

JISC

Debating Innovation

The JISC Innovation Forum 2008



The Joint Information Systems Committee (JISC) Innovation Forum 2008 (JIF08) was held at Keele University on 15 and 16 July 2008. It brought together over 300 people representing more than 100 different organisations within JISC's portfolio of innovation projects and programmes to share their innovations and experiences with funders, JISC Services, innovation centres and each other.

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1. Introduction

The Joint Information Systems Committee (JISC) Innovation Forum 2008 (JIF08) was held at Keele University on 15 and 16 July 2008. It brought together over 300 people representing more than 100 different organisations within JISC's portfolio of innovation projects and programmes to share their innovations and experiences with funders, JISC Services, innovation centres and each other.

In her welcoming address, Sarah Porter, Head of Innovation at JISC, described those gathered as not just an innovation community but an innovative community. That innovation and energy was reflected in the level of engagement of delegates across a huge breadth and depth of subjects as well as in the nature of the event itself.

Alongside formal sessions based around five themes, there were also interactive discussion forums, a marketplace with project demonstrations and exhibition stalls, and a range of different formats for debates, including a fast and furious 'goldfish bowl' session in which delegates dashed to an inner ring of chairs in order to make their point, and risked being given a red card if they dominated proceedings too much.

The five themes of the Forum were:

- Barriers to the take-up of technologies
- Research data – whose problem is it?
- How to meet the changing student experience
- Sustaining innovation beyond JISC funding
- User-owned technologies vs. institutional infrastructures

Interactive discussion forums were also held on four topics:

- Web 2.0
- JISC Future Priorities
- Green Computing
- e-Framework

The theme-based presentations and forums sparked numerous other topics to debate, share experiences and knowledge about and argue over. The lively discussions that buzzed throughout the conference rooms, hallways, café and bar and which were a highlight of the event for the participants were also continued online on the Forum blog (<http://jif08.jiscinvolve.org>). Every session was live-blogged, which enabled the debates to be followed outside the event and for comments to be added after the session itself had finished.

This report draws on those offline and online discussions to present seven key issues which emerged from JIF08.

These are:

- Sustainability: business models for innovation
- Sustainability: sharing innovation
- Sustainability: innovation for the environment
- Learner experiences and the digital generation
- Managing multiple identities
- Research data challenges
- Innovative communication



2. Sustainability: Business Models for Innovation

Sustaining innovation in economic terms – defined as having a mechanism in place for generating, or gaining access to, the financial resources necessary to keep intellectual property or the service available on an ongoing basis – is crucial if the outcomes of projects are to continue to reach an audience.

In a tougher economic climate, projects may increasingly be required to look beyond funding for extra income streams. Potential business models include charging for core services, charging for value-added services, membership or consortium models, and advertising. Whatever the model, attracting users to services must be central.

Business models

Through a series of case studies, delegates were offered insights into different approaches to sustaining academic electronic resources: a public-private partnership, a not-for-profit consortium, and an institution-supported initiative.

Electronic Ephemera: Digitised Selections from the John Johnson Collection, a JISC-funded digitisation project, is being undertaken by the Bodleian Library in partnership with ProQuest. The business model is governed by the JISC consortium agreement. The Bodleian Library's team handles the conservation, cataloguing and handling of the collection, while ProQuest provides the digitisation services, looks after the design and development of the interface and disseminates the resource within the UK and beyond. The sustainability of the project is based on ProQuest's commercialisation of the service outside the UK; the revenues generated cover the ongoing costs of hosting the data and maintaining the interface for UK institutions. The partnership builds on the strengths of both parties, and creates a more scalable structure as there is funding in place for a project manager.

The not-for-profit organisation JSTOR is the basis for the sustainability model for another JISC digitisation project, a Digital Library of Core e-Resources on Ireland. Income is generated via a subscription service for non-UK and Ireland users.

The institution-supported Vision of Britain project is currently facing a sustainability crisis because funding has stopped and the site needs to generate income. The most promising income stream is advertising, licensing and co-marketing and the example of British History Online was offered, which makes £1 per 1000 page views, generating £1000 a month.

Attracting audiences

Attracting users is a critical element of sustainability, and the sustainability model used by the Digital Library of Core e-Resources on Ireland works primarily because the content is useful and useable. It is chosen by academics for academics, and the archive is based in part on library pattern usages. The archive doesn't ask researchers to change the way they work, which can be a barrier to other models. With this archive the materials are delivered to the academic's desktop. In addition, the archive is continuously being added to with new and updated journals, ensuring that it is not a dead resource.

For the Vision of Britain, the key to the success of the site is increasing the number of users, although the site already has over 70,000 unique users a month. This case study highlighted the importance of engaging with public internet – there are 1,800 links into the site from Wikipedia. The site receives a lot of visitors from search engines, and the data is very usable, with much of the information represented in graphs and images.

The need to create usable content that is effective and useful to the intended audiences was further emphasised by Chris Batt of the Strategic Content Alliance, who has been conducting research into how public sector organisations understand the users of their digital services.

Batt suggested that projects start to think about using the kinds of tools valued by commercial organisations. Most commercial organisations, which live or die by the take-up of their services, dedicate 10% of their budget to attracting users, and in the early days of a project they may invest even more. He noted that it would be interesting to look at what kind of level of investment would make a difference in higher education.

Issues

A number of challenges for sustainability were raised in the presentations, in the discussion sessions and on the blog. One speaker mentioned that aspects of public funding can create challenges to sustainability, and introduce complexities to business models. Trends of open source and Open Access can add to this complexity. The reliance on universities to maintain e-resources brings its own difficulties and it was suggested that institutional repositories could be part of the answer.

The question of timing was isolated as a key issue in the discussions with the recognition that in the years between preparing bids and producing outputs the technological, economic and political landscape may have shifted



significantly. Flexibility in economic sustainability planning was urged.

The need for good advice and guidance in this area was also singled out as important, especially for very small projects where planning for sustainability – and the legal and technical knowledge it requires – may suck resources from the project.

A potential drawback to the use of focus groups was raised. It was suggested that they result in satisfying only what people think they need, ruling out innovation and what the audience don't know about yet.

Examples of JISC's work in this area

In the last six months JISC has been working on:

- Creating a business skills study, which included looking at the skills required in JISC to help projects identify business models and create effective business cases
- The JISC Services portfolio review, which looks at the current set of services and reviews these on an annual basis
- A pilot sustainability process
- The Strategic Content Alliance has also commissioned work on sustainability and revenue models (<http://sca.jiscinvolve.org/category/sustainability>).

3. Sustainability: Sharing Innovation

An appropriate business model is essential to sustain projects in economic terms, but sustaining innovation is not simply about economic business models. It is a process that encompasses the accessibility of information about successful – and not so successful – projects, the availability of a knowledge base of lessons learnt, and new ways of making expertise more easily available.

Creating a knowledge base

The ability to discover easily what projects have learnt emerged as a key issue in sustaining innovation.

A delegate commented that 'a lot of things tend to be buried deep in a document. Accessing that would help people stand on the shoulders of giants, build and evolve. While things are locked away in a dusty pile of paper it's not accessible'.

It was also emphasised that this sharing of knowledge and outputs needs to take place not as a one-off exercise but over a sustained period of time.

Opening up innovation through better access to research data via commons licences was also mentioned as a key factor.

While better access to reports, case studies and other written information was seen as important, a system for accessing the skills embedded within individuals was also highlighted as an issue. It was emphasised again in Sarah Porter's closing address with the suggestion of an 'expert registry' to help projects locate expertise.

A means of keeping track of programme managers who have particular business and revenue-raising skills was suggested, along with the possibility of an online mentoring process.

Timing was seen as crucial, with a need for feasibility projects that include business models and legal issues to be brought in much earlier. 'One thing JISC could do better is look at different stages, such as feasibility studies for blue skies,' commented a delegate. 'There's no point in doing a lot of sustainability planning for experimental stuff. If we're going to do something at demonstrator level, we need to engage the community in terms of taking those projects on. If there isn't any, that's a good indication that it shouldn't be going on.'

Sustaining software

A different take on sustaining innovation was offered by Neil Chue Hong of the Engage project. He looked at the 'human aspects' needed to create sustainable communities around software. He identified four elements: cohesion and identity; tolerance of diversity; efficient use of resources; and adaptability to change. He suggested a prescription for keeping good software alive: understand the value; identify the community; leverage technology; improve process; keep people engaged; encourage contribution; above all, if you use it, make sure people know. It was noted that this could apply to sustaining innovation across the board, not just for software.

Examples of JISC's work in this area

- Production of a sustainability handbook
- Better management of information to make it more easily available on the JISC website is currently under way

4. Sustainability: Innovation for the Environment

In her opening address, Sarah Porter spoke of the value of using technology as a lever for change for getting institutions to move forward in a positive way. Nowhere, arguably, did this come across more clearly than in the discussion and debates concerning innovation to help the learning and teaching community reduce its environmental impact.

While sustainability in terms of the environmental impact of Information and Communications Technology (ICT) may not have had the same high profile of some of the other themes of the event, the need to understand and lessen the energy consumption of technology use was an undercurrent of many of the discussions.

The issue of green computing, in particular, was the subject of a lively forum in which both the ideological and the practical dimensions of the issue were covered. Two key drivers for more ecological practices were identified: institution self-interest and student idealism.

Green computing

According to Professor Peter James of the Sustainable IT in Tertiary Education (Suste-IT) project, the moral impetus for environmentally aware procedures is important, but it has a greater impact when linked to self-interest, and the most powerful area of self-interest for this issue is financial. The www.susteit.org.uk website has a tool to help institutions monitor their power consumption. Given the current rise in fuel prices, universities might start to find themselves spending millions more pounds on electricity than they had originally budgeted for and so be prepared to look at power-saving through technical solutions such as implementing power-downs, grid computing and energy-efficient data centres.



One such way to reduce power consumption through technical solutions was demonstrated by Howard Noble from the University of Oxford. Noble and his team have been working on software that provides a realistic simulation of how people use computers. It can model the effects of standby, and give real data on how much power is being used. As well as monitoring use, it can measure capacity and offer possibilities for grid computing to make the most of idle machines. It also reveals economic opportunities, such as where an institution could sell spare grid computing capacity to external organisations.

Issues

In the discussion, the importance of student concerns around green issues was raised. It was noted that there have been cases of students demanding energy information on a freedom of information basis, and it was suggested that there should be policies to help students take the initiative themselves to manage resources. More research is needed into how much power students use, especially with the increase in e-learning, and the fact that many students use laptops rather than desktops, which are already more energy efficient.

Shared services were seen as potentially powerful with a strong case for economies of scale, which also makes it easier to access renewable energy. The possibility of world-class green shared data centres was raised, although it was noted that a potential problem could be that some institutions insist that servers have to be based on site.

5. Digital Diversity and Learner Experiences

Thanks to the JISC-funded Ipsos Mori study of student expectations, the Learner Experiences of e-Learning programme, and the Google Generation report funded with the British Library, there is now a rich seam of research into learners' habits, strategies, choices and patterns of use. While exploding some myths about generation gaps in the use of technology, the findings also demonstrate the extent of digital diversity in the learner experience and highlight issues around skills gaps that need to be tackled.

The Google generation?

The rise of the so-called 'Google generation' of young people who are digital natives and happily engage with a wide range of technologies to aid their learning is not borne out by research. Older people who use IT and the internet catch up quickly. Over-65s spend more time on the internet than 14-25s. There are young people who don't want to engage with technology, and older people who do – different people have different styles of learning, and the key to effective learning strategies is flexibility for staff and students.

Effective learners can be characterised as those who use what they know and have to hand in ways that support their study. They use their knowledge and networks to enhance their environment. Students may know how to use technologies, but whether they can apply this in a context is a different matter. Learners of different generations may be more sophisticated in their use of technology.

A skills gap

The perceptions are that young people are expert at using computers, but high use does not necessarily indicate competent use. They use search engines, but perhaps not effectively enough. Most are satisfied with their search results but it may not be at a high enough level for higher education. They need to evaluate the information they receive in more depth. Some want short answers and soundbites, and there are questions about whether the information they find is appropriate for their needs.

While technology is becoming more pervasive among learners, there is a question mark over whether 'academic' use of technology is equally pervasive. There are also questions concerning whether the learners are radical enough in terms of their use of technology for learning. Students tend to find that as they become more expert, they are more confident in using a wider range of technologies. Most learners learn a great deal about how to use technology from their academic experience. However, technological choices need to be meaningful to the learning experience. Students

Examples of JISC's work in this area

- A series of workshops on 'the sustainable desktop' and shared services based on Suste-IT's ICT footprinting tool (www.jisc.ac.uk/whatwedo/programmes/programme_jos/susteit)
- The Business Innovation (Green ICT) strand of the JISC Organisation Support programme (www.jisc.ac.uk/whatwedo/programmes/programme_jos)

might not expect to be exposed to certain tools that academics use as a matter of course, but they hugely value that kind of exposure. That may be more valuable than chasing them across Facebook, it was suggested.

Disruptive technology

It was acknowledged that Web 2.0 can help students to build knowledge but there were concerns about the quality of information students acquire using these types of tools, and the wealth of ways it offers for both them and their lecturers to be distracted, especially given limited staff time and increasing numbers of students in higher education.

Some students are not comfortable with using tools such as Facebook as a formal part of the course, despite being familiar with them. The use of social networking is high and has risen and it is most effective when it is student-driven, and not driven by the lecturer. As a whole, students do not think it's a good idea for tutors to use social networking sites as a teaching method. There is a recognition that there are boundaries, and an indication that there is a very clear separation between using technology for learning and for social situations.

'I keep hearing from colleagues that this is where we should be going – Facebook, MySpace – that's where students are hanging out and we should hang out there too. Actually, the students don't want their tutors in their Facebook,' commented one delegate.

Examples of JISC's work in this area

- Learner Experiences of e-Learning phase 2 is reviewing and investigating how learners experience and participate in learning in technology-rich environments (www.jisc.ac.uk/whatwedo/programmes/elearning_pedagogy/elp_learnerexperience)
- The e-Learning for Learners (e4L) project is investigating learners' opinions about and experiences of e-learning from adult and community learning, further and higher education (www.jisc.ac.uk/whatwedo/programmes/elearning_pedagogy/elp_e4l)
- The Alternate Reality Games for Orientation, Socialisation and Induction (ARGOSI) project is examining the potential of Alternate Reality Games as an engaging alternative method of supporting student orientation, socialisation and induction (www.jisc.ac.uk/whatwedo/programmes/programme_users_and_innovation/argosi)

6. Managing Multiple Identities

Multiple identities, and how we manage them, was a cross-cutting issue, cropping up in a number of sessions under different themes.

It was at its liveliest in a dynamic 'goldfish bowl' debate on access management and identity which started off as a discussion of the benefits of OpenID systems compared to university-imposed identities and moved around the challenges presented by Facebook, identity theft and permanent online records (and the way these can affect personal and institutional reputations). It finally moved towards a conclusion in which it was suggested JISC could perhaps help set up a framework and comprehensive cross-discipline debating space in which guidelines on personal conduct and control of identity systems might be laid down.

Issues

The fluid nature of identity in the online world raised the question of whether students have the skills sets to manage their online profiles on networking sites such as Facebook in a sophisticated enough way, or if they are in danger of releasing information to the wider world they might quickly regret.

It was argued that institutions have a duty and accountability to look out for students and their reputations, especially where it might have a negative impact on the institution or even the whole sector. 'If a student makes a mistake there can be a bigger range of impacts than simply personal ones,' suggested one participant.

There was general agreement that people can forget that they are expressing their identity and forming a reputation for themselves in public spaces but there was lively debate around whose responsibility it was to advise students on the issues.

Questions were raised regarding how much information institutions should collect and whether they should manage student identities by imposing them on them for the purposes of exams or if students should have a right to pick their own IDs as the institution's 'customers'. Who can be trusted brokers of this information?

The Facebook question

The Facebook question took on another dimension in discussions about Web 2.0 and the learning experience. Should tutors and students be 'friends' on Facebook? How distinct should 'academic' and 'social' identities be?

In discussions on the 'Google generation', there was an indication that, for students, there's a very clear separation between using technology for learning and for social situations. The notion that learners want to be able to access their lecturers via Facebook is by no means universal.

One lecturer said that they only had students they were already friendly with as friends on their Facebook account – Masters or PhD students – and would never invite a student to be a friend for fear of putting them under undue pressure. Another commented that if lecturers and students use Facebook they can locate and message them quickly, and that it is good to be able to guarantee the presence of the people you want to network and communicate with.

A student pointed out that where lecturers do have Facebook accounts and welcome their students it is quite effective for the teachers because they can see who their students are. She suggested that the solution to privacy issues might be for lecturers to have a separate Facebook account as well as their personal one, so they can create a group just to help students. This raised further issues concerning the management of multiple identities.

Audience identity

Multiple identities is also an issue in trying to understand and analyse audiences. According to Chris Batt, 'We all have different needs at different times, but also the same content can be used to satisfy different needs.'

A participant shared their successful experience of integrating multiple Web 2.0 gateways into a project, to appeal to different audiences, and it was agreed that more of this type of innovation will become essential.



7. Research Data Challenges

In an environment in which user needs are changing from sourcing data to managing it, and the information landscape is changing more generally from scarcity to abundance, data curation presents huge challenges. Three key issues which need to be addressed emerged from discussions: intellectual property rights, training and infrastructure.

Intellectual property rights

Intellectual property rights (IPR) is an issue which inevitably cuts across themes and at JIF08 it made its presence felt acutely in discussions about data curation. These focused on the question of who is responsible for IPR – researcher or institution? It is a frequently misunderstood area which stifles curation and sharing.

Initial discussion centred on what was the right approach to IPR and copyright that would enable curation and data sharing to take place. Some argued for the Science Commons approach (that as soon as possible, all data should be put into the public domain with all rights waived) which was seen as a simple and effective way of sharing data. Others felt the challenge here was to get researchers to accept this approach – and thought that licensing data was the way forward. There was discussion concerning who was the rights holder – it is not always clear, firstly, what the rights are and, secondly, who owns them.

An interesting point was made about EU legislation, which requires any public sector institution creating data to supply it at cost price for commercial organisations to re-use. Universities may in time be included under this proposed legislation.

The lack of clarity is exacerbated by Web 2.0, as Naomi Korn highlighted in her workshop on IPR, Web 2.0 and You. Web 2.0 facilitates collaboration and a cyclical flow of content but cultural perceptions of copyright have been confused because of confusion between rights of access and use on the web. The result is a lack of clarity about roles and responsibilities relating to Web 2.0 rights.

Skills and training

Given the lack of clarity, IPR and legal issues would appear to be an area where additional skills and training would be valuable, especially for data management specialists. This was recognised in a brainstorm on skills development in the data management sector, which is at a relatively early stage in terms of thinking about what skills and careers are needed to enable data to be managed/curated well, except in limited, fairly well-defined areas.

Three main areas were covered. The session began by thinking about the careers of researchers, and discussion centred on how data management can be embedded from the earliest possible opportunity, right across people's lives (looking at digital literacy from primary school to the skills of experienced data scientists). The fact that data management skills are not seen as important was discussed, with a need for reaching into different disciplines and raising awareness (particularly badging and tailoring training in ways that researchers are likely to recognise and respond to) suggested as a recommended response.

The session also discussed the need for a canon of digital curation practice, from which more disciplinary research and training can be drawn – is it possible to define a canon of generic data curation practice that is valid across disciplines, and should that canon be called 'curation'? (Would data science or management be a better term?)

There are several best practice/existing models of training which could be looked at, including records management, librarianship and digital asset management.

Directions to be taken in the long term were identified:

- More work on raising awareness is needed
- Evidence for investing in a sustainable way
- Embedding training at the earliest possible level
- Need for a canon of material to cite and build on to progress the profession
- Define career paths as data management is not well defined

Infrastructure

Infrastructure challenges were identified as: volume (both quantity of data and heterogeneous data); training researchers; institutional vs. subject repositories; the reasons for keeping data (re-use and sharing or curation) and how solutions for these may differ.

The discussion centred on the additional metadata needed to reinterpret the data. There were some concerns about the cost of creating that and how much should be done up front. In addition to capturing the data, and how data is interpreted, the context is useful (who, why, historic context, motivation).

There was substantial discussion of the purpose of retaining data, was it re-use or long-term storage? Should a nearline/offline storage model be used? Infrastructure for re-use may be different from that for long-term storage. There was some agreement that capture and dissemination were front-line tasks, and the hope that it had to be re-use first, and that preservation would then happen on the back of reuse, sharing and integration.

Issues for further discussion were also identified:

- Within a research environment – can we facilitate data curation using the 'carrot' of sharing systems? Can we build IT systems that both support lab (or fieldwork, etc) data curation and controlled sharing where appropriate?
- Additional context beyond the metadata: data provenance is essential, and perhaps wider than previously considered
- How do we help institutions understand their infrastructural needs: what are the requirements for institutions (either higher education institutions or data centres, or even hybrid approaches) taking responsibility for curating research data?
- What has to happen with the various archive systems to help them cope with research data curation, while retaining a link with the library and institutional systems? It might be useful to see whether some common requirements can be documented for IT systems for data curation.
- How do you determine what is valuable data? How can librarians/information managers mesh their skills with those of researchers to improve the curation experience?

Examples of JISC's work in this area

- The Web2Rights project is producing factsheets, practical tools and a wallchart about IPR issues (www.web2rights.org.uk)
- The Repositories programme has a Data Audit Framework Development project (www.jisc.ac.uk/whatwedo/programmes/digitalrepositories2007/dataauditframework)
- A new study by Key Perspectives, funded jointly by the Research Information Network (RIN), the Nature and Environment Research Council (NERC) and JISC will investigate the following areas:
 - i) The role that data outputs currently play alongside, or as an alternative to, conventional publications in the research communication process
 - ii) The nature and range of arrangements for making research data as widely available as possible
 - iii) Current practice for ensuring the quality of data. The study will be guided by some of the foremost scholarly data experts in the UK

8. Innovative Communication

'How does the work going on in the basement and at the edges spread?' asked John Selby, Director (Education and Participation) of the Higher Education Funding Council for England (HEFCE) in his keynote address. 'It's easy to talk to people who understand your language, to people who are on your side,' he commented, and urged delegates to 'speak beyond the community'.

This need to spread the expertise and knowledge embedded within the JISC community more widely was a thread that ran through all the sessions. Creating an easily accessible knowledge base within JISC to communicate successes and failures was a key theme to emerge from discussions about sustaining innovation. Communicating to audiences – and understanding who those audiences are – in order to market services and projects was seen as crucial to successful sustainability of projects. Communicating with students to better understand their needs will make the learner experience more effective and valuable. Finally, communicating with senior management to effect institutional change ensures that innovation spreads throughout institutions.

Communicating with each other

The need for a knowledge base to easily share outputs across and between services and projects, and a registry to locate the expertise embedded within people have already been covered under 'Sustainability: Sharing Innovation'.

However, from a technical angle, JISC-funded projects also produce a great deal of valuable outputs, in terms of software, data formats, formal models and other more informal guides and reports. But how can those outputs be made more visible, and disseminated more widely, and how can their context be captured to ensure their sensible reuse?

The international e-Framework was suggested as part of the answer. It is built on the principle that information on technical services should be collected and shared. As well as better supporting the technical e-Framework, this also has the potential to capture and make available the findings of a much wider range of JISC projects than just those dealing with technical services.

'Storytelling' is the intriguing notion behind the eIUS (e-Infrastructure Use Cases and Service Usage Models) project, which was offered as another example of how to spread the word on the benefits of using e-infrastructure. eIUS uses experience reports and use cases (idealised stories or scenarios) to communicate where network use can make a difference and encourage new users.

The potential for Web 2.0 applications to improve communication was demonstrated with MyExperiment.org, a site which lets scientists share data in the same way that photos can be shared on Flickr.

Communicating a shared vocabulary

The need to develop a shared, consistent vocabulary to ensure that everyone is communicating about the same things came up regularly in a variety of contexts.

As the international e-Framework put it, from a technical perspective, if everyone has the same vocabulary, sharing will be a lot easier. A community will document what they have done as a technical component, and then they can use or refine that, or another community can reuse what they have contributed or build upon it. At its core, that's the common vocabulary – explaining how we do things.

Chris Batt also stressed that we need a common language in order to be able to talk about the issues of audience analysis. For example, some organisations use the term 'user', others 'audience', and others 'consumer' and there needs to be agreement about how the landscape is described.

Communicating with audiences

Improvements to communication and marketing need to be made to ensure effective take-up of technology.

A digitisation project manager suggested on the blog that projects take on dedicated marketing and dissemination officers to ensure that the project is marketed effectively using a variety of strategies that are targeted at the relevant sectors.

Better market research and understanding of audiences would also help projects to communicate better with their target users. Breaking down large groups of potential users into much smaller groups in order to communicate tailored outputs that respond more precisely to their needs was suggested.

A more radical idea is to bring the users in to help design the product. In his keynote speech, Jason DaPonte outlined the co-design principles he is currently espousing in his work as managing editor of BBC mobile platforms. He described it as a trial and error, outcome-based style of working based on collaboration. He warned that it is not necessarily an easy process, and of some of the mistakes you can make, such as only involving users at the end, and the need to bear in mind that users aren't always right ('we've had some weird answers').

Communicating with students

During a session on 'Bridging the Gap', the point was made that institutions in general are remarkably poor at even knowing what students are doing, what they want, let alone trying to fulfil their expectations: 'We need more



conversations with students and find more opportunities to listen. We're into a mass higher education system where bigger is better. If you've got 600 students on a course, where do you find the chance to have those conversations?'

University email systems were highlighted as a particularly poor method of communicating with students. Malcolm Ryan of the Student Experience of e-Learning Laboratory said that the project discovered that less than half of students use their university email account regularly, and that what is interesting is that the university believes that once they have emailed a student, they have communicated with them. Whether they pick it up is neither here nor there.

Solutions suggested included finding out preferred means of communication to increase the likelihood of messages being picked up, and better use of student representatives to log concerns and convey them.

'We found that the student voice is a very powerful way of overcoming resistance to change – we can show student experience to people, and sometimes it's just about hearing what students are saying, picking up their experiences, and working from that. There are many different ways to achieve institutional change,' said one participant.

Examples of JISC's work in this area

- JISC supports the International e-Framework (www.e-framework.org)
- The Strategic Content Alliance is funding audience analysis studies (<http://sca.jiscinvolve.org/category/audience>)

9. Future Directions: Next Steps

New directions to follow emerge naturally from any large conference, but fresh thinking and co-design of future priorities was actively encouraged at JIF08 in a forum dedicated to the subject.

Challenges for the future were identified by Sarah Porter in her opening address and included:

- Having incremental and sustainable changes in institutions
- Sustainable technology – technology making a positive environmental contribution
- Open source vs. sustainable business models – how can we continue to fund development?
- Flexible and appropriate technology which suits users' needs
- Maintaining and developing excellence in research

Delegates were then asked:

- Are there activities that the JISC is not funding at present that it should consider?
- Are the models that the JISC uses to support innovation the right ones?

The resulting discussion produced a wide range of suggested issues and priorities to consider. The main issues raised can be placed under five headings: institutional concerns; supporting and understanding users needs; how JISC runs programmes and projects; infrastructure and technology; and supporting community and collaboration.

Institutional concerns ranged from issues such as helping staff to be effective in their changing roles and understanding the institutional barriers to change, to questions about how JISC can help institutions to embed e-learning, ensure the place of technology in the overall practice and maintain a balance between trying to deliver an IT service that works while also supporting innovation. How to make data repositories more compelling, and setting standards for access were also raised as institutional concerns.

Priority areas concerning **user needs** included a better understanding of changing demographics and the importance of inclusivity within the wider 'digital divide' debate. Digital literacy was highlighted as an issue for school age education, rather than at higher or further education level.

Issues for JISC to consider in the way it runs **programmes and projects** covered a wide range of points. Sharing good practice, especially as the sector becomes more competitive, was a focus, with the setting up of an expert registry to make it easier for projects to locate expertise suggested as a priority area. An argument was made for technical

projects to provide summaries of their work as a means of aiding collaboration. JISC's funding models also came under scrutiny, with a call for more imaginative models such as centres of expertise. The need to better embed projects was raised, along with the need to engage more institutions.

Directions in **infrastructure and technology** included activity concerning data curation and digital content management and the question of who will deliver training in these areas. The need to understand and develop shared services was raised, as well as discussion of intentions and priorities concerning open source and open standards, particularly greater coordination across standards bodies. Making the e-Framework more accessible was also identified as a priority.

What JISC might do to engage senior management in institutions was a key issue for supporting **communities and collaboration**, while exploring models and providing guidance about sustainability and business models was highlighted as a positive future direction.

JISC Innovation will be considering the suggested future directions. In the meantime, we urge those in the innovation community to continue discussing the issues, ideas and plans from JIF08. Or, in the closing words of Sarah Porter's welcome address, 'Go forth, share, discuss, innovate and enjoy!'



Comments from the blogosphere

Richard M Davis

As usual, a JISC gathering is a great opportunity to meet others working in the field – plenty of familiar faces and some new ones. JISC-sponsored innovations move on at a head-spinning pace in all the areas we are directly or indirectly involved in, from digital preservation and archives to repositories and e-learning.

<http://dablog.ulcc.ac.uk/2008/07/16/wont-you-please-please-sneep-me>

Chris Rusbridge

I attended an interesting discussion in the data theme on technical infrastructures... Overall, it was a useful session, and if JISC takes up some of the opportunities for development suggested, it should prove doubly, trebly or even more useful!

<http://digitalcuration.blogspot.com/2008/07/jif08-technical-infrastructure-session.html>

Lawrie Phipps

The sessions that I attended were excellent, and the diversity on show really made me think hard about what we do as the larger JISC Innovation Group...One of the most interesting themes that I picked up from the people I spoke to was the amount of sharing of information going on outside of sessions, and how they intended to take things forward once they left the event.

<http://lawrie.jiscinvolve.org/2008/07/21/reflecting-on-jif08>

Julian Beckton

A lot of the really useful stuff that goes on at these events takes place outside the lecture theatre...I had a very interesting chat with somebody from Coventry University who has developed a problem based learning scenario for training paramedics that plays out in Second Life. Indeed, they had a demonstration running of it and I began to see ways in which virtual worlds might have more pedagogical value than just recreating the real university...I have collected armfuls of interesting literature for us all to read!

<http://learninglab.lincoln.ac.uk/blogs/julian/tag/jif08>

Robert Haymon-Collins

The thing which struck me was the richness of the particular examples contained within projects, and how directly they can speak...

<http://roberthc1.jiscinvolve.org/2008/07/16/jisc-innovation-forum-08>

Alex Voss

The mixture of people who do not normally come together provided fertile ground for discussions and for exploring synergies between projects in different programmes.

<http://blog.ncess.ac.uk/?p=67>

Shirley Williams

I found the whole thing a great experience.

<https://redgloo.sse.reading.ac.uk/ssswills/weblog/2573.html>

Paul Walk

I think the forum was a great success overall – I learned plenty and was able to contribute.

<http://blog.paulwalk.net/2008/07/17/jisc-innovation-forum-2008>

And on Twitter...

Shirley Williams I enjoyed the experimental structure of the goldfish bowl, at jif08 identity session, just bit worried some of us hogged the bowl

George Roberts Getting all a quiver at the start of the JISC innovation forum. Many projects in one place. I admit to being impressed

Pat Parslow Good chats on security, transitions, domain maps, eAssessment and digital identity during lunch. Thanks all

Debating Innovation: the JISC Innovation Forum 2008

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