

‘You can’t do that in a classroom!’: How Distributed Learning can Assist in the Widespread Adoption of Hybrid Learning Strategies

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Abstract. Achieving the widespread adoption of Hybrid Learning in Higher Education is desirable but difficult and to accomplish this requires significant institutional change. This paper suggests that this kind of change can be achieved by the strategic harnessing of Distributed Learning opportunities. It takes as its main point of focus the lecture which, despite significant advances in communication and information technology still prevails as a dominant teaching and learning strategy in Higher Education. It suggests that using screencasting to deliver lectures in a Distributed Learning context can trigger the kind of widespread change required.

Keywords: Distributed Learning, Hybrid Learning, Lecturing, Screencasting.

1 Introduction

In a rapidly changing world, Higher Education is also having to adapt. In this context, there is little doubt that hybrid learning strategies are highly desirable in terms of maximising student engagement and learning achievement. This is particularly since the advent of widening participation and open access whereby students join the academy with a widely divergent range of qualifications, abilities, expectations, preferences and aspirations. While blended learning strategies have been used for a considerable length of time in distance learning provision, this kind of hybridity is only just starting to have a significant impact on the lives and experiences of main-campus, full-time, students. Indeed, there is overwhelming evidence in the literature to show that hybrid learning strategies can bring important rewards for academic staff, students and institutions alike in terms of both increased quality and efficiency. Yet, despite these obvious benefits *and* the weight of scholarly evidence supporting them, the reality is that the Higher Education industry as a whole is still some distance from achieving widespread or even substantial adoption of hybrid learning strategies, particularly for the provision of courses to full-time, main-campus students. In order to accomplish this, the industry needs to undergo significant change the likes of which Barr and Tag refer to as a paradigmatic shift [1].

In this paper I propose an approach which may prove more effective in achieving this kind of change, than strategies already attempted. I argue that making strategic use of distributed learning opportunities, such as the opening of new remote campuses and the adaptation of courses for flexible delivery, can be an effective means of bringing about change across an institution. In short, strategically targeting those moments when academics realise that teaching distributed student cohorts cannot be 'done in a classroom' can be an effective catalyst for bringing about useful change. To argue this I will focus specifically on lecturing as one of the mainstays of traditional teaching and learning practice. In terms of its influence and impact on student learning, the lecture's ubiquity is matched only by its obduracy. Evidence abounds that as a teaching and learning strategy, lecturing has little to commend it, yet it still makes up the bulk of the student learning 'diet'. I will argue that harnessing distributed learning opportunities strategically can be an effective mechanism by which to 'wean' academics off lecturing and can consequently encourage them to adopt more interactive, student-centred hybrid learning in their teaching practice. Using these opportunities systematically can be an effective catalyst for bringing about widespread change.

2 Understanding VLE Use as a Series of 'Step Changes'

The achievement of this particular paradigm shift requires quite specific changes in the way that Virtual learning Environments (VLE) and other kinds of teaching technologies are used in Higher Education. Making this change in the provision of teaching and learning to full-time, on-campus students is, I argue, most usefully understood as a series of step changes: first to the adoption of VLEs as repositories of resources; secondly the use of VLEs as interactive learning environments to augment or supplement the use of traditional face-to-face learning environments; and thirdly the use of VLEs as interactive learning environments which replace some use of traditional face-to-face learning environments (Hybrid learning).¹ It is useful to take these one at a time.

First, the use of VLEs as repositories for learning resources has a relatively long history, starting with the use of university intranets which were then organised into home grown VLEs. This eventually shifted onto the widespread adoption of proprietary VLEs in the mid to late 1990s. Some two decades later, this use of VLEs has become very widespread, with most institutions in the developed world holding a proprietary or open source VLE license, and having a recommendation or even requirement that all modules have a dedicated site on it [2-4]. This is, if nothing else, testament to the fact that this step change has been relatively easy to achieve. This type of use of the VLE is indeed a good first step, and undoubtedly provides many useful benefits to staff and students alike such as having convenient and flexible ways of distributing and accessing learning resources. However, studies have found that for the most part, this remains the extent of VLE use, with, in many instances, it being

¹ Gilly Salmon has also usefully described this transition as a stepped process in her excellent article 'Flying not Flapping: A Strategic Framework for e-Learning and Pedagogical Innovation in Higher Education Institutions' [2].

used for little more than the module handbook being made available [2-5]. While some academics and even some institutions may believe that this constitutes genuine achievement in the adoption of e-learning, as John Cowan points out, this 'is a misnomer' and it is really better understood as 'e-reading' [5]. He goes on to criticise this strategy, arguing that it simply defrays the costs of printing from the institution (who can do it cheaply and efficiently *en mass*) to the students (for whom it costs more in money and time even though they can least afford it, especially as they have, in many cases, already paid for it in their course fees), [see 5]. Worst of all, while this step change has been easy to achieve, in the end nothing really changes, which is perhaps *why* it has been so easy to achieve! All that's really happening is that information is being sent from teacher to student, teaching strategies continue as they have done for centuries and the VLE becomes little more than a glorified and rather expensive virtual filing cabinet.

In comparison, the second step change, to the use of the VLEs as an interactive learning environment to augment traditional, face-to-face classes, is relatively difficult to achieve. This step achieves many of the important objectives of hybrid learning and as such there is much to commend it. In particular it brings benefits by making access to the learning more flexible and by suiting a wide range of learning styles and student preferences. There is also a considerable body of scholarship that shows how this approach to teaching and learning is more suited to student-centred, and often constructivist, approaches than traditional face-to-face strategies [see for instance 6]. While this change is an important second step, it is ultimately not an ideal outcome in itself. In this situation, face-to-face teaching still prevails and thereby remains routinely hierarchised over VLEs. As such, VLEs are only ever used as supporting or as supplemental to classroom-based activities such as lectures or seminars (often in the forms of preparation activities, follow-up activities, and/or non-compulsory extension or enrichment activities). The biggest problem this strategy presents is an increased workload for both staff and students. In the end, staff have more work to do constructing, maintaining and moderating online activities in addition to their classroom hours. Similarly, students are asked and sometimes expected to do more things on top of their classroom activities. While these extra activities may bring benefits to student learning (which can be significant), they have the very real tendency to eat into the inexorably finite time and energy of staff and students alike. As such, they often tend to 'fizzle out' after a while, becoming especially vulnerable towards the end of term when assessment and marking loads impinge significantly on participants' lives. Because it is seen as supplemental, students tend to drop their involvement or interaction in favour of investing their energy in compulsory activities and assessable coursework components, and staff simply run out of time and energy to effectively maintain it. At worst, academics become disenchanted and tend to blame the technology or (even worse) the students for the strategy's failure. They use it as an excuse to return to old, established and 'safe' teaching and learning strategies and consequently become even more reluctant to adopt hybrid strategies in the future. It also runs the risk of being perceived by students as 'gimmicky' and a waste of their time and effort, and thereby they become disinclined to become involved again in the future preferring to concentrate, instead, on the 'real' face-to-face learning environment. As such, this strategy runs the risk of doing more harm than good. While these blended learning strategies achieve

significant change, it is ultimately not enough and traditional face-to-face learning strategies continue to prevail.

The third step change, to the use of the VLE as an interactive learning environment that replaces aspects of traditional face-to-face strategies, is harder again to achieve but is an ideal and final step. There are many reasons why this change is so difficult to achieve and it is impossible to cover them all adequately here, however, it is worth briefly considering those which are most significant. These include the large number of substantial institutional barriers in place whereby everything from teaching workloads (in terms of hours and student load), to timetabling, student evaluations, validation documents, position descriptions, job titles, part-time hourly pay rates and even institutional architecture is designed on the assumption that the main activity of the teaching academic will be in the delivery of face-to-face lectures, seminars and tutorials. Stepping outside of this system to undertake a different pattern of teaching and learning immediately presents academics with a long series of administrative hurdles to jump which of course involves extra work in comparison to their colleagues. As such, making such a change immediately puts these academics out of step with the activities of the majority of their colleagues and it can also often be something that is poorly understood, and consequently not well supported, by line managers. This alone can be disincentive enough and thereby provide enough encouragement to keep marching into the lecture hall week after week [see 7]. Even if the individual, the department, the school and even the institution as a whole are keen to make this step change, there are significant obstacles put in the way by Quality Assurance agencies which, in some instances, require such things as more rigorous and detailed (and in some cases external) validation for modules and courses which use a significant proportion of e-learning strategies in their delivery [8, 9]. As Oliver points out: "In catering for the diversity, most exercises in quality assurance steer towards the activities with the highest levels of technology use and dependence; for example, distance education and online learning [10]." On top of these barriers, for the average 'grassroots' academic there is little real impetus for change, no matter how much the executive management of schools and institutions want it to happen. Indeed, this step change is something, I would argue, that executive management *are* increasingly wanting to achieve. From my personal experience as an *ad hoc* academic developer in a British Higher Education institution, I'm increasingly being approached by colleagues with academic management responsibilities to help them find ways of having academic staff do less lecturing and make better use of e-learning. This, of course, appears to contradict, if not fly in the face of the institutional barriers described above, whether they be perceived or real, that academics face. This appears to leave things in a strange state of stale mate. Gilly Salmon agrees, arguing that: "despite the fact that e-learning (and its role as a change agent) figures highly, and sometimes even wistfully, in the aspirations of many policy-makers and senior managers, there is considerable evidence that most HEIs are still struggling to engage a significant percentage of students and staff in e-learning [11]." Regardless, it is a change that is worth striving for as it accomplishes an ideal hybrid situation where VLEs and face-to-face environments are regarded as equal and as supporting and feeding into each other.

For academic staff, then, this strategy becomes a matter of moving away from a situation where all of the learning activities need to be able to be accomplished in a

classroom, to matching the right tool (whether it be in a face-to-face or virtual environment) to the (learning) job. As such, curriculum development becomes being about finding the right mix of tools and learning environments to suit the learning objectives. The outcome for students means improved flexibility of, accessibility to and even, in an ideal situation, choice of learning environments. In a well-designed hybrid situation, for staff and students alike, the workload can remain more or less the same. Indeed, the construction of reusable learning objects can see a significant reduction in delivery workload after the initial investment in development time. So while academic staff do the same amount of work, they are doing different types of work and, in many instances, more interesting, varied and rewarding work. Similarly, students are expected to do the same amount of learning work but this work is often significantly different (and in many instances more 'active' learning work) than that which would have been expected of them in a traditional face-to-face learning situation. As such, hybrid learning environments are easier to maintain than those which use VLEs to supplement face-to-face learning environments. This is because students are confident that their work in these environments is important and, in some instances, compulsory and assessable, and therefore they remain encouraged to contribute. Similarly, staff have enough time, energy and reason to maintain and moderate them. In this hybrid situation, genuine change occurs because teachers find the best teaching tool for the specific learning outcome and students see, consequently, better benefits to their learning.

The million dollar question still remains: how do we achieve this final step change to the widespread adoption of hybrid learning? As described above, the change is difficult to make which is, of course, why it is yet to happen. As Salmon points out 'research is currently not providing answers to this problem and more models are needed to demonstrate the transferability and scalability of e-learning' [11]. This paper proposes that one potential answer to that question may lie in the area of distributed learning.

3 Distributed Learning

The terms 'hybrid learning' and 'distributed learning' are sometimes seen as being interchangeable. Indeed in its 'purest' sense, distributed learning can be understood as the delivery of teaching and learning which is distributed over as much of the students' life (in terms of time and environment) as possible, thereby constituting a hybridised combination of virtual and face-to-face learning environments. In practice, distributed learning tends to acquire a more 'work-a-day' definition *viz* the delivery of teaching and learning to distinct cohorts of students who are separated from each other in time and/or place. This could include any or all combinations of student cohorts spread around multiple and/or remote campuses, those that are undertaking their study part-time and those studying full-time, those that are studying on-campus (internally), those studying at a distance (externally), those that are studying within industry, those that can attend day-time classes only and those who can attend only in the evening and so on. With this more practical definition we are immediately

presented with a single, inescapable fact: that it is difficult, if not impossible to gather students in all cohorts on a single module together regularly for a class that is synchronous in terms of both time and place. For these students, learning activities simply cannot be done in the rigidly synchronous learning environment which is a classroom. For academic staff there are really only two options. The first option is duplication of effort, either personally repeating the class or employing someone else to repeat it at a different time and/or location. This duplication of effort is necessarily costly and if any travelling time and expense is also incurred it can make this solution both unappealing and prohibitively expensive. The second option is to find some other means of delivering the teaching, which increasingly sees staff turning to technology to effectively join the cohorts together.

This simple obstacle – that the teaching can't be done in a classroom – triggers a series of interesting, useful and often unexpected results. In the first instance, the simple act of having to rethink teaching in this way requires a certain degree of reflection which is often enough to bring about significant change [see 12]. Many academics can find this experience quite liberating, as suddenly the restrictions that the rigidly synchronous nature of face-to-face teaching in classrooms imposes (in terms of both time and place) become apparent. From this, new possibilities emerge that were previously unviable. For instance, seeing the impositions of timetabling disappear and realising that lectures do not need to be 50 minutes long can be quite a liberating experience. Because new things are being attempted, the very act of piloting these new strategies means that unexpected things are more likely to happen, something that John Cowan cheekily refers to as 'unintended learning outcomes' [5]. One of the most profound 'unintended outcomes' is that these experiences start to have an impact on the main campus as academics recognise that these benefits can also be made available for full-time, main-campus students. Sometimes referred to as the 'Petri dish' approach, the impact that distributed learning initiatives designed for delivery to remote and often small campuses can have on the teaching and learning practice across the whole institution is becoming increasingly well documented [see 13, 14, 15]. For the purposes of this paper, I will focus on the practice of lecturing, and use it as an example of how the approach of distributed learning can be used to bring about wider institutional change.

4 Lecturing

Lecturing clearly has a place in hybrid learning alongside other forms of classroom-based and virtual learning strategies. Yet because its ubiquity, prevalence and, arguably, obduracy stands in such marked contrast to its efficacy it is an obvious candidate to target as a point of change. For there is little doubt that as a teaching and learning strategy, lecturing is of dubious quality. Diana Laurillard's dismissal of it in her highly influential *Rethinking University Teaching* is perhaps best exemplified by the fact that she affords it a little over two pages in the 240 page monograph, and only then begrudgingly. She introduces the segment on lectures by insisting it is 'under consideration here only to provide a baseline for comparison, as the traditionally

favoured university teaching method' [16]. She goes on to say that 'if we forget the eight hundred years of university tradition that legitimises them, and imagine starting afresh with the problem of how best to enable a large percentage of the population to understand difficult and complex ideas, I doubt that lectures will immediately spring to mind as the obvious solution [16]. Similarly, Graham Gibbs's 'Twenty Terrible Reasons for Lecturing' (where the title says it all) provides a trenchant but accessible critique of lecturing as a teaching and learning strategy. In his conclusion he asserts: "I do believe there is far more lecturing going on than can reasonably be justified by the evidence concerning the efficiency of lectures, especially bearing in mind the nature of the educational goals we claim to be striving for. [...] I believe both institutions and validating bodies ought to be asking serious questions about courses which appear to be based primarily on lecturing as the dominant teaching method [17]." Given the weight of this kind of scholarly evidence, even books which purport to condone lecturing as a valuable teaching and learning strategy are now obliged to place considerable emphasis on how ineffectual they are.² Even one of the most comprehensive and widely cited studies on lecturing to date, Bligh's *What's the Use of Lectures?* has a certain hesitancy evident in the title. In this work, Bligh sets out the four main reasons which are usually offered to justify lecturing: 1 – that they assist students in the acquisition of information, 2 – that they promote thought, 3 – that they change student attitudes and 4 – that they enhance behavioural skills. Of these four, Bligh's findings demonstrate that it is only in the first of these objectives that the lecture can be effective and even then only *as effective* as other methods in transmitting information [18]. Brown and Race acknowledge Bligh's research, and concur that as a means of giving students the information they need, lecturing is not a particularly efficient method simply because the amount of information now available is huge and it is impossible to get everything done in the timescale lecturing allows [7]. Surveying such literature does leave you wondering, alongside Gibbs, why on earth there's so much of it going on [17].

If it ever *did* have a useful teaching and learning function, arguably lecturing is obsolete in a widening participation, information rich world. It is useful to consider these issues in turn. First, is the issue of open access and widening participation. In her trenchant criticism of the lecture as a teaching strategy, Diana Laurillard points out that lecturing can only ever work as an effective teaching methodology if lecturers know very well the 'capabilities of the students, and on the students having very similar capabilities and prior knowledge' [16]. She goes on to suggest that in a world where 'students were selected through standardised entrance examinations' [16] for admission to university, this was something about which a lecturers *could* be fairly certain. They could be confident that students would share and understand their idiolect, cultural references, social aspirations and, until relatively recently, their gender. Lecturers could also be confident that their prior knowledge and training in things such as essay writing was almost uniform, that their learning needs and that

² See for instance Brown and Race *Lecturing: A Practical Guide*. The authors make the rather astonishing circular claim that one of the principle justifications for lecturing is that 'despite all concerns that are expressed about the method, lecturing is likely to remain a central part of the higher education scene for the foreseeable future' [7] and so are worth doing if done well. They then go on to explain that to be done well, lectures need to involve something *other than* 'lecturing'.

their potential employer expectations were fairly similar. Laurillard suggests that 'open access and module courses make it most unlikely that a class of students will be sufficiently similar in background and capabilities to make lectures workable as a principal teaching method' [16]. Students in Higher Education today come from an ever growing array of backgrounds with vastly differing prior qualifications and an equally vast array of learning needs. Of course hybrid learning acknowledges how ridiculous it is to assume that all of these needs can be met in a learning environment of lecturing alone.

Secondly, is the issue of living in an information rich world. Arguably in a time where information was stored only in books which were, like the libraries that held them, expensive and scarce, lecturing was a cheap and effective means of providing students with useful textual material. Lecturing was, in effect, a kind of cheap and efficient transcription tool. As Brown and Race point out the early history of lecturing in European universities involved Masters reciting memorised tracts of text, which the students then transcribed [7]. The lecturer's skill was in reciting the information faithfully, clearly and slowly enough to allow students to write it down! In this context, the lecturer was one of the most if not *the* most important sources of knowledge available to students. But in an e-world where the students' information cup is full to overflowing, the lecturer cannot and really should not be the main source of information. Clearly what students need is help and support in gathering, managing, filtering, evaluating and using the information available to them, not more of it. As Knight and Wood point out, while there is now more information to learn than ever before, "the increasingly easy accessibility of facts on the Internet is making long-term memorization of details less and less important. Students [...] will be required to apply conceptual knowledge to problem solving rather than simply to know many facts [19]." If all the lecture can and does do well is provide students with information, then we are doing them a disservice and under-preparing them for their future careers in our continuing use of them.

With these criticisms and the sheer weight of scholarly evidence, it is remarkable that there is still so much lecturing going on. Again, there are many reasons for this and here I only have to cover the important ones. Firstly, most academics were taught by lectures and feel obliged and expected to do it themselves. For many, a key aspect of joining the academy is performing that role and some scholars have argued that the lecture is, in this sense, inherited behaviour [20]. Others have argued that there is a general lack of reflection on teaching strategies in the academy which, as Bligh points out, would appear to be strangely at odds with the dedication to the 'disinterested search of truth by research' and the emphasis placed on 'discouraging expression of opinion not based upon careful study of publicly verifiable facts' which is at the heart of scholarly practice [18]. Others have suggested that academics are reluctant to give lecturing up simply because we like it – that the lecture provides a kind of self-indulgent, ego-boosting platform that is rarely matched in other settings [7, 19]. As suggested earlier, the very architecture of institutions is explicitly designed to encourage and reward lecturing [7, 19, 21, 22].

Even the two newest buildings that are nearing completion at my own institution have a considerable amount of space dedicated to lecture theatres, complete with a central rostrum and tiered seating, which are virtually impossible to use for anything other than lecturing. Many academics are also reluctant to give up lecturing because

they perceive it to be their responsibility to ‘cover the content’. Knight and Wood refer to this as the ‘content problem’ and argue that it doesn’t really need to be solved because the ‘ability to solve problems and in-depth understanding of underlying concepts will probably be of more use to them in the long run than any particular piece of factual information [19]. Astonishingly, some studies suggest that with lectures being seen as an easy solution to growing class sizes, we’re actually doing more of it now than ever [7].

Another pressure which encourages the use of lectures is student expectation. As the research of Sander et al shows, for students entering Higher Education, the most frequently expected teaching and learning methods are formal lectures even though this ranked very highly in terms of the teaching and learning methods that students did *not* want [23]. This would seem to suggest that many students are embarking on a University education *despite* the fact that they will experience lectures *not because of* it. This begs the question, how many students are choosing not to embark on it at all precisely *because* of the lecturing? As Knight and Wood have pointed out, confounding this expectation can have a negative effect on student evaluations: ‘because students at present are used to having most large courses taught in the lecture format, the unfamiliar demands of an active-engagement course may take them out of their comfort zone, resulting in lower student ratings for the instructor’ [19]. It is possible that some students may prefer the lecture experience precisely *because* it is a passive learning experience that does not require much effort on their part. Knight and Wood report how students complained about a more interactive teaching and learning format because academics ‘were not teaching them very much, but rather making them learn the material on their own’ which, while quite gratifying for the teachers, serves to emphasise how entrenched and normative the passive lecture experiences has become for students [19]. To put it simply, attending lectures becomes a learning habit for students that becomes hard to break and is therefore easy to articulate as an expectation. This expectation can be difficult for academics to refuse to meet. It is hardly surprising then that lecturing has proved so difficult to shift and indeed why there is so much literature encouraging better lecturing practice.³

In my experience of working with teams of academics, both in Australia and the United Kingdom, on distributed learning development, similar patterns of change emerge time and time again. As outlined above lecturing is difficult if not impossible to achieve efficiently when there are two or more cohorts of students distributed by time and/or space. Even if duplication is cost effective, the ridiculous and tedious nature of repeating teaching soon becomes apparent and alternatives that make use of technology become more attractive. This breakthrough is, I argue, strategically useful

³ What is striking about this literature is that the strategies they offer to academics to improve their lectures is often not well suited to the classroom. Many of them are actually things which would be more easily, more efficiently and more effectively accomplished online. For instance, Brown and Race suggest getting students to work ‘independently in groups all around the room, with the lecturer taking a position at a ‘help desk’ in the middle to answer questions, check and chase progress and occasionally address the whole group while briefing for tasks, taking in responses and coordinating plenary discussion’ [7]. I for one find the prospect of this quite daunting in a strictly synchronous setting, but find this kind of learning activity is not just achievable in an online asynchronous environment, but actually easier to manage there.

from an academic development point of view, and it is precisely this that needs to be exploited if the aims of a more widespread adoption of hybrid learning are to be achieved. It is strategically useful precisely because by using technology to replace lecturing, academics are reassured that they are doing what they feel is expected of them – the lecturing is ‘covered’. This immediately overcomes many, if not all, of the barriers described above that are currently maintaining and encouraging the continued use of lecturing as a teaching and learning method. In this process, academics find that it is easier to accomplish things that are actually difficult or impossible to achieve in a classroom setting – literally doing things that cannot be done in a classroom.⁴ They also find that the learning objects they create are so effective that they are worth deploying to the main cohort as well and thereby bring unexpected learning outcomes to the student body as a whole. With the confidence that the lecturing is ‘covered’, academics also feel more able to devote more time to managing follow-up activities, such as moderating discussion either inside a classroom or online. Again, this corresponds to Bligh’s research on lecturing which suggests that ‘discussion is more important than lecturing’. He declaims that: ‘lecturing should always be pursued as a means to some other end. [...] Otherwise lectures become useless – necessarily useless’ [18]. Exploiting this pattern to achieve impetus for change is, therefore, potentially an important strategic step for universities to take to achieve the goal of widespread adoption of hybrid learning. To illustrate, I offer a vignette which serves as a useful example of the kinds of methods that have been employed to replace lecturing in a distributed learning context and which can be used strategically to develop hybrid learning situations for full-time, on-campus students as well: Screencast lectures.

5 Screencast Lectures

Screencast lectures are not especially new or even innovative. Arguably the sets of ‘advisory notes’ that were distributed to distance learning students in their course packs were effectively a print-based version of the same thing. In my experience, students have been recording lectures on audio tape for as long as portable recording devices have been readily and cheaply available. Likewise, some academics and institutions have systematically audio- and/or video-taped lectures, for both on and off-campus student use for some time. More recently, various technologies which enable the accessing of lecture material in audio and video format online have become more widely available. These strategies are sometimes known as Web-based Lecturing Technology (WBLT), lecture streaming and podcasting [see 24, 25, 26]. These systems offer various combinations of the audio of a lecture, a video headshot of the lecturer and/or the presentation that accompanies it (such as PowerPoint slides). These can also be made available for downloading to devices, such as MP3 players for mobile access. Screencasting specifically refers to a combination of the audio recording of a lecture played synchronously with the PowerPoint presentation using

⁴ Again, this corresponds in interesting ways to much of the literature available which is designed to improve lecturing.

SCORM software such as Camtasia Studio which can then be embedded within a VLE and/or downloaded onto a portable device.⁵

In a distributed learning scenario, these kinds of strategies are usually initially adopted to increase efficiency primarily by reducing the need for duplication of effort. Equally, they have been adopted to improve quality primarily by providing an equivalent learning experience to all students across distributed cohorts, thus ensuring that all students have the same access to the academic expertise, regardless of where it is located, thus reinforcing the research/teaching nexus. As I shall discuss in more detail below, research shows that staff are often reluctant to adopt and in some instances even actively resist this technology being made available to students on the main campus. Conversely, research also shows that students report positive feedback on their use of screencasts finding them both convenient to use and beneficial to their learning sometimes in ways that are unanticipated [26]. For instance, Natalie Simpson's research found students hinting that their ability to maintain concentration and to react and reflect upon questions addressed to them by the lecturer were not hindered by the one-way nature of the experience and were perhaps even enhanced in comparison to the live lecture experience [27]. Overall, for students using some form of screencast lecture, the benefits are clear.

The research shows that these benefits fall into four main categories. First they can be easily, flexibly and multiply accessed on demand 24 hours a day, seven days a week. Because they are always available, they can be used by students, for reflection on their learning achievement through the module and for revision purposes as they prepare for assessment. Secondly, they can be used selectively in that students can select a specific section to listen to without having to go through the whole recording, and they can pause and replay the recording. This enables students to target specific aspects of the lecture to check and clarify their understanding. This has shown to be particularly attractive to and useful for students whose main language is other than the language of instruction [see 27]. Students can break the lecture into smaller chunks that suit their level of concentration rather than struggling to maintain it over the full 50 minutes. This corresponds with the extensive research which shows how student vigilance and arousal declines over the course of a one-hour lecture [see 18]. Lecturers can actually exploit this by breaking the lecture into smaller 15-20 minute chunks themselves and interspersing these with private and/or group reflection activities. Thirdly, at a time when many students are chronically time-poor, by not requiring them to travel to campus, and by beginning when the lecturer starts speaking and ending when they stop, it can save a considerable amount of student time.⁶ Fourthly, students are able to compile more detailed and more meaningful notes. Here it is useful to consider Brown and Race's distinction between note *taking*

⁵ The specific benefits and problems associated with mobile as opposed to streamed or embedded screencasts is in itself an interesting and complex issue which is outside the scope of the present paper. Also, it is evident that recent advances in software have successfully overcome many of the difficulties encountered with earlier attempts at synchronisation (see [26]).

⁶ As Lammers and Murphy have shown, the amount of time in a formal face-to-face lecture where no one is actively involved in learning (because the lecturer is occupied with such things as setting up technology, distributing hand outs etc) can average as much as 15 per cent of the actual scheduled class time [30].

and note *making*. They argue that ‘most lecturers would actually *like* students to be [making notes] in lectures – not just copying things down, but *processing* what’s being show and said, and turning it into their own notes’ [7, emphasis theirs]. They suggest that many students resort to ‘note taking’ in a live lecture in an attempt to ‘capture’ it ‘so that there’s more chance of being able to get to grips with the content later’ [7] . Knowing that the lecture is available for multiple viewings, students are less likely to feel this obligation and more likely to concentrate on making notes which record their own responses to and syntheses of the presented material. Together, these provide a significant benefit to students, whether they have access to the live lecture event or not, which is reflected in the accumulated body of evaluation evidence on student perceptions of screencast lectures [13, 24-29]⁷

As suggested earlier, this kind of technology has attracted its fair share of criticism. Much of it is, however, unfounded. Phillips et al refer to the work of Donnan, Kiley and McCormack who told how the use of WBLT was met with resistance by academic staff at an Australian university because it was perceived to be technologically rather than pedagogically led innovation [Donnan, Kiley and McCormack, cited in 24]. These concerns are effectively discredited by the very real pedagogical advantages that are demonstrated widely in the literature, as described above, and this resistance can be seen as symptomatic of a pervasive, albeit unsupportable, investment in live lecturing amongst academic staff in general. As suggested earlier, there is also considerable evidence in the literature about academic anxiety relating to falling attendance at live lectures even though there is little evidence to suggest that this actually occurs [24, 26] This, again, confirms the amount of residual investment by academics that lecturing is, in itself, a good thing and to be preserved at all costs. Even if falling attendance did eventuate, this can be read positively as students ‘voting with their feet’ and choosing to adopt the learning strategies and environments that suit them best and benefit their learning most. Rather than feeling anxious about falling attendance, academics could instead be encouraged to read it as their providing a better and more valuable learning experience for their students through screencasting. Choosing not to make screencast lectures available simply as a means of forcing students to continue attending live lectures, even if they learn less from this arrangement, is illogical in the extreme! Of a similar nature is concern of what Wilson and Weiser refer to as ‘massive instructor obsolescence’, that having ‘tapes’ of lectures available on demand will result in a reduction in the need for academic staff [13]. However, just as with live lectures, screencast lectures require updating to keep abreast of developments in the field in order to maintain the research/teaching nexus. The availability of digital audio recording and editing software which can run on standard staff desktop computers makes such updating relatively easy and cheap to accomplish. More importantly, perhaps, the replacement of lectures with screencasts releases academic staff time to undertake more student-centred activities which guide students in the management of information and support them in the development of conceptual knowledge. Arguably, in this scenario academic staff are needed more than ever before!

⁷ Interestingly, as Smith points out, these benefits ‘correlate positively with students’ attitudes to distance learning’ which is a useful reminder that face-to-face classes have limitations and should never be regarded as the ideal learning environment against which others are measured [29].

Concerns are also often raised about a perceived lack of ‘immediacy’ and ‘interactivity’ with screencast lectures. Of course, many students do not find live lectures particularly interactive to start with [see 30]. As we have seen in the research of Simpson (outlined earlier), questions directed to students for reflection in a live-lecture are still just as effective in a screencast lecture (Simpson). It is entirely possible that some students find such reflection activities even more effective in a screencast setting given that they have more control over the amount of time they devote to their reflection and may feel reluctant to contribute a response in a lecture hall in any case. Further, some research has shown students reporting a greater sense of intimacy and engagement with the lecturer in a screencast lecture than a live one. As Simpson puts it: ‘the sound captured on video was devoid of environmental noise, while the view framed by the cameras created the impression of sitting quite close to the speaker’ [27]. Simpson supports this with evidence from a student reporting that while she’s easily distracted by such things as people walking in late and by her friends sitting around her in a typical classroom setting, in contrast her engagement with the screencast, where she is alone at home, affords her greater degrees of focus and concentration. Of course there are fewer opportunities for peer-learning activities such as ‘buzz groups’ and the lecturer is not immediately available to answer questions. Arguably these can be more than adequately compensated by the academic being freed to commit more time to follow up activities that achieve the same ends. Anecdotal evidence from my own students, who are studying at a campus remote from the main campus and have lecture material screencast by academics from the main campus, suggests that they feel they know these academics well even if they have met them only once or twice. There is little evidence then to suggest that screencasts result in less ‘interactivity’ and ‘immediacy’ for the students and, perhaps counter intuitively, some evidence to suggest that they are actually enhanced through screencasting.

Of more serious concern is the criticism from Donnan, Kiley and McCormack (reported by [24]) that screencast lectures are simply another way of reinforcing lecturing as a transmission model of teaching and encourage passive behaviour. This is difficult to dispute because while they are infinitely preferable to a lecture in terms of their accessibility, controllability and repeatability, they are still lectures nonetheless. Of course, the strategies that the literature on good lecturing technique advocates can and should be deployed with screencasts, just as they would be in a live lecture situation.

Even Laurillard, who is so scathingly dismissive of the lecture as a teaching strategy, is positively enthusiastic about screencasting (which she refers to as audiovision).⁸ She argues that by using the ‘auditory channel in combination with something for the visual channel to focus on [...] it creates an additional representation [...] of the descriptions being given in sound’ [16]. Arguably, however, this should also be true in most modern live lectures since the advent of PowerPoint and other kinds of presentation software which are now truly pervasive both within

⁸ Her concerns about audiovision being difficult to browse or index (and therefore being less ‘controllable’ than print) are for the most part rendered obsolete with the advent of modern digital recording and screencasting software, than can be broken into chapters [16].

and outside academia.⁹ Where once visual aids were rare in a lecture, now the opposite is true, and lectures without a PowerPoint presentation are almost unheard of. So, the linking of audio (a lecturer speaking) and visual (a PowerPoint presentation) are now quite common in a live lecture.

There is a growing body of evidence that people everywhere are indeed sick of being subjected to ‘death by PowerPoint’ [31]. Of course students are not immune to this, and arguably, because they are subjected to more PowerPoint than most, ‘death’ rates for them are probably highest of all. I would agree with scholars, such as Mahin, who argue that PowerPoint itself is not at fault, but rather bad and over use of it, and probably over reliance on it, is really the problem. In the light of this, perhaps ‘death by dotpoint’ is a more accurate term. Mahin concurs, saying that providing ‘visual information such as photographs, charts, or diagrams [...] which enrich the message, not become the message’ is the most effective way of using presentation software [32]. Further, those screencasts that more accurately mimic a television documentary, again something about which Laurillard is enthusiastic, are better still. She argues that televisual techniques, such as montage, can allow an academic who wants to convey a ‘complex theoretical idea’ to offer a way of ‘supplanting the process the student must follow in order to understand the meaning’ [16]. Supplanting, she suggests, “allows perception of the world through television to imitate our perception of the real world. As television offers a ‘vicarious perception’ of the world, it acts as a solution to the logistical problem of enabling large numbers of students to experience that aspect of the world directly [16].” Of course, the production of good quality televisual lectures, with high production values, is beyond the budgetary capacity of most teaching departments. However, the production of high quality, screencasts with synchronous audio and images, which mimic televisual strategies and thereby offer ‘vicarious perception’ are, arguably, of equal value and significantly cheaper while also offering the high degree of accessibility and controllability that live lectures lack.

Having said all this, screencasts still undeniably subscribe to a fundamentally instructional teaching and learning paradigm. Yet, as I have suggested above, they are strategically important and useful if harnessed as a means of triggering the step change required to achieve the widespread adoption of hybrid learning. As we have seen, academics are remarkably wedded to lectures as a teaching and learning method, despite the overwhelming and long standing accumulation of evidence that proves they are of dubious quality in terms of benefiting student learning. Without any real impetus or imperative *to* give them up, it is unlikely that academics will do so *en masse* any time soon. It is here that distributed learning is significant.

⁹ According to Linda Mahin, one estimate by Microsoft is that an astonishing 1.25 million PowerPoint presentations take place every hour [32]!

6 Conclusion: Why Distributed Learning is Strategically Important

As Universities seek to attract a broader range of students and accommodate the ever-growing demand for greater flexibility of access to learning environments, distributed learning is becoming increasingly important as an efficient and effective teaching and learning strategy. Many Universities around the world have already established, or are in the process of establishing, multiple remote campuses which, in some instances, are based overseas.¹⁰ Many Universities are also seeking to boost student numbers by attracting more distance or external students, part-time students and mature-age students who also stand to benefit from increased access to distributed learning environments. Many Universities are also establishing more formal partnerships to provide training and qualifications to industry which is usually reluctant to indulge in more than the bare minimum of work release. All Universities are ultimately in competition with each other to provide learning options and environments which will attract more students to them. Distributed learning can and should play an important part in enhancing all of these enterprises.

It is important, however, that the benefits to the institution are not seen to end there. As a growing body of scholarship is arguing, the very real benefits of hybrid learning environments should also be made available to full-time, main-campus students as well. As we have seen, the adoption of these strategies is simply not happening and there remain so many barriers in place. The experience of distributed learning development shows, however, that embarking on strategies to solve the problem of not being able to gather all students into a classroom can and should be strategically harnessed to trigger this change. As I have argued, in the particular case of the lecture this strategy has particular efficacy.

By reassuring academics that the work of ‘lecturing’ is covered by strategies such as screencasting, they can effectively be used to ‘wean’ academics off it. In doing so, academics are more likely to feel able and ready to dedicate contact time to undertaking a greater range of student-centred, interactive activities such as discussion, group work, role play and so on. If institutions are genuine in their commitment to achieving a more widespread adoption of hybrid learning, they would do well to invest in appropriate academic development that facilitates, encourages and empowers academics to redeploy distributed learning strategies to full-time, main-campus students as well. By harnessing the potential of distributed learning and making strategic use of those instances where teaching ‘can’t be done in a classroom’, institutions can come a step closer to achieving the ideal objective of the widespread adoption of hybrid learning.

¹⁰ My own institution, the University of Huddersfield in West Yorkshire, has recently opened two new campuses in Oldham (Greater Manchester) and Barnsley (South Yorkshire). My previous institution, the University of Wollongong, has established four remote campuses and access-centres in the South Coast and Southern Highlands of New South Wales. In both of these campus networks, distributed learning is being used to some extent to deliver teaching and learning to students based there. The University of Wollongong has also established a campus in Dubai.

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