


Cover Sheet for Proposals <i>(All sections must be completed)</i>			
Name of Capital Programme: Users and Innovation			
Next Generation Technologies and Practice Phase 2 Please tick ONE BOX ONLY, as appropriate			
<input type="checkbox"/> a) Small-scale pilots <input checked="" type="checkbox"/> b) Large-scale institutional demonstrators			
Name of Lead Institution: University of Manchester			
Name of Proposed Project: HORUS e-Learning Management Extension for Tutors (HeLMET)			
Name(s) of Project Partner(s): <ul style="list-style-type: none"> • University of Manchester • Central Manchester and Manchester Children's University Hospitals Trust • Salford Royal NHS Foundation Trust • University Hospital South Manchester NHS Foundation Trust • Lancashire Teaching Hospitals NHS Foundation Trust 			
Full Contact Details for Primary Contact:			
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Length of Project: 15 months			
Project Start Date: 1 January 2008		Project End Date: 31 March 2008	
Total Funding Requested from JISC: £ 200,000			
Funding Broken Down over Financial Years (Apr–Mar):			
Apr07 – Mar08		Apr08 – Mar09	
£ 44,000		£ 156,000	
Total Institutional Contributions: £ 239,735 (54.5%)			
Outline Project Description			
<p>HeLMET develops and implements services to support collaborative working in distributed communities of practice, working closely with users in accordance with UIDM Stages 3 & 4. Services comprise integrated social networking software and a collaborative support module, the latter comprising a semantic wiki, a novel 'wiki harvester' and on-line document authoring, and their implementation and use processes. The modules will integrate with the HeLM Teacher Portfolio using a generic interface specification. The project takes distributed collaborative revision of the undergraduate Medicine curriculum as its exemplar.</p>			
I have looked at the example FOI form at Appendix A and included an FOI form in the attached bid (Tick Box)		YES ✓	NO
I have read the Circular & associated Terms & Conditions of Grant at Appendix B (Tick Box)		YES ✓	NO

1. Appropriateness and Fit to Programme Objectives and Overall Value to the JISC Community

1.1 Project Aims

1. To deliver services to support collaborative working within distributed work-based communities of practice, leveraging the benefits of Web 2.0 technologies;
2. As an exemplar, to use the services to develop an on-line community of practice for distributed placement education supervisors (PES), and utilise the services to update the curriculum of the Manchester Medical School undergraduate Medicine programme.

1.2 Objectives

1. Using an agile development methodology, to develop an integrated SOA-compliant system comprising social networking and collaborative working modules, and to integrate the modules with the existing JISC-funded HeLM Teacher Portfolio services.
2. To use the system to demonstrate the update of the undergraduate Medicine curriculum.
3. To undertake change management activities to realise a distributed PES community of practice and achieve full-scale roll-out of the curriculum development system.
4. To evaluate the impact of the software system on collaborative development of curriculum within a distributed environment.
5. To evaluate the development and change management processes, within the context of the UIDM Stages 3 and 4 and the e-Learning Maturity Model (eMM).
6. To disseminate and promote the project's process and outputs to the JISC community and the national and international medical and education communities.
7. To provide curriculum development domain information to the e-Framework semantic wiki.

1.3 Appropriateness and Fit to Programme Objectives

This project meets JISC's first strategic aim in providing innovative Web 2.0 services with general applicability for supporting distributed collaborative working. This project places emphasis on its sustainability, through integration with the Manchester Medical School (MMS)'s VMLE, and through Faculty sponsorship, provision of an institutional demonstrator, workshops with partners, and national and international dissemination.

In line with the Users & Innovation programme objectives, the project meets UIDM Stages 3 & 4 through agile delivery of loosely coupled web 2.0 technology mashups providing social networking and collaborative working services. The focus of this project is the implementation, testing and integration of the refined sets of requirements across the distributed locations, working closely with end-users throughout to achieve the project's objectives. Completion of earlier UIDM Stages is elaborated in section 3.2

1.4 Qualitative Benefits to the Lead Institution and Partners

University of Manchester: Placement Education Supervisors (PES) are often loosely affiliated with Faculty and on dispersed sites beyond the HE/FE environment. However, work/business commitments and cost prevent frequent face to face participation in Faculty programme development and support activities. The contribution of PES to curriculum development and other activities is a valuable asset to the awarding institution, and provides the additional benefit of assuring commitment of the remote partner to the outcome.

The Quality and Assurance Agency (QAA) Code of Practice for the Assurance of Quality and Standards in Higher Education¹ places strict quality assurance obligations on awarding institutions with regard to partners providing collaborative, work-based, placement and distance learning. In this context, engagement of dispersed PES is crucial to ensure that the programme is delivered as specified and that standards are maintained for equity of experience for students.

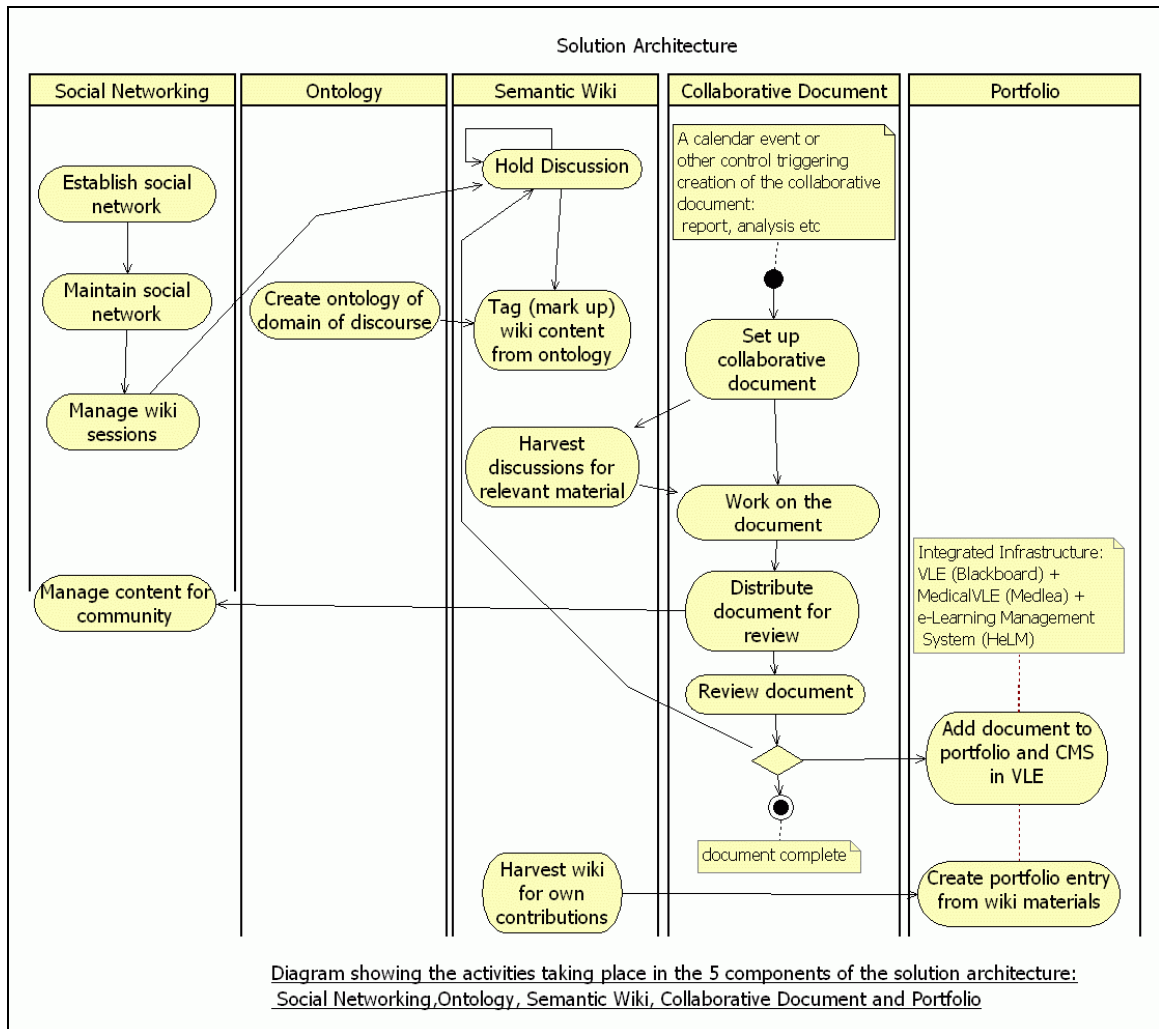
Hospital Trusts: The development of intuitive technologies promote inclusivity, therefore enhancing the teaching experience of PES and ensuring representation of views and participation in Faculty activities.

1.5 Description of the Software Architecture and HeLMET Cycle

The proposed solution architecture comprises five component parts: a social networking manager, an ontology development tool, a semantic wiki, a collaborative document authoring tool and an

¹ QAA Code of Practice for the Assurance of Academic Quality and Standards in Higher Education, <http://www.qaa.ac.uk/academicinfrastructure/codeOfPractice/default.asp>

interface to a portfolio. The five components will work together to support cycles of discussion and collaborative document authoring, in flexibly defined communities of practice. Following any discussion, pieces of the wiki content may be gathered together (harvested) to be made into a portfolio entry for any of the participants in the collaboration, allowing people to preserve their contributions. The harvesting will be carried out on the basis of semantic tagging of the wiki content, which is guided by a pre-prepared ontology of the domain of discourse. Following iterative review and completion of the collaborative document, it may be added to a participant's portfolio and to the VLE's content management system for access by authorised users. Figure 1 below shows these activities taking place within the components responsible for their support.



The following tools will be required to assemble the Web 2.0 mashup needed to realise the aims and objectives of the HeLMET project.

Ontology development tool: This tool is required to support the creation and maintenance of the HeLMET domain ontology. Key requirements for an ontology development tool are ease of use and support of JISC recommended open standard for ontologies – Web Ontology Language (OWL) and the Resource Description Framework (RDF). A candidate tool being considered is Protégé² developed by Stanford medical informatics.

Semantic wiki and social networking: Wikis are currently common place in today's world of collaborative work. They enable documents to be written collaboratively in a simple markup language using an internet browser³. A semantic wiki extends traditional wikis by enabling the contained documents to be marked up with elements from an ontology. In our case, a semantic wiki will be selected that will enable distributed collaborative brainstorming and incremental development of content marked up with elements from the HeLMET domain ontology created by the chosen ontology development tool. Current options for selection and integration in the HeLMET project

² <http://protege.stanford.edu>

³ <http://en.wikipedia.org/wiki/Wiki>

include Semantic Media Wiki⁴, and Ike Wiki⁵. The semantic wiki will be embedded in a social software system which offers the primary value of providing community-based social networking and personal presence amongst the distributed users of the system. Candidate tools include elgg⁶, pligg⁷, mugshot⁸ and dolphin⁹.

Collaborative document authoring tool: Web based collaborative document authoring tools are particularly useful for supporting distributed and collaborative authoring and revision of documents. As the HeLMET project is document centric, such a tool will be used for managing the process of collaborative document authoring and revisions based on harvested content and discussions from the semantic wiki and social platform. Key requirements of such tool will be the ability to create, import, collaboratively edit and download documents as well as the capability to manage access rights. In addition the ability to provide real-time visibility into other participant's uncommitted work will be considered. A leading candidate for integration in the HeLMET project is Google docs¹⁰.

Portfolio: The HeLM project which provides infrastructural support for the HeLMET project also provides a portfolio subsystem that supports the management of student and teacher portfolios. As most users of the HeLMET system will also be users of the HeLM-MedLea-Blackboard system ("HeLM-MedLea"), it will allow users to export relevant parts of their contributions to their portfolios. The portfolio is a content repository that enables users to maintain evidence of their development and achievements. For this project, the teacher portfolio provided by HeLM-MedLea will be utilised, although this same functionality can be realised by integrating with any open standards compliant portfolio system.

1.6 Service Generalisation: Potential Benefits to the Wider Community

The project outcomes are potentially widely applicable, not only within work-based distributed communities of practice, but also for any group where meeting face to face is difficult. This can include busy managers, disparate workers such as home workers, part-time staff and freelancers, as well as support for collaborative provision.

The HeLMET Cycle has applicability well beyond curriculum development, to any activity that includes a consultation or brainstorming phase, followed by intelligently harvesting the outcome. In this project, the exemplar is the first stage of curriculum development; however, the approach could be used for other activities, subject only to a change in the ontology underlying the semantic wiki. Examples are the annual review of teaching materials, e.g. PBL cases, and consultation concerning changes of practice. The HeLMET Cycle also provides a means of joint consultation on an issue with students and staff, with selective extraction of consultation data using the harvester. In addition, there will be general outcomes on the way in which online communities engage in solving complex problems from which general guidelines and approaches may be formed.

This project promises to be of high significance to the overall JISC community in that a service-oriented integration layer will be developed to facilitate seamless interoperability between the mashed-up components based on open standards like XML, SOAP, and WSDL. These service components in this layer will provide implementation independent descriptions of the behaviour of these services which will be expressed in terms of the relevant components of the e-Framework and submitted to the e-Framework repository making it possible for them to be reused in different contexts.

2. Quality of Proposal and Robustness of Workplan

2.1 Project Plan

2.1.1 Methodology – Systems Analysis and Software Development

During Stages 1 & 2 of the UIDM, an agile development methodology was selected and applied with in depth involvement of the users in the definition of the system requirements. This approach will be sustained in this project and the requirements will be iteratively realised within a service-oriented architecture. Off the shelf (OTS) components will be used where these meet the identified

⁴ http://ontoworld.org/wiki/Main_Page

⁵ <http://ikewiki.salzburgresearch.at/>

⁶ <http://elgg.org/>

⁷ <http://pligg.org>

⁸ <http://mugshot.org>

⁹ <http://www.boonex.com/products/dolphin/>

¹⁰ <http://docs.google.com>

requirements and relevant specifications from the e-Framework will be reused where possible. Project milestones will correspond to the dates of successive software releases.

The project takes as its starting point the set of requirements derived during UIDM Stages 1 & 2 and the updated HeLM UML model. These will be fed into the iterative development lifecycle. Software releases 1.0, 2.0, 3.0 and 4.0 are phased releases of functionality (see Section 2.1.4.3 Workpackage 3), incorporating enhanced user-required functionality where appropriate. Releases 5.0 and 6.0 will be based solely on changes to user requirements emerging from evaluations during the course of the project.

Important issues to address are those associated with integrating the different service modules and OTS components. Also of critical importance are the usability and accessibility of the composed solution; considering the fact that traditional wiki syntax usually poses a steep learning curve for non-technical users. This concern is expected to be managed by providing a user friendly WYSIWYG editor for content entry.

2.1.2 Methodology – User Evaluation, Roll-out and Change Management (UIDM Stages 3 & 4)

Following User Liaison's successful beta-testing of software releases 1.0, 2.0, 3.0 and 4.0, these will be rolled out to a group of PES in each hospital trust for evaluation, with appropriate training and support. We aim to develop these PES as internal 'champions' for the change. We will also roll out the software to 'wiki moderators', whose need was identified in the earlier pilot, and to central University staff supporting the distributed community of practice.

The final two releases 5.0 and 6.0 in months 10 and 12 will be rolled out widely across the trusts. We aim for full roll-out to PES across the Trusts and to appropriate staff at Manchester Medical School. However, this may be impacted to some extent by the start of the academic year and the run-up to Christmas. Remaining roll-out may continue to month 14.

We plan to conduct a pilot in months 10 – 13 in which students and Foundation Practitioners use the system to contribute to the update of the curriculum using an enhancement to the wiki harvester.

An important issue is roll-out and embedding in a distributed environment. These will be handled by development and implementation of a Change Management Plan. The set of practices for using and embedding social software will be abstracted from the e-Learning Maturity Model (eMM) framework, as developed in the HEA funded Pathfinder Change Management project in the University of Manchester¹¹. The application development will take these practices into consideration in its analysis and design phases. Change management activities including development of a training package will take place concurrently with software development. The eMM capability assessment method will then be used to evaluate the impact of the new application.

2.1.3 Critical Success Factors

- Development of an active mutually supportive community of practice for PES
- Stakeholder satisfaction with the system for collaborative development of the curriculum within a distributed environment
- Satisfaction with the agile development and change management processes in meeting stakeholder needs

2.1.4 Workpackages, Deliverables and Delivery Dates

2.1.4.1 Workpackage 1: Project Management (lead: Tim Cappelli)

WP 1.1 Project documents as specified in the JISC Project Management Guidelines (as agreed with JISC)

WP 1.2 Minutes of Project Board and Project Management Committee meetings (monthly)

WP 1.3 Modelled and documented agile development process (month 15)

WP 1.4 Modelled and documented change management process (month 15)

WP 1.5 Set of "agile development for SOA" practices (month 15)

2.1.4.2 Workpackage 2: Systems Analysis (further iterations of Stage 1 supporting UIDM Stage 3) (lead: Hilary Dexter)

WP 2.2 Extend HeLM user requirements document (as required)

WP 2.3 Extend HeLM UML model and interface specification for application integration (as required)

WP 2.4 HeLMET system (solution) architecture model (month 15)

¹¹ Pathfinder: eMM for Change Management <http://www.elrc.ac.uk/blog/?cat=5>

- WP 2.5 Curriculum development domain model and ontology for input to the e-Framework upper level semantic wiki (month 3)
- WP 2.6 Service Genres, Service Expressions and Service Usage Models accepted by e-Framework (month 12)
- WP 2.7 Change management for social software practices framework (month 3)

2.1.4.3 Workpackage 3: Software Development & Integration (UIDM Stages 2 & 3) (lead: Tim Cappelli)

- WP 3.1 Unit, module and integration testing reports (as required)
- WP 3.2 Software Release 1.0: commission social networking software; integrate with Teacher Portfolio user interface (completion: month 3).
- WP 3.3 Software Release 2.0: develop/commission/integrate semantic wiki and ontology-based book-marking, incorporating enhanced user-required functionality (completion: month 4).
- WP 3.4 Software Release 3.0: develop/commission/integrate wiki harvester and collaborative document management, incorporating enhanced user-required functionality (completion: month 7).
- WP 3.5 Software Release 4.0: integrate wiki harvester with HeLM-MedLea portfolio input system incorporating enhanced user-required functionality (completion: month 8).
- WP 3.6 Further software releases incorporating enhanced user-required functionality (completion: months 10 & 12).

2.1.4.4 Workpackage 4: User Evaluations, Roll-out and Change Management (UIDM Stages 3 & 4) (lead: Gillian Armitt)

- WP 4.1 Identify PES to take part in evaluating software releases and set up a HeLMET Implementation Group at each Hospital Trust (month 2)
- WP 4.2 Beta-testing reports (release date minus one month)
- WP 4.3 Training and documentation for users and support staff (coinciding with software releases)
- WP 4.4 Reports detailing user evaluations of software releases (release date + one month)
- WP 4.5 Change Management Plan (month 3)
- WP 4.6 Further activities and reports as detailed in the Change Management Plan (as required)
- WP 4.7 Pilots with students and Foundation Practitioners (months 10 - 13)

2.1.4.5 Workpackage 5: Project Evaluation & Dissemination (lead: Tim Dornan)

- WP 5.1 Report evaluating the effectiveness of the project in developing a web-based community of practice for PES (month 15).
- WP 5.2 Report evaluating the stakeholder satisfaction with the system for collaborative development of the curriculum within a distributed environment (month 15).
- WP 5.3 Report evaluating the effectiveness of the agile development and change management processes in meeting stakeholder needs (month 15).
- WP 5.4 External reports, presentations and workshops as detailed in the Dissemination Plan (see section 3.3).

2.2 Project Management Arrangements

The project partners are the same as in the JISC-funded HeLM project. A consortium agreement exists for HeLM (Appendix D) and the partners intend to update the HeLM agreement to cover this project.

The JISC Project Management Guidelines will be adhered to. The project management framework will be based on the PRINCE2 Office of Government standard project management framework. The Project Board will meet and operate as required under PRINCE2, with the Project Manager in attendance. The Project Board comprises:

Project Executive:	Prof. Kevin O'Brien	Associate Dean Learning and Teaching
Senior User:	Dr Caroline Boggis	Associate Director of Curriculum and Student Support
Senior Supplier:	Dr Jim Petch	Head of Distributed Learning

The Project Management Committee will meet monthly under the leadership of Caroline Boggis and will comprise all members of the project team (see Section 5). When identified, PES representatives from each hospital trust will be invited to attend; the latter do not appear on the budget. The Project Management Committee oversees operational aspects of the project and reports major issues and achievement of milestones to the Project Board. The Chair will facilitate the decision process and has the casting vote.

2.3 Risks

Risk	Probability (1-5)	Severity (1-5)	Score (P x S)	Action to Prevent/Manage Risk
Staffing	3	3	9	Tasks reallocated within team; wide skill base in project team
Technical	2	5	10	Interoperability issues reduced by using open source services
Delay in recruitment of developer	3	4	12	Temporary redeployment of developer from another team
Support from teams running inter-operating services	2	5	10	Representation on Project Management Committee

2.4 IPR

The University of Manchester will own the intellectual property rights for the bespoke software, but will deem the software 'open source' which will be available for download both in source and object code at the end of the project. Other software used will be open source.

2.5 Sustainability

This project places emphasis on its sustainability, through integration with the Manchester Medical School (MMS)'s VMLE (HeLM-MedLea), and through Faculty sponsorship, provision of an institutional demonstrator, and national and international dissemination. The project meets a long-term need to support staff in distributed environments, and as such, its implementation is based on an institutional framework that includes senior management of both the Manchester Medical School and the teaching hospitals as primary stakeholders. The earlier curriculum database pilot demonstrated that an on-line approach had a successful outcome with PEs, subject to refinement, and embedding will be achieved through the Change Management Plan (deliverables 4.5 & 4.6).

The inclusion of senior teaching and quality managers in the project team, with the Associate Dean (Teaching and Learning) as Project Executive and sponsor, demonstrates the commitment of the Faculty of Medical and Health Sciences to this project. Propagation to other HEIs and other applications will take place as described in the Dissemination Plan (see Section 3.3).

The systems analysis and software outputs will, where appropriate, be included in the e-Framework and will therefore be available as tools for work-based communities of practice in other institutions. Project outputs will also be maintained on the project website at the University of Manchester for a minimum of three years.

3. Engagement with the Community

3.1 Stakeholders

Within the scope of this project, the stakeholders using the system are the PES, curriculum managers, Manchester Medical School staff supporting and advising the PES, and wiki moderators. Students and Foundation Practitioners are stakeholders in the late pilot. Stakeholders directly benefiting from the outputs of the HeLMET Cycle are Quality and Curriculum managers. Stakeholders involved in the development and roll-out of the system are HeLMET project staff, the HeLM-MedLea development team, the HeLMET Implementation Groups and hospital teaching management. JISC and the senior management of Manchester Medical School and the Faculty of Medical and Health Sciences are investors in the project. All these stakeholder groups will be involved and consulted wherever appropriate throughout the lifetime of the project, and all groups will contribute towards the final evaluations.

3.2 Conformance with UIDM

This project builds on completion of UIDM Stage 1 and near-completion of Stage 2. Alignment with the UIDM sub-stages is detailed in the accompanying document (Appendix B). Primary evidence is available at <http://www2.cs.man.ac.uk/~ukorr/helmet>.

In the UIDM Stage 1, the need for collaborative update of the curriculum was established, and stakeholders were identified as in section 3.1. PES and curriculum managers attended workshops and contributed to the solution. The solution was originally intended to be a wiki. In the 'brainstorming' stage, the Manchester University wiki was tailored but deemed to have significant usability issues preventing roll-out. Accordingly, a database solution was 'paper piloted' and subsequently built in UIDM Stage 2. 28 PES used the system to revise Index Clinical Situations (ICS), part of the curriculum framework. The subsequent evaluation established that teachers found

it difficult to engage remotely with unknown co-workers and would benefit from a greater sense of the personal presence of their collaborators.

Meanwhile, the HeLM project undertook a full-scale user requirements analysis leading to a UML model and service specification for a VMLE for medical education, comprising Teacher and Student Portfolios. This included modelling the curriculum. An ontology including real curriculum data was built, and the curriculum model was tested at an ontology workshop. The Teacher Portfolio has been partially implemented within the Manchester Medical School's legacy student/teacher portfolio system (HeLM-MedLea), and new e-Framework-compliant services are planned and under development. Evaluation of the curriculum database system established that teachers found logging into a separate system for one specific purpose was a strong disincentive. Integration of the new services with the Teacher Portfolio system is therefore a key requirement.

In the early stage of this project, we will perform further paper piloting of the user interface under Stage 2, before moving to an iterative cycle of phased full-scale build and roll-out in Stage 3. We will develop and implement a Change Management Plan, to achieve full roll-out under Stage 4 in the final stages of the project.

3.3 Dissemination

The project will take advice from the Higher Education Academy (HEA) regarding propagation of the project outcomes to other HEIs. The project dissemination plan includes presentations at one international and three national conferences, as well as at JISC programme and special interest groups. Propagation to other University of Manchester Faculties will be by example, in association with internal workshops and articles in newsletters.

Throughout the dissemination activities, we will be emphasising that the software has general applicability (see section 1.6, Service Generalisation: Potential Benefits to the Wider Community).

3.4 Evaluation

Two types of evaluation will take place: the user evaluations of each software release (deliverable 4.4), and the project evaluations (deliverables 5.1 – 5.3), which test the achievements of the project against the Critical Success Factors (section 2.1.3). User evaluations of each software release will seek to answer the question "in what ways does the release fall short of user needs and expectations?". Evaluation of each release will be achieved through direct observation (at-elbow interviews), focus groups with stakeholders and an on-line communal blog facility for collection of user comments.

The evaluations are tabled below. Deliverables 5.1 and 5.2 will be achieved together by means of user focus groups and the communal blog, supported by an on-line questionnaire. The system activity log will contribute to deliverable 5.1.

Deliverable / Critical Success Factor	Question(s) to address	Methods	Measure of success
5.1 Effectiveness of the project in developing a web-based community of practice for PES.	What proportion of PES are engaging with the system and for what activities?	System activity log (5.1 only). Focus groups Communal blog	75% of PES have used the system for activities other than curriculum development
5.2 Stakeholder satisfaction with the system for collaborative development of the curriculum within a distributed environment	How satisfied are stakeholders with the utility of the system for curriculum development and the quality of the output?	Questionnaire	90% Stakeholders 'satisfied' or 'very satisfied' with the utility of the curriculum development system. 100% University Quality and Curriculum managers 'satisfied' or 'very satisfied' with the quality of output.

5.3 Effectiveness of the agile development and change management processes in meeting stakeholder needs.	How satisfied were the stakeholders with the process? How far are the practices becoming embedded in terms of the e-Learning Maturity Model?	Lessons learned log Focus groups Questionnaires eMM assessment	90% stakeholders 'satisfied' or 'very satisfied' with the process overall. Largely or fully adequate scores on the relevant set of eMM practices for implementation, planning and definition dimensions
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All evaluations will include users who are non-members of the local HeLMET Implementation Group, as well as members.

3.5 Engagement with JISC and the U&I Community

This will be achieved by:

- Attendance and presentations at JISC programme meetings and Special Interest Groups.
- Reporting the evaluations of the effectiveness of the agile development and change management processes in meeting the needs of management, end-users, developers and other stakeholders.
- Contribution of the domain model and ontology integration with other e-Framework elements in the curriculum development domain.
- Contributing to the Change Management for Social Software Practices Framework knowledgebase.

4. Budget

4.1 Proposed Budget

Directly Incurred Staff	April 07– March 08	April 08– March 09	TOTAL £
Mr Tim Cappelli – Project Manager (0.4 FTE)	████████	████████	████████
Buy-out of Dr Hilary Dexter's time (0.5 FTE) (Grade 7)	████████	████████	████████
Developer (1.0 FTE) (Grade 6)	████████	████████	████████
Developer (0.5 FTE) (Grade 6)	████████	████████	████████
User Liaison (0.5 FTE) (Grade 6)	████████	████████	████████
Total Directly Incurred Staff (A)	████████	████████	████████
Non-Staff	April 07– March 08	April 08– March 09	TOTAL £
Travel and expenses: - Attendance at JISC programme meetings, cluster groups, SIGs: 8 meetings @ £125 = £ 1,000 - Travel between project sites: 10 journeys, average 20 miles per month @ 40 p per mile = £ 1,200	£ 440	£ 1,760	£ 2,200
Hardware/software: 2x laptops @ £800, 3x PCs @ £500, 1x colour laser printer @ £500, software @ £1,000, 5x USB pen drives @ £30	£ 4,750	£ 0	£ 4,750
Dissemination: - 3 x Attendance at national conferences @ £500 = £1,500 - 1x Attendance at an international conference = £1,400 - 5x Workshops at partner sites @ £500=£2,500 - 4x posters @ £50 = £200	£ 0	£ 5,600	£ 5,600
Evaluation: Voice recorder @ £250 Focus groups – incidental costs £500	£ 250	£ 500	£ 750
Other: Consumables including printer cartridges	£ 200	£ 800	£ 1,000
Total Directly Incurred Non-Staff (B)	£ 5,640	£ 8,660	£ 14,300
Directly Incurred Total (A+B=C)	£ 37,306	£ 142,217	£ 179,523

(C)			
Directly Allocated	April 07– March 08	April 08– March 09	TOTAL £
Staff:			
Caroline Boggis (0.10 FTE) Lead partner (Professorial Grade)	██████	██████	██████
Tim Dornan (0.05 FTE) (Professorial Grade)	██████	██████	██████
Iain Mackie (0.05 FTE) (Professorial Grade)	██████	██████	██████
James Petch (0.5 FTE) (Grade 8)	█ ███	██████	██████
Simon Wallis (0.5 FTE) (Physician & Hospital Dean – Consultant Grade)	██████	██████	██████
Gerald Byrne (0.5 FTE) (Physician & Hospital Dean – Consultant Grade)	██████	██████	██████
Brian Pollard (0.5 FTE) (Professorial Grade)	██████	██████	██████
Ioan Davies (0.5 FTE) (Grade 8)	█ ███	██████	██████
Estates	£ 5,671	£ 22,437	£ 28,108
Other	£ 0	£ 0	£ 0
Directly Allocated Total (D)	£ 16,553	£ 67,916	£ 84,470
Indirect Costs (E) - directly incurred and directly allocated staff	£ 35,460	£ 140,283	£ 175,743
Total Project Cost (C+D+E)	£ 89,319	£ 350,416	£ 439,735
Amount Requested from JISC	£ 44,000	£ 156,000	£ 200,000
Institutional Contributions	£ 45,319	£ 194,416	£ 239,735
Percentage Contributions over the life of the project	JISC 45.5 %	Partners 54.5 %	Total 100%

4.1 Justification

TRAC was used to calculate the costs. Non-staff costs are itemised above and comprise travel and accommodation associated with the Dissemination Plan, computer systems for the five staff funded by the project, and sundries. Staff are required for roles as described in section 5. Dr Gillian Armit and Mr Roland Ukor are paid by the HeLM project so do not appear in the figures. Because of the agile methodology and the evaluations towards the end, all staff will be required throughout the project. The project is 15 months long to accommodate the proposed iterations.

See sections 1.4 and 1.6 for qualitative benefits to the lead institution and partners and to the wider community. In recognition of the institutional commitment to the project, the consortium is making a contribution of 54.5 %.

5. Previous Experience of the Project Team

5.1 General

This project is strengthened by being based on the existing HeLM consortium. Letters from consortium partners and CVs of team members are attached. Team members who are also members of the HeLM project team are marked with an asterisk* below.

5.2 HeLMET Management Committee

*Dr Caroline Boggis (Principal Investigator and Senior User) is Associate Director of Curriculum and Student Support and is a Consultant Radiologist. She has been awarded research and development grants in both breast imaging and medical education, and is leading a HeLM workpackage. She led the earlier curriculum wiki/database pilot.

Mr Tim Cappelli (HeLMET Project Manager) will lead Workpackages 1 (Project Management) and 3 (Software Development and Integration). He has an MA in Human Resource Management and is trained in PRINCE2 systems. Tim has worked on number of e-learning related and change management projects. Whilst at Manchester Metropolitan University, Tim managed a multi-million pound project to develop a virtual university, managing the software development and implementation of an integrated application.

***Dr Hilary Dexter** will lead Workpackage 2 (Systems Analysis). is an advisor in Online Learning at the University of Manchester, Her work involves systems analysis, research and consultancy in service oriented analysis, design, and methodology. She is currently working on online learning process and domain modelling for supporting the migration to large-scale operation and on change management, decision support and process improvement with the e-Learning Maturity Model (HEA Pathfinder project). Recent relevant JISC projects include: HeLM and HORUS (requirements analysis), COVARM and COVa (process modelling), HILDA and P-SPEX (domain modelling)

Software Developer 1 (1.0 FTE) is expected to be recruited through University redeployment and will have expertise in component integration, J2EE and OWL. (S)he will integrate all components with each other and into HeLM-MedLea as appropriate, and will lead bespoke programming on the ontology-based bookmarking and the harvester.

Software Developer 2 (0.5 FTE) is expected to be recruited through University redeployment and will have expertise in Web 2.0 technologies. (S)he will commission the social networking software and semantic wiki, and will work jointly with Developer 1 on ontology-based bookmarking and the harvester.

User Liaison is expected to be recruited through University redeployment and will have responsibility for and expertise in user requirements gathering, evaluations, software roll-out, training and change management.

***Mr Roland Ukor** is Systems Analyst for the HeLM project. Previously, he has employed service oriented architecture and Web 2.0 technologies in the integration of large software applications. He also led the design and development of enterprise software systems in the commercial domain. He will act as technical consultant to HeLMET and will advise on HeLMET / HeLM-MedLea integration.

***Dr Gillian Armitt** will lead Workpackage 4 (user evaluations, software roll-out and change management). She has acted as user-side project manager/coordinator in a number of IT-related change management projects in HE and commerce. At Sheffield Hallam, she led the successful roll-out of on-line enrolment University-wide, with associated evaluations and staff change management.

***Prof. Tim Dornan** will lead Workpackage 5 (Project Evaluation & Dissemination) and will be the primary PES contact for Salford Royal NHS Foundation Trust. He is dual qualified as education researcher and physician. He is Director of Medical Education in Salford Royal Hospitals and Head of Manchester Medical School Education Research Group.

***Dr Simon Wallis** is a Hospital Dean and will be the primary PES contact for Lancashire Teaching Hospitals NHS Foundation Trust.

***Mr. Ged Byrne** is a Hospital Dean and will be the primary PES contact for University Hospital South Manchester NHS Foundation Trust.

Prof. Brian Pollard is Professor of Anaesthesia and Honorary Consultant in Anaesthesia and Critical Care, and will be the primary PES contact for Central Manchester and Manchester Children's University Hospitals Trust

***Dr, Prof. Jim Petch** is Head of Distributed Learning at the University of Manchester. He will act as PRINCE2 Senior Supplier and will advise on IT strategy. He was the founding director of UNIGIS international, founding head of JISC Technology Watch and is a member of the JISC/HEFCE/HEA e-Learning Partnership Board. He has led or project managed over ten European projects in the fields of e-learning, land administration, data mining and networked learning as well as over ten JISC projects in fields from reference modelling to internet mapping. He is the author of over thirty publications in the fields of e-learning and internet applications as well as the co-author of a book on projects and project methodology in organisations.

Prof. Iain Mackie is Faculty Academic Lead for Quality Assurance and Enhancement. He will advise on quality and curriculum matters.

***Dr Ioan Davies** is Academic Lead for the MedLea Steering Group and a member of the Faculty e-Learning Sub-Group and Manchester Medical School Curriculum Committee. He will advise on curriculum matters and facilitate integration of HeLMET with HeLM-MedLea.

Appendix A - Supporting Letters

Letters from project partners (original signed copies are available on request):

- Professor Kevin O'Brien, Associate Dean Learning and Teaching, University of Manchester
- Professor Brian Pollard, Professor of Anaesthesia, Central Manchester and Manchester Children's University Hospitals NHS Trust
- Dr Simon Wallis, Hospital Dean, Lancashire Teaching Hospitals NHS Foundation Trust
- Mr Ged Byrne, Hospital Dean, University Hospital South Manchester NHS Foundation Trust
- Mrs Judy Hadfield, Undergraduate Programmes Manager, Salford Royal NHS Foundation Trust
- Dr Megan Quentin-Baxter, Director (Acting), Higher Education Academy (Medicine, Dentistry and Veterinary Medicine)

The Pan-Manchester R&D Notification Form is available on request.

Faculty of Medical and
Human Sciences
The University of Manchester
Oxford Road
Manchester M13 9PT

+44(0)161 306 0100
www.manchester.ac.uk

2 October 2007

To Whom It May Concern:

I would like to strongly support this application for JISC funding. The bid has been developed by a strong team that includes personnel from across the Faculty of Medical and Human Sciences and the University of Manchester. It, therefore, fits very strongly into our strategy of encouraging co-operation across the Faculty and University. Furthermore, the bid addresses the important issue of supporting dispersed clinical placement supervisors, which is very relevant to other schools in our Faculty, such as Nursing and Dentistry.

This application has the full support of the Faculty and the University of Manchester.

Yours sincerely



Professor Kevin O'Brien
Associate Dean Learning and Teaching
Faculty of Medical and Human Sciences

[Personalised Name]
[Sub Department]
[Telephone Number]
[Fax Number]
[E-Mail Address]

Central Manchester and Manchester Children's University Hospitals



NHS Trust

Directorate of Anaesthesia, MRI Theatres and Decontamination Services

Manchester Royal Infirmary
Oxford Road
Manchester
M13 9WL

Tel: 0161 276 4551/2

Fax: 0161 276 8027

E-mail: julie.laing@cmmc.nhs.uk

28th September, 2007.

JISC
Northavon House
Coldharbour Lane
Bristol
BS16 1QD

Dear Sirs,

Re: HeLMET study

I am writing in support of the above initiative. The Central Manchester and Manchester Children's University Hospitals NHS Trust is one of the key teaching hospitals in the Manchester region and we would fully support this initiative. I believe it to be a most exciting and innovative development in undergraduate teaching, seeking to build on the advances in Web2 technologies in order to further medical education. I would offer this project my fullest support and I look forward to becoming more closely involved with it in the future.

Yours faithfully,

Professor Brian J. Pollard
Professor of Anaesthesia,
Honorary Consultant in Anaesthesia and Critical Care



Awarded for excellence

Incorporating:-

Royal Manchester Children's Hospital ♦ Manchester Royal infirmary ♦ Manchester Royal Eye Hospital
Booth Hall Children's Hospital ♦ Saint Mary's Hospital for Women and Children ♦ University Dental Hospital of Manchester



Tel: 01772 524324
Fax: 01772 524215
Email: susan.wadsworth@lthtr.nhs.uk

Department of Undergraduate Medical Education
Education Centre
Lancashire Teaching Hospitals NHS Foundation Trust
Royal Preston Hospital
Sharoe Green Lane North
Preston, PR2 9HT

SCW/sjw

28th September 2007

JISC, Northavon House
Coldharbour Lane
Bristol
BS16 1QD

Dear Sir / Madam

re Horus elearning management extension for tutors (HeLMET)

I am delighted to be involved in this bid which offers great promise in helping us harness the creative intelligence of our community of busy professional colleagues.

I fully endorse and support it and will be delighted to assist personally and through mobilisation of my institution (Lancashire Teaching Hospitals NHS Foundation Trust) as a test bed / exemplar.

Yours sincerely

Simon Wallis FRCP
Consultant Diabetologist
Director of Medical Education
Hospital Dean

Medical Education
ATR4, 1st Floor
Education & Research Centre
University Hospital of South Manchester
Southmoor Road
Manchester
M23 9LT
Tel: 0161-291 5807
Fax: 0161-291 4974
email: gedbyrne@compuserve.com
email: elaine.smith@manchester.ac.uk (sec.)

GB/ems

28 September 2007

JISC
Northavon House
Coldharbor Lane
Bristol
BS16 1QD

Dear Sirs

Re: Horus eLearning Management Extension for Computing

I am writing to confirm my full support on behalf of the University Hospital of South Manchester and my continued contribution to the innovative extension of the HeLM project to Helmet.

The development of a social network to encompass our dispersed clinical placement supervisors would be enormously beneficial. Furthermore, to capture the enthusiasm and motivation of these educational supervisors in educational tasks, such as curriculum development through a Wiki, would be a step change in our engagement with these duties.

Yours sincerely



G J Byrne MD FRCS (gen surg)
Hospital Dean for Clinical Studies
Senior Lecturer in Surgical Oncology
Consultant Surgeon

cc Gillian Armitt

University Teaching Hospital
Undergraduate Medical Education
University Teaching Building
Stott Lane
Salford. M6 8HD

Professor A. D. Redmond – Hospital Dean
Mrs. Judy Hadfield – Undergraduate Programmes Manager
Debbie Leadbetter – Medical Education Administration Manager

Telephone No: 0161 206 1384
Fax No: 0161 206 4582

28th September 2007

JISC,
Northavon House,
Coldharbour Lane,
Bristol,
BS16 1QD.

Dear Sir,

**Re: Support of Salford Royal Foundation Trust to
Enclosed Bid for JISC for Funds.**

As Undergraduate Programme Manager with responsibility for Undergraduate Education in Salford Royal Foundation Trust, I am pleased to give my unconditional support to the proposed project.

Yours sincerely,

Mrs. J. Hadfield
Undergraduate Programme Manager



**The
Higher
Education
Academy** **Medicine,
Dentistry and
Veterinary Medicine**

Dr Caroline Boggis
Associate Director for the Curriculum and Student Support
Administrative Offices School of Medicine
University of Manchester
Stopford Building
Oxford Road
Manchester M13 9PT

Friday, September 28, 2007

Dear Dr Boggis,

Re: "Helmet - Horus elearning management extension for tutors" JISC 02/07 proposal

Thank you for sharing with me your ideas in response to the JISC 02/07 call for proposals. Your ideas are very interesting and we would be pleased to assist you in any way, and with dissemination of your outputs in due course.

As you are aware we anticipate working with any projects which are funded by the JISC and similar agencies (in any way that PIs feel is of value to them), therefore we are unable to exclusively support particular proposals. Thank you for your understanding on this point.

We greatly appreciate it when members of our constituency take the time to update us on their plans, as you have, for securing funding to support learning and teaching development in the UK. I wish you every success with your proposal and look forward to hearing the outcome.

Kindest regards,

Dr Megan Quentin-Baxter
Director (Acting)

Director: Professor R K Jordan

Higher Education Academy Subject Centre for Medicine, Dentistry and Veterinary Medicine
School of Medical Education Development, Faculty of Medical Sciences
University of Newcastle, Newcastle upon Tyne NE2 4HH

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enquiries@medev.ac.uk www.medev.ac.uk

Appendix B – Alignment of HeLMET with UIDM Stages 1 & 2

*Primary evidence documents and web links are available at <http://www2.cs.man.ac.uk/~ukorr/helmet>

JISC DOCUMENT: UIDM stage 1		HeLMET	
Activity	Deliverable	Our compliance	Primary evidence of our compliance
<p>Observation</p> <p>Identification of issues through a range of techniques, both quantitative and qualitative</p>	<p>Documentation identifying methodologies and results from observation.</p>	<p>Statement by Caroline Boggis – Assoc. Director of Curriculum & Student Support) gives background and wider stakeholder issues.</p> <p>Statement by Peter Yeates (hospital doctor and Academic Clinical Fellow in Medical Education)</p>	<p>Document 1 (statement of Caroline Boggis, Assoc. Director of Curriculum & Student Support) gives the project background and wider stakeholder issues, and demonstrates the need to update curriculum.</p> <p>Document 2 (statement of Peter Yeates, hospital doctor and Academic Clinical Fellow in Medical Education) demonstrates joint working of curriculum management and a PES in specifying the initial technical platform for curriculum update (wiki).</p>
<p>User needs analysis</p> <p>Identification of needs and problems spaces and issues through direct consultation with users.</p>	<p>Evidence of the range of users engaged and the results of resulting analysis. It is important that real end-users (i.e. 'primary stakeholders) have been consulted, with a rationale for who was chosen and why, details of how they were engaged and plans for future engagement.</p>	<p>Workshop at Wythenshawe 1st March 2007 for PES (primary stakeholders) on Web 2 technologies (ran twice, 2 x 20 participants). Purpose of the meeting was to recruit participants for wiki pilot.</p> <p>HeLM meetings with curriculum managers (primary stakeholders) regarding curriculum structure:</p> <ul style="list-style-type: none"> • Siobhan Cartwright (Curriculum Central Design Team) 30 May 2007. • Dr Ioan Davies (major role in curriculum design – see his CV) 7 June 2007 	<p>Document 2 (Peter Yeates' statement) demonstrates purpose of workshop and how participants were selected, and that 28 staff volunteered for the pilot.</p> <p>Document 3 (Workshop programme), Document 4 (workshop presentation) and Document 5 (workshop evaluation) demonstrate primary stakeholder consultation and involvement.</p> <p>Document 6 (HeLM model and service specification) expresses the outcomes of the meetings as a model of the curriculum.</p>

<p>Stakeholder analysis</p> <p>A wider approach to the identification of problem spaces and issues. Looking external pressures that may already be coming to bear on users or, through the application of scenario planning, identifying future issues.</p>		<ul style="list-style-type: none"> • Dr Caroline Boggis (Assoc. Director of Curriculum & Student Support) 10 July 2007 	
<p>Evidence of stakeholder analysis, showing how the project relates to its wider environment. These can include 'secondary' stakeholder groups (e.g. wider institutional stakeholders – considering institutional preparedness and the locus of control) and 'tertiary' groups (e.g. national bodies and policy makers). A project should have wide applicability for secondary and, where appropriate, tertiary groups.</p> <p>As well as identifying the major stakeholders this step should also surface their concerns, any training needs, and the task or interactions that need to be supported by manuals or training.</p> <p>A typical deliverable from this is the User Acceptance and Support Plan, which specifies in detail how, when and where the various change and support activities will be delivered in Stage 4. Other examples may include scenarios developed as a result of scenario planning, workshops etc.</p>	<p>Stakeholder analysis undertaken by Caroline Boggis</p>	<p>Document 7 (Caroline Boggis, stakeholder needs analysis)</p>	

<p>Brainstorming</p> <p>Generation of ideas that may provide solutions to issues and problems surfaced during the earlier stages.</p>	<p>Suggested solutions collated into an <i>ideas bank</i> that may be applicable to a range of issues or problem spaces identified during the earlier part of stage one.</p>	<p>Early build and testing of wiki. Peter Yeates testing and rejection of wiki. Joint decision of Peter Yeates, Caroline Boggis and Louisa Yong (developer) to implement a database solution.</p>	<p>Web link 1: (original wiki) http://wiki.manchester.ac.uk/ics/index.php/Special:Userlogin (username 'PYeates', password 'wikitest').</p> <p>Document 8 (wiki instructions for users)</p> <p>Document 2 (Peter Yeates' statement) documents the decision and the need for an improved user interface.</p>
<p>STAGE 1 / 2</p> <p>Paper piloting</p> <p>Testing of various ideas to identify their validity before commitment to any particular technological solution, and certainly before commencing building of pilot solutions employing particular technologies. During this part of the cycle the team may perform further observation and user needs analysis before returning to more paper piloting.</p>	<p>Demonstration of how the concept will be applied and the outputs and outcomes expected from the application of a full technical build. It is important at this stage also to consider interface design and provide a representation (on paper or a screen mock-up) for testing out with real users.</p>	<p>The HeLM curriculum model was tested in an ontology workshop 14 June 2007. Storyboarding of new user interface Briefing of PES taking place in the pilot ("large panel")</p>	<p>Document 9 (worksheet from ontology workshop has a section on 'Curriculum, ICS and ILOs')</p> <p>Document 10 (storyboard of user interface)</p> <p>Document 11 (panel briefing paper for database solution)</p>
<p>STAGE 2</p> <p>Building</p> <p>Following a successful paper pilot, a technical build may commence.</p>	<p>Project plan indicating build methodologies, regular reports, progress reports, regular software releases.</p>	<p>Curriculum database went live late June 2007.</p>	<p>Document 2 (Peter Yeates' statement) describes the technical platform.</p> <p>Document 12 (database instructions for users)</p> <p>Web link 2: (copy of database for public viewing/editing) http://www.south.manchester.ac.uk/ICS/Login.aspx</p>
<p>STAGE 2 / 3</p> <p>Testing</p> <p>Testing the built solution against criteria. These may include standards and issues identified</p>	<p>Evidence of testing against agreed criteria.</p>	<p>Peter Yeates' evaluation, mid-August 2007</p>	<p>Document 2 (Peter Yeates' statement) describes the rationale for the evaluation.</p> <p>Documents 13 and 14 (raw evaluation data)</p>

HORUS e-Learning Management Extension for Tutors (HeLMET)

during earlier stages, such as user needs analysis.		Audience feedback at ASME (national) and AMEE (international) medical education conferences	Documents 15 and 16 (ASME conference abstract and AMEE poster demonstrating outcomes of evaluation)
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Appendix C - CVs

See attached:

- Caroline Boggis
- Tim Cappelli
- Hilary Dexter
- Roland Ukor
- Gillian Armit
- Tim Dornan
- Simon Wallis
- Ged Byrne
- Brian Pollard
- Jim Petch
- Iain Mackie
- Ioan Davies

Curriculum Vitae: Caroline Rachel MacNeill Boggis

Date of Birth: 14 June 1954

Work Address: G26 Stopford Building, Oxford Road, Manchester M13 9PT

Telephone: 0161 275 7792 (University) 0798 460 4523 (Mobile)

E-mail: caroline.boggis@manchester.ac.uk, caroline.boggis@smtr.nhs.uk,

General Medical Council: 2440916

Qualifications and Awards

MB, BS 1978 University of London

FRCR 1985 Royal College of Radiologists

PGCTHE 2002 Open University

MRCP 2004 Royal College of Physicians for contribution as Physician Educator

University of Manchester Curriculum Innovation Award 1st Prize, 2004

Medical appointments

Pre Registration: in London and Birmingham

Post Registration: in Sussex, Boston USA, Radiology SpR Manchester Radiology Training Scheme

Substantive appointment: 1988 - Consultant Radiologist Manchester Breast Screening Service and Radiology Department University Hospital South Manchester NHS Foundation Trust

University Appointments: 1995 - Lecturer in Diagnostic Radiology, 2001 - Honorary Clinical Senior Lecturer in Diagnostic Radiology, 1998-2004 Hospital Dean for Clinical Studies

2004 - Associate Director for the Curriculum and Student Support

Professional Memberships and Activities

Royal College of Radiologists, Royal College of Radiologists Breast Group, Association for the Study of Medical Education, Higher Education Academy (HEA)

Member 2001 - 2004 Royal College of Radiologists Education Board

Member 2001 - 2003 North West Workforce Confederation Workforce Visioning and Education Advisory Committee

Examining activities

MD and PhD Theses External Examiner

External Examiner 2005-6 St Bartholomew's and St George's Hospital Medical School GEP

Referee and review activities

Referee for 8 journals including Medical Education and Clinical Radiology

Grant proposal referee for 9 organisations

Research and development grants

Breast imaging research grants 1991-2007 £ 879,148 focussing on Computer Aided Diagnosis

Education research grants 1999 -2007 £133 327

Peer reviewed publications

Breast imaging and radiology publications; 1984 - 2007 35

Educations publications; 1999 - 2007 12

Peer reviewed education workshop presentations 2000, 2003 at ILTAC

Abstract, poster presentations; Breast imaging since 1982 - 90 Education since 2000 - 25

Recent Publications

Wakefield A, **Boggis C**, Holland M Team *Working But No Blurring Thank You! The Importance of Team Work as part of a Teaching Ward* Experience Learning in Health and Social Care (2006) 5(3):142-154

Boggis Caroline R M *Management of the expansion of clinical placements for medical students in a teaching hospital* Clinician in Management 2004 12: 69-75

Gilbert FJ, SM Astley, MA McGee, MGC Gillan, CRM Boggis, PM Griffiths, SW Duffy *Single reading with computer aided detection and double reading of screening mammograms in the United Kingdom National Breast Screening Program* Radiology (2006) 241:47-53

CURRICULUM VITAE

PERSONAL DETAILS

Tim Cappelli,

102 Haslingden Old Road, Rawtenstall, Rossendale, Lancashire, BB4 8SA

Tel. 01706 216209

PERSONAL PROFILE

I have worked extensively in project management, training and other related work. Over the past five years I have been working in the area of e-learning and have a good knowledge of this field. I have proven communication skills, the ability to present information and ideas clearly and adapt to new situations quickly.

PRINCIPAL SKILLS

- *Project management skills - including PRINCE2*
- *IT Skills – All Microsoft applications in particular Access and some Macromedia products*
- *Communication skills - both written and verbal*
- *Organisation and Planning skills*
- *Evaluation and Assessment skills*

PROJECT HISTORY

e-Change University of Manchester. A HE Academy Pathfinder project to develop and implement change management strategies in e-learning. This included the development of a knowledgebase and Learning Needs Analysis Tool.

Benchmarking

e-Learning University of Manchester. Testing the validity and appropriateness of a Capability Maturity Framework in assessing the level of maturity of e-learning processes within the university.

eLRC University of Manchester. Management of a national research unit of e-learning technology, processes and pedagogy.

DMU Manchester Metropolitan University. Project management of a multi-million pound development of a virtual university for the digital media industry. This included the management of software development and application.

EASSEL Manchester Metropolitan University. Management of a project to design and develop an online course in instructional design. Included the development of the course in various software applications

SMILE Manchester Metropolitan University. Management of project to examine the Digital Media sector .

I have also acted as consultant on a variety of other public sector projects over the last ten years.

QUALIFICATIONS

<i>Higher Education</i>	<i>1982 - 1985</i>	<i>B.Sc. Environmental Biology (Joint Hon's.) II.2</i>
	<i>1985 -1986</i>	<i>Post Graduate Certificate in Education</i>
	<i>1999-2002</i>	<i>M.A. Human Resource Management</i>

Name:	Dr. Hilary Dexter		
Job Title:	Distributed Learning Advisor	Institution:	Distributed Learning, Teaching, Learning and Assessment Office, University of Manchester
Expertise	<p>Hilary is a systems analyst, researcher and consultant in service oriented analysis, design, and methodology. She is currently involved in online learning process and domain modelling for supporting the migration to large-scale operation and process improvement. She is working on the creation of reference models for services to implement core enterprise business processes and is developing a process driven knowledgebase to support the service development process, decision support and change management. Prior to her current role, Hilary was a research fellow in the HEFCE funded e-Learning Research Centre, and before that, IT Architect in a utility company.</p>		
Current and Recent Projects	<ul style="list-style-type: none"> ▪ JISC E-FRAMEWORK: GUIDANCE ON REQUIREMENTS MANAGEMENT IN SOA – commissioned October 2007 ▪ JISC E-FRAMEWORK UPPER LEVEL (EFUL) – integration of FREMA reference model approach with HILDA domain model– commissioned collaboration with U of Southampton– July 2007 ▪ JISC HE DOMAIN MAP (HILDA) (6.2007 – 9.2007) - An HE Domain Map supporting navigation through an HE ontology, designed to underpin a live operational system to serve planners and managers. ▪ JISC: COVARM ARRANGER (COVA) (4.2007 – 3.2008) – review of the two scenarios described in the COVARM project from a process specification, implemented services perspective. These scenarios will be encoded in BPMN using a selected BPM toolset and then provisioned using existing services. Integration with other services such as a Repository service that supports document management and export of documents to XCRI formats using XML interchange formats will also be explored. ▪ JISC: PROGRAMME SPECIFICATION DOMAIN MAP (P-SPEX) (4.2007 – 3.2009) – This project will undertake a case study based analysis of the business domain impacting and containing all interactions with Programme Specification production and usage. The case study will be used to develop a Domain Map for Programme Specification. The Domain Map delivered from the project will include a variety of models, descriptions and implemented Java based services for submission to the e-Framework. ▪ JISC: HORUS E-LEARNING MANAGEMENT (HELM) (9.2006 – 8.2008) - The aim is to extend the JISC-funded HORUS learning management services to a wider range of applications, institutions, and stages in the lifelong learning continuum and link them to the JISC-funded UK Collaboration for a Digital Repository (UKCDR) and MANSLE projects. ▪ HIGHER EDUCATION ACADEMY: PATHFINDER (E-CHANGE) (9.2006 – 4.2008) - To develop and articulate operational targets, which arise from the strategic targets for e-learning in Manchester 2015. To develop a change strategy for continued embedding of e-learning which identifies and exploits existing approaches and expertise ▪ HIGHER EDUCATION ACADEMY: E-LEARNING BENCHMARKING PILOT (3.2006 – 9.2006) – evaluation of a method for measuring the embedding of e-learning in an institution. Based on gathering evidence about the processes in the e-learning and student lifecycles and taking a holistic view of maturity. ▪ JISC: COURSE VALIDATION REFERENCE MODEL (COVARM II) (4.2006 – 8.2006) Design and implementation of a process driven knowledgebase for service oriented architecture reference models with scenarios from course validation. ▪ JISC: COURSE VALIDATION REFERENCE MODEL (COVARM) (4.2005 – 3.2006) – definition and implementation of a candidate reference model, utilizing a framework of services, to support a canonical business process for course validation. ▪ JISC: E-LEARNING FRAMEWORK SERVICE (HORUS) (9.2004 – 3.2005) – requirements analysis and modelling for the development of reusable, open-source, application services that make learners and teachers more aware of curriculum goals; and gather, analyse and disseminate feedback relating to work based placements and other learner-centred activities. ▪ JISC: FRAMEWORK SCOPING STUDY (FSS) (4.2004 – 8.2004) – creation of a generic framework to map between all the current frameworks and support the processes within the eLearning domain as envisaged by JISC's Framework Programme. 		

Curriculum Vitae
Roland Ukor
roland.ukor@cs.man.ac.uk

Current Appointment

- Systems Analyst – HeLM Project, University of Manchester – 2007 - Date

Previous Appointments

- 2004 – 2006 - Lead Analyst / Developer – Platinum Solutions Int., Nigeria
- 2003 – 2004 - Consultant – Hyperswift Technologies, Nigeria

Education

- PhD Computer Science, University of Manchester, 2006 -
- BSc (Hons.) Computer Science, University of Benin, 2000 - 2003
- Diploma in Data Processing, University of Benin, 1997 - 1999

Relevant Experience

- Developed model and service specifications for the HeLM project including service genres and service usage models to be submitted to the e-Framework, 2007
- Developed AJAX based rich internet application for navigating the ontology driven HILDA (High Level Domain Map for HE/FE Institutions), 2007
- Developed web based application to support real time financial intelligence acquisition and monitoring for national anti-money laundering unit integrating with over 16 different systems, 2006.
- Led the integration of web 2.0 community portal technology with legacy human resource management and financial accounting systems, 2006.
- Led the development of DriveBPM business process management system based on standards-based service orchestration technologies, 2004-2005.

Relevant Skills

- Agile and Iterative Development Methodologies (XP, RUP, AUP)
- Model-Driven Software Development
- Service Oriented Architecture, Enterprise Service Bus Technologies
- Web Services (XML, SOAP, WSDL, REST), Orchestration (WS-BPEL)
- Java 2 Enterprise Edition & Microsoft .NET Platform
- Lightweight web technologies (LAMP, Perl, Ruby-on-Rails, AJAX, Javascript)
- Database systems (MySQL, SQL server, Oracle, Postgres)
- Semantic Web and Ontologies

GILLIAN MARY ARMITT

Work Address: University of Manchester, 186 Waterloo Place, Oxford Road, Manchester M13 9PT
Telephone: 0161 275 8108
E-mail: Gillian.Armitt@manchester.ac.uk,

Qualifications

BSc Hons (Biochemistry), 1977 University of Liverpool
PhD, 1981 University of Liverpool
PGCE, 1983 University of Liverpool (Prize for Theory of Education)

Appointments

1980-1982 Senior Demonstrator, Department of Biochemistry, University of Liverpool
1983-1984 Chemistry teacher, Merchant Taylors Girls School, Crosby, Merseyside
1984-1988 Business Analyst/Operations Manager, Liverpool & London P&I Management (marine insurance company)
1988-1992 Computer/Network Manager, Liverpool & London P&I Management
1992-2000 IT Manager, Liverpool & London P&I Management
2000-2001 Project Coordinator, EU TEN-Telecom (OTIS) project, University of Liverpool
2001-2004 Assistant Registrar (Student Administration), Sheffield Hallam University
2004-2005 Assistant Registrar (Projects), Sheffield Hallam University
2005-2006 Self-employed consultant
2007- Research Associate, HeLM project, University of Manchester

Major Projects

1984 Requirements analysis, development and implementation of an enterprise system for marine insurance (user-side project manager)
1999 Year 2000 preparations (project manager)
2001 OTIS project: synchronous e-learning in multi-national PBL groups (project coordinator)
2003 Full-scale institutional roll-out of on-line enrolment (project manager)
2004 Institutional implementation of the QAA Teaching Quality Initiative (project manager/coordinator)
2007 HORUS e-Learning Management project

Grants

Leader + Access fund 2005: Internet access for older women in rural communities

Recent Publications

Beer, M.D., Slack, F. & **Armitt, G.M.** "Collaboration and Teamwork: Immersion and Presence in an Online Learning Environment", *Information Systems Frontiers* (2005) 7(1), pp. 27-37.

Beer, M.D., Slack, F. & **Armitt, G.M.** "Community Building and Virtual Teamwork in an Online Learning Environment", *Proceedings of HICSS, Hawaii International Conference on System Sciences*, Hawaii, January 2003.

Gillian Armitt, Martin Beer, Johanna van Bruggen, Ramon Daniels, Ludo Ghyselen, Sharon Green, Jan Sandqvist & Andrew Sixsmith "The Provision of Education & Training for Health Care Professionals through the Medium of the Internet", special issue of the *Campus-Wide Information Systems Journal* on "Multimedia Systems for Lifelong Learning: Success and Challenges" (2002), 19 pp. 135-144.

Gillian Armitt, Frances Slack, Sharon Green & Martin Beer, "The development of deep learning in an international collaborative on-line course", *Proceedings of CSCL 2002*, pp 151-159, Laurance Elbaum Associates, New Jersey.

Martin Beer, Frances Slack, **Gillian Armitt**, Hanneke van Bruggen, Ramon Daniels, Ludo Ghyselen, Sharon Green, Jan Sandqvist & Andrew Sixsmith "Developing Communities of Interest in a European Internet School", *Networked Learning 2002: a research based conference on e-learning in higher education and lifelong learning*, eds. Banks, S., Goodyear, P., Hodgson, V. & McDonnell, D., pp. 611-620.

<u>SURNAME</u>	<u>FORENAMES</u>	<u>DATE OF BIRTH</u>
DORNAN	Timothy Lloyd	27/11/50

Degrees:

MA Medical Sciences. Cambridge 1972
BM BCh Medicine. Oxford 1975
DM Medicine. Unclassified. Oxford 1982
FRCP. Royal Colleges of Physicians of the UK. 1992
Masters in Health Professions Education. With distinction. University of Maastricht, NL. 2002.
PhD in Medical Education Research. With distinction. University of Maastricht, NL. 2006.

Current post:

Professor of Medicine and Clinical Education, University of Manchester
Head of Medical Education Research Group, University of Manchester
Honorary Lecturer, University of Maastricht, The Netherlands
Director of Medical Education, Salford Royal NHS Foundation Trust
Honorary Consultant Physician, Salford Royal NHS Foundation Trust

HEFCE funded. My NHS salary as Director of Medical Education (3 consultant sessions) is used to support my research.

Summary of previous posts:

House Officer – North Staffordshire Royal Infirmary – 1975
House Officer – Radcliffe Infirmary – 1975-6
Senior House Officer – Nottingham Hospitals – 1976-7
Senior SHO – Oxford Hospitals – 1977-8
Research Fellow – Oxford University 1978-81
Postdoctoral Fellow – University of Washington, Seattle, USA – 1981-2
Senior Registrar – Nottingham Hospitals 1982-8
Consultant Physicians – Salford Royal Hospitals NHS Trust – 1988-2000
Senior Lecturer – University of Manchester – 2000-2005

5 most important recent research publications (selected for their relevance to this proposal):

Foster M, **Dornan T**. Self-directed, integrated clinical learning through a 'sign-up system'. Med Educ 2003; 37: 656-9

Dornan T, Brown M, Powley D, Hopkins M. A technology using feedback to manage experience based learning. Med Teach 2004; 26: 736-8

Dornan T, Lee C, Stopford A, Hosie L, Maredia N, Rector A. Rapid Application Design of an Electronic Clinical Skills Portfolio for Undergraduate Medical Students. Computer Methods and Programs in Biomedicine 2005; 78: 25-33

Farrimond H, **Dornan T**, Cockcroft A, Rhodes L. Development and evaluation of an e-learning package to teach skin examination. Action research. Br J Dermatol; 2006; 155: 592-9

Dornan T, Hadfield J, Brown M, Boshuizen H, Scherpbier A. How can medical students learn in a self-directed way in the clinical environment? Design-based research. Med Educ 2005; 39: 356-64

Curriculum Vitae
Simon C Wallis
Simon.wallis@lthtr.nhs.uk

Current Appointment

Consultant Physician (Diabetes, Endocrinology, General Medicine)
(Lancashire Teaching Hospitals NHS Foundation Tr)

Additional roles

Associate Medical Director

Director of Medical Education (Post and Undergraduate)

Hospital Dean

Hon Research Associate Manchester University

Previous Appointments

Senior Lecturer Hammersmith RPMS 1989 – 1994

Clinical Scientist MRC Northwick Park 1985-1989

Lecturer Chemical Pathology St Thomas' London 1985

MRC Research Fellow St Mary's London 1979-1984

Relevant Experience

Development of a District General Hospital into a Teaching Hospital 2002-2007

Implementation of the Manchester medical undergraduate curriculum 2002-2007

Implementation of iSUS locally (web-based sign up system) 2003-2006

Collaborator in the development of HORUS UG including self assessment scales, reflective entries and tagging of entries 2006

Member of JISC project "HeLM" e portfolio support 2006-

Conceptualisation, development and implementation of experiential e learning using webCT

Development and implementation of paper portfolio for clinical students 2005-

Conceptualisation, development and training of "student facilitators" and Clinical Mentors" to provide the "life world" support for portfolio activities 2006-

Delivery of frequent training sessions for senior clinical staff (PBL, student appraisal, OSCE examiner) 2005-

Quality Assurance and Control of the learning environment at LTHTr 2000-

Name: Gerard John Byrne

Employment: Lead for Universities Medical Assessment
Partnership

Hospital Dean for Clinical Studies
Senior Lecturer in Surgical Oncology
Honorary Consultant Surgeon

Degrees and Awards:

Institution	Dates	Qualification
University of Manchester	November 2000	MD
Joint Committee for Intercollegiate Examinations	Glasgow Sept 1999	FRCS (gen surg)
Royal College of Surgeons (Edin.)	November 1994	FRCS (Ed)
Victoria University of Manchester	1984-1989	MB ChB. (1989):

External examinerships:

Peninsula University	Program Examiner	2006 – 2009
Sheffield University	Year 5	2005 – 2008
Birmingham University	Year 3	2005 - 2008
Barts and the London	Year 1 and 2	2002-2006

Recent publications

Kirwan CC, McCollum CN, Bundred NJ, **Byrne GJ**, McDowell G, Temple I, et al. Current UK practice of thromboprophylaxis for breast surgery *Br J Surg* 2006;93(10):1224-1225.
McDowell G, Temple I, Li C, Kirwan CC, Bundred NJ, McCollum CN, **Byrne GJ**. Alteration in platelet function in patients with early breast cancer. *Anticancer Res* 2005;25(6B):3963-6.
Kirwan CC, Nath E, McCollum CN, **Byrne GJ**. Prophylaxis for venous thromboembolism during treatment of cancer: questionnaire survey. *BMJ* 2003 13;327(7415):597-8
Owen A, **Byrne GJ**. Quality of Assessment Practice Must Come First In Discussions over a National Exam: Raising Quality in UK Undergraduate Medical Assessments with The Universities Medical Assessment Partnership: 12th International Ottawa Conference on Clinical Competence: 20-24 May 2006, New York City
Warner J, Owen AC, **Byrne GJ**, Lovell M. The importance of student research projects and the impact of new COREC guidelines: 12th International Ottawa Conference on Clinical Competence: 20-24 May 2006, New York City.

Recent educational grants and awards

Awarding Institution	Dates	Amount	Purpose
JISC	2005 – 2007	£197,000	UKCDR (principle applicant)
JISC	2007 – 2009	£196,000	Development of e-Portfolio services to support lifelong learning (Joint applicant)
NW SHA	From 2007	£1.57 million recurrent annually	Student support
Teaching Quality Enhancement Fund, HEFCE	Sept 2002 - Aug 2005	£247,000	UMAP
FDTL-4	Jan 2006	£35000	UMAP
Learning and Teaching Support Network-01	Jan 2003	£2000	UMAP

Full name: Brian James POLLARD

Date of Birth: 30th August, 1949.

Qualifications B.Pharm.London - 1971, Second Class Honours (Upper Division).
M.B. Ch.B. University of Sheffield - 1977.
FFARCS (FRCA), London - 1981.
M.D.University of Sheffield - 1991.

Present appointment. Professor of Anaesthesia, The University of Manchester,
Honorary Consultant in Anaesthesia and Intensive Care,
Central Manchester and Manchester Children's University
Hospitals NHS Trust,

Teaching

Lecturer, Royal College courses in London, Manchester and Leeds for the F.R.C.A. examinations
For 2 years I organised and taught on a local course on computing for clinicians.
PBL tutor, and clinical teacher, third year undergraduates, Manchester Medical School
Member, committee reorganising the Manchester preclinical course, 1992-1994. (This was the start of the
Problem Based Learning curriculum and we created the first PBL modules).
Chairman, Clinical Science Viva Subgroup of the Board of Examiners of the Final FRCA examination of the
Royal College of Anaesthetists (2000 to 2003) and Examiner for the FRCA 1990-2003.
Examiner, Undergraduates of the Manchester University Medical Course, 1996 to date.
Lead clinician, Final MB ChB clinical examination on the Central hospitals site 2001 to 2004.
Chairman, Final MB ChB examination committee, University of Manchester, 2004 to date.

Research, Publications and Lectures

7 Books (authored or edited or co-edited) and 24 chapters in textbooks
62 original articles and 47 abstracts of research or conference contributions in scientific journals
34 review articles and editorials
19 Presentations to learned societies of original research
86 Invited lectures/papers presented to learned societies

Academic/professional standing

Editor in Chief, "Current Anaesthesia and Critical Care", 1989 to 2003.
Editor-in Chief, "*European Journal of Anaesthesiology*", 2004 to date
President, Section of Anaesthesia, Royal Society of Medicine, 2005-2006.
Elected member of Council, Association of Anaesthetists of Great Britain and Ireland, 1996 - 2000.
Deputy Regional Adviser (North West), Royal College of Anaesthetists, 1994 – 1997.
Member, North West (East) Regional Specialist Registrar and SHO training committee.
Clinical Director, Anaesthesia Theatres and Sterile Services, Central Manchester Trust, 1998-2002.
Drug & Therapeutic committee, Central Manchester Trust, Member 1987-2007, Chair 1993-2000
Chairman, Resuscitation Management Committee, Central Manchester Hospitals, 1992-2007.

Current clinical responsibilities

Consultant in Critical Care
Anaesthesia for General, Upper GI and Renal surgery

CURRICULUM VITAE

Dr Jim Petch. Head of Distributed Learning, University of Manchester, Manchester M13 9PL

Career Summary (last 10 years)

2003-2006 Co-Director e-Learning Research Centre
2000- Head of Distributed Learning, University of Manchester
1997 - 1998 Visiting Professor, University of Salzburg
1994 - 2000 Reader, MMU

Selected Current and Recent External Responsibilities (last 10 years)

1991- 2000 Chairman, UNIGIS Board, International Distance Learning Programme in GIS.
2005 Co-chair ALT-C Conference, Manchester
2005- Member of JISC/HEFCE/HE Academy Partnership Board
2005- Member of Editorial Board Journal of Interactive Learning Environments
2003 - 2006 Co-Director, HEFCE e-Learning Research Centre

Selected Research Projects Summary (last 5 years)

2007 JISC Capital Programme wALTer Project, e-learning professional development repository
2006 JISC Capital Programme HeLM Project , workpackage on service generalisation
2006 - HEA Pathfinder Programme, Project Director, change management project
2006 HEA E-learning Benchmarking Pilot Programme, Project Director eMM Project
2006 JISC e-Learning Management, HeLM Project
2005 JISC Reference Model Programme, COVARM Validation Model
2004 JISC e-learning tools programme, HORUS Project
2004- JISC Frameworks Scoping Study, Requirements Analysis, asset analysis and planning of a framework planning tool for the JISC Information, e-Learning and e-Research Frameworks.
2001-2003 EU Minerva Project, NODE, Analysis and modeling of networked learning
2001- 2004 Regional Development Agency. Set up a centre for development of CPD courses
2001- 2002 ESF Funded Project to Develop Web based self help training tools for SMEs for on line development of e-learning materials.
2000 -2003 SPIN Project, EU 5th Framework Project for Internet based system for Spatial Data Mining using data of public interest.

Selected Research and Development Grants (last 5 years)

2007 JISC capital Programme £60,000 with Cranfield and ALT, project lead.
2006 JISC Capital Programme, HeLM project, £190,000, work package lead
2006 HEA Pathfinder Project, £170,000, applicant and project director
2005 JISC Reference Model Programme, £123,000
2004 JISC Frameworks Scoping Study; £75,000.
2003 HEFCE, £1M for E-Learning Research Centre
2001 European Regional Development Fund, £1,8M for setting up CPD facility, with UCLAN
2000 ESF £63,000 For developing web authoring tools for e-learning content
2000 1.8M EURO EU 5th Framework IST Programme for SPIN Project developing Internet based spatial data mining tools and applications, led by GMD , Germany.

Selected Recent Publications

Anja Le Blanc, Jonathan Bunt, Yien Kwok, and Jim Petch, 2005, The Virtual Learning Space – An Interactive 3D Environment, paper presented at Web 3D 2005 Symposium, Bangor, March 2005.

Barn, B., Dexter, H., Oussena, S. and Petch, J. (2006) A Synthesis Approach for Deriving Reference Models for SOA, IADIS International Journal on Computer Science and Information Systems (ISSN: 1646- 3692)

Dexter,H., Petch, J. and Powley, D. (2007) "Establishing an SOA composite applications development process for work- based learning and competency progression management", International Journal of Learning Technology, <special issue>

Petch, J. Calverley, G., Dexter, H., Cappelli, T. (2007) "Piloting a Process Maturity Model as an e-Learning Benchmarking Method." Electronic Journal of e-Learning 5.1:49.

Iain Campbell Mackie BDS, FDSRCPS, PhD, MSc, DDPHRCS, PGCert HE

Positions Held:

Professor of Dental Education, Director of Undergraduate Dental Studies, School of Dentistry, University of Manchester.

Academic Lead for Quality Assurance and Enhancement, Faculty of Medical and Human Sciences.

Main Education Responsibilities:

1997 - 2001 - Associate Dean for Undergraduate Studies.

2005 - present - Director of Undergraduate Dental Education.

1998 - present - Quality Assurance and Enhancement Officer for Dentistry.

1993 - present - Lead Academic for Paediatric Dentistry.

Education Projects:

Production of various learning and teaching resources, books, videos, courses and packages.

Dental health education campaign to promote the use of sugar free medicines. Department of Health, £50,000.

Develop courses and packages, Centre for Pharmacy Postgraduate Education, £15,500.

Markers of Esteem:

- National Teaching Fellowship, 2004.
- Member ILTHE 2001, Registered Practitioner HEA 2004.
- Promotion to Professorial Teaching Fellow, University of Manchester 2005.
- Subject Reviewer for Dentistry to quality assure dental programmes in the UK, 1998-2000.
- Member of QAA Benchmarking Academic Standards Group - Dentistry, 2000-2002.
- General Dental Council Inspector, to assess and monitor dental programmes in the UK, 2003-present.
- 84 publications in refereed journals.
- Chair of the Bicollegiate Membership in Paediatric Dentistry Examination 2003 - present (Glasgow and English Royal Colleges).
- President, British Society of Paediatric Dentistry, 1998-1999.
- Referee for 6 learned journals.

Key Publications:

1. Treatment Planning for Paedodontic Patients (ISBN 1 85097 014 9). A S Blinkhorn, I C Mackie. Quintessence Publishing Co Ltd 1992. This book was translated in 3 other languages.
2. Interactive treatment planning for children with active caries (ISBN 1 898274 07 X). I C Mackie, A S Blinkhorn. Eden Bianchi Press 1995.
3. Contributed to 8 other ISBN publications.
4. Contributed to Fellowship in Dental Surgery, Distance Learning Course. Royal College of Surgeons of England, 1999.
5. Guided Learning Package for the Centre for Pharmacy Postgraduate Education. I C Mackie, A S Blinkhorn, S S Fuller. HMSO 1994.
6. Distance learning course for the Centre for Pharmacy Postgraduate Education. I C Mackie, A S Blinkhorn. HMSO 1995.
7. Development of the teaching of inhalation sedation. I C Mackie, K Blain, A S Blinkhorn. Enterprise in Higher Education 1996.

From 1999 to 2005 I was a tutor on the Teaching and Learning Course for new academics. This course was accredited by the Institute of Learning and Teaching in 2001.

Nominated Primary Contact for Dentistry 2000 – present.

I am nationally recognised as a teacher in paediatric dentistry and for my work in quality assurance and enhancement in dentistry. I am recognised as a person who will do the task and deliver.

The University of Manchester
Faculty of Medical and Human Sciences
Manchester Medical School

Dr Ioan Davies

Present Appointments

Senior Lecturer in Biological Gerontology (Full-time, HEFC - Joint Appointment in the Faculty of Medical and Human Sciences and Faculty of Life Sciences)
Director of Phase 1 Studies, MBChB Programme
Admissions Tutor, MBChB Programme

Current Departmental Teaching Duties; Undergraduate and Graduate

As Director of Phase 1 (Years 1 and 2) of the Undergraduate Medicine Programme (MBChB) I am responsible for over 700 students. My direct student contact continues and includes being a problem based learning (PBL) tutor; lecturer; portfolio tutor and academic advisor to year 1 & 2 medical students. In addition, I am responsible for the delivery of the month long induction/Essential Skills programme for new medical students, and the academic content of the whole of the first semester of the integrated programme. Also, I am academic lead for the development of the MBChB virtual learning environment (Medlea).

My major roles are now curriculum design, change and management and since starting in this post I have been involved in the implementation and delivery of the revised MBChB curriculum (academic session 2004), and major Quality Assurance activities relating to the 5 yearly review of the MBChB curriculum by the University of Manchester and the General Medical Council.

Committees

Faculty of Medical and Human Sciences: E-Learning Sub-Group
Manchester Medical School: Curriculum Committee
Manchester Medical School: Undergraduate Medical Education Committee
Manchester Medical School: Academic Lead, Medlea Steering Group

Awards (2006):

University of Manchester: Distinguished Teacher Award (Faculty of Medical and Human Sciences)
University of Manchester: Teaching Excellence Award (£5000)

Appendix D

Existing Consortium Agreement for the HeLM project; this will be used as a basis for the HeLMET Consortium Agreement.

COLLABORATION AGREEMENT

This Agreement is made this day of 2007

Between

1. THE UNIVERSITY OF MANCHESTER having an office at Oxford Road, Manchester M13 9PT (hereinafter "Manchester")

and

2. SALFORD ROYAL NHS FOUNDATION TRUST having an office at Stott Lane, Salford M6 8HD (hereinafter "Salford")

3. LANCASHIRE TEACHING HOSPITALS NHS FOUNDATION TRUST having an office at Royal Preston Hospital, Sharoe Green Lane North, Fulwood, Preston PR2 9HT (hereinafter "Lancashire")

and

4. UNIVERSITY HOSPITAL of SOUTH MANCHESTER NHS FOUNDATION TRUST having an office at Wythenshawe Hospital, Southmoor Road, Wythenshawe, Manchester M23 9LT (hereinafter "SMTR")

(The aforesaid organisations and any additional parties are hereinafter referred to individually as "Party" and collectively as "the Parties").

WHEREAS:

- A. In response to the HEFCE Circular 00/05 'Yet Another Way of Getting Funding from Government', the Parties to this Agreement have submitted a proposal to HEFCE to undertake a project entitled 'Development of e-Portfolio services to support lifelong workplace learning'.
- B. The Parties intend to carry out a programme of work which is described in the bid submitted to the HEFCE and detailed in **Schedule C** (hereinafter referred to as "**the Project**").

IT IS HEREBY AGREED as follows:

1 DEFINITIONS AND INTERPRETATION

1.1 The words and phrases below shall have the following meanings:

Affiliates Means any entity directly or indirectly controlling or controlled by or in common control with such entity, where "control" is defined as the ownership of at least fifty percent (50%) of the equity or beneficial interests of such entity, or the right to vote for or appoint a majority of the board of directors or other governing body of such entity.

Alternate	Means the nominated representative of a Party pursuant to Clause 3.5 of this agreement.
Background IPR	Means any IPR controlled or owned by any Party prior to the date of commencement of this Agreement or IPR generated by any of the Parties independently of the Project and controlled or owned by that Party or any IPR to which the Party has the necessary rights for the purpose of the Project, provided that such IPR is necessary for the purpose of carrying out the Project.
Contributions	Means the financial contributions to the Research Parties as set out in the itemised budget contained in Schedule A and other financial and non-financial contributions provided by the Parties to the Project.
"Intellectual Property" ("IP" or "IPR")	is defined as all inventions, patents, copyrights, design rights, trade names, trade marks (whether any of the same are registered or unregistered), know-how, data base rights (including the copyright of software in any code), and any other or intellectual property arising out of the research carried out under the Research Programme anywhere in the world including applications for the foregoing.
Management Committee	Means the individuals nominated by each of the Parties (as shown in Schedule D) and Project Manager, pursuant to Clause 3 of this Agreement, in order to supervise the carrying out of the Project.
Research Council Grant	Means the offer made Higher Education Funding Council for England (HEFCE) and annexed hereto as Schedule B.
Resulting IPR	Means any IPR arising from and developed in the course of the Project by any of the Parties.
Sponsors	Means HEFCE and the collaborating Parties making contributions.
The Effective Date	Means 1 st October 2006 or as otherwise mutually agreed between the Parties.
The Grant Offer	Means the offer contained in the Grant Offer Letter annexed hereto as Schedule B.
The Project	Means the research programme entitled "Development of e-Portfolio services to support lifelong workplace learning" to be undertaken by the Parties in accordance with The Project Plan.
The Project Manager	Means Dr Iain Campbell of The University of Manchester
The Project Plan	Means the definitive document identifying the aims, objectives and methodology of the Project and included in the Grant Offer.

- 1.2 In this Agreement, unless otherwise expressly provided or unless the context otherwise requires:-
- 1.2.1 References to the singular include the plural and vice versa.
 - 1.2.2 References to words denoting any gender shall include all genders.
 - 1.2.3 References to persons include companies, partnerships, government departments and agencies and all other forms of body corporate or unincorporate.
 - 1.2.4 References to Clauses and Schedules are to Clauses of, and Schedules to, this Agreement.
 - 1.2.5 References to laws and statutory provisions shall include reference to any subordinate legislation made pursuant thereto and shall be construed as referring to those laws, provisions and subordinate legislation as respectively amended or re-enacted from time to time.
 - 1.2.6 The headings of this Agreement are for ease of reference only and are not part of this Agreement for the purposes of construction.
 - 1.2.7 Any undertaking by a Party not to do an act or thing shall be deemed to include an undertaking not to permit or suffer such act or thing to be done by another person.
 - 1.2.8 References to the Parties include their respective successors in title, permitted assigns and legal personal representatives.
- 1.3 The Schedules and Recitals form part of this Agreement and shall have effect as if set out in full in the body of this Agreement and accordingly any reference to this Agreement includes the Schedule and Recitals.
- 1.4 In the event of any conflict between the terms of this Agreement and the terms of the Research Council Grant conditions and/or The Grant Offer conditions then the terms of the Research Council Grant conditions and/or The Grant Offer conditions will prevail. Subject to the foregoing, this Agreement shall take precedence over any other agreement signed between the Parties relating to the subject matter hereof and over any other documents referred to herein.

2 PURPOSE AND SCOPE

- 2.1 The Project shall be undertaken at all times by the Parties in accordance with the terms of the Research Council Grant conditions and The Grant Offer conditions.
- 2.2 Subject to Clause 2.1, the terms of this Agreement shall govern the rights and obligations of the Parties. These obligations include their respective Contributions and remuneration, the management structure and all other terms of collaboration to be complied with in connection with the Project.

3 PROJECT MANAGEMENT

- 3.1 A Management Committee will be established, comprising the nominated representatives of each of the Parties, or their Alternates, and the Project Manager.

The Management Committee, under the chairmanship of the Project Manager, will be responsible for the overall management of the Project. All significant matters relating to the Project will be decided upon by the Management Committee which will put in place a suitable structure to manage the Project.

The Project Manager will have responsibility for the day-to-day management of the Project, with the Management Committee being concerned with overall policy and direction. The Parties agree that the Project Manager will have the following responsibilities:

- Day-to-day management of the project on behalf of the Management Committee, based on JISC project management guidelines and the application of the PRINCE2 project management methodology.
- Management of any staff engaged in project support.
- Organisation of Management Committee meetings, including note taking and dissemination of meeting notes to members of the Management Committee.
- Highlight and ad-hoc reporting duties as determined by the Management Committee.
- Liaison (with the Project Director) to JISC programme management.
- Planning and monitoring of the project.
- Development of the project plan, including; the dissemination/communication plan, exit/sustainability plan, evaluation plan and QA plan.
- Compilation of progress reports, completion report (End Project Report) and technical and supporting documentation to JISC programme management.
- Compilation of a Lesson Learned Report and preparation of any Follow-on Action Recommendations, as required by the Management Committee and/or JISC programme management.
- Management of the development of the project website and development of policy to achieve management of archiving this resource as directed by JISC.

Meetings of the Management Committee will take place every six (6) months at venues to be agreed or at any time when reasonably considered necessary at the request of any of the Parties. Meetings shall be convened with at least twenty-one (14) days' prior written notice, which notice shall include an agenda. Minutes of the meetings of the Management Committee shall be drafted by the Chairman and transmitted to the Parties as soon as possible and normally within twenty one (21) days of the meeting. The minutes shall be considered as accepted by the Parties if, within thirty (30) days from receipt, no Party has objected in writing to the Chairman. Additional meetings may be called by two or more Parties or on the advice of the Project Manager. The Management Committee may choose to take advice from third parties as is required. Meetings will operate under the following rules:

each Management Committee member will have one vote, except the Chairman who has a casting vote (but a member may not vote on matters concerning a dispute with the parties where the member is the subject of the dispute;

Management Committee members may nominate a representative to attend meetings and vote on their behalf;

decisions will be taken on the basis of a majority vote of those attending and eligible to vote;

the minimum number of voting members required for meetings is 4

The Management Committee will determine the overall nature of the Project and will retain responsibility for determining the technical standards to be adopted by the Project. The

academic, scientific and technical content of the Product will be determined by the Management Committee.

3.2 The Management Committee will meet at least twice yearly. Each Party shall, through one of its representatives, have one vote in the Management Committee. Scientific and Financial Decisions will be taken by a majority vote of a meeting of the Management Committee except for those decisions specified in Clauses 6.1, 7.1, 11.1, 12.1, 12.2 and 12.3.

3.9 Manchester will:

3.10.1 be responsible for financial administration of the Project as outlined in Clause 8.

3.10.2 monitor the progress of the Project with respect to expenditure and income.

3.10.3 be the primary contact for the project with HEFCE and will be responsible for the submission of reports as required by HEFCE.

4 DURATION

This Agreement shall remain in full force and effect until the 30th September 2008 unless terminated earlier in accordance with the provisions of Clause 7 or Clause 12.

5 RESPONSIBILITIES AND LIABILITIES

5.1 I) Each Party shall make its respective Contributions to the Project as identified in the proposal to HEFCE.

II) The Parties shall undertake the Project in accordance with the Project Plan.

5.2 Each Party undertakes to use reasonable endeavours to ensure that its work on the Project is carried out in accordance with accepted scientific principles and standards. further each Party confirms that it will act in good faith when complying with its respective obligations under this Agreement.

5.3 In respect of Background IPR, Resulting IPR, information and/or materials supplied by one Party to another under this Agreement, the supplying Party shall be under no obligation or liability of any kind whether arising under contract or tort (including negligence) or under any other cause of action, and no warranty condition or representation of any kind is made, given or to be implied as to the sufficiency, accuracy or fitness for purpose of such information or materials or, the absence of any infringement of any proprietary rights of third parties by the use of such information and materials and the recipient Party shall in any case be entirely responsible for the use to which it puts such information and materials. Subject to the foregoing, no Party shall supply Background IPR to another Party under this Agreement in the knowledge that the use of the Background IPR by that Party will infringe the proprietary rights of any third parties.

5.4 No Party (the "First Party") shall be liable to any other Party (the "Second Party") for any damages, dispute claim, proceeding, action or injury arising during the undertaking of the Project or as a result of the Second Party utilising any Resulting IPR,

Background IPR, Information, materials, apparatus, method or process unless caused by the negligent act or omission of an employee, student or agent of the First Party.

Notwithstanding the above the First Party shall not be liable to the Second Party for any amount in excess of the limits set out in clause 5.5.

Further the First Party shall not be liable to the Second Party for any (i) loss of profit, (ii) loss of revenue or (iii) loss of contract or for indirect or consequential loss or damage arising from such act or omission, however nothing in this Agreement shall exclude or limit or be deemed to exclude or limit the First Party's liability for death or personal injury caused by its negligence or for fraudulent misrepresentation or for any liability that cannot be excluded or limited by law.

- 5.5 In any event, the maximum liability of a Party to another Party in connection with this Agreement or its subject matter shall not exceed that Party's share of the total funding provided to that Party as detailed within this Agreement.

6 ADDITION OF NEW PARTIES

- 6.1 New Parties may join the Project with the unanimous agreement of the Management Committee, subject to Clause 6.2.
- 6.2 New parties shall be bound by the terms of this Agreement and such other conditions as the Management Committee may specify. New Parties may be required to pay a sum towards the cost of the Project, the level of which will be determined by the Management Committee. Factors determining such sum may include (without limitation) the future contribution of the new party and the benefit accruing to the new party on joining the Project.

7 WITHDRAWALS

- 7.1 Any Party (the "Withdrawing Party") may withdraw from the Project upon ninety (90) days prior written notice to the others, where it considers withdrawal justified on the grounds that no further purpose to the Project would be served by continuing in the Project. Withdrawal by the Withdrawing Party will only take place after discussions with the others. Such discussions to occur within ninety (90) days of submission by the Withdrawing Party of notice to withdraw.
- 7.2 In the event of withdrawal of a Party, the Management Committee will make all reasonable attempts to reallocate the obligations of the Withdrawing Party under this Agreement to another existing Party or a new Party acceptable to the remaining Parties to this Agreement and the HEFCE provided that such Party agrees to be bound by the terms of this Agreement.
- 7.3 The Withdrawing Party shall not be entitled to recover any of its costs incurred in connection with the Project and shall comply with all conditions imposed pursuant to Clause 7.1 which shall include (without limitation);
- 7.3.1 rights granted to the other Parties in respect of the Withdrawing Party's Background IPR shall continue for the duration of the Project solely for the purposes of carrying out the Project, subject to the restrictions contained in this Agreement;

7.3.2 the Withdrawing Party shall grant to the other Parties a non-exclusive, royalty-free licence to use the Withdrawing Party's Resulting IPR for the purposes of carrying out the Project. For the avoidance of doubt any exploitation of such Withdrawing Parties Resulting IPR will be dealt with in accordance with clause 10;

7.3.3 all rights acquired by the Withdrawing Party to the Background and Resulting IPR of the other Parties shall cease immediately other than in respect of the Withdrawing Party's interest in any jointly owned IPR;

8 FINANCIAL MANAGEMENT

8.1 The financial arrangements for the Project shall be overseen by the Management Committee and shall be as set out in Schedule A.

8.2 Any Party receiving funds from a Sponsor which are due to another Party under the terms of this Agreement shall notify that Party of the receipt of said funds as soon as possible and in any event within 30 days of receipt of said funds. The recipient Party shall invoice the paying Party who shall then as soon as possible and in any event within 30 days of receipt of the invoice transfer such funds to the recipient Party. The invoice must include as much detail as required to satisfy a subsequent audit, and should therefore include a breakdown of costs under appropriate headings.

8.3 Manchester will prepare and submit to the Management Committee within three months of each anniversary of the Effective Date, an account of all income and expenditure in connection with this Project during the year under consideration.

8.4 Manchester shall permit an independent chartered or certified public accountant appointed by any Party, at the inspecting Party's expense to examine all books and records relating to this Agreement provided: -

8.4.1 reasonable prior written notice is given to Manchester;

8.4.2 access is only required during normal working hours; and

8.4.3 the inspecting Party and the auditor shall keep and shall use all reasonable endeavours to procure that any representatives of it shall keep confidential any information that it may acquire in the exercise of its rights under this Clause.

9 IPR OWNERSHIP

9.1 Each Party shall promptly disclose in confidence to the other Parties all Resulting IPR during the term of this Agreement and all Parties shall co-operate, where required, in relation to the preparation and prosecution of patent applications and any other Resulting IPR applications, and in relation to any legal proceedings concerning such patents and patent applications and any other Resulting IPR applications.

9.2 Each Party shall own the Resulting IPR generated by it under the Project and shall be responsible for securing ownership of such Resulting IPR from its employees, students and other agents.

9.3 Nothing contained in this Agreement or any licence agreement pertaining to this Project shall affect the absolute and unfettered rights of each Party in all inventions,

discoveries and intellectual property contained in its Background IPR and the provisions of clause 13 shall apply to all such Background IPR.

- 9.4 Unless agreed otherwise, each Party shall undertake and continue at its expense the timely prosecution and maintenance of all Resulting IPR which is solely owned by that Party. In the event that the owner of the IPR is unable or unwilling to comply with its obligation under this Clause, the Management Committee shall consider how best to deal with such Resulting IPR and shall have the option to require an assignment of such Resulting IPR to another Party to enable prosecution and maintenance of such Resulting IPR by that other Party at its own cost. In the event that any Party wishes to exploit commercially any Resulting IPR assigned pursuant to this Clause 9.4 that Party shall pay to the assigning Party a royalty and/or other appropriate form of remuneration which is fair and reasonable taking into consideration the factors set out under Clause 10.2.
- 9.5 In the event that any of the Parties are jointly responsible for generating Resulting IPR such Resulting IPR shall, unless otherwise agreed in writing by the relevant Parties, be jointly owned by such Parties in accordance with the inventive contribution made by each Party to such Resulting IPR.
- 9.6 Joint owners of Resulting IPR shall agree between them on who shall be responsible for the timely prosecution and maintenance of all such Resulting IPR and the Party that is nominated to be so responsible shall be entitled to charge the other joint owners with a percentage of the costs of so doing as agreed between the joint owners. In the absence of any agreement to the contrary between joint owners the costs shall be equally shared.

10 USE OF IPR

- 10.1 Each Party grants to the other Parties a non-exclusive, royalty-free licence to:
- 10.1.1 use its Resulting IPR for their own internal research and development purposes but not for the purposes of commercial exploitation; and
- 10.1.2 subject to any existing third party obligations, use its Background IPR for the purpose of undertaking the Project but not for any other purpose.
- 10.2 In the event that any Party wishes to exploit commercially Resulting IPR owned by another Party, the owner of the Resulting IPR may grant, at its sole discretion, to such Party a non-exclusive licence to use such Resulting IPR for that purpose. Such licence shall be subject to the agreement of appropriate terms in relation thereto, including a royalty and/or other appropriate form of remuneration which is fair and reasonable taking into consideration the respective financial and technical contributions of the Parties concerned to the development of the Resulting IPR, the expenses incurred in securing intellectual property protection thereof and the costs of its commercial exploitation and any use of Background IPR.
- 10.3 Should any of the Parties wish to exploit its own Resulting IPR with a third party during the duration of the Project, that Party must notify the other Parties, always provided that the disclosure of information required for such exploitation is subject to the obligations of confidentiality at least equivalent to those under Clause 13.
- 10.4 Each Party agrees (where it is free and reasonably able to do so) to license on fair and reasonable terms its Resulting IPR and may grant at its sole discretion Background

IPR that is required to enable any other Party to exploit its own Resulting IPR, always subject to the obligations of confidentiality under Clause 13.

10.5 With regard to joint inventions, the Parties owning such inventions agree to co-operate fully in the protection of such joint inventions and each Party shall be entitled to make use of such joint inventions subject only to negotiating a licence in good faith from the other Party for its interest in such joint inventions on similar terms to those set out in clause 10.2.

10.6 After the deduction of all relevant expenditure and costs associated with exploitation, the remaining income derived from commercial exploitation shall be divided as follows:

70% University of Manchester
10% Salford Royal Hospitals NHS Foundation Trust
10% University Hospital of South Manchester NHS Foundation Trust
10% Lancashire Teaching Hospitals NHS Foundation Trust

The Parties agree that the sharing of revenue applies to those Parties remaining at the end of the Project. If a Party withdraws or is expelled prior to the completion of the Project their entitlement to a share in the income derived from commercial exploitation will be determined by the Management Committee and will take account of the proportion of the total Project undertaken by that Party.

10.7 "Each Party hereby grants to the other Parties a non-exclusive free licence to use the Deliverables and Products for the purposes of carrying out the Project and for teaching and research purposes during the Project and after the end of the Project. The Parties hereby agree to grant to each other and to third parties non-exclusive licences as are necessary to enable the exploitation of the Deliverables and the development and creation of Products in accordance with the provisions of this Agreement.

The Parties agree to cooperate fully with the JISC to make the Deliverables available free at the point of use to the UK teaching, learning, and research communities. The Parties hereby agree to supply such copies and to grant such non-exclusive licences as may be required by HEFCE."

11 PUBLICATION AND ANNOUNCEMENTS

11.1 Subject to the provisions of Clauses 10 and 13 no Party shall disclose or publish information or Resulting IPR for the duration of the Project and for five (5) years thereafter without the consent of all the other Parties, such consent, subject to Clause 11.2, not to be unreasonably withheld or delayed. Notwithstanding the foregoing, the Parties shall be permitted to publish the Results of the Project which they have undertaken in accordance with normal academic practice, subject always to the provisions of Clauses 10 and 13, and providing such disclosure does not jeopardise any application for Resulting IPR protection by any Party. Request for such consent must be submitted together with the material proposed for publication to each Party through their representative on the Management Committee. All Parties must be notified at least eight weeks prior to submission of a publication. If any Party considers that the proposal includes a disclosure that would prejudice the value of any Background IPR and/or Resulting IPR, that Party shall inform the Project Manager in writing within 28 days of that Party receiving a copy of the proposed publication and in that event the disclosure shall be amended so as to meet the objections of that Party.

For the avoidance of doubt, any such submission to the Management Committee may be made, and approved via correspondence with the Management Committee members, and not restricted to the twelve-monthly meetings referred to in Clause 3.8 above.

- 11.2 Subject to the provisions of Clause 10 where in the opinion of the Management Committee a proposed publication contains patentable or commercially sensitive subject matter which needs protection then the Party proposing to publish may be requested to refrain from doing so for a minimum of twelve (12) months in order to allow for application for patent protection in the name and at the cost of the relevant owner of the Resulting IPR. The provisions of Clause 10 shall apply in respect of any licence to such Resulting IPR.
- 11.3 Nothing contained in this Agreement shall (subject to the examiner entering into an agreement of confidentiality similar to that contained in Clause 13) prevent the submission of a thesis to examiners, in accordance with the normal regulations of the Parties, nor to the placing of such thesis in the library of the appropriate Party provided that access to such thesis shall only be available on conditions of confidentiality similar to those contained in Clause 13.
- 11.4 No Party shall use the trademark or name of another Party, nor of any member of another Party's staff, in any publicity, advertising or news release without the prior written approval of that other Party.

12 TERMINATION

- 12.1 In addition to the remedies contained in Clause 7 (Withdrawals); in the event that any Party shall commit any material breach of or default in any terms or conditions of this Agreement, the Management Committee may decide by unanimous vote of the non-defaulting Parties to instruct the Chairman of the Management Committee to serve written notice of such breach or default on the defaulting Party and in the event that such Party fails to remedy such default or breach within sixty (60) days after receipt of such written notice any of the Parties may, at their option and in addition to any other remedies which they may have at law or equity, remove the defaulting Party and continue with the Agreement or terminate this Agreement by sending notice of termination in writing to the other Parties to such effect. Any removal of the defaulting Party shall be effective as of the date of the receipt of such notice whereupon the provisions of Clause 7.3 shall apply to the defaulting Party.
- 12.2 If any Party (a) passes a resolution for its winding-up; or if (b) a court of competent jurisdiction makes an order for that Party's winding-up or dissolution; or makes an administration order in relation to that Party; or if any Party (c) appoints a receiver over, or an encumbrancer takes possession of or sells an asset of, that Party; or (d) makes an arrangement or composition with its creditors generally; or (e) makes an application to a court of competent jurisdiction for protection from its creditors generally; the remaining members of the Management Committee shall meet to either suspend or terminate that Party's involvement in the Management Committee and the Project. Any removal of the defaulting Party shall be effective as of the date of the receipt of such notice whereupon the provisions of Clause 7.3 shall apply to the defaulting Party.
- 12.3 In the event that it is agreed by all the Parties that there are no longer valid reasons for continuing with the Project the Management Committee may decide by unanimous vote to terminate this Agreement by sending notice of termination in writing to all the Parties to that effect. In the event of such termination each Party shall be reimbursed

for all costs and non-cancellable commitments properly charged in accordance with this agreement and incurred or committed up to the date of termination, providing that such Funds have been recovered from the HEFCE or the Parties. For the avoidance of doubt, no Party shall be required to contribute to any losses suffered by another Party in circumstances where costs have not been recovered.

13 CONFIDENTIALITY

- 13.1 For the purpose of this clause “Confidential Information” shall mean all information including (but not limited to) specifications, drawings, circuit diagrams, tapes, discs and other computable readable media, documents, techniques and know-how which are disclosed by one Party to the other for use in or in connection with the Project.
- 13.2 The Parties hereto agree to ensure that any Confidential Information disclosed or submitted in writing or any other tangible form to one Party (“Receiving Party”) by the other (“Disclosing Party”) shall not be disclosed to any third party and shall be treated with the same care and discretion to avoid disclosure as the Receiving Party uses with its own similar information which it does not wish to disclose. Any information disclosed orally that is identified by the Disclosing Party as Confidential Information shall be treated the same as it had been reduced to writing at the time of disclosure to the Receiving Party.
- 13.3 The Receiving Party shall not, during a period of ten (10) years after the termination of this Agreement, use any such Confidential Information for any purpose other than the carrying out of its obligations under this Agreement or other than in accordance with the terms of this Agreement.
- 13.4 The undertaking in Clause 13.3 above shall not apply to Confidential Information:
- 13.4.1 which, at the time of disclosure, has already been published or is otherwise in the public domain other than through breach of the terms of this Agreement;
 - 13.4.2 which, after disclosure to the Parties, is subsequently published or comes into the public domain by means other than an action or omission on the part of any of the Parties;
 - 13.4.3 which a Party can demonstrate was known to him or subsequently independently developed by him and not acquired as a result of membership of the Project, nor using, derived from, referring to or in any way relates to the Confidential Information;
 - 13.4.4 lawfully acquired from third parties who had a right to disclose it with no obligations of confidentiality to any of the Parties; or
 - 13.4.5 is required to be disclosed by applicable law or court order or by any Party's regulatory body, which is empowered by Statute or Statutory Instrument, but only to the extent of such disclosure and the Receiving Party shall notify the Disclosing Party promptly of any such request.

- 13.5 A Party breaching the obligation of confidentiality may be required by the other Parties to withdraw from the Project and will be subject to the conditions of Clauses 7 and 12 above.
- 13.6 Staff and students and any agents, consultants or sub-contractors engaged to work on the Project will be subject to the principles of confidentiality outlined in this Clause 13, and the relevant Party shall be responsible for any breach of this Clause 13 by such persons.

14 DATA MANAGEMENT

14.1 Data Collection

In the course of the Project, each Party is involved in the collection of data in the form of documents, recordings and other artefacts generated by the project. The data are to be sent to the Project Manager and stored in an archive at University of Manchester (“**the Project Archive**”). Each Party agrees to ensure that all data submitted to the Project Manager are accompanied by documentation detailing the origin of the data, together with any necessary consents.

14.2 Data Maintenance

University of Manchester hereby undertakes to maintain the Project Archive for the duration of the Project and for a period of at least 5 years (this is the norm unless data is of a clinical nature) after the end of the Project. This period is subject to extension if the Management Committee so decides

15 FORCE MAJEURE

- 15.1 , A Party shall not be liable for failure to perform its obligations under this Agreement, nor be liable to any claim for compensation or damage, nor be deemed to be in breach of this Agreement, if such failure arises from an occurrence or circumstances beyond the reasonable control of that Party.
- 15.2 If a Party affected by such an occurrence causes a delay of three months or more, and if such delay may reasonably be anticipated to continue, then the Parties shall, in consultation with the HEFCE, discuss whether continuation of the Project is viable, or whether the Project and this Agreement should be terminated.

16 NON-ASSIGNMENT

This Agreement or any of the rights or obligations hereunder may not be assigned or otherwise transferred or sub-contracted by any Party other than to their respective Affiliates, in whole or in part, without the express prior written consent of the Management Committee and the HEFCE.

17 CONTINUING OBLIGATIONS

The provisions of Clauses 1.2, 5 (Responsibilities & Liabilities), 9 (IPR Ownership), 10, (Use of IPR) 11, (Publication and Announcements), 12 (Termination), 13 (Confidentiality), 14

(Disclaimer), 17 (This Clause), 18 (Governing Law), 20 (Dispute Resolution) and 21 (Amendments) shall survive termination of this Agreement.

18 GOVERNING LAW

This Agreement shall be governed by and construed in accordance with English Law and each Party agrees (subject to Clauses 9.1 and 20) to submit to the exclusive jurisdiction of the English Courts as regards any claim or matter arising under this Agreement.

19 NO PARTNERSHIP

Nothing in this Agreement shall create or be deemed to create a partnership (within the meaning of the Partnership Act 1890) or to have created the relationship of principal and agent, a membership or any other legal entity between the Parties other than as specifically set out herein.

20 DISPUTE RESOLUTION

20.1 The Parties shall use good faith efforts to resolve any dispute, claim or proceeding arising out of or relating to this Agreement via the Management Committee. In the event that any disputes can not be resolved at this level then the senior executives of the relevant Parties who have authority to settle the same shall use good faith efforts to resolve the same. If the matter is not resolved through negotiation, it shall be settled as agreed by the Management Committee either by:

20.1.1 mediation in accordance with the Centre for Dispute Resolution ("CEDR") Model Mediation Procedure (the "Model Procedure"). To initiate a mediation a Party must give notice in writing to the other Parties to the dispute requesting a mediation pursuant to the Model Procedure. A copy of the request shall also be sent to CEDR. The mediation shall be before a single, jointly agreed upon, mediator.

20.1.2 reference to the jurisdiction of the Courts in England. In this event, each of the Parties shall have the right to take proceedings in any other jurisdiction for the purposes of enforcing a judgement or order obtained from the Courts in England.

20.2 If the Management Committee is unable to select a mutually agreeable mediator or can not agree on the forum in which any dispute is to be held within 60 days of a dispute being notified to the Management Committee, then the provisions of Clause 20.1.2 shall apply.

21 AMENDMENTS

This Agreement shall not be amended other than by mutual agreement of the parties in writing, which is expressly stated to amend this Agreement. Such amendment shall include by specific reference the agreed amendment. Material changes may not be implemented without the prior agreement of the Sponsors.

22 NOTICES

Any notice to be given under this Agreement shall be sent by fax and confirmed by registered mail to the address provided below:

23 MISCELLANEOUS

- 23.1 If any part or any provision of this Agreement shall to any extent prove invalid or unenforceable in law, including the laws of the European Union, the remainder of such provision and all other provisions of this Agreement shall remain valid and enforceable to the fullest extent permissible by law, and such provision shall be deemed to be omitted from this Agreement to the extent of such invalidity or unenforceability. The remainder of this Agreement shall continue in full force and effect and the Parties shall negotiate in good faith to replace the invalid or unenforceable provision with a valid, legal and enforceable provision which has an effect as close as possible to the provision or terms being replaced.
- 23.2 No failure to exercise or delay in the exercise of any right or remedy which any Party may have under this Agreement or in connection with this Agreement shall operate as a waiver thereof, and nor shall any single or partial exercise of any such right or remedy prevent any further or other exercise thereof or of any other such right or remedy.
- 23.3 Except as otherwise expressly provided for herein, the Parties confirm that nothing in this Agreement shall confer or purport to confer on any third party any benefit or any right to enforce any term of this Agreement for the purposes of Contracts (Rights of Third Parties) Act 1999.