Institutional Strategies for Embedding Blended Learning in a Research-intensive University

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Abstract

This paper, set in the context of The Chinese University of Hong Kong (CUHK), demonstrates how systems-level thinking can allow universities to gain maximum benefits from the investment (time and money) that is put into eLearning. A model of drivers that influence the growth of blended learning at CUHK is presented and mapped to a number of strategies used by the University’s eLearning Service – namely: 1) revamp of the University’s eLearning platforms, 2) a range of support services, 3) seminars and workshops, 4) support for courseware development, 5) promotion of eLearning, and 6) research on new strategies and technologies. Strategic planning involving reflection on all the strategies together has allowed the University to move forward in promoting blended learning.

THE CONTEXT

This paper provides an analysis of the factors that have influenced the growth of blended learning at The Chinese University of Hong Kong (CUHK). CUHK is a traditional, comprehensive, research-intensive university with a bilingual tradition and a collegiate structure. There are approximately 10,500 undergraduate students, of which approximately 90% are Hong Kong Chinese (though in 2000 the figure would have been close to 100%); 2,000 research postgraduate students; and over 4,000 students in taught postgraduate programmes, a number that is increasing quite rapidly. CUHK is a strongly campus-based university and eLearning is often an adjunct supplement to the face-to-face teaching and learning (T&L) environment at the University. We are trying to move in the direction of a genuinely blended model (Graham 2005) where on- and off-line strategies work together to enhance students’ learning environments. Overall, there are some excellent eTeachers and some good examples of eLearning. At this stage, however, there is a clear underutilization of the potential of the web to support T&L, though this is the case in almost all universities.

CUHK is a devolved university, with significant decision-making occurring at department and faculty levels. The online learning system reflects the diversity of this devolved culture. There are a significant number of educational websites hosted on faculty or department servers. A more corporate university might have a ‘cleaner’ more centralized eLearning infrastructure; however, this has not been in keeping with the culture of the University in recent years.

A MODEL OF DRIVERS THAT INFLUENCE THE GROWTH OF BLENDED LEARNING

A model of drivers that influence the growth of blended learning was described in an earlier paper (McNaught 2008). In this model, the factors of most relevance to the context of our University are commitment of senior management, allocation of time, and a positive cost-benefit decision by teachers that their investment is likely to pay off. These factors can be framed as a set of competing drivers (both internal and external to the University). An adapted and extended version of the model is in Figure 1.
ENACTING THE MODEL IN PRACTICE

In this paper the strategies used to enhance the positive drivers and overcome the negative drivers will be described and evaluated. Specifically, the strategies used by the University’s eLearning Service in the last three years (2006–09) are:
1) revamp of the University’s eLearning platforms, 2) a range of support services, 3) seminars and workshops, 4) support for courseware development, 5) promotion of eLearning, and 6) research on new strategies and technologies. These strategies are explored in Table 1.

The University’s eLearning Service is a collaboration between colleagues in the Information Technology Services Centre (ITSC) and the Centre for Learning Enhancement And Research (CLEAR).
<table>
<thead>
<tr>
<th>Main strategies</th>
<th>Specific strategies</th>
<th>Examples of enhancement of positive drivers</th>
<th>Examples of overcoming negative drivers</th>
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</thead>
<tbody>
<tr>
<td>1) Revamp of the University’s eLearning platforms. A steady rise has occurred in Moodle and WebCT course websites – see Figure 2.</td>
<td>Launch of centrally maintained Moodle in 2006</td>
<td>2I-b. Students as ‘digital natives’ Many of our Moodle sites are much more interactive and incorporate more Web 2.0 tools</td>
<td>3I-: Peer groups in departments In some instances whole departments changed to Moodle and so there was no ‘soft’ perception of eTeachers.</td>
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<td></td>
<td>Upgrade of WebCT to provide easier content upload, a new links annotations feature, new quiz question types, additional grading options and a more user-friendly interface.</td>
<td></td>
<td>2I-. Commitment to a university research life In view of the overall status of teaching it was more strategic to keep WebCT. The infrastructure maintenance of two platforms is better than conservative backlash.</td>
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<td>Faculty visits to all eight faculties with senior management present</td>
<td>1I+. Evidence of institutional research These were good opportunities to show evidence of the growth and success of eLearning at CUHK.</td>
<td>3I-. Peer groups in departments With senior management support, the ‘soft’ perception is diminished.</td>
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<td>Enhancement of course outlines. Over 700 individual course designs have been reviewed and reports given to teachers. The integration of ‘e’ and ‘non-e’ strategies has been encouraged.</td>
<td>2E+. Changing curriculum The new curriculum in 2012 has been a great opportunity to promote rethinking and renewing course design.</td>
<td>3E-. Benchmarking within the discipline Strategic mention of eLearning at prestigious universities was possible at these meetings.</td>
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<td>Walk-in clinic. Not very active but ~50 teachers have come in for personalized consultations. Typical topics are given in Note 1.</td>
<td>3I+a. Local support Personalized support is worth the investment as advice seems to be more actively used.</td>
<td>1I-. Culture of a face-to-face university Exploring how eLearning can enable and enhance relationship building is important at CUHK.</td>
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<td></td>
<td>eLearning Assistants (eLAs)</td>
<td>2I-b. Students as ‘digital natives’ We have found it relatively easy to train and employ our own students as part-time helpers. We now have funding for some full-time recent graduates as eLAs.</td>
<td>3E-. Frenetic city Teachers leave routine technical work till the last minute and need technical support.</td>
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<td>More extended consultations and small projects. A key emphasis of all projects is evaluation using a model described in Lam and McNaught (2008).</td>
<td>3I+b. Change in policy for promotion We have evidence of how teaching can support promotion and can share this with teachers. We have a growing number of publications jointly authored with teachers.</td>
<td>1E-. Good external rankings While research predominates in rankings, there are some ‘good university’ guides where T&amp;L is important that can be cited.</td>
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<tr>
<td>2) A range of eLearning support services</td>
<td>A virtual eLearning Resources Centre, including a photo gallery, access to learning objects, tools, top-ten tips and a FAQ collection.</td>
<td>2E+. Changing curriculum The site at <a href="http://www.cuhk.edu.hk/eLearning">http://www.cuhk.edu.hk/eLearning</a> is continuously being developed.</td>
<td>3I-. Peer groups in departments A formally framed project has more status with peers.</td>
</tr>
</tbody>
</table>
| 3) Seminars and workshops | Topics cover training in the use of online tools and systems, as well as exploration of learning theory and pedagogical strategies. | 2E+. Changing curriculum
See other comments about 2012. | 11E+. New student information system
Good training will be essential in the next phase of implementation. |
| --- | --- | --- | --- |
| 4) Support for courseware development | Framing projects for accessing internal and external funding sources | 2I+a. Changing student profile
2I+b Students as 'digital natives'
2E+. Changing curriculum
All of the three factors mentioned here have been supported by formal projects. | 3I-. Peer groups in departments
A formally framed project has more status with peers. We try to encourage publication. |
|  | Successful completion of development projects. Examples are in Note 2. | 3I+b. Change in policy for promotion
Sharing evidence of how teaching can support promotion is useful.
1E+. External quality audit
We used the records to good effect in the recent audit of CUHK. | 1E-. Good external rankings
In HK, grant success is used as an indicator by the government funding agency. |
| 5) Promotion of eLearning | eLS@CU Newsletter. See http://tinyurl.com/cbt27a | 2E+. Changing curriculum
See other comments about 2012. | 3I-. Peer groups in departments
HK is a culture where media exposure is valued. |
|  | Departmental eLearning Liaison Persons (eLLPs) | 3I+b. Change in policy for promotion
Some ELLPs have felt this supported their (successful) cases. | 1I+. Evidence of institutional research
1E+. External quality audit
11E+. New student information system
All of the three factors mentioned here have relied on the longitudinal data we collect about eLearning (Lam, Keing, McNaught & Cheng 2006). |
|  | eLearning Expo. See http://www.cuhk.edu.hk/eLearning/expo/ | 3E+. Strong push for OBAs to T&L in HK
We plan to add several more of the Expo displays to the OBA eLearning site at http://www.cuhk.edu.hk/eLearning/eLoutcomes/ | 1I-. Culture of a face-to-face university
See other comments in this category. |
| 6) Research on new strategies and technologies | Learning Activity Management System (LAMS) | 2E+. Changing curriculum
See other comments about 2012. |  |
|  | Web-conferencing solution (Adobe Breeze) | 2I+a. Changing student profile
There is a small but growing number of international collaborative courses. | 3I-. Peer groups in departments
Web-conferencing is used for research as well as teaching. |
|  | eBooks | 2I+b. Students as ‘digital natives’
Published papers support an awareness of the skills and challenges our students have. |  |
|  | Mobile learning and teaching | 2I+b. Students as ‘digital natives’
Published papers support an awareness of the skills and challenges our students have. |  |
|  | eAssessment | 2E+. Changing curriculum
See other comments about 2012. | 2E-. Frenetic city
EAssessment is only popular in large classes where time saving is significant. |
|  | Reporting on the growth of eLearning at CUHK | 11+. Evidence of institutional research
1E+. External quality audit
11E+. New student information system
All of the three factors mentioned here have relied on the longitudinal data we collect about eLearning (Lam, Keing, McNaught & Cheng 2006). | 2I-. Commitment to a university research life
Appealing to scholarship does work. Solid longitudinal data is essential. |
Note 1: Some common topics discussed in the clinic are:

- How to incorporate different functions of WebCT and Moodle to both save teachers’ time in managing the course and to fulfill different teaching needs? (e.g. assignment dropbox, online assessment, discussion forum)
- How can eLearning help to improve learning outcomes and optimize pedagogical efforts?
- How to facilitate student group activities more effectively by eLearning?
- How can eLearning facilitate international collaboration with other universities?
- What are tips in using PowerPoint and Acrobat?
- How to use cases on eLearning platforms to facilitate students’ learning?
- How can assignment be designed to foster students’ reflection on subjects of studies?
- How could training workshops be arranged for individual academic units serving their special needs on eLearning?
- How could courses on eLearning platforms be administered at departmental level?
- How can the new technologies/ functions for eLearning (e.g. blog) be used in course teaching to enhance students’ learning experience?
- How can peer review activities be set up on eLearning platforms?
- Consultation in designing and conducting different online assessments.
- Consultation in courseware development design and production (e.g. online video lectures, 3D simulations, interactive games)

Note 2: Examples of projects are:

- A comprehensive libel litigation database for the School of Journalism and Communication;
- A highly interactive online game for the School of Law;
- An online language learning platform for Japanese Studies;
- A web course with flash animated exercises on English pronunciation for the English Language Teaching Unit; and
- A web course with video-enhanced virtual laboratory on teaching microbiology for Nursing;
- A simulation game of the treatment of Cardiac Arrest for Department of Anaesthesia and Intensive Care;
- An online courseware for teaching Thematic Melodies of 20th Century Theoretical Physics for Department of Physics;
- An interactive courseware package for learning Putonghua online for the Independent Learning Centre;
- A flash-animated courseware for teaching Human Physiology for Department of Physiology; and
- A courseware for teaching biochemistry/biotechnology for Department of Biochemistry.

Table 1. Strategies used in promoting and supporting eLearning at CUHK, considered in terms of a number of competing drivers

<table>
<thead>
<tr>
<th>Number of sites in the centralized eLearning platforms: WebCT, CUForum (an in-house product) and, starting from 2006–07, Moodle. There is a rise in the percentage of courses using eLearning from 45% in 2003–04 to 65% in 2006–07. It must be admitted that sites are still heavily content-based, and there is a slow growth in the use of multimedia and interactive functions.</th>
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</thead>
<tbody>
<tr>
<td>Number of courses using WebCT</td>
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<tr>
<td>2000-01</td>
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<td>2001-02</td>
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<td>2002-03</td>
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<td>2003-04</td>
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<td>2004-05</td>
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<td>2005-06</td>
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<td>2006-07</td>
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Overall, it can be seen that an overarching model supports the design of a specific suite of strategies to use in promoting and supporting eLearning. One needs to contextualize support strategies within an overall framework in order to optimize the resources available – both funding resources and human resources. Without this reflection and holistic thinking, we do not believe that we would be able have achieved what we have achieved in the last few years. In addition, the cumulative effect of a number of strategies working together, reinforcing each other, is important.

ACKNOWLEDGMENTS

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REFERENCES


Many of the publications resulting from the work of the eLearning Service can be found at <http://www.cuhk.edu.hk/clear/staff/Carmel-4.htm#top4> [Accessed 30 April 2009].