

Sixth North/South Higher Education Conference

CONFERENCE DISCUSSION PAPER

**WHAT ROLE FOR HIGHER EDUCATION IN THE
DEVELOPMENT OF THE 21st CENTURY
WORKPLACE?**

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Introduction

This paper is produced to stimulate discussion at the Sixth North/South Higher Education Conference: What role for Higher Education in the development of the 21st century workplace?. The paper begins with a focus on the labour market and briefly outlines the factors which are driving the need for a lifelong learning approach in society and the economy. It goes on to discuss the expectations these changes are creating both for, and in, higher education. The paper then explores the barriers to change from within the higher education sector, from firms and from workers (adults), and presents an overview of higher education provision in Ireland, North and South, with particular reference to the environment for lifelong learning. The paper concludes with a brief discussion concerning the challenges shared by business and the higher education sector in collaborating on research and development (R & D).

The 21st Century Labour Market - Drivers for Change

The dynamic and rapidly changing global economic environment experienced in the latter part of the 20th century and anticipated in the 21st century has resulted in a considerable focus on the importance of lifelong learning for national economies, individual firms and people.

At a macro-economic level, knowledge is now accepted as a central element in achieving social and economic progress. The skills and competencies of the workforce are recognised as vital to raising productivity, enhancing competitiveness

and increasing wages and living standards, as those who are educationally disadvantaged are also likely to be economically disadvantaged. In terms of civil society, the provision of education opportunities is a 'weapon against poverty' and 'a source of social vitality' (Kennedy, 1997).

At the level of the firm, increased globalisation, the knowledge economy and developments in information and communication technologies mean that a process of continual upgrading of skills will be required for firms to survive. Accordingly firms will require:

- A flexible and versatile workforce capable of developing and acquiring necessary skills quickly;
- A constant stream of training (courses) in which employees are re-trained;
- A flexible and adaptable education and training system which can respond to the changing needs of business.

At the level of the individual, workers are increasingly confronted with a labour market where the emphasis is on the ability to continuously acquire knowledge, skills and competencies in an environment of constant change. Individuals without a good education background will be progressively disadvantaged in the labour market and opportunities for further education and training will be curtailed (Report of Taskforce on Lifelong Learning, Dublin 2002).

Workers now participate in a labour market where:

- Appropriate skills are required to change jobs more frequently (A person typically changes job four times in a career);
- The concept of 'work for life' is supplanting the concept of a 'job for life';
- Greater numbers are working part-time or on fixed-term contracts.

Information and Communication Technologies (ICT)

The role of information and communication technologies in this dynamic is especially important. As a driver for change, information and communication technologies are highly influential in driving globalisation and the knowledge economy. For individuals, an understanding of ICT is not only necessary for career development, but is 'a necessary prerequisite of active participation in civil and democratic society' (National Advisory Group for Continuing Education and Lifelong Learning). For higher education providers, ICT is increasingly being used as a flexible form of education delivery and to expand programme delivery geographically. Moreover, ICT has facilitated the emergence of private for-profit institutions presenting a challenge to the previous near monopoly of largely state-funded higher education providers.

Expectations for Higher Education

These drivers of change mean that in addition to the traditional mission of teaching and learning, scholarship and research, higher education institutions are now expected to:

- Promote social inclusion and citizenship through widening participation in higher education;
- Enhance the skills levels of the population to meet the needs of a modern high technology economy and society;
- Be structured to meet the educational needs of a diverse group of learners;

- Adopt a much greater and more strategic enterprise focus to satisfy the training requirements of business and industry and foster new business start-ups.

(HEA, 2004; Expert Group on Future Skill Needs, 2004)

This imperative for a deepened connectedness between education policy and national development needs is contributing to the discussion on the future mission and accompanying reform of the sector. Internationally, this debate focuses on two key themes:

1. Will higher education which once served a small 'elite' segment of the population be transformed to a 'mass' system of higher education?
2. Will the higher education system meet the objectives of lifelong learning?

(Schuetze and Slowey, 2000)

The outcome of this analysis, re-organisation and change will have profound implications on the future role of higher education for society and the economy, including the development of the workplace of the 21st century.

For firms and workers, questions arise as to how the higher education sector and the third level curriculum will respond to the new labour market. Specifically:

- How will the content and structure of the curriculum dynamically change to respond to emerging technologies, new skills sets, multi-disciplinary skills and soft skills relevant to the workplace, including programmes which foster adaptability, flexibility, innovation skills, communication, teamwork and problem solving?

- How will higher education institutions support a greater span of aptitudes, abilities and ages?
- Will accessibility be facilitated through extensive part-time, flexible and modular options?
- Will rigid entry requirements be relaxed?
- Will there be access type courses with admission practices geared to individual needs?
- How will transparency be introduced into curriculum design, credit transfer and recognition of prior learning?
- Will there be cross recognition of programmes?
- How will ICT and new technologies be used to enhance flexibility and efficiency?
- Will there be work-based programmes relevant to the workplace including internship programmes which provide practical work experience and commercial understanding?

Education providers cannot respond to these demands by relying on traditional principles. At a minimum, it requires a revision of programme offerings and means of delivery, together with a rethink of the relationship with clients (especially students) and with other providers in the education system (including adult and continuing education, further and vocational education, and for-profit corporate education and training).

Schuetze and Slowey (2002) summarise the organisational challenges for higher education as the sector moves from a traditional mode to a lifelong learning mode as follows:

Table 1: Organisational Challenges for Higher Education

Traditional Mode – expansion and homogenisation	Lifelong Learning Mode – expansion and heterogenisation
Restricted Access	Open Access
Admissions only with academic credentials	Assessment of prior learning
For the young only	For the young and adults
Selection for excellence	Learning opportunities for all
Undergraduate-centred	Wide range of programmes
Full-time studies	Full-time and part-time learning
Campus/classroom-based on-site studies	Also off-campus/distance studies, e-learning and self-learning
Linear studies with final examinations	Module-based curriculum, credit accumulation and transfer
Discipline oriented, curriculum-centred organisation of studies	Problem(-solving) and competence-oriented, student centred organisation
Degree studies	Degree and non-degree studies
Focus on initial higher education	Including continuing higher education
Non-diversified system of higher education	Diversified system of higher education
Question: What university did you attend?	Question: What did you learn at your university?

(Source: Schuetze and Slowey, 2002, p. 324, adapted from S. Yamamoto, 2001)

Such a transformation would:

- Call for a strategy of differentiation versus more of the same;
- Replace the traditional, mass standardised education mode of higher education with a mass individualised (tailored to the individual) mode;
- Result in a focus on the learner instead of the institution, and on the learning process instead of the curriculum.

Barriers to Change

For the higher education sector, implementation of the transformation outlined above is a complex task requiring widespread consultation and research. While a lifelong learning mode offers lucrative new sources of income, tailor made education is

expensive. Decisions concerning the provision of new programmes, or the development of new areas of activity, have cost and organisational implications, most particularly in relation to:

- The re-organisation of faculties and departments;
- Teaching and learning reforms, including enhanced teaching methods, modularisation and e-learning;
- The promotion of access, transfer and progression;
- The development of stronger inter-institutional collaboration in the development and delivery of programmes;
- The introduction of new internal management and resource allocation processes;
- The development of new management information systems.

In terms of policy discussions barriers also emerge. For example, Collins (2000) suggests that low literacy levels in Ireland predispose adult education policy towards an emphasis on second chance basic education rather than on second chance higher education.

- Has this emphasis on basic education reduced the focus of policy makers and adult educators on the importance of workplace vocational training and continuing professional development?

For workers and firms, a comprehensive transformation of the higher education sector would undoubtedly address many of the institutional barriers currently being confronted. However barriers to participation would remain. For individuals these include:

- Economic considerations (the cost of education);
- Conflicting work and domestic commitments;
- The attitudes and values of a person towards learning.

This latter barrier has been identified by many international studies as the strongest predictor of participation in adult learning. Poor early education experience is likely to engender negative attitudes to adult learning, resulting, as Schuetze (2000) points out, in the people most in need of expanding their skill levels seldom participating in organised education and training.

For individuals then, the transformation of the higher education sector is not the sole panacea to the challenge of the knowledge economy. Similarly for firms a number of challenges persist:

1. The small structure of firms

Some 98% of firms on the island of Ireland employ less than 50 people. Smaller firms are less likely to undertake training, to release staff for training/study/exam leave or to pay for training. As pointed out by McIver Consulting (2004), policy responses to upskilling the workforce must recognise the fact that the majority of industry is made up of SMEs.

2. Measuring the impact of training

For individual firms, where resources are directed towards an activity, the question of impact, value for money and return on investment immediately arises. Managers making decisions on training budgets want to know the impact of training investment on profits, speed-to-market, employee readiness and sales growth. How can firms measure if training investments are contributing to employee and organisational performance?

Higher Education in Ireland North and South

In the context of this policy discussion, what is the environment for lifelong learning in the higher education systems of Ireland, North and South? Table 2 summarises the position of Northern Ireland and the Republic of Ireland in terms of the characteristics of the lifelong learning mode described above. Overall this summary indicates that there are isolated islands of reform evident in both jurisdictions:

- Progress has been made in modularisation, credit accumulation and transfer;
- Bridges between further education and higher education have been built;
- Continuing professional development, part-time and evening courses have expanded;
- Outreach facilities have become more commonplace.

However, like the analysis by Schuetze and Slowey (2000) in discussing non-traditional student participation and lifelong learning in 10 OECD countries (including Ireland and the UK), this summary would suggest that:

- The massification of higher education evident in Ireland North and South over the last decade has related more to quantitative changes involving more students, more academic staff, and more programmes, rather than qualitative changes in programme structures and delivery;

Table 2: The organisation of higher education

Lifelong Learning Mode – expansion and heterogenisation	Republic of Ireland	Northern Ireland
Open Access	Restricted access, but progress made over last 5 years through development of national qualifications framework	Restricted Access, but a qualifications framework has helped openness
Assessment of prior learning	Admission largely with academic credentials. Credits progress through National Qualifications Framework	Admissions largely with academic credentials. Credits progress through Northern Ireland Credit Accumulation and Transfer System (NICATS)
For young and adults	Universities and Institutes of Technology largely for young. Continuing professional development initiatives and adult education centres provide opportunities for adults. Private, for profit and open and distance learning generally provide more opportunities for adults than universities and institutes of technology.	Universities largely for young, while further education colleges are also largely for young, but have greater representation of adults. Lifelong learning, continuing professional development initiatives and adult education centres have focus on adults.
Learning opportunities for all	Selection for excellence	Selection for excellence
Wide range of programmes	Under-graduate and post-graduate centred	Under-graduate and post-graduate centred
Full-time and part-time learning	Largely full-time, but part-time increasing	Largely full-time, but part-time increasing
Also off-campus/distance studies, e-learning and self-learning	Largely campus based, but outreach colleges increasing. Distance learning and e-learning available through Oscail and the Open University.	Largely campus based, but courses also ‘franchised out’ to more geographically dispersed further education colleges. Distance learning and e-learning available through the Open University and well developed in University of Ulster due to multi-site nature of institution.
Module-based curriculum, credit accumulation and transfer	Largely linear studies with final examinations. However module based curriculum is being implemented. Limited credit accumulation and transfer, but developments evident as a result of National Qualifications Framework and in transfer from further education.	Largely linear studies with final examinations. However module based curriculum is being implemented. Northern Ireland Credit Accumulation and Transfer System (NICATS) developing a system of credit accumulation and transfer.
Problem(-solving) and competence-oriented, student centred organisation	Discipline oriented, curriculum-centred organisation of studies	Discipline oriented, curriculum-centred organisation of studies
Degree and non-degree studies	Degree, Diploma, Certificate studies	Degree studies
Including continuing higher education	Continuing Higher Education contained in a separate centre – not integrated. Focus is on initial higher education, but continuing professional development can be an arm of a mainstream department.	Continuing Higher Education contained in a separate centre – not integrated. Focus is on initial higher education, but continuing professional development can be an arm of a mainstream department.
Diversified system of higher education	Non-diversified system of higher education	Non-diversified system of higher education
Question: What did you learn at your university?	Question: What university did you attend?	Question: What university did you attend?

- Established universities are accommodating growing numbers of students while preserving traditional academic values, institutional structures and processes, thereby retaining a focus on conventionally qualified, standard age entrants;
- The task of dealing with new types of learners is being left to institutions such as open and distance institutions, specific units such as adult education and continuing education departments, private for-profit providers and employers.

Research Role

The factors driving change in the labour market, including rapid technological development, the need for constant innovation and the knowledge economy are also focussing attention on the importance of the performance of research in the higher education sector. As firms look to expertise in the higher education sector for specialised knowledge and a stream of new ideas, challenges surrounding the commercialisation of intellectual property, technology transfer and licensing of technology to industry continue to present barriers to increased collaboration between industry and the higher education sector. In this respect, Universities Ireland (in collaboration with *InterTradeIreland* and the Irish Universities Association) has recently completed a study of how universities on the island of Ireland can come together to market their campus-created technologies collectively (with input from the industrial promotion agencies North and South).

In the UK, the Lambert Review (2003) argues that that the most effective forms of knowledge transfer involve human interaction, and advocates the introduction of

mechanisms to bring together people from businesses and higher education. Similarly, in the Republic, Forfas (2004) have argued for mechanisms to stimulate and recognise mobility of staff in both directions between academia and industry.

Concluding remarks

The discussion above suggests that:

- Drivers for change are creating an expectation that the higher education sector will undergo further substantial reform;
- This reform will require quantitative expansion of learning opportunities (to widen access); qualitative changes to content, and flexibility in structure and delivery;
- In implementing these changes, there continues to be considerable discussion among policy makers and higher education institutions concerning the nature of the reform required;
- Closer links are required between higher education providers and the business community, with a particular emphasis on increasing mobility between staff in both sectors to foster research collaboration and exploitation.

A role for higher education in educating the workers of the 21st Century has been clearly articulated in enterprise, social and education policy in Ireland, North and South over the last decade. However, in the light of the continuing, largely traditional, homogenous structure of higher education, is higher education willing to take on a role in the workplace of the 21st Century? Equally, in an increasingly busy world, do workers and employers have the time, space and resources to participate in education and training to the level envisaged and advocated by policy makers? Finally, are the mechanisms in place to foster joint collaboration and effectively exploit the research outcomes of the higher education sector?

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