From global to local: Learning from TESS-India's approach to OER localisation across multiple Indian states

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Abstract

Arguably, the benefits of OER are greatest in low- and middle-income countries, where they have the potential to increase access to learning for those who may otherwise be excluded. However, for OER to be truly useful to educators and learners they need to be adapted to suit the contexts in which they are to be used.

Adapting OER for local contexts remains one of the greatest challenges for OER (Wolfenden and Buckler, 2012) yet little is written about how to support communities of users to adapt materials. This study explores what kind of support is necessary with the intention of creating a tool-kit for guided adaptation of OER across different cultural contexts.

The paper reports on the approach to OER adaptation adopted by the DFID-funded, Open University UK-led TESS-India (Teacher Education through School-based Support) project which is developing OER for use within India's teacher education system. TESS-India aims to enhance the access of teacher educators, head-teachers and teachers to free, high-quality educational materials. The project spans seven Indian states and the resources, therefore, require localisation to meet diverse linguistic, cultural and pedagogic needs.

TESS-India has adopted a two-tier model of localisation. A CC-BY license for all resources allows for adaptation by end users. However, an initial stage of supported, state-level adaptation is embedded within the production process and is taking place via a series of workshops with local teacher educators.

This paper explores this first stage of TESS-India OER localisation as workshops take place across the states between November 2013 and February 2014. Participant observation intends to provide detailed examination of the ways in which those localising the resources work together to identify aspects of the adaptation. Additional data is being collected in the form of workshop reports, interviews with participants and analysis of the 'change logs'.

Emerging findings suggest tensions between resistance to make significant changes to the content of the OER, in part related to a reluctance to disrupt hierarchical understandings around knowledge ownership, and dissatisfaction with phrasing: despite being co-written by Indian and UK academics, workshop participants felt that, in places, the text felt like 'the UK was telling India what to do'.

Discussion   The localisation workshops have highlighted possible barriers to full engagement with the TESS-India OER. Getting beyond a low-engagement, piecemeal use (Wild, 2012) is important to the potential of the OER being fully realised, and the two-tier TESS-India localisation process, with its quite directive initial phase of adaptation, intends to facilitate this. However, we situate our analysis of this process, as well as our development of the tool-kit, in a discourse that acknowledges criticisms of neo-colonialism (Miyagawa, 2005), and one-directional flows of knowledge and resources (Glennie et al, 2012). Through this study we aim to contribute to a better understanding of how TESS-India, and other cross-cultural OER projects, can embrace a knowledge partnership approach to communities of OER practice that allows for mutually beneficial sharing of expertise and contextual understanding within the international – but also very local - pursuit of quality education.

Keywords

Open educational resources, OER, localization, contextualization, development education, TESS-India

Introduction

Open educational resources (OER) have become increasingly prominent within the field of education for development, seen by many as a means of contributing to the removal of barriers to learning and participation in society faced by some of the world's poorest people. Glennie, Harley and Butcher (2012, p. 4) confirm that 'much of the OER impulse is instrumental, aimed specifically at overcoming deficits'. Five years earlier, Atkins, Seely-Brown and Hammond (2007) had covered similar ground when drawing on the work of Nobel economist Amartya Sen to explain the instrumental power of OER in 'expand[ing] people's substantive freedoms through the removal of "unfreedoms": poverty, limited economic opportunity, inadequate education and access to knowledge, deficient health care, and oppression' (Atkins, Seely-Brown, & Hammond, 2007, p. 1).

Glennie, Harley and Butcher (2012, p. 4) identify the instrumental/deficit impulse for OER as being 'intersected by powerful political and social imperatives for equity and social justice' and, as such, 'driven by powerful moral authority'. This paper investigates the extent to which a deficit impulse driven by moral authority, and the quality-control objectives of an internationally-renowned university, align with the participatory tenets of the OER movement, with its emphasis on openness, user adaptation and re-use. The paper takes as its case study the India-based, Open University (UK)-led TESS-India project (www.tess-india.edu.in/). TESS-India is working in partnership with several Indian States to create a network of freely available, high quality, teacher education resources, co-written by UK and Indian academics and available both in print and online. TESS-India OER consist of teacher development units (TDUs) in elementary and secondary maths, science, English and mother tongue/language and literacy as well as leadership development units (LDUs) for teachers and school leaders. TESS-India aims to use OER both in training new teachers to meet a shortfall in India estimated at 1.33 million, and in improving the practice of existing teachers in order to address what the 2012 Annual Status of Education Report (ASER) on school registrations and standards in rural India identifies as 'an

alarming degeneration' (ASER, 2012, p. 1) in the quality of learning, evidenced in reading and mathematics standards.

Glennie, Harley and Butcher (2012, p. 4) observe that 'as with the urge to achieve instrumental objectives, whether liberatory aims are actually translated into successful educational outcomes remains an open question'. For TESS-India, the route to successful educational outcomes necessarily involves navigating the process of OER localisation - adaptation of resources to meet the particular needs of end-users in several culturally and linguistically diverse Indian states. OER localisation can include changing the language, pedagogical approach, content, imagery, and the religious, cultural and geographical references featured in resources. Ivins (2012, p. 219) asserts that 'localization unlocks the power of OER' and advises that 'localization must involve locals; a community of practice bolsters localization; localization must be done in appropriate formats; and effective localization is directly proportional to understanding local contexts'. However, little has been written about how to support a community of practice in localising OER.

This paper reports a study of the first stages of the TESS-India OER localisation process. The study has prompted a reassessment of the OER movement's aims for openness when located in a development context, together with an interrogation of notions of quality, relevance and the legacy of colonialism.

Methods

Our paper takes as a case study the first TESS-India localisation workshops, held in three Indian states. Evidence about the localisation process was gathered through reports from a participant observer at the first localisation workshops - the Hindi-speaking co-author of this paper – and interviews with localisation workshop participants, including two facilitators and three practitioners.

We have explored three main research questions:

1. What are the challenges of localising OER?
2. In what ways does the context in which localisation occurs, and the perceptions of the people doing the localisation, affect the process?
3. How can communities of users best be supported when localising OER?

Results

The TESS-India localisation workshops were led by localisation facilitators who trained and guided State Localisation Experts (SLEs), selected for their subject knowledge, teaching experience, language command and awareness of local context. Workshop participants appeared unanimous in their view that to achieve the intended learning outcomes the TESS-India TDUs needed to be localised in several different respects. TESS-India's Delhi-based Senior Academic led the localisation workshops from design to implementation and confirms that many localisers initially believed the TDUs should have been 'written from scratch by local people in the Indian states', though after some discussion they realised 'that the resources just needed the local flavour' and to be 'recreated in local languages such that they look and feel as if having been created in the state so that local teachers connect to them'.

A range of challenges to localisation arose during the process, including the complexities of managing translation, the need to navigate SLEs' perceptions, preferences and experience as

educators within the Indian education system, and SLEs' unfamiliarity with OER and online learning.

Translation-related challenges

TESS-India had always intended to translate the TDUs, originally written in English, into Hindi, which is spoken and read to varying extents across India. TESS-India's academic manager points out that:

> *People's level of English is very variable. If [the resources] stay in English there's a very limited number of people who will be able to use them. Also the language in them doesn't necessarily reflect Indian English...So they would be used by people in some contexts, probably city-based people more than rural people.*

Of the various challenges to localising OER identified on the basis of the first TESS-India workshops, translation from the English original emerged as one of the most complex to address, as TESS-India's academic manager explains:

> *We thought initially the localisation people would also translate…[but] we came to realise that that...people who come to us as localisers might not necessarily have these translation skills as well...So we made the decision to go to a translation agency first, and of course they don't have the contextual, or the educational knowledge to bring to the translation...so there's quite a lot of distortion of meaning because there wasn't an appreciation of what the English was saying and what that would mean in a Hindi education context. So there's some corruption when the translation happens which the localisers have to correct, but of course they have to look at the English to correct it.*

A further, related technical challenge emerged around the practicalities of annotating and amending the TDUs. It was originally anticipated that localisers would annotate electronic copies of the resources using a Track Changes style review system. However, this was not actually possible as many localisers were not familiar with computers and could not type in Hindi and instead worked in hard copy, making hand-written annotations that then had to be translated and typed up.

Experience and practice-related challenges

Many localisers in the first workshops were subject experts with extensive experience of writing textbooks for use in the Indian education system. This common experience was both an asset and an obstacle. For example, localisers' ideas about their own autonomy and others' expertise needed to be navigated as some localisers were disinclined to adapt the work of other academic experts. TESS-India's academic manager explains: 'It's not the culture in India…If you hand something over to someone to change, they don't want to, it seems rude and disrespectful'.

The SLEs' experience as textbook writers also led to disagreements about the appropriate 'voice' for the TDUs. 'Textbook writing is quite formal,' TESS-India's localisation facilitator points out, adding that the localisers 'had not really been exposed to OER writing with a straight conversational language…they'd written training manuals which are in a very passive style in India'. The typically formal style of the Indian language also led to on-going discussion about the fact that the TDUs directly address teachers, using 'you' and a first-name approach which

many localisers felt was 'over-familiar' and might lead to teachers feeling that they were not being respected.

Pedagogy-related challenges

The TESS-India TDUs prioritise developing teachers' pedagogical skills. However, the Indian teacher education system has a particular focus on strengthening teachers' subject knowledge, driven by the fact the Teacher Eligibility Test (TET) – introduced in 2011 and a pass in which is a condition of employment – is reporting pass-rates as low as 1% in some states (ToI, 2013). Senior curriculum developers are responsible for improving this pass rate and it is therefore not surprising that the SLEs repeatedly prioritised subject knowledge over pedagogy when localising the TDUs - a repeatedly surfacing challenge for the facilitators of the TESS-India localisation workshops. TESS-India's academic manager explains:

> *Many of the localisers had PhDs and really wanted to engage more with the topic than the technique… they thought that the teacher should have all subject knowledge in one place and they thought the TDUs didn't offer that.*

TESS-India's localisation facilitator suggests that the localisers' experience as textbook writers was also an influencing factor, in that 'textbooks usually talk about the practical aspects of things…Descriptions and definitions'.

The localisation process therefore involved navigating a path between a pedagogical approach more familiar to teachers outside India and the preferred teaching style of the intended end-users of the TDUs, not only the focus on subject over method, but also the SLEs' lack of familiarity with activity-based pedagogy. TESS-India's academic manager explains that the intended purpose of the TDUs is to 'help teachers move from the theory of activity-based learning to changes in practice'. She adds:

> *Lots of teachers have had a day course on activity-based learning [but]…they teach in exactly the same way...What these materials do is give real practical example of how to try [activity-based learning] out in the classroom – how to have a go.*

SLEs' unfamiliarity with activity-based learning initially prevented them from fully engaging with the TDUs. However, a strategy was developed whereby activity-based learning was used to deliver the localisation training, giving a direct example of the pedagogy in action. 'This was much appreciated', confirms TESS-India's academic manager, 'and moved the localisers on to a real understanding of what the TDUs are trying to do'.

Challenges related to unfamiliarity with OER, openness and online learning

While many SLEs said they had heard of OER prior to participating in the localisation workshops, most appeared to lack an understanding of the notion of openness and the concept of an infinitely adaptable resource that can be changed by teachers to meet their own needs. Consequently, the Indian localisation workshop facilitators imposed strict restrictions regarding how much of the TDUs could be changed. 'The Indian team were holding on too tightly to what they're allowed to localise and what they're not allowed to localise', explains TESS-India's academic manager, adding:

> *I'd prefer to see people given more licence to change things than they currently are…To do more variations in case studies…[and] add more tips like if you have a class of 80 you might vary this exercise… or if you find you've got a lot of quiet girls you could do this.*

She speculates that the rigidity around allowing changes to the materials may be connected with a lack of structure and guidance from the TESS-India team regarding which changes are appropriate:

> *We've sort of made that up as we go along…no one has said what the boundaries are in localisation, so my feeling is that they've kept them quite tight from the Indian point of view but that's probably because it's easier to manage that way.*

The SLEs also lacked experience in online learning and this limited the extent to which they could conceive of the TDUs' use beyond the hard copy format with which they were working in the localisation workshops. 'It became clear that an unfamiliar format can be a barrier to localisation', TESS-India's academic manager explains.

Discussion

One aim for studying the TESS-India localisation workshops was to explore ways of better supporting localisers, both within TESS-India and in other OER projects where localisation is necessary. Additional group workshop time, support for peer collaboration and the use of active-learning pedagogy to train localisers all emerged as potentially valuable support processes. In addition, the relationship between openness, top-down external control of OER projects in low-income countries and grass-roots adaptation of resources to be locally appropriate has been foregrounded.

Better supporting OER localisers

Many workshop participants commented that it would be beneficial to have more time for group discussion before, during and after the workshops. TESS-India's academic manager and localisation facilitator both suggest that this time could, in part, be spent on sessions introducing localisers to the pedagogy featured in the TDUs, extending the use of active-learning strategies when delivering the localisation training.

Peer collaboration was repeatedly identified as an area where additional support would be useful. TESS-India's academic manager comments:

> *I think collaborative working is a whole new ball game for lots of people in India...There's this continuation of how they are expected to work at school - you produce and work in your own area. This idea of working collaboratively and coming up with something jointly, it's a whole new way of working.*

There was consensus amongst workshop participants that support for peer collaboration could be particularly valuable if provided after the workshops, once the localisers had done some localisation of the TDUs on their own:

> *I'd quite like to do…a recall day...two weeks afterwards…to discuss how they're getting on, [once] they've had time to think about and engage*

with the localisation process…time to think about some of the issues…Then we could share ideas on how to deal with these issues. (TESS-India's academic manager)

We need to allow time for reflection and working on the materials. (TESS-India's localisation facilitator)

We need to sit as a group again to deliberate on matters of localisation as now our understanding of the matter has increased. (TESS-India State Localisation Expert)

An extended model of collaboration could also have an impact in terms of future OER adaptation, suggests TESS-India's academic manager, proposing that 'localisation is the first stage of capacity building...the localisers are the people who are going to take this forwards and outwards'.

The relationship between localisation, quality, and the 'spirit of open'

Clements and Pawlowski (2012, p. 5) assert that 'one of the most important concerns for OER is the perceived lack of quality', while Falconer, McGill et al, (2013, p. 4) confirm:

Belief in quality is a significant driver for OER initiatives, but the issue of scale-able ways of assuring quality in a context where all (in principle) can contribute has not been resolved, and the question of whether quality transfers unambiguously from one context to another is seldom surfaced.

Considerations around quality are at the heart of TESS-India, which operates in a context where conceptions of quality and learning purpose can differ from those in the UK.   The two-tier TESS-India localisation process, with its quite directive initial phase of resource localisation, followed by release of the TDUs on an open license, was intended to achieve three aims: to ensure that the changes that are needed to meet local needs actually do take place during the production process; to allow for further localisation by teachers and teacher-educators once they have bought in to the resources' use within their own practice; and to ensure that the TDUs are produced to a standard that meets those of other teacher education materials for which the Open University (UK) is known internationally. Underpinning these aims is a desire to preserve resource quality and learning purpose while also staying true to the 'spirit of open' (Perryman, 2013) which, for many in the OER movement, necessarily involves the end-user of OER moving from a piecemeal to an embedded engagement (Wild, 2012) with resources. Thus far, the TESS-India localisation study has indicated that this attitude towards openness is not commonly shared within India's teacher education system and that this, in turn, has led to some TESS-India localisers' being reluctant to adapt OER.

The dynamic between control, quality and attitudes towards openness can be demonstrated through differences between the TESS-India approach to localisation and that adopted by its sister project TESSA, which produced OER for use in Sub-Saharan Africa. In both projects versioning was intended from the start. However, TESSA managed the process more tightly by determining sections of the materials that could and could not be versioned, for example by providing a template for the creation of new, locally appropriate case studies. Far from preventing localisers from fully engaging with the concept of being a 'partner' in the process, the controlled TESSA localisation process resulted in localisers embracing the resource adaptation task. In contrast, the current study has shown that for TESS-India, the absence of structured

support has not resulted in localisers making extensive changes to the TDUs.   Future research will explore whether proving tight guidelines about what can be localised, and how to do so, actually gives localisers the freedom to engage in knowledge partnerships and to explore the intersection between their own contextual understanding and preferences and those present in the original, non-local OER.

Conclusion

The findings from this study of the first TESS-India localisation workshops should be of relevance to other OER projects working in the context of education for development. The importance of localisers having deep contextual knowledge accompanied by an open-minded approach to pedagogy has been clearly highlighted by the study, as has the need to carefully navigate localisers' existing preconceptions and experiences, and the value of nurturing peer collaboration in the interests of sustainable open educational practices.

While the overriding attitude to the TESS-India OER amongst localisers has been positive and energised this has been accompanied by at least some resistance on the part of OER localisers to the implementation in India of learning resources perceived as 'UK exports'. As such, this analysis of the TESS-India localisation process remains situated in a discourse that acknowledges criticisms of neo-colonialism (Miyagawa, 2005), and one-directional flows of knowledge and resources (Glennie et al, 2012) and a complex dynamic remains between institutional control and localiser/end-user freedom, and the removal of 'unfreedoms' 'that leave people with little choice and little opportunity of exercising their reasoned agency' (Sen, 1999, p. xii).

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