

I am Tim Seal, I am responsible for the technical direction of the TESS-India Project. This is a project in India working with teacher educators across 7 states. We approached this project from an open perspective. We offered all of our content via our own open repository and delivered it in a format so that it could be transported into other repositories, particularly around the Indian National Repository for Open Educational Resources (OER). We wanted to do this as well via our own website and ensure that it was accessible via mobile phones. The rhetoric around the use of mobile and the increased impact of mobile use was actually becoming much more relevant, especially with the increase of cheaper smart phones. What we ended up doing was developing a system where we could pull all the content from our own open repository, and then re-format it via our own website for use on mobile devices, and deliver it via an SD card. What this meant was we could distribute micro SD cards to learners, teachers and teacher educators, but we could also use devices such as Raspberry Pi which we did do. We could put that micro SD card into a Raspberry Pi device and then distribute that via Wi-Fi inside a teacher education institution. Learners that come into that institution can automatically, and for free, log on to that device, and then search for content across that device. They can then download individual parts of content, or they can download all the content to their device. Those people with low or no internet connectivity can access the device, and download high quality materials to their mobile phone or tablet. This is high quality video they wouldn't otherwise be able to access. They might be able to access a transcript but it is a much richer format if they can download the video. All our videos have subtitles and transcripts. It also has voiceovers in many of the local languages as well.

One of the interesting things we have done with TESS-India is we engaged in producing a MOOC, a Massive Open Online Course for learners and we looked at some of the best approaches, particularly those with low or no internet activity and those with low levels of digital literacy. We came up with an open boundary approach where we delivered the course openly but we also offered face-to-face 'in person' sessions. These sessions were an opportunity for learners to come together, engage in local language if they wanted to, and this actually proved very successful. What we also found was that learners self-organised into WhatsApp groups, and we found that a lot of learning occurred via the WhatsApp groups that they created. This was about sharing content, interesting articles, letting each other know when the next session was and when assignments were due in. It was a really positive outcome in terms of this use. What we found as well was that people learnt about the project and the pedagogies that we were supporting, but also they developed their own digital literacies. We had members of the project who had never used the internet before, and yet on the subsequent iterations they became the IT support person for their particular region. It wasn't until we did the MOOC, where we actually enabled people to *understand* and see the benefit of Open Educational Resources and the fact that they can adapt and change these. People realised, if we had these in a digital format, it would be much easier for us to change them and share them. I think although this doesn't seem like a huge step for ourselves here in the Global North, certainly for the project, just being able to have that little bit of push, showing the advantages of these kind of open practices and how technology can benefit them was huge for us.

One of the main pieces of advice I would give to anyone engaging in such a large and complex project, is actually going back to the core values and enabling those people engaged in the project to really understand the advantages potentially there in the use of technology and how they can best use it within their context. That goes back to the example of the use of open practices. Open practices aren't really predicated on the use of technology, but actually, using technology creates much more advantageous use and creates much wider impact. We can deliver something via paper and it has great value, we can make it open and know that people can use it, but as soon as we start to bring in the digital versions of these, and actually develop them in such a way that it enables

people greater access, and adapt them and then re-share them, as soon as people start to understand those advantages, that really does start to increase the impact of the project as a whole.