This paper briefly identifies a number of contemporary pressures for change which condition the way universities will behave and which provide both opportunities and threats for the future; it then goes on to consider the implications for distance education universities. Pressures on universities include such factors as the growth of other organizations that create and deal in knowledge, increasing access to higher education, and the new "vocationalism." In the discussion of the implications of these pressures, the role of distance education in enabling students to combine work with progress to higher level qualifications, the importance of technology, and the limitations of current models are considered. A final section looks at individualized learning as the major new challenge to distance education despite the fact that it is expensive and difficult to deliver in a distance education setting.

Particular attention is given to two initiatives which are exploring a more individualized system of student learning in distance education. One is concerned with the award of credit for the knowledge and abilities that students have developed but which are not recognized through formal qualifications. The other initiative is a course called "Personal and Career Development," which is directed towards helping students to clarify their educational, personal and career goals and develop an action plan to facilitate the achievement of those goals. (JB)
Serving Individual Needs: the New Challenge for Distance Education
Peter Raggatt, The Open University
In this conference we are invited to speculate on distance education in the 21st century. This is a welcome change from the normal routine of trying to work out how to cope with the next week. But while it is welcome it is also daunting. 20 years ago few would have predicted the scale and success of distance education. Few would have foretold that it would be seen as the panacea for struggling economies, expected to give new life to wasting competitive muscles of once mighty European industrial powers, to be the engine of Eastern European industrial renaissance and an important tool in the development strategy of international banks and other agencies. Even less would have foretold that distance education institutions would have achieved the more difficult trick of gaining the respect and admiration of colleagues in conventional universities, admiration which is manifested in the use of the learning materials in their lectures and is now apparent in the headlong adoption of distance learning by so many conventional universities. 30 years ago none of us would have been here, our institutions would not have been established. 30 years ahead some universities will have vanished but there will be very many more mixed mode universities combining campus based education with distance learning.

This paper looks ahead. It briefly identifies a number of contemporary pressures for change which condition the ways in which universities will behave and which provide opportunities and threats for the future. It then considers the implications for distance education universities and argues that one of the major challenges will be developing ways of responding effectively to individual students. It concludes with some observations on two initiatives which take this as their predominant concern.

Contemporary pressures on universities

The growth of other organizations that create and deal in knowledge

Universities no longer have the monopoly in the creation of knowledge. Their position has been challenged by a wide array of companies and other organizations whose viability rests on their ability to create knowledge or whose business is knowledge itself and the application of knowledge in new contexts or in new forms.

Among the first group are the knowledge-based industries. Most obviously these include the hi-tech companies which are directly involved in the development of information technology and produce telecommunications equipment, computers and the like. But there are many other types of companies whose product development and market positions are underpinned by large research and development departments which create knowledge include, for example, pharmeceuticals and the
nuclear and defence industries. The facilities in the research departments of these companies are frequently superior to those in university departments and the researchers who work in them contribute significantly to the advancement of knowledge in their respective fields. With the growth of knowledge-based industries the contribution which they make to knowledge creation will increase relative to that of universities.

Second, there has been a rapid development of knowledge-businesses, businesses that trade in knowledge itself. The most obvious of these is education but other knowledge businesses such as training, market research, software engineering, consultancies, independent research and development companies and the media have enjoyed similar levels of expansion.

The combined effects of these developments means that there are many more highly able, well qualified graduates and other people who are dealing daily with knowledge development and its applications outside the universities than there are within the universities.

The two groups differ in their relationships with universities [Hague, 1991]. Knowledge-based companies employ large numbers of graduates. They are an important market for universities. To date this market has been dominated by new graduates but there are signs of a growing demand for higher level qualifications. Joint and funded research and development are also features of the essentially collaborative relationships between universities and knowledge-based companies.

The relationships between universities and knowledge companies is more complex and competitive. Like knowledge-based companies they recruit from universities but they also compete directly and successfully with universities for research funds and for contracts with governmental and intergovernmental organizations. 'Experts' from these organizations are replacing the professoriate as the secular priesthood. It is the representatives from independent research and development companies, multi-national banks and specialist journalists, not the professoriate that provide soundbites on news programmes, the authoritative sources for radio and television documentaries on the state of the economy, of education, or of the nation and who provide excellent, critical and readable analyses in the press.

*Increasing access to higher education*

The clientele of universities is changing rapidly and higher education is becoming a more common experience in society as more countries move from an elite to a mass system of higher education. The reasons are economic and political. Governments, intergovernmental organizations and development agencies see education and particularly higher education as the key to future success in the competition for world markets. Singapore, France and a number of other countries have set a
goal of 80% of the age cohort entering higher education. Elsewhere new access programmes enable non-traditional groups (e.g., students lacking normal entrance requirements, mature students) to enter higher education. Underlying this development is a hard-headed view of the economic benefits that will flow from this investment in human resource development.

There is also a political agenda. Individual expectations have risen. More young people want to go on to higher education believing that the jobs they will get as graduates will be pleasanter, better paid and more secure. Adding to this demand is a growth in the numbers of young people who are staying longer at school. More are reaching the threshold of higher education. It is a small additional step to take to enter higher education. In political terms it is difficult for governments to deny the aspirations of large numbers of young people. The problem is how to pay for expansion because the additional numbers will not receive matched funding. The demand from governments is for the more efficient use of public money, for greater accountability and for universities to become more entrepreneurial. This is one pressure which is encouraging conventional universities to make open and distance education a significant feature of their expansion strategies.

*The New Vocationalism*

Universities have always had a strong vocational orientation. In the particular case of distance education universities many owe their creation to the need to train, re-train or upskill professional cadres. But universities traditionally have also been liberalising institutions, concerned with a wide intellectual agenda, committed to basic or fundamental as well as to applied research and offering critical analyses of contemporary society and government policies.

The current emphasis of national governments and supra-national governments, however, is almost exclusively on the central role which higher education should play in serving the needs of the economy. This is well caught by the 1992 Memorandum on Higher Education in the European Community: 'Higher Education has a vital role to play in providing a supply-led boost for economic development and in equipping all members of the labour force and young people with the new skills needed to meet the rapidly changing demands of European enterprises'. These policies have been backed in the UK by new funding arrangements which promote a curriculum which has greater commercial and industrial relevance. The pressure from government is matched by demand from students who have signed up in large numbers for business and management courses, for computer science and other areas which appear to enhance job prospects.

This new emphasis on continuing education is driven forward by pronouncements from OECD, the EC and other governmental and quasi-governmental organizations. Almost every policy document on higher education includes a ritual incantation that the expansion of continuing education is
necessary because of rapid advances in technology and the fact that economic and industrial activity is increasingly knowledge based. Conceived within these parameters continuing education is defined in terms of re-training and upgrading the qualifications of the workforce.

We are, it seems, entering an era where lifelong learning will be realized - but only for a segment of the population and within a narrow instrumentalist policy framework. Meanwhile the concept of worthwhile knowledge is being re-defined in terms of its utility to the economy as it the role of the university. The initiation of a serious debate on the role of universities in contemporary society is now overdue. It is, however, seriously handicapped by other developments notably the idea that universities are businesses operating in a marketplace and by the appointment of senior managers, who are increasingly overwhelmed by financial pressures and either do not understand what is happening or who do not regard the idea that universities are businesses as problematic.

*Universities as businesses*

**Implications**

Higher education is on the threshold of a period of major growth. Expansion will be driven forward by the demand for continuing education and increased access. Initially distance education stands to benefit from this because it will be seen by the state as the most cost effective vehicle for delivering the human resources it requires and for responding to the rise in individual aspirations for higher education. Higher education will become an international commodity and strong national and regional rivalries will emerge between distance education universities and local universities as they compete for a market share.

Necessarily expansion will focus attention on the further development of distance education systems. We can anticipate the growth and consolidation of networks of distance education institutions, and many joint ventures between individual institutions and franchise agreements will be established. The expansion of distance learning and the increasing international availability of learning materials will bring a need for an international agency to advise on the equivalence of qualifications, to accredit institutions and to facilitate the international transfer of credit. The Open University is already involved in a number of these activities and will, no doubt, continue to be a major player in such international distance learning developments. It is possible that the distance education market will be dominated by a few multi-national 'companies' working in a 'world' language - English and Spanish would be the main contenders. However, there is a different scenario which, in the longer term, is more persuasive.
The technologies to prepare and deliver distance learning materials are now readily available and are cheap. Many higher education institutions have seized on the opportunities this provides to enter distance learning. Their core business continues to be teaching full-time students on campus but their new business is continuing education through part-time study often supported by open and flexible learning, or wholly by distance learning. The distance learning components of conventional courses can be developed quickly at low risk - much of the work and the costs of course development will have been taken up by the conventional course and high performance electronic data processing is widely available and inexpensive. The additional cost - the risk capital for the distance education component is therefore low. This can be turned into a competitive price advantage or be translated into additional services. For the most part the initiatives are small scale, based in individual departments and involve a minimum of bureaucracy and administration. The mixed modes of delivery, their focus on niche markets and and the ability to respond flexibly to the circumstances of individual students makes them an attractive option to students. They are well positioned to compete with specialist distance education universities and are already doing so locally and nationally.

More speculatively there is the possibility of private organizations offering an alternative higher education facility. Students/clients in the continuing education field are increasingly well equipped to make judgements about the quality of the learning provided and, if what they get from higher education, whether as individual students or as corporate clients, is not highly professional in content and in the pedagogies used for presenting and facilitating learning, they will look elsewhere. Knowledge businesses are well positioned to take advantage of such dissatisfaction. They have to be highly professional: Their teaching materials are well planned and up-to-date, they employ the latest theories in the field and are able to apply them to the practical contexts in which their clients work. Their presentation and pedagogic methods are effective, they are responsive to their clients and their administration is efficient. They have to be good or they lose their clients. Some are at least as capable of running a university as academics are.

The availability, low cost and versatility of new technologies means that the initial capital investment needed would be low, they could focus on a narrow and profitable market segment and provide high quality, mixed mode or distance learning courses. In addition they would provide a range of consultancy services. The possibility is there because the technology is available. A more probable scenario than the development of new private universities is that consultancy companies and some other knowledge businesses will develop courses and learning programmes that will be validated by a higher education accrediting institution. This approach is already a reality in some countries.
The expansion of higher education and the wide availability of open and distance education materials will enable adult learners and corporate clients to choose from a wide array of learning opportunities. Higher education will need to become more user-friendly as the balance of power shifts towards the individual consumer (the student-client). This will provide a severe challenge to distance education universities. Their metier and particular strength is the production of well-designed, high-quality learning materials for large numbers of students. Cost efficiency derives from the scale economies possible with a limited range of standardized products, long production runs, a substantial uniformity of services and of assessment. It is a Fordist model and will continue to be useful and effective where particular cadres of workers need a common foundation or a major re-training programme.

The model is, however, ill-equipped to provide effectively for the higher levels of professional development required by knowledge workers. Student numbers will be smaller and their knowledge and understanding of the subject area will be more sophisticated and advanced. Clients will select courses on the basis of quality - the fitness for their purpose - rather than on price. It is a 'niche' market which will demand high-quality designer-style learning materials which reflect the current state of the field. Necessarily the materials will need frequent up-dating and production runs will be characteristically short. The appropriate production system is one based on flexible specialization.

Clients, particularly those in the continuing education area, will come to the courses with a wide range of skills and knowledge - much of which will have been developed outside formal education and hence will not be apparent in their qualifications. They will need effective information and counselling services and, if working towards a qualification, will expect recognition for previous learning achievements. They will also be expecting to advance their knowledge, skills and the repertoire of strategies which can be applied in their own professional activities. In effect they will be looking for an individual, or customized, service.

The New Challenge: individualizing learning

Individualizing learning is expensive and difficult to deliver at a distance but it provides the major new challenge for distance learning universities as they move into the 21st century. The final part of this paper comments on two initiatives which are exploring a more individualized system of student learning in distance education. One is concerned with the award of credit for the knowledge and abilities that students have developed but which are not recognized through formal qualifications, the accreditation of prior (experiential) learning (APL). In the case in point APL is presented within a Professional Diploma for adult and continuing education. Students, tutors and trainers in adult and continuing education, must make explicit the learning outcomes deriving from their experience and
must match them with the learning outcomes specified for the diploma using documentary evidence and a narrative statement. It is a direct alternative to studying the taught modules.

The other project is directed towards helping students to clarify their educational, personal and career goals and develop an action plan to facilitate the development of further knowledge and skills which they need to achieve those goals. This course for 'Personal and Career Development' (PCD) is available to all students in the university.

Although they were separately conceived the two projects have a number of common features. They both

- place reflection at the centre of the learning process
- provide support for a self-assessment of their personal or professional abilities
- encourage students to maintain a learning file as a key feature in the learning process
- allow students considerable latitude in defining the content of their studies
- make extensive use of portfolios as a learning tool and as a basis for assessment

The overlap between the approaches adopted in the two projects is not surprising. Both projects have been influenced by the Professional Diploma: the APL team was a sub-set of the Diploma team, while two members of the Diploma team contributed to the second project proposal and the materials development team includes tutors who had worked on the Diploma.

Reflection

At the heart of the diploma is the concept of the 'reflective practitioner', that is someone who is aware of the key issues in their professional area, who continues to enquire into the policies and practices which shape their working experiences and, above all, who recognizes that by reflecting on their practice they can improve and develop their professional competence [Schon, 1983]. The concept of reflection is a central feature of the diploma and by extension of the two projects. It is regarded as the key process through which one learns from previous experience and through which a bridge is established between theory and practice. Boud et al [1983, p.19] capture its significance:

Reflection is an important human activity in which people recapture their experience, think about it, mull it over and evaluate it. It is this working with experience that is important in learning. ... It is only when we bring our ideas to our consciousness that we can evaluate them and begin to make our choices about what we will and will not do. For these reasons it is important for the learner to be
aware of the role of reflection in learning, and how the processes involved can be facilitated.

In the diploma reflection is addressed both as a matter of content and as a process. Students are introduced to the concept of reflection and its relevance to learning and to professional development at an early point in their studies and a variety of activities deliberately seek to strengthen the link between the learning experience of the course and the reflective process [Boud et al, op. cit.]. For example, students are encouraged to develop a learning file or workbook to record: examples of any significant learning experiences; reactions to the activities and ideas in the text and thoughts how the theories might be applied in their professional contexts; any observations on their self-development, their reactions to particular types of learning expectations and so on. It is a record that they might wish to draw on for assignments but is otherwise a personal document.

In summary the intention is to enhance the ability of students to use a systematic approach to reflection and, by using the process during their course, to help them to understand that their professional experiences are a resource through which they can continue to 'improve and develop their professional competence'. Through the learning file, the use of the file for assignments and the opportunity to negotiate assignments students are able to influence the content of learning but control over content remains very largely a matter for the course team.

The projects

Turning now to the two projects, both offer students much greater control over the content of their work. This is necessarily so because both require the students to undertake a self-assessment of their prior learning in terms of the skills, knowledge and understanding they have developed. Reflection is the key process in accessing previous experiences on which the self-assessment is based. Students are introduced to the concept and to its relevance in learning at an early point in the course:

'Reflection has been described as 'an active process of exploration and discovery' which involves thinking quietly, mulling over events in our mind or making sense of experiences we have had. ... Reflection involves being able to:

- analyse an experience you have had
- identify what can be learned from it
- generalize that learning to other situations'
[Open University, 1991, p.4]
Case studies are used to illustrate the process and provide the link between the identification of skills, knowledge and understanding which have been developed as a result of experience and reflection and those with which the course is concerned. Other activities and suggestions to help students use reflection effectively include maintaining a learning file, using a review partner and group reviews.

In the APL project the learning outcomes identified as deriving from experience must be matched with the learning outcomes of the Diploma. Students are required to present documentary evidence (for example, proposals for a new learning programme, a curriculum evaluation report which they prepared, a policy review which they undertook etc) and to evaluate their experience and learning using conceptual frameworks current in the professional literature. The frameworks used need not be ones discussed in the taught modules.

The PCD project is more open. The main focus for the course is the development of personal transferable skills - problem-solving, communication and personal skills. Control is largely in the hands of the students. They are expected to develop a Personal Portfolio comprising their responses to a number (40) of self-assessment and forward planning exercises contained in a Workbook. These take the students through an assessment of their own learning style and personal strengths and weaknesses; the development of a personal action plan; the organization of a project which contributes to the achievement of one of the student's goals; and a personal review and evaluation of their development and future learning needs. The Workbook is complemented by a Resource Book which deals with underpinning knowledge and information the students need to locate their work in a context of change and which includes sections on skills building and interpersonal and communication skills.

As they work through the activities the students are using and developing a range of core transferable skills which enhance their personal development and can be applied in and to developing their careers. The Portfolio provides a resource of evidence for their two assignments. The first assignment asks the students to describe the work that they have done in assessing their skills and abilities and identifying future development plans. The work on this assignment culminates in Project Plan. The project itself is normally work-based but can be undertaken in other settings. The second assignment requires the students to report on the implementation of their project and to evaluate the practical outcomes, in terms of what they learned and how that will influence further actions.

Summary

Higher education is on the threshold of a major expansion particularly in the area of continuing education. A different balance will be established between initial and continuing education and there
will be a substantial increase in provision for open and distance education to enable students to
combine work with progress to higher level qualifications. There will be significant adjustments to
the academic structures with the curriculum will be re-shaped to meet the needs of more graduates in
knowledge-based industries.

Pedagogic methods will also change as the clientele becomes older and there will be irresistible
demands for individualized programmes of learning, for the recognition and accreditation of prior
learning, and for more diverse forms of assessment including portfolio based assessment and work-
based assessment. These developments will shift the focus of development towards the processes of
learning at a distance, to specified assessment criteria and effective and versatile assessment
strategies. This is the new challenge for distance education as it enters the 21st century.

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