



CITSCAPES Case Study

North-West Institute of Further & Higher Education

(Northern Ireland)



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1. EXECUTIVE SUMMARY

1.1. Purpose of this Study

This report is part of the case-study activity strand of the Citscapes Project, which has been commissioned by JISC to investigate the current situation in ICT skills provision in higher and further education across the UK. The report is one of four major studies that have been carried out in order to gain a qualitative picture of good practice in the development of ICT skills provision for students in the UK FE sector. In recent years IT and learning technology are in the process of convergence. This is why the report also sheds light onto issues such as e-learning and staff ICT training. The development and implementations of ICT strategies in the FE sector can however not be seen as being independent from a number of other current drivers in education, such as social inclusion, community learning and widening participation. Whilst the focus of this document will be ICT skills development for students at the North-West Institute, the above named areas interplay with this theme and will be considered where appropriate.

1.2. Methodology

This report has been compiled using a variety of sources and methods, e.g. qualitative document research, interviews with senior managers and support staff and observation carried out by a qualified researcher of Glasgow University. As part of the CITSCAPES Project an Overview study has been developed, which summarises a number of governmental initiatives and by FE colleges across the UK to develop ICT skills programmes for students. This document was used to put the study into a political perspective, but has also benefited from this report, especially with regard to the section on Northern Ireland.¹ Institute specific policy documents used for this study include the Institute Strategic Development Plan 2001-2004, the Institute's 2002-2005 draft ILT Strategy, the Institute's Annual Report 2000-2001, publicity leaflets and information published on the Institute's website (<http://www.nwifhe.ac.uk/>). In addition, interviews and discussions with the Deputy Directors for Curriculum, Technology, Business Services & Development, the ICT Coordinator, Heads of Department for Technology (also ILT Champion), Staff Development and Student Services, the Library Resource Manager, Key Skills, Web development and MIS allowed for a detailed insight into ICT skills provision for students.

1.3. College Profile and Background

The Institute is one of the largest FE colleges in Northern Ireland catering for 23,000 students. Although the Institute has been very successful to attract adult learners back into learning, the student population is very young, which is characteristic of the demographic movements in Northern Ireland. The four academic curriculum departments are Technology, Continuing Education and the Arts, Business Services, Caring, Hairdressing and Beauty Therapy. The Staff and Students Services Department plays a supportive role in the running of the teaching and learning process. The Mission of the Institute is to be an all-inclusive and open learning organisation with a strong emphasis on equal opportunities provision. The Institute is involved in a large number of regionally and EU funded projects and partnerships that aim to encompass business development, technology and community learning.

1.4. Strategic Objectives and Policies in ICT Skills Provision

An ICT Strategy Group was set up in 2001 with the aim to incorporate and involve key staff members in order to establish a systematic and coherent approach to ICT/ILT within the organisation. The ICT Strategy Group incorporates four working groups which have specific remits with regard to ICT skills provision for students. The ICT Strategy group unites ILT, MIS, Networking and Web Development working groups. The ICT Coordinator and the ILT Champion are working closely to ensure that ICT skills provision is not only part of the curriculum, but can also take place given technical requirements. Although an ICT Strategy and ICT induction policy exists, these documents are under review in order to ensure that all staff and students can benefit from the substantial investment into the ICT infrastructure of the Institute. Although the Institute supports the use of ICT/ILT in teaching and learning as and when suitable, Senior Management and academics still favour traditional methods to support the learner. Prejudice plays little part in this, traditional classroom tutor-led provision helps especially young learners to find the discipline to attend courses and complete their course work.

1.5. Current Situation – Practice

ICT Skills provision was a problem area in the past, because of poor investment and funding into infrastructure and online learning by the DEL. However, the picture at the Institute has changed radically over the last two years with state-of-the-art equipment in place. It is intended to continue to leave ICT skills provision to the academic curriculum departments, but to ensure a more coordinated and systematic approach in this area. The chosen mechanism to embed ICT into the curriculum is through the ILT Champions Programme. The programme is in the process of identifying staff at both management and curriculum delivery level who are charged with a role and responsibility of ‘championship’ the use of ILT within the Institute. Progress has also been achieved in Key Skills training and ICT courses delivery in the outreach centres. The investment into the ICT infrastructure has made quality online learning possible. A Student induction programme using BlackBoard is currently under development. Besides on and off - campus delivery, a Business Learning Centre provides quality ICT training to commercial clients.

1.6. Emerging Directions

The Institute is still in a transforming stage of consolidating the new investment into infrastructure and to start making provision for the meaningful integration of ICT into learning and teaching. It is the Institute’s aim to ICT skills training and online learning is intended to supplement traditional teaching methods and not replace them, especially given the young student profile. Continuous efforts are made to ensure that Key Skills programme, although delivered via a VLE, can retain more students in the future. The success in student ICT competency will ultimately depend on the skills and motivation of staff to utilise ICT in their teaching. Great progress has been achieved by ensuring that all academic staff are adequately trained and receive continuo’s professional development.

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2. COLLEGE PROFILE AND BACKGROUND

2.1. Introduction and Locality

The North-West Institute is one of 17 further education colleges in Northern Ireland. Four academic curriculum departments deliver courses in Arts, Business & Admin, Catering, Construction, Engineering, Science & Computing and Social Education to almost 24000 students.

The Institute's main location is situated on Strand Road, half a mile from the historic city centre. Eleven smaller campuses and outreach centres are situated in Strabane Campus, Strabane IT Centre, Northside Shopping Centre, Lesley House, Limavady Road, Northside, Springtown, Maydown, Queen Street, Cathedral School, Christ Church and Commercial Buildings. The Institute also arranges programmes at a number of secondary schools and other locations throughout the city and wider North West area.

2.2. NWIHFE Organisational Structure

After its recent restructuring, the Institute's organisational structure is more flat and modern. The number of academic departments has been reduced from eight to five. All departmental heads are reporting directly to the Senior Management Team, which consists of the Director and three Deputy Directors. Each department develops its own operational development plan, which ought to be accordance with the objectives of the Institute's Strategic and Operational Development Plan. In addition, the Heads of Departments and other key staff have an active input in Institute-wide working groups and standing committees, which make recommendations to the Senior Management Team. The Senior Management Team is accountable to the Governing Body and the Department for Education in Northern Ireland.

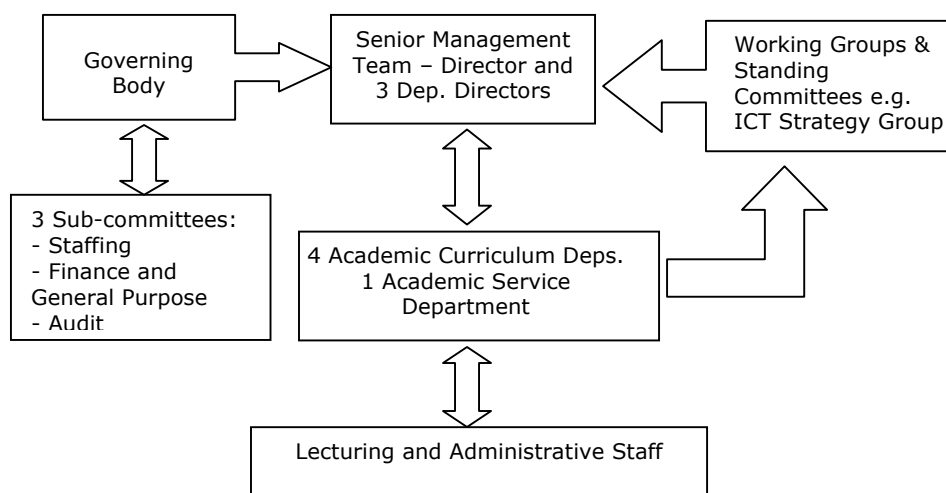


Fig 1: Organisation Structure of NWIFHE

The four academic curriculum departments are Technology, Continuing Education and the Arts, Business Services, Caring, Hairdressing and Beauty Therapy. Staff & Student

Services is also an academic department with remit to supply support services and staff training.

2.3. Mission Statement and Strategic Focus

The Mission of the North-West Institute of Further and Higher Education is to meet the lifelong learning needs of individuals, employers and the community by providing a high quality education and training service based in the North West.²

The College Development Plan 2001-2004 has identified five strategic aims:

- 1) provide relevant courses, programmes, qualifications and research which addresses the needs of students in a period of curriculum change;
- 2) widen access and promote greater participation in vocational education and training by adults, including access for groups previously under-represented;
- 3) liaise closely with external agencies and ensure that course provision helps to promote the economic development and regeneration of the North-West region;
- 4) develop partnerships with external agencies and the community and voluntary sectors so as to create an integrated education and training provision within the region;
- 5) enhance and improve student participation and achievement through the development of quality systems across the organisation.

Four out of eleven strategic objectives to achieve the above aims deal with ICT skills provision in the widest sense:

- i) to assist students and trainees to achieve their entitlement to the broadest level of general education, key skills and personal development;
- ii) to provide training in basic skills to the level necessary to meet the needs of contemporary society;
- iii) to maximise the use of ICT in programme delivery;
- iv) to develop in students and trainees a flexibility of attitude and willingness to learn in anticipation of future changes in their life, careers and structure of employment.

2.4. Trends in the Regional/National Employment and Customer Profile

Although the regional economy of Northern Ireland currently enjoys a period of recovery, many jobs are based in small businesses and consist of unskilled and semiskilled labour. By 1998 less than 50% of unskilled and semi-skilled workers had a qualification in this region. The Moser Report, which was commissioned to investigate the current situation in literacy and numeracy in the UK, also drew attention to the extent of the problem by outlining that approximately 25% of the population in Northern Ireland had a literacy and numeracy competence at level 1 or below.³ In January 2001, the Northern Ireland Economic Council published a report which dealt with economic policies in the region. *Capabilities and Innovation Perspective: the way ahead in NI* marks a critique of existing policies and structures as well as a robust, modern perspective on the economics of industrial development.⁴ The general economic outlook for Northern Ireland is positive with a prolonged spell of raising employment and falling unemployment. The continuation of this positive trend will of course be dependant on global, UK-wide factors and on the

continuity of the positive trends in the Irish economy, but most importantly on political stability within the region. However, the downturn of manufacturing industry and agriculture in the UK and in Northern Ireland as well as the growth of the semiconductor industry and tourism, poses a challenge for the Institute to offer courses that suit the needs of the learner and address the skill requirements of the local economy. Senior Management have realised that ‘the mobile sector that is potentially likely to invest in an economy like Northern Ireland tend to be skill intensive. They will not locate in regions that cannot provide the requisite skills.’⁵

Regarding its customer base, the Institute has experienced a phenomenal growth in its student numbers. Over the last three years student rates increased by 12-13% each year, with ICT and computing courses in highest demand. A special characteristic of the customer base at the Institute is certainly its young student population, which is symptomatic for the demographical growth in the region. In the council area of Derry the population increased by over 8%, which is even above the national average of Northern Ireland. Consequently, a large proportion of students are school leavers or young adult learners. For 2000-2001 the average class size was 14.2 with a staff-student ratio of 13.5.⁶

Student Number Projections (2001-2004)	Student Numbers		
	2001-2002	2002-2003	2003-2004
Full-time	3279	3501	3635
Part-time	8502	8972	9566
Day-Release	1035	1113	1159
Evening Enrolments	10147	11430	12118
TOTAL (the numbers exclude withdrawals)	22963	25016	26478

As the above figures indicate, the Institute projects an increase in student numbers of 10-12% in each of the following years.

Fortunately the suspension of the Individual Learning Accounts in November 2001 by the UK Government had only a very minor negative effect upon the amount of learners applying for courses, since the Institute was only able to start offering courses through ILAs in September 2001. However, it is hoped that a replacement scheme would be introduced in 2002, which would certainly attract even more learners back into education.

Additional funding has encouraged more adults to enrol on a wide range of courses. In 200-201 over 16000 students were adult learners, an increase of 6200 (61%) over the previous year. Community-based provision and basic ICT courses have driven this development and have helped the Institute to widen participation.

The Institute also offers work-based programmes under a number of national and regional initiatives, such as the New Deal, Modern Apprenticeships and National Traineeships and Vocational training in and around the Institute’s workshops based on a real-work environment. This includes catering, hairdressing, beauty therapy, and radio and TV production. The TV and radio station, together with a multimedia lecture theatre are fully fledged broadcasting facilities and close cooperation exists with the BBC Northern Ireland.

2.5. Student Support Services

Students with special educational needs are identified through questionnaires when applying for a course and by course tutors at the induction phase. The Institute is fully aware of Governmental equal opportunity directives, which were improved in the aftermath of the Good Friday Agreement. Hence, the Institute is committed to fully support students with special educational needs and now also maintains an on-campus nursery. In order to offer a more flexible learning environment, the Institute has heavily invested into community learning and built a new on-campus learning and resource centre, which will be fully operational from August 2002. The new Northland Building, which was built under the PFI opened its doors two years ago and hosts the library, a new business learning centre and state-of-the-art classrooms with modern computers, projectors and some with electronic white boards.

The Department of Student Services offers advice and guidance for new students on courses both full-time and part-time, give advice and guidance for existing students on progression to Further Education and Higher Education, offer career advice, advice on loans and funding, supply advice and guidance on additional support for students with learning difficulties and other disabilities. Dedicated lab facilities for students with special needs are in planning.

2.6. Strategic Partnerships and Funding

Strategic Partnerships exist between schools in and around Derry and the Republic of Ireland, Queens University Belfast, the University of Ulster, other Colleges in the northwest and also with Napier University Edinburgh, especially in subjects such as engineering, computing and construction. The North West Institute in partnership with Queens University Belfast manages the Regional Support Centre for Northern Ireland on behalf of JISC (see www.rsc-ni.ac.uk).

The Institute was involved in the establishment of the Northern Ireland Business innovation Centre (NORIBIC), which is now a recognised award-winning European Business and Innovation Centre (EC BIC). It was established with the approval of the European Commission and other partners from outwith the Northwest. Described as a 'flexible economic development instrument' it is a member of European Business and Innovation Centre Network (EBN) and the Irish Association of BICs. The goal of NORIBIC is to cooperate with the Department of Economic Development, the local councils and other partners to improve the economic environment of the region by supporting the creation and development small and medium size business sector.⁷

The Institute was involved in over 60 projects over the last ten years, which dealt with the use of technology in teaching learning and staff development. Many of which were European funded and spread across several departments covering areas such as environmental work, engineering, biotechnology hospitality and catering, ICT and community development. For example, as early as 1993, the Institute began to explore the possibilities of video conferencing to deliver lectures in its outreach centres.

The Institute was involved in the ELECTRO-ISDN project (<http://www.nwifhe.ac.uk/euprojects.html>), a two-year trans-national project running from January 1999 to December 2000. The project was funded under the European Commission's Leonardo da Vinci programme of DG XX II. The project followed an innovative approach to developing methods of self-training in the workplace through distance learning and facilitating access to continuing vocational training.

The Institute is also involved in the MTP project. Funded by the EU Special Support Programme for Peace and Reconciliation, [Manufacturing Technology Partnership Ltd.](#) (MTP) combines the knowledge and expertise of the main Northern Ireland Centres of academic and technical expertise. The project runs in partnership with the University of Ulster, Queens University Belfast, IRTU to create MTP, the manufacturer's problem solver. MTP provides low-cost hands-on help to improve company profitability and business performance.

Other projects include piloting courses for learndirect and pursuing a close partnership with this organisation, which has benefited the Institute online course provision. Known locally as learndirect North West, it offers users state-of-the-art learning facilities at the Strabane IT Centre, Resource Centre, Spingtown and Maydown NWIFHE campuses. The project has received financial assistance and support from the EUSSPPR Information Age Initiative and the DEL.

3. COLLEGE STRATEGIC GOALS AND INITIATIVES IN ICT

3.1. *The ICT Strategy Group in the Strategic Framework of the Institute*

In 2001 the ICT Strategy Group replaced the former Information Systems Advisory Committee. As part of this restructuring process and in order to ensure a systematic approach to ICT, a review of the existing ICT Strategy is currently underway encompassing all areas within the Institute which have a remit for ICT. The new 2002-2005 ICT Strategy aims to support the Institutes' mission in four ways.⁸

1. All academic staff and students will have access to ICT via a stable, robust networking and computing infrastructure.
2. Academic members of staff will be given appropriate staff development to enable them to make use of various aspects of ICT in curriculum planning, design, delivery and evaluation.
3. Administrative support within the Institute will ensure the most effective deployment and use of ICT to support the business process.
4. Facilities within all sites will be fully networked to maximise ICT efficiency and effectiveness in all curriculum, communication and administration activity.

The ICT Strategy Group consists of the **ILT Working Group** with the input of Staff Development, the **MIS Working Group**, **Website and Intranet Development Working Group** and the **Network Planning and Support Working Group**. The terms of reference of these groups are:

a. ICT Strategy Group

- to ensure the ILT/MIS strategies are consistent with the Institute's overall mission and objectives.
- to devise policy and procedures to ensure consistency in the emergence of ICT throughout the entire Institute that addresses ILT and MIS needs as endorsed by users.
- to ensure that existing and new developments on ILT/MIS are embedded throughout the Institute.

b. The ILT Working Group

- (1) to plan and implement the strategic development of ILT within the Institute;
- (2) to promote the use of ILT within the institute;
- (3) to review and evaluate the use of ILT and to make recommendations;
- (4) to plan and review all associated staff development;
- (5) to advise the ICT Strategy Group and any other relevant groups or individuals.

The ILT working group will also facilitate the communication and the work of the ILT champions and the Institute's ILT Champion, who will work with a range of course teams to carry out an appraisal for the potential use of ILT within their course to establish what resources can be made available for ILT, and to implement and agreed action plan for the development of ILT within their course.

c. The MIS Working Group

- (1) to promote linkages between the departments to enhance core function.
- (2) to promote staff development to support MIS procedures.
- (3) to improve the flow of information by using appropriate technology and procedures.
- (4) to maximise the existing use of technology to improve business processes.
- (5) to review and develop MIS policies and procedures.
- (6) to advise the ICT Strategy Group in issues relating to the development of MIS strategy.

d. Network Planning Group

- (1) to plan the expansion of the Institute infrastructure as required.
- (2) to support the use of technology in teaching and learning.
- (3) to assist in the development of ICT policies and procedures.
- (4) to support On-line Learning.
- (5) to advise the ICT Strategy Group in issues relating to the development of network planning strategy.

e. Website and Intranet Development Working Group

- (1) to promote integration of all Online Services within the work of the Institute
- (2) to maximise existing and new technologies in the promotion of Institute Services
- (3) to advise the ICT Strategy Group in issues relating to the development of website and intranet development strategy

3.2. *The Institute's ICT Policy*

As part of the ICT Strategy the Institute has developed an ICT Policy, which is currently under review and will be reformulated after the new ICT Strategy 2002-2005 is agreed in September 2002. The following aims encompass ICT skills provision.⁹

Aims:

1. establish and meet an entitlement for all students to acquire ICT skills and learn of the uses and implications of ICT;
2. develop appropriate uses of ICT as a tool to assist curriculum delivery;
3. support learning about ICT where ICT is the primary focus of study;
4. ensure the effective and efficient use of ICT for administration duties;
5. establish and pursue a strategy for the purchase of sufficient and mutually compatible hardware and software, appropriate to all users;
6. maintain operational practices which ensure efficient operation, security and conformity to legal requirements;
7. encourage and support staff in developing ICT skills in conformity with all aspects of this policy;
8. provide online services;

Aim 1, 2, 3 and 7 are currently most relevant to student ICT skills provision and the embedding of ICT into the curriculum. The Policy sets out the following objectives to achieve this aim.

Objectives Aim 1:

- 1.1. Induction programmes for all full-time students will include an introduction to Institute systems and software. Part-time students will have access to an ICT induction programme. Induction programmes are to be agreed between Heads of Departments and the staff development section.
- 1.2. Full-time students will have the opportunity within their programmes to acquire ICT skills and learn of the uses and implications of ICT. Part-time students will have similar opportunities appropriate to their course.
- 1.3. With respect to objectives 1.1 and 1.2 above the ISAC will give guidance as to the ICT skills, uses and implications which should be covered.
- 1.4. Hardware will be made available for an appropriate level of supervised open access.
- 1.5. All students should have the opportunity to use ICT equipment with appropriate software to draw up their Individual Student Learning Accounts documentation (ISLA).
- 1.6. Support should be available for students using ICT facilities through appropriately skilled staff and user guides.
- 1.7. All students should have access to support services software (e.g. careers, library catalogues).
- 1.8. Hours when and locations where ICT access is available should be monitored and, where appropriate, modified.
- 1.9. Periodically recommendations should be made to the ICT Steering Group on hardware and core software requirements to meet the above objectives; in particular the specification of the minimum level of facilities to which all students should have access should be regularly reviewed.
- 1.10. Liaison should be maintained with schools, HE, DEL and employers to inform the process outlined in 1.9 above.

Objectives Aim 2:

- 2.1. A watching brief will be maintained on ICT developments; this will inform the direction of ICT development within the Institute.
- 2.2. Demonstration and training opportunities will be available to inform all staff of current ICT developments which may enhance curriculum development and delivery.
- 2.3. Appropriate use of ICT will be promoted in curriculum areas which traditionally have made little use of IT.
- 2.4. Curriculum areas will be encouraged to include colleagues with ICT expertise in course planning meetings so that ICT needs can be identified.

- 2.5. Curriculum areas and learning support services will provide appropriate access to ICT hardware and software for students and staff to deliver the curriculum and will notify the Deputy Director (Technology) of requirements to meet the needs identified.
- 2.6. Curriculum areas will identify experts in the applications used by that department; any Institute staff may refer to them.
- 2.7. Standardisation in ICT will be encouraged in so far as ICT enhances curriculum delivery wherever the student receives ICT across the campus.

Objectives Aim 3:

- 3.1. Information relating to relevant and current practices should be obtained through regular liaison with employers and HE. This information should influence the following objectives.
- 3.2. Wherever appropriate students will be given opportunities to develop skills by solving real ICT problems in the Institute and in the local community.
- 3.3. Wherever appropriate, students will be given the opportunity to study the social and economic implications of the use of ICT.

Objectives Aim 7:

- 7.1. ICT skills development will be addressed within the annual Institute staff development programme.
- 7.2. Recommendations will be made for staff development based on needs identified within the ISAC.
- 7.3. The Institute will seek to develop in-house expertise in all key ICT areas and to use this expertise in the training of other staff.
- 7.4. ICT training in areas for which there is a significant cross-Institute need will be co-ordinated and provided in-house.
- 7.5. Staff development should be afforded a high priority in the deployment of Institute ICT resources.
- 7.6. Access to appropriate ICT skills training will form part of the staff induction programme.
- 7.7. All Institute staff will have an opportunity to enrol on Institute ICT courses.

3.3. *The Role of Senior Management in ICT Skills Development*

The Deputy Director (Technology) has overall responsibility for corporate provision. His work is complemented by Deputy Director (Curriculum) with overall responsibility to embed ICT into the curriculum. The Deputy Director (Business Services & Development) has overall responsibility to develop new markets and to promote partnerships between the Institute and external bodies. The Institute's ILT Champion works towards identifying other ILT champions in each academic department to develop the meaningful integration of technology into the curriculum (see also section 4.4). The MIS Manager is responsible for the efficient and effective use of ICT to support administration and the Principal

Lecturer (ICT) has responsibility for learning and teaching technology resources as well as ensuring the workings of the Institute's ICT infrastructure at the main campus and in all its outreach centres. The Human Resource Manager and the Staff Development Officer have responsibility for staff development and continuing professional development, which includes ICT skills. The Library provides limited ICT support for staff and students. The ICT Strategy Group sets and coordinates initiatives and pursues the overall ICT/ILT agenda.

3.4. *Student Induction Policy*

As part of the Institute's Retention Policy a student induction policy has been developed, which includes induction to ICT. It is intended to put this policy fully into practice at the beginning of the academic year 2002-2003.

It is intended to develop an Induction Programme by the Institute/course teams to give a flavour of the Institute's student life, course content and assessment. It is intended that this induction should include some form of assessment to determine the student's suitability for the course and give an indication of the procedures thereafter. Ideally, the induction should be a combination of Institute-wide activities and activities specific to the academic department and the course. Clear details, including locations each day/part of the induction programme will be given. It should also indicate the parts of the induction where attendance is essential and optional.

As part of the induction policy students will receive

- induction to ICT and VLE services;
- a tour of buildings and resources;
- Library induction session;
- sessions by Student Services, giving information on grants, funds, assistance, etc;
- details of pastoral/personal tutors;
- issue of timetable for the year;
- details of key personnel/sections within the course, department and Institute;
- Ice-breaking activities;
- sessions on 'How to Study', budgeting, etc.

However, basic ICT skills courses that cover an introduction to a range of different software packages are not seen as appropriate, since students require different skills depending on their specific course or programme.

3.5. *Quality Assurance*

The Institute is currently implementing the Education and Training Inspectorate in Northern Ireland (DTI) quality framework "Improving Quality: Raising Standards"¹⁰, which is under-pinned by a self-evaluation process to provide evidence of quality improvement in programme design, accommodation for teaching, equipment and materials, staff self-evaluation and professional development, in teaching and learning processes, student achievement, guidance and learning support. All qualifications offered are subject to standards set out by the awarding bodies such as Edexcel, AQA, City & Guilds and OCR. Edexcel and OGLI courses are scrutinised by external verifiers who submit several reports every year. Each report is discussed by the appropriate course team, and an action plan is drawn up to deal with any concerns expressed.

In connection with this framework, colleges are facing the challenge of implementing the recommendations of the Good Friday Agreement on equal opportunities and widening access to education to all sections of the communities in the region. With regard to quality this means that the FE sector should tailor its services around the learner's needs and to provide and improve guidance and support arrangement at any stage of the learning process. The annual review of course content and the involvement of the ILT Champion in order to monitor and further the appropriate use of ICT/ILT in the learning and teaching environment are also measured to ensure that students receive a quality education from the Institute.

Recently the Institute was inspected by the Education & Training Inspectorate (ETI). The report, issued to the Institute in April, highlighted the excellent ICT infrastructure and accommodation for teaching and learning. The DEL has issued a report on the use of Centres of Excellence Funding in Colleges of Further and Higher Education. The College was involved in this survey and the report is available from <http://www.del.gov.uk/>

3.6. Strategic Approach to Teaching and Learning

Whilst the usefulness of Information Technology and ICT skills for students is clearly recognised by Senior Management and by a large number of academics, the traditional classroom based learning is still seen as a useful way of learning. Given the Institute's young student population and the large amount of school leavers enrolling at the Institute, There will continue to be a need for a fixed routine and tutor/lecture led teaching. This is also true for the Learning and Teaching at the Institute's outreach centres. However, flexible open learning system will play a role, both within full-time and part-time, on the main campus and in the outreach centres.

Some caution was expressed with regard to online learning. Whilst open, flexible and online learning is still perceived as being potentially useful to some groups of learners, the effectiveness of online learning in terms of course quality, level of support required, cost and course completion rate is seen with a certain degree of caution by senior staff members.

Although the Institute supports the use of ICT/ILT in teaching and learning as and when suitable, some Senior Management and academics still favour traditional methods to support the learner. However, ICT still plays a major role in the 'traditional' classroom. Where appropriate the Institute are introducing more flexible online practices to meet the demand.

4. CURRENT SITUATION - PRACTICE

4.1. History and Current Initiatives

In 1999 the Education and Training Inspectorate in Northern Ireland published a '*Report of a survey on the development and use of Information and Communication Technology in teaching and learning in colleges of further and higher education*'.¹¹ The objectives of the survey were to investigate the development and use of ICT in the further education sector, evaluate the range and quality of ICT provision and evaluate the effectiveness of ICT in supporting and improving the quality of teaching and learning. The survey findings revealed that ICT provision in FE in Northern Ireland was behind developments in other UK regions with workstation student ratio of an average of 8:1. The Institute, like many other colleges throughout the region, suffered from the absence of investment into the IT infrastructure during the 1990s. In addition, because of the way the funding formula operates in Northern Ireland, FE colleges do not receive funding for online tuition. Consequently, ICT skills provision was not well developed within the Institute in the past. However, major investment and the revising of the ICT Strategy has put the Institute into a transitional stage that is beginning to bear fruit and will continue to transform ICT skills provision within the Institute.

4.2. Student ICT Induction

Student ICT induction is offered during week 1, but is currently not compulsory and not well-publicised; it covers the basics such as how to log-on, use email, Intranet and Internet facilities. Currently for more systematic and extensive induction, students are referred to their academic department, where the level of ICT skills provision is determined by the requirements by the specific course or programme. Some students, especially those studying in technology and business administrative subjects, receive a very compressive induction by their curriculum group. Others receive little or none. However, the Key Skills programme has enabled learners in traditionally non-IT subjects, such as construction plumbing and other trades to begin benefiting from specialised CAT packages during training. ICT facilities and self-teach online learning materials are available to all students throughout the Institute dedicated labs. Substantial improvements are planned for the forthcoming academic year to offer all students a 2-hour generic ICT induction using BlackBoard (see chapter 5).

With regard to the use of email and internet, all students and staff are made aware the policy about acceptable use of these facilities. The purpose of these regulations is to make users aware of their duty to use the North West Institute computer resources responsibly, professionally, ethically and lawfully.¹² Currently, students using Hotmail and/or other free web-based email services, have given cause for concern to IT and Senior Managers due to regular misuse of these facilities. The new induction programme is intended to make students more aware of legal issues and the appropriate use of ICT.

4.3. Infrastructure and ICT Funding

In 2000-2001 heavy investment into the ICT infrastructure took place with the current year being seen as consolidating this investment. The focus in following academic year 2002-2003 will be that basic ICT skills training for students can take place in more coordinated and wide spread fashion within the Institute.

The current ratio of students to computers 5:1 with staff ratio being at 3:1. Currently improvements to offer more open access to ICT/ILT are underway with a new Learning Resource Centre with over 100 workstations in the process of becoming fully operational. An additional staff area with 15 workstation is adjacent to this new centre allowing improved staff training and open access provision especially for part-time staff. Classrooms have typically 10 – 15 PCs. Network Services are maintaining over 45 IT labs with over 1350 PCs and 50 Macs for student use. Most workstations operate on Windows and Office 2000 suites.

The communications infrastructure covers 100% of ICT labs on all sites and connects over 99% of computers. 97% of all ICT equipment has been replaced over the last three years. Measures have been put in place to regularly replace and upgrade the ICT infrastructure.

The Institute now has a uniform ICT provision with all LANs interconnected on the one domain to facilitate roaming user Institute wide. All computers connected to the LAN have access to the Microsoft Office 2000 suite of software and MS Outlook and IE 5.5.

The Institute intends to make ICT an integral part of all course provision. This has required a substantial investment both initially over the 1999-2002 period and for renewal thereafter. The spending over these financial years is summarised as follows:

	1999-2000	2000-2001	2001-2002
NWIFHE Contribution	£170,000	£299,000	£220,000
DHFETE ICT Staff Development	£52,200	£43,000	£51,300
DHFETE ICT Infrastructure	£163,000	£321,000	£242,600
DHFETE ICT Curriculum	£4,500	£4,500	£2,550

In addition funding was made available from DHFETE for networking.

The FE Networking Working Group liaised closely with colleges and the two Northern Irish universities (Queens University and University of Ulster) and a proposal was submitted to DEL to establish a Northern Ireland MAN. In cooperation with UKERNA it is now intended to enlarge this network into the Republic of Ireland.

4.4. Curriculum Planning and Integration of ICT to Teaching and Learning

On the route to improving student ICT skills provision the following objectives have already been achieved and will play an important part in driving the ICT agenda within the Institute and in each academic curriculum department:

- appointment of a Deputy Director who has corporate responsibility for ICT;
- appointment of a Principal Lecturer with responsibility for ICT;
- appointment of a Network Services and Support Manager;
- preparing to appoint ICT champions in each curriculum area;
- The Institute has undertaken an ICT Skills Audit of academic staff and has based the provision of Levels 2, 3 and 4 Staff Development on the results obtained from this audit. Further details of the Staff Development programme are outlined later in section 4.6. of this document.
- The Institute has established a Resource Based Learning Centre to support teaching and learning;

- The Institute is currently piloting a number of Virtual Learning Environments eg Virtual Campus, BlackBoard, Cisco, etc.
- The Institute has in excess of 1350 Internet and Email access points. All staff have Email addresses;
- The Institute has connected all outreach centres with the main campus at Strand Road via LAN 2 Mb leased lines;
- The Institute has started to make provision to support students with learning difficulties and disabilities.
- The Institute has developed a drop in staff development lab staffed by appropriately qualified personnel.

The chosen mechanism to embed ICT into the curriculum is through the ILT Champions Programme. The programme is in the process of identifying staff at both management and curriculum delivery level who are charged with a role and responsibility of ‘championship’ the use of ILT within the Institute. The programme builds on the work already initiated, such as the various curriculum development projects, which have been exploring the use of ILT and the use of VLEs. The programme also provides lecturers with an opportunity to apply the skills and knowledge that they have acquired as part of their staff development process as well as advancing their existing skills. In all this the ILT Working Group has a coordinative role to play.

4.5. Nature of ICT Skills Provision for Students

Besides basic **ICT induction** as part of a specific course induction provided by the academic departments, learners are able to receive additional ICT skills training in their academic departments, the **community outreach centres**, as part of the Institute’s **online learning** provision, at the **Business Learning Centre**, as part of **Key Skills** and in the **Library**.

a. Embedded ICT skills provision within academic teaching departments

The level of provision varies according to course requirements that are set by the Qualifications Authority and other Award Bodies such as Edexcel, AQA, City&Guilds, and OCR. The Institute is committed to embed ICT into the curriculum and to encourage the use of ICT in teaching and learning when appropriate. However, it is also seen as good practice to exercise caution of the use of ICT. Traditional teaching and learning methods are still seen as appropriate and beneficial in delivering a quality teaching and learning experience.

b. ICT provision in the community outreach centres

A large number of learners wish to study in their community and not at the main campus in Derry City. The Institute supports its outreach centres, of which some of them are over 30 miles away from the main campus, by having radically improved the ICT infrastructure, the organisation and staffing of these centres. Apart from programmes such as engineering and construction, which require additional equipment, many courses can be delivered at these centres.

The outreach centres at Market Square Strabane and Shantallow for example are located within a shopping centre and are in effect small campuses with state-of-the-art ICT

equipment. Very popular courses include ECDL, MOUS and Foundation Skills and Key Skills courses, which also include a basic IT training.

It should be noted that currently the progress to embed ICT/ILT into the curriculum are most successful in traditionally non-IT based subjects, such as construction, plumbing, hairdressing and tourism. The key skills provision programme is seen as practically useful to allow the learner to make use of more advanced specialised software, which students would not be able to use without basic IT competencies.

c. Online Learning

Because of the absence of support for online learning by the DEL, colleges had little incentive to invest into online learning in the past. This area was left to enthusiasts and those who often had very little resources to promote online learning. At strategic and practical levels all parties concerned within the institute understand the potential use of online learning. However caution and a sense of realism is needed in order not to cut corners and leave students with a cost-effective but adequate level of provision than previously offered through more traditional teaching methods.

The Institute has taken the first steps to provide online access for remote learners by establishing secure access via a professionally built-firewall. Plans to make this operational for the academic year 2002-2003 are well advanced. At the outreach community centres and within the main campus a number of labs offer online learning packages, maintained by NETg, Blackboard, FENC,¹³ Virtual Campus, learndirect and Training Direct. The Institute is currently piloting two VLEs, Virtual Campus and BlackBoard.

The Institute currently has 75 NETg programmes to provide online support for existing 'traditional' courses and it also offers ECDL as an online course.

In addition the Institute have purchased the NLO+ Customisation tool kit, to allow customisation of NETg online training materials and to tailor these products more to the needs of the customer. NETg and BlackBoard are also converging systems, which will allow more effective progress on tracking of an online learner. Currently too few staff are aware of these facilities, but awareness raising and training will continue to improve. It is hoped that online learning will particularly attract small/medium size business clients and increase the amount of advanced courses. Over the last year the ECDL, has been particularly successful with over 1600 learners completing this course at the main campus and community outreach centres. The provision for ECDL testing in outreach centres and the substantial improvements in network capability will help the Institute offer reliable and quality led online training services. It is also hoped that the positive learning experience by the learner will motivate them to enrol for further courses, apply for a substantive programmes at the main campus or progress to higher education. The Institute continues to use NETg training material and occasionally other outside agencies. The Institute's website also has links to BBC Learning, Learning Alive, Lifelong Learning and RSCni learning resources, under constant redevelopment.

d. Business Learning Centre

A considerable amount of ICT skills training also takes place in collaboration with the **Business Learning Centre**, which was opened as part of the new PFI funded Northland complex, (the first Educational PFI of its kind in the UK). Due to the nature of the business environment in and around the North West with many diverse small to medium

size businesses, the identification of specific training needs was previously largely left to the organisations. However, the Institute supports its clients by offering comprehensive training needs analyses, advice and guidance on how to develop staff development provision. A team of training experts works in collaboration with the clients from needs analysis to course design and delivery.

With regard to ICT skills training the following courses are offered by the Institute: European Computer Driving Licence (ECDL), Microsoft Certified Programmes, Sage Accounting, Sage Payroll, Autocad, Mous, Cisco Courses, Programming Languages, Internet and Email at Introductory and Advanced level, Introduction to Web Page Design, Website Design, E-business and Mentoring and Computer Maintenance, along with the traditional Microsoft office programmes.

The Institute is currently the only academic educational establishment in Northern Ireland with Microsoft Authorised Academy training provider status. The Institute also has the status of a Cisco Local Academy

e. Learners are also offered **Key Skills** as part of their programme of study.

Key Skills are mainly aimed at school leavers and young learners. 16 to 19 years old learners can achieve a nationally recognised Key Skills, Level 1, 2, and 3, which is regulated and accredited by Edexcel. It is automatically added to all 16 - 19 years students' programmes for whom it is mandatory. 19+ or fast track A-level students do not have to do Key Skills. This qualification is recognised by employers and is seen as an aid to university entrance. Besides communication and numeracy modules, Key Skills includes information technology. The level of ICT skills that students need to complete is determined by the academic departments. Practical tasks involve word processing, spreadsheets, desktop publishing Internet and email. The course is offered in both paper based and online media. The Institute, via its Virtual Campus VLE, offers Key Skills as an interactive and multimedia online training course. Over 1000 students have enrolled into key skills last year, but the drop-out rate from this course is very high with over 60%. Measures to retain students and to encourage them to complete the course are currently being discussed amongst staff. The technical improvement especially with regard to access speed and server crashes is currently being addressed. It is also hoped to achieve a higher completion rate from the coming year when students receive an online "skills-scan" to put them on the appropriate level Key Skills (beginner, post beginner and intermediate). By doing so it is hoped that existing skills are better taken into account so that students find the course more challenging or not too demanding. The Institute and Queens University Belfast are currently collaborating on their experience with "needs analysis" for their student induction programme.

f. The **Library** also offers some ICT skill provision for students.

Paper based and online resources help the student to understand some basic concepts in information literacy, support students in completing course work and provide access to information and communications technology resources through the use of the Internet. It is hoped the proposed merger of the two libraries at the main campus from 2002-03 will not have any negative impact on available study space. It was also pointed out that information literacy provision requires more support and attention in the future.

4.6. Staff ICT Training

Since 1999, the Institute has aimed to encourage the cross fertilisation of good ICT practice between curriculum areas by mixing staff from various vocational areas for Staff Development training. The Institute is also a participant in the DLE ICT Curriculum project and various other curriculum initiatives.

A comprehensive ICT skills training scheme, *Diploma in ICT for Teachers and Trainers* at Level 2 NIOCN; Level 3 Certificate in Teaching and Learning OCR; Level 4 Diploma in ICT Teaching and Learning OCR, is coming to completion in September 2002. Specific funding by the DEL was provided to support staff ICT skills competency and training. After 2 ½ years, almost 80% of all academic staff have completed the diploma at the Institute with a high percentage of staff completing level 3 or 4 successfully.

In close cooperation with Student Services, the Staff Development Services offers training in Teaching and Learning Resources. This includes online/ICT resources, training on Curriculum 2000 and National Framework Qualification issues, widening access and participation, individual student learning agreements, supporting students with learning difficulties and/or disabilities, Key Skills training and support, Virtual Learning Environments, short courses for occupational competence and the PGCFHE. In-service training days are available every six months and are organised to address staff development.

Since the importance of online tutor support is recognised by the Institute, future pay/promotion schemes will be linked to the successful completions of qualifications. A considerable amount of staff are interested in taking online tutor qualifications. Over 70 staff members have applied for LeTTOL course developed by the South Yorkshire Further Education Consortium (SYFEC), a collaboration between eight FE colleges in South Yorkshire.¹⁴

At dedicated workshops staff are also encouraged and helped to place learning material on the Intranet and to use ICT/ILT in their teaching. However, many staff members are still sceptical about placing their course notes online and fear that their position could become redundant or their work could be criticised by senior management. The ILT Champion and the Staff Development Manager are currently aiming to ease this scepticism. For example, a workshop took place at the end of May 2002 to encourage the use of ICT/ILT in the classroom. This event included awareness raising, practical tasks of how to complete a lessons plan and to use online resources for improving course content.

4.7. Network Support, Website and Publicity

For the extensive ICT network to assist learning and teaching effectively, it is a priority for the Institute to maintain and upgrade this infrastructure regularly to the highest professional standards. A team of 8 technicians provide telephone and hands-on support to fix any technical problem that staff are encountering. Calls are usually attended to within 24 hours and the good response rate to technical queries has been generally praised by academic staff.

Besides a wide range of paper based publicity, which is available at the main campus, at the community outreach centres and elsewhere, the Institute promotes its services through its website www.nwifhe.ac.uk

In the past the site was maintained by a (part-time) lecturer. The need for a more systematic approach in order to market the Institute's services more effectively was

recognised by the senior management and a web developer was appointed in September 2001. At present the website is undergoing redesign and development. The site now promotes and presents the NWIFHE services more clearly and in a more consistent way than previously. Besides offering general information about the Institute, course listings and contacts etc., news and staff bulletins, information on short courses and recent initiatives are being made available.



Fig 3. The NWIFHE Website

5. EMERGING DIRECTIONS

1. The Institute's Senior Management has recognised the importance of ICT skills provision for its students by incorporating ICT into its Development Plan. Moreover it can be expected that the newly formed ICT Strategy Group with its four constituent working groups will drive the ICT agenda. Although ICT is already present in the curricula of many courses and programmes, the use of ICT and VLE facilities in some departments put pressure on other academic staff to use ICT as part of their course delivery. After a period of heavy investment into the ICT infrastructure, and the current academic year consolidating the new situation, senior management are optimistic that the structures put in place will fully come to fruition in 2002-2003. The systematic and cautious approach toward ICT/ILT in the curriculum indicate a clear commitment to modern technology in teaching and learning whilst traditional methods and delivery modes are still pursued as useful.

2. The implementation of the draft ICT Strategy 2002-2005 will also reshape student ICT induction. Whilst it is not intended to offer generic ICT induction courses to all students regardless of their programme of study, all students will receive a two-hour induction to BlackBoard from August/September 2002. The session is intended to help students locate online resources, study support facilities and course materials. Students will be issued with email and network login user names and will be asked to agree with the terms of ICT policy of appropriate use of Email, Internet, discussion board and printing. The new short Blackboard induction course, an improved Key Skills pre-course needs analysis will help to improve basic ICT competency amongst all full-time learners.

3. Staff ICT skills training provision has already been very successful and is well advanced. The systematic approach taken by the Staff Development Manager will continue to pursue a close link between staff training and student needs in teaching and learning. This is bound to benefit the learner greatly and will help to overcome the scepticism that many staff still have when asked to offer their course notes online.

4. A new part-time programme in Science and Technology will be offered from 2002-2003, which is designed to improve employment prospects and enable students to proceed to further studies in technology such as Higher National Diploma/Certificate programmes. The course is suitable for those over 18 years of age who have studied Mathematics and Science to GCSE level (or equivalent). The course is also free of charge. It is expected that the variety of courses encompassing ICT skills will increase, but that the level of skills required of students to use them will become more specialised. The new Learning Resource Centre and state-of-the-art facilities throughout the Institute and its outreach centres will allow for more specialised online training courses that will meet new market demands.

5. The discussion about the Institute's choice for a campus wide VLE is still ongoing. The use this VLE will be left to departments, but it is intended to either support or deliver 30% of all Institute courses by year 2005 through this VLE. The VLE will provide the cornerstone for the future development and delivery of learning materials within the full-time, part-time and online learning provision. The increased use of video-conferencing will also help to enhance the learning experience. For such plans to be successful, additional staff to support the delivery of online learning need to be sourced and additional

funding be made available by the DEL. In addition senior management recognise that if quality online learning provision is to be successful, the funding formula will have to change in order to support part-time online learners.

6. The Institute has also made a clear commitment to continue pursuing traditional tutor-led classroom teaching complemented by more workshops to encourage independent and collegial student learning. Especially young students will always need the direct face-to-face learning support. Because of the variety of courses offered and the different nature of provision, it is expected that ICT skills training, apart from a basic induction, will continue to be developed within the academic departments and curriculum groups.

CONCLUSION

It is clear that the Institute is taking a systematic approach in all areas of ICT services and ICT skills for students and staff. The pursuit of online learning and flexible and open learning will develop progressively in order to address the needs of students and the wider learning community. It is intended to embed ICT into the curricula in a 'sensible' fashion.

Continuous efforts are clearly visible to promote the ICT message to staff. The successful appointment of ILT champions, and the continuous quality technical support for the ICT infrastructure will drive the ICT agenda within the Institute in the future. Translating strategic plans into reality will require continuous effort from all those driving the process. Especially designated ICT facilities for disabled students and students with special educational needs will help to improve the inclusiveness and equal opportunity agenda, which the Institute aims to pursue.

The Institute realises that it has a very important part to play in improving students skills, competencies, self-worth and positive outlook on life choices especially for the young learner. Ultimately, the framework for the Institute's successful workings are going to be continuous political stability and the succeeding of the peace process in Northern Ireland.

RESOURCES, BIBLIOGRAPHY AND NOTES

¹ Overview of Current Development in Further Education © CITSCAPES Project 2002 See www.citscapes.ac.uk

² See College Development Plan 2001-2004 pp. 6-7.

³ See the main recommendations of the Moser Report

<http://www.lifelonglearning.co.uk/mosergroup/index.htm>

⁴ See Northern Ireland Economic Council http://www.niec.org.uk/recent_publications.html

⁵ See Development Plan 2001-2004 p. 12.

⁶ See NWIFHE Annual Report 2000-2001 p. 10.

⁷ See NWIFHE Annual Report 2000-2001 p. 14.

⁸ Institute Draft ICT Strategy 2002-2004

⁹ NWIFHE ICT Policy 1998/99.

¹⁰ See www.deni.gov.uk/inspection_services/iq2001/iq2001.pdf

¹¹ See Overview of Current Development in Further Education © CITSCAPES Project 2002 pp. 33-34 also available at www.citscapes.ac.uk This report is available at http://www.deni.gov.uk/inspection_services/surveys/

¹² The policy has the objective to "maximise the benefits of the North West Institute's computer resources and minimise potential liability." NWIFHE Internet & Email Regulations for Acceptable Use

¹³ The FENC is a membership organisation for FE Colleges. It provides a large amount of learning resources, together with a comprehensive training and support service.

¹⁴ See also an evaluation of the LeTTOL course (<http://www.sheffcol.ac.uk/lettol/>).