HEA/JISC Open Educational Resources case study: pedagogical development from OER practice

Research ethics OER: can they be 'radically repurposed and remixed'?

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Outline

This case study provides guidance on discovering, reusing and repurposing of Open Educational Resources (OER). It is presented within the context of research ethics OER for higher education learning and teaching and, together with the OER guidance, provides examples of OER found for this subject area.

In 2009-2011, the Joint Information Systems Committee (JISC) funded the SHARE project (Supporting, Harnessing and Advancing Repository Enhancement) at Nottingham Trent University (NTU) as part of the JISC Information Environment Programme, to implement and integrate the learning repository in its virtual learning environment, Desire2Learn, within learning and teaching. Unexpectedly, SHARE became a catalyst for raising awareness of Open Educational Resources as colleagues began to discuss and investigate issues with respect to sharing their resources beyond NTU. In an attempt to establish further engagement, in partnership with academic, library and staff development colleagues, the project team developed introductory OER training and support, which is now part of NTU's online resources and support activities.

When the SHARE project concluded, it recommended that more work could be undertaken to promote further widespread adoption of OER and to encourage movement beyond awareness to integration within teaching. Additionally, those involved in the project had already noted that some study components were ubiquitous across a range of courses; for example, project management, final-year dissertation and research methods. The identification of these common components had generated discussion with respect to whether institutional ubiquity was reflected in the OER available in these areas and whether a course or part of a course could actually be comprised of OER. This case study, therefore, focuses on the availability of OER in one of these areas, research ethics within the context of research methods.

Creating OER that can be reused and redesigned is particularly challenging for the academic community and it is a challenge acknowledged in William and Flora Hewlett Foundation's 2007 report *A Review of the Open Educational Resources (OER) Movement,* which posed the question:

How can we create material that can be radically repurposed and remixed where appropriate?
(Atkins *et al.,* 2007 p.66)

Lane (2010, p. 7) states that "evidence of significant repurposing other than using study units as is, is limited". He also argues that ease of reuse and value to learning and teaching pose significant barriers to adoption of OER. Considering these challenges this case study, also, investigates whether:

• a resource discovery case study design can be created that can be reused and repurposed in different disciplines;

• appropriate research ethics OER can be found and repurposed.

As the case study focuses on both the discoverability and reusability of OER the group that was formed to create the case study comprised:

• social sciences academic librarian, who provided advice on resources discovery and copyright issues;

• senior academic/learning and teaching co-ordinator from within social sciences, who provided advice on the academic content;

• senior e-learning developer, who provided advice on reuse.

The case study provides guidance on OER and illustrations of OER for research ethics. To articulate this it is divided into two parts:

• Part 1: An introduction to OER, providing guidance on how to identify OER, the benefits to learning and teaching, quality assurance issues and discovering OER.

• Part 2: Provides illustrations of OER for topics that would be within a Research Ethics study unit in areas of data protection, confidentiality and anonymity, and informed consent, concluding with the positives and negatives of using OER.

With respect to finding and evaluating OER for the case study, this work was divided between the group members. The case study was then written up and presented online using the Wimba Create web authoring tool, which enabled easy navigation through the study and allowed the integration of the identified OER via weblinks. The case study was then shared with NTU staff, using the learning repository tool within NTU's virtual learning environment Desire2Learn. Staff can then choose to link to the resource or download it to their course within the VLE, which enables them to make changes if they wish.

Case study

Conception

A recommendation of the SHARE project, as mentioned above, was to further promote the widespread adoption of OER and to encourage integration within teaching. The development of a social sciences case study benefited from the momentum that had been gained as there was both expertise within the University and an enthusiasm for sharing OER practice.

The original conception of a case study aimed to produce an easy-to-use guide for academic staff new to the notion and use of OER. In the development phase it was considered important that the guide should have both an instrumental function and an intrinsic value. The selection of research ethics as a subject area, therefore, enabled the resource to reach an informed audience well versed in the concepts of data protection, confidentiality, anonymity and informed consent. The creation of the case study further aimed to provide insight into how a wide range of teaching resources could be repurposed for a range of uses. Thus the case study provided an essential overview of the use of OER and became a valuable teaching resource for academic staff teaching research methods and ethics more generally. By choosing a subject area taught across all programmes at all levels of study, the case study engendered interest among staff who, while being unfamiliar with the notion of OER, could quickly see the value of an application to a subject area that they were familiar with. A pedagogic interest in the teaching of research ethics created an opportunity to reach a new audience of academic practitioners.

Prototype

The development of a case study prototype in both a text-based form and online presentation incorporates a number of features that are easily replicated across different subject disciplines. Essentially the key features and significant considerations and benefits of OER are mapped and explicated in the application of a number of examples. The case study identifies a range of OER and prompts the audience to consider how such resources might be repurposed in their own practice. Resources with obvious limitations also offer opportunities for staff and student evaluation.

Evaluation and refinement

The development of the prototype included a number of revisions and refinements by the team over a period of several months. A significant peer review activity took place at the School of Social Sciences Learning and Teaching Conference. Delegates who signed up for the workshop were invited to review the resource during the session. Participants, with one or two exceptions, had little practical understanding of OER and their application. They were all practising academics from a range of social sciences disciplines with an understanding of research ethics. The review activity was invaluable in that a number of design features were appropriately questioned and a fresh insight enhanced the design process. The resource will continue to be reviewed and refined as a natural consequence of wider adoption.

Overall the resource was reviewed positively and academic staff understood the dual function of the design. As expected the research ethics subject matter received little obvious attention and became the shared vocabulary and backcloth to a more detailed discussion regarding OER. Suggestions for improvement gravitated toward the more presentational aspects of the design such as a suggestion for more images, restructuring the order of some of the sections, and inclusion of more examples of poor educational resources. On balance the feedback provided was fair and constructive and observations were incorporated into the final refinement presented here.

An online version of the case study has been available via the NTU Learning Repository since December 2011. Early signs are that this is a promising resource with the potential for replication across a range of subject areas.

The actual case study

This can be found in the appendix and can be downloaded in Microsoft Word format from http://www.heacademy.ac.uk/resources/detail/oer/oer-phase-3-case-studies which should enable some flexibility with respect to reuse. The document has been designed for Wimba Create and therefore uses styles and can be reused in the following ways:

- as a Word document, which can be edited;
- as a navigable PDF using Publisher;
- as a content package using Wimba Create;
- or republished using any web authoring package.

NTU is also considering sharing content outside the institution using its learning repository tool, which will provide a URL. It is intended that this OER will be used within this pilot, thus making it available as an electronic resource.

Learning from OER

Several lessons have been drawn from this case study when finding OER for learning and teaching. These are referred to in the case study as issues to consider but the key ones are:

• it can be a very time-consuming practice;
• expectations have to be managed as findings can be disappointing;
• the use of metadata to index OER is inconsistent and some descriptions and keywords can be misleading;
• the range of materials found was more limited than anticipated, mainly comprising PowerPoint presentations and Word documents rather than multimedia.

Advice to others wishing to use this case study as a model would include an awareness of the issues outlined above. In addition, users should be encouraged to search established repositories such as Jorum and MERLOT.

Additional areas that could be considered for inclusion comprise how OER can be repurposed, and issues (e.g. licensing) to consider if depositing OER into repositories. Users would be advised to apply the principles in finding OER to other subject areas. When disseminating the resource to a wider audience a guidance note should be provided with respect to how it could be reused. It is also advised if reusing the template for further subject applications the design should be undertaken collaboratively as a group activity similar to this, with representation from learning technology and library services, as well as the teaching community.

Conclusions

There are a number of conclusions that can be drawn from the design and review of the case study. First and foremost the design of the case study combining an introduction to OER and an illustrative application works effectively as a model as evidenced by the review process. Secondly the collaborative approach taken which combined expertise from three distinct areas was highly successful.

Inevitably there are also some constraints that do need to be considered in relation to further application. The resources currently available in the field of research ethics appear to be largely text based rather than multimedia. This is an issue particularly for academic staff who are looking for innovative and interesting media to enliven the content of standard learning and teaching resources. Indeed we also observed an imbalance in the use of OER in that academic staff were less inclined to share their own resources while being more open to repurposing the resources of others.

Regarding next steps for the project team it is recognised that wide availability of the case study does not by itself guarantee uptake and this is an area of further development to address within the home institution. Equally the perceived gap in innovative and effective research ethics resource material is a further area which social scientists in the University can easily contribute to if effectively supported.

References

Atkins, D.E., Seely Brown, J. and Hammond, A.L. (2007) *A review of the open educational resources (OER) movement: achievements, challenges, and new opportunities.* The William and Flora Hewlett Foundation. Available from: http://www.hewlett.org/uploads/files/ReviewoftheOERMovement.pdf [25 April 2012].

Lane, A. (2010) Designing for innovation around OER. *Journal of Interactive Media in Education. JIME* Special Issue on Open Educational Resources. Available from: http://www-jime.open.ac.uk/article/2010-2/pdf [25 April 2012].

Case study

The following is a case study on finding appropriate Open Educational Resources within the area of research ethics.

Open Educational Resources (OER) are teaching, learning and research resources that reside in the public domain or have been released under an intellectual property licence that permits their free use or repurposing by others (Atkins *et al.*, 2007). OER include full courses, course materials, modules, textbooks, streaming video, tests, software and any other tool, materials or techniques used to support access to knowledge (William and Flora Foundation). This differentiates them from Open Access, which tends to refer to unrestricted online access to articles published in scholarly journals and comes in two forms, no-cost access or with some additional usage rights.

Some study components appear to be ubiquitous across a range of courses, for example, project management and research methods. This case study examines whether institutional ubiquity is reflected in the OER available. In order to investigate this, research ethics was chosen as a scalable case study as it is appears to be common within research methods.

The case study is in two parts:

- Part 1: An introduction to OER.
- Part 2: Research ethics OER.

Part 1: An introduction to Open Educational Resources (OER)

This first part will cover:

- learning and teaching benefits of OER;
- how to identify OER;
- quality assuring of OER;
- where to find OER.

What are the learning and teaching benefits of OER:

- are publicly available and free to use;
- majority can be altered and adapted (repurposed);
- can help free up your time for other course design activities;
- can improve the quality and range of learning resources by building on other people's work;
- can help to build student support resources, e.g. study skills, employability, dissertation, etc.;
- are not just for teachers to use or repurpose: students can be encouraged to use OER to support their own learning;
- freeing up time for designing the learning experience rather than creating, as appropriate learning materials may have been developed elsewhere;
- can help to supplement areas where content creation skills may be weaker, e.g. audio and video;
- can provide an opportunity to engage in a global community of sharing and reusing educational resources;
- enable the use of a wider range of resources and materials than would be possible if all of the content was self-created.

How to identify an OER

OER materials are generally released under a Creative Commons (CC) licence (or equivalent). Creative Commons is a non-profit corporation dedicated to making it easier for people to share and build upon the work of others, while still maintaining ownership and copyright control. They provide free licences and other legal tools to mark creative work with the freedom the creator wants it to carry, so others can share, remix, use commercially, or any combination thereof.

There are four elements, which can be assigned to a work, each with its own image. These can be with or without the text:

BY - Attribution   attribution (BY) – the licensor determines how they wish to be attributed.

NC – Non Commercial non-commercial (NC) – not to be used for commercial gain.

ND - No Derivatives no derivatives (ND) – no changes to be made.

SA - Share Alike   share alike (SA) – derivatives can be made, but the original licence is to be applied (e.g. if the original work is non-commercial, it has to remain so after repurposing).

These elements are used to make up six licences: BY; BY SA; BY ND; BY NC; BY NC SA; BY NC ND

A typical Creative Commons licence image will look like this:

Quality assurance of OER

With OER teachers are actively encouraged to reuse, repurpose and remix the resources. This, OER advocates claim, leads to higher standards when a long view is taken. However, the responsibility for assuring the quality of the online content that you make available in your teaching rests with you. This includes integrating OER (is there a school policy?). With respect to the use of OER (and learning resources in general), it is recommended that you consider the following issues:

• accessibility;
• copyright;
• fitness for purpose.

Accessibility

Making learning accessible is a responsibility for all and it is important, particularly at the point of delivery where you have a responsibility, to ensure that your learners do not have any difficulty accessing your content, especially if it is required to meet learning outcomes and/or if it is needed for assessment purposes. For guidance on how to create accessible learning resources consult the Accessibility Checklist for VLE Materials (this is on the NTU eLearning Community site in the VLE) and JISC TechDis' guidance on accessible content (http://www.jisctechdis.ac.uk/techdis/keyinitiatives/accessiblecontent).

Copyright

Copyright restrictions apply to the reuse of all learning content, even if there is no copyright symbol © .However, OER materials are generally released under a Creative Commons (CC) licence (or equivalent). Creative Commons (CC) is a non-profit corporation dedicated to making it easier for people to share and build upon the work of others. While still maintaining ownership and copyright control, a CC licence assigns certain attributes so you can check to see if the object is for reuse only, or if you are legally able to repurpose it. Refer to 'How to identify an OER' section for more information on Creative Commons licences. Remember not to confuse open access with OER. Just because a resource is freely available you should still check the terms of use of the resource before you integrate it in your teaching as there may be specific restrictions.

Fitness for purpose

There are additional quality assurance questions that you need to ask with respect to the fitness for purpose of OER:

- Is the subject matter accurate? If you are not certain ask a colleague.
- Is it at the right academic level for your students? Again if you are unsure ask a colleague.
- Are any sources appropriately acknowledged? Check the copyright of any source materials you are using in your own work to ensure you aren't infringing copyright, for further guidance see the LLR guide 'Copyright Guide for Materials' (http://www.ntu.ac.uk/llr/document_uploads/65662.pdf).
- Has the resource been produced and/or authored by a reputable institution or organisation? Generally, organisations and institutions that have a good reputation will produce good quality resources because it enhances their reputation. However, be aware that they can also produce poor resources too.
- Are there any problems with presentation of the resource in your learning room? This can include the design of the resource as well as technical issues, before making a resource you have found available to your students check to see what it looks like in your learning room and be aware that resources that are a large file size will take longer to access off campus.

How to find OER

Many OER are stored in learning repositories. These are areas for storing and managing content. The emphasis for this case study is on digital repositories, with digital content. Content can include documents, presentations, podcasts, images, online courses, assessments, resource lists, statistics, user guides, etc. The purpose of a learning repository is to share resources among a community to encourage the use and, copyright permitting, repurposing of resources.

Learning repositories offer several benefits:

- they gather resources together – some are subject-specific;
- they are searchable;
- using them can save time – the wheel isn't reinvented;
- inspiration;
- the resources can promote ideas/work;
- materials may be found to fill gaps in existing resources;
- the profile of the originators and institutions is raised.

The majority of learning repositories are multidisciplinary. Some of the larger repositories identified as useful for research ethics are listed below:

- JorumOpen: http://www.jorum.ac.uk/;
- Merlot: http://www.merlot.org/merlot/index.htm;
- OER Commons: http://www.oercommons.org/;
- Connexions: http://cnx.org/.

Additional potentially useful repositories include:

- NTU's Learning Repository;
- MITOpenCourseWare (MITOCW): http://ocw.mit.edu/index.htm;
- Open Exeter: https://open.exeter.ac.uk/repository/;
- OpenLearn: http://openlearn.open.ac.uk/;
- OpenSpires (the University of Oxford's podcasts): http://openspires.oucs.ox.ac.uk/;
- OTTER – Open, Transferable and Technology-enabled Educational Resources (the University of Leicester): http://www2.le.ac.uk/departments/beyond-distance-research-alliance/projects/otter
- U-NOW (University of Nottingham): http://unow.nottingham.ac.uk/

Social science repositories:

- iTunes U Social Sciences: http://www.open.edu/itunes/subjects/social-sciences;
- Public Health OpenCourseWare (John Hopkins Bloomberg School of Public Health): http://ocw.jhsph.edu/topics.cfm;
- SWAPBox (University of Southampton): http://www.swapbox.ac.uk/.

In addition there is Google Rights Search: http://www.google.co.uk/advanced_search?hl=en. This isn't a learning repository but a search feature from the Google Advanced Search screen. Certain rights can be applied to your search, e.g. free to use, share or modify.

Part 2: Research ethics OER

This is an overview of the research ethics OER that were found which may be appropriate for use within a Research Ethics module/component. Resources identified were in the following areas:

- data protection;
- confidentiality and anonymity;
- informed consent.

Data protection

- **Using personal data in research: code of practice for SOAS staff and students:** http://www.soas.ac.uk/infocomp/dpadparesearch/ (free to use or share). This was found on the SOAS website using Google Rights rather than in a repository. It provides a clear and comprehensive explanation of data protection in research.
- **Data protection: training resources:** http://www.soas.ac.uk/infocomp/dpa/training/ (free to use or share). Again, this was found on the SOAS website using Google Rights. This links to a collection of presentations, documents and training resources about data protection in general.

Confidentiality and anonymity

- **Maintaining anonymity and confidentiality – University of Leicester:** http://www.le.ac.uk/oerresources/ssds/researchskills/page_32.htm. This is a component of the University's research methods OER and provides a clear overview of the issues, but there are no illustrations of processes or strategies to ensure confidentiality and anonymity. As the resource is text it should not be difficult to repurpose.
- **Confidentiality, anonymity and privacy – teaching and learning research programme:** http://www.tlrp.org/capacity/rm/wt/bridges/bridges4.html. This is a component of the 'Ethics and Educational Research: Philosophical Perspectives' OER, by David Bridges, who was chair of the Philosophy of Education Society in Great Britain in 2008. It provides more detail than the University of Leicester's resource, but focuses on the philosophical questions relating to confidentiality, anonymity and privacy rather than the practical considerations. It is a text-based resource, which would be straightforward to repurpose but the reading list focuses on printed resources, making it difficult to deliver online from a technical and copyright perspective.

- **Privacy and confidentiality:** http://ocw.jhsph.edu/courses/introhsr/PDF/Lecture11a.pdf (pdf – slides), http://ocw.jhsph.edu/courses/introhsr/MP3/introhsr-sec11A.mp3 (mp3 – 13mins);

- **Challenges in maintaining privacy in our settings; mechanisms to address challenges to privacy and confidentiality:** http://ocw.jhsph.edu/courses/introhsr/PDF/Lecture11c.pdf (pdf – slides), http://ocw.jhsph.edu/courses/introhsr/MP3/introhsr-sec11C.mp3 (mp3 – 18mins) – John Hopkins Bloomberg School of Public Health. These OER are written and presented by Anant Bhan, MBBS, MHSC, as part of the Ethical Social and Cultural Program for the Grand Challenges in Global Health Initiative and within an Indian medical context but some of the issues addressed with respect to privacy and confidentiality are generic within a research context. More detail is provided than in the previous two resources and some strategies for ensuring privacy and confidentiality are presented. As the slides are mainly text they should be straightforward to repurpose and the accompanying audio file can be downloaded.

Informed consent

- **Tips on informed consent – Scott Plous of Wesleyan University & Social Psychology Network:** http://www.merlot.org/merlot/viewMaterial.htm?id=235135 This resource presents a short overview of informed consent within a research context from a US perspective. American Psychological Association guidelines are offered along with an exemplar consent form.

- **Ethical guidelines for informed consent in research on human subjects:** http://www.merlot.org/merlot/viewMaterial.htm?id=565876. Mindgate media have produced a two-minute video in which a specific scenario aims to examine the extent to which a degree of deception is an acceptable practice when conducting research on human subjects. The scenario is not without problems but could provide a useful teaching and learning activity if properly framed by the tutor with ethical guidelines.

- **Guidance for research involving adults lacking mental capacity – University of Leicester:** http://www2.le.ac.uk/institution/committees/research-ethics/guidance-for-research-involving-adults-lacking-mental-capacity?searchterm=informed consent. A limited resource that offers some basic guidance in relation to gaining informed consent. Weblinks to further resources are offered but not all are working. A SWAPBox PowerPoint resource (http://www.swapbox.ac.uk/576/) by contrast aims to find a balance between safeguarding the interests of would be participants and making positive use of the Mental Capacity Acts.

Positives and negatives of using OER within the case study

Positives of using OER within the case study:

- free to access and reuse;
- Creative Commons licence removes complicated copyright issues;
- different media formats can enhance existing materials;
- can help to provide an overview of an unfamiliar subject, so even if you are not using it in its entirety it may be useful as
- a supplementary resource;
- it makes you aware of resources that may be useful in subject areas you had not thought of.

Negatives of using OER within the case study:

- finding appropriate resources is time consuming;
- you may not always get a perfect fit. If you want to fully integrate into learning and teaching many resources require a rewrite or reformatting;
- quality and detail of the resources varies;
- searching repositories won't always retrieve OER;
- the amount of resources available is limited in some subject areas;
- you may need to search under a variety of keywords before finding an appropriate resource. It can often be more productive to drill down through contents and topics;
- remember caveat emptor – just because a resource is in a repository doesn't mean it's not exempt from errors.

References

Atkins, D.E., Seely Brown, J. and Hammond, A.L. (2007) *A Review of the Open Educational Resources (OER) Movement: Achievements, Challenges, and New Opportunities.* Menlo Park, CA: The William and Flora Hewlett Foundation. Available from: http://www.hewlett.org/uploads/files/Hewlett_OER_report.pdf [9 September 2011].

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