

**Final Project Report**

**Project No:** 141/02

**Project Title:** **Managed Environments for Portfolio-based Reflective Learning:  
Integrated Support for Evidencing Outcomes**

**Website:** <http://www.eportfolios.ac.uk>

**Date:** 30th September 2005



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Project Funded by



## Executive Summary

### ***Successful Delivery of the FDTL-4 Project***

#### **Core Deliverables**

Based on the initial project plan:

- Successful technical development and implementation of ePortfolios for use in Medicine with software suitable for transfer other subject areas.
- Successful integration of ePortfolios into the managed learning environments (MLEs) at Newcastle, Leeds and Sheffield. Additional work on interoperability plus investigation of integration with the Blackboard and Bodington virtual learning environments (VLEs).
- Successful integration with the Medical curricula / learning outcomes.
- Engagement of curricula staff leading to the implementation and embedding of electronic portfolios at the partner institutions from the start of the 2003/4 academic year.
- Further development and expertise in pedagogy and evaluation/research associated with the use portfolios for education.
- Research and evaluation studies investigating the use of portfolios in promoting a reflective approach to evidencing outcomes, including 2 book chapters and 3 peer-reviewed conference papers.
- Close collaboration with the HE Academy & Subject Centre for Medicine, Dentistry and Veterinary Medicine.
- Dissemination within the subject community (14 major medical conferences, 30 consultations, attended by > 750 people)
- An extensive project Website (<http://www.eportfolios.ac.uk/>) which includes a public demonstrator, documents and presentations related to the project.

#### **Additional outcomes**

As well as meeting the core deliverables, there have been additional outcomes beyond those set out in the original project proposal:

- The Medical School at St Andrew's University joined the project as a 'self-funded' partner and is now in the 2<sup>nd</sup> year of using the ePET portfolio.
- The technical developments have including a 'generic' ePortfolio (ePET) which has proven highly adaptable for other contexts outside Medicine<sup>1</sup>. It can be configured to meet different requirements at the course/programme level.<sup>2</sup> This is freely available to FE/HE institutions in the UK.
- The log book developed at Leeds is freely available as part of the Bodington.org VLE and has paved the way for other ePortfolio collaborations.
- Dissemination to the wider HE community (20 conferences + 15 consultations attended by >1,100 people, in addition to those within the Medical community).

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<sup>1</sup> Cotterill SJ., McDonald AM., Drummond P., Hammond GR. **Design, implementation and evaluation of a 'generic' ePortfolio: the Newcastle experience.** Proc. ePortfolios 2004 [ISBN 2-9524576-0-3]. <http://www.eportfolios.ac.uk/FDTL4/docs>

<sup>2</sup> Cotterill SJ, Horner P, Hammond GR, McDonald AM, et al. **Implementing ePortfolios: adapting technology to suit pedagogy and not vice versa !** Proc. ePortfolio 2005. <http://www.eportfolios.ac.uk/FDTL4/docs>

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- Participation in national (JISC, HE Academy, CRA, CETIS) and international (EIFEL & North American) portfolio & PDP related initiatives and events.
- Feasibility study of ePortfolios for Contract Research Staff at Newcastle (presented at SEDA), subsequently to be made available across the institution.
- Pilot of ePortfolio to support PDP for Postgraduate Research Students at Newcastle, subsequently rolled out across the institution.
- Adoption of the ePortfolio in Biosciences at Newcastle University as part of an HE Academy Subject Centre mini-project.
- The project Website includes resources of interest to the wider community, including a database of over 200 citations related to portfolios, PDP, and reflection.
- Continuity / collaboration with other ePortfolio-related projects including:
  - Continued participation in national & international ePortfolio initiatives
  - FDTL Transferability funding to work with St George's University, London
  - ePortfolio support for 2 CETLs (Leeds and Newcastle)<sup>3,4</sup>
  - JISC funded 'EPICS' regional ePortfolio project (North East)
  - JISC funded 'ELP' regional ePortfolio project (Yorkshire)
  - Undergraduate & Vocational Training ePortfolio in Dentistry (Consortium of Dental Schools & Postgraduate Deaneries, including Newcastle)
  - PRHO log book (Sheffield/Trent Deanery)
  - 2 projects funded by the University Teaching & Learning Committee (Newcastle)
  - Roll out of ePortfolios to postgraduate researchers and CRS (Newcastle)

The screenshot shows the 'MBBS : Learning Support Environment' interface. It features a navigation menu with options like Home, Timetable, Course Materials, Portfolio, Assessment, Course Info, Base Units, Communications, Student Voice, and Links. The main content area is titled 'Portfolio Home (Stage 1 Test Student)' and includes sections for 'Search Portfolios', 'Browse' (with links to Portfolio Home, My Evidence, Learning Outcomes, CV, My Learning Diary, Patient Visits, Meetings with Tutor, My Folder, Personal details, Portfolio contents, Portfolio Settings, To Do List, and User's Guide), and 'To Do List'. A table at the bottom shows tasks with columns for 'Created', 'Target Date', and 'Priority'.

The screenshot shows the 'Minerva' ePortfolio interface for 'Ash Self (Student)'. It includes a navigation menu with Grades, Assignments, CALOM, Reflections, In-course Assessments, and Achievements & Memo's. The main content area is titled 'E-portfolio: Ash Self (Student)' and contains a 'Student Selected Components' table. The table lists various components and their grades.

Component	Grade
Medicine and Society (Phase 1a)	Grade
Professional Behaviours	Satisfactory
Overall competence in relation to stage of training	Good
Critical Analysis (Phase 1a)	Grade
Professional Behaviour	Borderline
Overall competence in relation to stage of training	Borderline
History of Medicine (Phase 1a)	Grade
Professional Behaviour	Unsatisfactory
Overall competence in relation to stage of training	Unsatisfactory
Community Attachment Scheme (Phase 1a)	Grade
Professional Behaviours	Satisfactory
Overall competence in relation to stage of training	Satisfactory

The screenshot shows the 'PPD Log Book' interface. It features a navigation menu with options like Access Own Log, Supervise Users, Edit Questions, and Manage. The main content area is titled 'Log: S Hennessy' and includes a section for 'Collate Entries' with a list of links: Engaging with people, Develop a critical stance, Examples of effective and ineffective communication, Patients' ideas and concerns, Interviews with patients, Share understanding effectively, Report information about patients, and Difficulties in communication. A text entry area is visible with the title 'Develop a critical stance' and the instruction 'Reflect on your own experiences and develop a critical stance towards your own opinions.' A 'To Do List' is also present at the bottom.

The screenshot shows the 'myPortfolio' interface for 'Fred Bloggs' at the University of St Andrews. It includes a navigation menu with options like Portfolio Home, Patient Scenarios, Clinical Skills, Learning Outcomes, CV, My Learning Diary, Adviser Meetings, Portfolio Settings, To Do List, and My Folder. The main content area is titled 'Welcome Fred Bloggs' and contains a 'To Do List' table.

Task	Created	Target Date	Priority	Done
worry less about being the fastest team	26/09/2005	03/10/2005	Medium	X

Figure 1. ePortfolios at Newcastle (top-left), Sheffield (top-right), Leeds (bottom-left), St Andrews (bottom-right)

<sup>3</sup> Centre for Excellence in Teaching and Learning in Assessment and Learning in Practice Settings (ALPS) – West Yorkshire

<sup>4</sup> Centre for Excellence in Healthcare Professional Education (CETL4HealthNE) – North East.  
<http://www.cetl4healthne.ac.uk>

## 1.0 Project Information and Goals

### **Policy Drivers**

- Professional requirements for reflective practitioners who are able to manage and evidence their continuing development.
- QAA requirements for Personal Development Planning (PDP).

### **Goals of the project**

- Develop on-line portfolio systems to support a reflective approach to evidencing the attainment of programme outcomes.
- Promote the development of the reflective capabilities of medical students, giving greater responsibility for managing their own learning and preparing for aspects of work-based and lifelong learning.
- Develop strategies to facilitate assessment of curriculum outcomes that are not amenable to traditional instruments of assessment.
- Integrate ePortfolios into the managed learning environment.

### **Contacts**

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See Appendix 1 for acknowledgments and full list of contacts / people contributing to the project

## 2.0 Deliverables and Outcomes

### **2.1 Deliverables**

Table 1. Overview of project deliverables against the original project goals

Original project goals	Actual deliverables and outcomes	Variations from original and reasons for change
Create generic on-line tools to evidence and facilitate reflection on learning outcomes.	<p>'Generic' ePortfolio: a stand-alone customisable ePortfolio with components to support reflection and evidencing learning outcomes. This was developed at Newcastle using Zope, an Open Source environment. Specifications shared with partners.</p> <p>Tools to evidence learning outcomes and reflect on clinical experiences developed in Zope at Sheffield.</p> <p>Leeds has collaborated with Bodington.org to make enhancements to the Log Book tool within</p>	<p>Extra development in Bodington in response to local requirements.</p> <p>Newcastle &amp; Sheffield: extra development in response to changes in the curriculum.</p>

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	<p>the Bodington VLE. These enhancements were made as a result of student and staff feedback and include facilities' for attaching files to reflective entries, sharing portfolios with colleagues and importing a framework of skills to self assess and reflect on competence:</p>	
<p>Integration of ePortfolios with MLEs for Medicine at Newcastle &amp; Sheffield</p>	<p>The ePortfolios have been integrated into the MLEs at Newcastle and Sheffield since September 2003.</p>	
<p>Integration with curricula outcomes.</p>	<p>The 'Generic' ePortfolio can be configured with different learning outcomes or skills sets.</p> <p>At Newcastle, Medical students can record against the 'terminal' learning outcomes specified in the curriculum. These are based on the Scottish Doctor's interpretation of GMC's Good Medical Practice. Year 4 students can define and negotiate their own learning outcomes in their SSC placement portfolio.</p> <p>Students at Sheffield can record against learning outcomes associated with various aspects of their clinical and research experience.</p> <p>Students at Leeds are able to reflect and upload evidence of achievement against outcomes at Course, Phase and Module level.</p> <p>St Andrews used the generic ePET ePortfolio configured with outcomes from the Scottish Doctors. Student's could make reflective notes and upload files against each outcome.</p>	
<p>Develop strategies to facilitate assessment of curriculum outcomes that are not amenable to traditional instruments of assessment.</p>	<p>The portfolios include tools to evidence learning outcomes related to professional attitudes and behaviours. These outcomes will be included in an assessed part of the ePortfolio from 2005/6 at Newcastle.</p> <p>Sheffield: The portfolios enable students to record reflection on personal development, professional behaviours. The range of reflective opportunities will roll out with the new curriculum.</p> <p>Leeds: Mentors used the log book to make ongoing formative assessment of students' attitudes and behaviours during Year Two. Reflective capabilities were summatively assessed by a short written assignment on the students' experiences of maintaining a portfolio during Year Two.</p>	
<p>Trial ePortfolios at Newcastle &amp; Sheffield (Medicine)</p>	<p>Trialled, evaluated and embedded in the Medical curricula at Newcastle and Sheffield.</p> <p>Tools developed in Bodington piloted, evaluated, and embedded at Leeds.</p>	<p>Larger-scale piloting to meet curricula needs.</p> <p>High levels of</p>

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	<p>evaluated, and embedded at Leeds.</p> <p>The 'Generic' portfolio was trialled in the Medical programme at St Andrew's University.</p> <p>At Newcastle the 'Generic' portfolio has been applied to other contexts:</p> <ul style="list-style-type: none"> <li>• Bioscience</li> <li>• Contract Research Staff</li> <li>• Postgraduate Research Students</li> </ul> <p>The portfolios are being used in other separately funded projects including:</p> <ul style="list-style-type: none"> <li>• 2 JISC funded regional projects</li> <li>• a consortium for undergraduate and vocational trainees in dentistry.</li> </ul> <p>At Sheffield an eportfolio has been available for Pre-registration House Officers 2004-05 in conjunction with the Postgraduate Deanery</p>	<p>interest in both within the subject and wider HE community.</p> <p>High levels of customisation in the 'Generic' portfolio facilitated its use in other contexts.</p>
<p>Explore interoperability with other VLEs (Bodington, Blackboard etc.)</p>	<p>The 'Generic' ePortfolio was adapted for 'framing' within Blackboard.</p> <p>Transfer of learner information using the IMS LIP standard, in association with the JISC ePET project (Newcastle).</p> <p>Exchange of learning outcomes between the LUSID system and Bodington using IMS RDCEO in the JISC SPWS project (Leeds).</p> <p>Tracking of the emerging ePortfolio standards debate and submitting 2 Use Cases to the IMS ePortfolio Special interest Group.</p>	
<p>Disseminate results to the subject and wider HE community. Two project workshops planned (years 2 &amp; 3).</p>	<p>Presentations and workshops at 34 major conferences, including 16 invited presentations attended by &gt; 1,800 people.</p> <p>&gt;40 additional meetings and consultations with representatives from external organisations, many via the HE Academy Subject Centre.</p> <p>3 peer reviewed conference papers</p> <p>2 book chapters (in press)</p> <p>4 newsletter articles.</p> <p>Project Website: <a href="http://www.eportfolios.ac.uk">http://www.eportfolios.ac.uk</a></p> <p>Public demonstrator (via the project Website), over 700 people registered from over 200 HEIs.</p>	<p>More demand for dissemination than originally anticipated.</p> <p>The final project workshop was part of a larger 'Breaking Boundaries' event co-ordinated by the subject centre.</p>

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Table 2. Features of the ePET generic ePortfolio developed at Newcastle

Scope	Features
Core features of the ePortfolio	Sharing of specific content +formative comments
	Integrated action planning
	Customisation (course / programme) <ul style="list-style-type: none"> <li>• Select components by course &amp; year group</li> <li>• Specify outcomes / skills sets</li> <li>• Terminology eg. 'personal tutor' or 'mentor'</li> <li>• Text eg. privacy policy</li> <li>• Access-policies for components</li> </ul>
	Customisation (institution) <ul style="list-style-type: none"> <li>• Layout</li> <li>• Style sheets</li> </ul>
	Context-sensitive help
	Component creation (pedagogy) -using simple Web forms
	Interoperability services (in conjunction with the JISC ePET project)
'Generic' Components i.e. not subject-specific	CV
	Learning outcomes / Skills log
	Learning diary
	Action plan
	SWOT
	Record of meetings
	Folder (unstructured information)
	File upload
Other components	Placements portfolio
	Log of patient and family visits

Additional components were developed in collaboration with St Andrew's University.

Table 3. Features of the ePortfolio at Sheffield

Portfolio sections	Portfolio 2003-05	Description	Portfolio from 2005	Description
Grades	<b>v</b>	Grades from in-course assessments, professional behaviour marks and SSCs	<b>v</b>	Grades from in-course assessments & professional behaviour marks and SSCs End of year summative assessment grades included
Assignments	<b>v</b>	SSC assignments uploaded	<b>v</b>	SSC & Public Health assignments uploaded
Achievements, Reflections & Memos	<b>v</b>	Section for students to use freely		
Reflection			<b>v</b>	Reflection on significant events (including an on-going learning plan) at specified points on the course. Careers reflections in Phases 3a and 3b
Achievements & Memos			<b>v</b>	Section for students to use freely
CALOM (Clinical Activity Log on Minerva)			<b>v</b>	Record of case histories (linked to the core index cases of the outcomes), confidence levels in clinical examination at the start and end of each clinical attachment& core procedural skills

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Table 4 features of the Bodington Log Book

Portfolio Components	Pilot Phase	Implementation Phase	Future Development
Reflection on curricula outcomes.	Students can make text based reflective log entries under a set of learning outcomes.	Students can record textual statements under learning outcomes and attach artefacts as evidence.	Outcomes can be nested on multiple levels.  Students can self assess their competency level against a learning outcome as well as providing plain text input.  Staff can download skills audit data for the cohort.
Portfolio		File upload tool and artefact store.	
Student Ownership		Students can share their portfolio with colleagues and access colleagues' portfolios to give feedback.  Individual log entries can be made private from those who have been granted access to the portfolio.	
Interoperability (SPWS project)	Learning outcomes can be imported from a spreadsheet.		Learning outcomes can be imported from a web service hosted by the LUSID system, or can be imported directly from an IMS content package.

### **2.2 Products available beyond the life of the project**

Many of the project deliverables remain available beyond the life of the project. The software will be under further development in a range of continuation projects (listed in section 5.0). The following are available:

- ePortfolio software
  - The component-based 'Generic' ePortfolio and the JISC funded ePET interoperability software is freely available to the FE/HE community in the UK.
  - The Bodington VLE, including the Log Book is freely available via Source Forge.
- Project Website (<http://www.eportfolios.ac.uk>). Includes extensive information on ePortfolios and PDP, presentations, documents etc.
- Papers and book chapters (see Appendix 2)

### 3.0 Dissemination

The dissemination strategy encompassed internal and external dissemination for awareness (primarily), understanding (partly), and continuation of activity beyond the funding life of the project (partly).

Table 5. Summary of external dissemination

• Conference papers / book chapters	6	listed in Appendix 2
• Newsletter articles	6	listed in Appendix 2
• External presentations / workshops	33	listed in Appendix 3
• External meetings / consultations	44	listed in Appendix 4
• Project Website:		<a href="http://www.eportfolios.ac.uk">http://www.eportfolios.ac.uk</a>
• Project flyers		

The original project plan included 2 national workshops (end of year 2 and end-of project), opportunistic conference presentations, and close liaison with the Subject Centre. In practice there has been a much higher volume of external dissemination than anticipated. This reflected a high level of ‘demand’ and interest in ePortfolios and PDP both within the subject area and wider sector. The project has presented at 34 major conferences with presentations attended by > 1,900 people (full list of presentations and workshops in Appendix 3). This includes 16 invited presentations and workshops, of which 6 were in the Medical arena.

Collaboration with the HE Academy has been very valuable. Work with the Subject Centre for Medicine, Dentistry and Veterinary Medicine resulted in articles in the ‘01’ newsletter (2), presentations/workshops at events organised by the Subject Centre (8), numerous meetings / consultations (including some of those listed in Appendix 4). Also, the final project workshop was incorporated into a wider ‘Breaking Boundaries’ event which was organised by the Subject Centre. This pooled resources of several projects for more effective dissemination. There has also been collaboration with the HE Academy (former NCT) including 2 articles in the TQEF/NCT Bulletin and workshops at the TQEF, FDTL and HE Academy Annual conferences.

The project Website has also been a good vehicle for dissemination (average of 554 pages requested per day) *plus* over 700 individuals, from over 200 HEIs, registered for the project demonstrator (Table 6)

Table 6. Summary of individuals registering for the project demonstrator

Discipline	UK	Non-UK	Total
Medicine	51	41	92
Other Health-Related	47	62	109
Other HE	276	99	375
Other	33	116	149
Total	407	318	725

From 04/03/2004 to 30/09/2005

## **4.0 Evaluation**

There have been extensive research and evaluation activities as part of this project, including 2 studies with formal ethical approval. Many of the findings of the evaluation activities have been presented and included in conference papers (see Appendix 2).

### **4.1 The qualities of the products and deliverables**

The high quality of the project's products and deliverables (software, pedagogy, research & evaluation outputs, Web site, dissemination workshops and materials) is evident in the wide and successful adoption and embedding of ePortfolios in the curricula of the four partner institutions and in the various continuation activities (see 5.0). Many of the factors contributing to the quality of the outputs are outlined below (see: 4.4 lessons learned). In particular, there have been substantial engagements with and contributions from a wider team (see Appendix 1). This wide range of contributions has enabled the project to address more fully technology, pedagogy, research and evaluation. This has in turn resulted in synergies and in consequent benefits to overall quality.

### **4.2 The extent of take-up and use of products and deliverables.**

- Take-up and embedding in the Medical Curricula of the 3 original partners (approx. 3,000 students)
- Take up by Medicine at St Andrews
- Future take-up of ePET by St George's Medical School (FDTL Transferability project)
- The 'generic' ePortfolio at Newcastle has been used as the foundation for portfolios in other contexts:
  - Dentistry (consortium representing undergraduate & vocational training)
  - Postgraduate research students – to be institution-wide from 2005/6
  - Contract research staff – to be institution-wide during 2005/6
- See 5.0 for full list of continuation projects

### **4.3 Effectiveness and impact of take-up and use**

- Continuing use and embedding of the ePortfolio in the Medical curricula of the 3 original partners.
- Additional take-up in Medicine by St Andrews (self-funded partner), St George's Medical School (FDTL Transferability) and interest from other Medical Schools.
- Successful take-up in other subjects/contexts (see section 5.0), including institution-wide ePortfolios for Postgraduate Research Students and CRS at Newcastle.
- Some evidence that the ePortfolios have facilitated a reflective approach to evidencing outcomes and planning learning (PDP). See publications listed in Appendix 2.

## **4.4 Lessons Learned**

### **1. Effective implementation of ePortfolios/PDP takes time and use**

Over the 3 years of this project ePortfolios have been embedded in the curricula at the partner institutions. However, the roles of the portfolios within the curricula are continuously being developed and refined. There is a need for constant evaluation and alignment of the portfolio with teaching, learning and assessment strategies.

## **2. PDP may be more effective when integrated into the curriculum**

Where PDP is delivered in the context of the curriculum it has the potential to be more meaningful and engaging to both students and staff – compared to more abstract ‘stand-alone’ delivery of PDP. For example, the experience of planning and reflecting on learning outcomes for the year 4 SSC placements was very positive at Newcastle. Similarly at Sheffield, reflection and planned learning is part of some of the early years’ SSCs and clinical attachments. Such approaches enable students to connect their personal learning to the defined outcomes of the curriculum as well as their individual learning goals. To achieve this integration it is important that ePortfolios are flexible and easy to customise.

## **3. Engaging students and staff in reflective practice (non-assessed)**

Expect resistance! It is essential to ensure the students feel a sense of ownership and to establish rules of behaviour at the time of inviting participation; benefits to students will be in direct proportion to their engagement and effort. Staff also need to be ‘onboard’ and aware of the process. Patience and persistence is required while students (and also some staff) begin to recognise that there are different levels of reflection. Students and staff must understand the rationale for developing their reflective skills, whether they are assessed or not. A strong driver for reflection in Medicine is the professional requirements for reflective practitioners which need to be evidenced in regular assessments and revalidation.

## **4. Effective PDP may require assessment to motivate students and staff**

PDP portfolios may be well designed and educationally well intentioned. However, many students are highly strategic and are therefore unlikely to engage in PDP processes unless they are linked to assessment / progression. Where there are not sufficient staff or other barriers to the assessment of the full portfolio, selected parts of the PDP portfolio can be made mandatory for progression – if there is a strong reflective element then grading raises a number of challenges, so a pass/fail scheme may be more appropriate in the first instance.

## **5. Having established staff in place at the start of the project is an advantage (continuity and experience)**

In common with many other FDTL projects, a key challenge has been meeting fixed project deadlines relating to the start of the academic year. The project has developed and implemented pilot systems within an 11 month time-frame for the academic year beginning September 2003. A key advantage for our project has been in having experienced project staff in place at the start of the project; Tony McDonald, Project Manager (20% funded) and Simon Cotterill, Senior Project Officer (100% funded). The current project builds on previous work including a Networked Learning Environment project (TLTP-3 86) and Internet-PARs projects (DfEE/DfES Innovations) in which these staff were respectively involved. This continuity has enabled the retention of knowledge and skills in the individuals and the wider team which have facilitated the meeting of these tight deadlines. Likewise, at Sheffield and Leeds core teams have also been able to deliver the elements of the project in a timely manner, despite the change in the e-portfolio project officer at Sheffield during the project period. For all of the partner institutions a high level collaboration between the academic and IT staff has further facilitated the continuity and understanding of purpose.

## **6. There is a thin line between evaluation and research!**

Some of the educational aims of the project involved many complex issues which provide challenges for project evaluation and demand more research-oriented methodologies. In particular, the project aims include using ePortfolios to increase the reflective capacity of medical students in preparation for professional practice. Also, the requirements for Ethical approval (see below) were recently broadened to include all “healthy-subjects” ie. including students! As such

our project has been advised that in measuring and recording reflective ability pre and post intervention that we should apply for ethical approval (see below). Together these factors blur the boundaries between ‘evaluation’ and ‘research’. Two approaches have been helpful in the case of our project; firstly a number of individuals involved in medical education research, beyond the immediate funded project team, have participated in project activities and secondly the external evaluator has adopted a formative approach (ie. a participatory role, in addition to the roles of evaluation for accountability and for understanding).

## **7. Allow a long lead time if ethical approval is required for research and evaluation activities**

There is often a thin line between ‘evaluation’ and ‘research’, and advice was sought from the Local Ethics Committee (LREC) who *did* feel that it was appropriate for 2 of the studies associated with this project to go through the full ethics approval process.

Where ethical approval is required the process is very time consuming and this needs to be reflected in project planning. It is important to know the schedule of Ethics Committee meetings (more recently applications have to go through COREC) and to recognise that further time may be needed for revisions or clarifications. For the 2 studies here, minor amendments were requested and final approval was ‘just in time’. The ethics forms include a section on indemnity; the Research and Innovation Services confirmed that the University would provide indemnity for the study – again it is useful to organise this in advance.

## **8. Engaging with senior curriculum staff early in the project**

In common with many other educational projects, it has proved vital to engage with senior academics and curriculum officers at an early stage. This was a key contributing factor to the success of this project, Appendix 1 lists some of the key personnel at each of the partner institutions – most of whom received no direct funding from the project. In Newcastle, for example, the Sub-Dean for Teaching, Learning and Assessment has played an important role in the project. Without his support it would have been harder to get approval from the Board of Studies to pilot the ePortfolios at a time when a new curriculum is being introduced and other large-scale changes in course delivery are taking place. The process of engaging with senior academics and curriculum officers also changed the approach of the project in some respects. For example, in the original project proposal it was envisaged that reflective writing for a ‘Family Study’ would be a key component of the initial ePortfolio development. However, after lengthy discussion the focus was switched to ePortfolio support for year 4 student selected components. Likewise, the Academic Unit of Medical Education at Sheffield, the Medical Education Unit at Leeds, and the Bute Medical school at St Andrews has provided the project with academic support. Overall, the process of engagement will hopefully mean that the project deliverables will better meet the needs of the curriculum and ultimately the educational requirements of the students.

## **9. Involving Staff and Students in the ePortfolio Design**

Staff and student involvement is often left until last, just before the software is ready to ‘go live’. It is better to try and involve potential users of new software applications in the design process in order to identify usability issues at an early stage. Getting user’s feedback is also important in the on-going developing and refinement of both ePortfolio software and pedagogy. This may include both formal and informal feedback. In this project feedback was initially more dependent on focus groups and ad-hoc questionnaires, latterly it also included more ‘mainstream’ course-evaluation processes and input from committees that include student representation.

## **10. Involving students in running evaluation activities**

In addition to providing feedback, involving students in the running evaluation activities can be

beneficial. Simon Cotterill co-supervised a 4th year medical student (Sean Sarma) during his 7 week Student Selected Component in Medical education. This focussed on the evaluation of the use of ePortfolios and log books by 1st year students at Newcastle. As well as providing a valuable learning experience for Sean it was also very beneficial for the project. Sean organised and led focus groups, the results of which we used to identify issues for a questionnaire which was then circulated to the whole year group. We also gave Sean the opportunity to present the results at the Association for Medical Education in Europe 2004 conference in Edinburgh. As well as being personally rewarding for both student and supervisor the benefits to the project far outweighed the moderate outlay of staff time required for supervision.

### **11. Evaluation is not just for the end of the project!**

We received valued input from David Baume as External Evaluator for the project. Following discussions with David his time was 'front loaded' towards the start of the project, emphasising a formative approach to evaluation into the project. In particular, David helped us sharpen our focus on the goals of the project, including detailed discussion with the partners over the more complex issues such as reflection. This proved to be a very productive for the project.

### **12. Participative Workshops**

The project team have run a number of workshops. Over time the proportion of time in the workshops dedicated to presentations was decreased while the facilitators became more confident and experienced in initiating participative exercises and discussion. Collecting evaluation / feedback data was valuable in this learning process.

### **13. Practical problems: organising meetings!**

Face-to-face Advisory Group and Working Group meetings can be hard to organise as many participants have extremely busy schedules. It is important to organise dates in advance, particularly those for the final year of the project where timing is vital.

### **14. Using the project Website for internal dissemination**

A project team intranet was been developed to facilitate communications and the sharing of information. This includes a tool for project team members to record details of project-related meetings. These are classified by type (dissemination, Working group, local project group etc.). As well providing team members with a means of keeping up to date with developments the data is also useful when compiling project progress reports.

## ***4.5 Brief summary of any external evaluation***

This final report shows that this project has met or exceeded its goals. As external evaluator I am very happy to confirm this judgement.

This has been an exemplary project, carried out with a rare combination of enthusiasm and skill from the whole team, the skill embracing the sometimes more problematic areas of organisation and pedagogy as well as showing appropriate technical expertise.

There can be an inverse correlation between success of the project and the length of the final evaluation report. I am denied here even the task of accounting for the success of the project; the project team has already done this, in Section 4.4. Although couched in modest language, this section goes a good way towards identifying why and how the project was so successful. I would add only, as the author is too modest to do, 'hire excellent staff'! I hope that these accounts of what has been learned from the project, backed by illustrations and evidence from the project, will be given wide circulation. Development projects are difficult and complex. Few go as well as this project has gone. It is important to share why.

The report is kind enough to refer to the value of the work I did with the project in its first year to help it to clarify its intended outcomes. I have over the last few years developed the view that evaluation should accompany a project throughout its life rather than being formal a final big bang. I have confirmed through my work with this project that early attention to goal clarification; continued critical friendship during the project; and a chance to take a final overview of the project; together add up to a sensible and productive evaluation package.

There is danger for an evaluator in evaluating a successful project, particularly when the evaluator attends project meetings and thus gets to know the team. The evaluator may become an insider, a member of team, and thus lose their external and critical edge. I don't think this happened here. Evidence? The project team will vouch for my continued asking of difficult questions! And I am confident enough in my sustainedly evaluative approach to the project that I shall not even dredge up one critical comment to allegedly 'prove' my independence. This has been a very successful project. I congratulate the whole team. It has been a pleasure to work with them. And I have learned a great deal, about projects and about evaluation.

*David Baume, adbaume@aol.com*

## 5.0 Continuation Strategy and Associated Activities

The partners are involved in a wide range of ongoing ePortfolio developments:

- Associated projects that have reached the end of their funding (though still some on-going activities):
  - TQEF peer assessment project (Leeds)
  - PRHO log book (Sheffield/Trent Deanery)
  - JISC funded 'ePET' ePortfolio interoperability project (Newcastle)\*
  - JISC funded 'SPWS' skills profiling project (Leeds/Oxford)^
- Continuity / Collaboration with on-going projects:
  - ePortfolio support for 2 CETLs:
    - Assessment and Learning in Practice Settings – ALPS, Director Prof. Trudie Roberts (Leeds) ^
    - Centre for Excellence in Healthcare Professional Education - CETL4HealthNE, Director Prof. Geoff Hammond (Newcastle)\*
  - FDTL Transferability funding to work with St George's University, London\*
  - JISC funded 'EPICS' regional ePortfolio project (North East)\*
  - JISC funded 'ELP' regional ePortfolio project (Yorkshire)^
  - Undergraduate & Vocational Training Dental ePortfolio consortium (Newcastle)\*
  - ePortfolio for Postgraduate Research Students (Newcastle, institution-wide)\*
  - ePortfolio for Contract Research Staff (Newcastle, institution-wide)\*
  - Collaboration with Bodington.org (Leeds)^
  - Bodington logbook being used by other subject areas in Leeds ^
  - HE Academy Biosciences ePortfolio mini-project (Newcastle)\*
  - 2 projects funded by the University Teaching & Learning Committee (Newcastle)\*
  - ePortfolio community: <http://www.eportfolios.ac.uk>

\* projects drawing on the generic 'ePET' ePortfolio developed in this FDTL-4 project.

^ projects drawing on the Bodington log book developed in this FDTL-4 project

## 6.0 Financial Report

<b>Project Title</b>	Managed Environments for Portfolio-based Reflective Learning: Integrated Support for Evidencing Outcomes			
<b>Project Start</b>	1 <sup>st</sup> October, 2002			
<b>Project Finish</b>	30 <sup>th</sup> September, 2005			
<b>Total Project Funding</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Total</b>
	£79,722	£81,741	£88,537	£250,000
<b>ORIGINAL BUDGET</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Total</b>
<b>Period of funding</b>	01/10/02-30/09/03	01/10/03-30/09/04	01/10/04-30/09/05	
<b>Staff</b>	59262	64381	68151	191794
<b>Travel &amp; subsistence</b>	3900	3300	3300	10500
<b>Dissemination</b>	3500	4500	6500	14500
<b>Equipment</b>	4500			4500
<b>Evaluation</b>	1000	2000	3000	6000
<b>Other costs (Please detail)</b>				0
Consumables	2560	2560	2586	7706
Consultancy	5000	5000	5000	15000
<b>Total</b>	<b>79722</b>	<b>81741</b>	<b>88537</b>	<b>250000</b>
<b>ACTUAL BUDGET</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Total</b>
<b>Period of funding</b>	01/10/02-30/09/03	01/10/03-30/09/04	01/10/04-30/09/05	
<b>Staff</b>	72971	78082	83823	234876
<b>Travel &amp; subsistence</b>	1588	2034	3215	6837
<b>Dissemination</b>	917	5107	4030	10054
<b>Equipment</b>	983			983
<b>Evaluation</b>	1631	1400	2969	6000
<b>Other costs (Please detail)</b>				
Consumables	2560	2349	793	5702
Consultancy	5000	5000	5000	15000
<b>Total</b>	<b>85650</b>	<b>93972</b>	<b>99830</b>	<b>279452</b>
<b>Overspend +/-Underspend</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Total</b>
<b>Period of funding</b>	01/10/02-30/09/03	01/10/03-30/09/04	01/10/04-30/09/05	
<b>Staff</b>	+13709	+13701	+15672	+43082
<b>Travel &amp; subsistence</b>	-2312	-1266	-85	-3663
<b>Dissemination</b>	-2583	607	-2470	-4446
<b>Equipment</b>	-3517	0	0	-3517
<b>Evaluation</b>	631	-600	-31	0
<b>Other costs (Please detail)</b>				
Consumables	0	-211	-1793	-2004
Consultancy	0	0	0	0
<b>Total</b>	<b>+5928</b>	<b>+12231</b>	<b>+11293</b>	<b>+29452</b>
<b>Notes</b>				
The overspend of £29,452 is a financial contribution from the Newcastle partner.				

## 7.0 Declaration

### Declaration

I certify on behalf of the lead institution that the attached final report and the financial report, and the information contained therein is correct, and that the funds allocated have been applied to the purpose for which they were made available.

Project Name:       Managed Environments for Portfolio-based Reflective Learning:  
                          Integrated Support for Evidencing Outcomes

Project Number:    141/02

### Head of Institution or Nominated Deputy

Name (print)        Professor E Ritchie, Pro-Vice Chancellor for Teaching and Learning

Signed

Date

### Project Director

Name (print)        Professor GR Hammond

Signed

Date

## Appendix 1. Project Team and Associated Staff

### Newcastle

Geoff Hammond	Project Director	
Tony McDonald	Project Manager	(20% project funded)
Paul Drummond	Project Co-ordinator	
Simon Cotterill	Senior Project Officer	(100% project funded)
Philip Bradley	Sub-Dean (T,L & Evaluation)	

### Leeds

Trudie Roberts	Professor of Medical Education	
Andy Pellow	IT Manager	
Scott Hennessy	Project Officer	(50% project funded)
Anne-Marie Howes	Senior Teaching Fellow	
Jill Thistlethwaite	(now at James Cooke University, Australia)	

### Sheffield

Ash Self	NLE Project Officer	
Richard Davidson	Project Officer	(50% project funded)
Patsy Stark	Senior Lecturer	
Chris Roberts	(now at University of Sydney)	

### St Andrews

Jim Aiton	Senior Lecturer and Adviser of Studies	
Julie Struthers	Learning Technology Consultant	
Susie Whiten	Senior Lecturer and Adviser of Studies	
Hamish Lawson	Software Developer	

### Project Consultants

Margery Davis	Professor of Medical Education, Dundee	
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### HE Academy Co-ordination

Rachel Segal	Senior Advisor	
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### External Evaluator

David Baume	HE Consultant	
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### Advisory Committee

Norman Jackson	Senior Adviser, LTSN-Generic Centre	
Nigel Bax	Professor of Medical Education	
Peter Rees Jones	Assistant Registrar, Leeds	
Ella Richie	Pro-Vice-Chancellor, Newcastle	
Megan Quentin-Baxter	Deputy Director, LTSN-01	
Rachel Segal	Senior Advisor, HE Academy	
Rob Ward	Centre for Recording Achievement	

Thanks to: Gordon Skelly, John Moss, John Snowdon, Paul Horner, David Teasdale, John Spencer, Sean Sarma, Gill Bravey, Muriel Pringle, Rukia Mayanja, Suzanne Hardy, Susanne Lewis, Sue Bruce, Nigel Purcell, Iain Nixon, David Newble, Ashley Milnes, Lesley Heseltine, Kathleen Scougall, Barry Hirst – for their valuable contributions.

## Appendix 2. Publications

See List of Abbreviations and Acronyms in Appendix 5.

### Book Chapters

Cotterill SJ, Bradley PM, Hammond GR. ePortfolios: **Supporting assessment in complex educational environments**. In Bryan C and Clegg K (eds) (2006) *Innovative Assessment in Higher Education*, Taylor and Francis Group Ltd, London.

Cotterill SJ, Aiton J, Bradley PM, Hammond GR, McDonald AM, Struthers J, Whiten S. **A flexible component-based ePortfolio: adapting and embedding in the curriculum**. *Submitted* for a 'Handbook for ePortfolio Research' being co-ordinated by eportconsortium.org

### Peer-Reviewed Conference Papers

Cotterill S, Skelly G, McDonald A. **Design and integration issues in developing a managed learning environment which is responsive to changing curriculum and policy requirements**. *Network Learning 2004*: 409-416 [ISBN 1-86220-150-1]  
[http://www.shef.ac.uk/nlc2004/Proceedings/Individual\\_Papers/CotterillSkellyMcD.htm](http://www.shef.ac.uk/nlc2004/Proceedings/Individual_Papers/CotterillSkellyMcD.htm)

Cotterill SJ., McDonald AM., Drummond P., Hammond GR. **Design, implementation and evaluation of a 'generic' ePortfolio: the Newcastle experience**. *Proc. ePortfolios 2004* [ISBN 2-9524576-0-3].  
<http://www.eportfolios.ac.uk/FDTL4/docs>

Hennessy S., Howes A. Using **ePortfolios to assess the Reflective Capabilities of Medical Students**. *Proc. ePortfolios 2004* [ISBN 2-9524576-0-3]. <http://www.eportfolios.ac.uk/FDTL4/docs>

Cotterill SJ, Darby J, Rees Jones P, Roberts G, van Tartwijk J, Veugelers M. **ePortfolios in the Netherlands and the UK**. ALT-SURF seminar of ePortfolios and Digital repositories, 2004.  
<http://tinyurl.com/c2vuy>

Cotterill SJ, Horner P, Hammond GR, McDonald AM, et al. **Implementing ePortfolios: adapting technology to suit pedagogy and not vice versa !** *Proc. ePortfolio 2005*. <http://www.epics.ac.uk/docs>

### Use Cases

Cotterill SJ, McDonald AM. Transfer of ePortfolio with complex structure from undergraduate to an employer's system – at the graduate's request. **IMS ePortfolio SIG**, 2003.  
<http://www.imsglobal.org/usecases/ePortfolio/FMSC-01.pdf>

Cotterill SJ, McDonald AM. ePortfolio interoperating with a virtual learning environment. **IMS ePortfolio SIG**, 2003. <http://www.imsglobal.org/usecases/ePortfolio/FMSC-02.pdf>

### Abstracts

Stark P, Roberts C, Bax N: **Guided reflection through critical incident observation : a tool for professional development for first year medical students**. ASME, 2003.

Cotterill SJ, McDonald AM, Roberts T, Roberts C, Davis M, Hammond GR. **Can electronic portfolios facilitate personal development planning and meet the requirements for HE Progress Files and CPD ?** *Proc. SEDA 2004* (Abstract)

McDonald AM, Cotterill SJ, Hammond GR **Design, implementation and evaluation of a 'generic' e-portfolio: the Newcastle experience**. *Proc. ePortfolios UK 2004* (Abstract)

Cotterill SJ, Heseltine L, Drummond P, McDonald AM **Electronic Portfolio Approaches to Support Development of Contract Research Staff**. *Proc. SEDA 2004* (Abstract)

## ePortfolios - Final Project Report

Cotterill SJ, McDonald AM, Hammond GR, Bradley PM **Implementation and Evaluation of an Electronic Portfolio to Support undergraduate medicine** Educacion Medica, 2004; 7: 20 (Abstract)

Cotterill SJ, McDonald AM **Principles of Electronic Portfolios** Educacion Medica, 2004; 7: 34 (Abstract)

Cotterill SJ, Ellaway R, Cameron H. **ePortfolios: Two Perspectives from Medicine and Beyond** Proc. ALT Spring Conference 2004.

Sarma VS, Cotterill SJ, Spencer J, McDonald AM, Bradley P. **A paper-based log book and electronic portfolio for Phase I medical students: design, comparison and evaluation.** Proc. AMEE 2004

Cotterill SJ, McDonald AM, Hammond GR, Robinson L, Bradley P. **Design and evaluation of an electronic portfolio to support student selected components in undergraduate medicine** Proc. AMEE 2004

Cotterill SJ, McDonald AM, Hammond GR. **Principles and Practice of Electronic Portfolios.** Proc. AMEE 2004.

Cotterill SJ, Bradley P, Hammond GR, McDonald AM. **Trialling of an electronic portfolio in undergraduate medicine** Proc ASME 2004.

Hennessy S., Howes A. Using **ePortfolios to assess the Reflective Capabilities of Medical Students.** Proc. ePortfolios 2004.

Cotterill SJ., McDonald AM., Drummond P., Hammond GR. **Design, implementation and evaluation of a 'generic' ePortfolio: the Newcastle experience.** Proc. ePortfolios 2004.

Spencer J. Cotterill SJ, Metcalf J. **A Student Selected Component in Medical Education.** Proc ASME Student Involvement in the curriculum, 2004

Cotterill SJ. **Electronic portfolios for formative and summative assessment.** BeSST 2004

Stark P. Roberts C. Bax N.D.S: **Discovering professionalism through guided reflection on critical incidents.** Ottawa Conference 2004

Cotterill SJ. **From electronic PDP to ePortfolios: the Newcastle experience.** CRA 2004

McDonald AM, Cotterill SJ. **ePortfolios for medical education.** Proc. SSeLF 2004

Cotterill SJ, Hennessy S, McDonald AM. **ePortfolios: FDTL-4 and beyond !** Proc FDTL 2005

Cotterill SJ, McDonald AM, Drummond P, Hammond GR. **ePortfolios: design, implementation and evaluation.** Proc AVRTW 2005.

Cotterill SJ. **Electronic Portfolios.** PDP Workshop, HE Academy Subject Centre for Psychology, 2005

Cotterill SJ. **Electronic Portfolios.** Proc. Professional and Personal Development Portfolios in the Early Years of the Medical Curriculum, 2005

Struthers J, Aiton J, Whiten S, Cotterill SJ. **Using an ePortfolio to encourage goal setting and reflective practice in new medical students.** Proc. AMEE, 2005.

Cotterill SJ, McDonald AM, Hammond GR. **ePortfolios for PDP: design, implementation and evaluation.** Proc. HE Academy Conference 2005.

Cotterill SJ, McDonald AM, Hammond GR, Robinson L, Bradley PM. **An electronic portfolio to support planning and reflection for student selected components.** Proc ASME, 2005

Cotterill SJ, McDonald AM, Hammond GR. Proc ASME, 2005

Cotterill SJ, Drummond P, Hollands P, McDonald AM, Moon R, Moss JD, Snowdon J. **ePortfolio interoperability: providing continuity and enhancing learning.** Proc ALT-C, 2005

## ePortfolios - Final Project Report

Cotterill SJ, McDonald AM, Hammond GR, Drummond P, Horner P, Teasdale D, Aiton J, Orr G, Bradley PM, Jowett T, Heseltine L, Scougall K. **Implementing ePortfolios: adapting technology to suit pedagogy and not vice-versa !** Proc. ePortfolios, 2005.

### Newsletter Articles

Cotterill SJ. **FDTL4: Managed environments for portfolio-based reflective learning.** '01' Newsletter January 2003, p4-5 (HE Academy Subject Centre)

Cotterill SJ. **Using collaboration to develop electronic portfolios in the Managed Learning Environment.** Bulletin, Spring 2003. (TQEF / NCT)

Cotterill SJ. **How to make a difference – how successive projects have enabled progress and change.** Bulletin, Autumn 2003. (TQEF / NCT)

Cotterill SJ. FDTL4 update: **Developing ePortfolios to support reflective approaches in medicine.** '01' Newsletter February 2004, p5-6 (HE Academy Subject Centre)

Cotterill SJ. **"ePortfolios: Perspectives from an FDTL-4 project"**, Interact (Issue 29, pp12-13), October 2004. [ISSN 1368-4590] (Circulation 2,400 within Bristol and 100 externally).  
<http://www.ltss.bris.ac.uk/interact/29/NCL.doc>

Cotterill SJ., McDonald AM., Drummond P., Hammond GR. **Design, implementation and evaluation of a 'generic' ePortfolio: the Newcastle experience.** CAL-laborate June 2005; 1-7 [ISSN 1443-4490]

## Appendix 3. List of Presentations and Workshops

### *Invited Presentations and Workshops*

Date	Type	Conference	Location	n	Presenter(s)
02/2002	Presentation	Breaking Boundaries Conference	Manchester	60	AMM, GRH
09/2003	Workshop	Association for Medical Education in Europe	Edinburgh	51	AMM, SJC
09/2003	Workshop	Behavioural and Social Science Teaching in Medicine	Keele	18	SJC
03/2004	Presentation	ePortfolios UK (EIFEL)	London	80	AMM
04/2004	Presentation	'From Progress Files to ePortfolios' (CRA)	Staffordshire	75	SJC
04/2004	Presentation	Association of Learning Technology	Edinburgh	120	SJC
05/2004	Presentation	AMEE Media Terraneo Conference	Italy	35	AMM, GRH
05/2004	Presentation	Teesside University, PDP	Middlesbrough	14	SJC
06/2004	Presentation	Supporting Sustainable e-Learning Forum (HE Academy)	Newcastle	45	AMM
07/2004	Presentation	University of Newcastle Teaching and Learning Conference	Newcastle	95	PMB/PD
09/2004	Workshop	Leeds Annual Conference of Clinical Teachers	Leeds	45	AMH, SH, AP
10/2004	Presentation	'Generic' ePortfolio for PDP at Paisley University	Paisley	20	SJC
03/2005	Presentation	Institutional PDP workshop, Edinburgh University	Edinburgh	80	SJC
03/2005	Keynote	Association for Veterinary Teaching and Research Work	Scarborough	95	SJC
04/2005	Workshop	PDP workshop, HE Academy Subject Centre for Psychology	Newcastle	18	SJC
05/2005	Workshop	PPD workshop, HE Academy Subject Centre for Medicine, Dentistry and Veterinary Medicine	Manchester	43	SJC
n = number of participants (estimated in some cases)				894	

### *Other External Presentations and Workshops*

Date	Type	Conference	Location	n	Presenter(s)
01/2003	Presentation	Postgraduate Institute for Medicine and Dentistry Research Meeting	Newcastle	32	SJC
04/2003	Presentation	Joint SEDA/SHRE Conference	Bristol	35	SJC/AMM
09/2004	Presentation	Association for Medical Education in Europe (AMEE)	Edinburgh	52	SJC
11/2003	Presentation	ABAOMS 2003 conference for oral surgeons	Woodhall	40	TR
09/2004	Presentation	Association for Study of Medical Education (ASME)	Liverpool	47	SJC
03/2004	Presentation	Staff Educational Development Association (SEDA)	Cardiff	35	SJC
04/2004	Presentation	Networked Learning 2004	Lancaster	85	SJC/GJS
07/2004	Presentation & Workshop	11th International Conference on Medical Education	Barcelona	90	SJC/AMM
07/2004	Workshop	Joint Symposium on PDP/ePortfolios: Newcastle University and Northumbria University	Newcastle	40	SJC
02/2005	Workshop	FDTL Conference	Manchester	70	SJC/AMM/SH
	Workshop	Portfolio and Reflection	Leeds	30	AC, AMH, AP
06/2005	Workshop	HE Academy Conference 2005	Edinburgh	45	SJC/GRH
07/2005	Presentation	Bodington Buz (incl. demo of Log Book)	Oxford	30	Adam Marshall
07/2005	Workshop & Presentation	Association for Study of Medical Education (ASME)	Newcastle	80	SJC/AMM/GRH
09/2005	Presentation	Association for Medical Education in Europe (AMEE)	Amsterdam	45	JA
09/2005	Presentation	Association for Learning Technology (ALT-C)	Manchester	60	SJC
10/2005	Presentation	ePortfolios 2005	Cambridge	37	SJC/GRH
11/2005	Presentation	Breaking Boundaries Conference	Edinburgh	70	SJC/AMM
				923	

## Appendix 4. Project-Related Meetings / Consultations

The following list of external meetings does not include numerous informal consultations at conferences and by Email.

Date	Organisation, Department / Project	Venue	Notes
26/11/2002	Lancaster University, VIRAD radiopharmacy	Newcastle	Requested meeting
15/12/2002	University of California in Davis, Medicine	Newcastle	Demonstration
31/03/2003	UK eUniversities Worldwide	London	Requested presentation
02/07/2003	Hull-York Medical School	Newcastle	Demo, part of a wider meeting
21/07/2003	Guys, Kings and St Thomas', Medicine	Newcastle	Demo, part of a wider meeting
16/09/2003	Monash University, Australia	Newcastle	Demo, part of a wider meeting
16/10/2003	BBC People Development	Newcastle	Demo, part of a wider meeting
27/11/2003	Hull/York Medical School	Sheffield	Demo, part of a wider meeting
07/10/2004	Paisley University	Paisley	Requested meeting / demo
22/10/2003	LTSN-01, Veterinary Liaison	Newcastle	Requested update
12/11/2003	University of the West Indies, Medicine	Jamaica	Presentation by LTSN-01
03/12/2003	Liverpool University, Medicine + Education	Newcastle	Requested meet / joint update
05/12/2003	University of Leeds, Psychiatry	Leeds	Requested demonstration
10/12/2003	South Yorks. & South Humberside Deanery	Sheffield	Requested demonstration
15/01/2004	Aga Khan University, Pakistan - Medicine	Leeds	Requested demonstration
16/01/2004	Sheffield University, Rheumatology	Sheffield	Requested demonstration
20/01/2004	Newcastle University, Biosciences	Newcastle	Requested meeting / demo
22/01/2004	Newcastle Dentistry 'interface' meeting	Newcastle	Invited to meeting
27/01/2004	University of California in Davis, Medicine	Newcastle	Video-conference
24/02/2004	Rotherham DGH	Sheffield	Requested demonstration
03/03/2004	Sheffield, SHO Foundation Year pilot	Sheffield	Requested meeting
23/03/2004	Sheffield, School of Clinical Dentistry	Sheffield	Requested meeting / demo
05/04/2004	University of Lund, Sweden	Sheffield	Requested meeting / demo
26/04/2005	Barnsley DGH	Sheffield	Requested demonstration
24/05/2004	Teesside University, Central Admin	Middlesbrough	Requested meeting / demo
26/05/2004	Royal College of Surgeons of Ireland	Sheffield	Requested meeting/demo
09/06/2004	Medical School, Saudi Arabia	Leeds	Requested demonstration
11/06/2004	St Andrews University, Medicine	Newcastle	Requested meeting / demo
24/09/2004	Karolinska Institute, Sweden	Sheffield	Invited presentation/demo
21/10/2004	Royal Veterinary College	Newcastle	Requested meeting / demo
18/11/2004	University of Sheffield Portfolio Group	Sheffield	Requested meeting / demo
25/01/2005	University of Woolongong, Australia	Sheffield	Requested meeting / demo
28/0120/05	King Faisal University, Saudi Arabia	Sheffield	Invited presentation/demo
01/02/2005	Ministry of Health Medical School, Saudi Arabia	Sheffield	Invited presentation/demo
07/02/2005	Hull-York Medical School	Newcastle	Requested meeting / demo
10/02/2005	St Andrew's University, Central Admin	Newcastle	Requested meeting / demo
18/02/2005	Salford University, Central Admin	Newcastle	Requested meeting / demo
23/02/2005	Pro Vice Chancellor Sheffield	Sheffield	Requested meeting / demo
07/03/2005	Edinburgh University, Central Admin	Edinburgh	Requested presentation
11/03/2005	Netskills	Newcastle	Requested meeting
13/05/2005	Wolverhampton University	Newcastle	Requested meeting / demo
29/05/2005	Doncaster Royal Infirmary DGH	Sheffield	Requested demonstration
07/06/2005	Department of Genomic Medicine, Sheffield	Sheffield	Requested demonstration

## Appendix 5. List of Abbreviations and Acronyms

AVRTW	Association for Veterinary Teaching & Research Work
ALT	Association for Learning Technology
ASME	Association for the Study of Medical Education
BeSST	Behavioural and Social Science Teaching (in Medicine)
CETIS	Centre for Educational Technology Interoperability Standards
CETL	Centre for Excellence in Teaching and Learning
CRA	Centre for Recording Achievement
DFES	Department for Education and Skills
Eifel	European Institute for E-Learning
FDTL	Fund for the Development of Teaching and Learning (HEFCE)
GMC	General Medical Council
HEFCE	Higher Education Funding Council for England
JISC	Joint Information Systems Committee
LTSN-01	now the HE Academy Subject Centre for Medicine, Dentistry and Veterinary Science
MLE	Managed Learning Environments
PDP	Personal Development Planning
PRHO	Pre-Registration House Officer (medicine, superseded by the Foundation programmes)
QAA	Quality Assurance Agency for Higher Education
SEDA	Staff and Educational Development Association
SSC	Student Selected Components
SSeLF	HE Academy Forum on Sustainable e-Learning
SURF	Collaborative organisation for IT innovation in Dutch HE
TQEF	Teaching Quality Enhancement Fund
VLE	Virtual Learning Environment