Overview

1. Introduction
2. What is e-learning?
3. Why use ICTs for teaching/learning?
4. Meeting the needs of the workforce
5. New business models for HE
6. Conclusions

What is e-learning?

My definition:
all computer and
Internet-based
activities that support
teaching and learning
- both on-campus and
at a distance
What is e-learning? (Bates, 2005)

- face-to-face
- no e-learning
- class-room aids
- lap-top programs
- blended learning
- mixed mode (less face-to-face + e-learning)
- distributed learning
- distance education
- fully e-learning

Current proportion of different types of e-learning in North America + Europe (2005)

- 68% Classroom aids
- 7% Lab/laptop classes
- 24% Mixed mode
- 1% Fully distance

Sources: WebCT, 2003
OECD, 2005

Making choices

For any program:
Where on the continuum of e-learning should this program be?
Should this continuum reflect course sections or students?
Who should make this decision?
To answer these questions, we must look at the reasons for e-learning

2. Why use ICTs in higher education?
Why use ICTs in higher education?

1. Access/distance
2. Access/flexibility
3. Quality
4. Productivity
5. Market positioning

Access: distance

Not strong rationale for Denmark except:
- specialized subjects not available locally
- poor quality of local provision
e.g. distributed learning in B.C. school system

Access: flexibility

UBC: 83% DE students live <1 hour from campus
Shift of time/location away from campus
- full-time students working part time (countries with high tuition fees)
- part-time students (18-27)
- older lifelong learners (27+)

Quality

Jury still out
Depends on:
- learners (readiness/independence)
- subject matter
- pedagogy used
- quality standards: design, professional web support, etc
- major course re-design
Productivity

- e.g. simulations for problem-solving;
- integration of academic and administrative services (UBC)
- More administrative than academic
- Same conditions as quality +
  - strategic investment in ICTs
  - major institutional re-organization

Market positioning

- To differentiate from other HE providers (same market e.g. Tec de Monterrey)
- To attract new or un-served markets
- E-learning not attractive as ‘core’ function of prestigious research universities
- More attractive to lower status institutions for ‘positioning’

3. Meeting the needs of the workforce

Different economies

- Resource-based: agricultural, mining, fishing: land/sea-based, local
- Industrial: manufacturing: urban, factories, hierarchical, economies of scale, specialist skills
- Knowledge-based: financial, biotechnology, ICTs, telecoms, entertainment: ‘virtual’, global, networked, multi-skilled
- All three economies in parallel
Shifting economy

<table>
<thead>
<tr>
<th>Year</th>
<th>Goods</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

% share of Canadian industrial employment

Source: Globe and Mail, 27 April 2006, B9

Skills of knowledge-based workers

- problem solving, critical thinking
- communication skills
- computing/Internet skills
- independent learners
- entrepreneurial, initiative
- flexibility/adaptability
- team-work/networking

AS WELL AS subject expertise

Lifelong knowledge workers: a major new market

NOT the same market as folkeskole
Graduates in workforce who need professional up-dating: essential for economic survival
3 months training over five years
In Canada, nos. = univ. entrants from school
They need access to latest research
They do NOT want traditional offers

Lifelong knowledge workers: a new market?

Denmark demographics

<table>
<thead>
<tr>
<th>Age-group</th>
<th>1990</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-24</td>
<td>12.2%</td>
<td>8.8%</td>
</tr>
<tr>
<td>25-66</td>
<td>54.2%</td>
<td>53.8%</td>
</tr>
<tr>
<td>67-79</td>
<td>10.0%</td>
<td>12.3%</td>
</tr>
</tbody>
</table>

Source: Denmark Statistical Office
Average age of full-time students: 25
Completion rate: 45%
Profile of lifelong learners

Graduates (already state-subsidized)
Working, often with a family
Maximum study time per week: 10 hrs,
Strong life/work experience, specialist
knowledge
‘Virtual’ learning essential, from
home/work
Learners/employers willing/able to pay

New programs for lifelong learners

Modules, certificates, industry
accreditation leading to masters
Inter-disciplinary, ‘topic-based’
New knowledge since they graduated
Flexibly delivered:
- Part-time (evenings/weekends/half-days)
- Blended (campus + online)
- Fully distant (home or workplace)

The need for new business models

All citizens should have chance of a
state-funded higher education
Universities designed mainly for
young full-time, campus-based
students: still this need
Graduates need to go on learning
Professors don’t want more teaching
New models of funding needed
The big myth: e-learning will make money and globalize the market

Late 1990’s: e-learning frenzy
e-learning for profit; global markets
Many for-profit initiatives failed (e.g. New York University, Temple University, FATHOM, Open University in USA)
US$20 million lost on average

Where e-learning has succeeded (cont.)

Profit in niche markets, e.g.
University of Phoenix Online: 26,000 students, vocational
corporate e-learning
MBAs (Queens, Athabasca, Canada)
Continuing professional degrees
A (limited) option for regular students
Focus on knowledge-worker market

Where e-learning has succeeded

Masters in Educational Technology
(for teachers - school or HE)
University of British Columbia (public)
fully online; international
certificates + master
4 ‘core’ courses + 6 electives from 12
Where e-learning has succeeded (cont.)

UBC Masters in Educational Technology

certificates since 1996: masters opened 2002
80 students a year: 250 graduates (2007)
fee: 675 euro per course, 6750 in total
program financed as a loan
new research faculty funded from program: full costs recovered

Where e-learning has succeeded (cont.)

Students choose known brands:
e.g. UBC’s MET degree
UBC on-campus students: 20%
rest of province: 24%
rest of Canada: 23%
international (31 countries): 33%

Where e-learning has succeeded (cont.)

Lessons:
different financial strategies for different markets
economies of scale are important
• high development costs
• lower delivery costs
quality matters
• new designs to exploit e-learning

Where e-learning has succeeded (cont.)

Lessons (cont.)
students want the real thing: don’t exclude the star professors from online programs (but protect them)
integrity matters: don’t dilute brand
cost-effectiveness matters: project management + quality assurance
institutional collaboration is difficult
Developing a business model for continuing education programs

Develop a business plan
• revenues as well as costs
• project management
• track, allocate and project costs (including time) over several years
• identify risks and options
• evaluate after five years

What’s in a business plan/budget?

Depends on institutional methods
Best strategy: 5 - 7 year budget plan
Key assumptions:
• academic and support staff time
• enrolments per course/semester
• student-teacher ratios

What’s in a business plan/budget?

Revenues:
• allocated resources (staff time) expressed as cash (could be government grant)
• tuition fees
• special grants (e.g. for development)
• loans/other (sponsorship, alumni)

Expenditures (fixed):
• prior planning
• programme co-ordinator
• production costs
  - academic + support staff time
  - media production
• course maintenance (15-25%)
• LMS maintenance
What's in a business plan/budget?

Expenditures: variable costs
- LMS licence fees
- delivery: professors + tutors time
- materials
- student administration
- interest/capital repayment (if loan)

Balancing the budget

Calculating the ‘break-even’ point between revenues and expenditures (over six years):
Break-even when revenue = expenditure
Fee = expenditures (- grants)/no. of students over length of programme
Margin for safety (15%)
Useful even for 100% grant-funded

Possible strategy

- undergraduate degree: mainly on-campus (blended); a few courses fully online in last year; govt-funded
- ‘traditional’ masters/Ph.D.s: on campus; blended; govt-funded
- graduate education for knowledge-based workers: online; self-financing; modules, certificates, masters

Focused e-learning

e-learning a tool, not a panacea
need to identify where it will bring most benefit
depends on type of students, nature of topic
program teams to develop vision of teaching/learning + role of e-learning that drives funding
Determining the role of e-learning (at the academic dept. level)

What new markets can we serve?
What new programmes do we need?
Where on the continuum of e-learning should this programme be?
How will e-learning change the way we teach?
What support do we need for quality e-learning?

The rationale for e-learning

E-learning supports the development of skills needed in knowledge-based societies, e.g. how to seek, organize, analyze and apply information
Using technology for learning prepares students for knowledge-based work
E-learning is particularly good for lifelong learning

Further information

Bates, A.W. (2005) Technology, e-Learning and Distance Education
London: Routledge