JISC

Users and Innovation: Personalising Technologies Programme Final Evaluation Report

Glenaffric Ltd

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Glenaffric

Contents

1 Introduction

1.1 This is the final report of the evaluation of the JISC Users and Innovation: Personalising Technologies Programme[1]. This Programme represented a three-year, £4.75M investment in technology and practice development as part of the HEFCE-funded JISC Capital Programme[2]. The broad aim of the Users and Innovation (U&I) Programme was to create opportunities to transform practice by developing technologies and innovative processes based on the needs of individual users working within institutions across multiple domains. Essential features of the Programme were the establishment of an online community using new technologies to support project activities, and the use of a development model designed to improve user engagement and to ensure that the development of technologies was integrated with institutional practices and processes. Within this broad context, the specific intended outcomes of the Programme were:

- the development and piloting of software tools and integration platforms for learners, teachers and researchers based on user needs and experiences within real institutional and extra-institutional contexts
- the enrichment of the e-Framework for Education and Research, to assist in the development of inter-tool interoperability and integration platforms
- a sustainable community of developers and practitioners that supports the development of practice and technology using service-oriented approaches in a rapid and agile way
- the provision of advice to institutions and individuals, based on experience synthesised from a variety of programme activities and an evaluation of its development approach, enabling more efficient sector-wide adoption of next generation technologies and practices, whilst supporting institutional loci of control in key business areas.

At the same time, the U&I Programme presented opportunities to explore the potential benefits of innovative approaches to programme support and management within the wider context of JISC innovation developments in general and the Capital Programme in particular. These approaches included implementing the Managing Successful Programmes programme management methodology adopted by JISC for the Capital Programme[3], in particular through the development and implementation of a programme blueprint, and an explicit focus on benefits realisation.

1.2 The first phase of the Next Generation Technologies and Practices strand of the U&I Programme ran from March – August 2007. This phase supported the establishment of a community of practice, initially scoped for approximately 100 members to engage in community-supported activities to identify user needs and explore possibilities for collaborative solutions meeting the needs of a range of stakeholders. The second phase of nineteen small-scale demonstration (Strand A) and large-scale implementation pilot projects (Strand B) commenced in October 2007. The brief for these projects was deliberately open and focused on developing technologies and implementing and piloting potential solutions that were identified by the community of practice. The successful projects were subsequently clustered in four broad themes:

[1] http://www.jisc.ac.uk/whatwedo/programmes/usersandinnovation.aspx

[2] http://www.jisc.ac.uk/whatwedo/programmes/capital.aspx

[3] http://www.jisc.ac.uk/fundingopportunities/projectmanagement/programmes.aspx

- Collaborative learning
- Multimedia social technologies
- Social networking
- Web 2.0 platforms for learning, teaching and skills

The U&I Programme also included three projects from a concurrent Personal e-Administration for teachers and researchers strand. A further element of the Programme was the provision of funding specifically for projects focusing on benefits realisation, emerging issues and widening stakeholder engagement through disseminating, communicating and embedding project outputs. A total of twenty-nine further projects in these areas received funding in three phases from January 2008 to March 2009. The diagram at Appendix A illustrates the complexity of the Programme and the relationships between projects and themes, benefits realisation, widening stakeholder engagement and emerging issues studies.

1.3 The Programme support model was based on a matrix of required competencies and areas of expertise that were identified at the planning stage. Two related Support Projects were commissioned to support the development and implementation of a Users and Innovation Development Model (UIDM), and an online community of practice. Following the Phase 2 start-up meeting in January 2008, a group of Critical Friends was also established to work with clusters of projects, offering strategic advice and guidance from an external perspective.

1.4 Glenaffric Ltd was commissioned in January 2008 to undertake an evaluation of the Programme. This work was intended to encompass both formative and summative evaluation, providing ongoing evaluation of the community-based, user-focused and agile approach adopted by the Programme, and a summary analysis of the overall effectiveness of the Programme in realising its intended benefits. In conceiving and developing the U&I Programme, the programme management team had implemented the Six Steps to Successful Evaluation approach that was adopted by JISC for the Capital Programme. This initial work led to the articulation of a set of top-level evaluation questions for the Programme:

- What has the U&I Programme achieved, to what quality, and how efficiently?
- How effective is the community approach for members and those it has engaged with?
- To what extent did user engagement contribute to the success of the U&I Programme?
- What, if anything, would need to be changed for good practice in user engagement to be integrated into the JISC MSP approach?
- How successful has the community approach been in widening and deepening engagement in innovation activities?
- How effective is outsourced programme support based on a competency matrix approach?

These questions have formed the basis for the evaluation methodology that was adopted for the Programme, and the structure of this final report.

2 Methodology

2.1 Evaluation Approach

2.1.1 In designing and planning the programme evaluation, the evaluation team was aware of a high level of existing evaluation expertise in the Programme, and a fundamentally

evaluative focus for many of the projects. While there were some risks in terms of overlap and potential over-evaluation attached to introducing an overarching evaluation, there was also significant value to be derived from a synthesised and flexible approach to programme-level evaluation that acknowledged and honoured existing evaluation expertise, developments and approaches in the Programme. The evaluation approach for the programme as a whole was therefore largely assimilative and non-interventionist, drawing on a range of sources of information that were derived from programme-level activities, and working in symbiosis with programme management and support functions. An overview of the Programme and the evaluation is at Appendix B. This illustrates the inter-relationships between the various programme elements and the role of the programme evaluation in supporting their interaction and cohesion in support of the overarching vision of the Programme.

2.1.2 In recognition of the complexity, diversity and scope of the U&I Programme, a set of core principles was derived for the programme-level evaluation:

- *User engagement* – community involvement in the development and implementation of the evaluation plan; participatory evaluation promoting and sustaining a sense of shared ownership and responsibility
- *Innovation* – practising in the programme evaluation what the programme stands for in terms of using new technologies – social networking, community resource development (use of tagging, social bookmarking methods, development of folksonomies), podcasts and immersive worlds
- *Drawing out the value* – formative evaluation designed to enhance project activities and programme outcomes
- *Collective expertise* – making the most of evaluation interests and experience across the programme
- *Relevance and 'fit'* – using and making sense of programme shape and focus, shape evaluation on existing or emerging clusters of project activity and interest
- *Quality enhancement* – evaluation activities explicitly aim to improve the quality of the development processes, and project and programme products
- *Benefits realisation* – evaluation is designed to demonstrate impact of programme, chart development roadmap and articulate measures of longer term success

These principles were further explored and developed in the Evaluation Framework for the U&I Programme which was produced in July 2008, and presented a summary of the scope of the evaluation and the intended deliverables. The Framework also included an analysis of Programme stakeholders in terms of the intervening organisations, immediate partners and ultimate beneficiaries. It outlined the evaluation methods proposed for the Programme and the rationale for their implementation in this context. The Framework also included a detailed Evaluation Plan for the U&I Programme, with six top-level evaluation questions, specific issues for consideration in respect of these questions, indicators of achievement, the baseline against which achievement was to be measured, and sources of evidence to be reviewed (See Appendix C – Programme Evaluation Plan).

2.1.3 A further function of the formative evaluation of the U&I Programme was to support the projects in undertaking their own evaluation by encouraging reflection on the relationship between project outputs and outcomes, and the programme-level evaluation themes. This took place through interactive presentations at Programme meetings, and in discussions

with project representatives at key stages throughout the Programme (in particular when projects were developing their project plans, and planning their final reports).

2.1.4 Part of the approach to the evaluation of the U&I Programme was the establishment of an Evaluation Reference Group (see Appendix D – Evaluation Reference Group Brief). This Group brought together representatives from the U&I Programme Management, the Emerge Support Project, the UIDM Project Team, the Critical Friends and the Programme Evaluation Team along with representatives from other JISC Innovation Programme teams, JISC Evidence and Evaluation, Marketing and Communications, and JISC infoNet. The work of the Evaluation Reference Group (ERG) focused on three main areas:

- Sense-making – developing a shared understanding of the scope of the U & I Programme and its relevance for JISC Innovation
- Stakeholder engagement – ensuring the relevance of the Programme evaluation for key stakeholders
- Strategic impact – maximising the benefits of the U & I Programme for JISC and innovation developments in the sector

The ERG met twice in the course of the Programme, in October 2008 and July 2009. The first meeting focused on developing a shared understanding of the role and function of the three principal innovative elements of the U&I Programme: the community of practice, the development model (UIDM) and benefits realisation activity. The second meeting focused on reviewing the achievements of the Programme, reflecting on the outcomes of the innovative approaches to user engagement, community development and programme support, with a view to shaping the recommendations from the Programme for JISC and the sector.

2.1.5 An interim evaluation report was produced in December 2008. The purpose of this report was to present baseline evidence against which the overall achievements of the Programme were to be evaluated, and to identify emerging issues of interest for further investigation and review in the final evaluation report. The interim report was presented to the JISC Innovations Group in April 2009.

2.2 Sources of Evidence

2.2.1 Evaluation evidence for this final report has been drawn principally from the formal reports produced by the projects in the course of the Programme (their interim and final reports) as well as supporting documentation and reports. Project outputs have been accessed from relevant websites. Programme reports, brochures and other publications also provided sources of documentary evidence for the evaluation, with particular reference to the following publications:

- Next Generation Environments; Understanding Needs, Unravelling Complexities and Applying Practice. Papers from the Users and Innovation Programme Conference, April 2008[4]
- JISC Emerge: a user-centred social learning media hub. Supporting the Users and Innovation R&D community network (the 'Kingham Report'), March 2009[5]

2.2.2 The Phase Two Programme start-up meeting in January 2008 initiated a process assigning projects to four broad thematic clusters:

[4] http://www.jisc.ac.uk/capital_user.html

[5] http://reports.jiscemerge.org.uk/ The appelation 'Kingham' refers to the location of the team writing workshop where the papers in this publication were initially developed.

- Social networking technologies
- Collaborative learning
- Multimedia social technologies
- Web 2.0 platforms for learning, teaching and skills development

Following the start-up meeting, the evaluation team recommended the appointment of a group of critical friends to work with the projects in a supportive capacity. Critical friends were appointed to offer strategic advice and guidance within clusters from an external perspective, provide insights and raise awareness of relevant developments and initiatives in the sector while inviting project teams and clusters to reflect and review their progress and activities. They were intended to act in both a supportive and challenging role. Critical friends were an important channel for evaluation information and surfacing emerging issues of interest. While it was crucial to preserve the integrity of the trust relationship between the critical friends and the projects, generic issues of interest and anonymised feedback provided rich sources of evidence in support of the programme-level evaluation questions. The evaluation team was in contact with the critical friends by telephone and email, in addition to their contributions to the ERG.

2.2.3 The evaluation team also contributed to regular team meetings for the Emerge Support Project. These meetings provided an opportunity to share insights and experiences to support the ongoing development of the Programme, and to derive evidence in support of the programme-level evaluation. The evaluation team was also in regular informal contact with the Programme manager throughout the Programme.

2.2.4 Following the final ERG meeting in July 2009, a series of telephone interviews was arranged with programme representatives to discuss in more depth some of the key issues that were emerging from the evaluation process. Interviewees were invited to comment on specific issues relating to the programme-level evaluation questions.

2.3 Analysis and Reporting

2.3.1 A coding frame was developed for the analysis of the evaluation evidence, based on the questions and indicators outlined in the Programme Evaluation Plan. This coding frame was applied to the sources of documentary evidence outlined above, with a particular focus on the project final reports, reports from evaluation meetings and interviews.

2.3.2 The evidence was then synthesised in terms of the six top-level questions in the evaluation plan. These questions are reviewed in the following sections of this report. Where appropriate, evidence in support of some of the evaluation questions is presented in the form of tables, diagrams and lists.

3 Programme Outputs and Outcomes

What has the Users & Innovation Programme achieved, to what quality, and how efficiently?

3.1 Background

3.1.1 The issues for consideration under this question relate to the intended and actual outputs of the funded projects, other achievements and unanticipated outcomes, perceptions of the projects and their outputs by stakeholders and users, and the extent to which benefits realisation is a catalyst for take-up and action.

3.1.2 The original vision of the U&I Programme was to create opportunities to transform practice by developing technologies and processes that support the user experience in improved

and innovative ways. A key factor in this original vision was recognising that individuals operate in institutions across multiple domains, such as administration and research, teaching and information systems, and research and teaching. During the initial planning and scoping phase in early 2007, the programme managers developed a logic model for the U&I Programme, using an evaluation technique which enables the prediction and planning of the performance of a programme of activity over time[6]. The logic model for the Programme outlined the rationale for implementing the various phases, activities and supports, the main activities anticipated in these workpackages, and the intended outputs and anticipated outcomes which would ensue from doing particular things in a particular order (see Appendix E – Programme Logic Model).

3.1.3 With its specific focus on exploring, prototyping, piloting and demonstrating the application of next generation technologies and practices across the domains of teaching, learning, research and administration, the U&I Programme explicitly aimed to push boundaries at both individual and institutional level. Projects were by definition exploratory and developmental. The Programme also explicitly set out to use and explore next generation technologies and social networking approaches for programme management and project support.

3.1.4 The background documentation for the Programme included reference to the Chaos report of the Standish Group in 1994 which identified user involvement as the single highest factor in software projects that deliver on time and within budget[7]. In addition to the focus on emergent technologies, the U&I programme was piloting a development model based on a community approach to user engagement, problem definition and solution discovery. The overarching aim was to ensure the effective and efficient use of technology in the support of user and institutional goals. This was to be achieved by supporting the development of high quality proposals from which to be able to select for funding projects with the highest chance of realising significant benefits for the sector through the use of agile development techniques and with a clear focus on the needs of users.

3.2 Project Outputs and Outcomes

3.2.1 The table at Appendix F (Project Outputs) presents a summary of the original aims, planned and actual outputs of the ten small-scale pilot projects, nine large-scale demonstrators and three personal e-administration projects, as presented in the projects' final reports. This illustrates the breadth, depth and range of project outputs including tools and prototypes, demonstrators and exemplars, frameworks and processes, guidelines, tutorials, templates and reports.

3.2.2 The summary of outputs confirms that the U&I projects fulfilled the programme requirement of using and developing open source technologies and platforms. Several projects also contributed service usage models in support of the further development of the JISC e-Framework.

3.2.3 One of the management innovations that was instigated by the U&I Programme was the sub-programme of facilitated benefits realisation through the Emerge community. Benefits realisation projects were intended to be community-generated and project-anchored, working to realise the benefit of project outputs for a wider community of users. Widening stakeholder engagement projects aimed to support the uptake of project outputs in the sector through liaison with support agencies, in particular the HE Academy Subject Centre

[6] See Six Steps to Effective Evaluation, Glenaffric Ltd, www.jisc.ac.uk/media/documents/programmes/digitisation/SixStepsHandbook.pdf

[7] http://www.standishgroup.com/sample_research/chaos_1994_1.php

network[8], JISC services and the new JISC Advance service[9], and national organisations such as the Universities and Colleges Information Systems Association (UCISA)[10], the Society of College, National and University Libraries (SCONUL)[11] and the Staff and Educational Development Association (SEDA)[12].

3.2.4 The benefits realisation phase of the Programme enabled a larger group of people with wide and varied interests and expertise in technology innovation to stay engaged with the Programme. The Programme overview diagram at Appendix A indicating the affiliation between individual projects and subsequent benefits realisation projects shows that eight of the twenty benefits realisation projects arose from the Emerge community rather than having a direct affiliation with a funded project. The table at Appendix G presents a summary of the benefits realisation, widening stakeholder engagement and emerging issues projects.

3.3 Perceptions and Feedback

3.3.1 As with most development programmes, there is some variation in the level of detail and quality of reflection in the project final reports. Some of the U&I projects have presented comprehensive accounts of their intended and actual outputs, providing in-depth analysis of the differences between what they set out to achieve and what was actually produced, and reflection on any unintended or unanticipated outputs, challenges and benefits. In other reports, however, the relationship between the initial objectives, the activities that were undertaken, and the actual outputs and outcomes is less clearly discernible.

3.3.2 Some of the projects generated high levels of interest in the educational press, particularly those working with multi-user virtual environments which were a focus of general press interest during the timeframe of the Programme. This press interest in turn generated additional interest in the Programme as a whole and the wider context of an exploration of the use of next generation technologies in higher education.

3.3.3 There is also a relatively high level of scholarship in many of the project reports and evidence of impact in the academic community in terms of conference presentations, invitations to lead workshops and publications. The availability of small amounts of funding for supporting studies has enabled projects to undertake academic research alongside their practice-focused activities.

3.3.4 The U&I Programme was explicitly and deliberately trans-domain in focus, and the project outputs and outcomes do not readily lend themselves to synthesis in terms of programme-level themes and activities. The arrangement of projects into cognate clusters proved problematic in management terms, but happened organically over the course of the Programme as projects discovered shared interests and instigated their own collaborative initiatives.

4 Community Approach

How effective is the community approach for members and those it has engaged with?

[8] http://www.heacademy.ac.uk/ourwork/networks/subjectcentres

[9] http://www.jiscadvance.ac.uk/

[10] http://www.ucisa.ac.uk/

[11] http://www.sconul.ac.uk/

[12] http://www.seda.ac.uk/

4.1 Background

4.1.1 The evaluation was tasked with exploring the ways in which the U&I community functioned, the perceived value in the approach for various stakeholders, and any unanticipated benefits and unintended consequences of community engagement. The extent to which the Emerge community met programme expectations was also an evaluation focus, and the success of the community approach in comparison with other development programme designs.

4.1.2 The community of practice and online support provision was managed on behalf of the Programme by the Emerge project[13]. Emerge used an approach based on Appreciative Inquiry[14] (AI) to review community operations and experiences of members and make recommendations for the further operation and development of the community. A principal tenet of Emerge was that communities emerge, create and maintain themselves through continual renegotiation. The role of the Emerge project was therefore to support and facilitate the development of the community and its ongoing work.

4.2 Value and Benefits

4.2.1 The review of the community-based programme of support provided by Emerge in the Kingham report[15] outlined a range of areas where feedback from community members had suggested benefits that had accrued from membership of and participation in the online community:

- Professional development – community membership facilitated the taking on of new worlds and new roles and learning about new technologies. Exposure to the processes of AI impacted on professional development and practice.
- Improved funding bid practices – participation in the community and its support and feedback processes contributed to developing confidence in first time bidders and helped to improve the quality of funding bids to JISC and other sources of funds.
- Collaborative inter-institution team formation – Emerge community membership led to partnerships that cut across projects, institutions and subject disciplines.
- Openness and sharing – an open and less formal ethos facilitated exposure to diverse perspectives and led to unexpected collaborations.
- Informal, social, fun – the face-to-face and online events included opportunities to socialise. This led to often serendipitous connections among members from different projects, institutions and subject boundaries with the potential for future collaboration.
- Collaborative, altruistic behaviour – with some learning and teaching practitioners feeling they had technology deficits, the supportive encouragement and help from more technologically adept community members enabled them to participate more fully and develop skills.
- Project work – members were able to draw on the community for expertise and feedback that contributed to the development and refinement of their projects.

4.2.2 One of the key successes of the community was in bringing together people from a range of institutions and professional backgrounds and providing a forum, both face-to-face and

[13] http://elgg.jiscemerge.org.uk/

[14] http://appreciativeinquiry.case.edu/

[15] See 'A Community-Based Programme of Support' by Rhona Sharpe and Patsy Clarke, in JISC Emerge: a user-centred social learning media hub. Supporting the Users and Innovation R&D community network, op. cit.

online, for the cross-fertilisation of ideas, sharing of experiences and reflection on practice. From this melting-pot of people and ideas, project teams were formed between organisations with no previous history of collaboration. Common interests were discovered, common challenges articulated and the search for shared solutions was instigated in collaborative partnerships that were initially not anticipated or expected by the institutions and people involved. The sparks that were generated by these novel collaborations and the various different people whose interest was stimulated within the community created an energy which was one of the defining characteristics of the U&I Programme within the wider context of JISC innovation.

4.2.3 Projects have emphasised the value for their developments that was derived from presenting and discussing their ideas in a community setting. In many instances, the Emerge community spawned smaller groupings and mini-communities which set up their own communication channels and programmes of activity independent of the Emerge site. Discussion and feedback at Programme meetings and online events led to mutually beneficial closer liaison with other project teams. There was active collaboration among clusters of projects with a common focus, in some cases supported by the cross-fertilising brokerage of the Critical Friends.

4.3 Implications for Further Innovation Developments

4.3.1 Other innovation programmes have adopted or adapted some of the community-based processes for programme management and support that were developed in the U&I Programme. For example, the most recent round of JISC Learning and Teaching Innovation Grants[16] operated a two-stage bidding process incorporating elements of the Dragons' Den. From an initial set of outline proposals, a selection of bidders was invited to submit worked proposals, which were then reviewed by a panel of experts in an interview setting, and then full project plans were developed and implemented.

4.3.2 The impact of the Emerge community on the wider development community in the sector is harder to gauge. Emerge was a closed community: the Emerge team was concerned to preserve the integrity of the community that had been established and the exploratory work that was being undertaken in next generation technologies. At the same time, JISC was concerned that the community established for the U&I Programme should be self-sustaining by the end of the Programme, and not dependent for its continuation on further funding or transfer to another innovation programme. The sustainability of Emerge relied on the development and support of an inherent dynamism within the community, constantly evolving and redefining itself, both supporting and reflecting emerging areas of interest in the sector, and encouraging new members to contribute. Discussions about sustainability and opening the community to other interested parties not directly involved with the Programme remained an unresolved tension between the Emerge project and the U&I Programme management.

4.3.3 Reflecting on the experience of the Emerge community, projects have emphasised the value of offline communication in the building of an online community of practice. They have also noted the importance of maintaining a stable set of core functions in the online environment. In this context, members have expressed concern about the potential dangers that accrue from overloading people with new tools and technologies with which they may not be familiar, particularly when these are not yet robust and fully functional. People identified a problem with selecting those pieces of information that were important to them from the 'noise' of community activity. One possible solution that was mooted was

[16] http://www.jisc.ac.uk/fundingopportunities/funding_calls/2008/04/circular408.aspx

the provision of some basic joining instructions for community membership including the lists they should join and the strategies for checking updates they should employ. This poses an interesting pedagogical question at the heart of the approach to community development that was proposed and implemented by Emerge. Engagement with innovation programmes is a professional development activity for staff. Emerge presented a forum for staff to reflect on their own experiences and practice as self-directed learners, finding out for themselves how best to interact with technology and other learners in an exploratory community of practice.

5 User Engagement

To what extent did user engagement contribute to the success of the Users & Innovation Programme?

5.1 Background

5.1.1 The logic of the U&I Programme proposed that engaging a range of users and stakeholders in the planning, iterative development, piloting, testing, implementation and review of next generation technologies and practices would result in better, more efficient and sustainable products and services, genuinely aligned to institutional needs and individual academic contexts for use. The initial bid documentation for the U&I programme presented a three-stage Users and Innovation Development Model (UIDM) that had been derived from the JISC Virtual Research Environments (VRE) Programme. An early development by the Support Team was the additional of a fourth stage: projects were expected to demonstrate user engagement at four stages in an iterative development process:

- Stage 1 – Understanding the Users
- Stage 2 – Transition and Decision
- Stage 3 – Technical Development
- Stage 4 – User Acceptance and Support

5.1.2 The U&I Programme evaluation was tasked with exploring issues relating to the development of user engagement models and processes in the Programme in terms of their contribution to the success of the projects, their appropriateness to development in an academic context, and the levels of support required for user engagement approaches within the community.

5.2 Development of the Model

5.2.1 In presenting a development model as a basis for project activity in the U&I Programme, it was fundamentally *not* JISC's intention to be prescriptive or exclusive. The original three-stage model was explicitly presented as an indicative guide and a starting point for discussion and debate within project teams and at programme level. While several projects indicated their plans to recast or redefine the model on their own terms at the bid stage, the misapprehension that JISC was presenting the UIDM as a de facto standard for development work coloured much of the early work of the Support Project and projects' conception of the model.

5.2.2 An early development to the model was the additional of a fourth stage in an iterative development process, recognising the importance of user acceptance and ongoing support in the iterative development of the innovation:

- Stage 1 – Understanding the Users

- Stage 2 – Transition and Decision
- Stage 3 – Technical Development
- Stage 4 – User Acceptance and Support

The development of the UIDM model during the course of the U&I programme is described in the paper on 'Engaging Users' in the Kingham report[17]. As the Support Project began its own process of understanding and engaging with users through initial interactions with the project teams, it became clear that, even with the addition of a fourth stage, the UIDM model was too narrow for implementation in an innovation development context. The UIDM as originally conceived seemed to ignore stakeholders other than the end users. This was problematic in an institutional context where the engagement of other stakeholders, particularly senior managers and service directors, was critical to the success of the initiative. Furthermore, the perceived rigidity of the staged approach (where the completion of stage one was necessary before moving on to stage two and so on) was not applicable to the practice-change focus of many of the projects.

5.2.3 The UIDM Guide that was produced for the Programme presented user engagement activities in terms of the four stages in the original model. In March 2009, an evaluation report on the UIDM analysed and summarised the user engagement activities that projects had used at each UIDM stage. The evaluation also explored and summarised the views of the projects on the extent to which the UIDM suited the needs of the JISC community engaged in the Programme, the changes to the model that were needed to improve user engagement, and the sustainability of the user engagement activities employed in the Programme.

5.2.4 The UIDM evaluation concluded that the development of a User Engagement Framework presented an opportunity to shift the emphasis from a perceived prescriptive and static Guide to a more inclusive, agile and adaptable approach to engaging users in the development and implementation of innovative technologies in higher education. It noted that the very nature and focus of the U&I Programme in exploring next generation technologies and practices presented a tension from the outset with formal software development practices. New technologies support new ways of communicating, new forms of presentation, new perspectives on identity – and hence new ways of engaging with people, including the users of products and services in development. The report concluded that a more flexible, adaptable, and sociologically grounded approach to defining user engagement in the development cycle would more appropriately reflect the good practice in developing and implementing a structured approach to innovation activity that was apparent in the Programme, and have more resonance within the development community generally.

5.2.5 At the end of the Programme, the Kingham paper on 'Engaging Users' has presented an indicative framework for user engagement based on four principal user engagement processes:

- Understanding
- Deciding
- Creating
- Managing

[17] 'Engaging Users', by Isobel Falconer and Chris Fowler, in JISC Emerge: a user-centred social learning media hub. Supporting the Users and Innovation R&D community network, op. cit.

The indicative framework for user engagement works on three levels. The first puts the overall user engagement approach into a wider context of project planning, funding and management. The second level is implementation, representing a continuum of tools, techniques and methods ranging from traditional system development approaches to practice-change approaches. The third level is a repository of case material drawn mainly from the community's experiences of the user engagement processes.

5.3 Implementation of the UIDM

5.3.1 Evaluation evidence indicates that the community reacted to the UIDM in a number of ways. Some people with a background and experience in software development used the Guide along the lines originally intended, as a source of information about user engagement tools and techniques to be consulted as a starting-point for the development of project-specific activities. Others largely ignored the Guide, but nonetheless engaged with users in ways that they deemed appropriate to the focus and context of their projects. The original UIDM was perhaps counter-intuitively successful in stimulating debate and generating interest in alternative development models. The existence of the model as a core element of the U&I Programme served not only to highlight the significance attached to adopting a formal approach to development, but also to encourage debate, sharing experiences and understanding of user engagement techniques.

5.3.2 Five of the ten small-scale proof of concept projects and seven of the nine large-scale demonstrator projects have reviewed and reflected in some depth in their final reports on their understanding, implementation and refinement of the UIDM and user engagement framework. Several projects commented that they had adopted the model as a basis for project planning and organisation. One of the identified benefits of using the JISC model as a basis for project activity was that this presented a neutral approach, independent of any project team individual or institution, that could be adopted by all the various and disparate partners in a project consortium. In some cases, implementing the UIDM had not just helped to shape project aims and objectives at the bid stage, but had also supported their ongoing refinement in a cyclical and iterative process as the project progressed. One project identified the UIDM as meeting its methodological needs insofar as its cyclical nature allowed research-driven development to progress dynamically alongside evaluation, thus ensuring rapid and agile development.

5.3.3 The projects broadly followed the UIDM in taking a flexible and iterative approach to planning, designing, implementing and testing their innovations. Some made explicit adaptations to the model in accordance with their specific development context; for example, one project progressed rapidly to Stage 3 of UIDM, producing a basic prototype for users to test based on assumed need. One project initially attempted to redefine the UIDM for a practice-based project, but realised that the revised model that was being developed was actually closely aligned with the Action Research model commonly used in Social Science research. The project found that this provided a more realistic and helpful framework than the UIDM, and so it was decided in the early stages of the project to follow this model and not to attempt to re-define the UIDM for a practice-based project. Another project concluded that while the UIDM works well when using existing tools that require minor modifications, it needs to be adapted for developing robust tools from scratch.

5.3.4 Few of the projects were able to go more than once through the stages in the development cycle within the Programme timeframe. However, the smaller projects in particular appreciated the opportunity to experiment using user feedback, liberated by the flexibility in

their exploratory project objectives. Those that received benefits realisation funding used this phase as an opportunity for a further iteration of the model.

5.3.5 One of the large-scale demonstrators (HeLMet) articulated a set of conclusions and recommendations relating specifically to the use and further development of the UIDM:

- UIDM relies on users trialling the tool and providing feedback for the next iteration. However many of the applications in the Web 2.0 arena are non-stable and users are often inexperienced in the use of technology. Asking naïve users to participate in development work with immature technology represents a toxic mix and user confidence is undermined by the development process. Any UIDM project should pay careful attention to managing user expectation and controlling roll out of the tool to avoid disenfranchising users with applications which continually fail.
- UIDM as an approach lacks the risk assessment and configuration planning which are key features of more traditional development methods. The model should be revisited and redesigned to fully support participation in a managed environment. UIDM should offer a module design, with project managers able to construct a workflow based on core and optional units for each stage.
- In UIDM the users are often a different group of actors from those sponsoring the completed application. This can crate tensions in development when users request one set of features or functionality for the tool, only for this to be 'overruled' or denied by the key stakeholders. This creates tension for the development team and disillusionment for the users. A proper stakeholder analysis should be carried out prior to Stage 1 of the model and priorities and conflict resolution protocols established. It would also be wise to establish if the key stakeholders/sponsors have any 'no-go' features that users were not permitted prior to users becoming involved.

5.4. Implications for Support and Development

5.4.1 The Kingham report outlined a number of implications of a user engagement approach for funding, support and policy:

- Engaging with users is time consuming, and adequate time for user engagement activities needs to be built into project plans.
- Much of this time is front-loaded – users have to be engaged from the outset, and their needs well researched, so the pace of a project may differ from previous experiences.
- Once developed, a new practice or product needs to be adopted and embedded widely – time and funding need to be allocated at the end of projects for these 'management' processes.
- It is unrealistic to expect small projects to iterate more than once through the user engagement processes – fewer but larger projects might enable several iterations.
- If user engagement is taken seriously the outputs of a project cannot easily be specified in advance, so initial commitment to larger projects carry a significant risk. Provision for follow-on funding of successful pilots might be called for.
- Even where outputs cannot be specified, purposes (the problem to be solved) and processes may be – the processes have to be funded and this has implications for the funding model of programmes, the structure of funding bids and project plans, and the criteria against which these are assessed.
- To enable effective user engagement, the timescales of projects themselves have to suit users – funders may need to be flexible about project timing.

- The benefits of engaging with users may take the form of capacity building and increased expertise both among project staff and teaching practitioners – these are difficult to measure but need to be recognised in funding models as valid outcomes.

The report concludes that projects need to be supported in their user engagement efforts, to understanding what user engagement means in their context, to seek out appropriate methodologies, share experiences, and provide rapid feedback. The Dragons' Den sessions organised by Emerge proved a particularly popular and effective means of supporting projects in their understanding and plans for user engagement. A further conclusion is that wide adoption of new practice or products depends on its alignment with the needs of a wide range of stakeholders and contextual factors, particularly institutional learning and teaching strategies, IT service provision and strategy, quality assurance and enhancement processes, and support from institutional managers.

5.4.2 As a result of following a staged user engagement process, U&I projects are more likely to be able to convince senior managers of the value of the innovation under development, by demonstrating:

- Cost benefits – particularly in increased productivity, for example, releasing time for staff to do other work (e.g. research) or increasing the staff-student ratios without reducing quality
- Enhanced learner and teacher experience and consequently the reputation of the institution
- Well-managed change. The UE process recognises the importance of managed change, and this attribute should be 'sold' to senior managers.

The Kingham report concludes that the experiences of the U&I Programme in implementing and further developing a development model based on user engagement highlights the need to rebalance the development focus on 'processes' and 'products'. The general benefits gained through the adoption of user engagement processes demand policies to recognise the value of developing and defining a mature and applicable set of user engagement methods to support development of innovative solutions in the future.

6 Integration with MSP

What, if anything, would need to be changed for good practice in user engagement to be integrated into the JISC MSP approach?

6.1 Background

6.1.1 The U&I Programme management team took a rigorous approach to the design of the U&I Programme in line with the management processes that were adopted by JISC for the Capital Programme. This evaluation question explored the transferability of the U&I processes and models to other areas of JISC innovation, focusing in particular on costs and benefits, and the extent to which a structured approach to innovation development is appropriate in terms of project development cycles and JISC programme management processes.

6.2 Transferability

6.2.1 While the MSP approach may no longer be quite so predominant in JISC's staff development provision as it was when the U&I Programme was conceived and developed, the rationale for a robust, structured approach to programme and project management remains. A number of elements in the approaches that were adopted and adapted for U&I

are relevant to the ongoing development of good practice in programme and project management. In particular, these include encouraging the adoption of a user-focused development model, the innovative use of communications technologies for programme management and support, and a community-based approach to programme support.

6.2.2 The experience of this Programme confirms that a staged approach to innovation development in wholly compatible with the MSP methodology, and could be usefully incorporated into future programme blueprints. In particular, the U&I Programme demonstrates the value in incorporating benefits realisation as a stage in the development process, or as an opportunity for a further iteration of the development process. The success of the benefits realisation and widening stakeholder engagement stages have highlighted the importance of managing the dissemination phase for innovation developments to maximise impact. Simply presenting artefacts and outputs to the sector does not facilitate uptake. Benefits realisation helps to provide evidence that leads to the validation of project outputs through use. Realising the benefits of innovation developments requires case studies, exemplars of practice, evidence of benefit, support and follow-up. The U&I Programme provided funding to promote the validation and transfer of project outputs rather than straight dissemination, focusing not just on the *usability* of the artefacts, but on the extent to which they were *useful*, and *used*[18].

6.2.3 There is more evidence of user engagement in the JISC development agenda in 2009 than seemed to be the case at the start of the U&I Programme. This can at least indirectly be attributed to the role of this Programme in raising awareness and demonstrating the benefits of an enhanced focus on user engagement. One example of direct influence in terms of user engagement is the Phase 2 JISC Digitisation Programme[19], which ran concurrently with the U&I Programme. Evaluation workshops ran for this Programme specifically encouraged projects to focus on user engagement, citing the U&I Programme and its projects as examples. There is also evidence in subsequent JISC development programmes such as Institutional Approaches to Curriculum Design[20] and Transforming Curriculum Delivery through Technology[21] of greater consciousness of the need to for stakeholder engagement in the development of a programme sustainability plan.

6.2.4 Some recent JISC development programmes have adopted innovative approaches to programme management using social networking technologies and novel communication methods, particularly when the focus of the programme requires the use of rapid and agile development processes. In some respects, U&I was the first standalone programme to adopt social networking technologies as the norm for programme management as as such has opened up possibilities within JISC for new ways of thinking and working. There is now a body of experience for others to draw on when planning and implementing new innovation programmes.

6.3 Costs and Benefits

6.3.1 One of the clear findings from this Programme is that effective innovation development needs to focus on benefits realisation. U&I adopted a model of managed benefits realisation, which in some respects was a formalisation of practice that has been tried in various formats with different JISC programmes in the past (for example, the extension

[18] See 'Successful Approaches to Benefits Realisation' by Paul Bailey, in JISC Emerge: a user-centred social learning media hub. Supporting the Users and Innovation R&D community network, op. cit.

[19] http://www.jisc.ac.uk/whatwedo/programmes/digitisation/projects.aspx

[20] http://www.jisc.ac.uk/whatwedo/programmes/elearning/curriculumdesign.aspx

[21] http://www.jisc.ac.uk/whatwedo/programmes/elearning/curriculumdelivery.aspx

funding that was made available for the regional pilots in the Distributed e-Learning Programme[22], and the enrichment funding strand within the Digitisation Programme[23]). The management overhead for benefits realisation phase was an important investment in terms of setting out the parameters for securing benefits realisation funding, and some ongoing administration. Funding constraints impacted on the timescale for benefits realisation in that all projects including benefits realisation work required to be completed by the end of March 2009. The experience of this Programme confirms that the benefits realisation phase does not require additional support beyond an extension in the project timescale and – if appropriate – additional funding for a programme of agreed benefits realisation activities.

6.3.2 In very general terms, there is a perception within JISC that U&I Programme represents very good value for money in terms of the success of the projects, for the funding that was available, within the timescale. Relatively small amounts of money for exploratory activities gave project teams a credibility and validity within their institutions and in most contexts generated interest and engagement from institutional managers. Benefits realisation activity facilitated the extension and further validation of this interest, engagement and impact in the sector.

7 Impact on Innovation

How successful has the community approach been in widening and deepening engagement in innovation activities?

7.1 Background

7.1.1 This evaluation question explored the extent to which the U&I programme has attracted 'new faces' to JISC development in terms of individuals and institutions not previously associated with JISC innovation activity, the role of the Programme in changing perceptions of JISC and its work, the diversity of the community, and the longer-term impact of the Programme in terms of engagement with further innovation activity.

7.2 Impact on Diversity and Growth in the Development Community

7.2.1 The results of a user engagement survey conducted in January 2009 by the UIDM support team in Emerge indicated that around one third of respondents were 'new to JISC', meaning that U&I was their first experience of a JISC development programme. Perhaps because the Programme was structured and positioned differently from most other JISC development programmes, it attracted a wider constituency of interested parties at the bidding stage. Some community members commented that they had not previously been interested in applying for JISC funding, others that they had previously felt that the areas they were interested in exploring would not attract funding and so were not worth pursuing with JISC. There was certainly a perception among those who were used to participating in JISC initiatives that U&I meetings were populated with a large proportion of new names and faces.

7.2.2 Some projects report that individuals and teams involved in U&I have gone on to have more engagement with JISC generally than before. There was certainly a perception among those who were used to participating in JISC initiatives that U&I meetings were populated with a large proportion of new names and faces. Within the community setting, the discovery of shared interests led to the formation of partnerships between

[22] http://www.jisc.ac.uk/whatwedo/programmes/edistributed.aspx

[23] http://www.jisc.ac.uk/whatwedo/programmes/digitisation/enrichingdigi.aspx

representatives of institutions that have not traditionally collaborated on development initiatives.

7.2.3 The timescale of the U&I Programme coincided with a general increase in the use of social networking technologies in everyday life and a growing interest in their application in educational contexts. Separating the extent to which U&I reflected this trend, and contributed to it, is problematic. However, there is a general perception within the Programme and in the wider JISC community that U&I helped to facilitate understanding and promote uptake of the use of new technologies in higher education. Much has been learned from this Programme about how organisations can embrace these new technologies, and how institutional innovators can work with institutional services and processes.

8 Programme Support

How effective is outsourced programme support based on a competency matrix approach?

8.1 Background

8.1.1 The original call for projects in the Users and Innovation: Personalising Technology strand of the JISC Capital Programme included a specific Support theme, within which there were to be two Support Projects:

- Support for community of practice and online activities
- Support for the Users and Innovation development model

The two Support Projects were distinct and discrete in terms of management and accountability, but were intended to collaborate closely and leverage economies of scale to provide a single service that provides a coordinated approach to support management and demonstrates good value for money.

8.1.2 The evaluation was tasked with reviewing the arrangements for outsourced programme support, focusing on the skills sets and competencies of the support teams, the activities undertaken, satisfaction of project team members, and the impact of outsourced programme support from the perspective of the programme management.

8.1.3 Arrangements for outsourcing programme support were predicated on the assumption that this would provide better, more effective and efficient support for the projects, and added value for programme management both in terms of access to a dedicated support team, and freeing up management time and resources that would otherwise be spent on programme support activities. The knowledge and skills in a variety of domains that were envisioned to be relevant to the successful provision of support for the U&I Programme were outlined in a Competency Matrix which underpinned the commissioning of the two Support Projects. The main activities arranged by Emerge in the course of the Programme are outlined in Appendix H - Programme Activity Timeline. This table also includes other relevant Programme events.

8.2 Challenges, Benefits and Added Value

8.2.1 One of the main intended benefits of outsourcing the programme support lay in affording access to a breadth and depth of expertise in the sector and bringing this into the programme in a flexible and dynamic way. As a corollary to this, there are sound economic and capacity building reasons for commissioning programme support from within the sector. The expertise that was further developed as a result of engagement with the

programme was retained as a capability enhancement for the further benefit of the sector as a whole.

8.2.2 In terms of programme management and planning, one of the key lessons from the U&I experience is that programme support provision should not be commissioned on a project basis. Projects have aims and objectives, anticipated outputs and outcomes, reporting and management structures. Based within an institutional context, they are driven by internal requirements and institutional priorities. They develop their own momentum which in a university context is most likely to focus on research interests, and may not be entirely in line with the requirements and developing priorities of the programme they are commissioned to support.

8.2.3 The Programme was designed on the basis of a number of funded projects undertaking development activity using a staged development model for user engagement, supported by an online community of practice. Within this logic, the role of the online community of practice was to support the projects in their implementation of the staged development model. Emerge was commissioned as an integrated support service for the U&I Programme, with the two projects as discrete but operationally coherent entities. In practice, the development model was effectively peripheral to the activities that were organised by the online community of practice. There was some liaison in management terms (mutual invitations to project meetings, occasional contact between the two project managers) but little regular discussion about coordinating activities. The joint meeting of the Support project teams that took place in April 2008 was arranged by the Programme manager with the support of the evaluation team. As a result of this disjoint, perhaps, the original Guide that was developed by the UIDM Support Project was not as well rooted in the needs of the projects as might otherwise have been the case. Furthermore, Emerge adopted an inherently research-led approach to the development of the community which facilitated understanding of innovative technologies but focused on the interests and aspirations of individuals rather than the support needs of the development projects. The emphasis was on exploring the factors that influence the development of a community rather than on the provision of support for implementing new technologies in an educational context.

8.2.4 Both Support Projects were led by known and respected figures from the HE sector. Many of the team members had worked together previously and also had an established reputation in the development community. JISC may have thought that the support provision that was secured for the U&I Programme was based on an established approach. In effect, the teams were largely unformed and the methods relatively untested. There is a perception that the U&I Programme manager spent a disproportionate amount of time effectively micro-managing the two Support Projects in endeavouring to ensure that their activities helped the work of the projects and the achievement of the Programme objectives.

8.2.5 One of the most curious aspects of both Support Projects is an apparent lack of consistent user engagement both in producing the development model and in honing the form, structure and focus of the community of practice. The original UIDM was effectively produced in isolation and then presented to the projects. Following the joint Support meeting in April 2008, the Emerge team was encouraged to consult the community on the nature and format of the support activities that were most required and the future of the community. Some months later the team responded with a request for funding to continue to undertake a range of activities and maintain the status quo with regard to community membership. But with no clear consultation process having been followed, there is little

evidence in support of key questions about which support activities were beneficial to which projects and in what ways.

8.2.6 There is evidence from the project reports and informal feedback that the Critical Friend model was appreciated by the projects as a source of external support, advice and validation of their activities. Critical Friends were able to operate in a brokerage role, highlighting areas of common interest and practice both within this Programme, and also drawing on their experience and contact with other institutions and development initiatives.

8.2.7 One of the key benefits from the approach to programme support adopted by U&I was in the development of the competency matrix itself. By presenting a comprehensive summary of the skills, knowledge and expertise required to support an innovation programme, the matrix not only clarifies the breadth and depth of expertise required to support the various functions, but also serves as a reference for future programmes in identifying their support requirements.

8.2.8 Overall, the evidence from the U&I Programme confirms the value to JISC and its development community of outsourced programme support provision. While most programme managers have skills and expertise in most of the areas outlined in the competency matrix, few if any would claim to possess all of these skills, and fewer still to be able to exercise these support functions in additional to the tasks associated with managing programmes in general. An alternative solution that was mooted was for programme managers to pool their skills and resources, using a variation of the competency matrix to delineate responsibilities across multiple programmes. However, this is not likely to be practicable, nor to find favour with many programme managers who might fear they were being pigeon-holed with specific functions.

8.2.9 More realistically, programme management teams need to be able to call on additional expertise in certain areas, particularly within the broad context of rapid technological innovation and developments within the HE sector as a whole. Providing comprehensive, dedicated support for programmes may require the services of a network of consultants, commissioned to provide specific services within a clear service level agreement. However, there is a management overhead in organising and monitoring these various functions and arrangements. In the future, the new JISC Advance service[24] may be able to provide flexible support by bringing together the expertise of different JISC services, and also drawing on a framework of approved associates to meet the emerging and changing needs of innovation programmes.

9 Evaluation

9.1 The evaluation approach for the U&I Programme was conceived and planned to be essentially in keeping with the ethos and focus of the Programme itself, confirmed by the set of principles that were established for the evaluation at the outset. The evaluation of the U&I Programme was not intended as an extraneous judgement on its success or otherwise, but as a process of integral and formative guidance and support for the projects and the Programme management in drawing out the value for a range of stakeholders of the project activities and the Programme as a whole.

9.2 In practice, the evaluation of the Programme has broadly adhered to the principles that were established at the outset. The Programme itself was fundamentally evaluative and it was clearly important that the programme-level evaluation complemented and did not interfere with the integrity of the Programme and the activities of the projects. Processes of

[24] http://www.jiscadvance.ac.uk/

reflective evaluation were already fundamental to the implementation of the development model adopted by the projects, and the Appreciative Inquiry approach adopted by Emerge. There were parallel arrangements for the evaluation of the UIDM and the ongoing development of the framework for user engagement. The evaluation questions that were articulated for the Programme related principally to the structure and management of the Programme and the implications of these arrangements for the wider JISC development context. In this context – the evaluative focus of the projects in general, and the scope of the programme-level evaluation – direct interaction by the evaluation team with the projects was therefore essentially observational and reflective rather than interventionist.

9.3 With these observations and reflections as the basis for an iterative conversation about ongoing practice, the programme-level evaluation also served as a formative guide and support for the U&I Programme management team. One specific formative recommendation was for the establishment of a network of critical friends to work with clusters of projects.

10 Conclusions

10.1 Programme Structure and Achievements

10.1.1 The logic model on which the U&I Programme was built was that a community of projects using a development model to undertake activities in consultation with users and stakeholders would result in the realisation of benefit through better, more efficient, useful, usable, used and transferable outputs and outcomes. Through its exploration of the effectiveness and general relevance of the model in the wider context of JISC innovation, the programme-level evaluation broadly confirms the validity of the underlying programme logic. U&I was a highly complex development initiative, not least in terms of the various stages and phases of activity and the wide-ranging focus of the projects' interest, but also in the provision, structures and communication channels for support and management. The three principal management innovations of the Programme were the development of a framework for user engagement, outsourced programme support, and facilitated benefits realisation. The U&I Programme has been successful in achieving its intended objectives and proving the concept of a community-based, project-anchored, user-driven and benefits-focused approach to innovation development.

10.1.2 Within this complex logical super-structure, the flexibility of the U&I Programme enabled projects and support provision to accommodate the rapid pace of technological innovation and help institutions to respond to emerging and developing interests, needs and possibilities. Because the scope of the Programme was not pigeon-holed into specific strands or activity areas, participants were freed up to explore and reflect on the possibilities presented by new and emerging technologies for learning, teaching, research, administration – all core business process of higher education institutions. The exploration of serendipitous discoveries and possible benefits of chance meetings of minds and interests was positively encouraged. The focus was broad and multi-dimensional, encompassing not just technology-enhanced learning, but also institutional administrative processes and personal learning environments for students and staff. This multi-dimensionality facilitated cross-fertilisation of ideas across different domains, unconstrained reflection on the possibilities presented by recent technologies, and imaginative consideration of the potential of emerging innovations.

10.1.3 The vast majority of Next Generation Technologies and Practices projects have delivered their intended outputs and achieved their anticipated outcomes, and many have recorded significant value-added outcomes and benefits. Projects have produced or supported the

development of a relatively high level of scholarship and research outputs. The provision of support for benefits realisation and specific initiatives focusing on widening stakeholder engagement has facilitated uptake in institutions and the continuing development of tools, processes and technologies in the sector.

10.1.4 Because JISC took a specific interest in development methodologies through this Programme, the academic staff involved paid more attention to the conceptual nature and operational role of development processes. The explicitly exploratory focus of the Programme perhaps lent an added legitimacy to project team members' interest in research and academic scholarship as well as practical innovation development. There is a perception that the support and influence of some key individuals engaged with the Programme with an acknowledged and respected track record in scholarly research encouraged others to present and publish their work on next generation tools and technologies undertaken in the U&I Programme.

10.1.5 Within JISC, the U&I Programme is viewed with respect for its achievements and interest in the structures and processes for management and support. There seems to be an internal perception that much of the success of the programme was due to the character and working practice of the programme manager rather than to the transferable models of management and support that were put in place, and therefore not readily replicable in other development contexts. Externally, however, the U&I Programme is viewed as visionary and inspirational in its structure and focus, and through both taking and effectively managing risk has enhanced the reputation of JISC in the sector.

10.2 The Development Model

10.2.1 The experiences of the projects and the achievements of the U&I Programme as a whole confirm the value of a structured approach to innovation development. The original three-stage UIDM first underwent substantial refinement through the addition of a fourth stage (user acceptance) and a clarification of the need for iterative engagement processes within each of the stages, and subsequently a radical review in the transformation of the development model into a user engagement framework.

10.2.2 There is a body of literature and research reflecting practice in the use of appreciative inquiry as a software development model[25]. However, the use of appreciative inquiry in Emerge focused in the main on eliciting project views on the development and defining characteristics of the community of practice. The focus on the UIDM and its development into a framework for user engagement, and the implementation of appreciative inquiry in Emerge, meant that the opportunity in this Programme to explore the use of appreciative inquiry as a development model was not fully realised.

10.2.3 Whether it was adopted, adapted or superseded by the projects, the existence of the UIDM as a core element of the U&I Programme has served not only to highlight the significance attached to adopting a formal approach to development, but also to encourage debate, sharing experiences and understanding of user engagement techniques. The development of a User Engagement Framework presents an opportunity to shift the emphasis from a perceived prescriptive and static Guide to a more inclusive, agile and adaptable approach to engaging users in the development and implementation of innovative technologies in higher education.

[25] See in particular the paper by Michael Avital, 'Innovation in Information Systems Education I: Accelerated Systems Analysis and Design with Appreciative Inquiry – an Action Learning Approach' in *Communications of the Association for Information Systems* (Volume 15, 2005) 289-314

10.3 Support Provision

10.3.1 The division of support services for the U&I Programme into two separate projects was largely the result of administrative necessity rather than programme logic. In theory, the Support Project for user engagement and the Support Project for community engagement were intended to work closely and seamlessly under the broad Emerge project umbrella. As the Programme was initially conceived, the focus of the community of practice should have been the development and iterative testing of the UIDM and the ensuing framework for user engagement. In practice, Emerge worked to its own emergent logic, focusing on the development of the community and supporting the interests of the community members. On the one hand, commissioning programme support from a project located within an institution has the added benefit of developing and retaining the support resource within the sector; on the other hand, a project based within an institution inevitably develops its own agenda, not least as a focus and a forum for individual or group research interests.

10.3.2 The blurring of distinction between the objectives of the Programme and the interests of the Emerge project led to some confusion about the nature and focus of programme-level activity. U&I Programme meetings and workshops were organised and signposted as Emerge Project meetings and some of the implementation projects referred to themselves as Emerge projects rather than projects within the U&I Programme. The community was concerned with the individual interests and professional development of its members, while the projects had an institutional focus, and the Programme was concerned with the sector-wide implications and benefits of next generation technologies. While the needs of the individual, institutions and the sector are not necessarily in unresolved tension, some balancing is required to ensure that the focus of community activity is not defined by individual interests to the detriment of institutional requirements and the overall impact of the Programme.

10.3.3 In keeping with its own logic and development agenda, Emerge planned its activities on the basis of community requests and responses. With the exception of standard programme meetings and some workshops, support activities were not generally planned in advance to scaffold the work of the projects and the emergent demands of the programme. In terms of its role as a focus and conduit for the exploration of new technologies and their use for learning, teaching, research and administration in a higher education context, much of the community activity was a distraction from the projects' main focus and interest. But as a seed-bed of ideas, a forum for sharing and reflection, and a source of partnerships and collaborative initiatives, the community was a major factor in the success of the projects and the Programme as a whole.

10.3.4 The online community of practice presented a further potential source of support that was perhaps not fully exploited in this Programme. It is a defining principle of appreciative inquiry that within an organisation or community someone, somewhere has an answer to the question, a solution to the problem, a strategy to address the challenge. In the first phase, the value of the community as a forum for the brokerage of partnerships and the provision of peer reflection, support and feedback was acknowledged as a particularly positive facet of the U&I Programme. When the projects were formed and in operation, however, the principal Emerge approach to support was to propose, present and tell, rather than to encourage autonomy and self-help from within the community. That said, successful communities of practice develop their own momentum, and individual members seek, forge and maintain contacts in accordance with their own needs, personal preferences and professional requirements. Relationships and communication channels

established through Emerge in the context of the U&I Programme continue to be developed within the JISC development community as the new technologies that were tested in the U&I Programme become increasingly accepted and normalised, and further innovations emerge to be explored.

10.3.5 In developing the Support Competency Matrix, the programme managers provided a clear specification of the support they envisaged was required for the Programme ('what' was wanted), largely leaving the definition of process ('how' this was to be achieved) to be determined by the commissioned services. What was missing from the competency matrix model was the justification for the required skills and how these were to be exercised ('why' these things were important). More rigorous specification of the inherent logic of the support model would help to protect against personal interests and agendas, and possible mission drift. This might also have provided some reinforcement for the programme manager in the negotiations to ensure that the U&I Programme remained on course and projects received the support they required.

11 Recommendations

The following recommendations have been drawn from the evaluation evidence in support of the U&I Programme Evaluation Framework.

11.1 JISC should endeavour to ensure that the ongoing work of the Innovation Group is able to capitalise on the expertise in innovative approaches to programme management that was demonstrated and further developed through the U&I Programme.

11.2 The framework for user engagement should be made available on a social networking platform to be further refined by a community of users. This would support the development of efficient and effective technological solutions through a more inclusive, user-focused agile and adaptable approach to innovation.

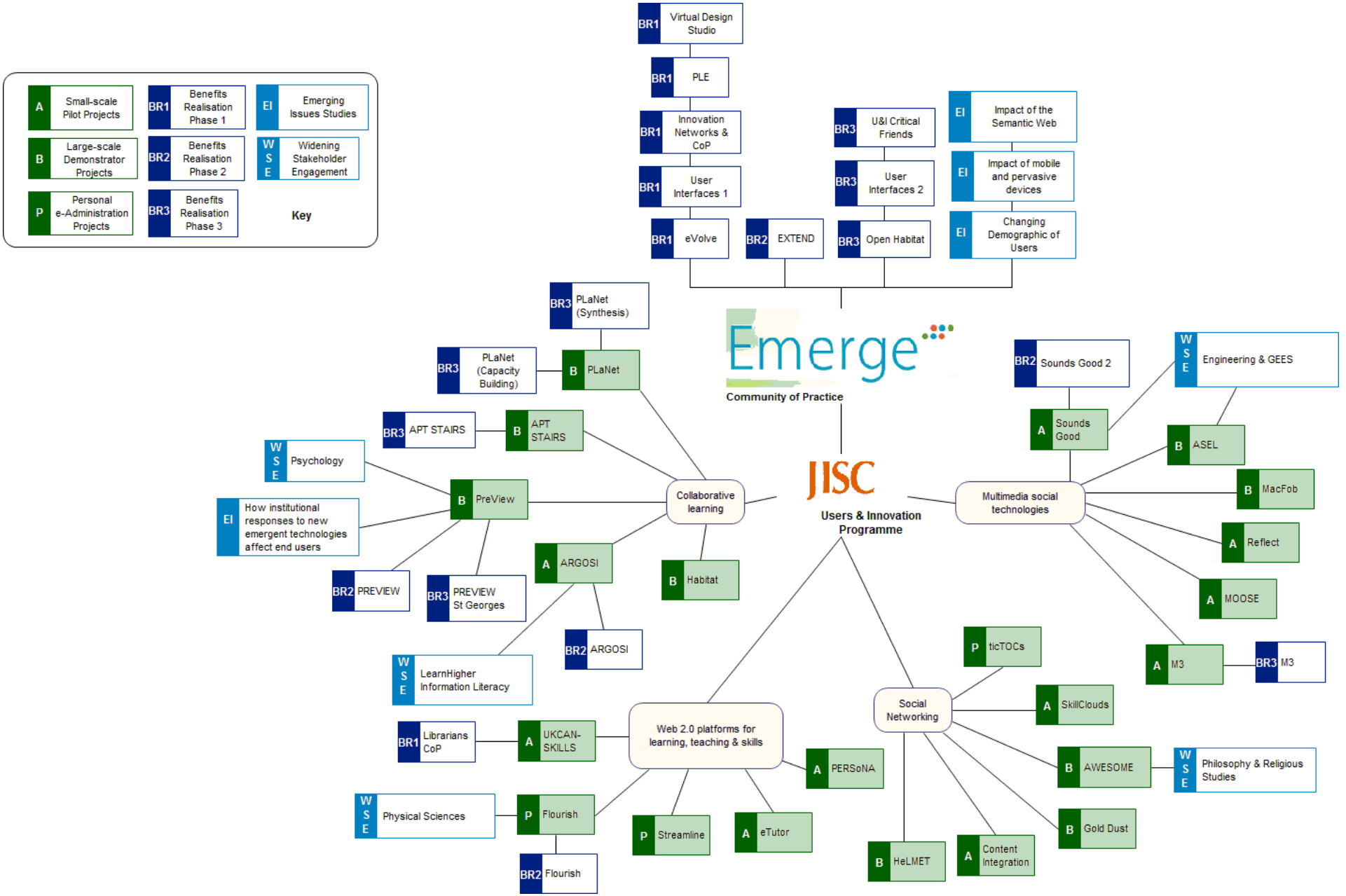
11.3 Processes and events that were instigated through the U&I Programme for peer support, reflection and feedback to test and rehearse ideas and innovations using technology to address sector challenges should be further developed for implementation with future innovation programmes.

11.4 The benefits of the framework for facilitated benefits realisation that was developed for the programme should themselves be realised to demonstrate the value of this approach in terms of enhanced effectiveness and take-up of project outputs and outcomes. Consideration should be given to the development of guidelines for projects and programmes on maximising benefit and realising potential, based on the experiences and expertise of the U&I Programme.

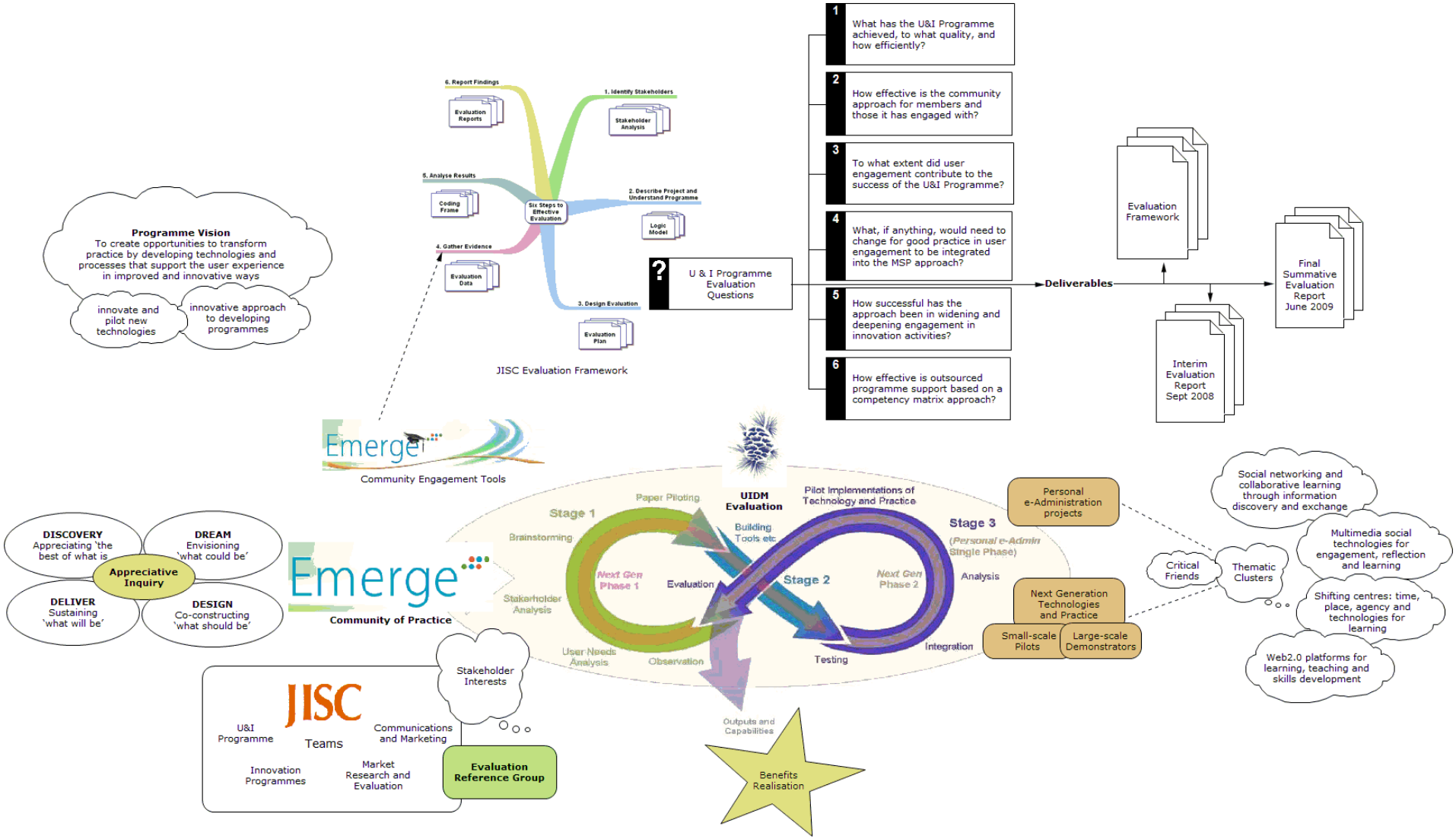
11.5 The outputs, outcomes and recommendations from the many and varied projects supported in this Programme should be synthesised and represented in a series of coherent and accessible packages to ensure that the development community has the opportunity to build on this work.

11.6 Given the innovative and multi-faceted focus of the Programme, there should be a further review of the impact of the U&I initiative. The focus of this impact review could usefully include the career development of people involved in the community, scholarship and academic research as well as the uptake and further development of tools and processes.

Appendix A: U&I Programme Overview



Appendix B: Programme Evaluation Overview



Evaluation Questions		Indicators	Baseline	Sources of Evidence
1	**What has the U&I Programme achieved, to what quality, and how efficiently?**			
1.1	What projects have been funded and what are their outputs?	# projects # and type of outputs	Historical funding record Projects not funded but still in community	Project Plans (Background) Project Reports Programme Meetings
1.2	To what extent is facilitated benefits realisation a catalyst for take up and action	# and nature of benefits realisation activities Level and range of take-up	Historical take-up (projects with previous experience)	Project Plans (Outputs, Outcomes and Dissemination) Reports
1.3	What are the other achievements of the projects?	Outputs, outcomes and dissemination activities not in project plans (what they did)	Listed outputs, outcomes and dissemination plans (what they said)	
1.4	How are the projects and their outputs perceived by their stakeholders and users?	Feedback from users	Previous views and opinions	Reports Emerge evaluation activity (AI)
2	**How effective is the community approach for members and those it has engaged with?**			
2.1	How did the U&I Community function?	# and range of activities	Support Project Plans Other programmes (meetings, website, workshops etc)	Support Project reports
2.2	How is the approach perceived to be of value for: - community members - management in host institutions - outside JISC and the U&I Community itself	Levels of engagement Institutional benefits from community engagement References and citations		Emerge AI Project reports (Steering Groups) Critical friend views Web searches

Evaluation Questions		Indicators	Baseline	Sources of Evidence
2.3	To what extent did the U&I Community meet programme expectations	Programme management satisfaction	Circular – Programme aims and objectives Standing Report	Interview Programme Managers
2.4	What, if any, are the unanticipated benefits and unintended consequences of community engagement	Variance in project plans	Project Plans	Support Project plans and reports Project reports
2.5	How successful has the U&I Community approach been in comparison to other development programme designs in JISC and to development approaches elsewhere	# projects successfully completed Improved applications for further funding Better use relevance for project outputs Support costs	Other models: Representative JISC programmes (VRE, Digitisation, e-Learning) HE Academy Pathfinder Criteria for success	Programme documentation Bid documents Programme budget
3	**To what extent did user engagement contribute to the success of the U&I Programme?**			
3.1	What changed and why?	Changes in definition and scope Rationale for change	Circular	Programme Definition Document Interview Programme managers Support Project reports
3.2	To what extent does a staged approach suit development in an academic context?	Alignment of projects with academic cycles and processes	Previous (related) Programme evaluations	Project reports
3.3	What level of support is required to implement the approach within the community?	# and range of activities Levels of engagement and uptake		Support Project plans and reports

Evaluation Questions		Indicators	Baseline	Sources of Evidence
4	**What, if anything, would need to be changed for good practice in user engagement to be integrated into the JISC MSP approach?**			
4.1	How transferable is the approach to other activities in JISC?	Acceptance/interest from other programme managers	Current approaches to user engagement in other programmes Mapping user engagement to MSP	Evaluation Reference Group Interview other programme managers
4.2	How well does a structured approach fit the development cycle of projects?	Use of structured approach Non-traditional project methodologies	JISC Project Management Guidelines	Project plans (Methodology) Project reports
4.3	What are the costs and benefits of the approach?	Costs/budgets Proportion of budget spent on user engagement Extent to which projects find user engagement approach beneficial	Cost and benefit of previous/alternative approaches	Project plans (Budget) Project reports
5	**How successful has the community approach been in widening and deepening engagement in innovation activities?**			
5.1	How diverse is the community engaged in the programme?	# people # institutions Range of specialisms		Usage data (Emerge Moodle and Elgg)
5.2	How many ‘new’ faces are there to JISC development?	# people not previously engaged with JISC innovation work		
5.3	What were participants’ previous experience and knowledge of JISC?	Previous successful and unsuccessful bids Innovation development paths		Survey Focus Group

Evaluation Questions		Indicators	Baseline	Sources of Evidence
5.4	How do the community members feel that the experience has changed their perception of JISC and JISC innovation activity?	Extent to which views of JISC innovation have changed	Views at outset	
5.5	For those members not funded for Phase 2 projects, how many wish to remain involved during the community's benefits realisation phase, and why?	# remain in community		Emerge reports (AI)
5.6	How many would consider applying for JISC funding in the future?	# consider applying		Survey
6	**How effective is outsourced programme support based on a competency matrix approach?**			
6.1	What additional activities could not have been done without outsourced support?	# and range of support activities	Capacity of JISC programme team to deliver on the scale and breadth of what is required by the community in order to facilitate successful outcomes from the model	Survey Focus groups Critical friend feedback Interview Programme managers
6.2	What skill sets did the outsourced support bring to the programme that were essential to its success?	Skills and competency profiles of teams		
6.3	How do community members feel about the programme support?	Satisfaction with programme support		
6.4	What support was felt lacking, if any?			
6.5	How well did the outsourced support work in harmony with the U&I Programme team?	# interventions by Programme manager #issues reported		

JISC Users & Innovation Programme
Evaluation Reference Group

Glenaffric

Introduction

The vision of the JISC Users and Innovation: Personalising Technologies Programme is to create opportunities to transform practice by developing technologies and innovative processes that support the user experience in improved and innovative ways. The essential features of the programme are the exploration of new tools and technologies, and user engagement.

One of the key intended outcomes of the U & I Programme is the creation of a sustainable community of developers and practitioners who can apply service orientated approaches in an agile and iterative way to create and apply new tools and technologies. Innovative arrangements for programme support aim to develop an effective and sustainable community of practice (Emerge) around the Users and Innovation Development Model (UIDM).

There are around 40 projects in the Programme at different phases, grouped in workpackages relating to: Personal e-Administration for teachers and researchers (3 projects), Development and Implementation (10 small-scale pilots, 9 large-scale demonstrators), Community Development and Benefits Realisation (9 projects, 4 studies on emerging issues, plus other activities in development) as well as the Support Project. Each pilot and demonstrator project is assigned to a broad thematic cluster, and each cluster of projects has a critical friend with expertise in the sector offering strategic guidance and support.

JISC has commissioned Glenaffric Ltd to undertake an evaluation of the Programme. The attached diagram depicts the complexity of the U & I Programme and the inter-relationships between the various strands of support activity, project focus and the Programme evaluation.

Evaluation Reference Group

The U & I Programme has a wide range of stakeholders. The scope of the Programme and the approaches to support for innovation development are of interest across the broad spectrum of JISC Innovation activities and beyond. In that context, the Programme management team is supporting the establishment of an Evaluation Reference Group to facilitate high-level engagement with key stakeholders. The Reference Group brings together around twenty representatives from the JISC Innovation Programme teams, Market Research and Evaluation, Marketing and Communications, JISC infoNet, U & I Programme Management, Critical Friends, the Emerge Support Project and the UIDM Project Team. The work of the Group will focus on:

- Sense-making – developing a shared understanding of the scope of the U & I Programme and its relevance for JISC Innovation
- Stakeholder engagement – ensuring the relevance of the Programme evaluation for key stakeholders
- Strategic impact – maximising the benefits of the U & I Programme for JISC and innovation developments in the sector

Participating in the U & I Programme Evaluation Reference Group should be of interest and relevance to ongoing activities, planned initiatives and benefits realisation across JISC Innovation activity. An initial face-to-face meeting will take place on 30 October 2008. A second meeting is planned for late spring 2009 to review the outcomes and key findings of the Programme. Ongoing engagement with evaluation activities between the two meetings will be online, predominately through the Emerge Moodle.

JISC Users & Innovation Programme Logic Model

Resources (workpackage)	Activities	Outputs	Outcomes
Personal e-Administration for teachers and researchers	Development of U&I Community approaches and U&I Development Model (U&IDM) Defining of Support Competency Matrix. Drafting and issuing of Call for development and implementation projects in Circular 04/06 Support projects supporting project activities aligned to appropriate stages of the U&IDM	Activities run in accordance with the U&I Support Projects' workplan. Tools and Demonstrators Outputs associated with the U&IDM at later stages of maturity Models	More systematic approach to user engagement in development cycles A sustainable community of developers and practitioners that support the development of practice and technology using service orientated approaches in a rapid and agile way and to inform further JISC initiatives and programmes. Reduction of administrative overheads on practitioners
Next Generation Technologies and Practice Phase 1: Community of Practice	Development of U&I Community approaches and U&I Development Model (U&IDM) Defining of Support Competency Matrix. Drafting and issuing of Call for members of U&I community in Circular 04/06 Support projects overseeing community activities aligned to stages of the U&IDM (including centrally-orchestrated and community-generated activities)	Activities run in accordance with the Support Projects' workplan. Outputs associated with the U&IDM, including paper pilots, user needs analysis, stakeholder analysis	Improved quality of funding application. More systematic approach to user engagement in development cycles. A sustainable community of developers and practitioners that support the development of practice and technology using service orientated approaches in a rapid and agile way and to inform further JISC initiatives and programmes.

Resources (workpackage)	Activities	Outputs	Outcomes
Next Generation Technologies and Practice Phase 2: Development and Implementation	Wider technology development, implementation and piloting based on U&I Community demonstrated need. This will be enacted by the funding for the development of tools and pilots in line with the later stages of the U&IDM Drafting and issuing of Call for development and implementation projects in Circular 02/07 Support projects overseeing community activities aligned to later stages of the U&IDM		Tools, small-scale pilots and large-scale demonstrators Details TBC once portfolio of projects is confirmed (December 2007)
Benefits realisation activities	Work with Support Projects to identify including centrally-orchestrated and support community-generated activities that are community-led and anchored to a funded project to realise the benefits from project outputs	Test reports, based on wider-scale user piloting Dissemination events / publications	Greater capacity for dissemination related activity throughout the programme Improved sector engagement Community-validated outputs from funded projects
Support Project for Community development and benefits realisation	Support projects to assist community engagement and benefits realisation around the U&I Community		
Support Project for Users and Innovation Development Model	Support projects to assist development in line with the U&IDM		

Appendix F:Project Outputs

Project	Institution	Start	End	Aims/Outcomes	Planned Outputs	Actual Outputs
Small-scale Pilot Projects						
ARGOSI	MMU	Apr 08	Mar 09	• Integrated gaming environment • Enhanced induction programme • Service Usage Model • Student involvement at all stages • Process model for the development of educational games	• Game environment • Game content • Documentation of the design process used for the above • Research undertaken into the effectiveness of the ARG for learning	• The key result of the ARGOSI project was that it successfully created and piloted a workable game, with usable software, and showed how challenges can be linked to specific learning outcomes.
Content Integration	Bristol	Apr 08	Oct 08	• Piloting deployable solutions for managing research data integration • Targeting institutionally-focussed systems, departmental-specific data storage solutions at the University of Bristol • Data arising from the increasing use of social software for University research	• Open source software pilot • Service Usage Model • User engagement findings of generic interest • Technical analysis of the further potential of the pilot • Analysis of related themes: data privacy, fine-grained access to • data, IPR and impact of tool on institutional practice • Evaluation of the potential extensibility of the approach taken	• Integration with OpenID to support user authentication and provenance control • Export to spreadsheet functionality to support finance administrators • An analysis of the technical architectures in which the CIP project sits and a description of the “content integration layer” envisaged for institutions like the University of Bristol • A Service Usage Model (SUM) was contributed to the eFramework wiki

Appendix F:Project Outputs

Project	Institution	Start	End	Aims/Outcomes	Planned Outputs	Actual Outputs
eTutor	Swansea	Jan 08	Mar 09	• Apply the principles of the e-Framework to create a learning environment • Develop quality assured modules • Pilot the modules with learners as part of a validated on-line HE programme • Draw conclusions about the current ability to create an effective service-oriented • open-source on-line learning environment	• Two validated modules on the WETN Foundation Degree programme	• Two reports detailing the development, piloting and evaluation of the two modules created as part of the project • Two delivery websites created from Web 2.0 services and containing the visual gateways to learning resources • eTutor project website containing all the project research materials and outputs
M3	Southampton	Dec 07	Jan 09	• Enhance the online experience of a group of international students • Investigate how effective language learning and acculturation activities can be developed in Second Life • Develop an appropriate convergent technology to offer learners a choice of communication tools that link their community of practice • Develop a community using web 2.0 and social software and to offer the opportunity to maintain contact outside the Second Life or Moodle environments • Adapt effective existing class activities and learning objects for use with microblogging and the SL environment	• Documentation identifying methodologies and previous user experiences • Interfacing tools • Scope microenvironments in SL to host activities through development of existing SL location (SIM) • Revised VLE environment and course content • Revised, developed and extended SL SIM • Fully functional Moodle plug-in	• A set of Twitter blocks were developed for Moodle and later enhanced, allowing the successful use of the microblogging tool within an online course • Existing learning activities and resources were adapted for in-world use with Twitter, and Second Life offering students an immersive learning experience as part of their online course • Student response to the use of these emerging technologies within teaching and learning contexts was gauged and found to be broadly positive and encouraging • Educators based outside the language learning community also responded favourably to the project's Twitter and Second Life developments

Appendix F:Project Outputs

Project	Institution	Start	End	Aims/Outcomes	Planned Outputs	Actual Outputs
MOOSE	Leicester	Jan 08	Dec 08	• Understanding immersion for in-world socialization and learning in groups • Designing for useful SL events • Role of facilitation in Second Life	• A pedagogical framework of students' engagement and socialization in a 3D environment • Guidelines for developing students' transferable skills through 3D-MUVEs • A 'demonstrator' in SL to show how learning spaces can be designed in 3-D MUVEs • Ten exemplar transferable SL-tivities designed for Computing and Archaeology modules • A framework for SL-moderating skills designed for teaching on Second Life and an exemplar training course • Guidelines for embedding 3D-MUVEs in institutional systems and policies	MOOSE developed: • a pedagogical framework • ten user-examples • a demonstrator • seven SL-tivities • an exemplar of SL training course and a framework for SL-moderating • Guidelines for embedding 3-D MUVEs in institutional systems and policies
PERSoNA	Leeds Met	Jan 08	Mar 09	• Improved discovery of and access to resources through exploring the use of • social networking tools in promoting the use of an institutional repository • An assessment of the technicalities of embedding social networking tools within the repository • Optimised use of the repository and engagement of users in the process of achieving this	• A robust project plan • Training and awareness raising events for stakeholders • An analysis of the social networking tools used and their relative effectiveness • A detailed and well documented set of workflows outlining the process for depositing materials in the repository	The most tangible output of PERSoNA is http://leedsmetrep.wordpress.com/ a site supporting access to various repository tools for Leeds Met; as has been emphasised, it should be seen as a 'beta' implementation to serve as proof of concept rather than a finished, user-friendly portal

Appendix F:Project Outputs

Project	Institution	Start	End	Aims/Outcomes	Planned Outputs	Actual Outputs
Reflect	Leeds	Jan 08	Dec 08	• Piloting next generation technologies for social networking, collaborative writing and, collecting user generated content to develop high quality digital stories • Evaluating the experiences of students and teachers in using the tools within the projects to develop user requirements and case studies • Help demonstrate solutions that integrate the use of next generation technologies with institutional VLEs and student's own devices • Engagement with other potential Emerge projects and within the wider community and through existing close collaborative projects	• An enhanced set of case studies exploring the preferred technical and social approaches that engage learners and tutors in developing digital stories • A training guide for learners and tutors on the use of next generation technologies and mobile phones to support creation and sharing of the multimedia digital story • Templates of suggested ways that learning experiences can be standardised, structured and reused • Exemplar development of Digital Stories through institutional VLEs using next generation technologies and mobile devices	• A training guide for learners and tutors on the use of digital storytelling • Templates of suggested ways that learning experiences can be standardised, structured and reused containing concrete examples that link both the technology and pedagogy strands of the use of Next Generation Technologies • Case studies for dissemination and discussion to inform best practice and further research • Exemplar development of Digital Stories through Institutional Virtual Learning Environments using next generation technologies and mobile devices
SkillClouds	Sussex	Jan 08	Dec 08	• Investigate the use of social bookmarking tools to support the administrative process of recording and refining the university's data on skills for its course and programme offerings • Explore and evaluate the idea of presenting information on skills to students in the form of a skills cloud, and find out whether it enables students to engage more fully with skills • Support the Users and Innovation programme	• UML analysis and design documentation • Package to manage interaction with social bookmarking service, available as prototype for use by other institutions • A prototype Moodle skills cloud block, available for release to the Moodle community • Documentation on deployment with other systems • Documentation on the use of tagclouds to present complex data to students, giving analysis of usability and acceptability	• The open source version that institutions can deploy on their own systems is available. • Xtranormal animation http://skillclouds.blogspot.com/2008/11/skillcloudsminiseries.html • SkillClouds cartoon http://farm4.static.flickr.com/3301/3250405001_88d677e2e5_o.jpg • Project images http://www.flickr.com/photos/skillclouds/ • Project videos http://www.vimeo.com/stuartlamour/videos

Project	Institution	Start	End	Aims/Outcomes	Planned Outputs	Actual Outputs
					• issues • Documentation in e-framework available to the community	
Sounds Good	Leeds Met	Jan 08	Jul 08	• At least 15 Leeds Met staff using audio for feedback, thus saving themselves time whilst giving students richer feedback • Number of users should grow as a result of formal and informal dissemination activity within the University • External dissemination (practice guidelines, conference presentations, etc.) should stimulate discussion and experimentation in other places too	• Practice guidelines (written and as podcasts) for practitioners wishing to use digital audio for feedback to students • Advice on integration of digital audio feedback into a widely-used virtual learning environment (Blackboard Vista) • Paper submitted to a peer-reviewed journal	• Web presence at www.soundsgood.org.uk contains a number of project-related documents, including practice guidelines on using digital audio for assessment feedback • Reflective blog about the project http://soundsgooduk.blogspot.com • In keeping with Sounds Good's audio theme, there is also a series of podcasts.
UCAN-SKILLS	Teesside	Dec 07	Mar 09	Produce a range of 'skills activity maps' for 6 different approaches towards skills development with links to easily usable and easily accessible learning objects	• A range of skills activity maps with working links to good practice learning objects • A Project repository containing open-accessible learning objects (not through Athens authentication) • Development of a test system in an open platform at UPEI in order to allow users to educate themselves on effective uses of web 2.0 style interactions in a community environment • A UIDM toolkit • Background material from the dialogues with the academic programmes for use by wider HE/FE community • A new set of user	• The simple whiteboard map for the sample University of Anytown has been found to be a useful starting point for staff development sessions with academic staff • Participation in the JISC Emerge community of practice led to contact between the Project Team and Wolsingham School and Community College. • The half-day exchange of experience with Workforce Development Coordinators for Early Years from 5 local councils led to a basic pilot use of a previous Skills Checklist in terms of priorities 1, 2 or 3. • The repository developed was important in supporting various workshops / discussions with

Project	Institution	Start	End	Aims/Outcomes	Planned Outputs	Actual Outputs
					acceptance measures for skills material • Developing and evaluating a 'charitable Trust' model for sustained availability of material and sustaining of an established virtual meeting place ('habitat') after project finishes	sample academics and also demonstrated how links could be made to resources in a curriculum mapping system • A sample toolkit document (for focus groups) is available
Large-scale Demonstrator Projects						
APT STAIRS	Royal Vet	Feb 08	Apr 09	• How to bridge the technological gap between different user groups experience in the adoption of Web 2.0 tools • Students, Teachers, Administrators and Researchers are empowered to work and support each other using appropriate and practical technologies to bridge the "gap" • Academics within partner institutions working with new web technologies to support group directed learning, formative feedback, peer assessment, and collaborative learning	• Survey on the existing use of new web technologies by staff and students • At least five technical demonstrators providing well evaluated examples of using the UIDM in collaborative learning • Cross-institutional academic-led APT showcase to demonstrate the potential of APT approaches to a wider academic audience • Quarterly e-newsletters and practical guides for APT Users • Paper on lessons learnt with APT project demonstrators at ALT-C (Sept 09) • Paper to ALT-J on the APT approach to collaborative online learning	• The principle intention of the APT STAIRS project was to use existing technologies such as Google Docs rather than to develop anything new. However, there was a need to integrate these tools into institutional systems such as the Bloomsbury Learning Environment (BLE) – a shared Blackboard platform used by five of the Colleges. • Google Docs was identified as the most popular and simplest of the online document editing tools available at the time. It was therefore selected as the tool to be used by the five demonstrator projects.

Appendix F:Project Outputs

Project	Institution	Start	End	Aims/Outcomes	Planned Outputs	Actual Outputs
ASEL	Bradford	Jan 08	Mar 09	• Lecturers within partner institutions using audio within a range of emerging technologies to support learner self-reflection and self-assessment, formative feedback, peer assessment, and collaborative learning • Learners within partner institutions using audio within a range of emerging technologies to support self-reflection and self-assessment, peer assessment, and collaborative learning • Partner institutions employing emerging technologies such as blogs, wikis and social networking spaces to support learning	• Project wiki aimed at sharing effective practice across the partner institutions and with the wider community • Two case studies from each of these three key themes linked to outputs from learner and lecturer practices • Report on the different pedagogical approaches and curriculum design used by lecturers, including the identification of issues for student learning • Lecturer podcasts from each discipline involved, discussing their use of different practices and technologies • Student podcasts from each discipline describing the learner experience • Guide to a redefined U&I Development Model designed to support practice-based projects	• A project wiki (www.aselactive.com) aimed at sharing effective practice across the partner institutions and with the wider community. This contains a comprehensive account of tools and techniques for implementing audio to support self-reflection, assessment and collaborative learning. • Case studies from each of the three key themes linked to outputs from learners and lecturers. Each of these case studies describes how learners engaged with learning though audio and evaluates its use to support self-reflection, assessment and collaborative learning. • A report on the different pedagogical approaches and curriculum design used by lecturers, including the identification of issues for student learning. • Audio and video podcasts from lecturers involved in the project, discussing their use of different practices and technologies.
AWESOME	Leeds	Jan 08	Mar 09	• Raised awareness of the role which Web2.0 technology can play for tutors and their PG and UG students in supporting dissertation writing • Supply academics and students with, and support their use of, a web tool which enables them to take	• Prototype social virtual environment, Awesome Dissertation Environment [ADE], which extends a Web 2.0. wiki tool and provides an institutional demonstrator to support UG and PG dissertation writing based on sound pedagogical models • Report detailing the process	• AWESOME Dissertation Environment was an ambitious and innovative project which successfully delivered all its planned project outputs and outcomes. In some instances, we exceeded the initial plans for the project; most significantly in that we developed and trialled a

Project	Institution	Start	End	Aims/Outcomes	Planned Outputs	Actual Outputs
				advantage of the social scaffolding that underpins effective writing development pedagogy • Knowledge which challenges the existing focus in technology development on product through its serious engagement with questions of how to design support for the whole (holistic) process of dissertation writing	of user-centred design, development and deployment of the ADE • Training documents for the ADE: a) User Guide for Students; b) User Guide for Teachers • Case Studies evaluating the use of the ADE with different cohorts and disciplines	prototype social virtual environment, Awesome Dissertation Environment [ADE], which not only extended a Web 2.0. wiki tool, but did so using web semantics, to deliver a unique tool to support UG and PG dissertation writing. • Evaluative case studies and planning scenarios have been developed and archived on the project website and we have contributed work-in-progress papers to the Emerge Community of Practice and the Users and Innovation Programme conferences throughout the life of the project.
Gold Dust	Hull	Jan 08	Mar 09	Improve the quality of users' interactions with e-systems and benefit the JISC user community by investigating and developing innovative ways to facilitate the discovery and delivery of new, highly relevant resources (including, but not restricted to, content from, and about, JISC services and projects) with ease, with potential benefits for all academics in Higher and Further Education	• Open source prototype, and consequently a full-scale demonstrator, which demonstrate the delivery of highly personalised current awareness information on a regular basis in a flexible way (at the right time, in the right way to the right person, in the right place) • Specification for PIPsDatabases of aggregated feed content of different types • Report on potential commercial applications	• The substantial database of engineering-related RSS feeds which the Gold Dust project created is an important output in itself. Reports are available on the Gold Dust website www.hull.ac.uk/golddust • The first Gold Dust Digest was produced in the form of a simple online form that allowed users to rate the relevance of the selected items on a scale of 1 – 10. Two digests (Approach A and Approach B) were provided in order for the project to compare the effectiveness of Termine and Extminer respectively.

Appendix F:Project Outputs

Project	Institution	Start	End	Aims/Outcomes	Planned Outputs	Actual Outputs
Open Habitat	Oxford	Jan 08	Mar 09	Undertake a number of pilots with art and design students and philosophy students in MUVEs. The object of these activities it to gain a better understanding of how MUVEs can be used to support teaching and learning, more specifically the ability of MUVEs to support creative collaborations and discussions. The project is also using the pilots as an opportunity to experiment with MUVEs other than Second Life to assess the viability of MUVEs for education in general.	• Examples of current good practice of collaboration in MUVEs • Report on pilot design • OpenSim grid for the Emerge community • Provision of the Darkstar MPK 20 (Sun) environment for the Emerge community • Pedagogic models and guidelines for the effective use of MUVEs • Second Life island with work created by the art and design students	• A succinct set of 'Principles of Good Practice' (see the OH magazine) • Two learning designs which support MUVE based teaching (see the OH magazine) • The OH magazine itself (Guidelines – Recommendations) • The OH website which contains all the important aspects of the project categorised under the tags of Teaching and Learning; Research; and Managing. • Real Life/Second Life event designs/workshops which the OH team have supported or facilitated during the project.
HeLMET	Manchester	Jan 08	Mar 09	• Deliver services to support collaborative working within distributed work-based communities of practice, leveraging the benefits of Web 2.0 technologies • Use the services to develop an on-line community of practice for distributed placement education supervisors (PES) • Utilise the services to update the curriculum of the Manchester Medical School undergraduate Medicine programme	• HeLMET Tool • Training and User guides • Ontologies • Service Genres, Service Expressions • Service Usage Models	• The main deliverable from the HeLMET project was the tool, e-llaborate. This tool, has been built in Drupal to provide a social networking based environment, which will support the activities of a community of practice. • E-llaborate's collaborative editor allows users within a group to work cooperatively on a single document eventually arriving at a group consensus. • In order for e-llaborate to be maintained it needs to be supported and funded as a mainstream application. To facilitate this a 'sustainability plan', has been created for the senior managers in Medicine to enable the continued support of the system beyond project funding.

Appendix F:Project Outputs

Project	Institution	Start	End	Aims/Outcomes	Planned Outputs	Actual Outputs
MACFOB	Southampton	Jan 08	Dec 08	Develop a web-based multimedia annotation tool that will meet the important and pervasive user need of making multimedia web resources (e.g. podcasts) easier to access, search, manage, and exploit for students, teachers and other users through developing and deploying technologies that support the creation of synchronised notes, bookmarks, tags, images and text captions	• MACFOB software • Case Studies • User evaluations	• The Synote application project has the capability to handle most of the types of audio and video formats available on the web. Users' created bookmarks, tags and annotations on these media recordings are stored at Synote server. Since the audio or video recordings are stored by users on their chosen web accessible space, the Synote server only stores text annotations, so millions of hours of recordings can be catered for.
PLaNet	Leeds Met	Jan 08	Mar 09	• Teaching staff should: • Engage, collaboratively and individually, in the identification of patterns of successful Web 2.0 based teaching practice • Analyse these patterns and record them in the software platform resulting from this project • Refine the identified patterns to enhance their reusability across the teaching community • Experience an increase in the transfer of successful practice within the teaching community • Students should meet with an enhanced learning experience • Research community should gain an enhanced appreciation of the use of patterns through the resulting case study	• A pattern language for the domain of learning through web 2.0 technologies • A collaborative software platform for community based pattern creation • Supporting methodologies for creating community based patterns. • Documentation and tutorials to allow use of the software by third parties • Evaluation instrument for evaluation of impact on teaching practice • Three workshops for the community to engage in pattern identification, refinement and adaptation • Knowledge and experience of using UIDM • Understanding of the process of pattern capture	• The project has produced in excess of 100 cases of successful practice, which have led to around 75 patterns being proposed. These vary in the level of development from proposals through candidate patterns (which still require corroborating evidence) to full patterns. • The platform-related deliverables from the project include: - A collaborative software platform for capturing and storing case studies, patterns and scenarios in various levels of refinement - A software application program interface (API) for the patterns stored within the software platform - Entry into the JISC Innovation base for the Planet project identifying the types of services needed to support patterns

Appendix F:Project Outputs

Project	Institution	Start	End	Aims/Outcomes	Planned Outputs	Actual Outputs
PREVIEW	Coventry	Jan 08	Mar 09	• Develop, deliver and test PBL scenarios within virtual worlds for existing healthcare programmes • Ensure that the innovation and implementation is user guided at development, testing and evaluation stages • Provide materials that will enable others to build and develop further work	• An immersive model of PBL in SL suitable for off-campus and workplace learning • An evaluation of student and staff responses to the collaborative use of online PBL in virtual worlds • A model for teacher creation and delivery of virtual scenarios within virtual worlds	• Project blog established to update wider community on project progress and learning. • Storyboards (text, image and video) prepared to outline scenarios. • PBL scenario content, or 'scripts' for six of the eight cases ready for the trial phase. • Training material and “orientation” area implemented within SL • First testing phase has been completed and results were positive. • Machinima and mixed-media dissemination material produced profiling the scenarios, SL islands and test-subject feedback. • IP and rights document detailing permissions and rights issues faced and how they were addressed.
Personal e-Administration Projects						
Flourish	Cumbria	Mar 07	Mar 09	• Ease the personal administrative burden experienced by learning, teaching and research practitioners by providing a flexible learning system which will allow colleagues to record significant aspects of their personal and professional development in ways which integrate with their existing workflows	• Case studies • Report written for PgC teams in HE (to include examples of activities/training delivered and lessons learnt) • Peer reviewed journal articles • Training materials/guides	• Processes for embedding the use of a PLS for CPD, including organizing and running an e-learning retreat, • Two short animations 'E-portfolio for Starters' and ‘E-portfolios for Managers’ available on You Tube. • Video case studies illustrating how an e-portfolio can enhance CPD for staff • Exemplar E-Portfolios for CPD • One day workshop for educational developers ‘Putting the

Project	Institution	Start	End	Aims/Outcomes	Planned Outputs	Actual Outputs
						'e' into educational development' in association with e-PIP based at the HEA Physical Sciences Subject Centre
Streamline	Leeds Met	Mar 07	Mar 09	Develop integrated tools to alleviate the additional administration associated with the use of institutional repositories for assessment, learning and teaching, informed by understanding of existing work practices	• Scenarios of development and use of learning objects and repositories • Domain model(s) for learning object repository use • Process models for learning object repository use • Service Usage Models for services related to metadata creation, resource discovery and resource management • Software prototypes to support metadata creation, resource discovery and resource management • Documentation and tutorials to allow use of software by third parties	• Workshops with user groups -- a process for engaging staff. • Executable prototypes of tool interfaces. • Meta data generation tool – desktop and web based • Meta data search tool – variants • Documentation and tutorials to allow use of software by third parties • Collection of tools for accessing and viewing repository contents • Blog http://streamlinenews.wordpress.com/ • Entry in JISC Innovation Base outlining services
ticTOCs	Liverpool	Mar 07	Mar 09	Create a fully functioning suite of facilities dedicated to journal current awareness, based upon RSS feeds and Web 2.0 technologies. This 'TOCosphere' will enable the smart aggregation, recombination, synthesization, output and reuse of standardised journal TOC RSS feeds and their content	• Key ticTOCs deliverable is a fully functioning suite of facilities dedicated to journal current awareness (TOCosphere) • Prototype ticTOCs siteContent for reuse at third party sites • Advocacy materials on journal TOC RSS standardisation • Sustainable business model	• Over 12,000 journal TOCs are now available within the ticTOCs service, and more are gradually being added • The development of TOC RSS feeds is entirely up to individual publishers, and is outside the control of the project, though it is likely that more publishers will develop feeds in the future • Website http://www.tictocs.ac.uk/ dedicated to the search and retrieval of publisher's journal TOC RSS feeds

Appendix G: Benefits Realisation Projects

BR #	Name	Lead	Start	End	Projects
Emerging Issues Projects					
E1	Changing Demographic of Users	Leeds	Jul-08	Feb-09	CoP
E2	Impact of the Semantic Web	Leicester	Jul-08	Feb-09	CoP
E3	Impact of mobile and pervasive devices	Bristol	Jul-08	Feb-09	CoP
E4	How institutional responses to new emergent technologies affect end users	Coventry	Jul-08	Feb-09	PREVIEW
Widening Stakeholder Engagement Projects					
W1	Physical Sciences	Cumbria	Aug-08	Mar-09	Flourish
W2	Engineering & GEES	Leeds Met	Aug-08	Mar-09	ASEL, Sounds Good
W3	Psychology	Coventry	Aug-08	Mar-09	PREVIEW
W4	LearnHigher Information Literacy	MMU	Aug-08	Mar-09	ARGOSI
W5	Philosophy & Religious Studies	Leeds	Aug-08	Mar-09	AWESOME
Benefits Realisation Projects (Three Phases)					
BR1.1	e-Volve	Pontydysgu	Jan-08	Feb-09	Emerge
BR1.2	Innovation Networks & CoP	Coventry	Jan-08	Feb-09	CoP
BR1.3	Librarians CoP	Teesside	Jan-08	Feb-09	UKCAN-Skills
BR1.4	Virtual Design Studio	Ravensbourne	Jan-08	Feb-09	CoP
BR1.5	PLE - Personal Learning Environment	ALT	Jan-08	Feb-09	CoP
BR1.6	User Interfaces 1	City	Jan-08	Feb-09	CoP
BR2.1	ARGOSI	MMU	Jun-08	Feb-09	ARGOSI
BR2.2	Flourish	Cumbria	Jun-08	Feb-09	Flourish
BR2.3	PREVIEW	Coventry	Jun-08	Feb-09	PREVIEW
BR2.4	Sounds Good 2	Leeds Met	Jun-08	Feb-09	Sounds Good
BR2.5	EXTEND	Salford	Jun-08	Feb-09	CoP
BR3.1	Open Habitat	City	Sep-08	Mar-09	CoP
BR3.2	M3	Southampton	Sep-08	Mar-09	M3
BR3.3	U&I Critical Friends	Greenwich	Sep-08	Mar-09	CoP
BR3.4	APT Stairs	IoE	Sep-08	Mar-09	APT Stairs
BR3.5	Planet (Synthesis)	Leeds Met	Sep-08	Mar-09	PLANET
BR3.6	Planet (Capacity Building)	Coventry	Sep-08	Mar-09	PLANET
BR3.7	User Interfaces 2	City	Sep-08	Mar-09	CoP
BR3.8	Evolve	Pontydysgu	Sep-08	Mar-09	Emerge
BR3.9	PREVIEW	St Georges	Sep-08	Mar-09	PREVIEW

Date	Event
Nov 06	JISC Circular 04/06: Capital Programme
23 Nov 06	Deadline for submission of bids to 04/06
21 Feb 07	Emerge Project Inception Meeting
Mar 07	Personal e-administration projects start
13 Mar 07	Emerge Community Site launched
25 Apr 07	Launch event for Emerge in London
27 Apr 07	Next Generation Environments Conference, Aston
8 May 07	Emerging Sounds (podcast) launched
5 – 7 Jun 07	Emerge Online Activity Days
9 – 10 Jul 07	Community Consolidation, Manchester (unconference)
Jul 07	JISC Circular 02/07: Capital programme call for projects
7 Sep 07	Dragon's Den Nottingham
25 Sep 07	Benefits Realisation 1 call
02 Oct 07	Deadline for submission to 02/07
09 Oct 07	Future of Emerge Workshop, Aston
Dec 07	Successful bids announced
24 – 25 Jan 08	Programme Launch – York
21, 28 Feb 08	Netskills: Scenario Planning Workshops, Birmingham and Leeds
7 Apr 08	Web2Rights: Web2.0 and Copyright Workshop, Leeds
Apr 08	Benefits Realisation 2 call
19 – 21 Apr 08	The Emerging Sounds of the Bazaar (online radio) launched
23 – 25 Apr 08	Digital Communities and Digital Identities (online conference)
29 – 30 Apr 08	Next Generation Environments Conference, Aston: Understanding Needs, Unravelling Complexities and Applying Practice
May 08	Emerging Issues Studies call
30 May 08	Widening Stakeholder Engagement call
9 Jun 08	Emerging Mondays launch show
20 Jun 08	Web2Rights IP Toolkit launched
23 – 25 Jun 08	Exploring User 2.0: the shape of future users (online conference)
Jul 08	Benefits Realisation 3 call
9 – 11 Sep 08	Live @ Leeds ALT-C 2008 (Elluminate sessions)
13 Oct 08	Web2Rights: Web 2.0 and Legal Issues Workshop, London
29 Oct 08	eFramework Workshop, London
24 – 28 Nov 08	Altered States: practitioners, innovation and institutions (online conference)
3 – 5 Dec 08	Emerging Pocket Guide to Online Educa, Berlin
29 – 30 Jan 09	Programme Close Meeting, York
10 – 11 Mar 09	Next Generation Environments Conference: Evaluation, Impact and Effect
31 Mar 09	Programme ends