Transforming Curriculum Delivery through Technology Programme

Overview

Project Name	The University of Exeter Business School Integrative technologies (INTEGRATE) Project
Report compiled by	Person responsible for producing and submitting report Karen Leslie
With contributions from	Others who have contributed information for the report Liz Dunne Laura Taylor Dale Potter Juliette Stephenson David Boughey
Reporting period	August 2009 to March 2010

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Section One: Summary

During this phase of the INTEGRATE project we have continued with trials of new technologies, started work with the second intake of new teaching fellows and have continued to build relationships and develop our work with the first intake of teaching fellows. Teaching fellows have had to cope with ever-increasing student numbers (from 650 to 750 first year undergraduates) and double the numbers of Maters students. Alongside focussing on working with new members of staff, our key areas of development have been around student led projects and learning communities. However, whilst we have undertaken several new pilot studies we have, on the whole, entered a phase of refining our work. We have moved from an experimental phase towards a stage of consolidation and are starting work on embedding practice and process in the Business School with a view to ensuring the sustainability and impact of the project after October 2010.

Our focus remains on the three project objectives:

- How to promote a learning ethos in which students actively participate, engage and feel known, despite the ever- increasing numbers;
- How to manage assessment and feedback with large numbers;
- How to promote a collaborative community in which diversity is both valued and well-catered for.

We are now well known and greatly appreciated within the Business School and the project team has worked hard to maintain and build good relationships, particularly during the transition phase from one Project manager to the next. We are now starting to develop greater emphasis on blended learning across modules and to work with teaching fellows to look at new models of learning, including the use of wikis, blogs, learning journals, recorded lectures and with greater emphasis on formative assessment opportunities.

As word of the project and support has spread through the Business School we are linking more often to modules beyond the initial six undergraduate modules. We have had significant impact and the Business School sees the need for ongoing support

Our key areas of work for this period have been:

- Starting work with new teaching fellows; providing training and support, in lecture technologies, lecture capture, wikis for group assignments

- Embedding work with existing teaching fellows – using In lecture technologies (ARS, SMS, Echo 360); technologies for group work – flip video; Assessment, WebCT

- Developing work with other Academics across the Business School – Staff other than the core group of teaching fellows looking increasing use of lecture recording for support – eg with Assessment,

- Refining practice with technologies - continuing to record good practice, share practice and learn more (ARS, Echo, WebCT, Assessment)

- Starting to develop new models of learning – learning logs, wikis, increasing the opportunities for building learning communities and use of Web 2.0 tools.

- Developing student led projects - increasing student feedback and investigating the changing expectations of students moving into the second year of the Business School. Building the Students as Change Agents work.

- Working with administrative staff – ensuring we are having the right conversations to change processes in the Business School so that access to and use of technologies is easy and well supported

- Working with colleagues in central IT support – we have worked hard to build relationships with desktop support, the network team, the central e-learning team and the web innovations team to ensure long term success of the project.

Section Two: Activities and Progress

There have been no major changes to the approach outlined in the previous project plan. However, the focus of our project over the past six months has been very much on supporting new teaching fellows, developing our work in the areas of collaborative learning and assessment of large numbers and increasing our emphasis on student led projects. As the project works directly from the ground up, looking at the needs of the teaching fellows, we are working with a number of additional modules alongside the original six in the project plan. We have updated WP5 of our project plan and details of all the modules we are now supporting are listed in Appendix 1. We have updated WP6 of our project plan to reflect the increased development of student led projects, and details of the work in this area are given in Appendix 2.Key activities during this reporting period are outlined below:

Engagement with new teaching fellows
At the start of the 2009/10 academic year, the Business School took on another group of teaching fellows. The project ran training for all the teaching fellows at the start of the academic year to give a taste of the technologies being used in the project. Since that time the INTEGRATE team have continued to develop positive working relationships with the teaching fellows and to support them with technologies that meet their current requirements. As well as continuing to work with familiar technologies to increase engagement (eg: Audience Response Systems, Flip Video and podcasts), we have piloted the use of wikis in a Masters Strategy module for 465 students; supported the development of learning journals in the Undergraduate Marketing and Society module and supported teaching fellows with recording their lectures in Exeter's new Teaching and Learning Studio.

Learning Communities
One significant development has been a pilot of the University of Exeter 'Confluence' wiki system by Masters students on the 'Strategy' Module. The 465 students have been divided into 59 international groups or 6-8 students and asked to use the wiki as a collaborative space for drafting their assessed executive summary. It is envisaged that the wiki will enable assessment of each group member's contribution as well as the group work as a whole. The final deadline for this work is 26th March 2010.

Learning Journals
One teaching fellow requested a way for students to be able to keep a reflective journal (viewable only by themselves and her). The project has supported the set up and use of learning journals as a private, reflective log which the course tutor is able to view student entries within WebCT and leave comments. These journals have been extremely successful.

Student Projects
Since the previous interim report, there has been a significant development in the work on student led projects. We were very fortunate in being able to appoint an excellent Student Project Leader who was a recent graduate of the Business School. Dale Potter has led a wide range of student projects, on the key themes of employability, sustainability and student engagement. Full details of these student projects can be found in Appendix 3. One of the student projects initially thought of as a small addition to our work, has been a photographic competition open to all Business School students. This competition and subsequent exhibition have had an impact far greater than expected.

Assessment of large student cohorts
During this phase of the project, the team have been involved in supporting the development of processes for assessment of large student cohorts. In January 2010 the team supported the running of an exam in WebCT for 645 Masters students and have been planning the second pilot of the use of Assessment 21s ABC software with a cohort which has increased from 120 to 296 students. We have also been involved in supporting staff with running Multiple Choice exams for large cohorts and marking scripts using a MCQ scanner.

Change of Project Manager
Ali Press ably managed the project until November 2009 and was replaced on 1st Dec 2010 by Karen Leslie. Karen and Ali managed to spend two days working together at the end of November which made a significant difference to the handover process.

New Student Projects Leader
Dale Potter was appointed in October 2009 to lead on development of the student projects within INTEGRATE. Dale will be with the project until April 2010.

Section Three: Outputs and Deliverables

The second year of activity in the project has meant a great deal of development work, support and training with the Business School staff and students during two particularly busy and challenging terms. A wide range of outputs are being developed and are listed below. These outputs are listed in the project plan using the outputs mapping tool (Appendix C to Project Plan) and are detailed in Appendix 4.

Training materials: for Turning Point / Turnitin / SMS / MCQ Scanner / Wikis / Flip video / Podcasts / Interactive Whiteboards / Recording lectures with Echo 360 – available on the project website and as assets for the Design Studio.

Learning Models: Illustrations of the different blended learning models being used in the Business School. Showing how the more traditional model of lectures and tutorials is being changed with the introduction of learning logs, recorded lectures, wikis, flip video cameras can support the learning process.

Project Website and Blog ongoing development. The website development is well underway, and the project model has been updated in order to reflect the technologies, themes and issues we have addressed and for development as the home page of the project website.

Case Studies: There will be a large number of project case studies detailing the technologies, themes and issues of the project. These will be drawn together on the project website and made available as assets for the Design Studio.

Assessment Support: Training materials and workshops on using the scanner for marking. Assessment 21 Case study. Higher level discussion paper based on case study material from the project to inform and influence Strategy and future development of online assessment at Exeter.

Hardware Roll-Out: As a direct result of success within the project, with Business School have decided to purchase ARS clickers for all Business School students (Undergraduate and Postgraduate) from September 2010.

Software Integration: The project has been able to offer suggestions for improvement of a number of technical systems and processes across the university. The project has been involved very closely with developing the administrative support and set up for the Confluence wiki system which has now moved from pilot to roll out phase. We are also involved with discussions around how the wiki system might be integrated with the new VLE. The project was asked to write up a discussion paper around online assessment across the University, and has provided input into future processes for implementing online electronic exams. Our pilot studies have given us hands on experience of linking University systems together, working with large student numbers, the VLE, desktop support, network support, business school administration teams, the e-learning team and exam invigilators.

Section Four: Evaluation

It is the nature of this project that embedding change is an incremental process and the project is evolutionary. Evaluation is an ongoing part of the project and as a team we are in constant negotiation and dialogue with Business School colleagues. The significant increase in student numbers in the Business School over the last academic year has been a considerable challenge for everyone working in this environment and we have been able to continue to evaluate our project throughout this time. The ability of everyone in the project team to continually evaluate our work, to respond to challenges and to always look for effective ways forward has been vital to our success. As a team we meet weekly to evaluate progress. Outside project meetings we have regular discussions and one of our strengths as a team is that we immediately address any problems we encounter.

Alongside our continual dialogue, evaluation processes within the project include:

Gathering student feedback (eg: using ARS clickers; using Survey Monkey surveys) and teaching fellow feedback

Analysis of statistical data from the wiki project

Analysis of online dialogue from the wiki project and learning journals

Planning, with the Inspire research team, to look at the impact of the project on the teaching fellows. In particular we are interested in evaluating how individual characteristics and attitudes influence the take up of new technologies.

Analysis of team and individual learning reports from the Flip camera pilot.

Student-collected feedback on technology use via questionnaire survey and ARS clickers

Focus groups with students on the use of technologies in general: Flip cameras, wikis and streamed video use in particular.

Attendance and participation monitoring of face to face and online aspects of the skills based BSD1000 module.

Section Five: Outcomes and Lessons Learned

The outcomes and lessons learned from the project which are emerging are:

Building relationships is key to success. As we are working with such a diverse group of teaching fellows, who started work in both 2008 and 2009, we have had to work incredibly hard to build relationships with each of them and to work from their point of view.

Change happens one conversation at a time: Whilst the INTEGRATE project is broad and diverse, we are clear as a team that it is the number and diversity of the conversations which we have that, when added together, create change in the system. We have become very aware of the importance of individual, sometimes incidental, conversation to bring about change on the ground.

Focus on facilitating the right conversations. Having a funded project working between the Education Enhancement Unit and the Business School has been vital to ensure the right conversations are taking place. Project staff are in the effective position of working centrally and going out to the Business School then returning to the centre. This way of working enables staff to maintain a clear view of what is needed for the project and is an excellent example of the 'hub and spoke' model in practice – which may be continued across the University following restructuring.

Find Individuals with the confidence to innovate: In order to increase the take up of new technologies we have needed to work with innovators who have the confidence to kick start the process. For example, after a lot of hard work, two key teaching fellows are now starting to develop their practice and share it widely through workshops and seminars (in Exeter, at other Universities and in other countries) with a complete sense of ownership and confidence in their ability to do this.

Change does not happen at a constant pace. We are finding that embedding technologies and changing practice is not a constant, continual process, but one which is rather messy with small victories and challenges along the way. For us change has happened with a lot of hard work leading to sudden leaps forward for the project. During January and February there was a definite step change in use of new technologies with new teaching fellows showing enthusiasm, confidence and competence to try new ways of working.
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Remember to identify and work with key non-teaching staff to change processes. Alongside working with Teaching fellows to develop their practice, we are working with a large number of key staff in the Business School and beyond. This is vital to influencing systems and changing processes so that technology is discussed and integrated into learning and teaching processes. (For example when working to change online examination processes we might work with the Business School Student services manager, administrator and assistant, Project Manager for the Capital Build Programme, Director of Education, The University Assistant registrar and examinations officers),

Work slowly and from the ground up. One of the main challenges we have faced is that teaching staff have been extremely busy. Finding small simple ways to work with them and to begin to change their practice is the only way forward. Trying to force technology into teaching and learning when there is no time or space for it can do more harm than good.

Build on informal and formal learning processes – students are good at using both of these and are good at finding new ways of working to deliver specific outcomes. We need to give staff the confidence to encourage students to use informal learning opportunities more.

Students are interested in the process of learning through technology: even when difficulties arise, as with the storage of Flip camera footage. If they feel part of a collaborative process, they will be patient, supportive and engaged rather than complaining. BUT collaborative ethos needs to be planned for and required hard work by staff

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Revisiting our original challenges, the following information shows how far we have travelled

How to promote a learning ethos in which students participate, engage and feel known

Academic Viewpoint	
Specific project foci:	Support through technology:
Promoting a learning community	Wikis for small group assignments in large student cohorts Use of Flip cameras for group presentations Student photographic competition Student Google map
Student motivation	Flip cameras, wikis, learning journals, recorded lectures and podcasts, group work
Student attendance	Attendance monitoring system LISA / BSD1000 module
Student engagement and participation in class	In-lecture feedback (audience response system (ARS), SMS, expertise in running revision sessions, podcasts.

Administration Viewpoint	
Communication routes	Requests, information, feedback (email/website/discussion fora/ synchronous online support)

Student Viewpoint	
Student engagement and participation in class (lectures and seminars)	In-lecture feedback (personal response system, SMS), podcasts
and out of class (practice and consolidation)	Support resources on VLE, recorded lectures, podcasts, wikis, google docs, skype Wikis for small group assignments in large student cohorts Use of Flip cameras for group presentations Student photographic competition Student Google map

Distance travelled:

Attendance monitoring: In 2009/10 the University wide LISA system has been implemented to satisfy monitoring requirements for international students. The project team have continued to support monitoring the mandatory, not for credit, BSD1000 module in the Business School

In-lecture feedback : The Business School have decided to purchase 'clickers' for all UG and PG students. Staff are becoming very skilled at using clickers at different stages in the module: establishing starting point, checking progress, reinforcing key concepts, running revision sessions and help hour.
SMS – developing the use of SMS for more open questions, and reflective practice. Second pilot phase undertaken. Staff will be demonstrating SMS to others at national workshops.

Support Resources: Project staff have continued to support the development of online resources within the original six modules as well as training new staff to develop their own online resources. From Oct 2010, WebCT is being replaced by Moodle . All Business School staff will receive training and support to enhance their modules in time for the start of the new academic year.
Echo lectures – All Business School staff giving lectures where Echo360 is available are strongly encouraged to use this system. Business School are staff increasing use, often due to student requests for recorded lectures.
Staff recording lectures for revision purposes.
Textbook Links – further online library resources
Pilot use of wiki system with 465 Masters students. Wiki now rolled out across the University.

How to manage assessment and feedback with large numbers

Academic Viewpoint	
Specific project foci:	Support through technology:
Summative examinations / tests	Electronic examination with electronic marking (Assessment21, WebCT, MCQ Scananpro Scanner)
Formative tests / assignments with associated feedback	Online testing with instant feedback (WebCT) Individually tailored e-feedback Audio feedback e-submission, e-marking, e-feedback (MyEconLab) learning logs Turnitin MCQ with rapid feedback (Scananpro Scanner)

Administration Viewpoint	
As above	e-submission system (online, BART) MCQ with rapid feedback (Scananpro Scanner) Turnitin, to include Grademark for marks and feedback

Student Viewpoint	
Formative tests with timely feedback	Online testing with instant feedback (WebCT) Audio feedback e-submission, e-marking, e-feedback ARS / clickers for revisions sessions

Distance travelled:

'Online' examinations: Having supported the examination of a Masters module with 645 Masters students using WebCT, and having a wide range of assessment experience from the first year of the project, the project team were asked to write an online assessment discussion paper for the University. This paper was initially drafted as a summary of issues that emerged with supporting the WebCT exam. Through discussion with colleagues in Education Enhancement and with Desktop Support, it became apparent that our experiences raise issues worthy of wider discussion, especially given increasing demand from across the University for online assessment solutions. The final discussion paper has been tabled at a University Directors of Education meeting and it is envisaged the project will continue to influence University-wide decision making around the future of technology to support assessment.

An extract from the introduction states:

"The paper sets out the procedures needed to run successful online exams and raises current questions and challenges for consideration at each stage of the process. Each of the questions below may need to be addressed at different levels of the organization - by the academic setting the exam, the School Office, the Exams Office or senior management and policy makers. There are essentially three broad areas which must all be carefully considered and well executed in order to successfully run online examinations, particularly given large and increasing student numbers. These three areas are:
- *Pedagogy*
- *Technology*
- *Practicality"*

The INTEGRATE team are increasingly asked for support in this area.

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How to promote a collaborative community in which diversity is both valued and well-catered for	
Academic (Pastoral) Viewpoint	
Specific project foci:	Support through technology:
Induction / team development	Podcasts, student-created video, photos, google map, link to INTO work
PDP / employability	e-pdp
Online support for academic skills	Online support for presentations/essay writing/revision. BSD1000 module
Administration (Pastoral) Viewpoint	
Communication routes	Requests, information, feedback (email/website/discussion fora/synchronous online support
Student Viewpoint	
Student induction	Student created content Video, podcasts, student photo competition, students Google map

Distance travelled:

The challenge of promoting a collaborative community with such large and diverse student numbers is one which has developed enormously over this reporting period.

The success of the student photo competition has greatly increased awareness and understanding of the student body within the Business School. An article about this competition can be found here:

http://business-school.exeter.ac.uk/news/currentstories/title,75844,en.php

One of the winners says: *'Thank you for give me an opportunity to show my hometown. I am so excited when I receive this award. You and your colleagues pay a lot of effort to this wonderful exhibition, thanks for your work again'.*

Competition organiser, Dale Potter (Student Projects Leader for the Integrate Project), said: *"This exhibition has undoubtedly captured students' interest and broadened horizons amongst staff and students alike on the diversity of Business School students. It is fascinating to see passers-by encapsulated as they walk through the exhibition and be stunned by the quality of the students' work. There is real enthusiasm to embed this type of event as a regular feature in the Business School calendar."*

Section Six: Communication and Dissemination Activities

The project team has been working hard to ensure Business Colleagues are integral to our dissemination processes.

Internal workshops are planned as part of the new Business School Learning Development Forum – Developing a practitioner community. This will be a series of practitioner led session which the project will feed into. We will host a workshop on Integrative technologies to share the learning and best practice from the project more widely. The project team has run workshops on using wikis in teaching and learning as part of the Learning and teaching in higher Education development programme for all new teaching staff.

External workshops will be presented by Business School Colleagues at Newcastle University, Herriot Watt University and at a University in Portugal. The focus for this event is in-lecture technologies for supporting large student numbers

Conference Papers have been accepted at BMAF (wikis), HEA (Change Agents), Hertfordshire Blended Learning Conference (wikis), Plymouth (Flip Video cameras). A paper has been submitted to ALT-C and we will make a CAMEL Group submission to the Greenwich conference.

Section Seven: Issues, Challenges and Opportunities

Issues
During this phase of work the issues of greatest significance to us have been:

Large and Growing Student numbers
This single issue has had a huge impact in the Business School with an increase of over 150% in student numbers in a single year in some modules. We have faced some difficulty contacting and working with Business School colleagues at a time when they have been overwhelmed with the increase in student numbers. Often when we have made contact and run one to one training sessions for a teaching fellow, they have become so overwhelmed with the day to day requirements of the job that incorporating new technologies into their daily practice has not been possible. In January and February 2010 there were a few weeks of intense pressure for our teaching colleagues as they were running new modules, running large numbers of tutorial groups, marking and second marking extremely large numbers of exam scripts and trying to set the next round of exams . Our team were able to support colleagues with simple technological solutions (for example summarising the attendance spreadsheet for BSD100; using clickers to work with large new groups of students; recording lectures to support revision), as well as being able to listen with support and impartiality to some of the issues they were facing.

Increasing demand for successful technologies
The INTEGRATE project was successful in the first year and students who benefitted from the use of technology have now moved into their second year of study with high expectations that technology would still be available to them. They have been very vocal when this has not been the case. Through the SSLC (Staff Student Liaison Committee) second year students have been able to raise the issue of lectures no longer being recorded using Echo 360. The Business School have encouraged all staff giving lectures in rooms which have the Echo360 facilities available to use this facility. The School are now looking to increase availability of Echo360 across the University, and are finding that technologies currently in pilot phase are not being scaled up or rolled out quickly enough to meet demand.

Challenges
There remain very high expectations of what we can achieve as a project team. Alongside the significant challenge of managing high expectations, we have faced challenges such as::

- IT systems going wrong at critical moments: eg: The University was hit by a major Virus attack just at the time we were introducing the learning journals to students
- Different IT departments changing system settings: Allowing all users into the private wiki spaces after the project team had spend a lot of time setting up the wikis
- Technology not doing what we need it to – ARS not adding up to 100% properly and not coping with difficult equations.
- Working within a changing system: The University is undergoing massive change at the moment on a number of levels. We have to work in this context - major restructuring in a move from Academic Schools to Colleges; Change of the VLE from WebCT to Moodle; Increased numbers and diversity of the student cohort;
- Changing use of technology throughout the 2 years of the project. The use of informal, mobile, handheld web based technologies has increased enormously even in the short time the project has been running. Students are now moving towards greater use of wikis, Google docs, Skype, Flickr.

Opportunities
The project is very well placed to adapt to the changing context at Exeter University. Whilst this is a challenge, it also provides a wide range of opportunities to influence the future use of technology to enhance teaching and learning in the Business School. Key opportunities for us include:

- Working with new teaching fellows
- Developing a range of new models for teaching and learning in Exeter. Finding new ways of working
- Thinking in the broadest way about how to effectively engage students
- Trialling informal learning opportunities - students able to use other technologies –Google docs, Skype, Facebook, Flickr, mobile phones
- Improving the induction of new students, especially those from overseas, into the Business School
- Creating effective ways for students to work together, enhancing employability skills
- Linking to major strands across the institution – Sustainability, Diversity, Employability, Assessment
- Building positive working relationships with colleagues despite difficult challenges (See Appendix 6)

What strategies have you found useful for engaging stakeholders at this stage of the project?

The ten strategies we have found most useful for engaging stakeholders are :

1. **Continuing to build relationships:** with a new project manager, new director of education in the Business School, new student project leader and new teaching fellows it has been vital to focus on building positive effective working relationships as quickly as possible so that the momentum of the project continues.

2. **Showing teaching fellows examples of their colleagues using technology in practice:** taking Jack in to Jenny's lecture with ARS so he can have a real example to work from and can talk to a colleague about his own developing practice.

3. **Co-facilitating sessions alongside teaching fellows:** blogs / learning logs / ARS / SMS. In a number of situations we have found that being in a lecture theatre or tutorial situation working in a co-facilitation role alongside a teaching fellow has been enormously helpful. It has increased the confidence of the staff member to try the technology and given them a solid foundation on which to continue to develop practice.

4. **Co-writing papers for publication:** as often as possible we try to co-author papers with our practitioner colleagues.

5. **Moving into the Business School:** to increase informal links. Sitting within the school several times a week.

6. **Employing recent graduates to support student projects:** student input and feedback is highly valued. We have employed an excellent student projects leader, a recent graduate from the Business School.

7. **Working with key administrative staff:** administrative staff are involved in planning, support and professional development. We are working with administrators to support both the strategic and day to day running of the project.

8. **Linking with broader IT services:** Building links with IT support, desktop support and the web innovations team at the University.

9. **Being positive**: offering a lot of informal support, being excellent listeners. We are very good at working from the ground up – being comfortable with change and challenge.

10. **Addressing any difficulties as soon as they arise**: One of the most important strategies we have as a team is that as soon as any challenges arise – with technology or people or processes - we discuss these informally and our our weekly project meetings then work hard to find positive ways forward.

Section Eight: Collaboration and Support

Links with colleagues in the CAMEL cluster and with our critical friend have been extremely positive and helpful.

Phone Calls with Lisa Gray and Lou McGill have been supportive and interesting - When the new project manager started, JISC offered support with understanding the project management processes, and getting started with the design studio.

Members of the team have attended the Elluminate Wednesday sessions and recent support with developing our presence within the Design studio was very welcome.

Section Nine: Financial Statement

To 8th March 2010

Total Grant	£199,840		Duration of project	2 Years
Reporting Period	August 2009 to February 2010			

Budget Headings	Total budget allocated	Expenditure this reporting period	Total expenditure to date	Further information
Staff	£147,130	£55,173.56	£129.676.18	
Travel & Subsistence	£21,170	£1,880.21	£6240.38	
Equipment	£1,340	£1,131.85	£1,340.00	
Dissemination activities	£4,200	£0	£0	
Evaluation activities	£			
Bursaries	£12,000	£0	£1, 600	
Consumables	£14,000	£2,760.39	£7966.21	
Other – Consultant		£919.42	£919.42	

Checklist:

Before you return this report:

☐ Ensure that your project webpage on the JISC site is up to date and contains the correct information. Attach details of any required amendments to this report. Project webpages can be found from: www.jisc.ac.uk/curriculumdelivery

☐ If there have been any changes to the original project plan and/or work packages, ensure that amended copies of the relevant sections of your project plan are attached to this report.

☐ Identify and name any areas within this report that you'd like removed before the report is made public (*see below)

*Please note the interim reports will be made available on the JISC website and on the Circle site with the budgetary information removed. We recognise that projects may occasionally address very sensitive issues. We would like you to present as full a picture in this report as you can as the lessons you learn are valuable to us. We assure you that any issues you identify as confidential are removed before the report is made public. Where such issues do represent valuable lessons for the community we will involve you in further discussion as to how they could be passed on without identifying institutions or individuals.

Appendix 1 – Changes to project plan WP5

WP5: Piloting and Implementation

Workpackage and activity	Earliest start date	Latest completion date	Outputs (clearly indicate deliverables & reports in bold)	Milestone	Responsibility
WP5: Piloting and Implementation <u>Objective</u>: **To trial technologies aimed at transforming curriculum technology in live module teaching**					

1.   BEE1001 – Principles of Economics (core)
    1.1. Personal response systems
    1.2. Attendance monitoring
    1.3. Lecture capture/streaming
    1.4. Assessment marking overlays
    1.5. How I Learn podcasts
	Jan 09	Dec 09	**Case Study**
			Student created podcasts
					PM, ET, OS2, BS

2.   BEE1025 – Statistics for Business and Management (core)
    2.1. Formative CAA - MCQs in VLE
    2.2. Summative assessments submitted through Turnitin
    2.3. e-feedback (vodcast) using captive through VLE?
    2.4. Individual feedback through VLE
    2.5. Student to student platform
    2.6. How I Learn podcasts
	Jan 09	Dec 09	**Case Study**
			Student created podcasts
					PM, ET, OS2, BS

3.   BEM1007 – Theory of Management (core)
    3.1. Lecture capture/streaming
    3.2. Streaming media in tutorials
    3.3. Improved resources
    3.4. CAA - VLE MCQs
    3.5. How I Learn podcasts
	Jan 09	Dec 09	**Case Study**
			Student created videos and podcasts
					PM, ET, OS2, BS

4.   BEA1006/7 - Accounting 1/2 (core)
    4.1. Textbook quizzes (online)
    4.2. CAA - VLE / Scanner MCQs
	Jan 09	Dec 09	**Case Study**
			Student created podcasts
					PM, ET, OS2, BS

4.3. Lecture capture/streaming 4.4. How I Learn podcasts					
5. BEE1024 – Mathematics for Economists (core) 5.1. Personal response systems 5.2. SMS 5.3. WebCT repository 5.4. Videoed tutorials 5.5. How I Learn podcasts	Jan 09	Dec 09	**Case Study** Student created podcasts		PM, ET, OS1, BS
6. BEE1023 – Introduction to Econometrics (core) 6.1. Summative CAA - MCQs in VLE 6.2. How I Learn podcasts	Jan 09	Dec 09	**Case Study** Student created podcasts		PM, ET, OS2, BS
7. BEMM108 - Entrepreneurship: New Venture Development (extra) 7.1. Summative CAA using MCQ and short answer questions - Assessment21 7.2. Second trial with larger student cohort, increased time and space pressures	Jan 09	June 2010	**Case study** Feedback to University policy makers		PM, ET, OS2
8. BEE1015 – Philosophy of Economics (extra) 8.1. Personal response system	Jan 09	March 2010	Further evidence of use of response systems		PM, ET, OS1
9. BEAM034 – Corporate Finance (extra) 9.1. Game-based learning	Jan 09	Dec 09	Case study		PM, ET, OS2
10. International Students and INTO 10.1. Capture videos for induction	Jan 09	Sept 2010	Student-created video content		PM, ET, OS1, OS2
11. BSD1000 – Business School Personal Development 11.1. Investigate ways of recording and monitoring attendance 11.2. Investigate ways of tracking completion of online (VLE delivered) skills modules	Jul 09	Sept 2010			PM, ET, OS1, OS2
12. BEMM119 – Business Strategy (new teaching fellow) 12.1 Using 59 wikis for small group assignments with a cohort of 465 students	Dec 2009	June 2010	Papers for BMAF and Hertfordshire Conference Wikis with large cohorts literature review		
13. BEM1015 Marketing & Society (supporting teaching fellow) 13.1 Increasing out of lecture engagement through a reflective learning journal 13.2 Using ARS to increase in-lecture	Dec 2009	April 2010	Case study New learning model Training materials Questions for reflection		

engagement					
14. BEM2012 – Managing the Tourism Environment (new teaching fellow) 14.1 Redesigning the module with both f2f and online lectures	Jan 2010	April 2010	Case Study New learning model Training for teaching fellows		
15. BEE1021 - Personal Financial Management (new teaching fellow) 15.1 Recorded Lectures 15.2 Use of Audience response systems at start and end of module 15.3 Improved VLE resources	Jan 2010	April 2010	Input into case study		
16. BEE3016 – Investment Analysis (new teaching fellow) 16.1 Recorded Lectures 16.2 Podcasts of guest speakers 16.3 Student feedback on podcasts	Jan 2010	April 2010	Input into case studies Student feedback on podcasts		
17. BEAM047 – Fundamentals of Financial management 17.1 Support for large scale online exam	Jan 2010	April 2010	Input into case study Discussion paper on assessment processes across the University Development of online exam model in Moodle. Pilot module for transfer of question bank to new VLE		

Transforming Curriculum Delivery through Technology Programme

Appendix 2 – Changes to project plan WP6

WP 6: Students Supporting Staff and Students

Workpackage and activity	Earliest start date	Latest completion date	Outputs (clearly indicate deliverables & reports in bold)	Milestone	Responsibility
WP 6: Students Supporting Staff and Students Objective: 24 first and second year students will be offered bursaries for undertaking an amount of project directed work					
18. Employ 8 students for 2008/09	Jan 09	Feb 09	8 employed students		PM, PI, ET
19. Student induction	Feb 09		Students ready to engage with school		PM, ET
20. Student engagement with Business School	Feb 09	Jun 09	Students lead on pilot ideas for employability, international mentoring		PM, ET, BS
21. Employ 16 students for 2009/10	Sept 09	Oct 09	16 employed students		PM, PI, ET
22. Student induction	Oct 09		Students ready to engage with school		PM, ET
23. Student engagement with Business School	Oct 09	Jun 10	Students lead on areas identified as important to them: technology, employability and sustainability. Photo competition to enable greter international understanding (Appendix 3)		PM, ET, BS

Appendix 3 – INTEGRATE Student Projects

JISC CURRICULUM DELIVERY PROJECT STRAND
Integrative Technologies in the University of Exeter Business School, November 2008 – October 2010
Project blog for students as change agents: http://blogs.exeter.ac.uk/studentprojects/
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STUDENT-LED PROJECTS .

Project Director: Elisabeth Dunne (E.J.Dunne@exeter.ac.uk)

Student Projects Co-ordinator: Dale Potter (D.J.Potter@exeter.ac.uk)

The main project: **Using technology to improve Internationalisation and the Student Experience**

Students and staff are working together on a number of exciting projects looking at developing interactions between home and international students.

1a) Grand Google Map (or similar interface) with a large number of short videos/ photos/short pieces of writing - to illustrate places and people from across the world. All data collected will be available to students from the School intranet as an attractive, informative and user-friendly interface.

1b) The photo/video competition and mounting an exhibition, etc.is an extension to the above initiative, and to develop awareness of students' geographic and cultural backgrounds.

1c) Learning Styles & Expectations We will also be talking to students about their expectations for learning when they came to Exeter, and whether their experiences at Exeter are different to their experiences before they came.

2. Sustainability: this project is focused on collecting data through a survey to ascertain interest in sustainability amongst Business School students. Findings will potentially be used to develop a case for recognition of student activity in relation to sustainable living, possibly through the Exeter Award or other initiative. *(Joint project with University-wide Students as Change Agents' scheme).*

3. Employability: a number of employability events are being videoed, and short pieces of this video will be used to attract additional students to attend such events. Footage will be made available through the VLE or the University Employability website. Other initiatives will be explored, such as the idea of text-messaging as a reminder of events and to reduce 'no-show' rates.

4. Video for Learning and Teaching in Tutorials: feedback is being gained form students involved in an innovative project in which they are making use of flipcams to capture small group presentations in class. Key areas of interest are whether students look at each other's videos, and for what purposes, whether student-made video can support revision, and whether students are made more aware of 'soft' skills relating to manner of delivery and teamwork. Technical issues are also being reviewed.

5. Technology and student engagement: surveys are being used to identify student views on a range of technologies, both those currently being used in the business School (eg.streamed video and clickers) and those that might be useful but are not currently available (eg.podcasts, twitter). The study will include ways in which technology helps to integrate international students into teaching and learning as well as focusing on how technology might support students with, for example, dyslexia.

6. Podcasts: Students are working with both Business School staff and educational technologists to design a hassle-free structure enabling lecturers to record lecture, and additional content through audio recorders with students responsible for uploading content onto VLE. Pilot modules have been identified and we are in negotiation to begin recordings very soon. Specific project outcomes will hopefully lead to increased on-demand content across the whole school.

7. **Video Streaming of Lectures:** Over the course of the JISC funded Integrative Technologies project in the Business School, many large, first-year lectures have been captured for later review, with widespread uptake and excellent feedback from students.
Students are investigating a variety of factors associated with this, in particular usefulness to international students and identifying any effects on lecture attendance. Findings, if appropriate, will develop a case for greater implementation of such technologies.

Possible projects (under negotiation)

6. PDP and Personal Tutoring: The Business School has made some significant efforts to support students with PDP through an e-PDP system and through personal tutorials. Student-led focus groups and short interviews will be used to gain student and staff views on the value of provision and to identify good practice.

7. Groupwork is often difficult for students to manage, and yet it is fundamental to many aspects of life and work. Exploring the areas that students find problematic, and looking at ways in which they can resolve difficulties and find ways to support each other, will potentially help future students with coping more effectively with groups.

8. Marketing: this project will focus on how current students might serve as informal ambassadors for the Business School and for the University of Exeter. Many students, both home and international, suggest they come here almost accidentally, but really want to advertise that Exeter is a wonderful place to be

Appendix 4 – Updated list of project outputs

Type of output (see indicative list)	Details e.g. theme, topic, number (of this type), size/scope	Proposed audience (<mark>internal or external</mark>) and/or use (who will use this output and why?)
(WP1) A detailed project plan	The highly detailed project plan underpins all work undertaken by the Integrative technologies project and as such its scope is all encompassing. Current plan is Version 1.5.	The plan will be used by the internal project team to formalize planned activities and to audit progress against targets. The plan will be updated as necessary to include appropriate changes. The plan will also be used externally by the JISC programmes team to better understand what the project will do and how.
(WP2) A review report detailing current practices in curriculum delivery and use of technology in the Business School	The review report details current practices in the Business School at the time the baselining activity was undertaken.	The report will be used to evidence a starting point for distance travelled during and at the end of the project. The report will primarily be used internally for the project team to plan interventions for the Business School and as a basis upon which to plan activities for the duration of the project.
(WP2,8) Project blog (ongoing)	The project blog will provide an ongoing record of project progress.	Audiences for the blog are both internal and external and it is envisaged those interested in keeping up with project progress will use the blog as an informal method of doing so. The blog will also contain links to other project outputs (e.g. case studies, reports, student profiles etc.)
(WP2,8) Project website (ongoing)	The project website will form a repository for project outputs and a focus for project dissemination as the project enters the final six months. The website will document all areas of the project..	The audience for the website will be both internal and external. It is expected that anyone interested in learning more about the project and accessing project outputs will use the website. The website will be signposted in all other project dissemination and as such will form a one-stop-

		shop for interested parties. Through the website people will also be able to access contact details for the project team.
(WP2) A brief outline of literature that relates to and can specifically inform the project (ongoing)	Literature is collected using Delicious which will be made available as a tag cloud through the project website.	The tag cloud will be of interest to people internally and externally. Project stakeholders will be able to use the linked information to gain further insight into how project activities relate to the wider world and will also be able to suggest further articles through Delicious' network feature. Audiences will be able to see the context within which we have situated the work of the Integrate project. This will be of interest to external audiences as it will provide background information on project themes.
(WP3) An action plan detailing technological interventions for each of the identified modules (ongoing)	The action plan was created during the baselining phase of the project in order to inform early work. Iterative and incremental work on the interventions planned will augment the action plan – as such it will form an ongoing record of activity and any changes made as a result of evaluation.	The action plan is designated for internal use and will inform externally published outputs, such as the case studies describing different aspects of project activity and project reports.
(WP4) A report of training activities undertaken (ongoing)	The report will comprise a record of training activities undertaken under the auspices of the Integrate project throughout its lifecycle.	The report will initially form an internal document as during the project it will constantly be in flux, with additions being made regularly. At the end of the project the report will be of use externally as it will document the training and coaching sessions undertaken in order to embed the technologies used to transform curriculum delivery in the project. As such, it will form a methodology for others to implement the same changes and will be of use to both internal and external audiences.
(WP4,8) Outline training packages, and	For each technology used, there will be a set of	The training materials will be of interest to

resources, that could be used in different contexts in the University and more widely (ongoing)	materials made available comprising, at the very least, a lesson plan for training interested parties in its use (the way it has been used in the context of the Integrate project) and any supporting materials or resources. Packages will also comprise hints and tips for other people wishing to embed the same technology/technologies in their own curriculum area.	audiences internally and externally. They will ultimately be transferrable (perhaps with some modification) to different contexts and will form a guide for embedding the technologies used in the Integrate project.
(WP5) Pilots of technologies identified during baselining process	Around ten technologies will be trialled in the first year of the project with some of them being continued in the second year. In addition some different technologies may also be introduced in the second year according to curricula needs. Each of the modules using technology will be part of a case study showing the model of blended learning and documenting use of technology. Information will include why we chose a particular technology, how we used it, how use was received by tutors and students, what were the benefits/drawbacks and what should someone else considering using the same technology be aware of.	The pilots will be used internally to ascertain the benefits of using a number of different technologies in learning and teaching and how they can be used to transform curriculum delivery. The processes we went through during the trials, the pitfalls we found and how we overcame them, and what we learnt as a result. All of these finding will be written up into case studies for dissemination both internally and externally.
(WP6) A report focusing on the views and experiences of students (ongoing) and a student-led case-book of technology practices students appreciate, and why	Student opinions will be elicited at a number of points during the project. Baseline data will be collected as to their prior experience with using different technologies both socially and educationally. Student feedback will also be elicited in a number of other ways, such as videos, profiles, interviews etc.	The student feedback will be incorporated into case studies about different technologies (as appropriate) but will also form standalone outputs. The information gathered will be used internally to evaluate the activities of the project and will also be used in dissemination activities for internal and external audiences.
(WP6,8) Student-made video and audio.	Students will be producing audio, video and written content as part of the Bursary Students strand of the project. Students will be working in various areas alongside the core project team	The content will primarily be aimed at internal audiences – University staff, current students and pre-arrival students. Some of the content may be of interest to external audiences, but we expect

	and will produce a number of outputs such as induction materials, guides for using the library, the benefits of being part of the Business School's buddy scheme and how to make the most of campus facilities as well as academically-focused material such as how to get the most out of lectures and seminars.	more interest to be generated by our framework for integrating students into educational change.
(WP6) A framework model for integrating students into educational change.	The framework is being used as a model both as part of the Integrate project and for the Students as Agents of Change project and outlines four different areas within which students can be integrated into educational change: students as evaluators of their HE experience; students as participants in the decision making process; students as partners, co-creators and experts; and students as agents for change. The framework can be used in all areas where the student voice or student action can be used as an emphasis in either student- or University-led change.	The framework model aims to distinguish between different kinds of student activity and builds upon work undertaken by JISC and others in incorporating students in institutional change. As such the framework will be used internally to describe how students have been already been used as change agents within the University of Exeter, and how they could be used in the future. The distinctions made will also be of value to external audiences who also wish to use students as change agents within their own contexts.
(WP7) Regular updates are made to the DVC for Education by the Head of the Education Enhancement Unit		The audience for this output is internal.
(WP8) Interim Reports	Two interim reports will be made over the course of the project and will provide a snapshot of all project activities to date.	The audiences for this output are both internal and external. Interim reports will be used to formalise project progress and to report any exceptions or changes to the project plan. The project plan will be updated accordingly. The reports will be used externally as a dissemination tool for project progress and will be used by project funders to audit progress on the project and adherence to planned activities.
(WP8,9) Case studies detailing the outcomes of	Each of the case studies will document why we	The case studies will be of interest to audiences

the identified pilots (see project plan) (ongoing)	chose a particular technology, how we used it, how use was received by tutors and students, what were the benefits/drawbacks and what should someone else considering using the same technology be aware of.	across the education sector as well as internally. The technology pilots and case studies will be of use to anyone considering using the same technologies in their area of teaching and learning.
Final report	The final report will record all project activity and any variances from the original plan of activity. The report will be a formal record of all work done as a result of the integrate project and will describe what curricula transformations have been made and how.	The audiences for this output are both internal and external. The final report will be used to formalise work undertaken under the auspices of the Integrate project and to report any exceptions or changes to the project plan. The report will be used externally as a dissemination tool for project progress and will be used by project funders to audit progress on the project and adherence to planned activities. The final report will also be if use to other external audiences interested in what the project achieved and how.

Appendix 5 – The daily work of the INTEGRATE team

The email below exemplifies the type of day to day work the project team are involved in. In this case, having supported staff at the last minute with marking their exams using the MCQ scanner, the INTEGRATE Project manager summarised the challenges in an email to the Head of Student Services, with a view to establishing clear processes and protocols for effective use of this system in the future.

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Hi Roz

Following my impromptu session yesterday with Kevin and Bill we had
some real success (with Bill's exams) and some challenges....a number
of issues have come up which need ironing out. I have a few questions
below - could you help me find the answers...?

        How many exams are using the MCQs this time?
        Which modules?
        When are these exams?
        When will they need marking?
        Can we set up a booking system for using the scanner?-

There are some training needs for staff (academic and admin) and
students:

        Can we find a way to inform staff about the process before they
run exams using the MCQ sheets?
        Staff need to train students to fill in the papers, and need to
know how to fill in an answer sheet - see attached draft
        (Bill Peng did this and it worked really well)

Only Cathy and I can currently log in and operate the scanner and
software

        Are we going to allow any staff member to use the software on the
system whenever they want?
        If so, how are we going to manage the consistent naming and
storage of data and any trouble shooting?
        Can we agree that staff must work alongside a trained, skilled
administrator?

Under the current license the software can only be installed on the one
machine, which is ok but the current PC is pretty old.

        Will the PC be upgraded?
        Who takes responsibility for the electronic data generated by the
scanner?
        The scanned scripts and answers need a protocol for looking after
and backing up the data - how will this happen?

Many thanks for looking at this for me. I hope you are the right person
to ask about these things in the first instance....

Best wishes

Karen
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Appendix 6 – Positive outcomes from challenging circumstances

Following a near disaster with the Confluence wiki system, the project team were able to build better relationships with the web innovation team which have helped the project since that time. Managers in other departments were then able to support our work more effectively and we are now working together to look at lessons learned from our large scale pilot of this system.
The email below is from the head of the Web Innovation team to her team and the INTEGRATE team.

Hi All,
 Just thought that I would send round a brief summary of our meeting earlier. Please feel free to correct me if I have misunderstood anything…

- Business School pilot is very successful. It is due to finish in March. While there are no other immediate plans for further use, it is expected that further educational wikis will be requested. We all agreed to write a review of the pilot (Karen to lead)
- Moving forward, we agreed that while the current wiki will remain 'closed', we should review in 6-12 months to decide if there is a better way for students to collaborate on private assessed work (maybe using Moodle?). Sue to consider appropriate policies to be put in place before opening up the wiki.
- Agreed that we need to create a test environment so that we can try changes before introducing into the live service. Sue to arrange
- All technical queries to be forwarded to Darren and Rich until we roll out the full service when the Helpdesk will manage calls
- Usage reporting will be needed, either from Confluence or Google Analytics. Both to be assessed by Karen and Laura.
- Students will need guidelines on appropriate content to publish on their personal profiles. Darren to advise and to check visibility of profiles across sites
- Darren to investigate possibility of making private and public spaces available within a single wiki installation
- Agreed that video guidelines are excellent and should be made available from the home page. Rich

Just to reiterate, we are really pleased that you have engaged with the wiki and are making full use of it.

I will set up meeting for April so that we can review progress

Thanks
  Sue