

million +

leading the
university agenda

**From inputs
to impact**
A study of
the impact of
JISC funding
on universities

A report of research carried out by Leeds Metropolitan University with the Universities of Bedfordshire and Middlesex, commissioned by million+ and funded by JISC.

Download the report from www.millionplus.ac.uk/research/index

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October 2009

JISC

Foreword

The application of technology to enhance learning and the wider activities in which universities in the UK are engaged is a source of interest not only to universities, their staff and the Funding Councils but also to Ministers and Government Departments. Universities are only too aware that the UK's global position as a world leader in higher education will only be maintained by the innovative use and application of digital technologies to learning, teaching, research and administrative and operational activities. Technological innovation in universities in the UK has been supported by the Joint Information Systems Committee (JISC). In its role as a university think-tank, million+ has investigated the impact of funding awards from JISC to 28 UK universities over a six-year period.

This report confirms the value of JISC funding but importantly, also provides recommendations to inform JISC's future strategy and procedures. There are also valuable lessons for universities which will benefit from the analysis and should be better equipped to optimise the important opportunities offered by JISC funding as a result of the report's recommendations.

The case-studies which are included are also instructive and provide a sample of the innovative projects undertaken and developed by universities. They demonstrate yet again that these universities support innovation and collaboration and reach far beyond their own academic communities to benefit a range of learners, providers, partner organisations and, in some cases, community-based projects. For all of the latter as well as for students and staff, JISC funding has been highly beneficial and assisted, sometimes through relatively small awards, the technological innovation that has helped to maintain the world-class reputation of the UK's universities.

Pam Tatlow
Chief Executive, million+

This report presents the findings of a project commissioned by the university think-tank million+ with funding from JISC (the Joint Information Systems Committee). It investigated the impact of small to medium-sized JISC funding (less than £1 million) over a six-year period to the 28 UK universities which are members of million+, the university think-tank. The research was undertaken by Leeds Metropolitan University in partnership with the Universities of Bedfordshire and Middlesex.

Since million+ universities have had varying degrees of success in bidding for JISC funding, the project team undertook a survey of the 28 universities to assess the extent and impact of projects using JISC-funded technology enhanced learning, and to identify recommendations for JISC and for universities to optimise access to JISC funding.

The research identified barriers to success in bidding for JISC awards and why some universities have been successful in achieving JISC funding while others have not. The researchers found that:

- relatively small amounts of funding enable higher education institutions (HEIs) to reach beyond their own academic communities to benefit a wide range of learners, providers, partner organisations and the wider community
- in HEIs without access to substantial research funding streams, even sums of £30,000 can have a profound impact on project activity and individual careers
- funding has enabled institutions and individuals to undertake exploratory projects in a low-risk context, with opportunities to experiment that might not be possible within routine university systems

- the impact of projects can be higher and broader than initially envisaged in the bid, leading to changes in university policies in relation to technology enhanced learning
- networking between institutions and individuals is a key incidental outcome of projects, often with sustainable and productive contact between HEIs whose staff would not normally encounter one another
- collaborative working between HEIs is likely to be crucial to maximise co-learning and ensure cost-effectiveness
- 69% of projects met or exceeded all their objectives, and a total of 44% of projects provided additional benefits beyond the projects' objectives
- over a third of project findings were directly used by bodies outside the lead HEI, and project results not directly implemented have nevertheless influenced, or generated considerable interest in, the lead HEI (30% of the case studies) and the wider sector (19% of the case studies)
- transferability of learning between subject areas and levels of learning has taken place in a number of projects
- many of the project teams were successful in obtaining further funding or generated associated projects (36% of the case studies)
- those HEIs which have a formal or co-ordinated approach to responding to calls for bids, with appropriate facilities and staff, tended to have a higher likelihood of obtaining JISC funding.

Perceived barriers to obtaining funding included:

- HEIs not possessing sufficient expertise in or resources to devote to bid writing
- a perceived short timescale in which to complete bids and the amount of work and detail required for success.

Recommendations to JISC and to universities wishing to increase their success in bidding included:

- JISC could broker contacts between HEIs without success in JISC bidding and others with experience in achieving funding
- a single named person in each HEI should be identified to ensure effective communications between the HEI and JISC
- HEIs should invest in the expertise to draft thorough and detailed bids, and build time for bid writing into staff workloads
- new bidders should look out for an appropriate call for bids which matches their HEI's expertise and aspirations, and not compete in calls where they have limited chances of success
- workshops should be offered giving guidance on JISC bid preparation, and examples of successful and unsuccessful bids should be made available, together with the feedback received by the bidders
- JISC could be less demanding of fine detail in the first stages of bidding
- further follow-up funding could be made available for work to build on the successes of the original bids.



This report presents the findings of a project commissioned by the university think-tank million+ with the support of funding from JISC – the Joint Information Systems Committee of the UK Higher Education funding bodies. JISC's mission is to "provide world-class leadership in the innovative use of Information and Communications Technology (ICT) to support education and research".

In order to deliver that mission in higher education, JISC provides funding to UK education communities to encourage them to make innovative use of digital technologies and to encourage higher education institutions, often working collaboratively with partners, to identify opportunities for sharing expertise and experiences. The aim is to enable universities and other providers to apply and deliver world-class ICT solutions and services to their learning and research communities and to relevant partners.

million+

Since 2007 million+ has developed a role as a university think-tank with a mission to ensure that public policy and funding régimes enable:

- people from every walk of life to benefit from access to universities that excel in teaching, research and knowledge transfer
- business, the NHS, the not-for-profit sectors and government benefit from the full potential of all universities.

In its role as a university think-tank, million+ has published a number of research reports, some of which have analysed the activities of the 28 universities which are members of million+. These reports have provided a set of wider recommendations for policy-makers and stakeholder agencies. million+ was therefore well-placed to accept this commission and worked with Leeds Metropolitan University which won the tender to undertake the research in partnership with the Universities of Bedfordshire and Middlesex.

Rationale for the research

million+ and JISC agreed two primary objectives for this project:

- to investigate and assess the extent and impact of projects using JISC-supported technology enhanced learning in modern universities
- to identify recommendations for JISC and for universities in order to ensure that access to JISC funding was optimised. This was particularly important since it was known in advance of the project that there were varying degrees of success in bidding for JISC funding by the universities that took part in the project. The research was therefore designed to identify barriers to institutions securing JISC awards and to identify the further actions that could be taken by JISC and/or universities to ensure that the benefits of the funding available through JISC can be accessed more equitably in the future.

JISC funding

In line with its mission, JISC works to improve the quality of research, learning and teaching and the student experience by using ICT in creative ways with benefits across higher education in the UK and beyond. Recognising that educational institutions are at different stages in their evolution and their uptake of technology, JISC has established a range of opportunities for universities to bid for funding under diverse streams to undertake programmes that contribute to these aims. As with any other form of contestable funding, some higher education institutions (HEIs) benefit more than others from such opportunities. In reviewing future plans, senior JISC staff have been considering the benefits that have accrued to HEIs from contestable funding, particularly concerning whether small to medium amounts of money have significant impact on HEIs, or whether investments are better made in fewer but larger projects.

Following discussion between million+ representatives and JISC colleagues, it was agreed to explore whether 'post-92' universities, especially those which are members of million+, particularly benefit from such funding.

Consequently, following a bidding process, Leeds Metropolitan University, working with the University of Bedfordshire and Middlesex University, was commissioned to undertake a study looking at the impact of funding in the last five years received by the 28 universities which are members of million+. The study was also designed to investigate why some of these universities have been successful in achieving JISC funding while others have not.

This report therefore provides the outcomes of the project which was undertaken between April and September 2009 to study the impact of small to medium-scale JISC funding (less than £1 million) on the universities in order to inform JISC decision-making on future developmental needs amongst these institutions. It should be noted that although the project investigated the impact of JISC funding of less than £1 million there was no presumption that these universities only bid for or receive small JISC funding awards.

The universities

The universities that took part in the research are all 'post-1992' universities. They range in size from large universities with more than 25,000 students studying for higher education qualifications to smaller institutions with around 3,000 students. 28 of the 27 universities which are affiliated to million+ took part in the project. Of these, three are located in Scotland and the remaining 24 in England.

An initial supposition was that the universities benefit disproportionately from small to medium-scale JISC bids compared with research-intensive universities, since in the latter, sums below £1 million tend to be regarded as modest investments, whereas in HEIs without access to substantial research funding streams, even sums of £30,000 can have a profound impact on project activity and individual careers. This study seeks to demonstrate the extent of the impact of the funding on the recipient universities and beyond. We have also sought to identify any barriers which may prevent these universities from being successful in attaining JISC funding or in deploying technological developments supported by JISC funding. Further details about the project and the methodology can be found at Appendix A.

This investigation explored the effects of small to medium-sized JISC-funded projects at the universities during the past five years. For the purposes of this study, 'large-scale' indicates a project valued at greater than £1 million. There are 28 subscribing universities and 113 JISC-funded projects were identified for consideration.

In relation to these 113 projects, 42 case studies were received from 17 universities, which corresponds to a good response rate of 37% overall. Of the 28 universities, 5 institutions had no JISC-funded projects within this timescale, hence 74% of the institutions in receipt of project funding responded by providing case studies. To complement these case studies (and obtain data from institutions that had no projects) representatives of 27 of the 28 institutions were interviewed. A representative of the final HEI was unavailable within the timescale of the report.

These data were analysed in an inductive, qualitative manner and a number of indicative themes emerged, categorised for convenience. The section below on **Success and impact** considers how well they met their objectives and the extent to which any additional benefits beyond the original aims were generated. The ways in which the projects impacted on the university, the sector and beyond were also considered. The **Optimisation and funding** section covers perceptions of the barriers to, and factors that might influence success in, obtaining JISC funding, and issues pertaining to the sustainability of projects.

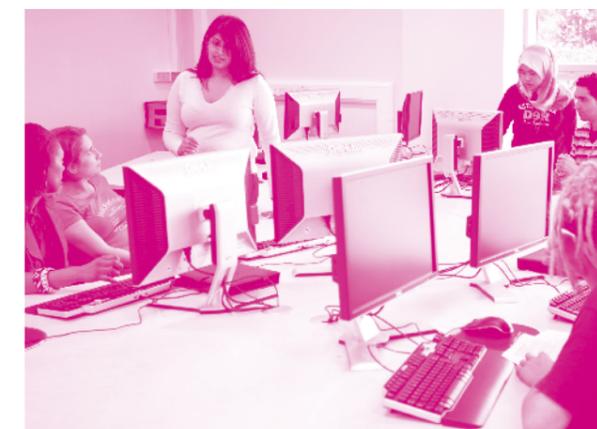
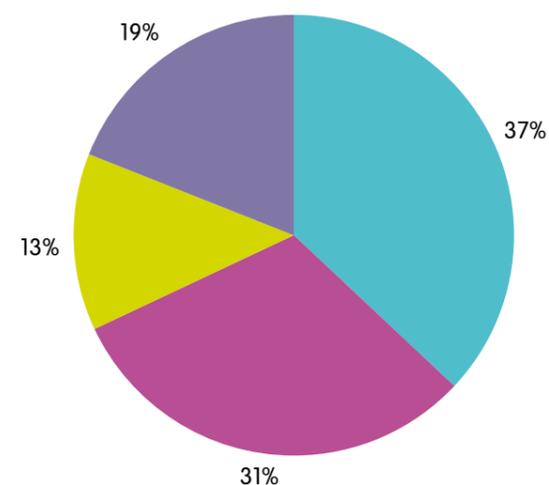


Figure 1: Number of case studies that met objectives and generated additional benefits



Case study objectives

- Project objectives met only
- Project objectives met and additional benefits
- Project generated additional benefits
- Objectives not met nor additional benefits generated

When considering the success of the projects, 69% of respondents stated that they met their project's objectives. However, it should be noted that of the 113 projects under consideration, 24 were not scheduled to have finished, and so were incomplete. This resulted in 11 case studies obtained from projects that were not complete and so were not considered for the calculation of projects meeting their objectives. These incomplete projects did however give valuable data on other issues and so were included where appropriate.

As can be seen in Figure 1, 37% of projects met but did not exceed their stated objectives, with a further 31% that met all their objectives and gave additional benefits. Thus a total of 69% of projects met or exceeded all their objectives. Additionally, 13% of projects generated additional benefits while not meeting all the projects' stated aims, showing that a total of 44% of projects provided additional benefits beyond the projects' objectives.

Of the projects that fell short of their objectives, three groups of causes were noted. These comprised **staffing issues** (6% of case studies reported issues with obtaining or retaining persons to work on the project); **submitting a bid that was too complex** and could not be completed within the parameters of funding and timescale (16% of case studies); and issues revolving around the **content of the project** (for example, 13% of projects stated that complexity surrounding Intellectual Property Rights (IPR) was an issue: in particular, several projects revolved around the reuse of learning objects and making them available on a repository or similar, which had unforeseen IPR implications). For example, Coventry University's 'Reuse of learning content for proactive mathematics support in science service teaching' project found that "IPR issues for the project, although more straightforward than for many other RePRODUCE projects, proved more difficult than expected." In retrospect it is clear that in such cases support offered by JISC in relation to IPR could be more extensively drawn upon.

Case study

Coventry University

Programme

Users & Innovation programme: Personalising Technologies

Project

PREVIEW – Problem-Based Learning in Virtual Interactive Educational Worlds

The aims of the project were to design, develop and deliver problem-based learning scenarios within Second Life for existing healthcare courses, to provide user-led materials to enable others to develop further work, and to ensure that the implementation was user guided at development, testing and evaluation stages.

The scenarios were developed for two particular courses: Paramedics, and Health and Social Care Management. These were for a variety of levels: foundation, undergraduate and postgraduate, and for both face-to-face and distance learners.

The objectives of the project were to develop tools to support problem-based learning in Second Life, which would include developing and testing eight scenarios, provide workshops and support to staff and students, conduct ongoing evaluation and ensure e-learning standards and frameworks would be adhered to.

Partners

St George's University of London, Kingston University, support from Daden Limited

Development

All planned scenarios were delivered, and significant changes made to make use of Second Life's strengths. Further scenarios were developed ready for testing.

The expected project outcomes were all achieved, and results were unexpectedly positive, with high interest from a number of institutions, and several 'spin-offs' being implemented.

The Health and Social Care Management scenarios were redeveloped during the end phase of the project, as students felt that the original scenarios weren't as realistic as they could be; for example, the virtual environment was redeveloped to be more fitting with a learning disabilities care home.

Despite the original objective stating that four information-driven scenarios (IDS) and four avatar-driven scenarios (ADS) were to be developed (two of each for each institution), St George's University of London changed its scenarios to be all avatar-driven. This was because the feedback from the students suggested they felt more immersed with avatar-driven scenarios, and preferred the interactivity of the ADS.

Impact

The impact on stakeholders was beneficial: the Paramedic scenarios are currently in the process of being implemented. Students found the scenarios to be extremely useful for reviewing their own performance, for example as exam revision, and were also enthusiastic about being able to visit the scenarios at a time convenient to them. The project has also been beneficial to the partners, with new projects and presentations arising from the project.

Outcomes

There have been a number of projects following on from the PREVIEW project as 'spin-offs', with extra funding from JISC:

PIVOTE – adapting the paramedic scenarios to be Open Source had gained worldwide interest and is being adapted for other disciplines: <http://code.google.com/p/pivote/> and <http://slurl.com/secondlife/St%20Georges%20University/121/36/21>

Emerging Issues – small-scale research project on staff and students' experiences of learning in immersive worlds, book chapter and peer reviewed article accepted for publication.

National workshop in 2008 (funded by JISC) and in 2009 – a one-day event for learning activities in immersive worlds.

There has also been a high interest from a number of institutions both in the UK and overseas, and one in particular (Derby University) has adapted the scenarios to work for Psychology (PREVIEW Psych).

Success

- Worldwide interest
- Four peer reviewed articles in international journals
- Book chapter
- Adopted and adapted by 3 other UK universities, with more interested
- Wide cross-disciplinary application

Impact

- Press interest (THES, Guardian, BMJ)
- National workshop (2008 and 2009)
- 26 presentations worldwide
- Website: <http://www.elu.sgul.ac.uk/preview/blog/>
- YouTube channel: <http://www.youtube.com/user/PreviewProject>
- Requests from companies to work with them
- User guide to Second Life (JISC) July 2009 available at: <http://www.jisc.ac.uk/news/stories/2009/08/secondlife.aspx>

Projects that generated impact beyond the original aims varied considerably. However, there were several that generated more impact on a wider audience than was originally anticipated. For example, the CORRAL project at Sunderland University digitised Royal Navy logbooks and the project team found that "there has been sufficient interest from the National Archives to suggest that the image sets will have wide public appeal", and it has "provided unexpected scientific benefits". Similarly the PREVIEW project at Coventry University found that their problem-based learning scenarios within Second Life generated "results [that] were unexpectedly positive, with high interest from a number of institutions."

Other projects, including those that may not have fully met their original objectives, demonstrated positive results in alternative areas, and provided considerable benefit nevertheless. "The methodology... developed by the project can be used by other projects to capture their own good practice" (Leeds Metropolitan University's PLANET project); "the project encouraged sharing resources across the consortium and resulted in a number of new projects" (SURF WBL project at Staffordshire University); "[the project] will signal a massive shift for institutions away from viewing content as an asset to be protected... to a strategic tool to enable collaboration and sharing" (the University of Bolton's REGEN-1 project). One result of the University of Greenwich's eLIDA CAMEL project was the development of a "community of practice for critical evaluation", and "an unexpected but very positive element was the amount of interaction with other members of the repository community... facilitated by the JISC-funded Repositories Support Project" (University of Nottingham). The UBIR project from Bolton University stated that "an unexpected outcome has been that authors are now thinking about what they consider to be the 'public face' of their research and has encouraged discussion about the use of open access repositories." At Leeds Metropolitan University the PERSoNA project "raised [the] profile for the work of the... repository team... which will continue to bring benefit to the wider community."

Case study

Staffordshire University

Programme

Exchange for Learning (X4L) programme

Project

SURF WBL

The project aimed to examine the resourcing and support of Work-Based Learning (WBL) for those taking HE courses in FE, and create, by building on available national resources, outputs from JISC programmes and the work of the SURF X4L project, a collection of generic content and subject-specific embedding exemplars for use across the SURF Consortium and deposit in JORUM.

Partners

Stoke on Trent College, Shrewsbury College of Arts and Technology, Burton on Trent College, Foundation Degree Forward, AimHigher

Outcomes

The project ran to plan with the main project outcomes achieved: over 85 learning objects were created and deposited in JORUM, a national data repository. The project gave a wider understanding of the provision of WBL in a consortium. Not only partner colleges but other institutions have used the materials successfully.

Positive outcomes are that colleges with limited Foundation Degree knowledge are now looking at building on existing work to develop their Foundation Degrees. Some HE tutors are beginning to allow FE tutors to create and develop their own supporting materials based on templates and guidelines created at the HE institution and the materials have worked as a promotional tool to engage local employers and private training institutions with Staffordshire University.

"the project encouraged sharing resources across the consortium and resulted in a number of new projects"

Less positive outcomes are that further work is required to create a community of providers of Foundation Degrees, and that they are unable to provide access to materials for those not directly involved in the teaching of Foundation Degrees (i.e. employers or mentors).

Impact

Tutors are thinking about delivery of materials (i.e. large chunks of information broken down and made more accessible). Communication has increased between FE and HE institutions with the development of materials and the support of Foundation Degrees. Awareness of Open Source and free tools available to create reusable packages has increased throughout the institutions, with some tools being taken up wholesale in some institutions (e.g. the 'eXe' application in Stoke on Trent College).

The University has now purchased a Repository to enhance the sharing of resources and to reduce duplication of resources.

The project has encouraged sharing resources across the consortium and resulted in a number of new projects:

- SURF WBL-Way was a spin-off project, with funding from JISC, to provide a mechanism for the University to provide access to the materials created by SURF WBL for non-university staff in a targeted manner
- OER is a spin-off project, with funding from JISC, to use the frameworks and workflows created for SURF WBL to support faculties in releasing useful resources to the community as a whole.

Over a third of the projects (39% of the received case studies) implemented the project findings within the HEI that led the project, and a similar number of project findings (34% of responses) were directly used by other bodies (typically but not exclusively within the HE sector, and including other partners in the project). For example, the case study for the East London Theatre Archive project (ELTA) at the University of East London indicates that “ELTA is embedded in the UEL Teaching and Learning process”. Also, the project at Derby on open content for knowledge exposition and teaching (POCKET) resulted in extensive wider use. “The Open University now uses the XML schema template created by the project... The project process maps have also been used by the JORUM Open team” (where JORUM is a national repository).

In other cases, project results may not have been directly implemented but have influenced, or generated considerable interest in, the HEI (30% of the case studies) and the wider sector (19% of the case studies). Once again this takes varied forms, from raising the profile of a technique (for example Leeds Metropolitan University’s Sounds Good project that makes use of audio recordings for feedback on assessments, and has generated a great deal of internal and external interest in the UK and internationally), to influencing strategic planning. Bolton’s SPLICE project, for example, was designed to explore the role of technological habits in lifelong learning, and the effect “has been felt both by individual learners, and at a strategic institutional level.”

Case study

University of East London Programme Digitisation programme

Project

ELTA -The East London Theatre Archive

The aim of the project was to develop an accessible database of digital objects that is of value to teaching and research in higher and further education, in performing arts as well as in other academic disciplines. It highlights the importance of the East End in the history and development of the performing arts.

The project aimed to create up to 15,000 digital objects from the collections held by the partners, including playbills, posters, documents, 3D objects and multimedia. It would provide metadata and cataloguing, having identified appropriate technical and metadata standards, enrich the collections with authoritative contextual essays and develop an appropriate structure and web interface to make the collections accessible.

Partners

The Theatre Museum (a branch of the Victoria & Albert Museum), Centre for E-Research at King’s College (previously known as AHDS), Theatre Royal Stratford East, Hoxton Hall, Wilton’s Music Hall, Hackney Empire, Half Moon Young People’s Theatre

Outcomes

The outcome is the first online archive that reflects the heritage and contribution that East London has made to the performing arts sector and includes a variety of collections from different time periods and locations in East London. This resource is an invaluable electronic resource, which is openly accessible via the website. It gives insight and background information about 19th-21st century business and artistic aspects of East London theatre. It is not only filling a gap of lack of resources in this area, but publicising the tremendous value the East End had to performing arts. It stretches from 19th century posters and playbills to contemporary art.

“[The] project has developed a very strong and healthy relationship between the project partners”

The University was recently successful in obtaining JISC funding of £250,000 to create a hub for the theatre study material. The CEDAR (Clustering and Enhancing Digital Archives for Research) project will be led by the University of East London. It will further enhance and embed the East London Theatre Archive on a national level. CEDAR will implement ELTA into three popular Theatre Studies programmes at Royal Holloway, Nottingham and Sheffield Universities. This cross-institutional project will promote national dissemination of an already successful and unique archive. It will offer a large testing field for the development of enhanced content and usability – specifically the updating and addition of metadata and the enhancement of the user interface. ELTA will also be enhanced by its clustering with the three partner HEIs’ own theatre digitisation projects to develop cross-project browsing and search capability. This will aid the identification of gaps in pre-existing clustered data and the need for digitisation of additional content.

Impact

The project has an impact on teaching and learning and research as it makes rare and often physically fragile resources available, free of charge, to the wider public and research community. It has 15,000 objects preserved electronically, with scope to expand this already successful archive. It is hoped that in future this will be the platform for further development and expansion, even covering other locations beyond East London. The project has developed a very strong and healthy relationship between the project partners, who are willing to collaborate on future projects.

The East London Theatre Archive is embedded in the University’s teaching and learning processes. The University is bidding for further funding to extend, enhance and expand the archive and to roll it out nationwide in undergraduate and postgraduate courses. It is also hoped to enrich ELTA with Web 2.0 functionality to give users the option to voice their opinion on the archive and to gather vital feedback for further enhancement.

The addition of multimedia items and further collections would be welcomed. The project helped to develop a project culture within the Library & Learning Services team. It provided experience of developing partnerships and brought technical people together to develop innovative interfaces.

The project has also made staff more outward-looking for funding opportunities, knowledge transfer and partnership opportunities.

Case study

University of Derby Programme Repositories and Preservation Programme

Project

POCKET - Project on Open Content for Knowledge Exposition and Teaching

POCKET was based upon the belief that learners at HEIs across England and the rest of the UK would benefit from more stand-alone, freely accessible educational resources designed for HE study. This was informed by the findings from the earlier JISC LXP project, focussing on learners’ experiences of blended learning environments in a practice-based context, which found, in each of the disciplines studied, that learners increasingly used public websites and services when seeking to meet educational needs in preference to any facilities provided by their host institution.

The project also showed that learners demonstrated highly effective independent learning strategies. Many UK educational institutions have so far done little to support such strategies, opting instead to keep all the learning resources they have developed in private locations accessible only by their own students. POCKET wanted to determine the potential benefit of creating Open Educational Resources for HEIs, both as providers of it and as users.

POCKET aimed to capitalise on the investment in the Open University's OpenLearn platform to build a wider pool of quality assured HE-level Open Content. The project focused on the processes behind rapid open content creation, and another aim was to identify and promote effective mechanisms for converting existing course materials into stand-alone educational resources; this would also help establish the appropriate tools to use when preparing content for open use through OpenLearn.

It also aimed to reflect on the staff development process undertaken by the partners when converting the existing course content for use on the Open Learn site and ascertain whether developing materials as Open Content is a good strategy for all partners to adopt.

Partners

University of Bolton, University of Exeter, The Open University

Outcomes

The project successfully delivered its outcomes and a few additional unexpected outputs were also created.

The University of Bolton identified that the level of difficulty in using the Open University's XML schema for data definition (necessary when adding material to the 'Open Learn' platform) would be a potential barrier to the main project objective of expanding the material offered, and so an XML data template to facilitate the process was created.

The project team also discovered, when working with the subject specialists, that the difficulty was getting them to understand all the considerations that needed to be worked through before attempting to create open content. This led to two process maps being created, one for the project as originally intended, and one to guide the academics through the content development processes.

The University of Derby, in recognition of the project's success, has put an investigation into the business case for creating open content onto their strategic plan for the next academic year. The University of Exeter and the University of Bolton have as a result of the project continued to expand their open content material offered online.

The Open University has utilised some of the project outputs internally (as identified below), and has also recognised the benefit of working with external stakeholders on the project, offering a new perspective on the functionality of the 'Open Learn' platform which is helping to inform improvements to the current system.

Impact

The Open University now uses the XML schema (data format) template created by the project team internally, to help improve its own content creation processes. The Open Learn team also use the process maps when delivering workshops to the wider academic community to help them identify the considerations.

The project process maps have also been used by the JORUM Open team as a guide for content creation on their new Open Content platform.

The project was completed in March 2009 and the findings were particularly relevant with the subsequent announcement by HEFCE that around £6 million of funding was to be available for 12-month pilot projects that will open up existing quality assured educational resources from higher education institutions to the world, managed jointly by the Higher Education Academy and JISC under an Open Educational Resources Programme. The University of Exeter was successful in the bidding and will be one of the pilot institutions, taking the work of the project one step further.

Case study

Leeds Metropolitan University

Programme

Users & Innovation programme:
Personalising Technologies

Project

Sounds Good: quicker, better assessment using audio feedback

Sounds Good was a two-phase project to test the hypothesis that using digital audio for feedback can benefit staff and students by saving assessors' time and providing richer feedback to students.

Phase 1 published practice guidelines for practitioners on the use of audio for feedback and Phase 2 extended the use of audio feedback at Leeds Metropolitan University as well as introducing audio feedback at three more higher education institutions.

Partners

Phase 2: University of Northampton, Newman University College Birmingham, York St John University

Outcomes

Sounds Good worked very well. It ran almost entirely to plan in the first phase and encountered only minor problems in the second phase. It broadly achieved all it set out to achieve. It did some valuable exploration and produced useful practice guidelines. Using audio for assessment feedback proved popular with the 38 staff and over 1,200 students who took part.

Impact

Expected outcomes for both phases were largely achieved. The hypothesis about audio feedback saving assessors' time and benefiting students was substantiated in some circumstances.

The most favourable circumstances appear to be:

- the assessor is comfortable with the technology
- the assessor writes or types slowly but records their speech quickly
- a substantial amount of feedback is given a quick and easy method of delivering the audio file to the student is available.

Practice guidelines were published after Phase 1 and refined after Phase 2.

Most unexpected was the high level of external interest. The project manager received many invitations to make presentations, give interviews and contribute to features on Sounds Good. He accepted almost all, regarding them as opportunities to raise awareness of the potential of audio feedback.

Students overwhelmingly preferred audio to written feedback on coursework, noting its personal nature and the detail. Staff appreciated they were giving students a better service and thought it worth continuing even if they did not save time.

JISC regarded Sounds Good as excellent value for money and funded further audio feedback work via two Higher Education Academy Subject Centres, overlapping with Phase 2 and not yet complete. In addition, nearly all staff who gave audio feedback on the project say they will continue with it.

How the project will be sustained post-funding is still being discussed. One initiative is to seek local 'champions' to promote and support audio feedback.

Many of the project teams were successful in obtaining further funding, or generated associated projects (36% of the case studies, of which only 7% were identified as receiving further JISC funding after an initial successful JISC bid). In terms of value for money, this demonstrates a high return for 29% of project responses that, after the initial input from JISC, continued to undertake work with funding from another source.

A common comment made by interview participants on a number of occasions was that receiving funding for a JISC project effectively promoted contact with other colleagues in that field. This took many forms, from a JISC-promoted event which provided a discussion forum, to the naturally occurring contact made between participating colleagues when a project is set up or disseminated: “[The] project has developed a very strong and healthy relationship between the project partners” (the ELTA project from the University of East London).

A large number of projects involved multiple partners, with over two-thirds of the projects having external partners and an average of more than three external partners each. These partners included other HEIs, FE institutions, other state-funded bodies (such as the Institute of Performing Arts and Met Office Hadley Centre) and private companies (for example, Psydev Ltd and Emerald Group Publishing Limited).

Case study

University of Bolton Programme e-Learning programme

Project

Social Practices, Learning and Interoperability in Connected Environments (SPLICE)

The aims of SPLICE were to explore the role of technological habits in lifelong learning in teachers and learners, and explore how effective habits can be instilled. It builds on work on the JISC Personal Learning Environments and electronic-Portfolio projects (titled PLE and MANSLE respectively). The project lasted for 18 months, in which time a ‘core’ group of learners were traced through engagements with social software in FE to their personal technological development in HE. The methodology of the project focused on building models of these learners, and evaluating models iteratively with the other project partners as the project progressed. The outputs of the project were models of change of technological habit, activity designs for changing habit and engaging with social software, the establishment of an online community for learners in the creative industries, an online analytic tool for personal technological habit, and new tools and methodologies for the evaluation of iterative projects.

Partners

University of Bolton, Coleg Harlech, Manchester College, Cheadle and Marple 6th form college, Oldham University Centre, plus engagement from practitioners and organisations in the creative industries.

Development

The SPLICE project can be summarised as a journey which started with work focused on learners and the acquisition of technological habit, and ended with work focused on teachers becoming more effective models of online habit. Thus, from roots in pedagogy and technology, it has finished in strategy and policy with regard to staff development. This process of development in the project has been accompanied by an emerging process of modelling.

Outcomes

The original outcomes were defined as:

- 1 Create a social network which encompasses teachers, learners and practitioners in the creative industries.
- 2 Find ways to exploit the network as a resource to create a more learner-driven approach to education.
- 3 Develop a specific technology (called TrackMe) as a scaffold to encourage the development of technological habit.
- 4 Identify the key social and educational mechanisms at work within the social network – particularly those mechanisms which lead to greater learner self-efficacy.
- 5 Identify the leverage points within the conventional educational system from which organisational change might emerge.

These have been achieved, and outcomes from 4 and 5 have been particularly significant. The TrackMe tool underwent some evolution which has been documented in the project report.

The methodological outputs from the project include a tool for collaborative mindmapping (called SPLICEMind) and the documentation of the Realistic Evaluation process which was used throughout.

Impact

The impact of SPLICE has been felt both by individual learners, and at a strategic institutional level. Some learners (and teachers) have remarkable stories to tell of how their engagements with technology changed their lives. SPLICE was also a key part of the design of the University of Bolton’s e-strategy, and led directly to significant curriculum change and staff development at Coleg Harlech. These strategic outcomes are important because SPLICE has dealt with the reality of institutional life where sustainability of technological and pedagogical innovation relies on the enthusiasm of individual teachers, and finding mechanisms for spreading enthusiasm is challenging. SPLICE has reported on these challenges and made recommendations which have fed into work on e-strategy.

SPLICE has had impact methodologically, where the tools created on the project (including collaborative mindmapping) and the use of Realistic Evaluation have been used in other projects, including the Curriculum Design project entitled CO-EDUCATE, and in the evaluation processes for the procurement of a new virtual learning environment (VLE) at the University of Bolton.

The project has also given rise to a number of academic outputs.

The number of JISC-funded projects at each university varied from those that had none (5 institutions out of 28, or 18% of the million+ subscribers) to those that had a considerable number (12, 10 and 10 projects during the period under review at the Universities of Bolton, Coventry and Staffordshire respectively). Unsurprisingly, this gave rise to different opinions of JISC funding. The universities with few or no JISC-funded projects tended to indicate that they felt that an HEI which already had a JISC-funded project had an advantage in obtaining further funding, stating that the same names (of project bidders and institutions) tended to recur, suggesting that they thought that some people were regularly successful. One respondent even went so far as to say “unfair’ is too strong [a term] but there is a slight inequality built into the system”.

Another respondent expressed the view that JISC funding could result in the production of a product but that after the funding ended it could not be taken forward or supported. Some respondents suggested that the products developed as a result of JISC funding tended to be too small to be commercially self-sufficient, were too onerous to maintain independently and would “wither on the vine” once funding ceased. It was suggested that JISC should identify and offer further support to a “pick of winners” who could then go on to make the most of the original funding.

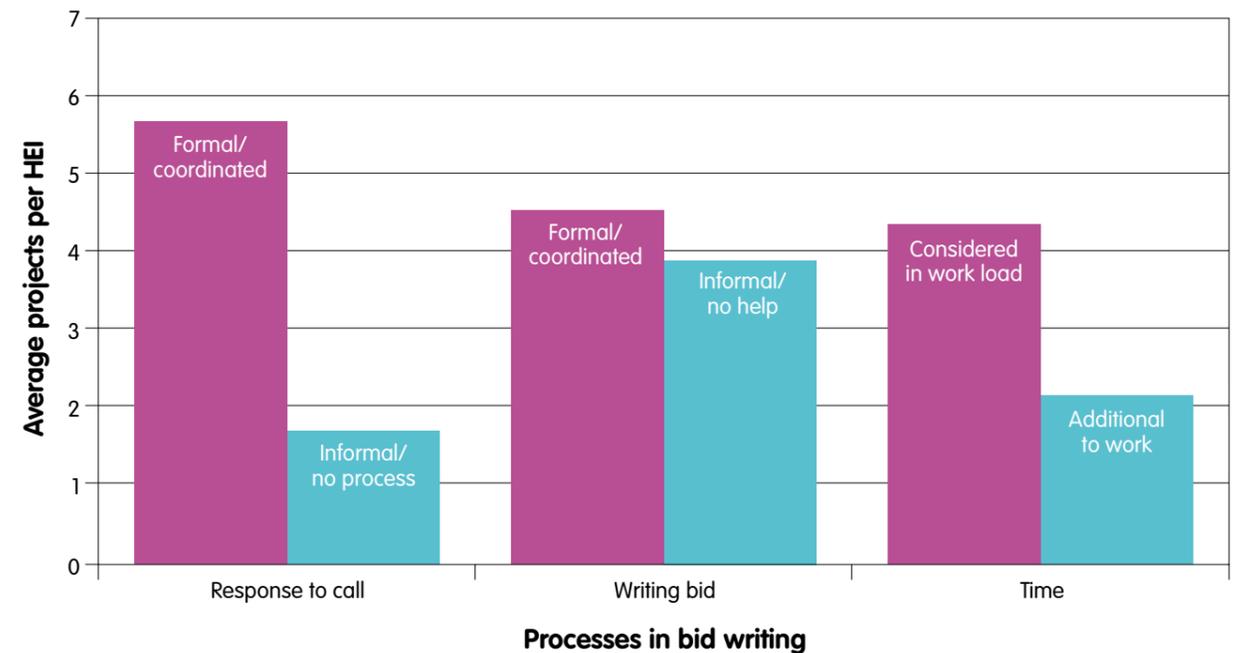
When questioned, many of the unsuccessful institutions considered that they did not have sufficient expertise in writing successful bids, a process they described as “daunting”.

This was exacerbated by what they perceived as being very short timescales to complete some bids, and the amount of work and detail required for success, particularly if they felt they were unlikely to get a result from all the work involved. In some cases it was perceived that if an institution did not have the resources, facilities and mechanisms to support the bid-drafting process, then it would be difficult to succeed. Without a track record of successful bidding they regarded it as unjustifiable to have a bid-writing team or mechanism on standby in an institution aiming to be a ‘lean machine’. Although a dedicated bid-writing facility was not common, those HEIs that did have a formal or co-ordinated approach to responding to calls for bids, with appropriate facilities and people available to help write all aspects of the bid (including developing costing models), tended to have a higher likelihood of obtaining JISC funding. Only one of the institutions that had received no JISC funding had a formal mechanism or unit for bid preparation, and this had only recently been established.

In another university that now enjoys considerable success in attracting JISC funding, the respondents indicated that they had previously been “depressed” at their inability to secure JISC bids, but became successful at the same time as they introduced such a process.

More details can be seen in Figure 2, where it is demonstrated that those HEIs with a formal or co-ordinated mechanism for responding to calls from JISC to bid for funding, such as a process to disseminate the information to the relevant individuals, had a significantly higher number of grants than those that did not. Comments regarding the need to be proactive and be aware of what calls were upcoming were found in the HEI with the highest number of successful bids.

Figure 2: Graph to show effects of formal processes in various aspects of JISC bid writing



Some respondents considered bid writing “an art” which was mystifying until the correct approach was stumbled upon.

Nearly all institutions had some kind of a process to calculate costs and staffing issues at the bid writing stage. However these ranged from an informal chat with staff in the finance team to a separate unit who would routinely calculate all these aspects on behalf of the bid developers. Another aspect that is demonstrated in Figure 2 is the positive effect of staff having time to write bids built into their recognised workloads, while for others this task was additional to the ‘day job’. Some HEIs reported that deadlines required the “burning of midnight oil” to get a bid written.

Care must be taken to consider these data; it needs to be queried whether they demonstrate a correlation or causal effect, for example when considering the effect of time available to write a bid. A more research-orientated institution may be more disposed to make time available to write bids but it is unclear whether it is the additional time that facilitates the more successful bids or the environment in which the bidding team works. Further investigation is needed to comment more fully.

Even universities that were successful at obtaining JISC funding considered the short timescale and level of detail required to be a factor limiting success. 29% of institutions interviewed stated that co-operation and collaboration were required to produce an effective JISC bid. Furthermore, 14% of HEIs who had been successful stated that they also had a failed bid which they attributed to not spending sufficient time on bid drafting.

A number of respondents mentioned other common issues concerning the difficulty of writing bids, including difficulties in understanding and using the appropriate specialist terminology; in being clear about what precisely JISC was seeking from successful bidders; and in investigating and getting correct fine detail while avoiding technical errors in bid drafting, for example exceeding page limits and omitting small but essential elements. Some respondents considered bid writing “an art” which was mystifying until the correct approach was stumbled upon.

The feedback that bidders received on unsuccessful bids was felt by a number of recipients to lack sufficient detail of what, principally, was wrong with the bid submitted. Examples of good bids had been requested by some recipients to help them understand what was required. Within this research it was also discovered that a workshop session, run by a million+ member university, is available on how to construct a JISC bid. Recipients told researchers that they felt that a good story, a good idea and the ability to demonstrate credibility and a track record/appropriate experience in project delivery were necessary to achieve success.

25% of HEIs interviewed considered it important to demonstrate how the bid submitted aligned closely with the submitting university’s aims and ethos. Respondents queried whether this would demonstrate that appropriate expertise and knowledge for the project were present, and whether the bidding team had the ability to demonstrate credibility.

Learning points

When considering the uptake of the process and information resulting from a project some areas capable of optimisation were observed. Some new projects started at an inappropriate point within the academic year for full impact to be achieved. This could suggest that, for a project to be most effective, more support and consideration should be in place to enable the starting point to align with the academic calendar.

Within a number of projects, the standard administrative processes used by the HEI in question were highlighted as being unfit for purpose if the aim of the project was to bring about change, taking advantage of the new technologies. For example, respondents associated with one project suggested that: “the main impact on the institution [is] a heightened awareness of how [the] disjointed processes and lack of consistent practices [for the] managing [of] award data is impacting the institution’s ability to react to, and take advantage of, emerging technologies.” Project CAIRO at Roehampton University demonstrated the “recognition of the requirements for formal standards and procedures”. Additionally the University of Sunderland found that “business process[es] must be in place before you can apply them to the [technical] system.”

A further benefit for successful bidders is the higher prominence for the work within the HEI itself, with senior management being made aware of ICT and technology enhanced learning advantages and additional profile both nationally and internationally (e.g. Leeds Metropolitan University’s Sounds Good project).

To overcome barriers in achieving JISC funding, it was suggested that a single named person in each HEI be identified to ensure effective communications between the HEI and JISC, thus offering the potential for more constructive feedback to be given over a period of time, which could be assimilated and disseminated within that institution.

For the future, it is clear from our research that collaborative working between universities is likely to be crucial, to maximise co-learning and to ensure cost-effectiveness.

Selection of case studies

A review of the 42 case studies enabled common themes to be extrapolated for this report. From these, eight have been selected for inclusion which, to some extent, are representative of the rest and which clearly demonstrate added value. Information about the case studies not included can be provided by the project team on request.

Conclusions

1 In the JISC draft strategy 2010-12 it is suggested that long-term, cross-institutional changes in strategy and practice can be achieved with relatively modest funding – “Incremental innovation involves small improvements, which if engaged in continuously may result in significant changes”. Our investigations bear out this view and show that relatively small and modest funding provides relatively high pay-offs in universities in terms of impact and added value, not only to the HEI involved but also to a range of partners in HE, FE and the wider community. This is demonstrated in the case study from the University of Greenwich. The projects illustrated in the case studies demonstrate the added value that Technology Enhanced Learning support can provide in a variety of learning contexts. Often the impact is higher and broader in terms of spin-offs than initially envisaged in the project bid, leading to changes in the strategic direction of university policies in relation to Technology Enhanced Learning.

2 The JISC draft strategy further asserts the importance of building capacity for innovation in institutions, with the opportunity to model and explore the take-up of projects, programmes and change management techniques within the sector, for example by creating networks of innovative practitioners as change agents and by building project management skills within the funded teams. Our case studies from Derby and Glasgow Caledonian demonstrate how JISC funding can be transformative of individuals, programmes and institutions engaged in funded projects.

Our research shows that frequently a change of culture has ensued, with networking between institutions and individuals a key incidental outcome, often with diverse universities and colleges whose staff would not normally encounter one another establishing sustainable and productive contact. Similarly, academic staff have demonstrably worked in teams with administrative, support and technical staff on these projects in productive ways, to the benefit of the individuals themselves in terms of self-development as well as that of the wider project team. The enthusiasm and commitment of the funded bidders is evident in the case studies.

3 The student experience has been enhanced in a number of projects at a time when there is a rapidly changing profile of the student body and greater mobility between the HE and FE sectors. Both staff and students have found aspects of the funded projects to be life-changing (e.g. the University of Bolton’s SPLICE project). A particular feature has been the increase in the provision of authentic and usable learning environments supported by relevant technologies (e.g. the PREVIEW project at Coventry University), maximising ‘pedagogic pluralism’ and leading to stronger independent learning strategies (e.g. the POCKET project at the University of Derby).

4 The draft JISC strategy proposes that activities in individual HEIs can be given added value, beyond that which could be achieved by institutions acting individually. Several of the projects reviewed in this study have generated more impact on a wider audience than was originally anticipated (for example, those at Sunderland and Coventry), and it has been shown that unexpected outcomes are important and can have far-reaching impact. Our researchers found that relatively modest JISC funding has enabled institutions and individuals to undertake exploratory projects in a low-risk context, with opportunities to experiment with methodologies, approaches and processes that might not be possible within routine university systems. This freedom enables creativity to be foregrounded and new business models to be created.

5 As well as traditional academic outputs such as conference presentations and published papers, outcomes from the project have been multiple and diverse, including scenarios in Second Life and other technologically enhanced contexts. These provide a powerful basis for co-learning from the funded projects.

6 Transferability of learning between subject areas and levels of learning has been evidenced in a number of projects. In particular, investment in key collections of, and exploration of the potential in teaching and learning of, Open Educational Resources, both within and outside universities (as illustrated in our case studies from Derby and East London) has a demonstrable pay-off beyond the funded institutions and their partners.

Case study

University of Greenwich

Programme

Distributed e-learning programme

Project

eLISA – e-Learning Independent Study Skills Award, Lifelong Learning Project

The eLISA project aimed to select, assess, gather together, deliver and evaluate Department for Education and Skills (DfES)/Learning and Skills Council (LSC)-funded Greenwich eLISA study skills materials in innovative e-learning applications. The project aimed to make recommendations on learning designs for study materials in collaboration with Oxford University’s Learning Technologies Group in terms of the use of learning design tools and the evaluation of learning sequences. The team envisaged there would be a key focus on the pedagogic implications of study skills and support in relation to e-learning throughout.

Project aims: to develop, implement and evaluate a regional pilot to:

- 1 bring together existing study skills materials
- 2 migrate these to new and innovative e-learning packages (beginning with the Learning Activity Management System (LAMS) but considering others). The term ‘package’ defines the synchronicity between the resource and the learning design used
- 3 prototype and evaluate the potential of a personalised learning environment to provide effective access to the learning packages
- 4 deliver study skills e-learning to a set of practitioners and learners with appropriate training
- 5 evaluate their use and make recommendations on the exploitation of study skills e-learning resources
- 6 disseminate the results.

Partners

Greenwich LEA, Greenwich City Learning Centres, Aimhigher/Aspire, GPlus Schools, Post-16 Centre and Greenwich Community College, Greenwich Learns, Greenwich Lifelong Learning Partnership, Greenwich On-Line Learning Project, Kent New Technology Institute, University of Oxford, Society for Research in HE (SRHE) HE-FE Network

Development

Good progress was made and project outcomes achieved. Communications with JISC were beneficial and led to an application for further funding for Phase 2 eLISA and then to a follow-on successful bid with the Design for Learning project (called eLIDA CAMEL).

Outcomes

eLISA was a very successful project. The expected outcomes were achieved with Learning Study Skills Workshops delivered to 246 participants, including 23 teachers, 16 trainee teachers, 73 students (Phase 1) and 134 students (Phase 2). Study skills materials for report writing, careers choice, information skills and writing personal statements were gathered together, evaluated and migrated into the Learning Activity Management System (LAMS) and virtual learning environment Moodle. Learning sequences were designed in LAMS and Moodle using a variety of e-learning applications for trialling with learners and practitioner teachers. Unexpected outcomes included Phase 2 funding, further funding in the eLIDA CAMEL project and continuing partnership work with JISC, the JISC service infoNET, Greenwich and regional lifelong learning partners.

Impact

eLISA was particularly effective as a long-term e-learning/lifelong learning partnership project which achieved significant levels of collaboration with regional lifelong learning partners, including many who are still working with Greenwich, several years after the project. Clear implications and recommendations for future practice in e-learning for study skills were gained, and examples of materials and approaches were valuable for practitioners.

Significant benefits to teachers and learners from the use of e-learning for study skills were achieved, despite some limitations due to the relatively short timescale.

The question of reusability and shareability of study support learning objects and tools was a key focus for evaluation/enhancement of underpinning pedagogical elements, learner activities and assessment tasks, forming an important part of the remit and guidelines. Final written outputs included a series of publications.

During the eLISA project, a range of workshops was delivered indirectly by teachers to their own learners, cascading knowledge in local institutions to students. Evaluation questionnaires designed by the Oxford evaluator collected further evidence from learner and teacher participants to assess the effectiveness and reusability of study skills resources, tools and systems for cross-institutional regional use. Long-term changes in practice were therefore achieved, with some internal and external participants entirely changing their approach to the delivery of study skills and e-learning.

eLISA contributed valuable lessons regarding the design and use of LAMS and Moodle sequences and evaluation protocols using e-learning for study skills with learners and teachers in naturalistic settings in school, college and university classrooms. The team recommended further work was carried out, in view of the national significance of study support and the potential for improving motivation, student attainment and HE progression from the effective use of e-learning for study skills.

The University of Greenwich and its partners remain committed to continue the work involved in eLISA in a range of ways and sustainability and embedding has been achieved on a long-term basis. Lead members of the project team are still working on spin-out achievements from the outputs from eLISA, including publications and further developments in e-learning.

Case study

Glasgow Caledonian University

Programme

DLIC - e-Learning Digital Libraries in the Classroom

Project

The Spoken Word – New Resources for Transforming Teaching and Learning

One of four projects in the JISC/NSF UK & USA Digital Libraries in the Classroom Project (2003-2008). This programme sought “to bring significant improvements in the learning and teaching process, through bringing emerging technologies and readily available digital content into mainstream educational use.”

Central to the original proposal was the objective to add value to remote digital libraries by making them more directly usable by students and their teachers. This was described as “enhancing digital libraries through a focus on learning”. Glasgow Caledonian saw this as a prerequisite for their other major objectives of “improving student learning and retention”; “developing aural literacy in students”; and “augmenting student competence to write on – and for – the Internet”. This involved addressing the obstacles of technologies, rights, and attitudes and information.

As the project developed, less emphasis was placed on trying to measure outcomes in relation to particular students and greater priority was placed on providing flexible and sustainable services and resources adaptable to different approaches and uses. This enables “pedagogical pluralism” and accommodated changes in front end tools and virtual learning environments. This enabled “pedagogical pluralism” and accommodated changes in front end tools, virtual learning environments etc. Even greater attention to rights issues was required than had been anticipated and a separate grant was awarded in relation to this.

Partners

Information and Archives at the BBC
In the USA: The Oyez Project and Academic Technologies at Northwestern University with the Matrix Unit at Michigan State

Outcomes

The outcomes were the creation of a sustainable, embedded team with sets of networks (USA/UK/EU: teachers, developers and content providers), a working repository service and development repository (Fedora), and a considerable collection of reusable content (BBC programmes, sound and vision from other – especially local – sources). There are also academic user-enhanced metadata aids for finding content and examples of uses available for other teachers.

Impact

Spoken Word is part of the library service. Serious consideration is being given to merging it with Research Collections to form a Heritage and Archives service that will be truly “multi-media” – from paper to digital text, audio and visual resources.

A unit called Spoken Word Services is provided from the Library for access by higher education worldwide. The Legal Deposit Agreement devised for the project with the BBC has been re-negotiated to enable collaboration for 2009-2014. A range of Higher Education Academy subject area awards linked to the project have been secured. Repository related collaborations have been established (several through Fedora interests) with USA and UK universities and a Boston radio station.

Staff employed on the project experienced personal development. Additionally, the project helped to raise awareness of the benefits of serious radio, particularly amongst the student demographics which had low interaction with this. The University has also benefited from a raised awareness, profile, and relationships with a range of institutions and projects.

For JISC:

1 To maximise the take-up of bidding opportunities, it would be valuable for JISC to set in place systems to broker greater collaboration between successful and unsuccessful institutions and to promote workshops which give guidance on JISC bid preparation.

2 Additionally, our research indicated that both successful and unsuccessful institutions would benefit from having the opportunity to scrutinise examples of successful and unsuccessful bids, together with the feedback the bidders received, so that such feedback could be used formatively to shape future bids. JISC could provide this on the open JISC website or in a repository accessible to potential bidders. It would also be helpful if the website could include frequently identified problematic issues for unsuccessful bids and link these to workshops on successful bid writing.

3 JISC could help to broker and build partnerships, by providing named contacts with experience in achieving JISC funding to colleagues in HEIs which have not received funding. Such colleagues could help to demystify the bidding process for them and mentor them through the stages of bid development necessary for success, particularly in respect of joint bids. JISC could additionally foster collaboration between previously unsuccessful and successful bidders by ring-fencing funding for a number of such joint bids.

4 A number of recipients felt it would improve their potential to bid successfully were JISC to provide longer timescales in their calls to bid, particularly when collaborative bids are to be developed.

5 Bidders also felt that JISC could be less demanding of fine detail in the first stages of bidding, with opportunities to flesh out proposals in more detail after the initial threshold had been cleared and with full proposals being developed in advance of projects commencing. Some of our respondents found that the investment of time and resources in preparing the bid was high, and this was particularly felt when bids were unsuccessful.

6 To support sustainability of funded projects, many respondents argued that there should be further follow-up funding made available for work to build on the successes of the original bids.

For universities wishing to maximise their potential to bid successfully:

1 Our respondents indicated it would be helpful if universities without success in JISC bidding could work in close partnership with teams from universities with success in this area.

2 It was further felt that universities could gain benefit from closely scrutinising the JISC website, particularly if the enhancements suggested above are implemented, and network with JISC contacts so as to understand in detail what each call to bid is likely to entail.

3 To maximise potential to succeed, potential bidders need to be prepared for bidding opportunities as they come onto the horizon, with advance planning to make it possible to work fast within timescales. This is difficult for those HEIs who have never been successful, as they may not have the capacity or resources to enable a team to swing into action to write and deliver bids at short notice, nor might they have the staff with sufficiently tuned antennae to pick up forthcoming trends, hence the value of pairing with successful bidders as described above.

4 Experienced and successful bidders told researchers they were selective in deciding on which bids to respond to, so bidders new to the field should look out for an appropriate call which matches their HEI's expertise and not compete in calls where they have limited chance of success.

5 Successful bidders told our researchers they felt it essential to invest in the expertise to draft a thorough and detailed bid which clearly illustrated the teams' track record in related work as well as their abilities in relevant areas.

A survey was undertaken to detail the success, impact and other elements of the JISC-funded projects by the project team. Colleagues at million+ contacted Vice-Chancellors or Pro-Vice-Chancellors at each university to identify named individuals who could respond to queries about JISC projects. The project team contacted these people electronically in the first instance using a template developed and piloted with the three universities involved in the investigation so as to collate a series of case studies demonstrating JISC project impact. This information was augmented by telephone interviews with each institutional representative, using a set of standard questions developed by the project teams, so that an institutional view could be obtained, which gave a voice to universities without JISC-funded projects. The interviewers also asked questions about the process by which the HEI reacted to JISC calls to bid and the application process itself.

Researchers from Leeds Metropolitan University, the University of Bedfordshire and Middlesex University divided the 28 universities into three groups to undertake this work. The partnership of the three institutions gave a spread of experience, contact networks and geographic location which allowed them to connect readily with the million+ institutions in order to research the JISC processes and impact and to give a sector-wide perspective on the development of technology-related projects.

The project team were well placed to undertake this work. The lead bidders within the Office of the Pro-Vice-Chancellor (Academic) at Leeds Met are a team experienced in the submission of JISC bids, project management, events management and publication production and have a number of students and graduates working alongside them. This placed Leeds Met in a good state of readiness to offer the skills and expertise required to deliver the project in the required timescale.

Bedfordshire University has staff with a proven track record in delivering projects for JISC in partnership with other HEIs, and also of success in obtaining significant funding from other sources, e.g. for its Centre for Excellence in Teaching and Learning (CETL).

Middlesex University has staff with extensive experience in project management of over £5m of research projects. They have secured JISC funding for the e-learning project (M-CUDE) and are involved in other JISC initiatives.

Methodology

A qualitative approach was used to analyse data obtained from institutions investigated through case studies and telephone interviews.

A list of appropriate projects was provided by JISC for which appropriate contact information was obtained and confirmed by the million+ institutions (project leader, or suitable alternative if s/he were unavailable). The institutions were also asked to provide a contact who could be interviewed, where an appropriate contact had knowledge of how the HEI handled JISC calls to bid and the process of completing the bid.

Each project contact was provided with a template for a case study containing details of the information required for each project (including the project context, aims, development, outcomes, impact and what happened to the project upon completion) together with an exemplar case study (created from Leeds Metropolitan University's 'Sounds Good' project) as a guide, and a consent form. The consent form detailed the project's aims, procedures and how the findings would be disseminated. Contact was via email and a follow-up prompt was sent to those who did not initially respond. Only one of the million+ institutional representatives failed to respond to the investigation within the timescale, despite strenuous efforts by the project team.

Appendix A

The project approach continued

Each institutional interviewee was contacted by email with a set of interview questions and a consent form. Two sets of questions were compiled: one for institutions with JISC-funded projects, and one for those without. The questions sought an overview of projects' details, success and impact, together with questions regarding how a JISC call to bid was handled within the university, and any provision for calculating costs, staffing and management of the project. Details of any unsuccessful bids and differences in processing multiple bids were also requested. Questions for universities without JISC-funded projects were largely similar but substituted a request for details of unsuccessful grant applications for the questions on funded projects. A request for available dates for interview was included in the email, and telephone interviews were subsequently arranged for an agreed time. The interviews were recorded using digital audio recorders to enable detailed notes to be taken, and a semi-structured interview format was followed. This allowed the interviewer an opportunity to follow up any interesting themes and gave some flexibility in the interview schedule depending on the number of projects the institution had. The interviews each took between 10 and 40 minutes. It was agreed that each individual interviewee and author of the case study would remain anonymous, but since JISC reports are in the public domain, it was felt that projects and universities should be identified. The interview questions, case studies and consent forms were agreed through the Leeds Metropolitan University research ethics process.

The qualitative data were analysed by the project team members at Leeds Metropolitan University, aiming to identify indicative themes and patterns in line with the aims of the project. An inductive process was employed to generate the results and conclusions.



Member Universities

University of Abertay Dundee
Anglia Ruskin University
Bath Spa University
University of Bedfordshire
Birmingham City University
The University of Bolton
Buckinghamshire New University
University of Central Lancashire (UCLan)
Coventry University
University of Derby
University of East London (UEL)
Glasgow Caledonian University
University of Greenwich
Kingston University
Leeds Metropolitan University
London Metropolitan University
London South Bank University (LSBU)
Middlesex University
Napier University
The University of Northampton
Roehampton University
Southampton Solent University
Staffordshire University
University of Sunderland
University of Teesside
Thames Valley University (TVU)
University of the West of Scotland
The University of Wolverhampton



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