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Learning from TESS-India's Approach to OER Localisation Across Multiple Indian States

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Arguably, the benefits of open educational resources (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 employed. Adapting OER for local contexts remains one of the greatest challenges for the OER movement (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 for such communities of users, with the intention of creating a framework for guided localisation of OER across different cultural contexts.

The paper reports on the initial approach to OER localisation adopted by the 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, which underwent a large-scale re-framing exercise in early 2014, aims to enhance the access of teacher educators, head-teachers and teachers to free, high-quality educational materials. The project spans multiple, culturally and linguistically diverse Indian states and the resources, therefore, require localisation to meet diverse linguistic, cultural and pedagogic needs.

TESS-India adopted a two-tier model of localisation. A CC-BY-SA license for all resources allows for adaptation by end users as long as the original author is attributed and the resource is shared under the same license as the original version. However, a stage of supported, state-level adaptation will be embedded within the production process and our research focuses on this stage. We collected evidence from early localisation workshops which aimed to trial localisation of these initial OERs. These workshops took place between November 2013 and February 2014, using participant observation and interviews with workshop participants to inform a detailed examination of the ways in which the workshop facilitators supported the resource localisers in adapting the TESS-India OER to meet local needs.

Our study findings highlight some challenges to localising OER for use across different cultural contexts, including the complexities of managing translation, the need to navigate localisers' perceptions, preferences and professional experience as educators, and localisers' unfamiliarity with OER and online learning. Our study of the TESS-India localisation workshops has also highlighted possible barriers to full engagement with OER in contexts such as India, where hierarchical understandings around knowledge ownership, and localisers' subsequent reluctance to adapt resources, can be in tension with the aims of the OER movement to achieve an 'embedded' engagement with OER (Wild, 2012) in the interests of true openness.

OER initiatives have been criticised for promoting one-directional flows of knowledge and resources (Glennie et al, 2012). We argue that when collaboration is embedded within OER production and localisation, their creation and use can lead to a knowledge partnership approach whereby communities of OER practice engage in mutually beneficial sharing of expertise and contextual understanding. Drawing on the supported localisation process of TESS-India, we explore how such collaboration could better contribute towards the international – but also very local - pursuit of quality education.

Keywords: Open educational resources; OER; localization; contextualization; development education; TESS-India; cultural adaptation; education for all; quality education

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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 et al (2012, p. 4) confirm that 'much of the OER impulse is instrumental, aimed specifically at overcoming deficits'. Atkins et al (2007) draw 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' (p. 1). The Commonwealth of Learning's Three Year plan makes an explicit reference to Sen's ideas when explaining that 'increasing the freedoms that men and women enjoy is a definition of development, and greater freedom empowers people to be more effective agents of development.' (Commonwealth of Learning, 2012, p. 9).

Glennie et al (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/) which operates on an underlying belief that OER can help remove unfreedoms in a development context by providing better teachers, more engaged learners, improved learner retention and, consequently, better access to knowledge.

India, OER and the TESS-India project

The TESS-India (Teacher Education through School-based Support) project was developed to help mitigate some of the challenges within India's education system: a lack of teachers, an enormous number of unqualified teachers, poor quality of teaching, insufficient capacity to train new and existing teachers and, consequently, low standards of learning amongst India's children. India currently needs 1.33 million additional teachers, yet in the state of Bihar, 75 per cent of teacher education institutions did not conduct any training between 2007 and 2010 (UNICEF, 2010). Moving from quantity to quality, 45% of school teachers in Bihar state do not have the minimum qualification for teaching (MHRD, 2013) and, ranging more widely, it is also a great concern that in some Indian states only 1% of teachers pass the Teacher Eligibility Test – success in which is mandatory in order to teach in government schools. Since 2005 the NGO Pratham has been conducting the Annual Status of Education Report (ASER) on school registrations and standards in rural India. Year on year the report has revealed ever-falling standards of learning. In 2012 the report identified 'an alarming degeneration' (ASER Centre,

2012, p. 1) in the quality of learning, evidenced in reading and mathematics standards and by 2013 the situation had not improved, with that year's ASER being deemed 'a ritual exercise bringing the same disturbing but worsening news' (Shenoy, 2014).

On a more positive note, India, home to the world's largest open university the Indira Gandhi National Open University (IGNOU), has actively embraced OER (and near-OER - see Harishankar, 2012). Government enthusiasm for OER has contributed to the appetite for openness in India. For example, in 2008 the Indian Government's National Knowledge Commission (NKC) proclaimed that:

> *'Our success in the knowledge economy hinges to a large extent on upgrading the quality of, and enhancing the access to, education. One of the most effective ways of achieving this would be to stimulate the development and dissemination of quality Open Access (OA) materials and Open Educational Resources (OER)'.* (National Knowledge Commission, 2008, p. 108)

In the same year the NKC called for a 'national e-content and curriculum initiative' to stimulate the creation, adaptation and utilization of OER by Indian institutions, in addition to leveraging OER produced outside India.

Tracking the development of OER in India, Das (2011, p. 14) observes that 'Indian OER initiatives serve diverse learning communities and bridge knowledge gaps between privileged and under-privileged communities'. The TESS-India project was established with this purpose. It is funded by the UK Government's Department for International Development (DFiD) and is working in partnership with several Indian states and the Indian national Government to create a network of freely available, high quality, teacher education resources, collaboratively written by UK and Indian academics and available both in print and online. The TESS-India OER consist of teacher development units (TDUs) in elementary and secondary maths, science and English, as well as leadership development units (LDUs) for teachers and school leaders. The TDUs are mixed media, including text, images and video, and have been developed using a structured content system to enable flexibility and their delivery in multiple formats (see **Figure 1**). The TDUs are stand alone and are self-directed in their approach, intended to support teachers in making changes in their practice and to suggest and inspire, rather than being prescriptive and exhaustive. TESS-India aims to use the TDUs both in training new teachers and in improving the practice of existing teachers.

Localisation and its application to OER

Glennie et al (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

Figure 1: The TESS-India OER in multiple formats.

end-users in several culturally and linguistically diverse Indian states.

Localisation of products to meet the needs of culturally diverse contexts is widespread in many fields. For example, the software and video games industries prioritise localisation of their products to accommodate local preferences in order to increase their profits. However, the localisation of OER for use in an international development context has a very different aim – that of increasing social justice and access to education, especially in the poorest of settings. OER localisation can include changing the language, pedagogical approach, content, imagery, and the religious, cultural and geographical references featured in resources.

For many, the most obvious aspect of OER localisation is translation from the source language into 'mother tongue' languages. India has 22 officially recognised languages, each spoken by many millions of people. (**Figure 2** shows the number of people speaking the eight most commonly spoken languages in 2010.)

Harishankar (2012, p. 228) discussing the Indian OER project eKalavya, notes that:

> *'The highlight of the initiative is its focus on content generation in Indian languages. This is a clear marker of localisation of the OER concept. For OER to succeed in a multilingual country like India, the linguistic localisation becomes a useful incentive.'*

Ivins (2012, p. 219), in a study of the localization of OER in Nepalese rural communities, agrees that 'localization unlocks the power of OER' and extends beyond translation, explaining that 'highly localized OER not only open up educational opportunities; they open up experiences, options and choices of what we can do in every sphere of life' (Ivins, 2012, p. 208). Ivins' assertions repeat those of key players in the OER movement over the past few years (e.g. Wiley, 2007; Mackintosh, 2010; OERF, 2011). Ivins (2012, p. 219) concludes 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 on a study of the localisation of some early versions of the TESS-India OER, written before a subsequent re-framing exercise whereby these resources were reworked, with the intention of informing the process of localising these new OER. It draws on literature from the OER movement and from theorists in the field of international development to inform an exploration of the ways in which TESS-India has begun navigating the OER localisation process in the interests of ensuring that the resources produced by the project are relevant to their intended audience and of the highest possible quality.

We focus on the following three 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?

Our 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 research featured a qualitative, reflexive methodological strategy intended to explore how participants in the TESS-India localisation processes 'made sense' (Merriam, 2009:13) of OER localisation and their experiences as OER localisers. The research was reflexive because it was necessary for us to acknowledge our positionality as members of the Open University UK whose roles are affiliated with the TESS-India project (although not directly involved in the localisation process), and to address our inescapable subjectivity as researchers. Smith (2000) reassures that researcher subjectivity need not undermine the validity of research findings and, instead, can 'meaningfully shape rather than distort' research evidence as long as researchers adopt a reflexive approach.

Our research case study - the first TESS-India localisation workshops - were held in the three Hindi-speaking Indian states of Madhya Pradesh, Bihar and Uttar Pradesh. This stage of localisation focused on three subsets of the TESS-India TDUs: elementary English, elementary science and secondary maths. Each localisation workshop lasted two days. A typical structure for the workshops follows:

Day 1
· Inaugural address and overview
· Overview of the process of TDU development
· What is an OER and what does a TDU look like
· Introduction to Process of Localisation & Localisation Guidelines
· Overview of state-specific localisation guidelines
· Briefing to start localising
· Start localising
· Interim Localisation Meeting
· Reflections Day 1

Day 2
· Continue work on localisation
· Create Work Plan for Localisation
· Video Conferencing with Subject Experts
· Reflections Day 2

Evidence about the localisation process was gathered from various sources, including:

· Reports from a participant observer at the first localisation workshops - the Hindi-speaking co-author of this paper - intended to capture the details and nuances that were difficult for the other authors to interpret through a translator.
· Eight interviews with localisation workshop participants, including two facilitators and three practitioners (conducted in early 2014)

Results and discussion

Overall, the localisation workshops appear to have been a positive and energising experience for participants, one localisation facilitator commenting that workshop participants 'began to feel that they might be on the cusp of something quite innovative...I think they valued that – being at the leading edge' (localisation facilitator A, 2014).

A third-party NGO was responsible for running the TESS-India localisation workshops, supported by the TESS-India team. The workshops were led by localisation facilitators who trained and guided State Localisation Experts (SLEs), selected for their subject knowledge, teaching experience, command of the English language, 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. One of the SLEs taking part in the workshops commented that the resources 'may not be as attractive for teachers if the local teacher context is not there...it will be like many other teacher training materials in the state which nobody uses' (SLE A, 2014). A localisation facilitator confirmed 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' (localisation facilitator B).

### Research question 1: What are the challenges of localising OER?
Research question 2. In what ways does the context in which localisation occurs, and the perceptions of the people doing the localisation, affect the process?

Our first research question was fairly straightforward to answer on the basis of evidence gathered at the localisation workshops. A range of challenges to localisation arose during the process, including the complexities of managing translation. Many of the challenges were closely connected with our second research question - namely 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, by far the most widely spoken and read language in India (see **Figure 2**). A localisation facilitator points out that:

People's level of English is very variable. If [the resources] stay in English there's a very limited

Number of Speakers of Indian Languages (in million)
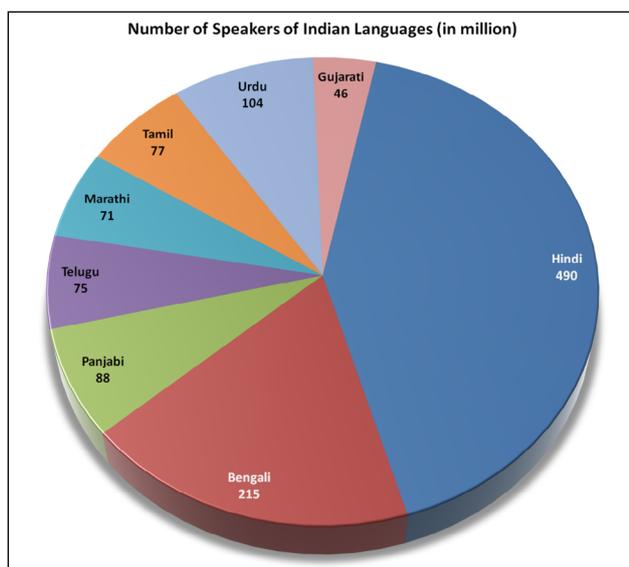
Figure 2: Number of people speaking the eight most widely used languages in India. Credit: Swaminworld CC-BY.

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. (localisation facilitator A, 2014)

A second facilitator agrees that had the resources remained in English 'only private school teachers proficient in English and not government teachers would benefit from them' (localisation facilitator B, 2014), adding that the translation needs vary from state to state, and between educational levels. A Bihar-based SLE confirmed that 'English is not prevalent in Bihar and is not widely understood…hence from a language point of view, [the TDUs] wouldn't have created an impact if they were in English' (SLE B, 2014).

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 one of the localisation facilitators explains:

We thought initially the localisation people would also translate…[but] we came to realise 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. (Localisation facilitator A, 2014)

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 unable to type in Hindi using a computer and instead worked in hard copy, making hand-written annotations that then had to be translated and typed up.

Challenges related to SLE experience and preferences
The TESS-India localisers were selected for their subject knowledge, language command, awareness of the local context and for their teaching experience. 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. A localisation facilitator 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' (localisation facilitator A, 2014).

Many SLEs had previous experience as textbook writers and where this was the case disagreements about the appropriate 'voice' for the TDUs often occurred. 'Textbook writing is quite formal,' a 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' (localisation facilitator A, 2014). 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. Some localisers had other preferences which they wanted to include in the teaching materials, for example 'you must stand up straight when teaching a class [and] don't have bad mannerisms' (Localisation Facilitator B, 2014).

Pedagogy-related challenges
The TESS-India TDUs prioritise developing teachers' pedagogical skills over their subject knowledge. However, the Indian teacher education system has a particular focus on strengthening teachers' subject knowledge. This, in turn, is driven by the fact the Teacher Eligibility Test (TET) – introduced in 2011, a pass in which being a condition of employment – is reporting pass-rates as low as 1% in some states (Express News Service, 2012). 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 challenge for the facilitators of the TESS-India localisation workshops. One facilitator 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. (Localisation facilitator A, 2014)

The facilitator continues: 'Before we changed the Science materials they had a wad of stuff at the back all about the subject. We made a decision to take that out because it's all in the textbooks, we don't need to duplicate that'. A second facilitator suggested 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 are common. There were quite a few discussions in the workshops saying there should be some descriptive knowledge in a TDU. (Localisation facilitator B, 2014)

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. One facilitator explained that the intended purpose of the TDUs is to 'help teachers move from the theory of activity-based learning to changes in practice', adding:

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. (Localisation facilitator A, 2014)

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 strategy was 'much appreciated…and moved the localisers on to a real understanding of what the TDUs are trying to do' (localisation facilitator A, 2014).

Challenges related to unfamiliarity with OER, openness and online learning

A further challenge arose from the fact that some localisers were explicitly judgemental of their peers in the teaching profession, questioning the value of the TESS-India TDUs for many teachers. One SLE suggested that 'TESS India materials are sensitive to teachers needs and make things easy for…the willing teachers, who are ready to experiment' but added that 'most of the teachers are clueless about how to teach'. They continued:

There are two types of teachers in this world. First are the ones who have got no interest in teaching and just teach for the sake of it. There will be no impact on those. The other type are the willing types who are

ready to help. These teachers will use the TDUs most and will adapt them as well. (SLE C, 2014)

Workshop facilitators therefore needed to navigate any such judgements and to instil in sceptical localisers a belief that the TESS-India OER would be attractive to, and used by their peers, in part by deepening localisers' understanding of what OER actually are.

Digital skills are growing amongst India's teachers and teacher-educators and, indeed, the Indian government is explicitly promoting the use and development of OER as previously mentioned. However, a lack of infrastructure, especially in poorer states, can be a barrier to online participation (Perryman, 2013a). The majority of the TESS-India localisers were familiar with using computers and accessing the Internet. However, while many of them said they had heard of OER prior to participating in the localisation workshops, most localisers 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, their cautiousness appearing to be related to their shallow understanding of OER. 'The Indian team were holding on too tightly to what they're allowed to localise and what they're not allowed to localise', explains a facilitator, 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. (Localisation facilitator A, 2014)

This facilitator speculated that the rigidity around allowing changes to the materials may have been 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. (Localisation facilitator A, 2014)

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', a facilitator explained, adding:

I think people like the idea of being a part of an online resource – it looks impressive and I think they aspire to being part of that – but I don't think people have got a clue how to do it because they're not

online learners themselves, they don't understand that experience. (Localisation facilitator A, 2014)

Research question 3: How can communities of users best be supported when localising OER?

TESS-India has recently undergone a re-framing exercise, which has included re-working and re-localising some of the materials, in part as a result of the research reported here. One aim for studying the early TESS-India localisation workshops was to explore ways of better supporting localisers in this second phase of the project. 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.

Longer workshops and supporting peer collaboration

Many workshop participants commented that it would be beneficial to have more time for group discussion before, during and after the workshops. One localisation facilitator suggested 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. A localisation facilitator commented:

> *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.* (Localisation facilitator A, 2014)

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.* (Localisation facilitator A, 2014)

> *We need to allow time for reflection and working on the materials.* (Localisation facilitator B, 2014)

> *We need to sit as a group again to deliberate on matters of localisation as now our understanding of the matter has increased.* (SLE D, 2014)

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...They are the writers of new OER...they could take two OER and stick them together, they could do something really different.*

Navigating the relationship between resource quality, localiser freedom and the 'spirit of open'

Our study has raised questions about the level of freedom that should be given to OER localisers in order to produce a high quality open resource that will be effective in achieving improvements in educational standards in low-income countries. 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 conceptualisations of quality and learning purpose can differ from those in the UK. The two-tier TESS-India pilot 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, 2013b) 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. Indeed, across India a hierarchical approach to knowledge ownership and a great respect for 'experts' appears to leave educators disinclined to adapt the work of others. This, in turn, has led to some TESS-India localisers' being reluctant to adapt OER, with implications for the ways in which localisers can best be supported.

A comparison between TESS-India and another Open University OER project – the Teacher Education in

Sub-Saharan Africa (TESSA) project, which produced OER for use in Sub-Saharan Africa – is fruitful here. In both projects localisation was intended from the start. However, TESSA managed the process more tightly than did TESS-India, giving localisers clear guidance about which sections of the materials were to be localised, in contrast with the absence of structured support that featured in the TESS-India workshops. 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 and making more changes than did the TESS-India localisers.

On the basis of these findings we have developed an emergent model for conceptualising the relationship between institutional control of the localisation process in the interests of resource quality, localisers' subsequent freedom, and the level of openness in the localisation process. **Figure 3** proposes a dynamic between institutional control, localiser freedom and the level of openness involved in the localisation progress. (Note that this is not a quantitative representation and the numbers are just a rough guide showing direction for each element of the diagram.) The model reflects the fact that the more controlled TESSA localisation process resulted in a higher degree of openness, and more changes to the OER, than did the more loosely structured TESS-India localisation process.

Once again, a key issue here is support. The TESS-India localisers were given more freedom to localise and adapt, but did less of it. It is possible that those localisers felt overwhelmed at tackling a previously-unimagined task of adapting and localising learning materials without a clear framework of support, especially those with no experience of OER or of learning online. In contrast the TESSA localisers, who were given very defined and specific parts of the material to localise, may have interpreted the 'control' exerted on the localisation process as a form of support which, in turn, made their task seem more manageable and achievable. We therefore tentatively suggest that effective project management of large-scale OER projects such as TESS-India, operating in development contexts, is only achievable through tight control of the production and localisation process. This, in turn, is a contrast with the many small-scale OER projects that have been able to achieve a high level of openness right from the start.

Accusations of neo-colonialism and the need to develop knowledge partnerships

Our reflection on the best ways to support OER localisers led us to consider the concept of knowledge partnerships as a way to better understand the relationships between all parties involved in the localisation process. The Asian Development Bank (2010) defines knowledge partnerships as:

> *Associations and networks of individuals or organizations that share a purpose or goal and whose members contribute knowledge, experience, resources, and connections, and participate in two-way communications. They thrive when there is a strategic, structural,*
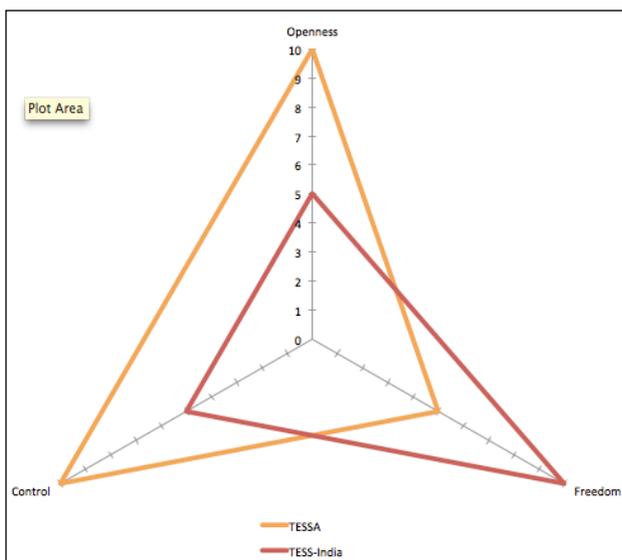
Figure 3: A possible relationship between control, freedom and openness in OER localisation.

> *and cultural fit, and when members embrace a collaborative process, behave as a coherent entity, and engage in joint decision making and action.*

TESS-India has a strong commitment to knowledge partnerships and this commitment has informed the development of the supported localisation process that is the focus of our research. However, our findings suggest that the notion of knowledge partnerships is more prevalent in the minds of the localisation facilitators than in some of the participants involved in the localisation workshops, notably those who questioned whether the provision of OER generated from a UK-led project, irrespective of whether they are written collaboratively with Indian educators, aligned with national policies and nationally endorsed pedagogical approaches, is a form of neo-colonialism. This view is not uncommon beyond TESS-India with detractors identifying a risk that OER for development projects could involve 'the rich north [pushing] resources at the poor south' without thought of reciprocity (Glennie et al, 2012, p. v).

Our study of the TESS-India localisation process, when analysed in terms of Wild's (2012) OER Engagement Ladder, indicates how localisers who perceive OER for development projects as top-down and neo-colonialist might shift to viewing the localisation process as a knowledge partnership once they are able to achieve embedded, reflective engagement with, and understanding of OER (see **Figure 4**).

Figure 5 gives an expanded view of how some of the factors that make up the knowledge partnership approach map onto the high, embedded level of the OER Engagement Ladder, leading to true openness and embedded engagement with OER.

Returning to our third research question around how best to support OER localisers, it is arguable that the shift in perceptions needed to view OER projects as knowledge partnerships, and to reach an embedded engagement
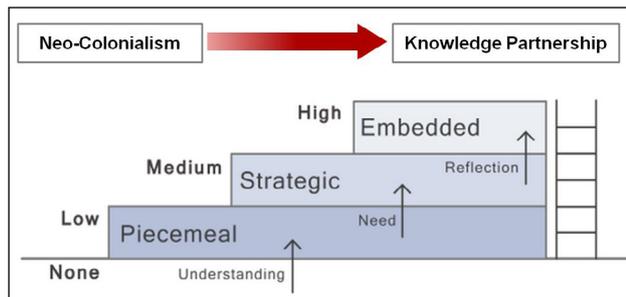
Figure 4: Adapted OER Engagement Ladder.
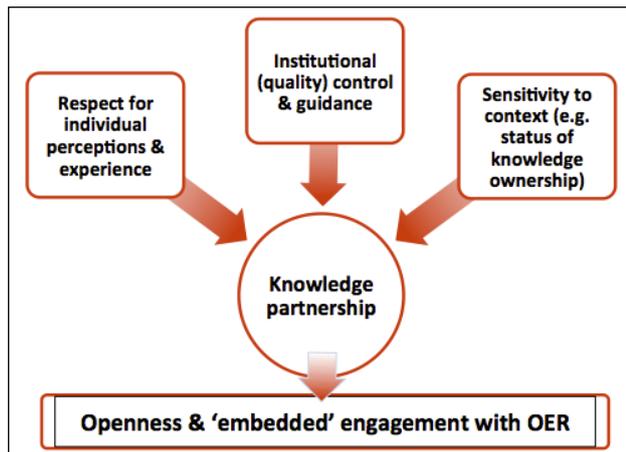
Figure 5: Factors comprising a knowledge partnership that leads to embedded engagement with OER.

with OER, is only possible if the supported localisation process prioritises increasing user access to technology and developing localisers' skills, alongside developing localisers' confidence to conceive of localisation as part of true openness and to imagine themselves as empowered to play an active role in localising the work of others. A community of practice approach, whereby localisers are supported beyond the initial workshops and work together on adapting resources, could again be valuable here, allowing localisers to develop a collective sense of group identity and purpose (Wenger, 1998) and an individual localiser identity within that group.

Conclusion

Changes to the time-frame of the TESS-India project following the appointment of a new academic director, and a re-framing of the TESS-India OER, has resulted in various project-wide changes and the localisation process as it is reported here will not be replicated across the project. However, the findings from this study of the first TESS-India localisation workshops have informed this decision, and should also 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. Future research might usefully assess the extent to which the boundaries within and barriers to knowledge partnerships between OER project leaders and context-aware localisers may not only be cross-cultural (see Miyagawa, 2005), but also inextricably linked with the existing hierarchical structures of societies, institutions and academia. Future research might also study the practice of localisers who *do* have experience of online learning and OER, and who therefore may imagine what to do with the freedom to localize and adapt and open.

While the overriding attitude to the TESS-India OER amongst localisers has been positive and energised this has been accompanied by some resistance on the part of OER localisers to the implementation in India of learning resources perceived as 'UK exports'. While this was eventually overcome through capacity-building by the workshop facilitators, our research on the TESS-India localisation process remains inseparable from a discourse that acknowledges criticisms of neo-colonialism (Miyagawa, 2005) and of one-directional flows of knowledge and resources (Glennie et al, 2012), and it is important for any future research on the topic of OER localisation to interrogate the nature of the process with reference to a similar intellectual framework.

More broadly, we have identified a complex dynamic between institutional control, localiser autonomy, enduser freedom to adapt resources and the 'spirit of open'. Future research will further explore whether proving tight guidelines about what can be localised, and how to do so, 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. For now, though, we argue that each new project seeking to achieve the removal of unfreedoms 'that leave people with little choice and little opportunity of exercising their reasoned agency' (Sen, 1999, p. xii) through the development and localisation of OER should carefully consider the nature of the dynamic between openness, institutional control and localiser autonomy within their own setting and cultural context.

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