Educational Outcomes and Networked Learning

UCISA TLIG/SDG User Support Conference 2006
Enhancing the Customer Experience in a Changing World

Paul Grist, Solutions Engineering
Blackboard International
July 2006

Conference Objectives

- How do we put customer experience at the heart of everything we do?
- How should we organise ourselves and our services to ensure we do this?
- How will technological developments and the rapidly changing environment of higher education affect the customer experience?
- What will the learning and teaching environment of the future look like?
- How will increasing student expectations impact the type and way we deliver services?

Plenary Objective

- The networked learning environment is a key strand of institutional approaches to improving educational outcomes and the student experience. From the vision of a networked learning environment, through current industry trends and research, to the pragmatics of delivering on e-learning 2.0, this presentation will look at the opportunities and challenges around designing and implementing infrastructures for social networks, active learning, outcomes management, and technology extension
Agenda
1. The Industry Context for Networked Learning
2. Networked Learning & e-Learning 2.0
3. eLearning 2.0 In Practice, pt 1
4. eLearning 2.0 In Practice, pt 2
5. Summary

Industry Context

The Millennials
The successful 21st century university is a student-centric learning institution, unconstrained by time and place, that operates simultaneously in a local and global context, constantly measuring and communicating its progress and continually renewing its commitment to students, community, and the economic competitiveness of the country.
Education’s Global Challenges

- Compete locally and globally
- Increase access and participation
- Comply with government legislation
- Collaborate across sectors
- Cross border learning & Bologna process
- Optimise Resources and ROI
- Improve institutional accountability
- Demonstrate Value

Issues in the Industry

**Gartner 2006 Technology**
1. Business Intelligence
2. Security technologies
3. Collaboration
4. Customer sales and service
5. Service Oriented Architectures (SOA)
6. Workflow management
7. Networking, voice and data communications
8. Virtualization
9. Legacy application modernization

**Gartner 2006 Business**
1. Business process improvement
2. Controlling enterprise operating costs
3. Attracting and growing customer relationships
4. Improving competitive advantage
5. Improving competitiveness
6. Using intelligence in products and services
7. Security breaches and disruptions
8. Revenue growth
9. Faster innovation
10. Faster innovation and cycle times

**Educause 2005**
1. Funding IT
2. Security and Identity Management
3. Administrative/ERP/Information Systems
4. Strategic Planning for IT
5. Infrastructure Management for IT
6. Faculty Development, Support, and Training
7. E-learning/Distributed Teaching and Learning
8. Governance, Organization, and Leadership for IT
9. Enterprise-Level Portals
10. Web Systems and Services

**UCISA 2005**
1. Anytime, anywhere computing
2. Systems resilience and availability
3. Network Security
4. Strategic Approach to Infrastructure
5. Learning support
6. Network technologies
7. Enterprise Portals
8. User Management
9. Ensuring sufficient funding
10. Data Management
11. IT Institution’s planning

Issues in the Industry

**Security & Reliability**

**Education – Experience Management**

- Dashboards, Content, Portals and Data Management

- User Management
- IT infrastructure
- E-learning and Distributed Teaching and Learning
- Improving competitiveness and innovation
- Collaboration technologies
- Customer sales and support
- Workflows
- Electronic Communications
- Knowledge Management Systems
- Electronic Portals, dashboards, and data management

- Faculty Development and training
- Security breaches and disruptions
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**Issues in the Industry**

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ICT is ‘at the heart of education reform,’ DfES tells JISC

“There’s clearly an opportunity to create a more cohesive system for each learner to travel through, tracked and supported as they go. If you want to do that, then technology and data are going to be powerful levers for making it happen.”

Michael Stevenson
Director of Technology at the Department for Education and Skills
Public Technology net – 5 May, 2006

E-Learning Market Takeaways

✓ Ready for more and poised for impact on outcomes, the bigger issues…
   …but feeling stuck in neutral

✓ “More, more, better, better…”
   - Seton Hall University

Networked Learning and eLearning 2.0
eLearning 2.0

- e-Learning 1.0
  - Platform Adoption
  - Courses
  - Education Segments
  - Inputs

- e-Learning 2.0
  - Extending the Platform
  - Social Networks
  - Lifelong/Active Learning
  - Outcomes

Web 2.0

- Rich User Experiences
- Architecture of Participation
- Software as a Service

The Networked Learning Environment
University of Dundee

- Finalist in THES University of the Year
- Research-led institution
- Extensive vocational/profession based teaching – Law, Accountancy, Nursing, Medicine, Engineering, Teaching, Dentistry
- 15,000 students, 3000 staff
- All (100%) of modules supported by LMS
- Leader in the use of e-portfolios
- Constructed an integrated Medical School curriculum map and content repository utilising the Blackboard CS in 2005

Sustainable eLearning Infrastructure

**Student Portal**
- Student organisations
- Announcements
- Roles
- Non-academic courses

**VLE**
- Module material
- Library links
- Interactive learning
- Generic learning material

**Departmental Innovations**
- Vocational/software tuition
- Project-based learning
- Online seminars & webinars
- Specialist software tools

**Content Management System**
- Central store of resources
- Cataloguing and metadata tagging
- Restricted resources, e.g. HERON material
- ePortfolios
- Formal assessment to blogs
- Universal & departmental ePDPs
- Project-based work
- Reflective learning

**Online Assessment**
- Formative and summative
- Wide range of subjects
- Deep questions and a variety of questions
- Sharable resources

**Staff Development**
- Evaluation and Response
- Future Developments

University of Dundee Managed Learning Environment

June 2006

- Student Management System
- GroupWise Web Email
- Blackboard VLE – ELS 7.1
- Student Portal
- Bb LMS – Portal
- Library
- Staff Assignment System
- e-Directory
- Novell File.servers
- Secure web access
- Training teaching staff

Dual Novell LDAP servers

- Bb LMS – Portal
- LCMS on SAN
- Learning Object Repository
- Personal content and ePortfolios
- Search and report
- Library search management
- Faculty integrations
- Bb
- Student Portal
- QMP Test server CAA-03
- QMP Exam server CAA-01
- QMP Formative server CAA-02

- File store
- Dual Novell LDAP servers

- PS
- Student Management System
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Dual Novell LDAP servers
Personal Development Planning at Dundee

- Online resource for all UG students at Dundee
- Provides guidance following career planning principles, developed with student input
- Focussed on a template-based ePortfolio
- PDPI induction schemes and support via workshops
- Embedding in the syllabus decided at faculty level
- 1100 students now underway

Transforming Institution

“We are set to see "digital students" graduate this year with the entire set of their modules from their four years of study (Law and Life Sciences)...

…Our benchmarking of eLearning has moved on to recognise the need to coordinate the benchmarking of all learning activities, and not to separate out eLearning. We have a framework for this in outline.”

Richard Parsons, Director of eLearning, University of Dundee
eLearning activities at Dundee

<table>
<thead>
<tr>
<th>Fundamental</th>
<th>Extended</th>
<th>Emerging</th>
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<tr>
<td>Announcements</td>
<td>ePortfolios</td>
<td>Podcast / VideoCast</td>
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<td>Organizational information</td>
<td>Content management</td>
<td>Wiki / Journal</td>
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<td>Lecturer's documents</td>
<td>Portfolio</td>
<td>Web-conference / Web-cast</td>
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<td>Web-link</td>
<td>Discussion board</td>
<td>Wiki (collaboration)</td>
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<td>Online assessment</td>
<td>Student marketing</td>
<td>Interactive classroom</td>
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<td>Online tutorial</td>
<td>Plagiarism detection</td>
<td>Puzzles &amp; games</td>
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<td>Online backups &amp; portals</td>
<td>Simulations</td>
<td>Intelligent searching</td>
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<td>Online submission</td>
<td>Synchronous chat (incl. IM)</td>
<td>Self &amp; peer assessment</td>
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<td>Online evaluation</td>
<td>Tutorials</td>
<td>Mobile learning / SMS, PDA</td>
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<td>Personal dev. planning</td>
<td>Specialized learning programs</td>
<td>RSS</td>
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<td>Email</td>
<td>Graduation</td>
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Interaction Low — Interaction High

Diversity of Practice and Experience Management…

“When considering eLearning activities I now use the framework…which illustrates the potential activities that discipline lecturers can make use of in Dundee. Interestingly, they all each use a different set, leaving a different footprint, or benchmark”

Richard Parsons, Director of eLearning, University of Dundee

Kingston University

✓ EU Funded research on the impact of online learning on the student experience
Kingston University

- The Blackboard roll-out began during the academic year 2000/2001 when 500 academic staff were trained in using the VLE and 2000 students first studied the 75 modules set in the pilot programme. Evaluation indicated a high level of acceptance and effectiveness.
- The following year Blackboard was systematically rolled-out for all first year undergraduate modules, to be followed by second and third year modules as students progressed. This was supported by more advanced training for academic staff.

Background

- The Widening Access and Success Project was funded by the charity Atlantic Philanthropies over a period of two and a half years to the tune of £340,000.
- Started in July 2002 and the fieldwork was completed in December 2004.
- The background to the study was the University’s growing use of its Virtual Learning Environment (VLE), Blackboard, and the institutional mission of widening participation.
- Two key questions were set for investigation:
  - Does the VLE help students with their studies at university, particularly those who come from families and schools not familiar with higher education (HE), and/or those having difficulty with the academic content of their course?
  - Can the use of the VLE help students in Further Education (FE) colleges to understand more about higher education, allay any concerns about applying to university and support them in their applications?

E-Access Key Findings

- VLE-based mentoring and course support helped the majority of students to increase their knowledge and modify perceptions of HE and its culture.
- Staff and students reported that VLE-based mentoring facilitated ready access to HE prospectuses and guides.
- For a majority of FE students, VLE-based mentoring and course support were invaluable in negotiating the HE application procedure.
- VLE-based mentoring and course support helped students develop as effective and confident learners.
- The use of the VLE had changed the dynamics of conventional face-to-face teaching and learning environments in the FE sector in a number of ways.
- Cross-sector participation in the E-Access project has also successfully underpinned Progression Agreements and further developed FE-HE partnerships in Access to Nursing programmes.
E-Success Key Findings 1

- Over 80% of students used the Blackboard VLE at least every other day
- Furthermore, 73% of students in semester 1 and 61% in semester 2 confirmed that the VLE had enabled them to study effectively
- Students identified three positive features of the VLE: flexibility, communications functions and time management features
- Flexibility provided by 24 hour-a-day access was important in managing private study
- A majority of students valued the learning content and administrative announcements featured in the VLE
- Students used Blackboard to plan and organise personal study and learning activities

E-Success Findings 2

- Blackboard functionalities were used for a variety of unanticipated purposes. For instance:
  - the discussion boards as means to gauge one’s own progress and understanding;
  - the contents areas for planning and organising one’s time
  - content areas to maintain independence
- University students characterised by a ‘deep’ as opposed to ‘surface’ approach to learning demonstrated higher levels of VLE use
- Even at this early stage in development, the VLE has impacted on student satisfaction and retention. Use of the VLE has underpinned positive factors at the ‘intrapersonal level’ (learning style and confidence) and enhanced the student experience (conferring a sense of support and satisfaction with an academic programme).

Key Findings Summary

- **Access & Cross-Sector Collaboration**: For a majority of FE students, VLE-based mentoring and course support were invaluable in negotiating the HE application procedure
- **Effective Learning**: VLE-based mentoring and course support helped students develop as effective and confident learners
  - 73% of students in semester 1 (and 61% in semester 2) confirmed that the VLE had enabled them to study effectively
- **Student Satisfaction & Retention**: Even at this early stage in development, the VLE has impacted on student satisfaction and retention. Use of the VLE has underpinned positive factors at the ‘intrapersonal level’ (learning style and confidence) and enhanced the student experience
eLearning 2.0

Extending the Platform
Social Networks
Lifelong/Active Learning
Outcomes

Common Characteristics?

- Driven by educational improvement objectives with vision of technology as a strategic resource
- Sustainable education, information, and technology plan, executively sponsored
- Vision and plan supported by a IT framework and product development strategy focused on experience management
- Extending open and interoperable toolsets to deliver next generation capabilities with production continuity
- Managing the balance between innovation and a secure and resilient infrastructure
- Managing the balance between innovation, cost, and user experience
- Realising the value of community, collaboration and social networks
- Partner Strategy in place

eLearning 2.0 In Practice, Pt 2
Architects of the Educational User Experience

24/7 Integrated Customer Contact Management

Service Matters. User Experience Matters.

- The law of unintended consequences... Student Information Systems, course management environments, and other ubiquitous e-Education infrastructure have created a 24/7 mission critical support requirement for faculty, staff and students
- Strategic integration of service interfaces – and managing these critical interactions to increase course retention, recruiting yields, etc.
- Front-office reengineering
- User experience management i.e. Google, Apple, Dell, and now .edu

Co-sourcing
- A flexible framework for managing some functions in house and others in partnership with Presidium. Delivering Desk and call center workflow can be centralized for end-users and distributed internally.

Multi-Channel
- Reduce costs and improve quality of service, expect 20% reduction in call volume, reduce service escalation, and driving high utilization of live e-chat and self-service, contact center operations mapped to enrollment patterns to ensure high availability expected 24/7/365; training and support processes tailored to students and instructors/faculty.

Privately Branded
- Seamless, unified “front-office” user experience based interactions across all channels.

Talent
- Recruiting, retention, enterprise-wide High Availability, Tier 1 vs. High Availability/High Response, managed and co-managed
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<td>✓ The demands on eLearning are growing as the changes in education increase</td>
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<td>✓ eLearning 2.0 is happening</td>
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<td>✓ HEFCE 10 Year Strategy to fully mainstream eLearning</td>
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<td>✓ eLearning has gone beyond initial quantitative adoption targets</td>
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<td>✓ Focus now on qualitative and extended usage to meet local and global challenges</td>
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<td>✓ Focus on eLearning as a strategic resource...and how we prove it?</td>
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<td>✓ Emphasis on Flexible/Adaptive modes of learning/usage</td>
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<tr>
<td>- ‘Personalised Learning’</td>
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<tr>
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<td>- Consortia relations</td>
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