A DISTRIBUTED MODEL FOR MANAGING ACADEMIC STAFF IN AN INTERNATIONAL ONLINE ACADEMIC PROGRAMME

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ABSTRACT

Online delivery of programmes of Higher Education typically involves a distributed community of students interacting with a single university site, at which the teachers, learning resources and administration of the programme are located. The alternative model, of a fully 'Virtual University', which assumes no physical campus, poses problems of resource provision, recognition and accreditation. We describe here an intermediate solution, based on an established on-ground university, but in which both students and teachers are distributed worldwide. We discuss the issues of management, communication and quality assurance that are faced in implementing this fully distributed model. We describe the solutions we have applied in a wholly online programme of Higher Education which is delivered to over 2000 graduate students in more than 100 countries by a world-wide pool of instructors.

KEYWORDS

e-Learning, Virtual University, educational systems

1. INTRODUCTION

Universities throughout the world are giving increasing attention to the possibilities for online delivery of their degree-level programmes. A 2004 survey of Commonwealth universities recorded that 54% of respondents expected off-campus online learning to play a major role in their institution over the next 5 years, an increase from 36% two years earlier (OBHE 2004). The reasons for this interest are not hard to see. Online study opens up opportunities for many people who for economic, physical, family or other reasons would find it impossible to become full-time residential students (Moisey 2004; Spellings and Stroup 2005). Universities see, in meeting these needs, an opportunity to expand and deliver their programmes to under-served populations as well as on an international scale. We will use the term *e-Learning* to refer to this kind of off-campus study, as opposed to online learning directed at students who are resident on campus.

Degree-level e-Learning is typically conceived as a different mode of delivery for programmes that are directed by on-campus teachers. The model may be conceptualised as a 'star' topology, in which students distributed worldwide communicate with a campus-based learning centre, in interactions that replicate or replace conventional lectures, tutorials, and other learning activities. The form of this interaction will depend on the learning paradigm adopted and the software employed to support this. Instructors, administration, learning resources and support services are all physically located at the centre, which continues to operate in most respects in just the same way as a conventional university department. This model is attractive in that,

apart from the medium of delivery, it involves little change to the university's way of working. In a number of respects, however, it fails to take full advantage of the possibilities of the medium. By restricting teaching and support activities to campus-based staff, the pool of expertise employed is limited to what the university can offer, whereas, conversely, one of the potential attractions of online learning is the possibility of drawing on specialised skills from a worldwide academic community. It is also difficult for a campus-based university department, with limited staff and other resources, to deliver programmes of study on the large scale that might be desirable, and the natural tendency in such cases is to give more focus to the campus-based students and faculty, rather than to the distant ones. Also, the fact that most distant students are adult learners, with diverse skills, knowledge and needs, creates a challenge for traditional faculty and departments (Clarke and Gabert 2004). Conversely, however, a wholly "virtual" university, with no campus base, faces other problems, of providing learning resources and support services, and of obtaining and maintaining appropriate recognition of its degrees.

These and other reasons have led us to a third model, in which e-Learning is directed from an established university but teachers and others involved in delivery of the programme are, like the students, distributed globally. We describe here the organisation of a programme of online study, for degrees of Master of Science and of Master of Business Administration (MBA), which operates on this basis. The programme is delivered as a partnership between a "traditional" research-intensive university and a commercial organisation. Programme teachers, however, are in general based at neither organisation but operate from locations worldwide. We will use the term *instructor* to refer to these academic staff involved in the programme teaching. The interactions of instructors with the two partner organisations, with students, and with each other may be visualised as a fully-connected network rather than a star topology.

It is clear that this organisation is different in important respects from that of a conventional higher-education programme, and raises important issues and potential concerns. Of special importance are questions of how to maintain academic standards, quality assurance, and consistency of approach in this new context, as well as questions about the relationship between on-ground and online policies and procedures. The model allows us to take advantage of the established structures, procedures and traditions of the parent university to define these characteristics, but raises questions of how they will be implemented. In this paper we examine these issues, and describe our strategies and experience in addressing them. We give particular emphasis to the questions that arise in the relationship of the university and its partner with the programme instructors.

2. BACKGROUND

2.1 Models of online Higher Education

The widespread interest in the possibilities of e-Learning has led to the description and application of many alternative models and structures for its delivery: examples may be found in (Davies 1998), and useful reviews are given in (Harasim 2000) and (Curran 2001). Aoki and Pogroszewski (1998) present a reference model for the teaching and learning environment provided by a Virtual University, using this term to mean "the infrastructure for providing….a degree program partially or totally online…". Harasim (2000), conversely, distinguishes *totally* online courses from those that she terms "adjunct mode" and "mixed mode" that employ online learning alongside other teaching and learning methods. Curran (2001) also identifies three models relevant to online Higher Education:
1. (Online) On-campus teaching, which makes use of electronic resources to deliver learning materials and to facilitate class discourse;
2. External programmes, by which a university delivers courses to non-campus-based part-time students;
3. Virtual Universities; institutions created to deliver all their course programmes exclusively online.

Common to almost all conceptions of e-Learning is a view that its value and success depends upon its effective use of the medium to promote fruitful communication: between teachers and students, and amongst students. Harasim (2000) identifies three key design principles for online education: the principle of *collaboration*, which she says "may be the single most important concept for online networked learning"; the

principle of *access*; and *constructivism*; "the concept of producing knowledge by collaborating in groups is essential in the new learning paradigm". Curran (2001) asserts "…one might conclude that on-line learning offers a richer pedagogy than traditional forms of distance education, if only because of the facility it offers with respect to communication and interactivity.". Hiltz and Wellman (1997) similarly emphasise the key role of collaborative learning in successful online programmes.

It is clear, however, that the advantage offered by the medium in enabling dialogue and collaboration can only be obtained with the active involvement of instructors. Turoff et al. (2004) take the view that "The most important factors for future success will be the quality and talent of the instructors and their commitment to excellence in learning". This introduces a second recurring theme in discussions of e-Learning: the importance of *quality*. "The success of virtual Universities requires real and perceived academic quality as well as access" (Harasim 2000). Perception of academic quality embraces the issue of recognition: "the two major challenges the virtual university faces are the provision of necessary resources to students, faculty and administrators, and the recognition of degrees conferred" (Aoki and Pogroszewski 1998).

There is thus widespread agreement with the views that quality in online education is an essential precondition for success; that quality is closely related to the provision of effective communication, collaboration and interactivity: "It has become increasingly evident that interactivity is the condition for quality in Web-based distance education" (Yeung 2002); and that the role of the *instructor* is central to this.

In many respects, an established university is best placed both to provide quality and, crucially, to secure recognition for this. A traditional campus university, however, operates within a number of physical and economic constraints that may limit its capability to offer online degree programmes on a large scale if, as we believe, substantial teaching resources are needed to do this effectively. The issue is summarised by Laws et al. (2003): "…..varying degrees of faculty-to-student, student-to-student, and student-to-content interaction establish the foundation of learning for all students. However, it is difficult and costly to do all these things all of the time."

We take the view that if a high-quality online degree programme is to be offered on a world-wide scale, it will require the involvement of a larger community of instructors than is likely to be found on any one campus. Our solution is to enlarge the pool of resources by adding part-time instructors, based world-wide, who are thus loosely affiliated with the degree-awarding university. Clearly, this organisation poses some challenges. Special attention is needed to the questions of managing distributed teams through online communication (Lipnack and Stamps 2000). Despite the apparently high cognitive demands of online communication and its limitations (Daft and Lengel 1986; Herring 1999), it has been demonstrated that online collaboration between the members of a distributed team can be highly effective if the team is well planned and managed, and that apparent drawbacks of online communication can actually be advantageous and conducive to collaboration (Walther 1996; Rafaeli, Raban et al. 2005).

2.2 The University of Liverpool online degree programmes

The online degree programmes we describe here are offered by the University of Liverpool. A degree of Master of Science (MSc) in Information Technology was established in early 2000. Recognising the need to ensure comparability with standards established on campus, the structure of the degree is based on that of the existing MSc programmes of the University's Department of Computer Science, which has academic responsibility for the online degree also. Thus, students registered for the degree complete an approved programme of eight taught modules selected from a wider set of available options. Each module is assessed separately and weighted at 15 CAT (Credit Accumulation and Transfer) units in the UK system; one CAT point notionally represents 10 hours of study time. Following successful completion of these, the student carries out an individually-chosen project, weighted at 60 CAT points. This must involve elements of research and practical realisation, and concludes with the presentation of a dissertation for assessment. To obtain the degree, it is necessary to be awarded passing grades in both the dissertation and in at least seven taught modules (a marginal fail is possible in no more than one). An MBA programme, added in January 2001, has a broadly similar structure, and a Master of Science in Information Systems (IS) Management has recently been launched, offering IT professionals the opportunity to specialize in the unique managerial challenges of IS-intensive organizations.

In all the above, and in most other respects, the programmes closely follow the model for the corresponding on-campus degrees at the University of Liverpool, which in turn conform to guidelines set out

by the Quality Assurance Agency (QAA), the body charged by the UK government with responsibility for overseeing quality and standards in Higher Education. An overriding requirement is that the academic standards set for the online degrees will be equivalent to those applied on-campus, and in particular, will satisfy the descriptor defined by the QAA for Master's level qualifications (QAA, 2001). To ensure this, academic oversight of the programmes is maintained, separately for the MSc and MBA, by a Board of Studies and a Board of Examiners, the latter advised by external examiners who are independent senior academics from other universities. These bodies operate within the established university framework, in close contact with the corresponding boards of the on-ground programmes, with the responsibility to maintain academic standards and ensure the continuing relevance, currency, and quality of the programmes.

The difference from on-campus degrees comes, of course, in the method of delivery. In the online programmes, each module is delivered in a *Virtual Classroom* within which a maximum of 18 students work, over a period of 6-8 weeks, under the guidance of an instructor. Physically, the virtual classroom is realised as a structured set of folders within the FirstClass™ system (Persico and Manca 2000). A class proceeds on a weekly timeframe, each week commencing with the posting by the instructor of learning materials and assignments for the week to a defined folder. During the week, the class members study the posted materials, complete and post coursework assignments, pursue team-based practical work when appropriate, and participate in moderated class discussions on designated topics. Throughout the week the instructor monitors the activity in the class, acts as moderator to the discussions, answers students' questions, and assists students who encounter various difficulties. At the end of the week, the instructor assesses the contributions of each student during the week, returns feedback on this to each privately, and grades the work and submits the grades to the student through a web-based information system.

There is a strong emphasis, in all modules, on classroom discussion, which is a central feature of the pedagogic approach. It is this discussion which creates the 'learning community' of the classroom, making it possible for students to interact productively both with their instructor and with each other. This is particularly valuable when, as is the case here, the students are in general mature professionals who can often bring to the class knowledge and expertise that is outside the experience of the instructor. The role of the instructor, however, is crucial, in leading and guiding the discussion, in assessing each student's work (including contributions to the discussion) and in providing timely and helpful feedback. The consequent demands on the instructor's time are probably greater than is typically the case in on-campus higher education (Gresh and Mrozowski 2000; Cavanaugh 2005).

As we have discussed above, delivering a programme of this kind is attractive for a university only if it can be done on an economic (and international scale) basis. By early 2006, over 2000 students, from some 100 countries, were actively registered on the programmes we have described, with around 60 classes operating at any one time. This programme's student body has no single dominant group of students of a specific nationality. Rather, it is *truly international*, comprising significantly-sized groups of students from various parts of the world, including the UK and continental Europe, North America, the Far and Middle East and Africa. To support these classes, and to act as advisers for students completing their dissertations, there is a pool of some 120 instructors, most of whom are continuously active. We believe this is the world's largest wholly online truly international higher education programme.

3. KEY ISSUES IN MANAGING INSTRUCTORS

A venture on the scale of the programme outlined above would scarcely have been possible using only the on-campus staff of the parent university. It has instead been achieved in partnership with a commercial concern, Laureate Online Education BV. A key aspect of this partnership is that instructors are not, in general, Liverpool-based academic staff, but are recruited worldwide and engaged by Laureate to work on a part-time basis, without relocation. Communication between all parties – the University, Laureate and the Instructors – proceeds, in general, in the same way as does communication with students, i.e. mainly through electronic means. This model, as well as providing scalability, provides for the possibility of a wider spread of expertise than can be maintained on campus, increases international diversity, and also ensures that instructors are genuinely committed to the aims of online learning. An additional benefit is that instructors, like students, can be recruited from groups who for reasons of health, family responsibilities, industry-based career, or geographic location, could not contemplate full-time campus-based employment.

Notwithstanding the advantages of this approach, it raises a number of questions. Instructors are, in general, independent agents with other affiliations, whose relationship with the University is both physically and contractually distant. This raises potentially problematic issues, especially in relation to the need to maintain the required academic standards of the degrees. Although the framework for defining and reviewing standards is identical to that used in on-campus teaching, a question arises over mechanisms for ensuring that these standards are matched in this context. The principal means for this purpose is the establishment of a dedicated unit, the e-Learning Unit, based in the University and run by established full time academic members of the University staff. The role of the e-Learning unit is to oversee all academic aspects of the course programme, and to ensure that the procedures required by the University are followed and appropriate academic standards maintained. The principal mechanism used for this is *module monitoring*, which will be discussed further in the next section. Beyond this, the responsibility of the Unit is to manage the relationship between the University and the other stakeholders in the programmes, including instructors.

Closely related to the issue of standards is that of *quality*. The QAA interpretation of "quality of learning opportunities" is that it is "….concerned with the effectiveness of the teaching, the learning resources and the academic support in promoting student learning and achievement" (QAA 2000). Quality assurance, embracing both quality in this sense and academic standards, is the responsibility of the e-Learning Unit. However, the nature of the relationship between the University, Laureate and the instructors implies that many issues arising from this are mediated by Laureate.

Underlying both of the above issues, and all interactions between instructors and students, is the question of *consistency*. In a typical university department, teaching staff and students will meet regularly in both formal and informal ways, and questions relating to all aspects of the teaching provision will be part of the everyday discourse. Although differences of view are common in academic life, these exchanges are likely to produce a degree of implicit consensus about academic issues. The challenge in a distributed environment is to find ways to achieve this shared understanding without face-to-face contact. Other issues that relate to the academic role of the instructors include the involvement of staff in curriculum design and other decision-making. Again, we require structures to replace the typical on-campus processes for this.

These issues create a more complex pattern of relationships between stakeholders than is the case in a typical university environment. Figure 1 is a representation of the interactions involved. Here, solid arrows are used to describe information flows, especially those that form part of the formal reporting structures. Broken arrows are used to describe aspects of personal involvement, especially those involving formal representation in decision-making processes. In general, academic matters are primarily the responsibility of the University, but in other respects, the instructors' contractual relationship is with Laureate, which is responsible for recruitment, management, allocation of classes, etc., within an academic framework defined by the University. There are, of course, many interactions between the academic and non-academic aspects: for example, although instructors are recruited by Laureate, their engagement is subject to University approval through an established process for the recognition of affiliated teachers. The various elements of this organisation, and the approaches we use to address the key issues, will be discussed in the following section.

# 4. ASPECTS OF INSTRUCTOR MANAGEMENT

4.1. Recruitment of Instructors

Instructors for the online programmes are recruited by Laureate, which contracts them on a part-time basis. Details of instructors recommended for appointment are sent to the e-Learning Unit, which verifies their suitability for an academic appointment at the University. Finally, those considered to meet the requirements of the University are submitted for approval by the appropriate Faculty board and the University Senate as "recognised teachers of the University". This three-level structure provides, in essence, a paradigm for the overall relationship between the partners concerned: Laureate proposes, the e-Learning Unit moderates, and final approval is given via established University structures. The criteria for this approval are essentially the same as would be applied for an on-campus appointment, i.e. it is expected that

recognised teachers will be persons whose qualifications and experience would be appropriate for employment in an academic post at the University.

In practice, almost all the instructors hold, or have recently held, academic positions at other higher education establishments, in the UK, the USA, and elsewhere. Most have, or are in the process of completing, a doctoral degree. A firm rule is applied that only research-active instructors – typically, with a PhD and a record of academic publication – will be permitted to act as supervisors for student dissertations.

Those recruited are often full-time academics who are engaging in additional online teaching both to enhance their income and to gain experience in a relatively new pedagogy. The position is attractive also, however, to academics who have recently taken retirement (perhaps early) but wish to continue some employment; to others, especially women, who are taking a career break for family reasons; and to those at an early stage in their academic careers, who take the opportunity to gain useful experience while they are seeking a more permanent position. Almost without exception, however, they demonstrate a strong interest in teaching and commitment to students: necessarily so, as the demands of online teaching make it unattractive to anyone lacking this motivation.

Figure 1: A Venn diagram describing the University/Laureate/Instructor relationship
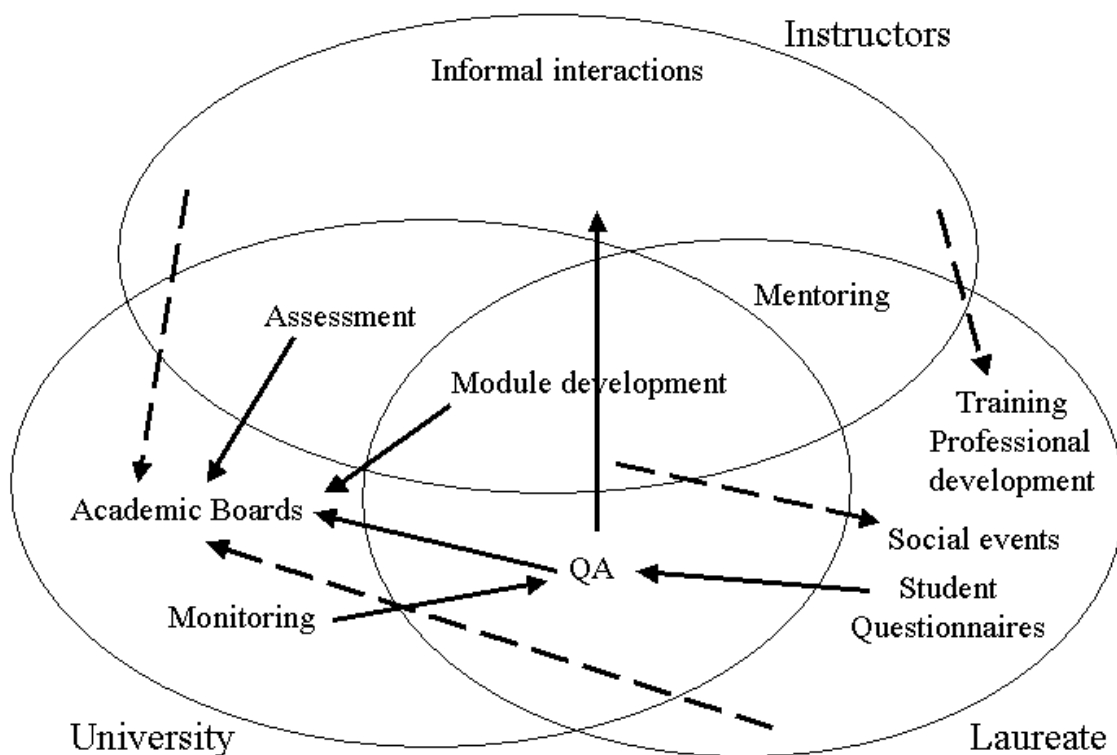
4.2. **Instructor training**

Although some training in teaching methods is now common in universities, it is traditional to expect that academics will learn much of this part of their role in personal and informal ways. In the model we describe, however, a more systematic approach is inescapable, both to ensure that instructors are inducted fully into the learning methods used and to establish a shared understanding of the approach amongst a very diverse community of instructors. All new instructors complete a three-phase online training session over six weeks. The first phase aims to acclimatise instructors to the online environment and the technology. In the second

phase, the focus is on the theory and practice of online education, and the administrative tasks involved in teaching in this programme. The third phase focuses on issues such as grading, moderating discussions, the prevention and detection of academic fraud, and issues related to advising dissertation students. The training is intensive, and is carried out using the same methodologies and technologies used in the academic classes, and in the same international context. This situation emulates for the trainees the "student experience", and allows the programme directors to observe and evaluate the trainees in an environment that closely resembles the one they will encounter upon certification.

Trainees who complete all three phases of training successfully are invited to teach a module in the programme, under the supervision of a mentor who is an experienced instructor. The mentor "lurks" in the classroom, and guides the trainee on various aspects of teaching an online class, such as: preparing the class materials, moderating class discussions, feedback and grading, dealing with student requests, disciplinary issues, and administrative tasks. The mentor also evaluates all aspects of the performance of the trainee, and this assessment, together with student questionnaire feedback, is used to decide whether the trainee is certified for teaching, re-assigned for further teaching under supervision of a mentor, or is not certified.

Thereafter, professional development of instructors is based on a series of voluntary faculty development seminars, as well as an annual event in which participation is required. A faculty development seminar is typically a one-week online forum, led by an experienced instructor, focussing on some aspect of online teaching, or a specific topic in Computer Science or Management. The annual faculty event has a similar form, directed by the academic leaders of the programme, with an agenda that includes topics such as recent and future developments in the programme, improving the student experience and better teaching.

4.3. Academic standards and quality

Training of instructors has an important role in establishing a consistent view on matters of standards, but is only one aspect of the management of quality. The diverse cultural backgrounds of instructors, although in most respects a positive aspect of the model, can easily lead to unacceptably wide variation in academic standards and inconsistency of approach, making it necessary to include a more formal and continuous element of oversight of teaching than is the case on campus. The primary mechanism we use for achieving this is *module monitoring*. As each class is started, an academic member of the e-Learning Unit is assigned to monitor it, by 'lurking' in the classroom, selectively viewing the instructor-student exchanges, discussions, and work submitted. The aim is to verify that the prescribed syllabus is being delivered, proper procedures are followed, appropriate academic standards are being maintained, and that other aspects of quality of provision are at an acceptable level. All this is possible because of the asynchronous nature of the virtual classrooms: all academic exchanges are recorded in the classroom folders, so the monitor can examine any part of the class history, while the class is active, or subsequently. Module monitoring is intentionally light-touch; the monitor never intervenes in the class directly, and only rarely corresponds with the instructor. On the rare occasions when intervention is necessary, this is usually carried out by alerting Laureate management to the problem.

In all except urgent cases, action is initiated via an end-of-module report. As each class concludes, we ask its students to complete a questionnaire, an anonymised summary of which is presented to the class instructor, who is required to complete a structured report giving his/her reflections on the class and comments on the students' feedback. The questionnaire summary and report are forwarded to the monitor, who adds his or her comments. Finally, all these reports are reviewed by the programme Board of Studies at its regular meetings. It is at this point that the process enters the standard University procedures: the Board of Studies reports to internal University bodies, and these reports are subject to internal scrutiny and QAA audit. Actions emerging from the Board or its parent committees are fed back to the e-Learning Unit, Laureate Management, and instructors, as appropriate.

4.4. Assessment issues

The central issue in respect of academic standards is that of assessment, and it is here that consistency is imperative. In the programmes described here, assessment is entirely on the basis of work carried out during the class, and is performed initially by the instructor. On a weekly basis, every element of assessment is assigned a grade, and a transparent formula translates this finally to an overall grade for the module. With no

international consensus on the relationship of grades or marks to performance, there are evident risks here. For example, in the UK a mark of 70% usually corresponds to an American 'A' grade, and represents outstanding performance, and grades of B or even C are no cause for shame, even from excellent students. In some cultures, conversely, marks of 80-90% would not be exceptional, and grades of B and below are disappointing.

To an extent, uniformity of understanding can be achieved by defining clear guidelines. Assessment is criterion-referenced, and both instructors and students are given descriptive criteria relating to the award of each grade. In principle, this is no different from the on-campus model. In practice, however, the breadth of cultural diversity amongst instructors, and the relative lack of informal routes to convergence, make it necessary to apply the criteria more rigorously. Again, the instrument for this is module monitoring. As each class ends, grades are reviewed by the module monitor in the light of the agreed criteria, and changes may be required. The moderated grades are then presented to the Board of Examiners for formal approval, and changes at this stage are also possible. In practice, once instructors understand the assessment framework being used, they rapidly adapt and enforced changes are rare.

The Board of Examiners, which operates within the same framework as those for on-campus degrees, is provided with the reports arising from each class, to give a context for the assessment results. Each Board of Examiners includes two external examiners appointed from other UK Universities, whose role is to ensure comparability of standards within the UK system. In on-campus programmes, this is usually achieved by inspecting assessment tasks and examinations, and samples of work submitted for assessment. In the online programmes, however, the class history recorded in the virtual classrooms is also open the inspection, making it possible for the external examiners to obtain an even more comprehensive overview of standards.

Monitoring is effective because, firstly, the monitors are established members of the academic staff of the parent university department (i.e. the Department of Computer Science, for the MSc in IT, or the Management School, for the MBA). This enables them to review standards and quality in relation to the corresponding on-campus benchmarks. Also, there are relatively few monitors, each of whom oversees a significant number of classes, thus obtaining an overview of the programme as a whole. Overall, the process makes it possible to assert and demonstrate that the standards and quality of the online degrees are the same as those recognised for the University of Liverpool. This is an important advantage for the programmes we are describing, in contrast with those that have no concrete parent university that can offer these structures.

4.5. Module Development

The learning materials for the modules taught in this program are developed centrally, and are subsequently distributed to the classrooms by the instructors who teach the classes. A single faculty member, the Module Developer, heads the team that develops each module. The faculty member is usually a senior online instructor, well versed in online teaching, who is also a content matter expert on the subject of the module. The rest of the team includes campus-based academics involved in the teaching of similar ground-based modules, a "critical reader" assigned to review and comment on all the module materials, an editor, and various other academics and administrators.

The development of module materials is carried out in a uniquely transparent manner, within online folders similar to the collaborative online classrooms used for teaching. The folders can be accessed by the development team, as well as by instructors who might eventually teach the class, and the development is done collaboratively, allowing all of the team members to provide input. More participants contribute to the more formative stages of the development, especially throughout the definition of the syllabus. Once the syllabus of the module is defined, the developer sets out to develop the learning materials that will fulfil the learning outcomes defined in the syllabus. As these are developed, they are posted into the development folder, and are reviewed, commented on, and modified by the developer, according to a defined schedule. The resultant materials represent the collaborative efforts of a selection of academics in the program, are uniquely tailored to the needs of online students, and reflect the content and spirit of the modules taught on-campus.

The module materials are maintained by an instructor (the "Module Manager"), usually an instructor who teaches the class often, who is assigned to ensure that the materials are up-to-date and free from errors. Comments and suggestions from instructors, students and the Board of Studies are forwarded to the Module Manager, who corrects mistakes, and updates and distributes the materials periodically.

4.6. **Other instructor involvement**

Membership of both Academic Boards, for on-campus programmes, normally includes representatives of the programme teachers. It is more difficult to obtain a satisfactory representation of a globally distributed pool of instructors. The views of instructors are represented, however, via the Module reports referred to above, which are reviewed explicitly at the Board of Studies and are also viewed at the Board of Examiners. The latter makes it possible, for example, for an instructor to put forward any special case for changes in the assessment outcomes either for the whole class or for individuals (there are, of course, also other ways in which circumstances affecting individual student performance can be considered).

It is important, however, that the views of instructors can be brought into the discussion of wider issues concerning the running of the programme that takes place at the Board of Studies. For this reason, we have adopted the policy of conducting one of the Board meetings held each year as an online conference, in which all instructors can participate. This meeting does not review module reports, but has a focus primarily on overall programme review and planning. Agenda items are discussed as threads within an asynchronous discussion folder, moderated by the Chair of the Board who will attempt to lead the discussions towards consensus.

Other aspects of instructor involvement are less formal, although equally important. A "Faculty Lounge" provides an open forum for both official and other announcements. In most other online forums, too, special threads are maintained for informal socializing and chatting. In these threads instructors introduce themselves, as well as chat with others about life in general, bringing each other up to date on births of children and grandchildren, marriages, holidays and travels, academic achievements, and similar issues.

Finally, opportunities for face-to-face contact are rare, but welcomed. Especially, graduation ceremonies, at which instructors able to attend are invited to join the procession, are an opportunity for instructors to meet each other as well as students whom they have previously only known in their online personae. Graduation ceremonies are also an opportunity for additional face to face interactions, such as faculty conferences, where academic and administrative issues are discussed.

5. CONCLUSIONS

Quality Assurance has a particularly important role in online learning, at its present stage of development, because of the widespread public suspicion that this educational paradigm will be associated with low standards and quality. The need to obtain acceptance for the degrees awarded creates an imperative both to ensure that standards are high and to demonstrate that this is so. We believe that this is most easily achieved by building on the established standards and procedures of an on-ground university. The challenge we have faced, in the programme we have described here, is in maintaining these standards within an organisation in which most of the instructors are distributed worldwide. We have described the structures that were developed for this purpose, centred on a three-cornered relationship between the university, its partner organisation, and the community of instructors. The key aspect of this is the role of the University, through its e-Learning Unit, in defining and propagating standards and quality requirements throughout the organisation.

Some observations on our experience are relevant. The first is that there are immense benefits to be gained by engaging the talents of an international pool of instructors. Along with these, there are problems, most concerning issues of consistency of practice and uniformity of standards. Our experience is that almost all instructors readily accept the necessity for the parent university to define and enforce these standards and practices, and quickly adapt to a regime that places some constraints on their autonomy. For those who do not, however, the loose relationship with the university allows for a relatively easy disengagement.

The second observation is that, we believe, quality in teaching and learning is essentially derived from the quality of the communication between its participants, teachers and learners. The corollary is that quality cannot be bought cheaply: an organisation that attempts only to deliver the content of a university programme, without the high-level involvement of instructors, will, we believe, inevitably be a poor shadow

of the original. The application of robust theory about the management of distributed groups, to the management of an international body of academics, has proven to be very effective.

The structures we have described here have delivered a programme from which over 800 students have graduated, and which over 90% of participants would recommend to their colleagues. We believe it provides a model for ensuring standards and quality in academic programmes that can be delivered on an international scale.

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