

OER Commons: a game of snakes and ladders for the Library profession

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Abstract:

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This paper supplements the interactive video presentation that showcases the development of the OER Commons Digital Dexterity Educators group, exploring the barriers encountered and subsequent solutions developed. In sharing the OER Commons snakes and ladders story that has emerged from CAUL's Digital Dexterity Community of Practice (CoP), the presentation will demonstrate the path we took to implementing an open educational resource sharing group. Our experience aims to inform the development of cross-institutional digital sharing for other communities.

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Introduction

Although Open Education Resource (OER) adoption and creation is still a bourgeoning area in the Australian and New Zealand higher education sectors, there is clear acceptance of the OERs' role in the future of academia (Ochieng & Gyasi 2021; Stagg et al. 2018). Stronger drivers and impetus behind OERs than ever before have emerged in the last decade and then stepped up another notch because of COVID-19 pandemic impacts on the tertiary sector (Ochieng & Gyasi 2021; da Lima-Lopes & Biazi 2021).

In 2018, the Council of Australian University Librarians (CAUL) and the Council of New Zealand University Librarians (CONZUL), the peak leadership organisations for Australia and New Zealand academic Libraries, positioned digital dexterity as an imperative issue for university libraries. The following year, the CAUL Digital Dexterity Program was launched and a call for university nominated champions was sent. A community of practice for the championing of digital dexterity across Australian and New Zealand academic libraries. The remit of one of the subgroups, the Resource Sharing Group (RSG), is to promote the sharing of practitioner created resources and content. The creation of a platform to facilitate cross-institutional digital sharing was a snakes and ladders experience. The hope is that our experiences can inform the development of similar communities between other institutions and environments.

A brief OER history in higher education

Approaches and concepts of OERs have robustly and extensively developed since its inception (Wiley, Bliss & McEwen 2014). In 2002, UNESCO conceived the term "open educational resources" as an outcome from a Forum focused on the impact of open courseware for the higher education sector in developing countries (Hilton 2018). It took until 2012 for UNESCO to operationalise and formally adopt the OER concept by providing a workable definition of educational and research materials in any medium (digital or otherwise) that needed to be freely available and be licensed so that the objects could be reused and redistributed (UNESCO 2012; McGreal 2017). In the decade since the Paris Declaration, the evolution of technologies and heightened equity needs have radically propelled the OER agenda by way of increased digital access, creation and communication possibilities. OER approaches are now implicated in pedagogical arenas, retention and equity strategies, sustainable development drives, students as partners initiatives and projects focused on enabling a diversity of research voices (Lashley, Wesolek & Langley 2018).

In finding ways to improve the use of OERs within higher education learning, in maximising its potential, a raft of theories and open pedagogies have also developed. Reuse, redistribute, revise and remix (Hilton et al. 2010) have constituted a pivotal framework shaping OER practice in higher education. Ehlers (2011) and other theorists extended the understanding of OERs from open access and content into open practice, supporting lifelong learning by bridging the gap between informal and formal learning (Kanwar, Kodhandaraman & Umar 2010). Scaffolding on from this extension into open practice, Smythe, Bossu and Stagg (2016) formulated an open education learning pedagogy that reflected the move from access into

promoting and sustaining quality innovation in learning and teaching through open education practice.

During the last decade, Australia has been in the early stages of establishing OER advocacy, application and practices. However, the 2020 onset of a pandemic saw the reliance and importance of OER in both the Australian and International higher education sector reach a heightened level and immediate call to action. Major disruptions in all levels of teaching and learning were experienced, with a rapid shift into digital only education models experienced across the board (Lee & Lee 2021). In addition to the need to adjust to new ways of teaching and learning, concerns around maintaining the fair continuity of learning began to surface (Ossiannilsson 2020). Within the tertiary sector, students were no longer afforded the luxury of browsing shelves at their campus library for a physical item to loan; instead, they needed to be able to access online materials. On top of restricted physical access to campusbased resources, students were increasingly limited in their ability to purchase their own textbooks, as intense financial constraints were experienced in the wake of pandemic job loss or reduction (Biddle et al. 2020; Dodd et al. 2021). Added to the access and cost conversation was the reality that, in many cases, digital educational resources were not available to support discipline teaching needs. It also became apparent that OERs ready ability to be contextualised for relevancy to different learner cohorts, through adaptation or creation, was an invaluable guality that could be harnessed for better digital teaching and learning (Nascimbeni et al. 2021). Many universities began to look more seriously at how they could create educational resources that met the pedagogical needs of the courses they were delivering (Zhang et al. 2020; Rimmer 2020). The need for digital access, to reduce student textbook financial burden and the need for new digital discipline resources has therefore given carriage to OER in higher education within Australia. Furthermore, OERs also began to be recognised as having the capacity to operate in collaborative, silo-breaking ways that could bring universities together (Nascimbeni et al. 2021).

OER and academic libraries

Although Mitchell (2014) posits OERs as a new paradigm for academic libraries, an open access ethos has long shaped the Library profession. Libraries are synonymous with opening pathways to learning through resourcing (Bennett 2009). Equity is a cornerstone of librarianship, with Australian academic libraries dedicated to advancing open and equitable knowledge, information and data (Council of Australian University Librarians 2021). Australian academic libraries have begun positioning themselves in the OER landscape by facilitating conversations with academics about the adoption of OERs, collaborating as part of course development and providing the knowledge and expertise in creating, editing and producing open textbooks (Ponte, Lennox & Hurley 2021). In response to the educational disruptions of COVID-19, impacting an approximate 1.57 billion learners in 191 countries, the call to support learning and knowledge sharing through OERs resounded across the world (Ossiannilsson et al. 2020). During 2020 and 2021, academic libraries therefore scrambled to ensure relevant digital resources were made available and accessible to all cohorts to support students during this sudden shift to fully online.

Responding to this recent upswell in OER research and practice, OER has become a key driver for the CAUL and, subsequently, the Digital Dexterity Champions

Community of Practice (DDCCoP) in 2019. While OER advocacy and capacity building librarians in this space were part of the DDCCoP model and the Champions' practice, what emerged as an unexpected OER area was advocacy and creation of library practitioner learning and teaching materials.

The criticality of OERs in Australian academic libraries work is now an established focus. Arising from the work of the DDCCoP and the increased knowledge of OER possibilities was the identification of a gap in library practice. While the focus of OERs in the higher education sector is primarily focused on delivering open access textbooks for students to reduce the financial burden, "the movement extends the notion of open access to other content including research data, books and educational content" (Mercieca & Sideris 2020). The ability for our profession to share practitioner created resources and content was lacking.

Digital Dexterity Champions and resource sharing

The 2020 shift into fully digital engagement was a ubiquitous experience within the Australian and New Zealand higher education sector. Prior to the pandemic, the criticality of digital dexterity had already been identified by CAUL. In collaboration with CAVAL, a not for profit, member driven, library services organisation, they launched several resources to support Digital Dexterity. This included a Digital Dexterity Framework, CoP, Advocacy Toolkit and Champions network.

The DDCCoP core remit is to enhance the industry's digital dexterity capabilities, focusing on the skills and knowledges to actively participate in all aspects of work and life in the digital world (Council of Australian University Librarians 2019). In 2020, the RSG, a smaller subgroup of digital dexterity champions, teamed up to look at how they could develop and implement a platform to enable open access to library practitioner created resources and content. OERs can positively enhance the way universities collaborate and engage with each other, and the promise of OERs as having transformational institutional impact, of changing the ways universities collaborate and work, was realised in this library industry community of practice. The choice to share academic library learning and teaching objects was deliberate, responding to a clear need for sustainable work practices and enabling cross-industry innovation sharing.

Pathway to implementing OER sharing academic librarian group

The RSG's initial aim was to find and implement ways to promote and increase the sharing of resources among academic libraries, with the underpinning aim of supporting the development of digital dexterity. The activities of the group support the Digital Dexterity Framework's competencies of Digital Learning and Development and Collaboration, Communication and Participation (Council of Australian University Librarians 2019). The group's original goals aim to facilitate resource sharing among the member institutions including:

- Creation of a folder hierarchy to establish a protocol for sharing resources in CloudStor, a cloud service for researchers and universities.
- Creating Creative Commons (CC) licence guidelines to assist when choosing which CC licence to apply to each shared resource. Additionally, the guidelines also educate the community in copyright practices.

- Creation of a cross-institutional resource sharing and CC licensing Digital Dexterity practice proposal to be approved by CAUL to increase the ease of sharing and reusing resources.
- Investigate the options available to create a freely available, user-friendly discovery layer where the shared resources can be discovered by the academic librarian community.

With CAUL's 2020 endorsement of cross-institutional resource sharing and CC licensing, the RSG moved to selecting a platform that could facilitate the open sharing of resources that support the Digital Dexterity Framework in its entirety.

Goals and initial barriers to resource sharing

A CoP provides more flexibility than a project team, with a CoP having a less rigid scope for their undertakings, and oftentimes no pre-determined deliverables (Team BE 2011). This flexibility allowed the RSG to shift the goalposts and discard, develop and refine ideas and initiatives as they appeared.

Access to the platform Cloudstor was made available to members of the DDCCoP in 2019, to enable the open sharing of educational resources. However, the platform requires a login to view materials and a profile and permissions created by a third party to be able to contribute resources. These requirements defeated the group's mission of open sharing between practitioners outside the DDCCoP.

To sidestep this barrier, an environmental scan of resource sharing platforms provided the RSG with a list of possibilities to research and trial before settling on a final platform. The list included *Merlot* and *OER Commons*.

Barriers and subsequent solutions to resource sharing through OER Commons

After some testing, the RSG selected OER Commons as the pilot platform. The features of the platform allowed members to register and maintain their own profile and simply view or choose to upload and share as and when they chose. The use of the Group function in the platform allows admission to the group to be managed by a small group of administrators in the RSG. OER Commons gave academic librarians the opportunity to share, use and repurpose open educational resources as the group had envisaged.

To facilitate the sharing of learning resources in one specific place, an OER Commons Group was established, the Digital Dexterity Educators Group. The establishment of the group proved a valuable reminder that just because you build it, that does not mean people will come. Promotion of the use of the platform within the DDCCoP did not significantly increase the number of group members, nor did it increase the number of resources shared through it. With Digital Dexterity champions dispersed across Australia and New Zealand, and with the way paved to enable sharing of learning resources, engagement with the platform was lacking.

The RSG identified a potential barrier to engagement: librarians developing learning objects within an institutional context had hesitancy in sharing these resources. The reasons for this ranged from exposing their work to broader scrutiny and judgment

from peers, intellectual property ownership and copyright concerns. To help break down these barriers, a set of resource sharing guidelines were created by members of the group in collaboration with a copyright expert. This contributed slightly to people's confidence in sharing resources, but further efforts led to a resource sharing proposal advocating for a preferred CC licence being proposed and endorsed by CAUL. Having the support from the University Librarians of our institutions further paved the way for member institutions to share their digital dexterity learning resources as the champions felt empowered to do so.

By October 2020 the Working Group had established

- a new platform for resource sharing,
- a group through which to do so,
- licensing guidelines and
- an endorsement from CAUL.

Still, librarians did not inundate our OER Commons group with resources. A further barrier identified was that the champions were unsure of how to add learning resources to the Digital Dexterity Educators Group. To alleviate this uncertainty, the working group created a document for Digital Dexterity champions on how to use OER Commons and contribute to the Digital Dexterity Educators Group. The document provided a step-by-step manual on how to join the group on OER Commons, how to upload resources, what types of learning resources that can be uploaded, what metadata and tags to use when uploading etc. The document itself was uploaded to the OER Commons group for easy access.

Feedback from the champions, confirmed that the guidelines were a helpful tool in joining both OER Commons and the Digital Dexterity Educators Group. However, the RSG had set a goal of having 50 learning objects/resources in the Group by the end of 2021, but in August 2021, with just 16 resources, we had a long way to go.

What does resource sharing look like?

To encourage our champions to embrace OER Commons, the OER Commons Digital Dexterity Educators Group was promoted at each of the DDCCoP meetings and all champions were asked to promote it within their communities and institutions. Champions and their colleagues were encouraged to register for free membership to OER Commons and to become a member of the Digital Dexterity Educators Group. A post was created for the Digital Dexterity Blog that proposed a challenge to readers to add a resource to the Digital Dexterity Educators Group and "set this as your 'digital dexterity' goal for 2021" (George 2021). Other promotional strategies included live demonstrations of the platform during meetings, using social media platforms such as Twitter and workshops.

An instructional workshop was held in October 2021 and attended by 30 Champions and their colleagues. Here attendees were encouraged to not only join the OER Commons platform and Group but to create and add resources. Activities involved adding a resource, exploring the resources available and tagging them. The #MyDigiDex tag identifies resources uploaded by the DDCCoP network. The outcome of the promotion saw an increase in the number of members and resources added to the Digital Dexterity Educators Group. By the end of October 2021, there were 21 resources from 14 different institutions and industry bodies. The resources included:

- Interactive full courses
- Assessment
- Student guides
- Activities
- Lesson Plans
- Teaching/Learning Strategy
- Modules

Champions and their colleagues, throughout Australia and New Zealand, are continuing to add resources to the platform.

OER Digital Dexterity Educators Quantitative Data

OER Commons provides analytics for individual group resources, such as resource view data and resource saved data. Users can also comment on each resource, providing an opportunity for feedback. All members of the Digital Dexterity Educators Group can explore the 'recent activity' of the group to keep up to date with the new resources that are added to the group. Reviewing this information enables the champions to promote the resources and platform within their networks.

To obtain the usage data of the individual resources, members select the resource and are provided with information such as the number of views, comments made and the number of times the resource is saved (members can save resources to their own folders to refer to when needed). The OER Commons Hub level, not used by the Digital Dexterity Champions, enables administrators to access Group, user and resources data. Table 1 is an example of some of the Digital Dexterity Educators Group resources and data.

Resource	Views	Save	Comments
23 Things for Digital Knowledge	624	31	0
Digital Dexterity self assessment tool created by the Griffith University Library.	55	2	0
Guidelines for Licensing Learning Objects for Re-use with Creative Commons	75	1	0

Table 1 – Metrics on Digital Dexterity Educators Group resources as of 29 October 2021

It is interesting to note that before the workshop, there was a noticeable awareness of the platform as noted by the surge in sign-ups whenever the platform was mentioned during a meeting. After the workshop, resources are being added, albeit slowly but surely. It is highly recommended that OER Commons resources should be considered in future presentations as an indirect way of promoting the platform.

What's next in an OER practitioner focused future

Now that the OER Commons Group is up and running, that is not the end of the RSG. The team have brainstormed several activities we would like to focus on to help spread the word of resource sharing and digital dexterity throughout the industry.

The RSG is aiming to develop more professional development opportunities for academic librarians. We know we all do great things for our staff and students, but the opportunity to learn and develop our skills and knowledge can only improve the experience for our clients. Free professional development, created for and by academic librarians, will allow us to support our profession support our clients and communities. As outlined, we are starting with the development of OER Commons materials, but we endeavour to develop opportunities for librarians to share their experiences and approaches to digital dexterity, with the resources that support these activities being shared via the OER Commons Group where possible.

To help ensure the OER Commons Group does not become stale, we strive to promote and increase engagement with the group and its resources. This is one of the reasons for our message today! We will measure the usage of the group by number of new users, usage of the resources listed in the group and the number of new resources added to the group. Encouraging others to explore OER Commons, join our group and share their resources can benefit everyone.

Librarians do not just work in universities, so we would also like to connect with other industry groups and initiatives to explore and share ideas and approaches from a different perspective. If we can learn from each other, everyone wins.

One thing everyone struggles with is evaluating the impact of what we do. Our last goal is to work on an evaluative framework for use with our own professional development sessions and those that librarians deliver. This will allow us to capture the impact our work has on librarians and the impact librarians have on their communities. Understanding the experiences of librarians and their communities will contribute to the development and creation of meaningful programs and resources that support our communities to flourish into the future.

Conclusion

While some might argue that because a CoP does not require expertise for membership, this could be a barrier to its success. Rather than a barrier, the RSG has found it to be a strength, due to the interest and willingness to share and learn displayed by its members, which follows the idea that identification with a CoP creates accountability (Team BE 2012). As a group, the RSG has been on a shared learning journey, determining to use OER Commons, setting up the Digital Dexterity Educators Group, promoting the use of the OER Commons platform and Group and learning how to add and share resources through the platform most effectively. Our hope is that this experience can inform the development of cross-institutional digital sharing for other like-minded communities.

References

Bennett, S 2009, 'Libraries and learning: a history of paradigm change', *Libraries and the Academy*, vol. 9, no. 2, pp.181-197.

Biddle, N, Edwards, B, Gray, M & Sollis, K 2020, *Hardship, distress, and resilience: the initial impacts of COVID-19 in Australia*, viewed 27 October 2021, <u>https://csrm.cass.anu.edu.au/sites/default/files/docs/2020/5/The_initial_impacts_of_COVID-19_in_Australia_2020_3.pdf</u>

Council of Australian University Librarians 2019, *Digital dexterity framework*, viewed 25 October 2021, <u>https://www.caul.edu.au/sites/default/files/documents/digital-dexterity/digdex2019framework.pdf</u>

Council of Australian University Librarians 2021, *About CAUL*, viewed 27 October 2021, <u>https://www.caul.edu.au/about-caul</u>

da Lima-Lopes, RE & Biazi, TMD 2021, 'Open education resources in the global scenario: highlights and challenges', *Ilha do Desterro: A Journal of English Language, Literatures in English & Cultural Studies*, vol. 74, no. 3, pp. 17-39.

Dodd, RH, Dadaczynski, K, Okan, O, McCaffery, KJ & Pickles, K 2021, 'Psychological wellbeing and academic experience of university students in Australia during COVID-19', *International Journal of Environmental Research and Public Health*, vol. 18, no. 3, pp. 866-878.

Ehlers, UD 2011, 'Extending the territory: from open educational resources to open educational practices', *Journal of Open, Flexible and Distance Learning*, vol. 15, no. 2, pp.1-10.

Fine, MB, & Read, H 2020, 'Factors impacting student perception of open educational resources', *The e-Journal of Business Education & Scholarship of Teaching*, vol. 14, no. 1, pp. 151-173.

Gartner 2015, *Defining digital dexterity: the core workforce resource for the digital business*, viewed 25 October 2021, <u>https://www.gartner.com/en/documents/3084618</u>

George, K 2021, 'Digital dexterity educators: a platform to share digital dexterity resources', *Digital Dexterity*, web log post, 28 June, viewed 25 October 2021, <u>https://digitaldexterity.edublogs.org/2021/06/28/digital-dexterity-educators-a-platform-to-share-digital-dexterity-resources/</u>

Hilton III, J 2018, 'What does research say about OER?', in A Wesolek, J Lashley & A Langley (eds.), *OER: A field guide for academic librarians*, Pacific University Press, Oregon, pp. 41-48.

Hilton III, J, Wiley, D, Stein, J & Johnson, A 2010, 'The four 'R's of openness and ALMS analysis: frameworks for open educational resources', *Open learning: The Journal of Open, Distance and e-Learning*, vol. 25, no. 1, pp.37-44.

Kanwar, A, Kodhandaraman, B & Umar, A 2010, 'Toward sustainable open education resources: a perspective from the global south', *American Journal of Distance Education*, vol. 24, no. 2, pp. 65-80.

Lashley, J, Wesolek, A & Langley, A 2018, 'OER: A mechanism for educational change', in A Wesolek, J Lashley & A Langley (eds.), *OER: A field guide for academic librarians*, Pacific University Press, Oregon, pp.1-13.

Lee, D & Lee, E 2021, 'International perspectives on using OER for online learning', *Educational Technology Research and Development*, vol. 69, no. 1, pp.383-387.

McGreal, R 2017, 'Special report on the role of open educational resources in supporting the sustainable development goal 4: quality education challenges and opportunities', *The International Review of Research in Open and Distributed Learning*, vol. 18, no. 7, pp. 292-305.

Mercieca, P & Sideris, L 2020, 'Open Educational Resources: who has the role of adoption and adaptation of OERs?', paper presented at the VALA2020 Conference, 11-13 February 2020, Melbourne, viewed 27 October 2021, https://www.vala.org.au/vala2020-proceedings/vala2020-session-11-mercieca/

Mitchell, C & Chu, M 2014, 'Open education resources: The new paradigm in academic libraries', *Journal of Library Innovation*, vol. 5, pp. 13-29.

Nascimbeni, F, Burgos, D, Spina, E & Simonette, MJ 2021, 'Patterns for higher education international cooperation fostered by Open Educational Resources', *Innovations in Education and Teaching International*, vol. 58, no. 3, pp. 361-371,

Ochieng, VO & Gyasi, RM 2021, 'Open educational resources and social justice: potentials and implications for research productivity in higher educational institutions', *E-Learning and Digital Media*, vol. 18, no. 2, pp. 105-124.

Ossiannilsson, E 2020, 'Some challenges for Universities, in a post crisis, as Covid-19', in D Burgos, A Tilii & A Tabacco (eds.), *Radical solutions for education in a crisis context: COVID-19 as an opportunity for global learning*, Springer, Singapore, pp.99-112.

Ossiannilsson, E, Zhang, X, Wetzler, J, Gusmão, C, Aydin, CH, Jhangiani, R, Glapa-Grossklag, J, Makoe, M & and Harichandan, D 2020, 'From open educational resources to open educational practices: moving from the margins to the mainstream', *Distances et Médiations des Savoirs. Distance and Mediation of Knowledge*, vol. 31, n.p.

Ponte, F, Lennox, A & Hurley, J 2021, 'The evolution of the open textbook initiative', *Journal of the Australian Library and Information Association*, vol. 70, no. 2, pp.194-212.

Rimmer, W 2020, 'Responding to the coronavirus with open educational resources', *International Journal of TESOL Studies*, vol. 2, no. 2, pp.17-32.

Smyth, R, Bossu, C & Stagg, A 2016, 'Toward an open empowered learning model of pedagogy in higher education', in S Reushle, A Antonio & M Keppell (eds.), *Open Learning and Formal Credentialing in Higher Education*, IGI Global, pp. 205-222.

Stagg, A, Nguyen, L, Bossu, C, Partridge, H, Funk, J & Judith, K 2018, 'Open educational practices in Australia: a first-phase national audit of higher education', *International Review of Research in Open and Distributed Learning*, vol. 19, no. 3, pp. 172-201.

Straw, JE 2004, 'When the walls came tumbling down: the development of cooperative service and resource sharing in libraries: 1876–2002, *The Reference Librarian*, vol. 40, no. 83-84, pp. 263-276.

Team BE 2011, 'Communities versus teams?', *News and Views*, web log post, 28 December, viewed 25 October 2021, <u>https://wenger-trayner.com/resources/how-are-communities-of-practice-different-from-more-familiar-structures-like-teams-or-task-forces/</u>

Team BE 2012, 'Communities of practice and social learning systems: The career of a concept', *News and Views*, web log post, 30 January 2012, viewed 25 October 2021, <u>https://wenger-trayner.com/resources/publications/cops-and-learning-systems/</u>

Wenger-Trayner, E & Wegner-Trayner, B 2015, *Communities of practice a brief introduction*, viewed 25 October 2021, <u>https://wenger-trayner.com/wp-</u> content/uploads/2015/04/07-Brief-introduction-to-communities-of-practice.pdf

Wiley, D, Bliss, TJ & McEwen, M 2014, 'Open educational resources: a review of the literature', in JM Spector, MD Merrill, J Elen & MJ Bishop (eds.), *Handbook of research on educational communications and technology*, Springer, Singapore, pp. 781–789.

UNESCO 2012, *Paris OER Declaration*, viewed 25 October 2021, <u>http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/Events/English_Paris_OER_Declaration.pdf</u>

Zhang, X, Tlili, A, Huang, R, Chang, T, Burgos, D, Yang, J & Zhang, J 2020, 'A case study of applying open educational practices in higher education during COVID-19: impacts on learning motivation and perceptions', *Sustainability*, vol. 12, no. 21, p. 9129.