners with a specified level of competence, and to achieve a defined set of learning outcomes in relation to a particular topic.

Logistical

Logistical factors – volume, ease of discovery and licensing – were explored in depth in the workshops.

The volume of materials retrieved could be both too much – 'looking at 3,000 […] you end up checking on them randomly' (W17) – and too little: 'a general scarcity of decent resources, rather than accessing them, seemed to be the main obstacle' (W13). Although a search for OER is unlikely ever to return the same quantity of items as a general-purpose search, a critical mass has yet to be reached to make OER viable across the board. Our limited quantitative data suggest that this problem is more severe in some disciplines than others: in the three broad domains where more than 10 searches were conducted, success rates[1] ranged from 50% to 67%. Interdisciplinary searches also appear problematic, although this may be, in part, a consequence of the compartmentalisation of resources into discrete subject areas.

In relation to ease of discovery, interviewee E04 remarked: 'if you know where to look then that's half the battle.' However, it would appear that 'all roads lead to Google' (E13), as our analysis of the 101 searches conducted by workshop participants showed that searches of dedicated OER portals (primarily

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[1] We defined a successful search as one that yielded a resource which the participant considered 'definitely' or 'probably' useful, or about which they were unsure (i.e. it was inappropriate to their current learning design, but was of possible future use).

Jorum and the OER Dynamic Search Engine) proved less successful than searches of general sites (48% versus 61%). Indeed, a number of participants resorted to the latter in frustration: 'I put two search terms into [OER sites], they're nothing; and then went to Google and found those' (W11).

In addition, lecturers need to be able to conduct searches with the minimum cognitive and psychomotor effort. Workshop data suggest that the following can deter would-be users of OER: poorly indexed materials; inadequate search engines that can handle only one-word searches and/or cannot recognise accepted pedagogic terminology ('the constant problem with searching: are they using the same terminology I'm using?': W06); the requirement to register with a site before one can even evaluate a resource ('You had to click on and post your email address and various other things, as well, so I just didn't bother': W03); the need to download an application in order to 'run' a resource ('Couldn't access it directly as download and email address involved': W11); and unreliable technology on the hosting site.

Currently, problems of discoverability can be mitigated to some extent where lecturers are part of a community and can benefit from personal recommendations or the grapevine. However, lecturers who are working on their own may fare less well and, without the support of peers, might even abandon the hunt prematurely: '[I] think I would have stopped after 20 minutes or so on my own time' (W13).

Licensing – or, rather, the absence thereof – may be a risk where a resource appears to be intended for general use (i.e. to all intents and purposes, it should be open), but does not carry a licence. There is, therefore, a risk of falling into the trap of assuming that a resource from a respected site that *appears* to be freely available is therefore, open by default: 'The resource that I found that was useful was a US government video, so I assumed again that it was open source' (W101).

Strategic

Our interviews revealed signs of emergent institutional strategies for fostering OER use in universities which already had a strong culture of reuse of 'home-grown' and/or externally sourced materials. In one university, strategic thinking appeared to have been triggered primarily by a desire to understand the potential market for its own resources rather than by a rationale of the pedagogic benefits of using OER to its own students and staff: 'trying to understand those things might support reuse a little bit' (S01). However, we did uncover some grass-roots attempts to bring OER use closer to the universities' policymakers: for example, through consultation processes and contacts at senior level, or by trying to make the accreditation of new courses dependent, in part, on OER use: 'another thing that's floating around in our heads that some institutions do already, that part of the [accreditation] process is, before you ask for money for developing content, you have to prove that there isn't any open content that's valuable. (S21)'

A number of approaches to implementing these emergent strategies were also identifiable in our evidence. These included an institution-wide curriculum design initiative; embedding OER use in professional development of early-career lecturers; and customised workshops for individual departments. Two universities were even following the example of established repositories by improving the presentation of their resources and building a social network on top: 'all the leading open education resource projects, MIT, MERLOT, Open Learn […] are now saying that we need a social layer; it's not enough to have just your content and just to present it' (S01).

Discussion

The overriding distinction between OER and other materials that can be found on the Web is, of course, the presence of clear, easily interpretable licences that govern the conditions under which each resource can be used within a piece of learning (including its potential recombination into another OER). However, this is primarily a logistical difference and – while we would not downplay the importance of the correct (legal) use of copyrighted resources by teachers – does not equate to a substantial shift in their *pedagogic* approach. For this, engagement with OER needs to be seen as part of a nexus: a set of interrelated behaviours that together constitute open educational practice (OEP) (OPAL, 2011; Beetham, 2011), and of which OER function as a marker: 'sometimes as signs that they are going on, sometimes as

drivers to make them happen, sometimes just in the background' (Beetham, 2011). Two core aspects of this practice are:

1. A belief in the value and validity of sharing and reusing resources, which may result in an enhancement of the quality (and, hence, outcomes) of students' learning, and in lecturers' personal professional development; and
2. Using or encouraging others to use open resources which, as suggested by our participants' interest in searching for activities and longer stretches of learning, may include licensed open learning designs.

The first aspect is both the principal prerequisite to engagement with OER and one of the underpinnings of Learning Design as a meta-theory (Dalziel, 2009) of education. The second serves to bind OER and Learning Design powerfully in the form of *open Learning Design practice*. In embracing OER production as well as reuse, OEP is, of course, broader than open Learning Design practice. However, the existing Learning Design research literature enables us to explore open Learning Design practice as a subset of OEP in more depth: for example, through the concept of 'layered Learning Design' (Boyle, 2010), which is relevant to questions of granularity in OER, and through the four-stage cycle of design, instantiation, realisation and review (Beetham, 2008).

Thus, the avenues are open for Learning Design practice to promote the creation and reuse of open designs and, conversely, for OEP to engage more explicitly with Learning Design: for example, through strategic initiatives in curriculum (re)design that 1) promote the re-use of existing relevant, pedagogically appropriate materials as a resource-efficient alternative to creating new ones; 2) where new materials need to be created, promote their release as OER; and 3) foster a culture of collaboration and sharing. Indeed, curriculum design initiatives that promote the use of OER as part of the development of new courses are currently one of the areas of investigation by the second author, who is conducting new research into the situated practice of engagement with, and re-use of, OER within the scope of a SCORE fellowship funded by the Open University in the UK.[2]

Digital support for open Learning Design practice: the Learning Designer

The close coupling, within the Learning Design field, of pedagogic practice and supportive digital tools, leads naturally to a consideration of how such tools might support the creation and sharing of open learning designs. In this respect, findings from the OER Impact Study have opened up the potential for synergy with a project in which three of the authors are involved: the Learning Design Support Environment (LDSE) (Laurillard et al., in press; Bower et al., 2011). The research team has been developing and evaluating the Learning Designer, a tool that employs artificial intelligence – specifically, knowledge engineering – to provide adaptive support as lecturers work through the design process.

Although the Learning Designer was not explicitly developed to support the incorporation of OER into learning designs and the construction of specifically open designs, existing features within the tool directly address some key issues uncovered in the OER Impact Study, in particular the pedagogic issues of fitness to purpose and pedagogic intent. For example, the software prompts lecturers to make their pedagogic assumptions explicit (by associating their learning outcomes with Bloom's taxonomy), thereby assisting those would-be reusers who are interested in the teaching aims of a design. It also analyses the cognitive dimensions of different learning activities (e.g. acquisition, inquiry, practice), which not only helps the designing lecturer to achieve the optimal mix for their purposes, but also allows others to evaluate these properties and, thereby, make speedier and more informed judgements regarding goodness of fit to their own purposes.

An emergent line of research in the LDSE project has the potential to help overcome a major logistical hurdle: the lack of interoperability which prevents an open learning design created in one system (e.g. LAMS) from being accessible to lecturers seeking pedagogically appropriate designs to implement in another (e.g. Moodle). An initial exploration of the technical and pedagogic issues involved is currently under way and is reported by Bower et al. (2011).

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[2] http://www8.open.ac.uk/score/about_SCORE

Finally, data from the OER Impact Study are yielding a rich set of recommendations for future support of open Learning Design practice by the Learning Designer. These include federated searches for OER (especially open learning designs) and assistance in the selection of an appropriate licence where a lecturer wishes to release their learning design as an OER.

Conclusion

The OER Impact Study explored the use of open educational resources in UK universities, with specific reference to 1) the benefits to institutions, teaching staff and learners, and 2) the factors conducive to the uptake and sustained use of OER. The researchers gathered qualitative data from a total of ten participants with strategic responsibility for OER and 25 participants in teaching roles. In addition, quantitative data were extracted from 101 searches undertaken during two workshops that explored the reality of searching for, locating and evaluating online resources.

Impact – in terms of the uptake and embedding of OER into everyday practice – cannot be assessed merely by observing short-term changes in superficial behaviour such as those evinced at our workshops for novice OER users. Rather, as shown by the testimonies of the experienced users of OER whom we interviewed, it entails a particular way of thinking and doing by the individual lecturer and a particular organisational culture in which the 'business' benefits of incorporating OER into courses are held in a dynamic balance with pedagogic appropriateness and, crucially, with lecturers' need to preserve the authenticity of their teaching voice.

Finally, a close – even natural – mapping between OEP and Learning Design has laid the way for open Learning Design practice, which could be facilitated by digital tools such as the Learning Designer that help lecturers to articulate their pedagogic intent and, thereby, make it visible to others.

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