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A Tale of Two Globes: Exploring the North/South Divide in Engagement with Open Educational Resources

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A Tale of Two Globes: Exploring the North/South Divide in Engagement with Open Educational Resources

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In this chapter we consider what evidence exists of a divide between the Global North and Global South in terms of engagement with open educational resources (OER), understanding engagement as the production and sharing of educational materials online. We discuss whether identifying educators as contributors or consumers of OER can be empirically grounded, and advocate advancing internet access in developing countries to reach a global balance where sharing is key.

Introduction

Mainly considered a socio-economic, political and cultural divide, the disparity between the Global North and Global South is also evident in open education: established trends in open educational resources (OER) research originate largely in the US and Europe (13), while the provision of open content and pedagogy tend to be dominated by English-speaking, developed countries (2, 6). It was Albright (2) who first introduced the notion that the world of OER risked being separated into contributors and consumers, if the North was allowed to lead the production of knowledge without reciprocity from the less developed nations of the South. If some later interpreted this as a neo-colonial push (3, 5), Albright strongly argued for global balance, for non-English and non-Western settings to be given a voice in the shaping of the open education movement.

This stance is now more widely advocated than it has ever been, mostly thanks to organizations such as the Commonwealth of Learning, who are leading Regional Consultation meetings in preparation for the 2017 OER World

Congress, and research initiatives such as the influential Research on Open Educational Resources for Development (ROER4D) project and their work on the use and impact of OER in developing countries. Yet evidence that knowledge flows from North to South and not vice versa to date rests mainly with Cobo's study of the coverage of online open content between 2007 and 2011, where he concluded that the number of Spanish and Portuguese OER in non-academic platforms (i.e. YouTube), although increasing at a higher rate, remained considerably lower than English OER (4).

The potential of OER has been applauded as "the move from passive consumption of educational resources to the formal engagement of educators and learners in the creative process of education content development itself" (11). The question we pose is 'What do we know about how teachers around the world engage with OER, that is create educational resources and make them publicly available, in order to substantiate the existence of a North/South divide?'

The OER Research Hub dataset

From 2013 to 2016 we worked under the auspices of the William and Flora Hewlett Foundation on the Open Educational Resources Research Hub (OERRH) project to investigate the impact of OER use on teaching and learning. We set out to prove (or disprove) eleven hypotheses that summarised established beliefs of the benefits of using OER; for example, OER widen participation in education, OER adoption brings financial gains for students/institutions, open education acts as a bridge to formal education, and so forth (1). As part of our research, we conducted a global survey where we asked educators and learners about how they thought of, and used open content. This dataset is freely accessible online[1] and constitutes, to the best of our knowledge, one of a kind in terms of its geographical coverage: we collected just under 7700 responses from participants in over 180 countries, nearly a quarter of them native speakers of a language other than English. For the purpose of this chapter, we grouped survey entries into two categories –Global North and Global South, following Wikimedia's regional classification[2], seeking to determine whether educators' behaviour could identify them as contributors (Global North) or consumers of OER (Global South).

The demographic characteristics (table 1) show a sample which is not entirely dissimilar: more male teachers in the South completed the survey; they are younger in age and less experienced than their Northern peers, but equally highly qualified and in full time employment. The largest and probably most obvious difference can be appreciated in the language they speak: while in the North a sizeable majority are native speakers of English, this percentage is halved in the South where native languages range from Malayalam and Afrikaans to Spanish, Arabic or Portuguese. In addition, it is worth highlighting the contrast

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[1] See https://figshare.com/articles/OERRH_Survey_Data_2013_2015/1528263

[2] See https://meta.wikimedia.org/wiki/List_of_countries_by_regional_classification

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in favour of the Global South in the number of educators who teach in work-based training and one-to-one contexts.

	Global South (n=584)	Global North (n=1955)
Gender	58% male	48% male
	42% female	52% female
Age	28% 35-44 years-old	26% 45-54 years-old
Educational Qualification	60% postgraduate	64% postgraduate
	24% undergraduate	20% undergraduate
Employment Status	67% full-time	61% full-time
	16% part-time	23% part-time
English Native Speakers	39%	76%
Teaching Experience	49% >10 years	57% >10 years
	40.1% school	36.4% school
Teaching Context	38.9% HE	31.6% HE
	27.2% work-based training	15.6% work-based training
	26.8% 1-to-1 tutoring	17.8% 1-to-1 tutoring

Table 1. Demographics of Survey Sample

Internet user statistics in 2016 revealed penetration rates of 28.7% in Africa and 45.6% in Asia were below the world average of 50.1%, and well behind Europe (73.9%) and North America (89%)[3]. Bearing this in mind, we analysed the OERRH dataset to determine where and how survey respondents accessed the internet to also find the South trailing the North: higher percentages of users in developed nations have broadband at home, use a mobile phone or a tablet to go online, and are able to connect to the internet at work.

Unsurprisingly, this has an impact on their ability to perform effectively in a digital environment: more teachers in the South than in the North declared their lack of experience with for example, spreadsheet software, virtual learning environments (VLE) for teaching, cloud-based storage, or recording, uploading and downloading podcasts. The only significant difference where teachers in developing countries lead their peers in the North relates to their familiarity with a torrent client to share files, which we speculate is a way of bypassing poor internet connectivity.

Engagement with OER

The OERRH questionnaire covered engagement with OER based on three main statements: 'I have created educational resources for teaching', 'I have adapted OER to fit my needs in the classroom' and 'I have created resources and published them under an open license'. In addition, three further items explored educators' use of repositories, enquiring whether or not they had uploaded resources, and whether or not they had added comments either regarding the quality of a resource or suggesting ways of using a resource. All these can be easily mapped to Wild's model of OER engagement, which employs the metaphor of a ladder to represent educators' journey from unawareness to advocacy, and from using 'free stuff on the web' to fully embedding OER in their teaching – sharing their own materials online with a Creative Commons licence, reusing

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[3] See http://www.internetworldstats.com/stats.htm

others' materials, and re-sharing and commenting on new adapted versions of these (12).

Applying Wild's model we find that, despite a peak in those who say they adapt resources, low levels of engagement are present in North and South alike (figure 1). Teachers in developed countries indicate that they create classroom resources, and share them online with an open license marginally more often than teachers in developing countries; however, the latter outdo the North in telling others how they have used a resource and assessed its quality. These percentages are not hugely disparate for us to talk about a divide, let alone brand the South as passive consumers.
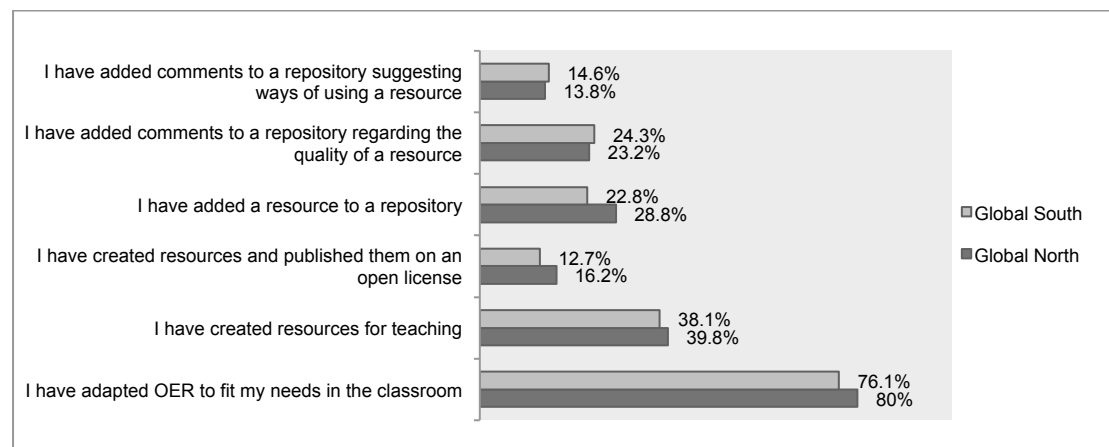

Figure 1. Educators' Engagement with OER

To explain this, we can hone in on what it means to adapt a resource. Okada and colleagues talk about adaptation on an equal pairing with reuse: summarising, repurposing and versioning content, or altering the structure, format, interface or language of a resource (8). Of these, having established that most online content has been created in English, it is obvious that teachers in the South would have to translate material to bring to the classroom more frequently than their northern, mostly English-speaking counterparts.

More importantly, when we examine the reasons why teachers adapt, we discover that while in the North 62.3% of educators say that they use OER because it allows them to better accommodate diverse learner needs in the class, in the South this figure increases to 75.4%. This suggests that teachers regularly tailor content to their students, and in doing so they search for, evaluate and remix resources, which would seem to run counter to the idea of those in the South as passive consumers. Rather it can be interpreted as a willingness to act, perhaps not as ready to share with the rest of the world, but focused on responding to individual learners in their classrooms.

A broken model?

Wild's model of OER engagement has come under criticism for not considering "contextual factors that may either enable or inhibit OER use particularly in development contexts" (10). Even if there is a wealth of resources freely

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available online, successful engagement with OER will depend on access to digital technologies and having the necessary skills and confidence to employ them (7).

Analysis of the barriers that impact educators' open practices in our sample throws light on several significant differences between the Global North and Global South. Educators in developed countries perceive the most crucial challenges to their use of OER as finding suitable resources in their subject area and finding resources of sufficiently high quality; in contrast, respondents in the South highlight overcoming technological problems when downloading resources, and difficulties finding resources that are relevant to their local context. Technical issues are undoubtedly linked to poor internet connectivity; localization of resources legitimizes adaptation, making a stronger case for teachers in the Global South as dynamic users of OER. A South African educator explains his take on the obstacles that prevent more ample use of open resources as follows:

"In [my subject] the resources I can find are too Europeanised for the South African context and this is true of many areas. (…) The biggest challenge is a huge lack of IT capability amongst the teachers –I ran a workshop for 30 teachers, not one had ever used [a spreadsheet]. Internet connectivity in very rural areas is both expensive and difficult to access, often breaking transmission so you have to restart downloads. Very rural areas need resources they can download and store on a hard/flash drive. Breadbin / granary type models need to be set up in key villages with open access to all. Whilst I can and do use open sources extensively, the teachers I support are unable to".

How do these factors affect teachers' development of educational content and sharing of resources openly online? Perryman and Seal, in their study of OER users in India, observe that educators who experience a high incidence of inhibitors (i.e. slow internet connection, no internet connection or no access to a computer) also show high levels of engagement with OER (10).

	Internet access at work	
	Yes	No
I have adapted OER to fit my needs in the classroom	76.2%	74.6%
I have created resources for teaching	40.4%	31%
I have created resources and published them on an open license	16%	4.2%
I have added a resource to a repository	27.5%	10%

Table 2. Impact of Inhibitors on OER Engagement in the Global South

Our analysis, however, reveals a different picture; comparing the self-reported behaviour of teachers in the Global South, unable to access the internet at the place where they teach, against those for whom access is not an issue, we find that inhibitors have a negative impact (table 2). While their ability to engage in the adaptation of the resources is hardly affected, any intention educators might have of sharing these materials beyond the confines of a walled space and onto public ether is rendered futile without the means to do so.

Impact of using OER

If we prioritised advancing internet access in developing countries, would engagement with OER increase? Analysing survey responses to explore the difference between Global North and Global South in how educators perceive the use of OER influences their teaching, we note that overall impact is felt more strongly in developing nations, the largest gap referring to having improved ICT skills, using more culturally diverse resources, having more up-to-date knowledge of their subject area, and covering the curriculum more broadly (figure 2). Do these impacts only happen when teachers have access to the internet? Certainly not, but it raises the question of how much this could be improved with enhanced access.
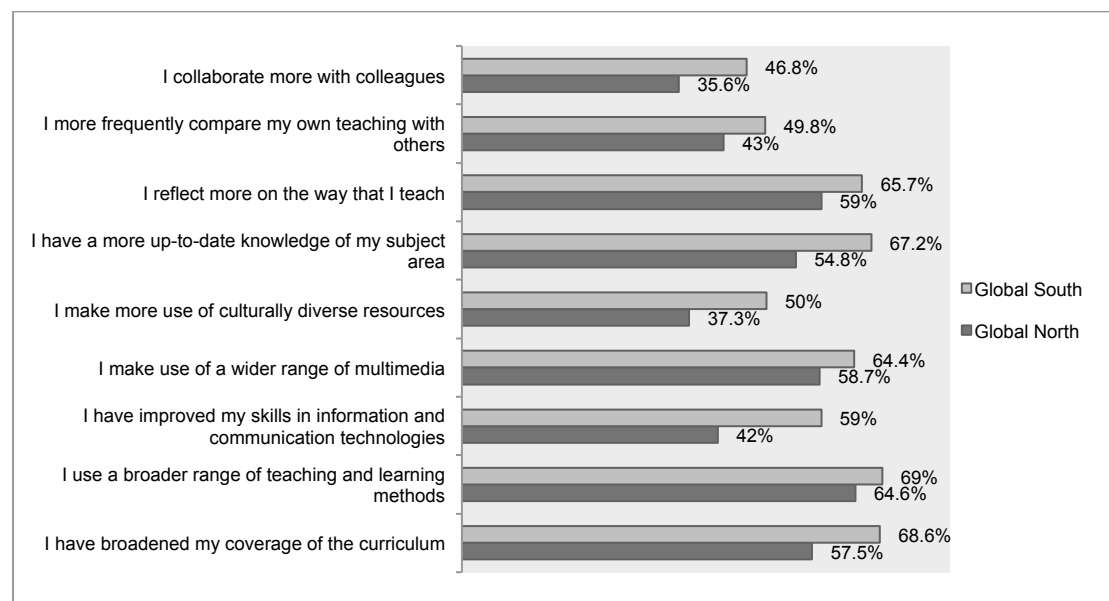

Figure 2. Impact of OER Use on Teaching

Conclusion

Our analysis of the OERRH dataset has provided evidence of the extent to which educators in the Global North and Global South engage with OER. Interpreting engagement as developing content and sharing it publicly online, we found little or no empirical grounding to anchor a North/South divide, and by extension the identification of North as contributors and South as passive consumers of OER. Where a breach exists, this is enabled by a considerable difference in access to the internet, which impedes teachers' free use of knowledge. If developed and developing nations had equal access, the argument would likely shift away from access understood as lack of available resources, to lack of suitable resources – i.e. most urgently resources in particular subject areas and of sufficient high quality for a teacher in the North, and relevant to the local context for a teacher in the South. This is what Global North and South can address as equals.

Millions of educators around the globe create their classroom materials from scratch or produce versions of content already at hand on a daily basis; if these were regularly shared online with an open licence, there would be plenty of resources out there to choose from in any language, any class level, with examples that are familiar to local students, to teach Mathematics, Philosophy, Economics or any other discipline. This is an area where we can say quality is in the eye of the beholder; what one teacher cannot use, another will find invaluable; if not good enough as is, an openly shared resource can be added to, undone, built upon, deconstructed and improved so that it works where and how it is needed. It is this sharing behaviour that needs to be fostered, facilitated and celebrated by North and South alike, for the discussion to become an honest reflection on how much we are taking and how much giving back, instead of an imbalanced and negatively laden assumption of roles in open education.

Open access does not have to be only about the dissemination of scientific information, but also about the availability of learning and teaching resources. If the Internet can accelerate research, it can also drive teaching and learning. The more educators that can access, use and build upon others educators' teaching resources, the more valuable those resources become and the more likely students around the globe are to benefit.

References

(1)   de los Arcos, B., R. Farrow, L.A. Perryman, R. Pitt, and M. Weller (2014). *OER Evidence Report 2013-2014*. OER Research Hub, The Open University.

(2)   Albright P. (2009). Discussion Highlights. In S. D'Antoni and C. Savage (Ed.), *Open Educational Resources Conversations in Cyberspace*, pp.61-81. Paris: UNESCO.

(3)   Bateman, P., A. Lane, and R. Moon (2012). Out of Africa: A Typology for Analysing Open Educational Resources Initiatives. *Journal of Interactive Media in Education,* 2(11), Art.11.

(4)   Cobo, C. (2013). Exploration of Open Educational Resources in Non-English Speaking Communities. *The International Review of Research in Open and Distance Learning,* 14(2), 106-128.

(5)   Glennie, J., K. Hardly, and N. Butcher (2012). Introduction: Discourses in the Development of OER Practice and Policy. In J. Glennie, K. Harley, N. Butcher, and T. van Wyk (Ed.) *Open Educational Resources and Change in Higher Education: Reflections from Practice*, pp.1-12. Vancouver: Commonwealth of Learning.

(6)   Hatakka, M. (2009). Build it and They Will Come? – Inhibiting Factors for Reuse of Open Content in Developing Countries. *The Electronic Journal of Information Systems in Developing Countries,* 37(5), 1-16.

(7)   Lane, A. (2009). The Impact of Openness on Bridging Educational Digital Divides. *The International Review of Research in Open and Distance Learning*, 10(5), 1-12.

(8)   Okada, A., A. Mikroyannidis, I. Meister, and S. Little (2012). Colearning - Collaborative Networks for Creating, Sharing and Reusing OER through Social Media. In *Cambridge 2012: Innovation and Impact - Openly Collaborating to Enhance Education, Cambridge, UK, April 16-18, 2012*.

(9)   OECD (2007). *Giving Knowledge for Free: The Emergence of Open Educational Resources.* Paris: OECD-Educational Resources Centre for Educational Research and Innovation.

(10)   Perryman, L.A., and T. Seal (2016). Open Educational Practices and Attitudes to Openness across India: Reporting the Findings of the Open Education Research Hub Pan-India Survey. *Journal of Interactive Media in Education*, 15(1), 1-17.

(11)   Rossini, C. (2010). *Green-Paper: The State and Challenges of OER in Brazil: From Readers to Writers?* The Berkman Center for Internet and Society at Harvard University, 74 p.

(12)   Wild, J. (2012). *OER Engagement Study: Promoting OER reuse among academics. Research report from the SCORE funded project.* The Open University and University of Oxford, 43 p.

(13)   Zancanaro, A., J.L. Todesco, and F. Ramos (2015). A Bibliometric Mapping of Open Educational Resources. *The International Review of Research in Open and Distance Learning,* 16(1), 1-23.