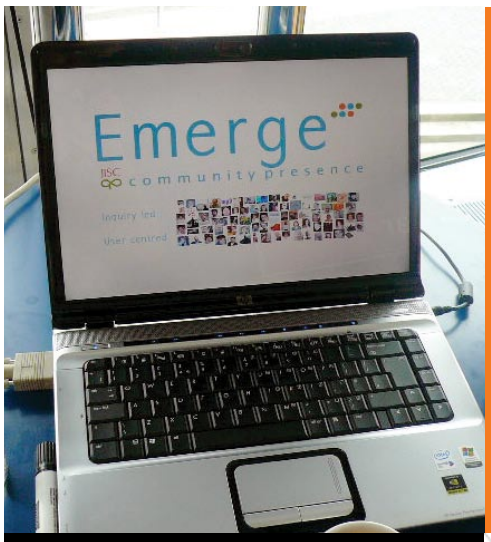
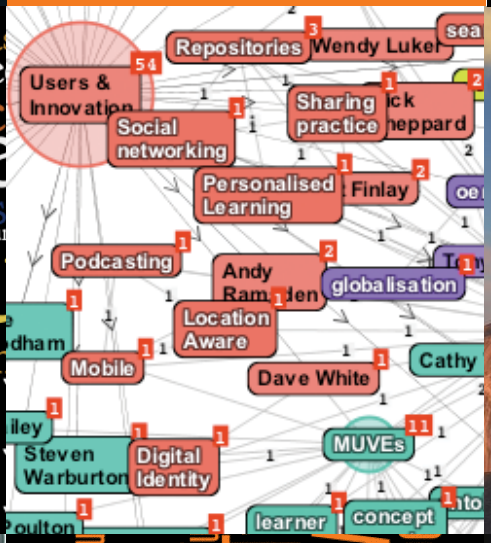
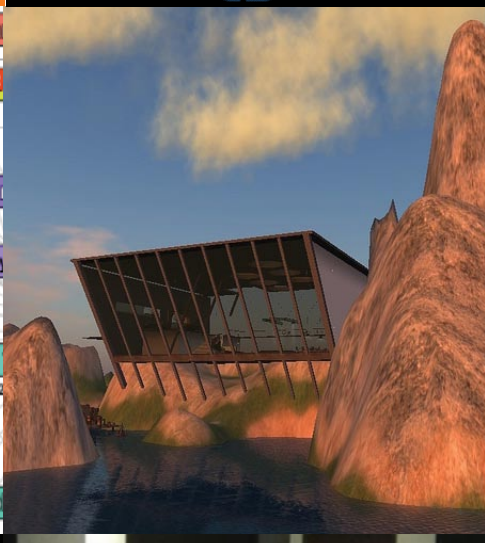
JISC

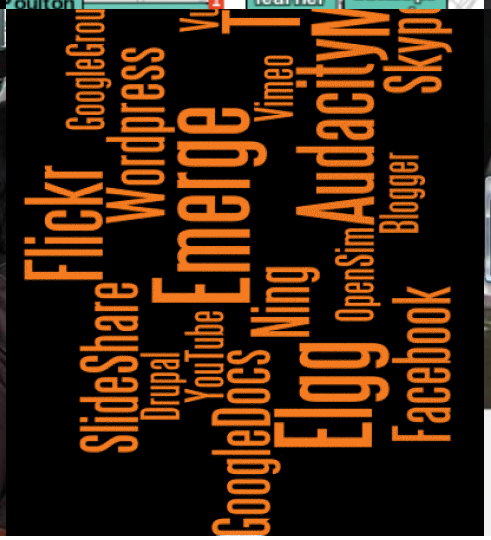
JISC Emerge: a user-centred social learning media hub

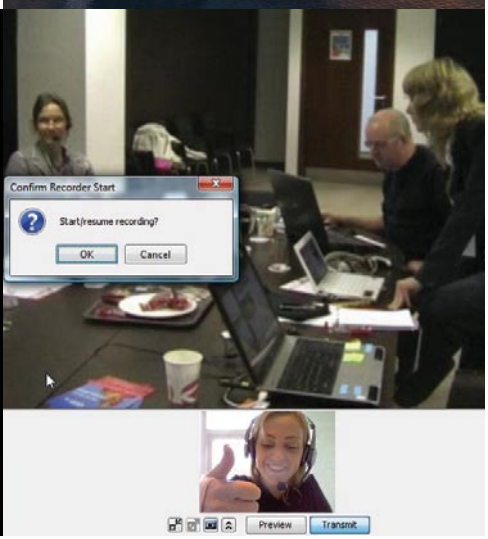
Supporting the Users and Innovation R&D community network











Contents

Emerge Reports 4

Framing the Community:
Developing Social Spaces to
Scaffold Emerging Communities 6

JISC-Emerge Community Timeline 8

A Community-Based Programme
of Support 20

Engaging Users? 26

Deploying IT Services as a Value 34

Successful Approaches to
Benefits Realisation 39

Users and Innovations in Institutions 44

This document is available online at
http://reports.jiscemerge.org.uk/

For more information on the projects, see
http://www.jisc.ac.uk/whatwedo/programmes/usersandinnovation.aspx

Emerge Reports

George Roberts

IN LEARNING TECHNOLOGY RESEARCH AND development (R&D) projects there can appear to be a focus on outputs rather than outcomes; producing artefacts rather than building capacity; quantitative rather than qualitative measures; easy answers rather than the deep complexity of institutional change. Through the JISC-funded Users and Innovation (U&I) Programme, a real effort has been made to transform practice based on the needs of individual users working within institutions.

The Emerge project set out to support the creation of a sustainable community of practice around user engagement for the exploitation of new and emerging technologies, such as social software and pervasive computing in educational settings. The timeline and issues around the use of social media to support an R&D programme are explored by Graham Attwell, Josie Fraser and Steven Warburton in their article *Framing the community: developing social spaces to scaffold emerging communities*. A key component to our approach was to encourage the adoption of a User Engagement (UE) process and enable its use by the developers of the next generation of web-based (Web2.0) services. Isobel Falconer and Chris Fowler, who led the user engagement team, have described the approaches, methods and tools for engaging users. As we had accepted that our research interventions would impact on the community's development, we chose Appreciative Inquiry (AI) as an approach likely to have a positive effect and promote an atmosphere of collective inquiry. Our aim was to ask questions which would support the community in moving forward. Patsy Clarke and Rhona Sharpe, who led the appreciative inquiry, explored the processes of using AI to develop a community-based programme of support.

As the programme developed, Benefits Realisation (BR) activities sought to ensure that the outputs and outcomes of the Users and Innovations (U&I) projects went beyond those originally funded and reached the wider community. Paul Bailey, who led the Benefits Realisation activities, has described the two-stage approach which involved initially encouraging knowledge transfer, validation of outputs and take-up within other institutions. This was followed by Widening Stakeholder Engagement (WSE), using existing groups to feed outputs to their stakeholders.

The web presence of the support project was quite novel. We put a public stream of voices from the community right up front using the Elgg social networking platform. Joe Rosa, the project's software architect and webmaster has described how, in developing the support platform, we adopted, adapted and implemented parts of the ITILv3 'best practice' guidelines as a framework and used a mix of self-hosted core services integrated (mashup) with external services making the most of Web2.0 technologies to deliver a coherent set of 'services' to the community.

It has been possible to identify a range of benefits to deploying social networking and social media tools to scaffold community emergence. However, the form and patterns of interaction that develop across a community over time cannot be predetermined. The stories and voices of participants provided evidence that the community developed into an effective support system for projects. The benefits for individuals and projects included opportunities for professional development, collaboration with others, improved project planning and management, and awareness of the relevance of projects in a wider context. The use of participatory media is

multi-modal. But the articulation between people and software is not only a question of interface design. The effective use of Web2.0 applications depends essentially on human networks. This raises questions of inclusion, exclusion and identity. The first question for institutions becomes: to what extent are they comfortable with ceding certain amounts of control to individuals? The second question for institutions is, then, to what extent are they, as established communities, willing to cede control to new communities? For individuals, the principal issue is, to what extent should they subordinate their autonomy and self-direction to any community? How much should they subordinate, and to which communities? In the end, I suggest that information literacy is being dynamically redefined and that people valued the personal and professional development opportunities that were offered by the programme for themselves and for their own user communities.

I cannot say that these questions are finally answered here. I hope that they are at least asked with greater rigour and sensitivity than when we started. Institutional change is not a simple task. I would like to thank the JISC for enabling these questions to be asked at all and for supporting us in looking for answers. I want to thank the support team who spent two years treading down the nettles and looking for ever-shifting trails, good naturedly acknowledging that the journey is as important as the destination. I want to thank the people who signed up for the community of practice without knowing where it would lead. I know this programme appeared to be more demanding that your 'usual JISC programme'. I hope that the demands were not simply in the quantitative burden of hours and days spent drawing concept maps and engaging in semi-structured activity. Our aim was to improve the qualitative measures by which success might be understood. That this was not always easy, I accept. We were all, at times, confronted with parts of ourselves we might have rather left in the traditional silos. But, was it worth it? Yes, if these questions continue to be asked. If the spirit of open, asset-based, positive enquiry and evidence-led development continue to be promoted, then yes. For me, it has been an honour – and mostly a pleasure – to have been involved with this programme. The ideas and practices that have been piloted in the Emerge Project are continuing to be developed in the new Institutional Innovation Programme. Three more years to come up with even richer questions!

George Roberts
Director, Emerge Project
March 2009

Framing the Community: Developing Social Spaces to Scaffold Emerging Communities

Graham Attwell, Josie Fraser and Steven Warburton

Abstract

The Emerge project aimed to support the development of a sustainable community of practice (CoP) in the area of emerging technologies for education. This comprised individuals, groups and funded projects whose focus was around the use of social tools and services for enhancing learning and teaching. The Emerge project team developed a range of existing social software tools and practices to facilitate the needs of the emerging CoP. Seven critical phases of activity were identified during the life cycle of the Emerge project and the CoP that grew around the JISC Users and Innovation Programme. Each of these phases, from initial engagement to building for sustainability, required different support mechanisms and approaches. In response, the Emerge team adopted an agile approach to community support – adapting the tools, services and activities that were offered over time to meet emerging community needs. Our conclusions suggest that it is possible to identify a range of benefits and likely outcomes to deploying social networking and social media tools in order to scaffold community emergence. However, the form and patterns of interaction that develop across a community over time cannot be approached prescriptively. There is a need to be sensitive to the dynamic and changing needs of the community and its processes and meet the changing demands for meaningful social and collaborative spaces. This impacts on the type and form of the tools and services that need to be made available to the community. Deploying an iterative and agile model to scaffold the community is a key factor to active participation by its membership and the successful development of community identities. In this way it becomes possible to define and support a community centre which anchors distributed practice in a manageable and accessible way.

1. Introduction

The Emerge project set out to support the creation of a sustainable community of practice (CoP) based upon the exploitation of emerging technologies, such as social software and pervasive computing, for use in educational settings. To achieve this aim the project itself adapted a number of social software-based tools and practices to support the emerging CoP. Wenger (2007) defines CoPs as groups of individuals with a commitment and shared competence within a domain and who develop a shared repertoire of resources, experiences, stories, tools, ways of addressing recurring problems, in short a shared practice. According to Wenger, time and sustained interaction are required in order for this to occur. However definitions are contested and often CoP is a term used to refer to groups of people who share a concern or a passion for something they do, and learn how to do it better as they interact regularly. The development of computer and internet mediated communication has supported the emergence of distributed CoPs. Early instances of such computer mediated distributed communities tended to use the internet for messaging and information exchange. However the promise of Web2.0 and social software is the shared creation of a richer community repertoire, including experiences, tools and artefacts.

The community supported by the Emerge project was formed through the JISC Users and Innovations programme (U&I), which invited applications from individuals employed in Higher and Further Education in England and Wales. The initial aim was to facilitate the development of high quality collaborative bids for development projects in the fields of social software

and education. In the phases that followed, the community would help support the development of the projects approved for funding, whilst continuing to involve the original members, regardless of whether or not they had submitted successful funding applications.

As well as supporting the development of the community the Emerge project undertook an accompanying research programme based on an Appreciative Inquiry (AI) approach. This was seen as important in that, given the dynamic and recent development of social software, experience in such approaches to community support and emergence was limited. The activity-based approach adapted by the Emerge project has generated a considerable body of evidence to support a community-based approach to programme support. Whilst such evidence is context specific and allows limited identification of principles suitable for general application, it does allow the identification of critical issues that define effective and appropriate practice in using social software for scaffolding interactions and framing communities.

This article outlines the Emerge project's socio-technical approach to community support. It describes the forces that drove particular design choices and the combination of tools, services and activities that were deployed to foster and scaffold community-based interactions over time.

2. Choosing relevant techniques and processes

Early on the Emerge team acknowledged the tension between dealing with individual and group support, and the need to address the critical moment during the U&I programme where project proposals would be chosen for funding. At this point project groups and institutions would become visible as active entities within the evolving community framework. This recognition resulted in the Emerge project plan initially being broken up into two distinct phases. This also prompted the decision to approach the community building requirements through an activity and events-driven format using both face-to-face and online modalities, supported by a rich social software toolset. Building the necessary competencies that would enable individuals within the U&I programme to become visible members of the online community was achieved through induction sessions that helped to baseline skills. The approach to designing the support activities was based on theoretical conceptualisations of community, which were translated into both online and offline interactions that addressed relevant issues such as visibility, geography, profiling, shared interests, authenticity, transparency and voice.

3. Web1.0 versus Web2.0

The choice of tools was to some extent already pre-determined by the Web2.0 and emerging technology-driven focus of the U&I programme. Even so, there was a wide range of potential social software tools and services which could have been deployed. A number of factors determined this choice and these included availability, cost, functionality and the existing skill-set within the Emerge team. The desire to offer the target users a combination of rich social spaces, alongside the possibilities for presentations and online gatherings, were key factors in determining which social tools and services were eventually adopted.

4. Phased community development

According to Wenger, communities are always emergent and the timeline below identifies seven critical phases in the lifecycle of the Emerge community. Communities change over time, and the forces that drive and shape a community and its trajectory include: membership, perceived value, trust and changing mechanisms of governance, ownership and participation. The ebb and flow of the community coalesced around the core services provided by the Emerge platforms and the organised activities, and were supported by agile, adaptive interventions from the support team.

Phase 1: Community building and visibility

Phase 2: Networking and clustering around emerging themes

Phase 3: Shared activity in the form of bid-writing

Phase 4: Community coalescence around the newly funded projects

Phase 5: Cross-project engagement

Phase 6: Widening community participation

Phase 7: Sustainability and hand-over

JISC-Emerge Community Timeline

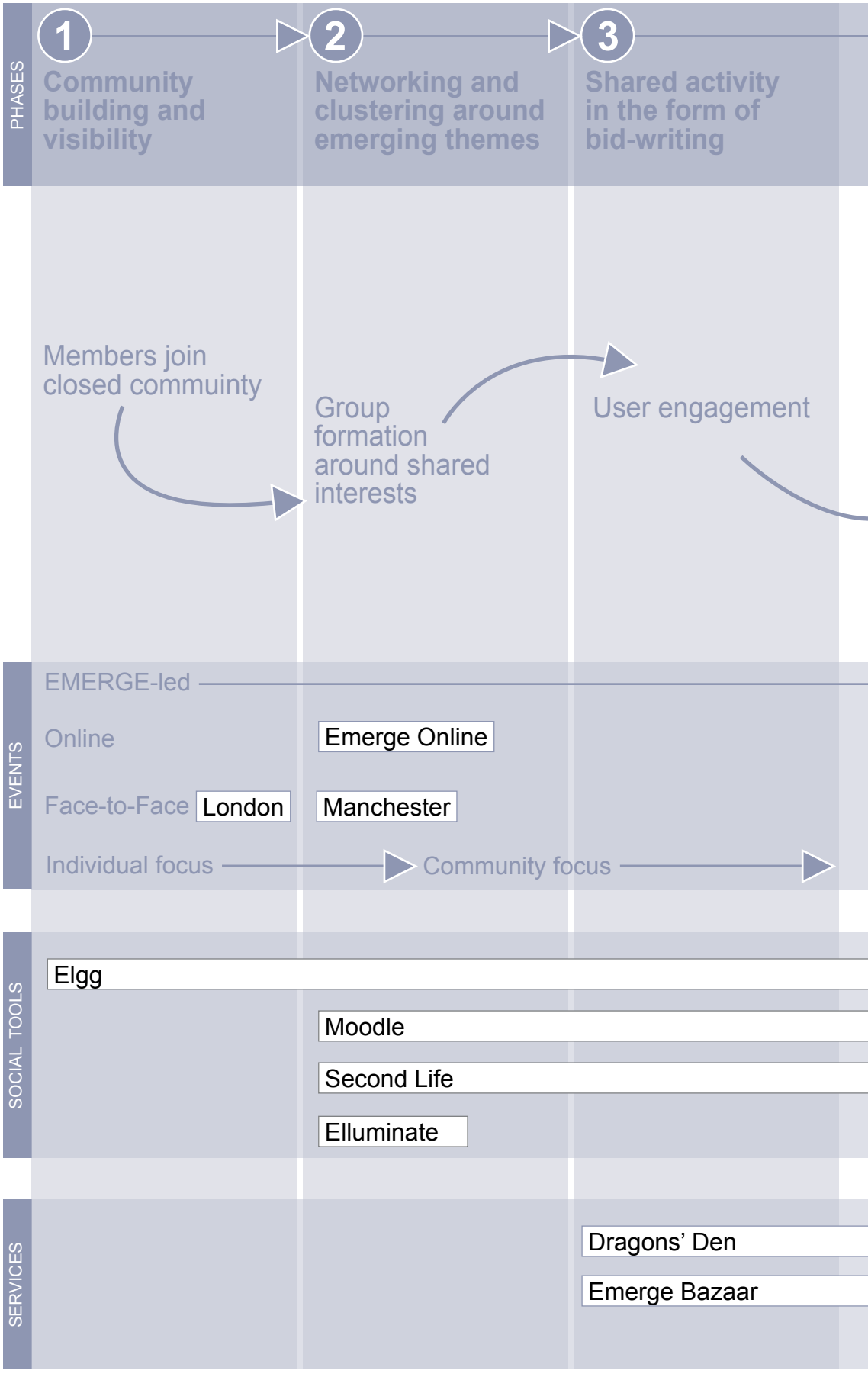
NOTES:

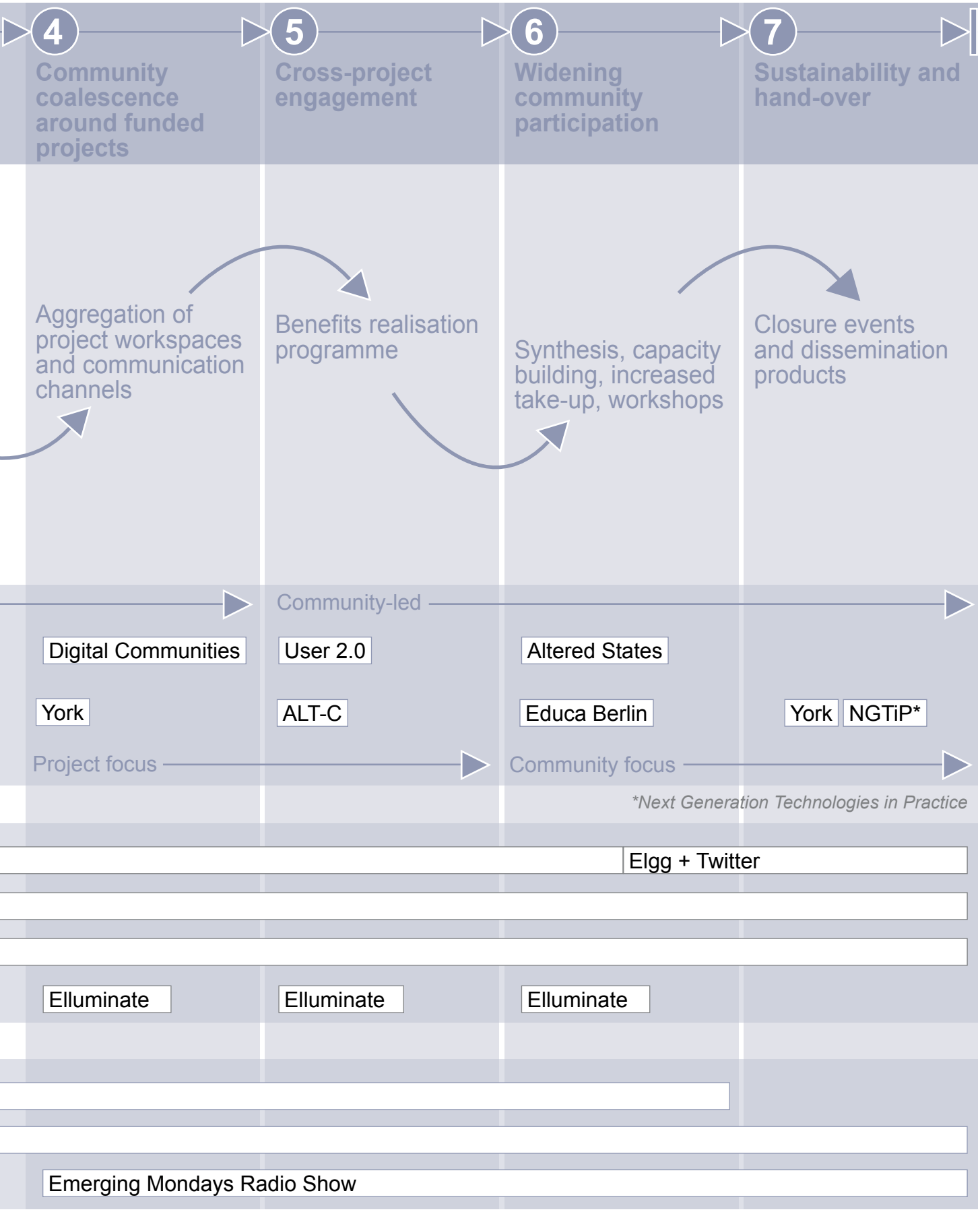
The Emerge community timeline identifies seven distinct phases of activity over the 15-month lifecycle of the project. Within each of the phases the activities are broken down into sections that detail: community processes, planned events, the core social platforms deployed and the additional services provided by the Emerge support team.

Events were organised as face-to-face or online gatherings. As the U&I projects matured a group was bought together at two large conferences, ALT-C and Educa Online Berlin, to showcase the U&I programme.

The core technical platforms used by the Emerge support team are shown. Elluminate played a key role in hosting the synchronous online events.

Additional community services were developed, including: the Dragons' Den, which provided the community with a panel of experts to assess potential funding proposals, the Emerge Bazaar and Radio Show which opened up new spaces for community dissemination and exploitation activities.




4
Community coalescence around funded projects
5
Cross-project engagement
6
Widening community participation
7
Sustainability and hand-over
Aggregation of project workspaces and communication channels
Benefits realisation programme
Synthesis, capacity building, increased take-up, workshops
Closure events and dissemination products
Community-led
Digital Communities
User 2.0
Altered States
York
ALT-C
Educa Berlin
York
NGTiP*
Project focus
Community focus
*Next Generation Technologies in Practice
Elgg + Twitter
Elluminate
Elluminate
Elluminate
Emerging Mondays Radio Show

5. Emerging themes

A series of issues arose during the course of the project. Whilst some of these issues were technical and could be resolved though agile development and tool deployment, other issues were more social in nature and were less easily solved.

5.1 CONSTANT REVIEW

The tools and services deployed were constantly under review and were extended as necessary. For example, early on in the project, community members expressed unhappiness with the functionality of Elgg as both a repository and a place for events organisation. It was decided to install Moodle to enhance the platform to respond to user needs. In retrospect there is little evidence that Moodle has much greater functionality than Elgg in these two areas. It may be that the dissatisfaction voiced towards Elgg simply reflected an unease, or an unfamiliarity, in engaging in social networking practices, rather than any real functionality problems.

5.2 OPEN VERSUS CLOSED

Although initial community membership was limited to those who successfully bid for JISC funding, there were several discussions about opening out the community. To an extent these discussions were influenced by JISC policy and funding concerns. Even so, as the community evolved there was resistance to ideas of 'outsiders joining'. This was a reflection of the ownership felt by the community members but it may also have reflected a certain protectionism in terms of future development and evolution.

5.3 NAVIGATING DISTRIBUTED ACTIVITY ACROSS MULTIPLE ONLINE SPACES

There was a dilemma in how to navigate the social spaces that spanned the centralised platform and the distributed and multiple online spaces which community members established to support their projects. At an early stage in community development, a number of members aggregated their personal blog feeds to the Emerge platform. But this became unpopular with community members who felt that unfocused posts were overwhelming the community site. Other issues surfaced at a later stage with the launch of funded projects. An extensive range of tools and services was used by the projects (see Section 8 below). To some extent this wider tool set reflects the different preferences and needs of the project members, and also reflects the need for different tools for project development compared to those for community interactions. The Emerge platform was important in providing core support for community communication, and was also critical in providing a central view or presentation of the community.

With the development of independent project spaces during and following Phase 4, the project-based groups ceased to use the platform for their own internal communication. The Emerge project responded by aggregating feeds from these distributed spaces. Two mechanisms were used to achieve this: (i) automated approaches such as aggregating RSS feeds and providing links to online artefacts on sites such as YouTube and (ii) the provision of community focused media channels such as the live Emerging Sounds of the Bazaar radio show. Groups working on a number of the projects were also interviewed in a series of formative evaluation and inquiry-based interviews called the 'Dragons' Den'. The audio outputs of these sessions were published, making the outcomes of the projects available to a wider audience.

5.4 SETTING A BASELINE LEVEL/EXPECTATION FOR ENGAGEMENT

As with any community, levels of individual and project engagement varied. There was an issue as to the extent to which different members both valued the community and saw community engagement and interaction as part of their contracted activity. For some, it was only in the final phase of the project that they began to see the value of the wider community in developing and disseminating their projects. This may be because the idea of a support community was new to many, as were the tool sets deployed. However, it might have been helpful to have established a transparent baseline level of expectation for engagement at an early stage in the community lifecycle.

5.5 DEALING WITH COMMUNITY SUPPORT ACROSS INSTITUTIONS, PROJECTS, GROUPS AND INDIVIDUALS

The Emerge Community was unusual in that, contrary to more common practice, it supported individuals rather than projects or institutions. It is probable that the individual nature of membership developed a sense of ownership rather than of platforms aimed at project support. However, there was some tension between supporting individual members and supporting projects and groups of projects. Whilst the face-to-face and online events were able to combine these different foci, the platform configuration was better suited to individual interaction than group support.

3.6 USING A BLENDED APPROACH TO COMMUNITY SUPPORT

The Emerge project team consciously adopted a model of blended support for community development. This included face-to-face and online events, opportunities for asynchronous and synchronous communication, and interaction for both formal and informal discourse. However, there were issues in getting the balance right. Whilst community members appreciated face-to-face workshops and events, these were much more expensive to run. As the project developed, the support team became more experienced in planning and running on-line events. There is some evidence that community members also learned from these experiences and started to plan and run their own events, using the Emerge Elluminate server as well as other online meeting applications like Flash server.

5.7 HOW CAN YOU FACILITATE COMMUNITY-LED ACTIVITY AND SHIFT OWNERSHIP BACK INTO THE COMMUNITY?

The original ideas around CoPs are that they are emergent and are based on the practice of the participants. This raises issues of whether it is possible to create a CoP using a top down method and of power and control within the community. The Emerge team was cognisant of these issues in seeking to support the emergence of the community. If the community was to be sustainable in the longer term, following the JISC funding period, it was important that it developed a self-governing structure. However, self-governance was at odds with the reality of project funding. This inhibited a thorough on-going discussion of critical issues in sustainability until late on in the community lifecycle.

As a community evolves it has to develop its own rules and regulations regarding community practice. These tend to arise through critical incidents. One such discussion which emerged during the development of the community platform was whether or not to allow syndicated feeds. Whilst early on, syndicated feeds from members' blogs provided a critical mass of content, it did lead to prolific bloggers dominating the community site and a consequent loss of focus in content. The agreement which came out in discussion through the community was that raw blog feeds would not be allowed, although members were encouraged to post tagged feeds.

In general, issues of day-to-day governance were resolved fairly easily. More problematic was the long-term trajectory for the community and in particular the question of whether it would have a life beyond the funding period. That issue remains ongoing. What we do have is the emergence of a strong sense of community identity around the platform and the programme activities, beyond what might normally be seen in a funded programme consisting of a number of dispersed projects. Such a community identity has considerable added value in collaborative project development, especially in dissemination, and in the embedding of project outcomes in institutional practice. Ultimately it is the sharing of artefacts and outcomes in practice which determines community ownership and sustainability.

6. Conclusions

Social software and social media appear a natural choice for encouraging more open and social patterns of behaviour. These tools and services can add value in terms of the benefits that arise from connected individuals sharing their ideas and their practice. Yet, to develop and instantiate a community effectively requires the purposeful use of social software tools.

Although the development and framing of social spaces were development activities, rather than an approach to research, the work has uncovered a series of research issues. These include:

- How can community emergence be fostered and sustained?
- How can community facilitators measure requirements and respond in a timely manner?
- What is the relationship between individual participation and identity in a community and organisational and funding affiliations?
- How can we design an optimal mix of blended face-to-face and online activities?
- How do dispersed communities develop shared artefacts and practices?
- How do we negotiate norms and regulations for community participation?

Whilst the project has not solved all of these issues, the wealth of experience gained during the project has provided a rich evidence base for further reflection and research. It will take some time before we are able to draw firm conclusions. But an early list of lessons learned includes:

- There is a need to be aware of individual visibility and to identify those that may remain invisible so as to ensure equitable opportunities for participation. This may mean addressing the digital literacy skills of those within the community;
- Agile and flexible approaches are required to support a community as community requirements change over time in unanticipated ways;
- Designing for 'purpose' requires transparency in the technologies deployed;
- Benefits for both individuals and organisations must be focused;
- Resourcing is one of the key driving forces behind community development, participation and governance.

7. References

Wenger, E, (2007), *Communities of practice. A brief introduction* accessed 14 January, 2009 from http://www.ewenger.com/theory/

8. Tools and services used by communities and individuals

During the life span of the project, all of the U&I Programme members used multiple tools, sites and services. Many projects focused on exploring the capacity of specific software for supporting or facilitating learning and teaching. The Emerge support team encouraged experimentation with the provision of a core set of tools to support online activity, and projects also engaged with a wide range of Web2.0 tools and services to manage their own team processes and communications.

The tools and services described hereafter are those that surveyed members used most often and found most useful during the course of the U&I Programme.

Before investing time and resources in any third party service, it is essential that that services must be evaluated and risk management considered. A framework guide to evaluating social media services can be found at Childnet's Digizen site (it was designed for educators working with children under 18, but it provides useful advice for all educators): http://www.digizen.org/socialnetworking/checklist.aspx. UKOLN also produced Risk Assessment For Use of Third Party Web2.0 Services: http://www.ukoln.ac.uk/qa-focus/documents/briefings/briefing-98/. It is critical to review the Terms of Service and Privacy Policy before using any site. These two documents outline what constitutes acceptable use of the site, including any commercial activity, and what permissions use of the site gives to the provider in terms of using members' information. They also outline any conditions of content ownership beyond functional permissions (the minimum permissions required by a social networking service to store and access your data to use your account).

(i) Social Networking: Elgg Classic 0.9
http://elgg.jiscemerge.org.uk/

Emerge is the name of both the JISC Users and Innovation strand support project and the main community hub site. The Emerge platform is a modified version of Elgg Classic 0.9 – open source social networking software that can be used to create communities. The platform offers generic social networking site features such as member profile pages, blogs, file storage and sharing, and a range of group and collaborative functions. Classic Elgg has

now been superseded by Elgg version 1.0, which is a rewritten software project rather than a mere upgrade of the previous version. Since the software is from an open source, there are no licensing costs. However, resources were required for hosting, set up and modification (including template design), technical support, and community facilitation. Classic Elgg 0.9 was selected from a field of potential alternatives primarily because of its RSS aggregation and tagging features. Version 9.2 provided users with the ability to use RSS to syndicate external content (blog posts, images, podcasts etc) easily into their group or personal blog. This enabled users to make use of the Emerge platform as a primary and/or secondary site for their content – creating and posting content to pre-existing or alternative sites and contributing this to the Emerge site, or creating, posting and commenting directly to the community hub itself. The site also created multiple external RSS feeds for content, allowing users to syndicate site-hosted content out to their own web sites and feed-readers. Version 9.2 also provided users with the ability to tag (apply keywords of their own choice) content and to profile and group pages. As well as enabling the creation of more granular RSS feeds (for example, a feed of content tagged with the word 'audio'), tagging provided the primary on-site search, allowing users to find other members and content of interest.

The site's front page was used to provide maps of the community in various ways, including a geographical map of project and individual locations, a feed of photographs related to and documenting the projects and activities, and the most recent blog posts published to site. Individuals primarily used the platform to provide information about themselves via profiles and blogs and to work collaboratively. 'Groups' were set up thematically with other members of the community working on or interested in specific topics for particular projects and for specific areas or tasks within projects. In addition, the site was used to provide support and activities relative to the use of the platform and its social networking elements and functions, such as manipulating profiles, making connections, aggregating content and using collaborative tools and social networking search engines. Although a section of the community consisted of advanced users of social networking and social media tools, to many members the approaches and practices, including blogging, were totally new.

(ii) Multi-User Virtual Environment: Second Life
http://secondlife.com/

Second Life (SL) is an immersive 3D Multi-User Virtual Environment (MUVE). The Second Life Viewer is a client that allows users to control and customise a virtual embodiment of themselves (an avatar), explore the 3D environment, and connect and interact with other avatars using text or audio. SL offers a sophisticated toolset for building 3D content and, unusually for virtual worlds, allows users to retain IPR over the objects they create. Use of the platform is free, but members must pay for a premium account in order to buy and develop land. Residents can also buy and sell assets and services created within the environment. A cluster of projects within the U&I community, (Open Habitat, PREVIEW, MOOSE, M3) investigated the potential benefits offered by MUVEs to learning, teaching and the institution. The Emerge project invested in Second Life land ownership and drew on the expertise of the community to develop an in-world project base and to support all members in exploring the environment. Second Life was used for a wide variety of purposes: to develop community member skills both in using the environment and creating assets, for formal meetings and learning experiences (not necessarily related to the topic of MUVEs), and for social events and activities. Other MUVEs also used by the projects included OpenSim

(www.opensimulator.org), an open source 3D virtual environment used as a precursor to Second Life to introduce the codes and functions of immersive 3D space. For Open Habitat, the OpenSim environment was particularly useful as functionality can be restricted, which gives more control and avoids the distracting complexities of Second Life.

(iii) Web Conferencing: Elluminate
http://elluminate.com/

Elluminate Live! is a synchronous online conferencing environment which enables small or large groups to work together remotely using presentations, desktop sharing, video, voice and text-based chat. It is available to use under a paid-for licence only, and is one of the few tools used by the community that is not available as a free version. The currently available open source alternatives were regarded, following evaluation by the support team, as not currently stable enough to cope with the projects' demands and participant numbers. The platform was used to host several national, community-wide online conferences, as well as for team meetings and Dragons' Den activities. The presentation and video function was used extensively, and the text channel operated as a concurrent back channel during less interactive sessions. Projects that engaged in the online events evaluated their experience of the platform environment as a very positive one which gave them a real sense of community interaction.

(iv) Virtual Learning Environment: Moodle 1.8
http://moodle.org/

Moodle is an open source Virtual learning Environment. It is used in schools, colleges and universities throughout the UK. The Emerge support project used it in a very specific way: to support face-to-face and online event enrolment and participation. Members of the wider Emerge community enrolled themselves in the courses associated with the particular events in which they were participating. Event information, including preparatory tasks, virtual or physical joining information, and agendas, were posted to the course. Speakers and workshop leaders were able to post associated materials, and use the Moodle tools to survey attendees, create activities or hold chat sessions. The M3 (MUVEs, Moodle & Microblogging) Project explored the potential of the VLE Moodle, the Twitter microblogging tool and the MUVE Second Life with three different groups of users, including student and practitioner communities involved in face-to-face interaction, and distance learning and practice. M3 focused on effective ways of embedding synchronous online tools established as effective for social networking, and exploring the use of other tools that offer 3D opportunities for learning. A Twitter plug-in was produced for Moodle, which was used within the support project installation to deliver a live stream of content, observation and conversation from U&I members using Twitter.

(v) Concept mapping: VUE
http://vue.tufts.edu/

VUE (Visual Understanding Environment) is an open source concept mapping application developed by the Academic Technology group at Tufts University. VUE provides a flexible visual environment for structuring, presenting and sharing digital information.

(vi) Content Management System: Drupal
www.drupal.org

Drupal is an open source modular framework and content management system that can be used for a wide variety of sites, from simple blogs to organisation-wide intra and extranets. Core modules include user profiles, comments, forums and polls, and RRS feed and feed aggregation. The HeLMET project used the software to create a social networking site for communication among the project team and sub-groups. They required additional functionality to the Elgg Classic installation, and wanted a self-hosted service that provided privacy for members.

(vii) Digital audio recording and editing: Audacity
http://audacity.sourceforge.net/

Audacity is a cross-platform digital audio recording application and editing tool. Audacity is free software licensed under the GNU General Public License version 2.

(viii) Digital media player: iTunes
http://www.apple.com/uk/itunes/

iTunes is Apple's proprietary digital media player. Video and audio material for education to use on iPods or computers is available, and can be uploaded to, the non-charging iTunes U section of the music downloading service. Educators providing material in compatible formats can also take advantage of the popularity of the Apple software and hardware by directly providing downloads that can be listened

to or viewed via iPod or iPhone, or on alternative devices.

(ix) Direct messaging, voice and video-conferencing: Skype
http://skype.com

Skype is a software programme that enables users to make free voice and video conferencing calls over the Internet to other Skype users, and low cost international calls outside of the Skype network. It also incorporates an instant messaging facility and can be used to host group conference calls of up to 24 participants. Skype was used by the Sounds of the Bazaar project to conduct and record interviews for broadcast and podcast. Many of the projects, including ARGOSI, MOOSE & Open Habitat used Skype to gain easy and instant access to widely dispersed project team members, and to connect with other members with similar interests. The Evolve project set up an open channel on Skype which was used for ongoing communication and peer group support by doctoral researchers in twelve countries.

(x) Discussion lists: Google Groups
http://groups.google.com

Google Groups is a discussion, emailing and file-sharing tool provided by Google. Open Habitat used Google groups because of its ease of use and availability to all members with a web connection. They uploaded and shared documents for comment to the group and discussion.

(xi) Document management: Google Docs
http://docs.google.com/

Google Docs is a collection of web-based applications, consisting of word processing, spreadsheet, presentation and form tools, which can be worked on by multiple users in real time. It is not necessary to have a Google-based email address in order to work on documents; however an account with Google gives users access to their own management interface and the ability to initiate new documents. U&I members found it extremely useful for supporting collaboratively produced work. Google Docs was used as a quick solution to issues that required group input.

(xii). Microblogging: Twitter
http://twitter.com/

Twitter is the leading microblogging service: a web-based social networking service that enables users to communicate with each other through public or private short messages of 140 characters or less. The Emerge project set up an official account on the service which was used in two specific ways; firstly, to alert subscribers to content or conversations taking place on the Emerge Elgg platform and to activities and events of interest to the Emerge community, and secondly, and more actively, to create a feed of the public messages from a group of people using the service and associated with the U&I Project. Towards the end of 2008, this feed was run through the Emerge Elgg site main page, providing a constant update of U&I member activity. This was in response to the popularity of Twitter as an informal space for members to keep in touch with each other, in terms of individuals' broad interests (both related and unrelated to the U&I Projects focus). Twitter also emerged as the members' back channel of choice during project-related events. It was used by members to comment on and capture event activities and sessions, and to talk about and participate in activities both with each other (A&I community members, both in attendance at the same event and following remotely via Twitter) and their broader networks, nationally and internationally, using the convention of an agreed hash tag to signify the specific event.

(xiii). Mind Mapping: Mindmeister
http://www.mindmeister.com/

Mindmeister is a web-based mind mapping tool which allows users to work simultaneously on mind maps and see each other's changes in real time, highlighted through coloured effects. The basic edition – containing all standard features, but limited to six maps per user – is free. Paid-for premium and team accounts allow unlimited maps and additional functionality including export options and offline working.

(xiv) Personalised start page: iGoogle
http://www.google.com/ig

iGoogle is a personalised start page, which includes Google search. All users signed in to their Google accounts have access to a personal customisable page. They can select templates and layout, and populate pages with any content available via RSS feed and from a wide range of custom created applications (Google gadgets). iGoogle additionally provides a centralised point of access for all other Google applications – Maps, Docs, etc. iGoogle

was used by some of the projects to organise and aggregate project outputs, work in progress, calendar and related news.

(xv) Photo sharing: Flickr
http://flickr.com/

Flickr is an online photo-sharing site with a range of social networking features that support picture sharing and short video clips. Owned by Yahoo!, it focuses on image and video uploads and related activity – for example features support comments and discussion around content, RSS syndication, and connecting to and granting viewing permissions to other site members. Tagging is extensively used to organise the site. As well as creating slide shows, groups and discussion around content on site, members can use a wide range of applications to display content stored in Flickr on other sites. Basic Flickr accounts are free, while an annual paid for premium, ad-free service allows users unlimited uploads and storage, and to create unlimited numbers of photo sets and collections (groups of sets). Flickr was extensively used to document U&I events and activities informally. Members were encouraged to tag photographs and other content so that they could be found and aggregated easily, and from the outset the Emerge Elgg site featured a front page Flickr stream – a feed showing the most recently uploaded project photographs. A JISC Emerge group was also established on Flickr, allowing members to contribute their pictures in to a group pool on Flickr. Many of the projects used Flickr to catalogue their own work and processes; for example, the Open Habitat team used Flickr to upload and collect screenshots of their work in Second Life.

(xvi) Social Bookmarking: Delicious
http://delicious.com/

Delicious is a social bookmarking site. Users can store and share bookmarks with others, using tags or keywords to classify and organise content. They can also recommend bookmarks to other users, and export feeds of updated content to other sites.

(xvii) Social networking: Facebook
http://www.facebook.com/

During the project cycle, Facebook established itself as the leading profile-based social networking service in the UK. Facebook is a closed social network – membership is required in order to search for or view any information generated or stored on the site beyond basic profile details that members can choose to make accessible to external search engines. Facebook offers users a range of tools and permission sets around a central profile page, including the ability to connect directly with other individuals, or through geographic or workplace-based networks. Members can also create groups and publicise and manage events. Project members and teams, for example PERSoNA (Personal Engagement with Repositories through Social Networking Applications), took advantage of the critical mass of Facebook membership to organise several events and groups, using the on-site tools to send invites and confirm attendance quickly, manage discussion, and organise activity.

(xviii) Social networking: Ning
http://www.ning.com/

Ning is a web-based white label social networking site. This means that members have the ability to build their own public or private social networks, not just create groups or shared spaces within other social networking platforms, along the lines of a mini-MySpace. One advantage of this is the greater focus and granularity that it affords organisation around any particular topic. The ability to tailor sites quickly around particular topics has proven popular with educators. Communities are hosted on the Ning network, with network membership required to join particular community sites. Ning also offers members an advertisement-free premium (paid) service that allows them to disassociate their network from the broader network of Ning communities. Ning offers members the platform source code required to customise their own sites – but hosting must remain within the Ning network. The Audio Supported Enhanced Learning (ASEL) and ARGOSI projects both used Ning for its social networking functionality and to upload and store digital media. ASEL used the platform to facilitate student discussion and the distribution of audio/video files. This was initially attempted on the project's university Blackboard site, but it was found that the more formal and institutional framing of the VLE was not conducive to student participation. The learners were already familiar with using Facebook and other social networking sites and so understood the conventions and possibilities of the platform. ARGOSI used set up a Ning site for discussion and information sharing for their project team. They used it as a repository, notebook, and

comment area, and also made use of the blogging tool to share and discuss project ideas.

(xix) Presentation sharing: SlideShare
http://www.slideshare.net/

SlideShare is an online presentation hosting site which supports several social networking features, such as groups, sharing and comments. Audio can also be added to presentations, and YouTube videos can be embedded. SlideShare presentations can themselves be downloaded, exported or embedded into other services or software, and members can comment on their favourite presentations. U&I group members found SlideShare useful to store and publish presentations so that they were accessible to the immediate and wider potential peer community.

(xx) Video Sharing: YouTube
http://www.youtube.com

YouTube (owned by Google) is the world's largest video sharing web site, and allows people to upload, watch and share videos. YouTube content is diverse, broadly including popular music and entertainment content as well as political, sports, cultural, educational and other niche videos. YouTube recently started a programme to help non-profits and NGOs in the US and UK to upload and share video about their organisations. While using YouTube for commercial services is not allowed, maintaining an original channel on the website in order to promote a business or artistic enterprise is permitted. Many individual educators and institutions use YouTube to provide information and educational content.

(xxi) Video sharing: Vimeo
http://vimeo.com/

Vimeo is a video hosting site which prioritises its social networking service features. It allows users to upload and share video and to connect and communicate about content. It offers a higher quality paid-for service which gives users higher upload limits, an advertisement-free service, and unlimited groups, channels and video albums.

(xxii). Weblog: Blogger
http://www.blogger.com/

A Google-owned weblogging publishing service which allows users to quickly and easily create weblog sites and publish content, Blogger supports images, text, audio and video, and users can publish to Blogger directly from their mobile phones or email accounts. Blogger also offers customised domain options for members who want to use specific URL addresses.

(xxiii) Weblog: Wordpress
http://wordpress.com/

Wordpress is an open source weblog publishing application which offers great flexibility in terms of design, layout and content through large libraries of templates, themes and widgets. The large variety of widgets available means that it can easily and effectively be used to syndicate content from other services such as Twitter and Flickr. Wordpress Multi User is a fork of the Wordpress code which allows many blogs to exist within single installations, making it possible for users to host whole communities of blogs. In addition to self-hosted installations, web-based options are available – Edublogs and Wordpress.com both provide free basic accounts with premium paid options available for using a specific domain name, advertisement free, with greater storage. ASEL & ARGOSI both used institutionally hosted Wordpress installations as their projects' public faces. Their sites provided regularly updated details of the projects and teams that could be aggregated to the main U&I Elgg Classic hub. ARGOSI also used their Wordpress installation to deliver parts of the Alternate Reality Game (ARG) that the project was designed to produce and test.

(xxiv) Wiki: Wetpaint
http://www.wetpaint.com/

Wetpaint is one of a number of online sites using wikis, or software which allows members to set up pages or whole sites that can be edited by multiple authors. Several services were used by U&I community members, including pbwiki (http://pbwiki.com) and MediaWiki (http://www.mediawiki.org/wiki/MediaWiki). Wetpaint emerged as one of the project members' favourites, primarily because of its extremely quick and easy-to-use interface.

AGGREGATION AND DISSEMINATION TOOLS

(i) Tags and hashtags

Tags are the keywords given to content – web pages, posts, pictures, videos, music or files – by users. Tags are not necessarily predefined – they are chosen by the user to best describe the content. Tags offer a way of informally classifying and organising content, making it easy for users to find and share information. The project made extensive use of tags

and hashtags, primarily for events and activities, to document processes and to create artefacts and records of U&I processes. It was agreed upon early in the project life cycle to use the name jiscemerge followed by the month and date – so an event taking place in January 2008 would be tagged jiscemerge0108. Additional tags were agreed upon for specific feeds to the U&I hub site, for example the feed of photographs from Flickr, and a microblogging-friendly (i.e. shorter) version of the tag was agreed as the use of Twitter became more popular. Within Twitter, the hash sign (#) was used in addition to the agreed shortened tag in order to make best use of the emerging range of Twitter aggregation and search tools which used the convention to find and organise results, following on from the Twitter communities' use of the hash tag to indicate the shared subject or topic of any particular post.

(ii) Web feeds
http://en.wikipedia.org/wiki/Web_feed

Web feeds provide an easy way of accessing frequently updated information. Feeds allow users to share (syndicate) content, and allow other people to subscribe to updates. This means users do not have to check back and see if new content has been posted to sites of interest – content is delivered to the feed reader as soon as it is published. Many sites can now generate web feeds for content, and these can be subscribed to through a feed reader or run through one's own website or space. Web feeds can be generated for all kinds of content: updates to websites, new posts to blogs, picture or video feeds, or audio feeds (audio files that are syndicated in this way are called podcasts). Some sites also generate feeds for specific users or keywords, allowing users to produce custom feeds.

(iii) Widgets
http://en.wikipedia.org/wiki/Web_widget

Widgets are chunks of code that have been designed to be added easily to a user's website or profile page. They usually add an interactive or automatically updated element to static web pages, bringing information which is generated or stored on one part of the web to another, allowing users to decorate their space with interesting and/or useful content, or bring in content and links to other sites or regularly used social networking services. Widgets come in all shapes and sizes: a widget might be a mini computer game, a video clip which is uploaded to a video-hosting site, an update of the latest music someone has listened to or sites they have bookmarked. Many websites now generate code for embedding their content into other sites. The data remains hosted at the original site, but the code opens a direct view of that data in another site. Widgets can also be third-party applications, i.e. content from a source other than the web or social networking services.

A Community-Based Programme of Support

Rhona Sharpe and Patsy Clarke

Abstract

This paper describes the Appreciative Inquiry (AI) process that ran alongside the JISC Users and Innovation Programme's (U&I) Emerge support project to inform and direct its community-based model of support. The iterative nature of the inquiry enabled the collection of data at multiple points over time and in various formats. The result was a large, rich dataset from twenty-five separate data collection points, each of which reported back to the community and the project management team to assist with forward planning and decisions. Based on members' reports and stories, this paper outlines how the community developed and what its members found of value, and makes recommendations for planning and conducting community-based models of support.

A research-led approach to community development

The Emerge support project aimed to create a community of practice to support the Users and Innovations projects through their entire life cycle. This cycle spanned from the initial funding bid preparation through to the realisation of the projects' benefits. The community was initially created from 40 small teams from 28 UK higher education institutions who bid for a place in a community of practice. This community needed to be functional as a supportive group within six months, at which time the teams were to bid for project funding to develop the use of emergent technologies in educational settings. The appreciative inquiry ran for 28 months from January 2007 to April 2009.

Distinctive complexities that faced the community included its:

- creation within a short time-scale,
- competitive element, and
- shifting membership depending on who was funded or not.

A requirement of the funded support project was to create a successful community, with success defined as being enjoyable, effective and sustainable. The Emerge team drew on the literature around establishing online communities of practice (see Attwell, Fraser & Warburton in this volume), but acknowledged the need for ongoing monitoring to inform decisions and forward planning. Therefore, the Emerge support project adopted a research-led approach, with an iterative inquiry to accompany and inform the community development work throughout the life of the project.

Originally used as a model for organisational development, Appreciative Inquiry (AI) is an approach that acknowledges a constant state of change. It is focused on discovering and amplifying what is already working well from the perspective that what you want more of exists already somewhere in the organisation (Cooperrider & Srivasta, 1987). Thus the AI strand running alongside the community development activities aimed to make visible the strengths and successes of the community so that they could be nurtured and replicated.

Conducting the inquiry

An appreciative inquiry focuses around a central positive question. This was initially agreed to be: 'What processes support the emergence of technology supported communities?' The initial data collection activities asked members to reflect

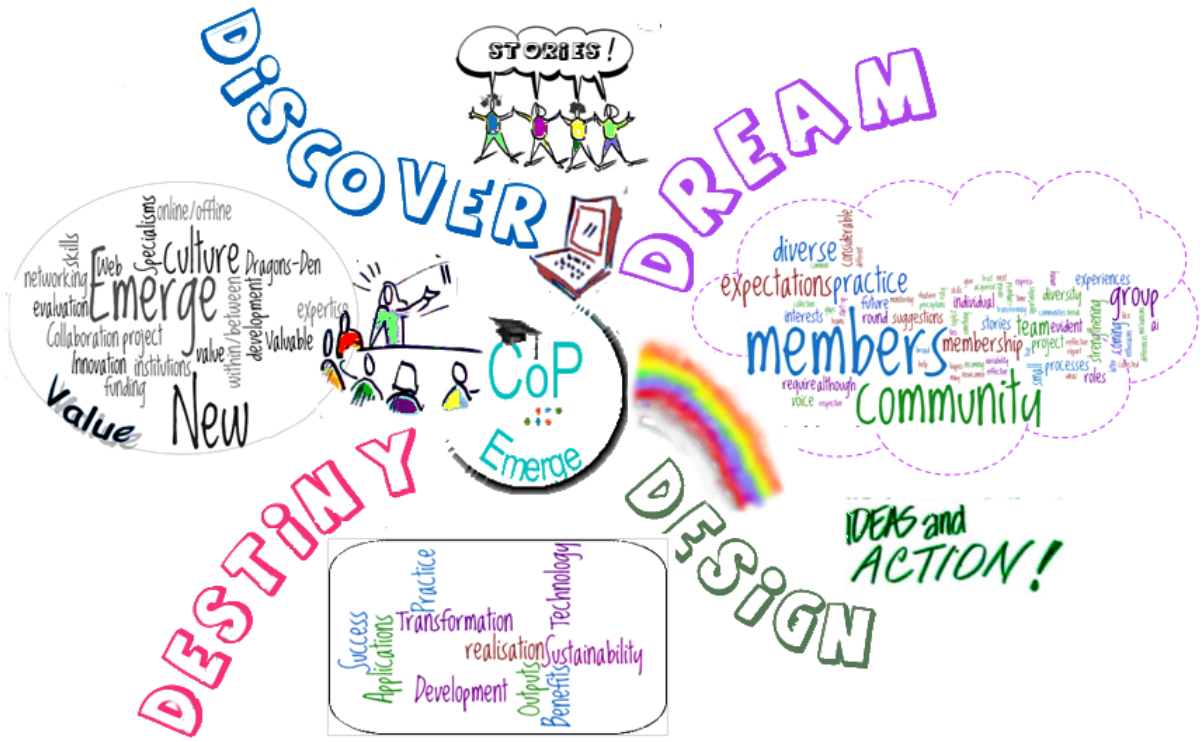


Figure 1: The appreciative inquiry 4-D cycle as seen by the Emerge Support project, adapted from Ludema, Cooperrider & Barrett (2001).

on what they had learnt from being members of other communities. As the U&I community began to establish itself, we were able to ask participants about their experiences of Emerge and what was working for them. The questions asked at each point were informed by the AI 4-D cycle: discover, dream, destiny and design, illustrated in Figure 1.

Most of the data was in the form of stories collected from telephone interviews with 22 members from 11 projects conducted in January, June and December 2008. In addition, AI activities organised at each community support event provided potential opportunities for every community member to be involved. Innovative AI activities included drawing postcards and posters, a video booth, iterative commenting on quotes from earlier interviews and devising metaphors for the community as well as more traditional event feedback sheets. The AI approach particularly valued details of stories that gave a voice to individuals, the use of visual metaphors and imagery, and the capture and sharing of multiple perspectives.

After each data collection event, findings were made available to the community. Summary reports circulated to the Emerge project team were discussed at their monthly teleconference meetings (see for example Clarke, 2008; Clarke & Sharpe, 2008; Clarke, 2009). In line with the AI approach, the intention was not to synthesise results or to represent any majority view. It was rather to highlight individual voices and ideas and encourage members and the management team to tease out the implications for themselves. An ongoing online record of the data collection included links to all summary reports and recommendations arising from them.

What made this community effective?

Guidelines presented here relate very specifically to the community created around the U&I projects. Effectiveness relates to the characteristics, feelings or incidents where membership of the community helped to prepare funding bids and implement projects which embodied the user engagement approach promoted throughout the U&I Programme.

It is well established that communities of practice need to have shared experiences for mutual engagement (Wenger, 1998). This was identified in early interviews, when members were asked to think about their involvement with other successful communities. The Emerge project created many

Table 1 Reported value of Emerge community membership

Value in the arena of…	***Specific impact of community membership***	***Examples***
Professional development	Community membership facilitated the taking on of new worlds and new roles and learning about new technologies. Exposure to the processes of Appreciative Inquiry impacted on professional development and practice.	Previously Ian was 'just a sort of average Art lecturer with a bit of an interest in Second Life'. He has now moved: '…into this whole world of funding and research… the opportunity to sit down and talk to other people who are tuned in to the sort of ideas that I was excited about was really beneficial for me…' and further 'There is definitely a direct relationship between Emerge and the support I got from that and my promotion [to Principal Lecturer].' *- Ian, OpenHabitat*
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.	The Emerge support process for bidding resulted in two further successful bids with a third still in the preparation stage for Nicola: '... they're doing it to make you write a better bid. I would much rather go into Dragons' Den and decide that's not a bid they're going to fund than go to all the trouble writing the bid… if we hadn't known that someone was already doing it and hadn't contacted (her) then I don't think we would have been funded for that.' *- Nicola, ARGOSI*
Collaborative inter-institution team formation	Emerge community membership led to partnerships that cut across projects, institutions and subject disciplines.	'We got together and the sparks were flying with excitement, we all thought, "Wow this is really interesting!" and we were so enthused by it... we feel for the problem-based learning community that this is a big deal.' *- Maggie, PREVIEW*
Openness and sharing	An open and less formal ethos facilitated exposure to diverse perspectives and led to unexpected collaborations.	'It was very exciting, the different people there – lots of diversity of backgrounds. I wasn't really sure what to expect. I thought it might be a little bit formal, a little bit exclusive but actually it was very friendly and very inviting and everyone was very interested in talking to everyone… there was a lot of potential for exchanging ideas and finding people to work with.' *- Emily, PREVIEW*
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.	'…but what was useful about it was that it had a kind of social edge to it so through that I feel I am part of a larger community of researchers which I wouldn't have known about. Which is quite useful for me because… I am pretty isolated in working in this area. So it's useful to feel part of a larger community that isn't specific to my institution.' *- Dave, OpenHabitat*

Table 1 Reported value of Emerge community membership (continued)

Value in the arena of…	***Specific impact of community membership***	***Examples***
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.	'...we were running the three-day events with Moodle and Elluminate and all of that online stuff and I was having terrible problems with access because my computer wasn't enabled to run Java and you're not allowed to download anything onto your own computer. And in the midst of all that I got an email or a message on a blog …from somebody saying "Now this is my phone number and phone me at these times and I will talk you through it". And that was just so nice.' *- Rebecca, AWESOME* 'I have never been part of a professional network that made such efforts to include everyone – no questions are too "stupid", and people are always courteous, helpful and validating.' *- Anonymous, final community event*
Project work	Members were able to draw on the community for expertise and feedback that contributed to the development and refinement of their projects.	'We engaged with all 19 projects… we could not have done the project without the Emerge membership… A shared vision evolves over time... it means it's quite exciting. If we'd known what we were going to do and had our project all planned out the proper way I don't think it would have the edge that it's got at the moment.' *- Neil, Web2Rights project*

opportunities for members to share their interests, activities and expertise. Networking opportunities at face-to-face events helped them to make contact across projects and institutions included network mapping, carousels, cracker barrels, the 'unconference' and speed networking. The summary reports show that members valued and wanted more time and space to share and make connections with others:

'I think for me personally that has to be the biggest impact that it's had… of course making contact with other people that I would perhaps never have had the opportunity to talk to or to network with. So for me that has been a huge benefit.' **Jane, UKAN Skills**

However, while opportunities and facilities for sharing are necessary, they are not sufficient to create the culture of openness required for community building. The culture refers not only sharing but how this is received by others:

'...you care about other people's projects …which we didn't normally in a JISC project (where) you just get on with it yourself. But now your project is one of a number of projects and you find yourself in conversation online with people about the project and how it can impact on us and vice versa. So it has evolved, it has happened.' **Will, ASEL**

This was particularly apparent around the time of the Manchester support event (July 2007), with the focus on finding others to work with to prepare a funding bid. We found examples of events prompting community members to make contact with others, join in and undertake their own community activities (see Clarke, 2008):

'When we went in for the surgery at Manchester just the sense there were a group of people taking your ideas really seriously and taking the field really seriously and just that kind of combination of support and facilitating people and having expectations, I really liked that you know, having to bring yourself up to another level.' **Rebecca, AWESOME**

There was recognition that the organised social events supported this culture of openness, as well as making participation in the community more enjoyable, thus validating the role of social activities in community building.

'Every time there was a face-to-face there was a big push to be social. You knew there was always nice food. You don't just go and talk to the people that you know, you talk to other people. People go with that thought in mind. I thought that other people genuinely wanted to talk to others in the community. You know you do the things where you switch and talk to someone else so yes, it was just a big push and I think that it came across that it wasn't just to discuss ideas, that it was not just to be productive but that you had to enjoy it as well or feel open enough to exchange ideas.' **Emily, PREVIEW**

By the end of the programme, we could see that facilitating networking opportunities, social events and opportunities for sharing had contributed to the development of a community which had a culture of openness, enabling members to create collaborative bids and operate projects while keeping up with what else was going on in the programme. There was recognition that this process may take time as shown in these anonymous quotes from the final community event in January 2009:

'As I've become more used to the model I've become more comfortable with putting my half baked ideas out there – essential for collaboration I think.'

'Openness has allowed new ideas to emerge from unexpected collaborations.'

The value of the community

During year two of the project, data collection moved the focus from how to build an effective community to the benefits of being in that community. There was evidence that the community gave effective support from projects who were able to give specific examples of the benefits of their engagement (see Table 1). The third and final interview round targeted projects which had not been as engaged with the community in order to discover more about their experiences. Some in this group considered that they had never got to grips with understanding how similar their projects were to others, making the community less relevant to them. While smaller projects in particular acknowledged the potential benefits of reaching out to the wider community, they also cited a lack of the 'luxury of time' as project outputs took precedence over such engagement. Others had been unable to overcome initial problems with using the technology associated with the online community presence or felt daunted by the high visibility of a core group of 'expert users'.

By the end of the programme, a wide variety of views had been collected on the value of the support project, ranging from those who were forthcoming with respect to the benefits, both professionally and for their projects (see Table 1), those with less or no engagement as summarised in Clarke, 2009 and finally, those who felt excluded initially but joined in later, illustrated in this anonymous quote from the final community event in January 2009:

'At first, I didn't feel part of "the club" – a lot of people seemed to know each other – this has changed over time – have I become one of them?'

Conclusions and recommendations

The community provided tangible benefits for participants who were able to provide examples of community characteristics that facilitated their engagement with it as well as effective support for their projects The community-based model of support seemed particularly important in the earlier stages of forming teams and developing bids, enabling members to form new partnerships and develop timely, relevant ideas for projects. It was noted that the degree of collaboration witnessed within the programme was attributed to the culture of openness created through engagement with the facilitated socialisation and networking activities. Opportunities for feedback on developing ideas through both formal tasks (Dragons' Den) and informal networking contributed to the design of projects that were more clearly defined and had realistic project plans. With evidence of effective community support for development goals in the initial stages of project activities, there should also be the potential to support the later activities of user engagement. However, there was less evidence of this shared repertoire being explicit and used by other projects (see Falconer & Fowler in this volume).

The inquiry allowed us to make visible a wide variety of views on the experience of community engagement from full participation to marginalisation. Within the context of a community of practice, legitimate peripheral participation is expected and accepted and there was evidence of a) individuals becoming more engaged over time and b) benefits even for those in the group we had identified as marginalised. For future projects, all groups need to be aware of the time required for community engagement, although there may be no better way to achieve this awareness than for them to find out from their own experience. The methodology achieved its aim of being iterative and ongoing, and assisted the Emerge support project in developing in a responsive and agile fashion with participants' membership experiences visible and available to inform planning.

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Engaging Users?

Isobel Falconer and Chris Fowler

Abstract

The JISC-funded Users and Innovation Programme promoted a user engagement process in order to improve the quality and adoption of innovative practices in teaching and learning. Initially this process was framed by a specific 'Users and Innovation Development Model' (UIDM) derived from JISC's Virtual Research Environment programme. However, this model proved inappropriate to the practice-change focus of many of the Users and Innovation projects, and evolved into the 'User Engagement Framework' outlined in this paper. The framework is based on what we have learned about engaging with users, the value of having a specific user engagement process, and the implications for various stakeholders.

The framework has three levels: a contextual level, an implementation level, and a case study level. The implementation level, which is described in more detail, consists of four iterative processes: understanding, deciding, creating, and managing.

The paper aims to support stakeholders such as policy makers, funders, support agencies, practitioners and senior managers in scoping their user engagement processes and suggesting constraints and implications. It outlines the benefits of user engagement and a user engagement process before describing the framework. It goes on to consider change management issues from the perspective of the various stakeholders, finishing with specific recommendations and conclusions.

Introduction and scope

The Users and Innovation Programme (U&I) promoted a user engagement process in order to improve the quality and adoption of innovative practices in teaching and learning. This paper describes the evolution of the initial 'Users and Innovation Development Model' (UIDM http://www.jisc.ac.uk/circular04_06_briefing_papers) into a 'User Engagement Framework', the reasons for this development, and the implications for policy makers, funders, and support agencies as well as educational developers.

The user engagement (UE) process we describe is indicative rather than prescriptive. It provides a framework for understanding four principle user engagement processes:

- Understanding
- Deciding
- Creating
- Managing

Evidence comes from a user engagement survey circulated to all projects in January 2009, and from recordings of project interviews conducted through the autumn of 2008. Quotations from the projects give an idea of what the UE processes might mean in practice, and of some of the considerations to take into account when finding a route through the numerous available methods.

We also address the benefits and implications of a UE process for many stakeholders, both as users to be engaged in the process, and also as funders,

managers and implementers of development and practice change.

Why user engagement is important

Engaging users in the design, development and deployment of new systems and practices should ensure the creation of services that are usable and useful, or 'fit for purpose'. Their utility can be realised, for example, by:

- Improved productivity,
- Reduced learning or relearning costs,
- Reduced maintenance costs,
- Higher levels of satisfaction.

Developers benefit from high utility through reduced development and support costs, especially when iterative approaches ensure that users are engaged throughout development and not just at the front end (e.g. requirements capture) or the back end (e.g. acceptance testing).

Many User Centered Design methodologies exist[1], but the JISC felt that adopting a specific user-centred approach would encourage collaboration and resource sharing and would help meet other criteria, for example, improved interoperability.

During the U&I programme, it became clear that the original UIDM model, derived from JISC's Virtual Research Environment programme, was too narrow: it ignored stakeholders other than the end users, and it was not applicable to the practice-change focus of many of the projects. This problem became evident early on with several projects, including Planet, recasting the model on their own terms, and ASEL stating in its project plan that would redefine the UIDM for a practice-based project.

Despite its limitations, starting with a specific model (UIDM) did indeed encourage debate, a sharing of experiences and understanding of the variety of UE techniques available, and development of the framework. Even projects such as SkillClouds, that had rejected UIDM as being too rigid, continued to take a user-centred approach because:

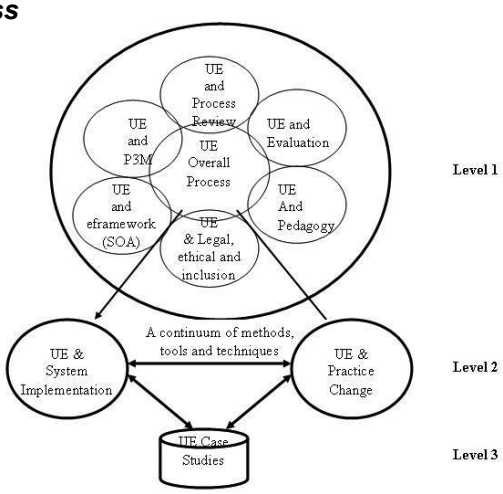
'clearly if what we develop, what we build, doesn't actually meet the end user – and we're talking primarily about students in this case – then we're wasting our time really.' [2]

To help realise the benefits of user-centred design in educational development, we have started to develop a more general UE framework based on the experience of the U&I projects.

A framework for User Engagement

The UE framework exists on three levels (Figure 1). The first puts the overall UE approach into a wider context of project planning, funding and management. The second, implementation, level represents a continuum of tools, techniques and methods ranging from traditional system development approaches to practice-change approaches. This level is described in more detail below. The third level is a repository of case material drawn mainly from the community's experiences of the UE process (see JISC reports at: http://reports.jiscemerge.org.uk/)

Figure 1. An overview of the User Engagement process



At level 2, user engagement, regardless of whether the development concerns systems or practices, has four processes that are iterative and often concurrent:

- Understanding,
- Deciding,
- Creating,
- Managing.

1. See, for example, the Usability Professional Association website – www.upassoc.org.
2. SkillClouds interview 9/10/08.

‘Understanding’ recognises that before you can engage with your users, you need to know who they are, their characteristics, goals and needs. This normally involves intuitive, verbalised or vicarious understanding.

’Intuitive understanding’ assumes that members of the development team already know about the users. This approach is fraught with difficulties particularly where the simple assumption is made that you know the users because you are a user.

The SkillClouds project team emphasised the dangers of making assumptions:

‘Because tag clouds have usually got… something around font size to expose some sort of weighting, we kind of assumed that the SkillClouds tag cloud might have that sort of feature, but we got a really strong message from students that actually they didn’t want us to tell them what was important and that even if they were saying what was important it would be different from occasion to occasion depending on why they were using the cloud.’ [3]

To be successful, intuitive understanding needs to be supplemented by expert study of the users and their needs.

A more sophisticated version of intuitive understanding was articulated by the Planet project as the ‘eat your own dog food’ principle:[4] all developments and tools were trialled and used by the project team as well as by the wider user communities. The ASEL project similarly gathered user needs using the same audio technologies around which they were developing practice, through recording interviews and focus groups and asking participants to keep reflective audio diaries,[5] while the Habitat project conducted user interviews ‘in [virtual] world’.[6] In this way, trialling the project’s developing practice became part of all four user engagement processes.

Verbalised understanding requires asking users about their needs. It assumes that users know what they want and can articulate it. Often they don’t and can’t; however, if developments are improvements based on existing products or practices, users do have grounded experience that they can call upon and verbalise. Of course, the answers are only as good as the questions, so care needs to be taken in designing the questions.

‘This particular tutor actually held a Christmas party in a forum one year… she approached me and said, *“I’ve heard about the virtual world type things. I think they might be really useful for adding a humanising interpersonal sort of thing to online distance learning”’.* [7]

Finally, if users find verbalising their needs difficult, then one can observe what they do and infer their needs from their behaviour. At best, such vicarious understanding provides insights into people’s motivations, affects and attitudes and can help us to understand, though not necessarily explain, behaviours.

Many U&I projects used more than one method to develop an understanding of their users:

‘We started off by doing some user-centred design sessions… and moving on to activities around the design. We’ve also done card-sorting exercises and […] lots of interviews and as we’ve been developing the tools, we’ve been showing them to students and getting feedback from them.’ [8]

Other projects such as ARGOSI relied on literature and that the problems and user needs were already fairly well defined within the community.[9]

‘Deciding’ supports the transition from user needs and requirements (‘understanding’) to some form of implementation (‘creating’). Deciding is absolutely key to ensuring that you have a valid and reliable understanding of users before you start making practice changes or build systems. Deciding involves four stages:

- Validating your understanding, which can draw upon a number of techniques (e.g. scenario validation, paper prototyping).

3. SkillClouds interview 9/10/08
4. http://patternlanguagenetwork.org/2008/03/
5. ASEL interview 29/9/08.
6 & 7. OpenHabitat interview 3/10/08
8. SkillClouds interview 9/10/08.
9. ARGOSI interview 11/9/08.

- Transforming understanding into a form, such as user requirements or process description, which can be used in the creation process.

- Checking the descriptions with the users, perhaps by inspections or walkthroughs.

- Finally, deciding, for software development, whether to buy or build.

In making decisions, projects often collected baseline data, especially about whether users were comfortable with the technology underpinning the proposed solution:

'Right at the very beginning… we wanted to… check that the students were confident and happy interacting with a tag cloud and we created an experimental web page with the options of searching it using a text-entry search box or by using a tag cloud. We then invited students to participate in a search task… and we interviewed them very briefly: "How did you feel about that?", "What did you think was going on?", which gave us quite a lot of interesting information about students' feelings about tag clouds which we were able to feed in to the design.' [10]

For some projects, the decision was grounded in changes in the external environment, rather than in an internal problem:

'It wasn't so much a problem to be solved so much as a realisation that things had moved on… So a realisation that audio is much more mainstream now.' [11]

In the ASEL project, a broad decision to use audio had already been made, and the users were those who 'bought in' to those decisions:

'There were two groups of lecturers: there were those who had thought about it and were interested in doing it anyway, and they were easy to get on board… The second group of lecturers were people who were looking for different ways to do things they had done in the past… the students were asked if they were interested in taking part in this project.' [12]

But at a more detailed design level an experimental approach was adopted, with users left to make their own decisions:

'One of the projects… left it pretty open about how students could use audio to provide feedback and they went off on their own and used all sorts of tools that nobody's ever heard of to provide an audio report as part of their assessment.' [13]

Habitat also used an experimental approach to decision making:

'The first pilot was very open. We just really wanted to see what was going to happen…' [14]

'Creating' takes the user requirements described in 'Deciding' and develops the product or practice. When a product is being developed, it is often thought that the users cannot be involved at this stage. However, this is generally not the case. For example, users can be involved in the development of Use Cases, Class Responsibility Collaborator (CRC) Cards and the initial Analysis Design Model which helps to ensure that the requirements are being met. The more iterative a development is, the more users are engaged in 'Creating', as experienced by the ASEL project:

'The staff who were involved to start with were feeling their way… we found out what they could do and they were comfortable with it, then we were able to add a bit more, and add a bit more, and the staff who were involved last semester have come back in again this semester – they've come back with new ideas… so the staff have been on a learning curve, and it's been a successful experience for staff as well.' [15]

'Managing' can be thought of as part of an overall Change Management Strategy. However, the focus is more on the individual than the organisation. It is closely linked with 'Understanding', and indeed much of the required information should have been collected during the 'Understanding' process.

10. SkillClouds interview 9/10/08.

11, 12, 13, 15. ASEL interview 29/9/08.

14. OpenHabitat interview 3/10/08.

'Managing' has four components:

- Communication strategy (e.g. awareness and improving desire);
- Training (knowledge and ability);
- Help systems (reinforcement);
- Acceptance testing (deciding whether or not the overall change strategy has been successful).

For example, the Preview project found that:

'The importance of the users' initial experience with an application or tools was clearly brought home, and the need for a well-structured orientation and training programme in the usage of these tools.' [15]

While SkillClouds recognised the importance of management awareness:

'[As well as students] we've also engaged leading managers in the university from an early stage, particularly those involved in careers and employability, because this is a key link into that whole agenda, so we didn't want to develop something in isolation.' [16]

Making it happen: implications for funding, support and policy

In adhering to a user engagement process, the U&I programme and the projects within the programme developed successful support activities, and encountered or overcame constraints. This section outlines such activities, and the implications of the constraints, from the perspective of those responsible for facilitating user engagement-focused projects: support agencies and projects, funders, and institutions. Our findings are illustrated by quotes from the projects to give a flavour of the scope and perspectives on the issues.

FUNDING AND PROJECT REPORTING/ MANAGEMENT PERSPECTIVE

- Engaging with users is time consuming – adequate time needs to be built into project plans,

'Time consuming Rich data Allow time to analyse.' [17]

- 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:

'Users often have limited knowledge of technology and/or have difficulty in identifying what they want in the abstract. We found presenting users with an early prototype useful.' [18]

- 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:

'… staff are often waiting for someone influential to take the lead. Give users time to think about how a new piece of software can enhance their own working practices – this can be either a retreat or some funding to motivate them.' [19]

- 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:

'Going live on Monday is essentially a pilot… It's only a one-year project… We were sort of assuming that if the pilot was successful, then we could put in [a bid] to do a demonstrator,… but the U&I programme's going a slightly different direction…' [20]

- However, 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:

15. UE survey 4/2/09 (Preview).
16. SkillClouds interview 9/10/08.
17. UE survey 4/2/09 (SkillClouds).
18. UE survey 4/2/09 (HeLMET).
19. UE survey 4/2/09 (Flourish).
20. ARGOSI interview 11/9/08.

'To be honest I'd be very wary of putting more money than that into it given the risk factors… I'd have wanted to have done this first before taking on that… I think we'd have had a review year and implemented some of the stuff we learnt from year one.' [21]

'The kind of approach we've taken… is… to plan a starting point and then for the students to produce something in response to that starting point,... for it to become more like a process of dialogue and production, so it's very difficult for us to plan in detail what's going to happen.' [22]

- 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:

'If it goes wrong… I see it very much as a research project, and I'm interested in why it went wrong, and if the pilot is not effective, in terms of research outcomes that's as interesting as if it is effective.' [23]

'For art and design teachers, the issue is just trying to help identify what the opportunities are [in virtual worlds]… and tease out what a lot of the complications are that they may find when they first start dabbling, to ease them into the idea of what this might be for their students.' [24]

- To enable effective user engagement, the timescales of projects themselves have to suit users – funders may need to be flexible about project timing:

'Like a lot of these JISC projects, you're very much tied to when you can start them, …we had to do telephone interviews right after Easter before they all disappeared for the year, so for a large part of the programme it's difficult to engage students… because they are not there.' [25]

'Originally we planned to recruit two students to the team… but we couldn't recruit them… the timing of the project made it impossible.' [26]

- 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:

'… we've had to do some sort of staff development on those tools… but all the staff involved have been keen and enthusiastic,… they've put a lot of time into actually mastering those tools… everyone has learnt new techniques.' [27]

'We've all been blogging as we go, reflecting on how the pilots have been going and discussing our ideas, and in a way that became a form of evaluation… using blogging in that way meant that you see the evolution of ideas rather than just a done and dusted document… but it makes it more difficult to formalise what went on and why.' [28]

SUPPORT AGENCIES AND SERVICES PERSPECTIVE

Projects need to be supported in their user engagement efforts, to understand what user engagement means in their context, to seek out appropriate methodologies, to share experiences, and to provide rapid feedback.

'It [user engagement] is a creative process which needs more support from a range of tools / techniques.' [29]

'The UIDM model is very useful as a structured approach and served as a common platform across the models of a large number of project partners.' [30]

'We're a tiny project and haven't had time in Stage 1, but [another project] helped provide motivation/ inspiration for the future.' [31]

21, 23, 26. ARGOSI interview 11/9/08.
22 & 24. OpenHabitat interview 3/10/08.
25, 27, 28. ASEL interview 29/9/08.
29. UE survey 4/2/09 (Awesome).
30. UE survey 4/2/09 (UKAN-SKILLS).
31. UE survey 4/2/09 (M3).

'Would be interested in conducting a collaborative reflection workshop [to share experience].' [32]

'I'd like a summary document that highlights effectiveness and key benefits. I don't want to trawl through lots of project reports.' [33]

'Dragons' Den' sessions, modelled on the TV Dragons' Den series, proved a particularly popular and effective means of supporting projects in their understanding and plans for user engagement.

Support for a community focused around user engagement prior to the main funding call encouraged collaborative projects, and had a knock-on effect on user engagement methods:

'Blogs have been very useful and I think in the future they'll become our most valued method of feedback because in a project across institutions it breaks down those barriers of distance.' [34]

INSTITUTION AND STAKEHOLDER PERSPECTIVE

- Users are not simply end users; to be widely adopted a practice or product needs to be well aligned with the needs of other stakeholders, particularly institutional learning and teaching strategies, IT services, quality assurance, etc.:

'We need senior management support AND usage of the software. Vocal support is not enough.' [35]

'We used the partner college tutors as our gateway to the learners. It is essential that the tutors have a fully thought through rationale for their use of the technologies and the benefit for learners. If the tutors only think that "it is a good idea" then they won't enthuse and engage the learners.' [36]

'For sustainability, the project… needs to persuade practices, hospitals, etc. to support it, but direct financial incentives are unlikely to be successful… However, travel time, petrol costs and parking difficulties are a big issue for tutors and the practices that employ them, and if the HeLMET project can cut down on travel time, this will provide an incentive for adoption.' [37]

The ASEL project found that the feedback from one set of users (students) encouraged adoption by another set of users (staff):

'What's encouraged them [staff] is that the feedback they've had from the students has been… very positive and makes it all the more worthwhile to actually put that time in and to try these methods out.' [38]

Sometimes different users have competing needs and technical solutions can help meet both:

'One of the lecturers was using audio to give feedback… and because it was a professional body who was validating the course, he still had to give some written feedback… so he brought in one of the technical support staff… and he produced a piece of software that tied those two together using the student's ID number.' [39]

- Collaborative teams which include expertise from and responsibility for implementing among the various stakeholders are necessary to ensure adequate alignment and uptake:

'Don't assume that users will see any value in the system you're presenting them with.' [40]

- Dedicated 'champions' emerge from projects and can provide a focus for practice change throughout the institution if they and their 'followers' are given the requisite space (time, acceptance of risk, support for community discussion).

'One of the stakeholders within the university would be the course teams. The lecturers involved… were all members of course teams and… we've had lecturers coming to us from the same course teams and asking us if they could be involved this semester. So word has got around that we're doing this and the course teams have started to show an interest and get involved.' [41]

32. UE survey 4/2/09 (PLaNet).
33 & 36. UE survey 4/2/09 (eTutor).
34, 38, 39, 41. ASEL interview 29/9/08.
35. UE survey 4/2/09 (Flourish).
37. HeLMET interview 18/12/08.
40. UE survey 4/2/09 (HeLMET).

Conclusions and recommendations

A major lesson for policy holders and funding bodies is the need to rebalance ‘processes’ and ‘products’. Most policies and funding decisions are about achieving certain outputs. However, UE is both a process and a product. The general benefits gained through the adoption of a UE process as outlined in Section 2 demand more investigation and research in how best to achieve them. It also demands policies to recognise the value of developing and defining a mature and applicable set of UE methods to support development of innovative solutions in the future. The User Engagement Framework provides a first step in this direction. To grow and improve such a general framework is, we argue, critical, and requires greater recognition by policy makers and funding bodies.

Support agencies (e.g. professional bodies, HEA, and parts of JISC) play a critical role in capacity building, the need for which is highlighted by our finding that 35% of survey respondents had limited success with UE processes beyond ‘Understanding’. However, ‘processes’ do not fit easily into current structures which are largely discipline focused. If funding bodies like JISC were to fund large scale research into UE, then agencies like the HEA need to respond by creating capacity building and dissemination capabilities. Perhaps the HEA needs to break with tradition and set up a small number of processes rather than discipline orientated centres.

Senior Managers, Deans and PVCs are usually the gatekeepers in HEI; without their support much good project work will remain on the shelf. As a result of following a UE process, U&I projects are more likely to be able to convince senior managers, by demonstrating:

1. 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.

2. Enhanced learner and teacher experience and consequently the reputation of the institution.

3. Well-managed change – the UE process recognises the importance of managed change, and this attribute should be ‘sold’ to senior managers.

The UE process is a key benefit of the Emerge community that should help provide a future focus. The perceived value, however, is greatly enhanced and extended if the other stakeholders also believe in the benefits of a UE process.

Deploying IT Services as a Value:

Technical strategies to facilitate events and activities

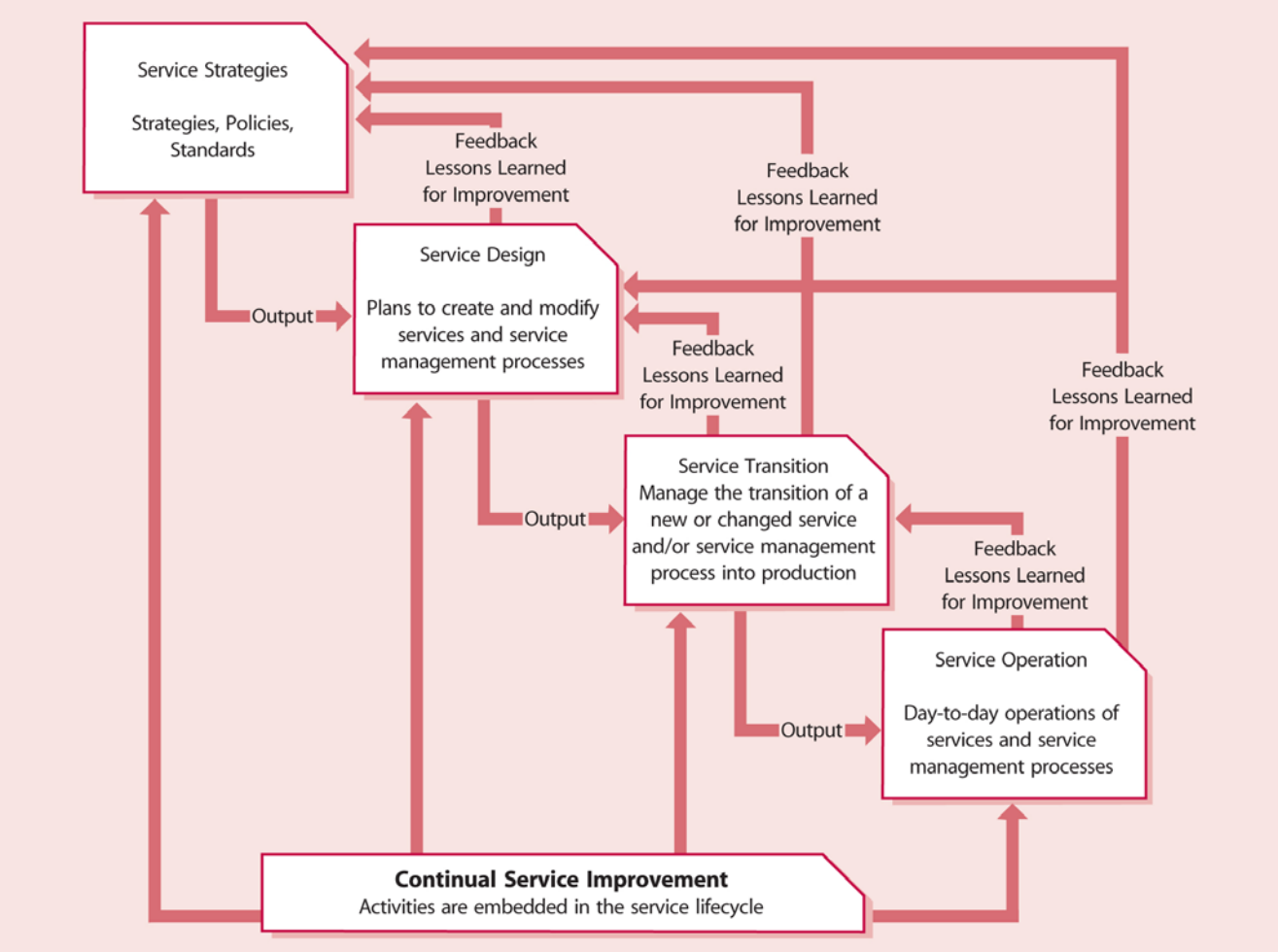
Joe Rosa

Introduction

The Emerge Project has demonstrated a paradigm shift in process from a 'tools-deployment' to a 'service-oriented' managed online support provision.

This paper discusses our experiences in developing a platform to support the Emerge Project, part of the JISC Users and Innovation[1] Programme, by creating an effective and sustainable Community of Practice (CoP), using collaborative online tools to support the

Figure 1. ITIL Service Lifecycle continual feedback loop.



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1. Users & Innovation: Personalising Technologies with a view to 'Creating opportunities to transform practice by developing technologies and innovative processes based on the needs of individual users working within institutions across multiple domains'. (http://www.jisc.ac.uk/whatwedo/programmes/usersandinnovation.aspx)

scaffolding and development of community activities. It also describes the implementation lifecycle of the Emerge platform from a technical perspective.

To enable this process, we adapted and implemented parts of the ISO 20000 (ITIL® v3 Service Management Lifecycle)[2] process framework (see Figure 1) as 'best practice' guidelines to establish a pro-active IT Service Management (ITSM) methodology for the design, development and deployment of services using Web2.0 technologies to create online social spaces.

IT Governance (Business case)

The decision-making process was oriented towards the creation of assets which, when combined in various ways, produced service 'Utility' and 'Warranty'.

The word 'Utility' in this context is the perception of the user from the attributes of the service that have a positive effect on the performance and 'Warranty' is derived from the positive effect of being available when needed in sufficient capacity, and dependency in terms of continuity and security.[3]

The initial strategic assessment was based on the following technical project aims:

1. To act as a conduit and pathway for the range of locations inhabited by participants,

2. To channel and enhance the reach of content from existing community members, whether working in single or multiple locations,

3. To scaffold the online practice, work and communication of the community,

4. To organise, store and aggregate the project documentation,

5. To host support materials created by project staff and community members.

The original vision for the platform was informed by the 'Global Voices' (http://globalvoicesonline.org/) site with the aim of enabling actors in the community, i.e. people, projects and institutions, to be visible from multiple perspectives (pragmatic, thematic, technological, etc).

A user-centred/community-led approach was adopted to deploy technical strategies around User Engagement[4] which initially followed the thematic organisation of the Users and Innovation Development Model (UIDM). During the project's lifetime, this model has evolved considerably, focusing on the practice-change that it is not sufficient for a service to be 'usable'; it needs also to be 'useful'.

Strategy

The strategy was to use managed hosting providers to offer the core services and to use shared external providers for video webcasting, photosharing, slidesharing, social bookmarking, microblogging, etc, making the most of the 'Web2.0 sites and technologies'[5] available. It was initially decided to use a social network site environment as the core pivotal service for the creation of the Community of Practice, complemented with tools for events management and web conferencing.

A continual service improvement throughout the project lifecycle represented an ongoing commitment to service improvements, matching needs to capabilities, organically expanding the service portfolio of online tools and server technologies available to the CoP. This was successfully implemented due to the iterative feedback done through ongoing evaluation running alongside the project using the principles of Appreciative Inquiry,[6] reporting and reviewing community operations and experiences of members.

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2. ITIL® – IT Infrastructure Library is a compendium of best practices, drawn from the public and private sectors internationally that emphasises Information Technology (IT) as a service.(www.itil-officialsite.com).
3. The Official Introduction to the ITIL® Service Lifecycle – 2007 (OGC Office of Government Commerce), p. 28.
4. See article by Isobel Falconer and Christopher Fowler, in this volume.
5. Sites that provide an open API (Application Programming Interface) to access content.
6. See article by Patsy Clarke and Rhona Sharpe, in this volume.

Building structural service integrity

Capacity management is the pro-active control and prediction of the end-to-end performances of a live operational IT structure on services usage and workloads, monitoring individual components and the potential impact of component unavailability on service availability. However, in practice, there is an exponential relationship between levels of availability and costs. Higher levels of availability and continuity are extremely expensive, so a best-fit balance needs to be evaluated on an ongoing basis to maintain the integrity of an effective overall service that operates inside the budget constraints.

Design

The directive was to not develop any new technology or solutions, but to use, adapt and customise existing technologies to fulfil our needs while taking into consideration that one of the Programme's aims explicitly sets out to use and explore next generation technologies and social networking.

Consequently, the main tasks were to test, evaluate and select stable solutions of applications relevant to the Higher Education (HE) sector to use as components, giving preference to Open Source solutions to allow the transfer of technologies across institutions. The selection of these technologies was high risk in that the technology might not have been stable enough, or might have ended up not being adopted, to which was added the pressure on users to understand, adopt and incorporate them. By the end of the project, the platform components were a mix of Open Source and Commercial applications, hosted by two different commercial hosting providers using a Linux Server and a Windows Server (Table 1).

The in-house development comprised the customisation of applications and the integration with the available third-party services from sites that provide an open API implementation used to access and integrate their content dynamically 'on-the-fly'. There was a hard-coded integration with Flickr, Delicious and Twitter in addition to a 'Widget' sub-system where the user could create their own 'Mashups' by combining data from different sources on one single page. Another relevant component on the Emerge platform was the use of Second Life as a Multi-User Virtual Environment (MUVE) to host events using a rich 3D graphical interface environment (Table 2).

Table 1

Tool	Application	Status	Server
Social Network	ELGG Classic 0.92	Production	Linux
Events Management	MOODLE 1.8	Production	Linux
Web Conferencing	Elluminate	Production	Windows
Radio Webcasting	Icecast	Production	Windows
Ticketing system	osTicket	Production	Linux
Content Management System	Joomla	Pipeline	Linux
Shared Mind Mapping	CMAP	Production	Windows
Video Webcasting	Darwin	Retired	Windows
Forum	phpBB	Retired	Linux
Ticketing system	eTicket	Retired	Linux

Table 2

Service	Site	URL
MUVE	Second Life	http://slurl.com/secondlife/Emerge/69/80/36
Photo Sharing	Flickr	http://www.flickr.com/photos/tags/jiscemerge/
Social Bookmark	Delicious	http://delicious.com/jisc_emerge
Micro Blogging	Twitter	http://twitter.com/jiscemerge

Preparing for Change

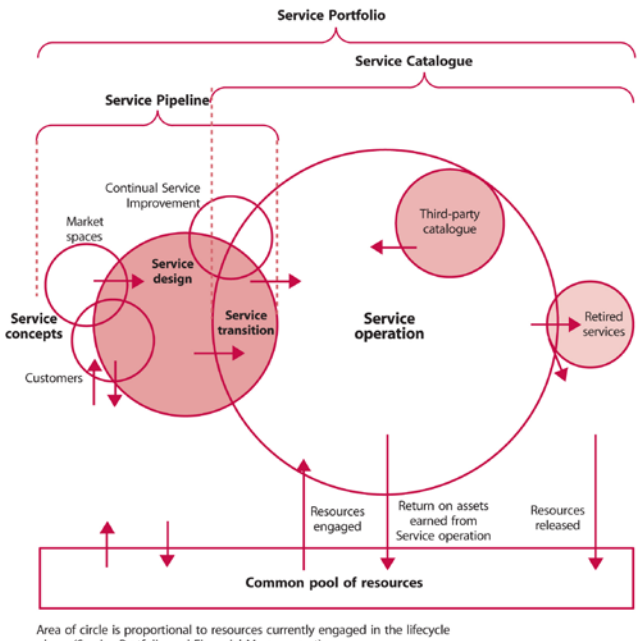
The Transition stage is a delicate phase as it implies 'change', and this can generate problems regarding acceptability, usability, stability, security breaches, failure, disruption, continuity, etc. A consistent and rigorous framework needs to be in place to maintain the integrity of all components of a service with a clear identifiable baseline (rollback point) with repeatable installation mechanisms in place. Identifying risks of failure and disruption across the platform and validating and verifying in controlled test environments will reduce the need for 'corrective measures' and maintain the reliability of the overall platform. In addition, effective communication channels relaying consistent good quality information will sustain user trust of its integrity.

Transition

The Service Portfolio lifecycle (see Figure 2) was divided into three sectors allowing effective management to deploy and maintain the core services:

- Services in the Pipeline (or LAB environment): a separately hosted account through which we were able to develop and test functionality, integrity and stability for the different online applications.

Figure 2: The Service Portfolio lifecycle



Area of circle is proportional to resources currently engaged in the lifecycle phase (Service Portfolio and Financial Management)

- Services in Production: these are what the community member (user) uses, where security, backup/recover strategies and site monitoring are implemented using the base domain jiscemerge.org.uk

- Retired Services: these are frozen sites that are still accessible, creating Project-documented archived references and evidence of events and activities. It is important not to allow search engine robots to index the frozen sites, as this can lead to misleading cross-references.

Configuration management is the discipline of identifying, tracking and controlling the various components of the IT environment. This methodology is fundamental for effective IT Service Management and particularly for the transparent control of Intellectual Property Rights (IPR), allowing fully detailed documentation of every piece of code.

For the code configuration we used Subversion[7] as the versioning control engine because it provides an effective deployment tools system to upgrade customised service applications. All committed changes are available through a web interface accessible at http://repository.jiscemerge.org.uk/. The release management is done through the deployment of service applications from the pipeline into production environments, or the retirement of a service (frozen site).

Integrity and Confidentiality

Security encompasses two aspects: integrity and confidentiality. Information assurance and integrity are of the utmost importance when dealing with data across sites. The balance between availability and privacy across all of the tools deployed has to be considered at all times, along with the protection of the infrastructure and the site itself in order to make sure that confidentiality and data protection are not breached. These aspects define the level and limits for the availability and continuity of operations, alongside the recovering strategies.

7. Subversion SVN (http://subversion.tigris.org/)

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Operation

There are three distinct aspects concerning the management of the day-to-day operational activities.

1. Monitoring and Control need to achieve a proper balance between the reactive and proactive behaviours that are required to manage the IT Infrastructure which ensures that the technology matches the services goals. The significance of any detectable or discernible technical event will trigger different levels of responses in a functional escalation.

2. Helpdesk is personalised discrete communication with the user, employing a support ticketing system as a complementary service which provides accountability to the end user and creates a direct communication channel. The application organises and archives all the support requests and respective responses while at the same time enhancing reliability.

3. Moderation defines the robustness of the service. Being a social network environment inherently implies a vast number of subjective responses that need day-to-day and case-by-case management. It is sustained under an 'Accepted Policy' accepted by the users when joining the site, oriented by JISC guidelines. This is a key point that clearly defines the site strand and differs from a technical event as it often triggers responses in a 'Hierarchical Escalation', where project and programme directives are implemented.

Conclusion

The Emerge project represented a sea change in the approach used by service practitioners. This paradigm shift came about because of the desire on behalf of the team to offer an effective platform of services for the users on the tools provided. To implement this, we adopted an established framework based on ISO 20000 espousing continual measuring and assessment of ongoing service improvement.

Having a defined thematic organisation (UIDM/UE) and ongoing iterative feedback within the 'Appreciative inquiry' approaches clearly benefited and enhanced the platform's development and sustainability for continual improvement.

The services design was oriented for adapting and customising existing technologies, with a preference for 'Open Source' solutions, selecting the best-fit stable application, and hosting the core services that have on-the-fly integration with Web2.0 (openAPI) sites. The service portfolio lifecycle had a configuration system to track and control the various platform components deploying the applications in a controlled environment with IPR controls in place.

For a platform of tools to be successful, trust, integrity and confidentiality must be in place at the forefront of development, and an effective and efficient way of achieving this is to focus on the quality of a service-led provision.

References

1. *ISO/IEC 20000* (2005), was jointly published by ISO (International Organization for Standardization) and IEC (International Electrotechnical Commission). ISO/IEC 20000 helps organisations to benchmark how they deliver managed services, measure service levels and assess their performance. It is broadly aligned with, and draws strongly on, ITIL®.

2. *The Official Introduction to the ITIL® Service Lifecycle* (2007), (OGC Office of Government Commerce).

3. *IT Service Management Based on ITIL® v3 – A Pocket Guide* (2008), itSMF International.

Successful Approaches to Benefits Realisation

Paul Bailey

Abstract

The benefits of successful projects are quite often not realised beyond the original project partners or immediate community. The Users and Innovations Programme implemented a programme of benefits realisation management to increase the take-up of project outcomes to a wider stakeholder community. This paper describes a two-stage approach developed by the programme involving projects initially packaging outputs in a more usable format, running capacity building events and validating outputs in non-native institutional contexts, then engaging stakeholder groups of users to further validate and encourage take-up. This approach is illustrated using three short examples showing different approaches which have all successfully realised benefits beyond the initial project. Engaging individual practitioners within institutions has been key to the success of this benefits realisation approach, as well as being core to the Users and Innovations Programme. The paper concludes with further considerations as to how the approach adopted by the programme could be further developed.

Introduction

Funding programmes clearly benefit the institutions and individuals who are successful in the bidding process. Yet the aim is to share the benefits from a programme or set of projects across the education sector (see George Roberts' article 'Users and innovation in institutions: shifting centres'). The introduction of Benefits Realisation Management (the Managing Successful Programmes (MSP) Framework – Office of Government Commerce (OGC) http://www.ogc.gov.uk/guidance_managing_successful_projects.asp) attempts to address this issue by ensuring that benefits go beyond those originally funded and are dispersed effectively throughout the wider community. In this context, one definition of benefits realisation used by the funders suggests it is validation and transfer to non-native institutional contexts and building upon of outputs developed by innovation projects in order to embed them in their intended (and other) communities, thereby helping to ensure that they are useful, usable and used by users. This narrows the MSP definition to just the transfer of a project idea rather than realisation of a wider benefit to the sector or achieving take-up across all institutions

There are several factors that need to be taken into account when considering potential Benefits Realisation projects:

- Is the idea mature enough to be transferred;
- Readiness of non-native institutions for take-up;
- The costs of take-up or scalability.

These factors can influence the suitability of a project for further Benefits Realisation activity.

The U&I Programme[1] adopted a two-stage approach which involved (i) encouraging knowledge transfer, validation of outputs and take-up within other institutions and (ii) widening stakeholder engagement, using existing groups to feed outputs to their stakeholders. The terms of reference for these are discussed below.

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

Overview of the Users and Innovations Benefits Realisation approach

The U&I Programme issued three invitations for Benefits Realisation funding in September 2007, April and July 2008. The first of these targeted members of the U&I Emerge community who did not have existing funded projects within the programme. The second and third invitations were aimed at any funded project or member of the community where they had emerging benefits to be shared. It would have been desirable to issue the invitations to align with projects nearing completion, but funding restrictions required that all projects be completed by the end of March 2009, leaving October 2008 as the latest start date for a six month Benefits Realisation project. An additional invitation to work with the wider stakeholder community (Widening Stakeholder Engagement) was issued in July 2008 for projects that would start in August/September 2008.

A total of 18 Benefits Realisation projects were funded, each to a value of up to £15,000. Of these, nine were project-led and nine were community-led. The Widening Stakeholder Engagement programme funded five projects at £40,000 each. Five projects examined take-up and capacity building within subject areas and one project focused on Centres of Excellence in Learning and Teaching.

Benefits Realisation activities terms of reference

The invitations for Benefits Realisation activities asked for projects to undertake activities in the following areas:

1. SYNTHESIS

The main purpose of this activity was to synthesise the knowledge, experience and outputs from a set of projects within the Emerge community. Also informed by external work, these projects were tasked with forming generalised outputs that could be used for further Benefits Realisation. These anticipated outputs included:

- Tools, guides, strategies for adoption and support mechanisms to promote additional uptake beyond original project plans, for example, wrapping project outputs to create a user guide;
- Collation of scenarios, case studies, narratives and rich media to support institutional cultural development. Additional items could be created where they could be shown to be additional project outputs;
- Position papers for further discussion or consultation;
- Summary reports based on a range of materials that would contribute to programme-level Benefits Realisation outputs developed by the Emerge Project;
- Briefing papers aimed at specific audiences.

Synthesis activities were achieved through a wide range of activities, such as cross project seminars, un-conference workshops and community workshops.

2. CAPACITY BUILDING

The main aims of capacity building activities were to raise awareness and share knowledge of projects funded through the U&I Programme at practitioner, technical support and managerial levels so that more people and institutions were able to use U&I project products.

Proposals under this category sought to embed and support the uptake of successful U&I project products or provide ‘training type activities’ in an innovative area within the wider community. This was achieved through face-to-face and online activities, and where possible were aligned with existing programme and Emerge activities.

These activities were expected to produce reusable supporting materials such as ‘wrapped’ products, user guidelines, technical documentation and/or lead to increased take-up by institutions.

Under this theme for example the Planet project organised a range of workshops based on their Participatory Methodology for Practical Design Patterns. Here they engaged a wide range of groups that included academics and practitioners working in the areas of formative e-Assessment, digital identities and Multi-User Virtual Environments (MUVEs).

3. INCREASED UPTAKE

The main aim of these activities was to get more institutions and users successfully using the U&I Programme outputs and products. To achieve this, they needed to provide some of the following:

- Freely accessible 'wrapped' products;
- Tools, guidelines, technical support;
- Support understanding and awareness of product benefits to institutions.

4. WORKSHOP/SEMINAR

Proposals were invited for one-off workshops or seminars around common themes and issues relating to the U&I projects and Emerge community. These could take the form of a face-to-face activity or an online event and were open to all members of the Emerge community and in some cases included external members.

A successful example was the Evolve 'Thought Fest 09' conference[2] which brought together researchers in the area of Learning Technologies across Europe in a series of face-to-face and online workshops.

Widening Stakeholder Engagement terms of reference

Under this invitation the Users and Innovations Programme was seeking to ensure that the outputs from the projects and community activities reached further than the institutionally-based projects and the Emerge community. The Benefits Realisation activities were already supporting the community and projects in engaging with the Emerge community and wider sector.

The funding provided an opportunity for any community activities or Benefits Realisation projects to partner with an external stakeholder group to validate, transfer and disseminate activities and outputs. The intention was to engage with the many stakeholder groups and the following were suggested:

- Higher Education Academy Centres i.e. Subject Centres and Centres for Excellence in Learning &Technology (CETLs);
- JISC Services, including Regional Support Centres, JISC infoNet, Netskills, CETIS and UKOLN;
- National bodies e.g. UCISA, SCONUL, SEDA.

The approaches taken mainly engaged with the first grouping, although wider communications activities from the U&I Programme did engage with the other areas. For example the Next Generation Technologies in Practice Conferences.[3]

These projects were funded to a slightly higher level to encourage the stakeholders to engage with the projects. The focus was to validate, transfer and disseminate the project outputs beyond the community and its existing, institutionally-based, Benefits Realisation activities. This involved a stakeholder body or group:

- Taking a workshop piloted by a (Benefits Realisation) project and running it for their community or developing it in to a more sustainable offering;
- Taking the outputs from a project and asking members of their community to pilot/validate the outputs;
- Taking outputs from a project and customising them for their stakeholder group as a set of tools or resources;
- Participating in a community-based activity to widen participation and use its networks to produce output resources.

This worked particularly well when the project had an existing Benefits Realisation activity that had already piloted an approach or developed resources to support wider uptake.

Examples of successful Benefits Realisation activities

Capacity building is a critical step within this process and projects used several approaches. Below are three illustrative examples of success in this area. The activities outlined span two phases of activity over a period of less than one year.

2. http://www.evolvecommunity.org/wp-wiki/index.php/Thought_Fest_Dec_2008
3. http://www.jisc.ac.uk/events/2009/03/ngtip

PREVIEW – CRITICAL MASS CAPACITY BUILDING
http://www.elu.sgul.ac.uk/preview/blog/
The PREVIEW project was one of three projects exploring the use of Second Life (SL) to support learning and teaching activities. This particular project looked at problem-based learning (PBL) in medical and health areas e.g. paramedics. The project had already attracted a large community of interest in using Second Life for problem-based learning in several different subject areas.

The project received an initial phase of Benefits Realisation funding to host a national workshop which attracted over 70 participants. They worked with two other projects working in the area of multi-user environments to develop the workshop and supporting materials and they used the project to develop several discipline-based case studies to show the wide applicability of the approach. Working together they have produced a set of generic guidelines on using Second Life for learning and teaching. The resources are being used to support communities of practice for Second Life in various disciplines.

This led to an additional project working in another discipline area, with The Higher Education Academy Psychology Network to develop four problem-based scenarios across their subject network, demonstrating the transferability of the approach to other areas. The Network is working with its stakeholder community to transfer knowledge.

Additionally the project is supporting sustainability of one of the outputs of the PREVIEW project, a virtual patient (VP) player that runs in the virtual world Second Life. This open source code for the virtual patient player will be packaged along with support documentation. An open source community has been created to support developers and workshops delivered to support and engage the community.

The project has attracted a large community of interest around PBL in SL, as well as engaging with several other SL communities. Sustainability is still an issue for these communities.

ARGOSI – CASCADE TRAINING MODEL
http://playthinklearn.net/argosi.htm
The ARGOSI project piloted a form of blended games-based learning called Alternate Reality Games (ARGs) to support student information skills. These ARGs are undertaken by students during induction to the university. Building on the success of the Argosi project and working with the University of Bolton and the LearnHigher CeTL: Information Literacy.

The project received a small sum of Benefits Realisation funding to produce a handbook/resource kit enabling other teams to develop and run Alternate Reality Games in their local area and create a flexible two day workshop for teams wanting to implement the ARGOSI model.

After piloting these materials they received further funding and teamed up with the LearnHigher Information Literacy CETL to deliver training courses across five more CETLS (Groupwork, Independent Learning, PDP, Mobile Learning, Note Making and Reading). The courses trained staff on how to run workshops to develop additional modules for the Alternate Reality Games which are used to support student core learning skills as part of the induction process. This will lead to a large community of individuals and institutions with an interest and the capability to take forward these innovations.

SOUNDS GOOD – COMMUNITY-DRIVEN MINI-PROJECTS TO SUPPORT TAKE-UP
http://www.soundsgood.org.uk
The Sounds Good project looked at providing quicker, better assessment feedback using digital audio i.e. MP3 player. This simple project has shown that it is possible to use digital audio to give students richer feedback on their work and save staff time.

To support take-up at other institutions they produced practice guidelines on using digital audio to give feedback to students and then used these, along with institutionally-based projects to support uptake in three additional institutions. The workshops supported not only staff training but also the issue of institutional embedding, where changes to strategy and policy was required to make the innovation possible.

The idea has attracted much interest including a nomination for a Times Higher award. This led to another phase of Benefits Realisation activity working with the Audio Supported Enhanced Learning project (http://aselproject.wordpress.com/),

which was also looking at how audio can be used to support learning and teaching in higher education.

The two projects teamed up with Engineering and Geography, Earth and Environmental Sciences subject centres to promote the use of audio to their subject communities. These subject centres had already worked with a project looking at the use of audio and video in their subject areas.

They commissioned 10 mini take-up projects across departments and institutions within their discipline areas. The response and interest from their communities was overwhelming and they ended up with 10 projects and a regional cluster. They are producing subject-based guidelines and case studies, which will be promoted via national workshops within their subject communities.

These examples of Benefits Realisation approaches will be useful to others who are looking to widen the take-up of successful project outcomes beyond the boundaries of their original community. They are representative of the 25 Benefits Realisation projects funded under the Users and Innovations Programme and many of the other projects have taken similar approaches and have been equally successful.

Further Considerations

The examples show the benefits of projects working with stakeholder bodies such as subject centres, to take advantage of their existing networks. This also recognises the need for Benefits Realisation activities to involve different partnerships from those in the initial development based project.

Although the activities were funded for a period of 9-12 months, in each case it must be recognised that the realisation of the benefits from these projects can only be evaluated effectively by taking a long term view.

Timing of the activities is also critical to the success of the examples and in two cases the funding of additional activities occurred towards the end of a one-year development project. Most projects within the Users and Innovation Programme were funded for two years, and although several projects did take up Benefits Realisation funding and undertake successful activities, many others were too busy delivering their original project outcomes to get involved in additional Benefits Realisation activities. There was no opportunity to offer similar funding for Benefits Realisation activities as they neared completion. Consideration needs to be given to the timing of Benefits Realisation activities in relation to the funding of innovations projects. Projects also need to consider Benefits Realisation management to be a part of their project planned activity rather than an add-on activity towards the end of existing funding.

The Benefits Realisation activities are reliant on the institutions' willingness to take up benefits from others and hence the funding levels associated with these activities are significantly less than the funding amounts for the initial development projects. An institutional commitment to support the adoption of new ideas is essential. There is agreement that encouraging take-up across the sector of innovative ideas in using new technologies requires a different approach to the funding of the development of these innovations. The rationale behind this is one of institutional commitment and sustainability and it needs to be embedded into their institutional policy and supported (financially) at all levels.

Conclusion

The approaches adopted by the U&I Programme were appropriate to the user engagement focus and technical development focus of the projects within the programme. The focus on individuals (see George Roberts' article 'Users and Innovation in Institutions: shifting centres', in this volume) supported an approach that also engaged individuals in other institutions and contexts, for example through the Emerge community and Subject Centres. This resulted in enthusiastic individuals within institutions being encouraged to work with projects to validate and successfully take up outputs from their projects.

This approach to Benefits Realisation where the focus is more on engaging institutional strategy and policy is not straightforward to implement, although the initial engagement will still be via individuals with an interest. This is the challenge of the Institutional Innovations Programme[4] where a similar approach to Benefits Realisation is being attempted.

4. http://www.jisc.ac.uk/whatwedo/programmes/institutionalinnovation.aspx

Users and Innovations in Institutions: Shifting Centres

George Roberts

Abstract

The Emerge support project for the JISC Users and Innovation (U&I) Programme asked whether the use of participatory media and Web2.0 applications – and attitudes – in learning technology research and development (R&D) programmes encourage and facilitate both greater autonomy and self-direction in the participants on the one hand, as well as increasing collaborative, community-centred development on the other. These questions can be re-expressed in terms of shifting centres of control, where greater personal autonomy and self-direction is understood in respect to institutional control and direction. Participatory media and social Internet technologies (Web2.0) can play a central role in institutional change processes but there remains a focus on outputs rather than outcomes addressing the deep complexity of institutional change. It is necessary to recognise and value individuals as well as networks. Networks will develop both in spite of and because of projects and programmes. Helping people to get together takes many forms and the facilitation of the process is as important as other more tangible outputs. There is tremendous potential value in the network of networks. One role of a support project should be to provide development opportunities for individuals and networks, aligned with the broad aims of the programme.

Introduction

Can the use of participatory media and Web2.0 applications (and attitudes?) in learning technology research and development (R&D) programmes encourage and facilitate both greater autonomy and self-direction in the participants on the one hand, as well as increasing collaborative, community-centred development on the other?

I will first set the context for this inquiry and then look at these questions separately before trying to bring my arguments together. Any answers to these questions, at this time, have to be at best a tentative suggestions.

Rationale and context for this inquiry

Research and development projects, which address learning technologies for higher education, their design, development, deployment, use and management, are often project or developer-centred, abstract and institutional, rather than learner-centred, concrete, practice-based and personal. In learning technology R&D projects there can appear to be a focus on outputs rather than outcomes: producing artefacts rather than building capacity; quantitative rather than qualitative measures; easy answers rather than the deep complexity of institutional change. Outputs from learning technology R&D development projects have been accused of producing reports that are filed, models and demonstrators that are rarely adopted, and standards, specifications and reference models which may well express best intentions but do not achieve currency. Educational R&D programmes operate in complex networks of individuals and institutions.

It can be observed that around R&D programmes, emergent semi-formal and pre-formal networks exist alongside the formal networks of projects, institutions and constituted associations (AUDE, Subject Centres, etc).[1] Semi-formal networks do not have explicitly declared intentions, but do exhibit tacit rationales. Pre-formal networks, what Dutton (2008)

1. I do not consider informal networks; all networks in which professional associations are exposed will be to some degree formal.

calls ‘pro-social’ networks, are like special interest groups. Further, it has to be acknowledged that individuals are important actors in all these networks, not just projects, institutions or, say, Subject Centres. These individuals may, or may not be engaged in the formal or even the pre-formal activity of the R&D programme. As William Dutton, of the Oxford Internet Institute put it recently:

‘Self-selected individuals can build horizontal, peer-to-peer or even very centralised networks that are designed and used to meet broader social objectives more than those of the purely self-interested personal networks suggested by the individualist viewpoint, which serve up a ‘daily-me’...
Networked individuals can move across, undermine, and go beyond the boundaries of existing institutions. This provides the basis for the pro-social networks that comprise what I am calling the fifth estate. They are neither personal nor institutional networks...
These self-selected, internet enabled, networked individuals often break from existing organisational or institutional networks that are themselves being transformed in Internet space... The ability that the Internet affords individuals to network within and beyond various institutional arenas in ways that can enhance or reinforce the communicative power of networked individuals is key.’

(Dutton 2008, 5-6, my emphasis)

Through the JISC-funded Users and Innovation Programme a real effort has been made to transform practice.

‘...based on the needs of individual users working within institutions and to identify common requirements and processes that support education and research where they directly affect the quality of users’ interactions with systems.’

(Clarke & Sharpe 2008, Experiencing Emerge: A summary of interviews with seven community members, Emerge)

Through the U&I Programme, a pilot, community-based project (Emerge) was developed and run to support the JISC in the formation of an ‘…effective and sustainable community of practice around user engagement’. The Emerge Project used Web2.0 technologies with a user-centred, research-led approach based on Appreciative Inquiry, which was explicitly intended to be productive of positive change. From January 2007 to March 2009 I have been the director and manager of the Emerge Project.

What happened?

The support project and the programme had three phases. The first, community formation (January to October 2007) was clearly distinct from the second, project support (November 2007 to March 2009). The third, benefits realisation (see Paul Bailey’s *Successful Approaches to Benefits Realisation* in this volume), ran concurrently, beginning in October 2007. Throughout these phases the project ran an appreciative inquiry investigation (see *A Community-Based Programme of Support* by Patsy Clarke and Rhona Sharp) and a separate investigation into and support for user engagement activities was offered (see Isobel Falconer and Chris Fowler in this volume).

Community formation

The aim of the community formation phase was to test the proposition that developing projects in a context where there is awareness of the wider activity in a field and an understanding of the alignments and gaps in that field will lead to better projects being developed. Rather than issuing a call for project proposals, the JISC issued a call for groups – proto-projects – to join a ‘community of practice’ which would work in wider collaboration facilitated by a support project to understand the processes of user engagement, undertake user engagement activities with various other communities, and work together through a peer review process to develop bids into a call for projects to develop innovative, user-centered learning technologies and practices.

Project support

The aim of the second phase was to support the projects that were funded under the call. The second phase support activity addressed the question of whether, by using community development processes and social networking, the general quality of learning technology development projects might be improved, bringing benefits not just to the JISC but more widely to all sectoral funding agencies and stakeholders.

Benefits Realisation

The aim of the third phase was to widen the impact of the projects through the pre-existing community of practice and other networks by inviting people to apply for funding to synthesise the knowledge, experience and outputs from a set of projects within the Emerge community, to build capacity by raising awareness and sharing knowledge of projects funded through the U&I programme at practitioner, technical support and managerial levels to embed and support the uptake of U&I project outputs so that more people and new institutions engage with and adopt U&I practices.

User-centred activities

In order to achieve these aims, the support team applied user-centred approaches, treating the participants in the proto-projects and the community of practice as a user group working in a user-centred environment, modelling the user engagement development cycle and applying asset-based community development processes.

A programme of activity was organised and engaged in three clear spheres, though there are other, more peripheral activities that might be associated with the community. The three spheres I identify are:

- Activity centrally organised by the support project;
- Activity centrally organised by the JISC programme management;
- Activity generated by participants.

These categories have grey areas between them and internally many components. I use the term 'activity' intentionally to embrace more than simply the easily recognised headline events and online conferences (http://tinyurl.com/emergeevents). For example, the provision of the Elgg site as the homepage for the project (http://elgg.jiscemerge.org.uk/) was a locus inviting activity: e.g. post your blog. Another activity was posting pictures to Flickr and tagging them 'jisc-emerge' (http://flickr.com/photos/tags/jiscemerge/). Activity organised by the Programme Management included Programme meetings and more peripherally the series of Next Generation Environments conferences. Activity generated by participants or 'community-generated activity', borrowing from the common Web2.0 term 'user-generated content' was encouraged from the beginning (e.g. http://elgg.jiscemerge.org.uk/news/weblog/352.html). Eventually a great number of events were stimulated, some on the radar (http://elgg.jiscemerge.org.uk/kenkahn/weblog/238.html), some off. Click on or search for the tag MUVE (http://elgg.jiscemerge.org.uk/tag/muve) in the Emerge Elgg and you will get some idea.

A community has emerged

A community of sorts has emerged through the programme. The support project has been a part of this development. However, addressing this topic raises a key question that bedevils us: the problematic issue of the community. The term is used locally within the Users and Innovation Programme to refer to people who are participating in some activities but are not part of funded project teams, in the form: the projects and the community. Early on, the question of intentionality was raised by Stephen Downes (http://www.downes.ca/cgi-bin/page.cgi?post=41263) in response to a post (http://elgg.jiscemerge.org.uk/george/weblog/680.html) addressing the nature of this community at the Community Consolidation Event run in Manchester at the Lowry Centre. There, I discussed our approach.

We are (if I may include myself and my colleagues in the support team in the inclusive we) a user group going through the struggles of working in a user-centred environment. We are modelling the development cycle as well as living it. We are experiencing some of what your user groups should experience as they are included meaningfully and participatively in the development process. If they are genuinely involved in the exploration, in the cultural probes, in the sense making, in the appreciative inquiry of Stage 1 of the UIDM they may well feel as you have felt through the early phases of this project. They may feel lost. They may search for familiarity, for leadership, for direction. But what they should be seeking for are their own needs with reference to the project they are involved with: their own brainstorms; their own stakeholder analyses; their own paper pilots.

Do participatory media and Web2.0 applications encourage and facilitate greater autonomy and self-direction?

In one sense this statement is a tautology. Participatory media and Web2.0 applications are defined by their offering to a wide range of individuals the facility to display, and to create media of their choice.

The programme and the support project were explicitly invited to adopt and to explore Web2.0 technologies (see Atwell, Fraser & Warburton and Rosa in this volume) both in and through their development activities as well as in their relationships with wider networks. The support project decided to use Elgg for its main website and to display a certain kind of social networking activity, blogging, on the front page.

Autonomy and self-direction

We need first to ask what is meant by greater autonomy and self-direction. Autonomy and self-direction lie at the heart of how we understand, at one level, what it means to be human. In the higher education sector, the issue of 'academic freedom' is all about autonomy and self-direction. In the sphere of R&D projects, it might be ventured that the authors of bids (if not necessarily the subsequent project teams) would acknowledge a fair degree of autonomy and self direction, even if expressed, for example, through resentment at institutional full-economic costing disciplines. In institutional student learning strategy documents one regularly encounters statements about empowering self-directed learners, and among staff we hear complaints that students take insufficient independent initiative to learn, want to be spoon-fed, and are highly tactical in their approach to assessment. To suggest that people are not autonomous and self-directed or could be more so invites the challenge: are we not, already? Greater autonomy than whom? When?

Shifting centres of control

The question might be better expressed in terms of shifting centres of control. Where greater personal autonomy and self-direction is set against, or in contrast to institutional control and direction of experiences. The question arises here because of the explicit reference to basing the U&I programme on the 'needs of individual users'. Throughout, we have taken this to mean real individuals, not abstractions or learner profiles or models but actual individual people, who kick back, re-interpret, resist, subvert, play and work in many ways, often unexpected.

This interpretation has been at the heart of some tensions within the programme around whether or not individuals should participate – as individuals – in social networking activities and events or only as members of project teams. The question was asked at the very start of the project, when it was observed that inevitably some members of the initially constituted community of practice might not go forward to become members of a funded project team, either because their bids were unsuccessful or because they chose not to bid at the time for any number of reasons. This question has never been adequately answered.

The support project was regularly asked, for example, what do the projects think? But, it was rarely possible to discern, even within project teams, a uni-vocal, unequivocal position unmediated by individual outlooks, plans, interpretations and ambitions. Some projects might be positively characterised by their embracing of an anarchic individualism. Others were, at times, driven by internal dissent, while yet others appeared to be mini-autocracies.

Use of participatory media is multi-modal

It is hard to resist typologising. The use of participatory media is multi-modal. One person's liberating Web2.0 application is another's nightmare of surveillance and communitarian control. In a Web2.0 environment the software becomes an important actor in the networks in which people participate. But the articulation between people and software is not only a question of interface design. The effective use of Web2.0 applications depends essentially on social networks (see Attwell, Fraser & Warburton and Rosa). This raises questions of inclusion, exclusion and identity. Am I a Facebook person or a MySpace person? (Boyd 2007) Elgg or Ning?

Web2.0 attitudes: choosing to participate

As we have come to know with respect to learning technologies, it is not the VLE, it is the pedagogy that matters. It is widely held that the affordances of different applications support different practices. As Gilly Salmon has said:

'VLEs need to be understood in terms of 'affordances'. ... VLEs are NOT neutral. Like any technology they embed underlying values about teaching and learning, promote certain affordances and reduce other choices. ... [O]ver time training and support requirements are likely to cost much more than the systems and platforms themselves, therefore cultural match is important from the start!'

The same is true of any software platform, or range of applications.

It is also true that people's preferences vary across a range of platforms, and this variability is complex. As Ramanau, Sharpe and Benfield (2008) observed, '...we see here that the precise nature of technology use is influenced by the context of use.' But they also found that,'... there was little or no relationship between student use of online media and their views on choice in their studies and perceptions of learning community' (p. 339).

The professional development learning curve

This means that the professional development aspects of engaging with this Programme were significant requiring people not only to learn about projects and platforms but to discover and to express something about themselves. This is not always a comfortable process. This was going to be a learning curve for all of us.

There are few times in a busy R&D worker's life when active reflective practice is enforced. People reflect when they go on a course. People reflect (possibly resentfully) whenever their work is appraised or when they apply for a new job. Participation in JISC projects asks for reflection at certain points: the final report. This programme caused people to stop and reflect from the outset. And often the modalities of their preferred online behaviours were at odds with the modalities of the platforms offered. This forced reflective behaviour, sometimes unwelcome, at unpredictable points in the process, which were different for everyone.

There was a perception that this JISC programme-support project made more demands on participants in this programme than had other, previous JISC programmes and support projects. Some participants commented (see Sharpe & Clarke) that Emerge activities were very demanding of time and may have detracted from rather than supported project work. The community-based support did make demands on people's time. But there remains a question as to whether it might not so much have been the time demands but, rather the nature of user-centred, community-based and reflective activities that magnified the appearance of time demand. None of these things, on their own, are easy. Combined, they represented a significant challenge that was unusual.

In the end, however, it appeared that participants valued the staff development opportunities that were offered by the programme for themselves and for their own user communities.

Do participatory media and Web2.0 applications encourage and facilitate collaborative, community-centred development?

Again there is a tautology in this assertion, at least with respect to community-centred development. Web2.0 applications make community development a central feature of their offering and sometimes their affordances support forms of networking that might be described in terms of communities. In a wider frame we see that participants in the programme made extensive use of Web2.0 facilities, particularly blogging, to publishing ongoing works in progress. The timeline of these activities is exposed in (see Atwell, Fraser & Warburton).

As is often observed in respect of social media, the quantity of what is available has grown tremendously. This means the filtering and sifting demands are high. While the support project tried to leverage the community to filter information, this practice can be at best described as dispersed. The transitory nature of the supported community, linked to funding cycles and the tension between individual, pre-formal and

formally constituted – institutionalised – groups mitigated wider community development.

Google Docs and WordPress were particularly widely adopted. Second Life was used by four projects in their investigations and as a social space for the support project. Wikis were less obviously used. Their implementation was problematic. The support project tried the MediaWiki integrated in Elgg, WetPaint, the Moodle Wiki and, latterly Posterous, a collaborative blogging environment. Elgg was not adopted as a platform of preference outside the central Emerge support project site. Twitter became very popular over the life of the programme. Facebook was not actively used.

Collaborative, community-centred development

Universities are communities. It is common to speak of the Brookes, or any other university, community. JISC documents frequently refer to the JISC community. On one hand, the word is very much in fashion, with even more fashionable modifiers such as community of practice or intentional community. Many social networking software platforms describe their outcomes as a community. The Elgg platform refers to groups of participants as communities. The term is, however freighted with values and beliefs. People ask whether this or that grouping is a 'real' community and bring their tacit values to bear on the definitions. For some, a real community has to be open to membership without restrictions:

'If you can't join the community is it a community or just an exclusive club?'
(http://twitter.com/josiefraser Fri 30 January 12:29)

'For others you can only have a community if it is somehow exclusive. But, 'What makes engagement in practice possible and productive is as much a matter of diversity as it is a matter of homogeneity'
(Wenger 1998, 75).

It is important to recognise that the community itself is multi-modal. No one mode was dominant. I suggest that this community was manifested through:

- a series of face-to-face, blended and online events;
- the Elgg social networking platform;
- subsets of pre-formal networks of shared interest;
- the formality of JISC project and programme participation.

Not only was there multi-modality in the expression of this community, individual members associated with multiple communities.

However, set against this complex background was the recurrent urge to totalise the perception of the community around a single mode. Frequently this was the software platform dominated by Elgg. People often spoke of 'the Elgg community' as though it was *the* community. However, clearly for some participants the face-to-face events were what gave them a sense of a wider community beyond their individual project (see 'A Community-Based Programme of Support', Clarke and Sharpe, in this volume).

Discussion

When set against the question of shifting centres of control, two issues for institutions and one for individuals emerge.

QUESTIONS FOR INSTITUTIONS

The first question for institutions is, to what extent are they comfortable with ceding certain amounts of control to individuals. The second question for institutions is to what extent are they, as established communities willing to cede control to new communities such as Bill Dutton's 'pro-social networks' mentioned earlier. This is not an issue restricted to education. For example, Dan McQuillan (2006) formerly global web manager for Amnesty International asks:

'The question for organisations like Amnesty is whether we can let go enough to tap in to the Web2.0 attitude; the hacker ethic that remixes content in a concrete display of 'semiotic democracy' i.e. people taking the stuff we put out and making their own meanings from it.'

JISC appears comfortable with working with groups of funded projects, institutions and institutionalised groupings of people and other actors (HEIs, Subject Centres, CETLs, formally constituted associations such as UCISA, etc). The JISC appears less comfortable with working with more nebulous informal associations of individual affiliates. Emerge, as a project, had a challenge because it started as a community of loosely affiliated individuals funded to support the development of a CoP, became a programme support project to which individuals were attracted, and now, Emerge as a project, will be coming to an end. In a sense there was an 'Emerge community'. It was not exactly coterminus with the U&I community. People participated in U&I without participating in Emerge and vice versa.

Set against this there is a clear need to support emergent semi-formal and pre-formal networks to reach maturity, even while recognising that clusters of individuals, as often as not, will start to cohere and then for any number of reasons abandon the effort. While only a few semi-formal networks will attain the pre-formal stage, and few of these will cohere and formally constitute themselves, the process of emergence is valuable and at each stage may produce useful outputs.

QUESTIONS FOR INDIVIDUALS

For individuals the principal issue is to what extent do they subordinate their autonomy and self-direction to communities, and then how much do they subordinate, when, how, and to which communities? For some individuals the community afforded a 'warm home'. For others it was an opportunistic opportunity to magnify their presence and project their identity. For some, these affordances were aligned. For others there were sources of conflict. The social networking processes tend to increase individual visibility. This was relished by some and regarded with anxiety by others.

Related to this are the questions of reflective practice and professional development. Although not often made explicit, it was clear that there is a professional development role for a support project, particularly around the question of presence and identity. This role needs to be sensitively handled. Participants need to discover their own professional development needs and this can be, at times, uncomfortable.

We observe that the questions of professional development, in this sphere, embrace information literacy and digital literacy and are related to questions about personal and professional identity, visibility and presence, online and digital.
A community-based approach, if fostered carefully, can help individuals to develop. This capacity-building feature of JISC programmes may go under-reported. The project advisory group recommended that a longitudinal study be commissioned to follow up individuals who participated in the U&I Programme in three to five years, to see whether there are any discernable patterns of impact.

In conclusion

Participatory media and social Internet technologies can play a central role in institutional change processes but there remains a focus on outputs rather than outcomes addressing the deep complexity of institutional change. It is necessary to recognise and value individuals as well as networks. Networks will develop both in spite of and because of projects and programmes. Helping people to get together takes many forms and the facilitation of the process is as important as other more tangible outputs. Even though the funding models runs counter to this, nevertheless there is tremendous potential value in the network of networks. The role of the support project should be to provide development opportunities for individuals and networks, aligned with – but not limited to – the broad aims of the programme.

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Supporting the Users and Innovation R&D community network

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