E-LEARNING AS A STRATEGIC IMPERATIVE FOR UNIVERSITIES IN IRELAND
November 2004

The UK Experience of e-Learning

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Responsive providers
Learning at the heart of communities
Personalised learning
A Self-Improving System
Adult skills and social inclusion

Flexibility and choice

Productive time
Diversity of provision and providers
Learning workforce capacity
Freedom and autonomy
Shared responsibility

UNDER 5’s           PRIMARY           SECONDARY-FE         ADULT SKILLS         HE

Flexible study       Online communities of practice
Adaptive learning    Integrated online services    Online collaborative partnerships
Online access to information, advice, guidance, transactions    Economies of scale

Personalising the Learning Experience
Supporting the Learning Workforce
Integrating the e-Systems

Procurement Centre  Partnership Network  Stakeholder Groups  PSX(E)  Directgov
E-Consultations  Mandated standards  Commissioning  Roadmaps  Targets  Inspection framework

Unifying e-learning – A perspective on the 5-year strategy for education and skills

The 5-year strategy for a 21st century education system

Objectives of DfES strategies

Contributions from e-systems

Critical dependencies

Implementation mechanisms??
What does it take to build a self-improving system?

Stage 4  Whole institution, strategic leadership in use of ICT, pedagogy exploits ICT for PL
Stage 3  Most teachers, most subjects, pedagogy moving towards PL; resource planning
Stage 2  Good use of e-learning in some subjects, leaders engaged in planning
Stage 1  E-learning champions, access to broadband, PCs and e-learning content
Stage 0  No use of ICT in teaching

05-06 06-07 07-08

Broadband, laptop, IWB access; online e-learning resources; partnership networks; all leadership programmes embracing ICT; an ‘e-learning champion in every institution’

Workforce reform and leadership colleges focus on institutional maturity; ROI planning for ICT; ITT and CPD qualifications in e-learning for all; online partnerships; regional broadband consortia

Unified strategy in place to support a self-improving system: local responsibility for learning design; national repository of e-learning resources; teachers trained and accredited in e-learning; shared resources and networking support development of new pedagogies; universal access; quality of evaluation able to challenge industry to improve; career rewards for high quality innovation; leaders confident in planning sustainable ICT

Transferable e-portfolios
Learners enabled
Study contracts
Adaptive materials
Cross-sector access
Seamless environments
The most difficult topics conquered
More efficient ICT
Engaged communities
....
The Vision: E-learning personalises the learner's journey ~

- Online needs analysis links qualifications to jobs
- Access to information and guidance
- Assessment on demand
- Formative feedback
- Progress files and e-portfolios

Where will it get me?

- Adaptive, interactive learning environments
- Adapting to learning style and pace
- Personalised feedback and support
- Partnerships offering flexible courses, modes, locations and patterns of study
- Curriculum choice through partnerships
- Provider flexibility and online support
- Online registration and funding transactions

How do we know I’ve learned?

- Assessment on demand
- Formative feedback
- Progress files and e-portfolios

How will I learn?

- Adaptive, interactive learning environments
- Adapting to learning style and pace
- Personalised feedback and support

How could I study?

What can I learn?

- Personalised diagnostics
- Links to informal learning opportunities
- Access to advice and guidance

Why should I learn?

- Personalised diagnostics
- Links to informal learning opportunities
- Access to advice and guidance

~ at
- Early years
- School
- Adult skills
- HE
Proposed priorities for delivering the unified e-learning strategy

Personalising the Learning Experience

**Pedagogy:** Exploit the potential quality of adaptive e-learning via commissioning
**Assessment:** Agree programme for e-assessment, diagnostics
**Inspection:** Drive self-improvement through a ‘maturity model’ for institutions
**Support:** Mentoring schemes for learners through collaboration
**Quality standards:** Promote best pedagogy, support R&D, challenge industry

Supporting the Learning Workforce

**Leadership:** Help leaders link ICT investment to strategic objectives
   - Provide the self-diagnostic models, management tools and support services to promote efficient use of e-learning
**Staff development:** Give teachers the training, tools and time for e-learning
**Career development:** Create reward systems for e-learning champions

Integrating the e-Systems

**Sharing resources:** Agree universal broadband internet access
   - Agree roadmap for interoperability
**Build a thriving market:** Define a common learning architecture
   - Develop and mandate interoperability standards
   - Establish the centralised procurement framework
**Unifying learner support:** Agree the common data set, unique learner record, data warehousing, unified systems for delivery
What do we mean by “Personalising the learning experience”? From presentational designs (electronic books), which under-exploit the technology…

Presentational material, with multiple choice as feedback (HMT-funded materials)

… to interactive, independent learning with formative feedback

Individual teaching to rehearse progressively more complex procedures with feedback

Virtual learning environment for supported practice of skills – e.g. safety at work

Creative tool for learners to control their engagement with e.g. drama

But if this is such a harmful mutation, why is this gene so common in people of African origin? People who have inherited a single copy of the abnormal
What do we mean by “Supporting the learning workforce through achieving economies of scale”? From aggregated form and content (packages) which restrict teacher innovation…

Individual teaching to rehearse progressively more complex procedures with feedback

… to disaggregated tools and assets - teachers can share, improve, innovate and exchange, building the pedagogical knowledge base

Creative tool for learners to control their engagement with e.g. drama

A concept-generation exercise for art history

The same format re-used for chemistry

Modernistic

Links to other students’ ideas, and to experts’ categories

Burn easily
What do we mean by “Integrating the e-systems”?

Learner data is transferred between institutions, supporting smooth transitions from primary to secondary to college.

Interoperable systems enable schools/colleges to collaborate in support of the 14-19 strategy.

Institutions personalise online information, linking learning and teaching activities to student records.

Teachers can drop material from public libraries into their own lesson-planning system.

Coordinated websites within the Learning Franchise create a seamless information and transactional environment for learners.

Learners (or parents) can access online resources, peer interaction, and support, from home or work.
## Moving towards a Unified e-Learning Strategy…

<table>
<thead>
<tr>
<th>Current Practice</th>
<th>Ideal Practice</th>
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<tbody>
<tr>
<td>Innovation led by enthusiasts only</td>
<td>Strategic innovation led by institutional leaders</td>
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<tr>
<td>External funding for hardware provision</td>
<td>Sustainable provision linked to strategic aims</td>
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<td>Variable access and usage by institution</td>
<td>Universal access and embedded use in all institutions</td>
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<tr>
<td>Fragmented, sector-based e-learning practice</td>
<td>System-wide approach to strategic actions</td>
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<td>Topic-based content with limited activities</td>
<td>Adaptive activities supporting learners’ individual needs</td>
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<td>Minimal involvement of teachers in design</td>
<td>Generic design tools to engage all teachers</td>
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<td>Teaching as a skill learned once</td>
<td>Teaching as a professional, innovative activity</td>
</tr>
<tr>
<td>Ass’t of traditional skills and knowledge only</td>
<td>Inclusion of e-enabled learning skills and application</td>
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<tr>
<td>Local, sector-based standards and practices</td>
<td>Approved technical and quality standards cross-sector</td>
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<tr>
<td>Localised procurement practices</td>
<td>Central framework for ICT infrastructure services</td>
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The ‘Personalisation’ delivery chain

**NDPBs Partners**
- Funding agencies
- Content suppliers
- ICT suppliers
- Assessment and qualification framework
- Inspection criteria and standards
- Staff training

**Community/Workplace/Region**
- Multi-agency networks for information, support and communication
- Self-generating excellence across the community

**School/College etc.**
- Broader curriculum and pathways
- Deploy staff and resources to create flexibility and choice
- E-transactions and information

**Teachers**
- Assess needs and capabilities
- Match needs to repertoire of teaching strategies

**Learners**
- Needs
- Preferences
- Demands

**Critical dependencies to be addressed by the Strategy**
- Joined-up funding
- E-Government and interoperable systems
- Standards (T, Q, A)
- Assessment reform
- Inspection reform
- Staff development

- Broadband connectivity
- Universal access
- ULN
- E-portfolios

- Centralised procurement
- Shareable tools and resources
- Online
- Online communities

- Online diagnostics
- Formative e-assessment
- MIS/VLE systems
- Adaptive learning
- Interactive learning and collaboration
Critical uncertainties facing e-learning → the Edinburgh Scenarios

Acceptance and adoption of technology in society

High acceptance
Widespread adoption
Technology empowers
Aligns with human needs
Driven by society

Partial acceptance
Patchy adoption
Technology frustrates
Runs counter to needs
Driven by technology

Sources of power, influence and new ideas

Conventional
Institutionalized
Centralized
Established

Self-organized
Diffused
Decentralized
Emergent

Source: eLearn International, 2004
Combining the uncertainties gives us the following matrix...

Source: eLearn International, 2004
Technology empowers

‘The Edinburgh Scenarios’ – the story so far…

Towards the Web of Confidence

The Unified E-Learning Strategy

Conventional to Self-organised

Technology frustrates

... can we accelerate progress?
Technology empowers

Brakes and Drivers - what are they?

Towards the Web of Confidence

ICT industry
Consumer demand
Employer needs

Government devolves - an adaptive state
Teachers professionalised
Learner demand

Lack of trust
Fear of risk
Assessment

Institutional costs
Lack of leadership
Under-developed teaching workforce
No standards, poor content

Self-organised

Technology frustrates

Conventional

Technology empowers
Technology empowers

Brakes and Drivers - how are we progressing?

Towards the Web of Confidence

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Technology frustrates

Self-organised

Conventional
Technology empowers

If we reduce the brakes...

- Institutional costs
- Lack of leadership
- Under-developed teaching workforce
- No standards, poor content

- Lack of trust
- Fear of risk
- Assessment

Conventional

ICT industry
Consumer demand
Employer needs

Self-organised

Government devolves - an adaptive state
 Teachers professionalised
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Technology frustrates

Institutional costs
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Towards the Web of Confidence
Technology empowers

If we reduce the brakes... and make them drivers...

Towards the Web of Confidence

Leadership for sustainability
Standards, reusable content

Government devolves - an adaptive state
Teachers professionalised
Learner demand

Shared risk
Assessment reform

Conventional

Self-organised

ICT industry
Consumer demand
Employer needs

Lack of trust
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Assessment

Institutional costs
Lack of leadership
Under-developed teaching workforce
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Technology frustrates

- then we can accelerate progress
For a **Unified e-Learning Strategy**
Government must play its part in ~

Leading sustainable universal e-learning
Giving teachers design tools and networks to innovate
Making the education workforce e-learning proficient
Unifying learner support through joined-up systems
Modernised assessment – content, criteria, methods
Building a better e-learning market
Standards for shareable, quality content
Towards a Unified e-Learning Strategy
Consultation exercise and Responses
www.dfes.gov.uk/elearningstrategy

Diana Laurillard
Head, e-Learning Strategy Unit
The contribution of e-learning to the EARLY learner’s journey

Why should my child need to learn?

What can I/my child learn?

How could my child study?

Support for transition between phases

Where will it get them?

Multi-agency support via online collaboration

Internet links to study at home

Interactive learning environments

Adapting to learning style and pace

Assessment data as feedback on progress

Diagnostics for learning disabilities

How will my child learn?

Broad curriculum to engage learner interest

Linking early skills to adult basic skills

How do we know they’ve learned?

Support for transition between phases

Diagnostics for learning disabilities

Online access to information on learning opportunities

Access to advice and guidance on parenting

Personalised needs-benefits analysis for carers
The contribution of e-learning to the SCHOOL learner's journey

Why should I learn?
- Personalised needs-benefits analysis for qualifications - jobs
- Online access to information on learning opportunities
- Hyperlinks from interests to informal to formal learning

What can I learn?
- Virtual environments extend the classroom into the field or the workplace
- More independent study, online collaboration, video-conferencing
- Broad curriculum to engage learner interest

How could I study?
- Interactive learning environments
- adapatting to learning style and pace
- Active, creative learning tasks
- More independent study, online collaboration, video-conferencing
- Internet links to study at home

How will I learn?
- Assessment data used as formative feedback on progress

How do we know I’ve learned?
- Support for transition within 14-19

Where will it get me?
- Internet links to study at home
- Personalised needs-benefits analysis for qualifications - jobs
- Online access to information on learning opportunities
- Hyperlinks from interests to informal to formal learning
The contribution of e-learning to the ADULT learner’s journey

Why should I learn?

Online job-hunting
Personalised needs analysis
E-portfolios assist transition

What can I learn?

Online assessment on-demand, linked to units of just-in-time learning

How could I study?

Motivating skill-learning environments adapting to learner’s style and pace
Flexible study support via online access and collaboration
Internet links to study at home/work
Partnerships offering personalised skills curriculum to engage learner interest

How will I learn?

How do we know I’ve learned?

Where will it get me?

Personalised needs-benefits analysis for qualifications - jobs
Online sites linking employer demand to learning opportunities
Self-administered diagnostic tests on basic skills
The Vision: E-learning personalises the learner's journey ~

- Online needs analysis links qualifications to jobs
- Access to information and guidance

Why should I learn?
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What can I learn?

How could I study?
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How will I learn?
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The e-learning offer to learners: the Learner’s Community

- an ‘end-to-end’ interactive transactional system to take the learner from sceptical enquiry to fulfilment
- powered by the joined-up databases and information systems provided by DirectGov
- populated by learning and accreditation providers who offer e-learning products and services alongside traditional formats
- online learning materials, online assessment, access to other learners, mentors, tutors and experts

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