



Modelling institutional approaches to web-based lecture technologies

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The successful introduction of web-based lecture technologies (WBLT) into higher education institutions requires a blend of inter-dependent approaches (e.g. business model; governance) each designed to enhance the pedagogical potential of the academic programmes. The implementation path for these approaches varies widely between institutions, often dependent upon finance, senior leadership and the capacity for change. An analysis of the approaches taken by eight UK and US institutions at various stages in their implementation highlights a high level of commonality in issues faced, good practice arising and the direction of travel. Furthermore, it is believed that the model presented can be more broadly applied in academic settings for the planning and implementation of similar large-scale technological systems.

Keywords: recorded lectures, WBLT, institutions, podcasting, governance, implementation, higher education, ICT policies and strategies

Introduction: About web-based lecture technologies

Web-based lecture technologies (WBLT) provide students with rapid access to digital recordings of their lectures. The opportunities provided from digital recording and web-based publishing of lectures (and related events), are challenging many academic institutions to review the manner in which teaching is provided (McKenzie, 2008). Concerns over the efficacy of the lecture and role of the lecturer (Bligh, 2000), together with the perceived value to the student and their approach to learning (Williams & Fardon, 2007), has led many institutions to rapidly expand their provision of recording systems. Australasian institutions have led the way (Phillips, 2005) and are now being followed by European and US institutions, all seeking to identify a pragmatic solution to realising the apparent potential, within tight financial constraints and the lack of a clear implementation model.

The challenges are system-independent as most 'off the shelf' solutions are converging on a technical model which provides self- and scheduled-recording options, and automated publishing to VLEs of a variety of streamed and portable media formats. Nevertheless, the introduction of the system is fraught with conflicting challenges towards enhancing academic practice (pedagogical applicability,

curriculum integration, exemplars and training) with corporate responsibility (governance, technical architecture and affordability).

Cross-institutional perspectives

The approach taken in this study was to compare the experiences of eight institutions currently engaged with implementing WBLT. Whilst WBLT is at different stages in its evolutionary path at each institution, this perspective reveals a pattern of initial triggers, governance development and phased roll-out which are surprisingly similar. We are also able to delineate separate themes, covering:

- **MODEL** The business case for using WBLTs will determine key decisions. For example, enhancing student learning will lead to wide coverage, low production values and 'throwaway' policy whilst distance learning capability may be targeted, have a high-value production strategy coupled with a re-use policy.
- **GOVERNANCE** The plan for adopting WBLT's within the institution should be formulated around principles of use by a representative group of stakeholders. Policy decisions will need to be made to cover legal implications (such as IPR, branding), ethical issues (opt-in, consent), and sustainable growth (finance, storage, devices, administration).
- **IMPLEMENTATION** The model for implementation will limit the rate at which WBLT will be integrated into the institution. Grassroots origins will require significant evidence and a critical mass of users to encourage large scale growth, whilst large scale introductions must necessarily be managed by senior staff, be strategically planned and are often rapidly phased.
- **COVERAGE** The roll-out of devices across an institution is unlikely to be evenly distributed in the early stages as local demand, space and technical capacity dictate usage. The move towards global coverage and a diversity of modes of application will be founded upon peer review, escalating demand and a growing confidence. Control over the administration of the service will also require resolution as the service grows; this includes: maintenance, scheduling, timetabling, editing, and storage.
- **STAFF DEVELOPMENT** Direct training for these technologies is minimal but may include presentation and delivery tips and practical aspects such as timetabling and editing captures. The main staff development opportunities lie in helping staff to understand and apply the policies and in leveraging WBLTs to improve pedagogical practice and student learning. Appropriate and timely staff development can support engagement by academic staff through 'myth-busting' and response to legitimate concerns.
- **INTEGRATION** Embedding WBLT systems within organisations demands linkage at a variety of levels: the pedagogical link with institutional learning and teaching strategies; the systems link with technical infrastructure; the modification of learning environments to accommodate new recording facilities; and complex cultural issues between staff and student perceptions of use.

Through each of these themes, and their sub-themes (such as Governance: IPR, Consent, Policy), the relative position of an institution's implementation can be identified between a spectrum of end-points. For example, the governance policy for WBLT may reside with an enthusiast within the institution or be managed by a centrally located steering group. Furthermore, the factors determining the position of an institution on each of these continua are outlined, providing a guide for understanding and possibly organising the development of the service.

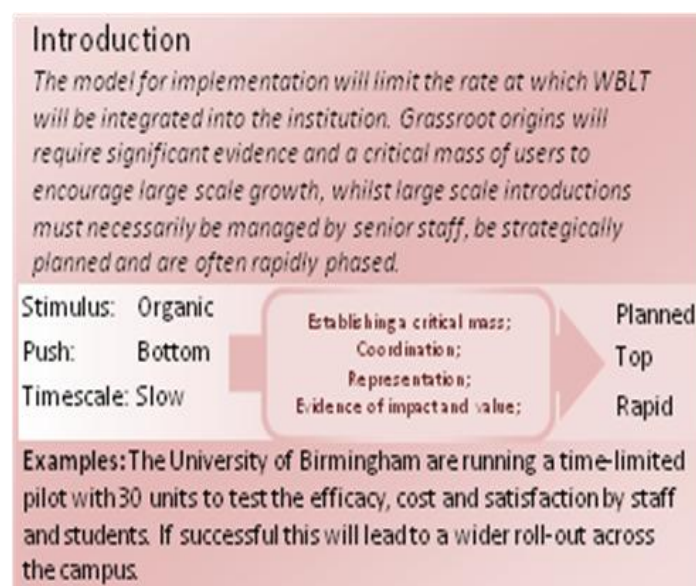


Figure 1: An example theme, with sub-themes and drivers

The factors identified by this model can be viewed as stimulating progression and improvement in the WBLT service. Such factors include the need for a strong pedagogical lead for planning, training and peer support. Equally, the expansion of the service can be motivated through student demand, gathering evidence of impact and value from stakeholder groups and seeking full integration with existing technical systems.

Conclusions

From taking a cross-institutional perspective it is readily apparent that often diverse starting positions and intentions lead to a 'distinctive convergence' around common core principles, such as governance and implementation. Experiences from each of the eight institutions considered in this paper indicate that a successful implementation is much more complex than first perceived, with a clear business model, governance planning and stakeholder involvement being equally critical. Furthermore, staff development and training in WBLT must be academically led, with clear exemplars and supporting evidence of impact and value. Finally, the model presented is believed to represent a much broader applicability for the planning and implementation of similar large-scale technological systems in an academic setting.

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Please cite as: Couperthwaite, J., Hinrichsen, J. & Shields, C. (2010). Modelling institutional approaches to web-based lecture technologies. In C.H. Steel, M.J. Keppell, P. Gerbic & S. Housego (Eds.), *Curriculum, technology & transformation for an unknown future. Proceedings ascilite Sydney 2010* (pp.236-239). <http://ascilite.org.au/conferences/sydney10/procs/Couperthwaite-poster.pdf>

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