Seven questions every Educational Technologist should ask before introducing technology to faculty.

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The important question it's easy to avoid.

Educational Technology departments are founded on the principle that learning technologies can create improved learning outcomes. But to flourish they must demonstrate it to be true. Stakeholders will ask:

How are you going to create a path from the technology to improved outcomes in this Institution?

Ed Techs don't often have time to think about the answer. They are hugely busy training faculty in tool use, supporting pockets of usage in faculties, managing technical elements of their technologies, or just trying to keep up with the ongoing deluge of available technologies.

The question itself can seem overwhelming, because it's not an abstract question it's a practical one. It's not how *do* technologies per se produce outcomes; that could be met with good research papers and case studies. The question being asked is 'how are *you* going to get from *our* technologies to improved outcomes *here in this Institution?*'

And it can feel overwhelming because so many factors other than technology are involved such as learning activity design, and lecturer motivation. These things seem outside of the remit of the educational technologist.

Yet after nearly twenty years of working with Virtual Learning Environments we know that technology won't do the work of change by itself. If we install a learning technology and make it available with some tools training then we get adoption from pockets of teaching pioneers, but little widespread usage. On the other hand, if an Institution simply mandates that all teaching staff will be accountable for a minimum level of technology use, then we get is just that: the bare minimum, borne out of a nominal obedience.

Neither of these approaches delivers the learning outcomes we know technology can facilitate. And if after nearly twenty years of investment in technology, an institution can't demonstrate a good return on investment then executive management will ask 'why should we keep investing in new technologies?' They may already be doing so, which will make us face the question:

How are *we* going to create a path from learning technology to outcome, in *our* institution?

This can leave educational technologists feeling stuck and lost without a starting point, with a small remit in the face of the institution's towering inertia to new technologies and to change.

To help you start to find *your* answer we've found these seven questions useful. They're designed to show you there is a path from technology to outcome, and YOU can lead faculty along it.

7 questions which can help you find your answer.

1. How are faculty going to 'get' the changes you're advocating?

   Every specialism has its own language.

   Technologist, learning designer, and lecturer can suffer from failures to understand each other, or 'get it'. This is not just a failure to understand one another's vocabulary. Each discipline has different assumptions about how common subjects, like learning, ought to work. This mismatch is more difficult to resolve; terminology can be explained, but a conflict of values or hidden assumptions must be bridged.

   The most effective way to make this bridge is to find a language which grounds all of the stakeholders, so they're not fighting over whether the language of technology, learning design or management will dominate the project.

   We think that this bridge is the language of value, in particular the value to the lecturer of an actual change in their teaching practice.

   Practically, this means the that the technologist needs to fully understand the challenges and aspirations a lecturer faces in their teaching. This is the path their point of greatest need or value. The lecturer then can be shown how the technologies available can help meet that need and produce that value. This meeting point is what we call 'alignment'. It creates a common language of need, aspiration, remedy and value.

2. How do you get faculty to *really* commit to a technological change?

Change is often viewed as a mechanism. We think that the right action will produce a desired effect. For instance, if we introduce a technology then its affordances will effect an improvement in learning outcomes. Unfortunately many brilliant technologies remain ignored, or lecturers simply map their existing practice online effecting no significant change. Another idea is to drive improved outcomes by forcing lecturers to use new technologies. Unwilling lecturers obey the command in name and do the bare minimum. Without constant enforcement and extrinsic motivation any momentum slips away.

The problem with these views is that they all assume the agency for the change is in the technology. We take a different view: the agency for change is in the human in general and the lecturer in particular, given the right help.

Rather than see change as a mechanism we see it as a possibility, which can be actualised when we co-create it with faculty. If the agency for change is in the lecturer, then this is where we must look for the source of commitment. It is found in a meaning change, individual to each lecturer, expressed as either a desire to achieve a goal, or a desire to relieve a pain in their teaching and learning. They must be able to say genuinely: making this change is meaningful and valuable to me. Only when we've found this source do we find the sufficient latent emotional energy to sustain a commitment to change.

So if you want to get faculty to really commit to technological change, then you have to work backwards and find the teaching outcome each lecturer wants to get badly enough to agree to commit to a technological change.

The Cultivate Educational Technology Value Proposition is a non-confrontational neutral process which has been designed to find this source of commitment, and match it up with the element of technology which will best deliver it. Every aspect of this process is designed to find the source of commitment, and them make it manifest by co-creating a learning micro-activity which will deliver the outcome.

3. How will faculty be able to tailor this technology to their specific needs?

Assuming that faculty will need a basic level of knowledge to use a technology is a reasonable starting point for any technology deployment. For many educational technology departments scarce resources will mean that providing an introduction is all they feel they can do.

The weakness with this approach is that it makes personalisation the top of the mountain, something we only reach after training and practice in the basics of use.

We say invert the mountain. Start with the lecturer, rather than the technology. Find the most energy supplying specific need in each lecturer, or faculty and then train them in only the skills they need to achieve that. This is the shortest route to an improved teaching and learning outcome.

Putting the lecturer at the centre *makes* this an individual tailoring programme, because that's the only way outcomes happen, individually, lecturer by lecturer allowing diverse faculty to associate and align eLearning to themselves across the Institution.

4. How will you integrate your efforts with Instructional designers and other stakeholders?

Traditional approaches, which are based around technology find this difficult because of the problem of uncommon language and values, touched upon in question 1. Some technologies do lend themselves to certain instructional designs, for instance wikis go well with a social constructivist pedagogy. However, this is not always the case, and looking for common denominators between disciplines tends to exclude options rather than widen them. This tendency is magnified as the number of stakeholders increases.

Integration is a function of speaking the same language. The danger is that stakeholders get into a battle of the languages, where each party fights for dominance. This isn't integration. The better solution is to find a new overarching language which unites technologists with lecturers, instructional designers, managers and other stakeholders.

The Cultivate Educational Technology Value Proposition introduces this new language by focussing on the common goal all stakeholders can agree on: the value of specific improved learning outcomes. The process itself is flexible enough to allow for each of the stakeholders' influence in a jargon free way, in shaping and achieving the goal, rather than fighting to shape and achieve control over the programme.

5. How will you know if anything has really changed for the better?

Many institutions measure improvement with metrics like time spent using technology, course grades or student surveys. These do leave a black hole in causality as the measures are general covering usage, or a whole course. Statistically significant correspondence is the best evidence one can hope for.

By making Learning Activity Design the centre of the process, we are already limiting our intervention to one well defined change. This can be compared to a well defined prior situation in a number of ways such as learning outcomes from the specific activity, or measured against the well defined aspirations or pain points of the lecturer.

Over a large sample of learning micro-activities, trends can be tracked and patterns start to emerge by faculty or across faculties. These technology alignment sweet spots form case studies, and can inform the spread of further learning micro-activities.

6. Are you going to be able to cope with the workload this will produce?

Mainstream approaches to course design tend to be geared around just that, designing courses. Roles are well defined with Instructional Designers creating the course and assessments, technologists training groups on tools face-to-face, if required, and lecturers delivering the course. This 'outsourced' design works well for a large project. But not so well for introducing small ongoing improvements in teaching quality. ISD and technology processes are involved with many development loops and hand-offs. A meaningful volume of small changes clogs this process up, a backlog forms on ISD's and technologist's desks.

To cope you need to find a lighter, more agile, yet reliable process which can create small learning activity changes safely, and reliably. This can then be added to the Institution's repertoire.

7. How is your programme going to create self-sustaining change for your organisation?

   Amid the effort of introducing a technological change, an organisation characterised by self-sustained development may seem like a distant dream. So this is a question which doesn't often get asked; it should be.

   Question two explored the need to find an adequate source of commitment to make a change. This is the baseline of a change. To make the process self-sustaining learning support needs to find a way to turn that singular process into a virtuous cycle of change and success. When this happens with enough lecturers, in enough faculties, and with enough encouragement and help from leadership and support departments then change becomes embedded in the cultural norms of the organisation.

   The Cultivate Educational Technology Value Proposition is designed to lead lecturers through this singular change starting them on a path of ongoing development. It contains social elements such as tweeting lecturers learning micro-activity commitments. The process can be delivered as a standalone, but is more effective as part of the larger Cultivate programme, which places lecturer change within the context of the the whole Institution's development.

What is the Cultivate Educational Technology Value Proposition Canvas?

The Cultivate Educational Technology Value Proposition Canvas is a process, with accompanying resources to help you get your academics on a path of positive change in their teaching and learning practice by introducing learning technologies.

The concept at the heart of the process is that when lecturers find an alignment between their deepest needs or highest aspirations and technology they'll find the energy to want to change. When they've found this energy it's vital to co-create with them a small, manageable but impactful learning activity to make the change idea a reality. This should be implemented as soon as possible so the lecturer experiences the benefits. This is the shortest, most effective way to lecturer trust, which is at the heart of self-sustaining institution-wide teaching and learning improvement.

To ensure you are confident in practicing the Cultivate Educational Technology Value Proposition Canvas we offer all the training and support you'll need to become proficient at leading your lecturers through change.

What should I do next?

If you're thinking about how you can effect creative technology adoption, manage a large technology project, help improve learning outcomes, or demonstrate return on investment within your Institution then contact:

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