**Supported Open Learning and the Emergence of Learning Communities**

**The Case of the Open University UK**

by Ray Ison

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**Introduction**

I have had a longstanding interest in the social technologies which give rise to the universities we experience today, being particularly concerned with how differing conceptions of the University make possible effective learning. Over 18 years I have had experience of three contrasting pedagogical models in University settings - a radical, student-centered approach to agricultural education theoretically based on experiential learning and systems thinking, a traditional Oxbridge-modelled faculty, highly didactic in style, and now, at the Open University (OU) UK, supported open learning. This paper is written to give you a sense of how the OU has contributed to a "national learning community", and how it, or similar models, might contribute internationally to building new learning communities.

The OU has been described as the greatest innovation in UK higher education in the twentieth century. It has pioneered two significant new developments - open entry (entry with no prior academic qualification) and supported open learning (provision of personal tutor)- and it has created a unique learning experience that combines high quality with low unit cost. Moreover, it has demonstrated that open learning is popular with adults. The OU is the UK's largest university. Over 230,000 adults will study OU courses and not-for-credit study packs in 1999, and since 1971 it has taught over two and a half million people.

The OU has also been successful in recruiting students elsewhere in Europe and is operating with partner institutions in a range of countries. The OU has also just established the Open University of the US Inc. In addition, policy makers in other countries have adopted and adapted the
OU model to open up higher education to many more learners in new and flexible ways. More than 50 public open universities now exist around the world. The ten biggest have two million students between them.

Four key elements are claimed to have underpinned the OU (UK)'s success in delivering an integrated system of supported open learning. These are: high quality, multi-media teaching materials; locally-based tutorial support; first class research and scholarship and highly professional logistics (e.g. large scale processing of student enquiries, assignments and exams and graduation details.)

In this chapter I shall trace the history of the OU's development through three phases: (i) linear, one way, delivery; (ii) feedback systems; and (iii) self-organization and autonomous design. The first two phases have been realized, the third is a possibility. These phases are contextualized in the light of emerging global forces which are likely to constrain or enhance the emergence of novel learning communities. I argue that when designing any contemporary education program there are advantages in considering the program as if it were a learning system. To be responsible, designers also need to consider this within a context of global sustainable development.

The Linear, one-way, delivery phase (1969-1996)

When the OU was established, there was considerable scepticism about its ability to provide a learning experience for its students equal in quality to that enjoyed by full-time students in conventional institutions. Correspondence tuition, as it was then perceived, had a poor reputation. From the beginning, the OU has taken as one of its top priorities the development of instructional materials of the very highest quality. The OU has developed a team-based approach to course development combining academics and other specialists, including in some instances academics from other institutions. The process of course development is monitored by an external assessor and once in presentation an external examiner.

The traditional multi-skilled approach to course development has led to the production of courses that use a wide range of media, with elements combined in various different ways to achieve different learning objectives. At the heart of most courses is a series of specially-produced text books or 'course units' (which are also widely used in the rest of the higher education sector). They are closely integrated with a varying mix of set books, recommended reading, radio and television programs, audio and video tapes, home experiment kits, computer-based learning programs and multimedia resources.

Students are allocated a tutor, called an associate lecturer (AL), who is responsible for supporting the student's learning as well as undertaking all of the continuous assessment marking. Contact between an AL and student involves on-line (which is increasing), limited face-to-face and
telephone contact. Residential schools held at various places over a weekend or a week are also an integral part of many OU courses.

Research and scholarship are important in fulfilling the academic and educational objectives of the OU. Course materials must be authoritative and up to date and written by authors who are fully conversant with the latest developments in the field. Because they are in the public domain in a way that other higher education teaching is not, they must be able to withstand rigorous external scrutiny. In addition, teaching strategies and educational technologies must be of proven effectiveness and appropriate for large scale, open learning. The environment and reputation of the OU must be such that it can attract staff and consultants of the very highest caliber.

The University’s administrative and operational processes provide the underpinning essential to ensure the quality and effectiveness of its materials and student support. Wherever students live, the courses they take have the same high quality content and are taught to the same high standards. There is a sensitive balance between what is done in the University’s central headquarters at Milton Keynes and what is done regionally and locally.

Roughly three-quarters of the University’s 850 academic staff and most of its 900 administrative staff and 1500 clerical staff work at Milton Keynes. They plan, prepare, produce and distribute the course materials using mass production and delivery systems. Some services (such as editing and design) are provided in-house; others (notably printing and publishing) are contracted out. The OU has a long-standing partnership with the BBC for the production and transmission of broadcast programs.

The rest of the University’s staff are located in 13 Regional Centers, three of which cover nation-regions (i.e. Scotland, Wales and Northern Ireland). Regional Centers deal with all matters which concern the way in which courses are presented to students. Academic staff in Regional Centers select, brief, train and monitor tutorial and counselling staff, arrange tutorial timetables, deal with student enquiries and admissions, handle complaints and appeals, and attend to personal difficulties and special circumstances. Administrative staff allocate students to tutors, secure suitable study center sites and examination centers, and organize residential schools and graduation ceremonies within their regions. The whole operation is supported by data handling systems of enormous size and complexity.

The nature of students' learning at the OU is qualitatively different from that at other universities. Laurillard discusses research that identifies five distinct ways in which university students describe what they mean by 'learning'. This research was replicated at many universities with the same result, except at the OU. OU students see learning as a way of 'changing as a person' - something that students at other universities did not identify. OU students recognized that when you understand more
about why things happen it changes the way you think about the world.

As a "learning system" responsibility for OU course and program development and its associated assessment has been centrally designed and delivered to students. This is what I mean by a linear, one way delivery system. This does not mean that the learning materials are not designed to be student centered - they are. There are also organized surveys of student experience which feed back into design, albeit with lags and attenuation of the feedback process. However, as noted by Morris and Naughton, whilst the printed learning resources use self-assessment-questions and other structural devices to encourage active engagement of students with the material, the general nature of print and broadcast media have tended to reinforce the "information acquisition" model which students often bring to their learning.

The OU, through its student's association and other alumni groups, has also triggered a substantial number of self-organizing learning communities that range from special interest groups to professional societies. I know of no detailed study of these "emergent" learning communities but suspect their role in community-wide learning to have been more significant than is generally appreciated.

The two-way feedback phase (1989 - ?)

The "digital revolution" with the advent of various forms of Computer Mediated Communication (CMC), has begun to offer new ways of providing and facilitating learning. Some claim that "the Internet could destroy college as we know it. Or, just possibly, save it". From 1989, the OU has been making use of CMC to provide an additional channel of interaction with students. Morris and Naughton discuss this phase in a case study based on their own experience of one of the first large-scale uses CMC within the OU.

The case study is based on the OU Technology Foundation Course, Living with Technology (OU code T102), with which Morris and Naughton were closely associated. The course represents about 480 hours of study time, and has had an annual registration of between 3500 and 4500 students. It was usually the first course taken by those intending to carry on to study subjects under the broad umbrella of "technology", including a substantial proportion interested specifically in computing and information technology.

From 1996 the course, using the FirstClass® conferencing software (SoftArc, Inc) offered:

- e-mail, providing one-to-one and one-to-few text-based communication, including student-student, student-tutor, student-course team;
- conferencing, with asynchronous (i.e. separated in time) one-to-
many communication, such as tutor groups, discussions, seminars, chat etc.

- internet: one-to-online-resources.

There were usually about 200 postings, from 100 active contributors out of the total population of over 3000 online during any month. From their evaluation of this innovation, Morris and Naughton concluded that the "active engagement with the course material and with the course team, was clearly a minority activity within the computer mediated interaction" and "that the main use of the medium was to reinforce informal student-student interaction." The extent to which access to the new CMC facilitated the emergence of new learning communities amongst students is unknown, but worthy of appreciation given the growing collective experience of the internet. Another outcome of this innovation was to recommend to the University that electronic course conferences should not be optional but fully integrated into the pedagogy of the course and thus compulsory (if relevant to meeting desired learning outcomes).

Naughton has gone on to co-develop the OU's first high population, totally web-based delivery course. The course, "You, Your Computer and the Net" (OU code T171), constitutes 30 points of study and was offered in a large-scale pilot to 790 students in 1999. In 2000 the student numbers have, at the moment of writing, been pegged at 13,000 students on up to three presentation cycles per annum, mainly because of the lack of tutors to sustain the OU's supported open learning commitment beyond this number.

Whilst the potential exists to break out of the linear-model of course delivery via these new media it is fair to say that this potential has yet to be realized at scale and via purposeful design. In the case of the new T171 course this was quite deliberate. The course team decided early that Level 1 students (usually in their first year of OU study) new to the medium and new to study, couldn't be thrust into a highly hyper-linked environment and expected to develop sophisticated learning strategies. In this course students are guided very explicitly as to what they should do over any two week period (via e-mailed study guides) and the web site is essentially linear.

However, the assessment strategy in T171 does enable students to move beyond a purely linear model. Modules at the end of course are all assessed on web-based work, and it is clear that many students have gone far beyond the HTML (web authoring language) they are taught. For example they produce very sophisticated web sites, accessing many resources of their own choosing in the process. In this sense the students are constructing their own learning experiences, with the course providing the meaningful context in which they can do so.

Innovations such as that for T102 and T171 are breaking down the one-way model. In doing so they challenge what it is to be an academic,
and what a "course" might be. The structures and processes of the organization are challenged as these new technologies take hold, and as yet, their emergent outcomes are unclear. What seems important, to me, is to hold open two notions: (i) that learning emerges through participation in a network of conversation or communities of practice and (ii) that design for emergence and self-organization will become a central feature of new "academic practice".

Enacting these notions has the potential to enhance community-based participation and learning. But enacting them will be a struggle. As Weil observes, "disciplinary communities maintain their dynamic conservatism in the ways they patrol 'known' and familiar boundaries, through what can become self-reinforcing processes of knowledge generation and control. These involve writing and refereeing, external examining, and the formation of academic and disciplinary groupings that guard against dilution and interlopers." A central question is whether technology, possibly in the hands of others outside the traditional academy, will subvert attempts to maintain "the stable state" referred to by Schön.

**Learning systems as self-organizing**

Self-organization can be observed when interactions between processes constantly evolve. When applied to human activity other features of self-organization require attention - these include fostering enthusiasm and being aware of when consensus can be debilitating for action. Self-organization can also be considered as the acquisition of variety by a 'system' or the progressive emergence of novelty. An important notion in the concept of self-organization is that system and environment co-evolve, it is not a case of a system 'adapting to' its environment.

Recent activities mediated via the internet would seem to suggest that self-organizing, emergent learning systems will develop spontaneously. An interesting case in point is the development of the Linux software platform as part of the "open source movement." The model of software development employed by Microsoft (and many other firms) has been described as the old "closed shop" model of commercial software producers. This is contrasted with the experience of altruistic programmers, working together across the Net on freely distributed code that's open for everyone's perusal and tinkering and which is regarded, by some, as more powerful and reliable software than Microsoft's. These altruistic programmers could also be regarded as enthusiasts. My own research, in other contexts, has been concerned with the fostering of enthusiasm for collaborative action.

A challenge facing the OU in the new millennium is to extend its commitment to openness through the design of enabling structures and processes for the emergence of novel learning systems in the context of
Conclusions

I have identified two phases which the OU(UK) can be seen to have traversed since its inception in 1969. It is currently grappling with the implications of the second, a move away from an essentially linear delivery strategy, made possible by the "digital revolution". But at the same time it is being challenged by even more radical possibilities. The OU has made a major contribution to lifelong learning in the UK and beyond and will continue to do so for some time to come. It has become in many ways a national icon. This is both problem and opportunity. The OU needs to avoid the reification associated with icons and to conserve that which has made it a learning system capable of changing people’s lives for the better.

About the author

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