

<p>Institution: Glasgow Caledonian University</p>
<p>Unit of Assessment:25</p>
<p>Title of case study: Title of case study: Impact on Policy, Practitioners, and Services around Open Learning Practices</p>
<p>1. Summary of the impact Our research into practices around learning resources has had a major impact on teaching in other higher education institutions (HEIs) in the UK and internationally, on the policy of funding bodies, has been embedded in repository design, and contributed to public policy on transparent government. Our emphasis on socio-cultural factors has changed educational culture, leading to richer policy, by shifting debate from a view of resources as technological objects, to practices. Through shaping the Joint Information Systems Committee (JISC) and Higher Education Academy (HEA) programmes in Open Educational Resources (UKOER) and Digital Literacies, our research has had impact on professional services around open learning practices in over 90 HEIs, and had direct impact on digital literacy support in at least six. Our findings have informed a report to the Cabinet Office on 'Transparent Government'. Internationally, our work has prompted major repositories of resources in the USA, Estonia, the Netherlands and Australia to take a user-centred social focus in repository design.</p>
<p>2. Underpinning research Our research is distinctive for its socio-cultural, user-focused approach to learning with open educational resources (OER). In a field often dominated by technical and organisational considerations, we emphasise a broader understanding of "open learning practices" that encompasses all activities that open up access to post-compulsory education in a context where freely available online content and services are becoming the norm. The research was undertaken by Littlejohn (Director of the CA, 2006-present), Falconer (lecturer/senior lecturer 2006-present), Margaryan (lecturer/senior lecturer 2006-present), and Milligan (research fellow 2007-present). Details of staff involvement in specific projects, and funding to GCU, are given below. Two freelance consultants, McGill and Beetham, have been employed by GCU to work on specific projects described below.</p> <p>A key issue in developing sustainable approaches to learning practice was to identify characteristics of resources that have proved effective in developing learning and teaching. Falconer and Littlejohn's research on Effective Learning Resources [1] achieved this by relating the characteristics to existing frameworks for understanding resources and highlighted the significance of the relationship between resources and users. Their work informed design of the JISC/HEA UKOER programme.</p> <p>Learning resources are typically collected into repositories for ease of management and to promote discovery. Previous work on repository development frequently focused on the technical requirements of repository managers. In our Community Dimensions of Learning Object Repositories project (CD-LOR, JISC, £250K, 2005-7) Margaryan, Littlejohn and Milligan [2] demonstrated the significance of socio-cultural practices in repository use, and proposed a new framework for repository development that addressed these practices and has guided design of a number of repositories internationally.</p> <p>Since 2001 promotion of OER in many nations' programmes and policies has highlighted the need to understand the socio-cultural factors surrounding OER use. In our Learning from Digital Natives project (LDN, Higher Education Academy, £25k, 2007-08) Littlejohn and Margaryan [3], studied user adoption of technologies for accessing resources. Littlejohn, Beetham and McGill [4] investigated the digital literacies required for effective resource use, and the ways in which universities support learners to acquire them, in our Learning Literacies in a Digital Age (LLiDA, JISC, 2008-09, £60k) project. Their findings are embedded in support for digital literacy at universities across the UK.</p>

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The open licence under which they are released has profound implications for the ways in which OER are used. Littlejohn, Falconer, McGill and Beetham [5,6] explored these in the context of adult learners and educators within and outside formal education, using rich data from our UKOER Evaluation and Synthesis (JISC UKOER 1,2&3, £200k, 2009-12) and OER4Adults (European Commission Joint Research Centre, £50k, 2012-13) projects. Their work has informed development of the UKOER funding programme and provided empirical evidence to European policy makers to guide policies in the field of Open Education.

3. References to the research

- [1] Littlejohn, A., I. Falconer & L. McGill (2008), 'Characterising effective e-learning resources', *Computers and Education*, **50**, 757-771, DOI:[10.1016/j.compedu.2006.08.004](https://doi.org/10.1016/j.compedu.2006.08.004) (impact factor 2.970)
- [2] Margaryan, A., & Littlejohn A. (2008). 'Repositories and communities at cross-purposes: Issues in sharing and reuse of digital learning resources', *Journal of Computer Assisted Learning*, **24**, 333-347, DOI:[10.1111/j.1365-2729.2007.00267.x](https://doi.org/10.1111/j.1365-2729.2007.00267.x) (impact factor 1.464) and associated [guidelines](#)
- [3] Margaryan, A., Littlejohn, A., & Vojt. G. (2011). 'Are digital natives a myth or reality? University students' use of digital technologies', *Computers and Education*, **56**, 429-440, DOI:[10.1016/j.compedu.2010.09.004](https://doi.org/10.1016/j.compedu.2010.09.004) (impact factor 2.970) [in [Elseviers top 25 Education downloads](#) in 2013]
- [4] Littlejohn, A., Beetham, H., & McGill, L. (2012) 'Learning at the digital frontier: a review of digital literacies in theory and practice', *Journal of Computer Assisted Learning*, **28**, 547-556, DOI:[10.1111/j.1365-2729.2011.00474.x](https://doi.org/10.1111/j.1365-2729.2011.00474.x) (impact factor 1.464) based on an earlier [project report](#)
- [5] Littlejohn, A, Falconer, I, McGill, L, and Beetham, H. (2009-2012) [UKOER Synthesis and Evaluation site](#) (containing reports on HEFCE funding for OER 2009-2012, to the JISC of phases 1, 2, and 3 of the research, briefing papers and drafts of forthcoming journal publications) ["As a new and fast moving field, OER literature is generally "grey", and citations by leading organisations (eg the Open CourseWare Consortium) and at leading conferences (eg the Open Education Conference) is an excellent measure" JISC programme manager [F]]
- [6] Falconer, I, Littlejohn, A, McGill, L, and Boursinou, E (2013) [Overview and Analysis of Practices with Open Educational Resources in Adult Education in Europe](#), European Commission, Joint Research Centre, Institute for Prospective Technological Studies

4. Details of the impact

Our insistence on the centrality of socio-cultural issues surrounding OER practice has impacted on the provision of professional services in open learning practices nationally and internationally, on the culture of funding bodies nationally and internationally, and on public policy on transparent government in the UK.

Internationally, our work has impacted on provision of services in institutions embedding OER into their curriculum approaches. For example, the Free Technology Academy, a consortium between open universities in The Netherlands, Cataluña and Norway, is basing its approach to its OER repository on the outcomes of the CD-LOR project [A]. In Estonia CD-LOR findings informed the information architecture of the LeMill national repository and authoring platform and hence the basic processes of OER authoring and release [B]. In the US the National Science Digital Library has been influenced by CD-LOR to include a third, social, phase in its audit of Learning Application Readiness [C]. In Australia, "The ...CD_LOR project provided some of the seminal research ... on the use and design of ... repositories. When the Australasian Society for Computers in Learning in Tertiary Education (ascilite) was contracted by the ... Australian Learning and Teaching Council to develop design principles for an online repository we drew on the well-developed outcomes of CDLOR to focus on the development of an engaged community of learners rather than a repository

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alone" (former Vice-president *ascilite*) [D]

Our work has impacted on culture in the JISC, shaping policy that underpins their competitive funding programmes for teaching development in Open Educational Resources and Digital Literacies, which support the Department of Business, Innovation and Skills online learning agenda. Based on the outcomes of our *Learning Literacies in a Digital Age* project (LLiDA), and a scoping study that the JISC subsequently commissioned from one of the LLiDA consultants, Beetham, JISC established a UK-wide £1.5M programme of work during 2011-13 called [Developing Digital Literacies](#). The call adopted the definition of digital literacies we developed in the LLiDA project, and the associated [briefing paper](#) refers bidders to our LLiDA recommendations and framework [E].

The JISC/HEA [Open Educational Resources programme](#) (UKOER, approx £15M in total nationwide, 2009-2012) which involved over 90 UK HEIs also drew on our work [F]. The initial [funding call for Phase 1](#) in 2009 adopted Littlejohn, Falconer and McGill's (2008) definition and categorisation of educational resources and also referred bidders to the outputs of our CD-LOR project for [structured guidelines for setting up repositories](#) [G].

Throughout our work on synthesis and evaluation of the UKOER programme, we worked closely with the JISC, and the funding calls for Phases 2 and 3 show the immediate impact of our findings and developing conceptual framework. LLiDA is also referenced in the calls for these funding rounds. Our broadening of the concept of practices around OER to Open Practices was first presented at the JISC OER programme meeting in May 2011, and the funding call for UKOER Phase 3 in July 2011 builds on this new understanding, stating, "*The key findings that bidders should be aware of are: Based on the findings of the first two Phases of work, we now conceptualise open educational resources as a component of a wider field of "open academic practice", encompassing the many ways in which higher education is engaging and sharing with wider online culture*" [H]. Summarising the importance of our work, a JISC programme manager, judged, "*The synthesis and evaluation of the c£15m UKOER programme was used iteratively to improve the programme as it ran, and stands in its own right as the world-leading resource concerning the implementation of open practices in institutions.*" [F]

Our impact at UK level has had an impact on the thinking of policy makers at European Commission level. Our [vision for lifelong learning in 2030](#) and [SWOT summary](#), derived from our *OER4Adults* project and *UKOER Evaluation and Synthesis*, formed the core of a recent European Commission Joint Research Centre workshop to develop a Roadmap for Open Education for Lifelong Learning in 2030 and provided empirical evidence to support the EC's "Opening-up Education" initiative launched in mid-2013 [I]. A Head of Sector, DG Education and Culture, European Commission, writes, "*[you] confirmed the dominance of EN and FR language in all initiatives and that a lot should be done to make OER available in smaller language groups. It also suggests that little is known (or less) about initiatives not linked to higher education. This, too, has implications to policy ...I also came to the conclusion that it is important in every occasion to agree what we mean by adult learners and adult learning...we are working on this topic so we will certainly use the study*" [J]

Through our direct impact on the JISC and its funding streams, our research has had impact on practitioners and professional services around open learning practices across the UK. Phases 1 and 2 of the UKOER programme alone involved over 90 institutions in England and Wales [K]. By feeding our *UKOER Evaluation and Synthesis* findings through into the JISC [OER infoKit](#) we have maintained this influence beyond the end of the funded period. The infoKit informs and explains OER and the issues around them for managers, academics and learning support. Google analytics (20,000+ unique visitors Nov 2009-April 2013) show that the infoKit is widely recognised [L]. We have had a direct impact on practitioners and professional services in at least six UK HEIs who have initiated support for digital literacies, embedding outcomes of the LLiDA project: the universities of Liverpool, Leeds, West of London, London Metropolitan, Bournemouth and Plymouth [M]. For example, the University of Plymouth's JISC Building Capacity project (2010/11) stated that "*One of the key elements... was learning from the JISC funded Learning Literacies for a*

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Digital Age (LLiDA) project... By using high profile areas linked to strategic projects, such as the LLiDA institutional audit tool, the adoption of artefacts was highly visible within the institution, which aided take up”[N].

The LLiDA project has had an impact on public policy, informing Government thinking on transparent government, via its inclusion in a 2011 report commissioned by the Cabinet Office, where LLiDA outcomes were used to justify support for intermediaries to interpret government data to a population generally lacking in digital literacy: *“Data literacy is indeed an issue, and is generally, like all kinds of literacy, a good thing to be encouraged (cf. e.g. Beetham et al 2009 [the LLiDA report], which talks of digital literacy, or McAuley et al 2011). It would certainly make transparency more likely to empower people.... If there is a lack of data literacy in a society, it does not invalidate a transparency programme. Instead it underlines the importance of a competitive set of creative intermediaries” [O].*

5. Sources to corroborate the impact

- [A] Peer production & peer support at the Free Technology Academy
<http://dSPACE.learningnetworks.org/bitstream/1820/4113/1/Pottersetal-CSERC11-DSPACE.pdf>
- [B] Leinonen, T., J. Purma, H. Pöldoja, and T. Toikkanen, ‘Information Architecture and Design Solutions Scaffolding Authoring of Open Educational Resources’, *IEEE Transactions on Learning Technologies*, 3 (2010), 116–128 DOI:[10.1109/TLT.2010.2](https://doi.org/10.1109/TLT.2010.2)
- [C] Ginger, K, and Goger, L ‘Evaluating the National Science Digital Library for Learning Application Readiness’ DOI:[10.1002/meet.2011.14504801034](https://doi.org/10.1002/meet.2011.14504801034)
- [D] Email from the former Vice-president *ascilite*
- [E] Developing Digital Literacies: Briefing Paper in support of JISC Grant Funding 4/11
<http://www.jisc.ac.uk/media/documents/funding/2011/04/Briefingpaper.pdf>
- [F] Email from JISC Programme Manager for the UKOER programme
- [G] Briefing paper on Open Educational Resources (JISC briefing paper for OER pilot phase)
<http://www.jisc.ac.uk/media/documents/funding/2008/12/oerbriefingv4.doc>
- [H] HEA/JISC Open Educational Resources (OER) Phase Three Programme: Embedding and Sustaining Change, HEA/JISC Grant Funding 10/11, July 2011
<http://www.jisc.ac.uk/media/documents/funding/2011/08/OERProgrammePhase3FINAL.pdf>
- [I] [OEREU site http://is.jrc.ec.europa.eu/pages/EAP/OEREU.html](http://is.jrc.ec.europa.eu/pages/EAP/OEREU.html) describing process for deriving EC OER policy recommendations with links to vision papers and workshop
- [J] Email from Head of Sector, European Commission, DG Education and Culture
- [K] HEFCE OER Review final report <https://oersynth.pbworks.com/w/page/60338879/HEFCE-OER-Review-Final-Report>
- [L] Analytics for the JISC [OER infoKit](#) and the UKOER [Evaluation and Synthesis site](#)
- [M] Links to reports from these institutions <http://www.gcu.ac.uk/academy/about/ref2014/>
- [N] JISC Building Capacity <http://bcap.jiscinvolve.org/wp/digital-literacies/> description of Plymouth University’s TEL action plan
- [O] O’Hara, K, (2011) ‘Transparent Government, Not Transparent Citizens’
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61280/transparency-and-privacy-review-annex-b.pdf