

Stakeholder Requirements for Institutional Portals

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For further information on the JISC and JISC Programmes, visit their Web site at <http://www.jisc.ac.uk/>.

For further information on Academic Services Interactive Media, visit their Web site at <http://www.acsweb.hull.ac.uk/imedia/>.

For further information on UKOLN, visit their Web site at <http://www.ukoln.ac.uk/>.

For further information on the PORTAL project itself, visit the project Web site at <http://www.fair-portal.hull.ac.uk/>.

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Appendices are available for separate download from
www.fair-portal.hull.ac.uk/deliverables.htm

Executive Summary

In an effort to better understand the preferences and requirements of those for whom institutional portals are being constructed, the PORTAL project undertook a period of stakeholder consultation between November 2002 and March 2003. This process included an online survey completed by 557 individuals, as well as focus groups with 53 individuals at four institutions, and in-depth interviews with 25 individuals at one institution. Interviews were also conducted with representatives of the Joint Information Systems Committee.

Such a body of qualitative and quantitative data offers great potential for analysis, and is capable of being segmented by institution type (FE or HE) and by participant role (undergraduate, postgraduate, research staff, teaching staff, administrative staff, support staff).

This report is structured according to the questions asked in the online survey, presented in order of their perceived popularity amongst respondents. This structure is enriched with evidence from the focus groups and interviews, and the whole presents a valuable insight into what a selection of users *think* they want at the present time.

On the whole, respondents welcomed the role of an institutional portal as a means of gaining access to both institutional and external resources. However, certain external information resources, such as the near-ubiquitous weather forecast, were almost universally rejected in favour of access to library resources, teaching materials, and personal information.

Personalisation is, unsurprisingly, a major topic. At one level, the ability to have the portal personalise displayed content by department, course, role, etc is welcomed and useful. Beyond this, though, tensions begin to appear between end users who might wish for a greater degree of flexibility and the portal providers who wish to retain control over key aspects of the content, look and feel of the portal.

Introduction

Work Package 3 of the PORTAL project, 'Defining Requirements of the Institutional Portal', aimed to provide a

"focussed consultation with stakeholders, in order to evaluate their requirements of a portal. The range of stakeholders include end-users (with a learning or research orientation), those concerned with the educational impact of the service, national funding bodies, and the institution itself... The consultation will include interviews with key stakeholder groups..." (PORTAL Project Original Bid)

The initial task was to broadly identify stakeholders for institutional portals. These were condensed into the following categories:

- Students
 - HE – Undergraduate / Postgraduate
 - FE
 - Prospective Students
- Alumni
- Teaching Staff
- Researchers
- Administrators
- Support Staff
 - Library / Information Staff
 - Learning Technologists
 - IT Support Staff
- Institutional Policy Makers
- National Funding Agencies
- Content Suppliers
- Portal Vendors

Work Package 3 has focused on consultation with potential users of institutional portal systems and, as such, portal vendors have been excluded from the work undertaken.

A number of institutional portals provide access to institutional data for prospective students, their parents and alumni. Though a valuable area of investigation, due to the limitations of time, the needs of such groups have not been included in this consultation¹. Consultation with external content suppliers will form a key part of Work Package 4 and will be included in the report 'Stakeholder Requirement for External

¹ A number of issues relating to the needs for prospective students arose incidentally in the FE student focus group.

Content for Institutional Portals', available on the PORTAL web site from the summer of 2003.

Methodology

In order to ascertain the views of a broad cross-section of the stakeholder community, both qualitative and quantitative methods were used. Detlor has called for "a new direction in portal design that calls for an awareness of the information needs and uses of organisational participants" (Detlor, 2000:95). By measuring preferences for portal features within the broader community and engaging with the activities of stakeholders at a number of distinct sites, the PORTAL project hopes to provide a generalisable view of the information uses and needs within the tertiary education community.

Online Survey

An online survey was produced to gauge the views of as broad a section of the UK tertiary education sector as possible. The survey ran from November 2002 – February 2003.

Portal Priorities - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://www.learndev.hull.ac.uk/portal_survey/

Google Search Web Search Site Page Info Up Highlight

Email:

Further Education or Higher Education :

FE

HE

Institution:

Department:

Primary Role :

Student

Post Graduate Student

Researcher

Teaching Staff

Administrative Staff

Support Staff

UKOLN JISC THE UNIVERSITY OF HULL

Figure 1 – Users were asked to provide information about themselves prior to completing the survey

Using a condensed set of existing and planned portal functionality, based on features included in the Portal Functionality Table developed as part of the project², the survey aimed to measure user preferences for institutional portal functionality³. Users were provided with a brief overview of what portals are and were invited to submit information about themselves (figure 1). Their sector, institution and role were compulsory fields, in order for the data analysis to provide meaningful results, and, as an additional motivation, users were invited to submit their email address in order to be enter into a prize draw. A draw for a £20 Amazon voucher was offered as an incentive to users to complete the survey.

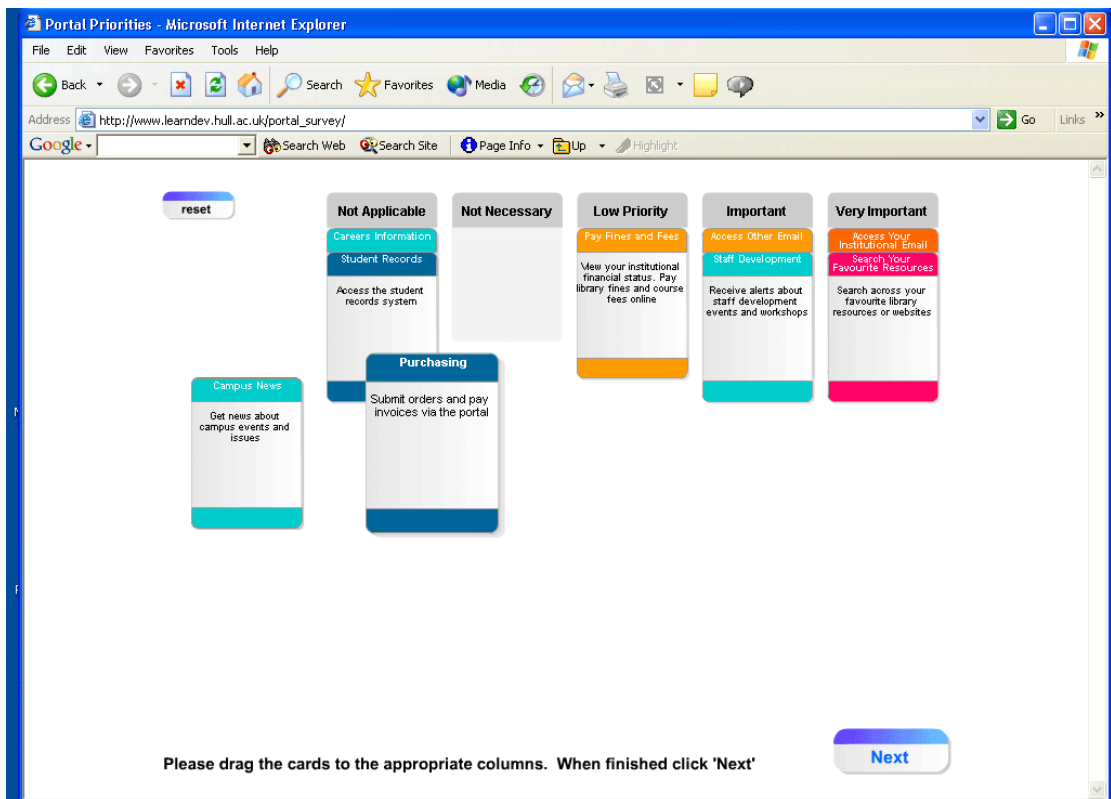


Figure 2 – Respondents completed the survey by placing cards on one of five stacks. Respondents were asked to categorise each potential function as one of Not Applicable, Not Necessary, Low Priority, Important, or Very Important by placing a card describing the function on the appropriate stack. During analysis, scores were then allocated to the results based on an award of 0, -2, 1, 2, or 3 points, according to the stack to which a card was assigned. The 0 was used for items judged “not applicable” because this was seen as neutral – just not applicable to the particular respondent, rather than not necessary for any user of a further/higher education portal. The -2 for “not

² The Portal Functionality Table can be accessed at www.fair-portal.hull.ac.uk/WP3.html

³ The selection of portal functions presented to users can be found in Appendix A, available for download separately from www.fair-portal.hull.ac.uk/WP3.html

necessary” was because an item assigned to this stack was actively not wanted, 1, 2 and 3 for “low priority”, “important” and “very important” respectively because each of these was seen as incrementally more valuable. These are seen as broadly equivalent to “could include”, “should include”, “must include”.

The survey was developed using an object from the Iconex repository⁴ which was repurposed for use within the user needs survey. It was hoped that the card game metaphor would provide a novel interface encouraging participants to complete the survey (figure 2). User responses to the survey were mixed but generally positive, comments ranged from: “A terrible, terrible user interface. It was a nightmare to use” and “I couldn’t get it to work” to “What a gorgeous questionnaire, very impressive” and “A very novel and compulsive way of presenting this survey – I like it”. With hindsight, also providing the option of a more familiar ‘check-box’ style survey may have been appropriate as a number of users were unfamiliar with the ‘drag and drop’ concept and found it difficult to complete the survey.

The survey was distributed through various channels in order to gain access to the widest audience. Several Learning and Teaching Support Network (LTSN) centres kindly agreed to publicise the survey via their websites and newsletters, providing access to teaching staff in a diverse range of subject areas. The survey was posted to appropriate JISCmail mailing lists and the JISC Regional Support Centres were also invited to distribute the survey to their audiences. Participants were encouraged to disseminate the survey more widely within their institutions and a number of participants emailed to say that they had done so. The survey was also publicised via the websites of the PORTAL project, the University of Hull, UKOLN and the Resource Discovery Network, enabling promotion to a range of audiences.

In order to provide qualitative feedback from as broad an audience as possible the online survey also contained a section for comments allowing participants to contribute their ideas for the portal development.

Focus Groups

Whilst the initial research plan included the intention to conduct interviews at a number of sites, the limitations of time and logistics necessitated the use of focus groups at four of the five sites. Maguire (1998) indicates that focus groups provide relatively rapid access to a wide range of opinions and can be particularly useful in requirements specifications. Where possible, focus groups were staffed by two facilitators in order to engage and monitor participants. Participants were given a short presentation as to what institutional portals are and the variety of information and services which might

⁴ The Iconex Learning Object Repository is available at www.iconex.hull.ac.uk/

be available via such systems⁵. Participants were invited to think about the strengths and weakness of such systems and the types of internal and external information they might require access to. Due to the arrangement of the focus groups student participants were, in two of the four sessions, drawn from only one subject area. Staff focus group participants ranged from IT and Library / Learning Resource support staff, teaching staff, senior managers and administrators. The range of academic subject areas covered included Computer Science, Fashion, Economics, Media, Pharmacology and English.

Interviews

At one site in-depth 1:1 interviews were conducted with a range of staff and students. Oppenheim has suggested that interviews are valuable in “trying to understand how ordinary people think and feel about the topics of concern to the research” (1992:67). As the field is a newly emerging one it was felt that allowing interviewees the opportunity to express their own ideas, hopes and concerns was a more useful approach than one following a highly structured format. Interviews were semi-structured and loosely based on a task analysis approach⁶. By working through the basic ‘tasks’ which interviewees conduct, the interviews hoped to illuminate the information needs and uses of institutional staff and students. Staff and students were drawn from a range of academic subjects with students ranging from first year undergraduates to postgraduates and staff ranging from heads of department, managers, information and training staff to teaching staff.

Research Sites

A total of five institutions agreed to participate in qualitative sessions for the project. The institutions were intended to reflect the diversity of institutional type in the UK tertiary education sector. To encourage students to participate in interviews and focus groups each student participant was given a £15 Amazon voucher for attending the sessions.

The PORTAL project extends its thanks to staff and students at the participating institutions for their valuable contributions.

⁵ The presentations given at focus group sessions are available as Appendix B, available for download separately from www.fair-portal.hull.ac.uk/WP3.html

⁶ The guides used in interviews are available as Appendix C from www.fair-portal.hull.ac.uk/WP3.html

Newark & Sherwood College

Newark and Sherwood College is a college of Further Education with its main site in Newark. The college offers a diverse range of full and part time courses to local school leavers, adult learners, companies and overseas students.

London Institute

The London Institute is a federation of five London based Colleges of art and design and related activities. The Institute operates across 18 sites within Central London. The Colleges of the Institute offer a range at diploma, degree and postgraduate level courses.

University of Lincoln

The University of Lincoln is a post-1992 University operating at three campuses within the city of Lincoln and one in the city of Hull.

University of Hull

The University of Hull is a 'red brick' institution founded in 1927. The University operates at two sites, the Hull campus and the Scarborough campus.

University of Bath

The University of Bath was founded in 1966. The University operates at two sites, the Bath campus and University of Bath in Swindon.

Data

The findings in this section are based on a total of 27 1:1 interviews⁷, 8 focus groups conducted at 4 institutions, and 557 people completing the web based survey. A total of 44 web based survey respondents used the comments facility to provide opinions and ideas relating to institutional portals. The table below illustrates the breakdown of participants by sector and by role.

Category	Completed Survey	Survey Included Portal Comment	Focus Group	Interview
All Results	557	44	53	27
All HE	470	42	32	27
All FE	86	2	21	0
All Students	265	14	27	10
Undergraduate Students	206	12	16	7
FE Students	58	0	11	0
Postgraduate Students	47	2	0	3
All Staff	291	30	26	15
HE Staff	264	28	16	15
FE Staff	28	2	10	0
Administrative	57	3	3	2
Research Staff	50	4	0	0
Support Staff	139	18	8	2
Teaching Staff	53	5	19	11

⁷ 25 interviews were conducted with staff and students at one HE institution and 2 1:1 interviews were conducted with representatives of the Joint Information Systems Committee.

The survey results are heavily biased toward HE preferences and, whilst it would appear that 58 FE students completed the survey, 40 students indicated a Higher Education institution in the 'Institution' field yet checked the Further Education box. Although there are numerous cases in which further education qualifications might be offered in a university, or higher education qualifications taught in a college of Further Education and accredited by a university, the high numbers suggest that at least some of the students are unfamiliar with the titles 'Further' and 'Higher' Education and perhaps wrongly associated themselves. This must be recognised as a weakness in the study.

Some survey respondents commented that they had more than one role within their institution or their role did not fit exactly in any category provided by the survey.

Whilst the results of the survey aim to inform the UK tertiary education sector, over 40 respondents were from outside the UK, including, e.g., Notre Dame University, the University of Illinois and the University of Wisconsin in the USA, University of Brasilia, University of Maastricht in the Netherlands, Lithuanian University of Agriculture, University of Stellenbosch, University of Western Australia. A number of overseas institutions have also approached project staff to request permission to run the survey for local purposes.

Views of Portals

Levels of awareness of institutional portals were generally low. Indeed, it became clear that in order to attract participants project documentation would have to make it explicit that no prior knowledge of institutional portals was necessary after early approaches to staff resulted in confused responses.

The view that portals could result in a homogenising 'one stop shop' was expressed by a limited number survey respondents:

"I'm very suspicious of attempts to provide everything through a "one-stop shop" - within the HE environment sometimes the variety between sites, departments, support services is important." HE Support Staff, Survey ID186

"I realised in the process [of doing the online survey] that portals are a waste of time for me. A bit like Department Stores - I would never use one place to satisfy all needs - it will always let me down. " HE Support Staff, Survey ID312

Doubts about the added value gained by deploying institutional portals versus accessing existing systems were expressed by some staff.

"People have a routine of things they do, places they visit. I can see that it [the portal] would be useful, but I can't see that it would be very much different from what people do now" Teaching Staff, University A

"many of the facilities are now available to me, just not through the portal - so I am unclear as to how much benefit the portal would give over what is currently available to me" HE Support Staff, Survey ID233

For other staff the ability to provide a single access point to information and services was a high priority

"at the moment we have the Intranet and we have Blackboard and you can access the Intranet from Blackboard and vice versa but what we want is one interface" Teaching Staff, Higher Education Institute

"I'd like people to feel at home on this first page – however cliched that is – they know they're safe and that they can access everything they need" Support Service Manager, University B

Whilst many staff were enthusiastic about the potential of institutional portals it was amongst students that the systems received the most positive feedback.

"Although I may not have the opportunity to use an academic portal, they will be of benefit to students in the future" Undergraduate Student, Survey ID289

"I hope this system will be out soon!" Undergraduate Student, Survey ID484

"I think this is a good idea and will be useful if it gets going." Undergraduate Student, Survey ID273

"Actually having somewhere, where it pulls it all together, and you only have to go to one place to get it is good idea." Postgraduate Student, University A

"I'd be quite willing to have this as my homepage, like my yahoo one, it saves me sorting anything, you just click on a link" Undergraduate Student, University A

The last comment suggests that, in some cases, students may be more familiar with the idea of a portal than staff. This familiarity may account for students' greater enthusiasm for the systems.

Feature Ratings

In this section the individual portal features included in the online survey are discussed in terms of their quantitative popularity, and illuminated using evidence from interviews, focus groups and survey comments. The features are addressed in the order of their popularity in the online survey amongst 'All Participants'. Each feature is discussed in terms of its rating from specific groups and sectors, and by the qualitative data gathered in interviews and focus groups. The table below shows the top ten features for institutional portals as rated by 'All Participants'.

Feature	Score
Search your favourite resources	217
Library administration	214
Access or update teaching materials	194
Personal information	189
Library and quality Internet resources alerts	187
Access your institutional email	182
Handbook	171
Deadline alerts	170
Access or update reading lists	161
Campus news	160

Search Your Favourite Resources

"Search across your favourite library resources or websites"

Scoring a total of 217 points, the ability to search your favourite resources was the highest rated feature for survey participants taken as a whole. 84% of respondents thought that the feature was important or very important of which 37% judged it important and 47% rated it very important. The feature was highly rated for both staff (1st for HE staff and 5th for FE staff) and all student groups (6th for FE students, 5th for HE undergraduates and postgraduate students rated it joint 1st).

Searching

A range of resources from the websites of government departments and indexing and abstracting services to web search engines were cited by interviewee and focus group participants as popular places to search.

Amongst students the most frequently cited resources for searches were search engines, such as Google (see Internet Search) and keyword searches of the institutional library catalogue.

Cross Searching

Staff participants from both research and teaching backgrounds expressed an interest in cross search functionality; one to assist in the location research papers:

"Cross search is one of the important things for research activity" Teaching Staff, University A

Or to provide quick and simple access to learning materials currently stored in or accessed via such distributed points as the RDN or FERL.

"Really it's a one stop shop for quality resources to link to quickly" Senior Manager, FE College

Where cross searching was raised in interviews and focus groups, some undergraduate students were unfamiliar with the concept and did not feel comfortable with it. Concern was expressed that searching two or more databases or search engines might lead to information overload and confusion.

Library Administration

"Check your library record and reserve or renew books".

Library Administration was rated second by participants overall with 81% of respondents classifying it as important (36%) or very important (45%). Its importance was slightly higher for students (rated 1st with postgraduate students, 2nd with FE students and 3rd with undergraduate students) than for staff (rated 3th with research staff and 4th with teaching staff).

In common with the survey results, library administration proved a popular feature particularly with HE student participants in both interviews and focus groups.

However, in contrast to the survey data, students participating in the FE College focus group indicated that their use of the library was limited and so access to such information would be of limited value.

Instant access to information about due dates and renewals was seen as useful, perhaps due to the time lag involved in the current systems of communication.

Information regarding reservations and fines is frequently communicated via email or letter.

"at the moment they send us letters in the internal post... they normally get there a couple of days after, they say you've got a 25p fine but by the time you've got it - its about a £1" Undergraduate Student, University A

In common with other functions currently readily available to users the need to include the feature in the portal was questioned by those aware that such a service already existed

“we don't really need to go onto [the portal] to check the library thing, we can check the library through our own library site - so I'm not sure it's needed” Undergraduate Student, University A

Access or Update Teaching Materials

“Access or deliver lecture notes or other course information”.

Whilst 73% of all participants deemed this feature important or very important, giving it the third position overall, 81% of teaching staff rated it so. Accessing teaching materials was also popular with students and the feature rated 4th for undergraduate students and 5th for FE students. The feature rated 10th for postgraduate students.

Of the five institutions used as study sites three were deploying the Blackboard Virtual Learning Environment (at various levels of licensing), one an internally developed system, and the Further Education College deploys a system based on MS Outlook public folders in order to disseminate learning materials.

When asked, most teaching staff indicated that delivering lecture notes, PowerPoint slides and course documentation constituted their major use of their VLE. Staff at University C were keen to deliver video lectures via the portal.

Students indicated that access to such resources was particularly useful as notes could be accessed when needed for coursework or revision. Students at University C were not keen on video lectures and therefore were not enthusiastic about their inclusion.

Personal Information

“Update your contact address, preferred email address, telephone number etc”.

This feature was rated as important or very important by 72% of respondents, and not applicable or not necessary by only 6%. Whilst HE staff, undergraduate students and FE students all rated access to personal information in their top 10s (joint 2nd, 9th and 8th respectively, FE staff rated the feature 13th and postgraduate students rated the feature 12th).

Despite its general statistical popularity several staff interviewees indicated that they would rarely require access to such a service

“that wouldn't be necessary, I know where I live” Teaching Staff, University A

As it may be assumed that students, particularly in HE, are more prone to regular moves than staff, staff may have been responding for students rather than for themselves. Staff at two of the university (University A and B) sites did indicate that accessing up to date student contact information was a problem.

A number of staff and institutional representatives acknowledged the importance of students having access to their own data.

"I think it's important that students themselves look at their own student records – its the best error check there can be" Teaching Staff, University B

Access to personal information rated 8th for students overall, it may be that the ability to input a preferred email address caused students to rate the feature highly (see Access Your Institutional Email)

Library and Quality Internet Resource Alerts

"Have links to new journal articles, websites or books relevant to you delivered via the portal".

A total of 73% of respondents deemed library and quality internet resource alerts either important or very important. The feature rated in the top 10 for staff and students in both HE and FE. The feature was rated more highly by staff (rated 5th by HE staff and 2nd by FE staff), than by students (rated 4th by postgraduate students, 8th by undergraduates, 9th by FE students), and was the top-ranking feature amongst teaching staff. The high priority afforded to alerting services by teaching staff may reflect the widespread time pressures facing teaching staff in the sector.

Whilst statistically popular some staff, in qualitative sessions, voiced concern over the potential for information overload.

"I get quite enough stuff that I can't read anyway" Teaching Staff, University A

"I just feel I'd be overwhelmed - I tend to keep them at arms length until I need them and then I look - for me, anymore coming at me on my desktop would be just too much" Teaching Staff, University A

The need for such alerts to be 'relevant' was confirmed by staff in interviews and focus groups,

"we get sent a printed update for new stock which is new stock for everything – it would be nice to be able to pick out the areas that you are interested in, rather than getting everything" Teaching Staff, Institute of Higher Education

Whilst a number of staff and, to a lesser extent, students indicated that they currently receive email newsletters from external content providers several staff voiced concerns over subscribing to existing alerting services, such as Zetoc, due to the volume of email they currently receive (see Announcements).

Access Your Institutional Email

“Access your .ac.uk email via the portal”.

Access to institutional email through the portal was seen as important or very important by 75% of survey respondents. The feature rated in the top 10 for those in HE (6th overall, 4th for staff, 10th for undergraduates, 12th for postgraduates) but did not fare as well within the FE sector (13th both overall and for students and 12th for staff). This may be due to the relatively recent introduction of the JANET network across the FE sector. The feature received its highest rating from support staff who rated the feature 2nd.

In contrast to the survey data, qualitative evidence suggests that the popularity and frequency with which ‘official’ institutional addresses were accessed varied. Whilst many students check their .ac.uk regularly (once daily or more), others indicated that weeks or months might pass between accesses to the institutional mail system. Several students indicated that they had institutional mail forward to an external account or expressed irritation that staff refused to communicate via external addresses. However, ‘Access Other Email’ rated 29th overall and 17th for students, it may be that having direct access to an external account is less important than the institution being willing to communicate via it.

Interviews and focus groups revealed that the vast majority of students have both an institutional .ac.uk email address and at least one other. In one focus group session (FE College) more than half the participants had access to three or more addresses, in another (University B) session one student indicated that he’d ‘lost count’ of his accounts.

The fact that access to an .ac.uk email address rated more highly than access to an external address amongst students overall was noteworthy given the qualitative evidence gathered relating to the widespread use of external addresses. Given the varying frequency with which institutional email addresses accessed it may be that students were keen to have a ‘reminder’ to access their institutional email included in the portal. Students at University C indicated that a ‘you have x new messages’ feature would enable them to check their institutional account when necessary.

Handbook

“Access your course, department or institutional handbook”.

Overall 65% of respondents placed the ‘Handbook’ card in the important or very important stacks, with only 13% rating it as not applicable or not necessary. Whilst rating in the top ten for undergraduate students, FE students and teaching staff, it received its lowest score from administrative staff, who rated it 16th. The access to

handbooks was most enthusiastically received by FE staff who rated the feature 3rd. The value afforded to such documents clearly depends on the content at various institutions. One lecturer indicated that for his students using personalisation to provide access to various aspects of the departmental handbook, rather than the monolithic document, at various times would be a priority.

“from the students’ perspective they think ‘I just want the MSc component of the handbook - I don’t want ‘The Handbook’ - in fact we can even go further, at different times they want to see different bits of the handbook” Teaching Staff, University A

Deadline Alerts

“Be alerted to assignment deadlines or exam times”.

Whilst this feature rated 8th overall, deadline alerts were the top rated feature for students. The feature is the only group-specific feature (aimed at students) to make it into the overall top 10, reflecting the strength of feeling associated with it (85% of students rated the card important or very important). The feature was rated 1st by undergraduate students and 3rd by both FE and postgraduate students.

In common with the survey data, deadline alerts were popular amongst HE students. One student described deadline dates as part of the ‘core’ information the portal should provide

“core information like deadline dates – I shouldn’t have to go search for that, that should be on screen” Undergraduate Student, University B

In contrast to the survey data, evidence from the FE focus group suggests that deadline alerts may be less popular with FE than with HE students. Due to the nature of the course undertaken by the students in the FE focus group, alerts for major deadlines were deemed unnecessary (the deadlines fell at the end of terms). The students did, however, indicate that deadlines for intermediary tasks would be a useful feature:

“we have tasks and deadlines, but you have to go right into it, it takes ages to get to it – if it was easier to get to that would be good, if it was just on the front page where you could see it” Student, FE College

Access or Update Reading Lists

“Access or update links to the library catalogue, websites or articles recommended for your course / modules”.

Overall 65% of survey respondents indicated that access to reading lists was either important or very important. Whilst popular with students generally (rated 9th) both FE

and undergraduate students rated access to teaching materials more highly than access to reading lists. The inverse was true for postgraduate students who rated the feature 6th. Both HE and FE staff rated the feature (11th).

The fact that the survey question was explicitly related to accessing a link from the reading list to the library catalogue, website or article may have made the feature relative popular with all categories of students. Where reading lists are currently provided via module or course handbooks and / or the institutional Virtual Learning Environment reading list references may not be in the form of live 'links'.

Interest in providing active reading lists via the portal was expressed by a survey participant:

"The library and information service needs to be fully integrated with course information eg. reading lists and links to full articles etc" HE Support Staff, Survey ID361

The standardisation of access to reading lists was raised at two research sites (University A and B) where students commented on the lack of consistency in the delivery of reading lists:

"some use Blackboard, some put it on the department website, some put it on their staff homepage" Undergraduate Student, University A

Campus News

"Get news about campus events and issues".

"Campus news" was judged to be either important or very important by 61% of all respondents, with the profile fairly similar across categories of respondents, although somewhat more popular with staff (9th) than students (13th) and with FE (9th) than HE (10th) participants. The feature received its highest rating from administrative staff for whom it rated 6th.

In interviews and focus groups, both staff and students commented on the need for a recognised access point for campus news and events.

"it would be good to have campus news, it's always such a pain to know what's going on - events, public seminars, company visits ... " Postgraduate Student, University A

Participants in the FE college focus group commented on how long it had taken to relocate a particularly useful notice board when it was moved. Similarly, one undergraduate interviewee indicated that information about campus drama was impossible to find after the removal of a fly-posted post. A number of participants

noted accessing information regarding these topics from a number of sources. Sources cited included word of mouth, notice boards, flyers, newsletters and email. The range of sources cited perhaps reflects the need for campus news to encompass more than the 'official' institutional news and events. Whilst institutional stakeholders may have a number of shared ideas of what constitutes campus news and events, specific groups (staff, students, union members) will have their own news and events needs.

A need was expressed for, as one senior manager (University B) termed it, a 'hierarchy of customisation', enabling news and events, amongst other things, to be delivered at a faculty or departmental, as well as institutional level. A number of staff commented on departmental level and course level needs.

"It's important to remember that a portal faces both ways. It doesn't simply give users a single point of access, but gives the institution a single aggregated line of communication, providing both the institution and departments with the infrastructure to target communications effectively." Support Service Manager, University A

Access to an events calendar (see *Calendaring & Scheduling*) was seen as a way to keep people informed as to institutional activities.

Review Your Marks

"Pick up assignment marks and exam results as soon as they are released. View all the marks for your programme of study".

Whilst not rated in the top ten overall, the feature rated within the top 5 for all categories of students (FE students 1st, undergraduates 2nd and post-graduates 5th).

Whilst the quantitative data presented collecting and reviewing marks as a single feature, evidence gathered in the interviews and focus groups suggests that students see the activities as distinct and have strikingly different views regarding each.

Collecting Marks

In contrast to the survey data student interview and focus group participants in both FE and HE expressed negative feeling towards collecting marks online. Students valued the sense of community provided by collecting marks in person and were aware of the need for support from both staff and peers.

"I think I'd rather get them in person, then if you've got any questions you can ask ... I'd rather come in. I'm used to it, it what I've done for GCSE and A level - I'm used to it." Undergraduate Student, University A

"it's better to come in and get them and then you can find out what everyone got ...share it if you did badly" Student, FE College

Staff similarly expressed concern over delivering exam results or module feedback electronically.

"There are very good reasons for not sending exam results either through the post or electronically, because if a student's done badly it's much better to have him physically here... if you get them in an email, a text message or even a letter – it's very bald - and there's no support at all" Teaching Staff, University A

Review Your Marks

In common with the survey data, the ability to review your academic history, as distinct from the ability to collect grades, was very popular with students in interviews and focus group sessions both in HE and in FE.

"that would be great – we can't even see that, we can't look at our records"
Student, FE College

One user currently using such a system commented:

"That was nice because I didn't have to have to rely on the transcripts you get - if you've misplaced them you can easily have a look" Undergraduate Student, University A

Staff participating in the FE College focus group indicated that it would be good for students to be able to access personal key skills information such as their Key Skills level.

Timetable

"Access timetable information about your course".

Overall, 59% of respondents indicated that a timetable would be important or very important. The feature rated 7th with both FE and undergraduate students but rated 14th with postgraduates and only 20th with teaching staff.

Whilst a number of staff indicated that they could see the value of the timetable for students.

"something which personalised the timetable [for students] would certainly be useful" Teaching Staff, University A

In common with the survey data only a minority of staff could see any real value for themselves and others felt that duplicating systems would be confusing.

"No, absolute nightmare, I hadn't thought of it before but I know what my timetable is, it's in my diary!" Teaching Staff, University A

Only staff at University C and those teaching in a large department at University A, where staff taught on a variety of modules, was current timetable information seen as a high priority for staff.

Similarly, in common with the survey results, HE student participants were generally enthusiastic about access to timetable information.

"it's do it yourself - you have to go with a sheet and write it all down .. An online timetable just for me would be very useful" Student, University A

At University B where personalised timetables were available to students they worked well and were popular with users.

However, in contrast to the survey results the students participating in the FE focus group were taking a single course and, as such felt that timetabling information would not be particularly useful for them.

Exam Timetable

Whilst not included as a card in the online survey, a number of students mentioned that as well as a standard timetable access to an exam timetable would be useful. This feature would be needed only at particular times in the academic year.

"When the exam period comes round... there's just one big list with 1st, 2nd and 3rd year exams and you have to pick yours out, exam time and place would be good." Undergraduate Student, University A

Careers Information

"Receive careers information such as news of careers events or workshops".

Careers information was substantially more popular with FE students (rated 3rd) and postgraduate students (rated 8th) than for undergraduate HE students (rated 12th). Whilst 67% of FE student respondents judged it either important (43%) or very important (24%) and 68% of postgraduate students thought it important or very important, only 57% undergraduate student respondents rated it so. This may be due to the shorter duration of some FE and postgraduate courses (given that the nearer to the end of the course the more pressing the need for careers information).

In interview and focus groups a number of aspects of careers information discussed. Whilst news of careers events or workshops were not mentioned by participants access to information regarding jobs, gaining additional qualifications and sources of funding for further study were variously raised by all categories students in both interviews and focus groups.

Funding

Undergraduate students who were considering postgraduate study expressed an interest in locating information regarding potential sources of funding.

Jobs

Whilst 'Jobs' constitutes a feature in its own right, participants at University A and the FE College indicated that information about the types of jobs available to those completing a course such as theirs would be useful 'careers' information:

"what would be interesting would be to have somewhere to go to see the types of jobs we could get when we graduated, the sort of thing that's about now but to give us an idea of the fields we could be looking into" Student, University A

The FE College students indicated that the jobs included should be realistic but 'aspirational' and should include jobs from outside their geographical location.

Courses

For FE students and undergraduate students considering postgraduate qualification access to information about courses was seen as a useful feature for inclusion.

The FE College focus group participants indicated that course information should be concise, easy to locate and deal with course content and requirements.

"some university websites have too much information and you have to spend hours slogging through, there is just too much" Student, FE College

"ideally - a giant list of courses, with a little paragraph about what it is" Student, FE College

Staff at University C also felt that access to the portal, through a system of partial log-in, would be a good way to promote the institution to potential students.

Staff Development

"Receive alerts about staff development events and workshops".

Access to staff development information was rated as the 8th most important feature for 'all staff'. The feature was the most popular feature for administrative staff, amongst whom 85% judged it important (60%) or very important (25%). The feature rated in the top ten for all categories of staff rating 7th for support staff and 9th for both research and teaching staff. Its score was not high enough to put it in the overall top ten because it was deemed not applicable or not necessary by respondents with non-staff roles, for whom (naturally) it is not relevant.

Whilst the wording of the 'staff development' card may have indicated that events and workshops were internal, staff development was not raised in either focus groups or

interviews. Staff, however, were keen to gain information regarding professional issues from external sources. Teaching staff were keen to access information regarding their professional development (see Teaching and Learning) and one support staff interview indicated that information from his professional organisation would be useful. When asked which external resources would prove most useful, one member of support staff indicated

“Anything professionally related” Support Staff, Institute of Higher Education

Forms & Documentation

“Access official forms, policies and other documentation”.

Whilst rating 15th overall, access to forms and documentation rated joint 3rd for administrative staff (74% judged it important or very important) and 6th amongst both support staff and HE staff generally. FE staff rated access to forms and documentation 9th. The fact that the feature was downgraded by students (for whom it rated 24th) negatively affected the feature’s rating overall.

In common with the survey findings, interviews and focus groups revealed that staff were keen to have access to official documentation. When asked which single feature would ‘sell’ such a system to users a number of staff indicated that easy access to documentation would be a high priority. Institutional policy makers also saw the value of providing staff with a single, and authoritative, access point for documentation;

“people should have access here to everything they need, all the documentation in particular .. it could be sourced from here as the authoritative source” Support Service Manager, University B

"The need to provide institutional documentation in a coherent way which was also convenient for our staff users drove the development of a Staff Intranet here. We’ve placed a great deal of emphasis in the run up to the launch of the portal in September on further developing these facilities for staff" Support Service Manager, University A

Predictably the range of documentation required varied according to the roles of the staff involved. The documentation cited in sessions included human resources documentation (staff appraisal forms, staff appointment pro formas), committee minutes (which one focus group (University B) suggested should be fully searchable), institutional policies and strategies (e-Learning strategy, IT strategy), course related documents (external examiners forms, guidelines for creating new modules) and institutional almanacs (see Calendaring & Scheduling).

Along with the suggestion that the documentation available should be searchable, one participant appreciated the fact that the institution's intranet alerted users when new documents were added

"I find it useful that when I log on it says that there's things you've read"
University A

Student Records

"Access the student records system".

Whilst access to student records data did not make it into the top ten overall most popular facilities, teaching staff rated it 6th. 77% of teaching staff judged the feature to be important (28%) or very important (49%).

Both teaching and support staff (where support staff are involved in the administration of online courses) referenced access to student records in interviews and focus sessions. Staff who required access to such systems frequently mentioned them in relation to the need for the portal to provide single sign-on to internal systems (see Single Sign-on).

Discussion Areas

"Access discussion area for your courses / modules".

Whilst not rating in the top 10 overall or any group's top 5, 61% of teaching staff judged access to discussion areas to be either important or very important. The card was highest rated by FE staff for whom it rated 6th. Students rated the feature 15th with all categories awarding it a similar status.

In interviews and focus groups some teaching staff indicated that they were using the communication features of Virtual Learning Environments, though in only two cases was it indicated that communication constituted the primary use of the system. Both teaching and support staff at University C felt that student access to discussion areas would be an important feature.

Along with the teaching and learning applications of discussion areas one researcher indicated that other distributed groups within institutions would benefit from access to threaded discussion areas:

“As part of the Project Management Coaching Network at the University we would be keen to have a Workgroup portal to facilitate information dissemination and discussion threads for wants and offers type problem solving.” (Survey ID 527)

Internet Search

“Internet search using a search engine like Google”.

A total of 59% of respondents thought searching the Internet via the portal was either important or very important. FE respondents rated its importance (16th) somewhat more highly than HE respondents (18th), while the profile of All Staff (17th) and All Student (18th) responses was roughly similar.

As noted in ‘Search your Favourite Resources’, searching the Internet was cited by both staff and students as a popular way of seeking information.

Several search engines were mentioned by participants – including Yahoo, Alta Vista, Lycos, Dogpile, Ask Jeeves, and most popular of all, Google. Some participants were loyal to a particular site and the ability to select the engine powering the internet search box in the portal was raised in order that users could have access to their ‘favourite’ resource. Student focus group participants at University C were not particularly loyal to any one site but indicated that a choice of search engines should be provided by the system.

The fact that many users are accustomed to visiting search engines led some participants to question whether content readily available from elsewhere should be included in the portal. For example, participants in the FE students’ focus group were asked to narrow their suggestions for portal content down to a top 5. Whilst the students felt that searching (in this case Google) was important they acknowledged that they could access it elsewhere and were therefore willing to exclude it from their top 5 features. Whilst perhaps not essential from a user’s perspective the inclusion of popular tools may provide ‘stickiness’ for institutional portal deployments.

Conference Alerts

“Receive information about conferences of relevance to you”.

Rating 12th for ‘all staff’, conference alerts were rated important or very important by 56% of staff. The feature rated in the top five (5th) most popular facilities among researchers.

The need to access conference alerts was not raised by any focus group participants or interviewees.

Jobs

“Receive alerts about jobs in your area”.

Access to information about jobs rated more highly with students (14th) than it did with staff (29th). Of the survey respondents, 58% of students (but only 30% of staff) judged it important or very important. HE and FE students rated the feature roughly equally.

In interviews and focus groups a number of students, in both FE and HE, expressed an interest in accessing information about part time or vacation jobs available to them.

The difficulty in locating information about such positions was noted by both FE and HE students.

“If I was looking for a job online I’d go to – well I don’t know where I’d go to”
Undergraduate, University B

Some students in the FE college focus group were unaware that the college provided a vacancies notice board, whilst several HE participants commented that information on such boards in their institutions (University A and B) were frequently out of date.

No staff member commented on access to information regarding current job vacancies.

Enrol in Modules / Course

“Select the modules you want to take and enrol in them online. Review the modules you are taking and change them if you need to”.

The ability to enrol in modules via the portal did not illicit strong responses from all respondents (21st) or even from all student respondents (16th). The feature rated more highly with undergraduate students (13th) than for FE students (22nd) perhaps due to the respective number of electives within HE and FE courses.

In common with the survey data, where module registration was raised in interviews and focus groups students described the process as generally smooth running. As the current system was perceived to work well changes were perhaps deemed unnecessary.

Pay Fines and Fees

“View your institutional financial record. Pay library fines and course fees online”.

In common with the previous feature the ability to pay fines and fees did not illicit strong responses from any particular group or sector. FE students rated the feature (16th) more highly than did HE students (21st), and this may be because of a greater preponderance of part time students in FE, who have difficulty accessing administrative services only open during the working day. Opposition to course fees themselves may have led to the downgrading of the feature amongst HE students.

Where the issue of fee payment arose in interviews and focus groups the response was mixed.

"It would be better done online - much better done online. Why not? Amazon do it and it's so simple. Especially at the beginning of term when everyone's trying to get in there and do stuff and there are so many queues" Postgraduate Student, University A

Others expressed concern about those without access to credit facilities.

Internet Bookmarks

"Gather and organise internet bookmarks".

Whilst rated 23rd overall, over half of respondents (59%) felt that access to such a feature was important or very important. HE respondents rated its importance (23rd) somewhat more highly than FE respondents (30th). The profile of staff and student responses was roughly similar. Whilst staff and student ratings were similar (18th and 17th respectively), roughly a third of students thought it important or very important and 51% staff felt it to be so. It may be that the idea of bookmarks as inherently part of the browser interface is more firmly established within the younger, student population. Alternatively, staff may be more aware of the problems of accessing internet services via more than one route (at work and via an internet service provider at home).

Contrary to the survey results, a number interview and focus group participants indicated that they would appreciate having a single place where favourites could be stored.

"I think for me the useful part of it would be to have all the websites that I use the most together, BIDS, Hotmail etc" Undergraduate Student, University A

Shared Bookmarks

Perhaps due to the use of a folders system at the FE study site, students suggested a system of shared favourites

"it would be good if instead of getting scrappy bits of paper which say 'visit this site' if you could put links into your favourites folder for your group to share ... there should be group favourites, shared favourites" Student, FE College

Other students were concerned about who would manage / edit such a shared space.

Teaching and Learning Information

“Access information about teaching and learning in the subject you teach”.

Unsurprisingly the overall score for this feature was fairly low, as this is only of relevance for teaching staff. The feature did, however score in the top five most popular facilities for teaching staff (5th) with 77% of teaching staff judging it important (43%) or very important (34%). The feature rates slightly higher for FE staff (15th) than it did for HE staff (18th).

Evidence collected in interviews and focus groups confirmed the survey findings with a number of staff identifying dynamic content related to teaching and learning as an important portal feature. One member of teaching staff stated:

“from a teaching and learning point of view I found the links to what’s going on in education very good and having them in one place rather than have to go search for them myself would be really useful” Teaching Staff, Institute of Higher Education

Many of the teaching staff participating in the interview or focus groups were aware of their LTSN centre and tried to keep up to date with their work.

Room Bookings

“Check the availability of rooms and make room bookings”.

Room booking did not score particularly highly overall, but was important or very important for 61% of all staff, 67% of support staff and for 54% of teaching staff.

Only one qualitative research participant (Support Staff, University A) indicated that room booking would be an important portal feature.

Look, Feel and Layout

“Choose the look and feel of your portal and select where information appears”.

The ability to alter the look, feel and layout of the portal did not rate highly in the online survey. Only 42% of respondents assigned the card to the important (27%) or very important (15%) stacks. The feature rated highest with HE staff who rated the feature 16th.

In stark contrast to the survey results, interview and focus group data revealed that flexibility and user control were important for both staff and students.

Content

Whilst the ability to edit portal content was not included explicitly in the ‘Look, Feel and Layout’ card it became clear that potential portal users were keen to control the

content appearing in the institutional portal. One respondent used the survey comments to express a desire for user control over portal function.

"User control of function is vital" HE Student, Survey ID322

For some users the ability to remove content was of particular value

"being able to remove content might be a nice idea, I have no interest in having a web cam" Undergraduate Student, University A

"when I've used other systems if I can't get rid of something and turn it off - like the weather...I've given up on them." Support Staff, University A

For others the ability to select channels and create their own portal space was vital.

"I take it for granted that I can control what I see in these channels" Teaching Staff, University B

"I do like the idea that you come to... your own home page to begin with ...that you'd come to that set of information that you'd decided on" Teaching Staff, Institute of Higher Education

Look and Feel

The need for users to control the look and feel of the portal was cited by a number of students

"Yahoo has now seen the light and has actually let you choose the options for each element ... you get a full choice of how you want to set it up" Undergraduate Student, University A

"it would be good if you could change the backgrounds... nice and bright and happy (one student)... I like more calm colours (another student)" Students, Further Education College

Students in the FE College focus group session were keen to select colour schemes and apply graphics to the system yet acknowledged that as long as a system contained useful information they would be happy to use it however 'boring'.

Whilst personal control was raised by a number of participants, one Engineering lecturer indicated that as a group his students would appreciate a visual rather than textual interface. Such a request perhaps suggested a desire for departmental 'look and feel' rather than a single institutional interface design.

View Student Details

"View details of a student's academic history and attendance".

Whilst receiving a low overall score due to the unimportance of this facility for students, "View student details" was rated 10th by teaching staff.

The feature was not raised in either interviews or focus groups.

Purchasing

“Submit orders and pay invoices via the portal”.

Making institutional purchases through the portal was rated 26th by ‘all staff’ and was rated 23rd by administrative staff having been ranked important or very important for 54% of such staff.

Access to purchasing systems was raised by only one interview and focus group participant and was referenced in relation to single sign-on. The lack of issues arising in relation to this feature may be due to the low proportion of administrative staff participating in sessions.

Access Other Email

“Access your personal email from hotmail etc. via the portal”.

Access to other email was highly rated by less than half of respondents (47%), with 30% judging it not applicable or not necessary. Despite the widespread use of external email addresses by students (see Access Your Institutional Email), both HE and FE students rated the feature 17th in the online survey, several places behind ‘Access institutional email’. A higher proportion of staff than students downgraded the importance of this requirement and FE staff downgraded the importance of the feature slightly more than HE staff.

In common with the survey data the majority of staff indicated that they either did not have an external address or that, if they did, it was for strictly personal use. One survey participant indicated that access to personal email could be a ‘distraction’ in the workplace.

"I have down graded the importance of activities such as collecting personal webmail because I am concerned that too much functionality in a portal not related to my work at the University could distract me from what I really need to get on with" HE Administrative Staff, Survey ID179

The widespread use of external email by students indicated that accessing external email was a regular part of students’ online activities. The access to external mail may have been downgraded as it could readily be accessed elsewhere.

In common with several staff participants, who indicated that they liked to keep personal and work emails separate, a number of students indicated that they used their separate accounts for distinct activities.

"the hotmail address I really only use of friends, they're separate, my executive mail I use for tutors and work and things like that" Undergraduate Student, University A

Messaging

"Use the portal to send instant messages to your friends or colleagues".

Only 48% judged this feature to be either important (32%) or very important (16%), and the results were broadly similar over all categories and roles of respondents. The feature was not as popular as may have been expected with students. It rated joint 25th for undergraduate students (scoring an equal rating with 'Staff Development') and 19th with FE students (one place below 'Staff Development'). FE staff rated the feature more highly (26th) than HE staff (34th).

Access to instant messaging services was not raised by any member of staff in either interviews or focus groups.

Interviews, focus groups and survey comments suggest that student views with regard to instant messaging services were mixed. A number of HE students indicated that they frequently used instant messaging with friends but, as with 'Access other email' the feature may have been downgraded due to its use for social activities and its place in existing internet use patterns.

"Instant messaging to other online users – perhaps an idea" Postgraduate Student, Survey ID397

Participants in the FE focus groups were keen to have access to 'chat' or instant messaging through the portal (perhaps because students are not allowed to use the system on the college network).

"the best thing in the world would be to have msn in college" Student, FE College

Though largely a 'fun' communication tool the FE students saw that chat rooms could help them organise and conduct group work. Other students mocked the idea but the participant went on to explain that it would be both for fun and used as a record of group meetings, which have to be minuted.

Text Messaging

Whilst not referenced by the 'Messaging' card student focus group participants at University C felt that text messaging via the web from specific mobile phone companies would be a good idea. The idea is echoed by a survey respondent who suggested that

“Free text messaging by typing in someone’s nickname would be excellent”
Undergraduate Student, Survey ID518

Calendaring and Scheduling

“Keep track of institutional events and your own social activities”.

Whilst having timetable access was seen as relatively important, calendar access was not at all popular. 25% of all respondents thought a calendar either not applicable or not necessary, while another 40% gave it low priority as a requirement. There was very little difference in this judgment over categories of respondents.

Events

In contrast to the survey results access to an institutional events calendar was popular – particularly amongst staff. Events ranged from official events, such as senate meetings, services and ceremonies, to research seminars, concerts and student exhibitions.

“these currently come as a great wodge of email and they all look the same and things get lost” Teaching Staff, Institute of Higher Education

“we have a lot of events here and at the moment they’re all emailed individually so perhaps having an events calendar ... rather than having it all thrown at you in email – anybody should be able to post things.” Teaching Staff, Institute of Higher Education

The range of events indicated, and the desire for people to be able to submit events, perhaps suggests the need for multiple calendars around different themes.

Personal Calendar

Whilst access to an events calendar proved popular in interviews and focus groups, the option to access a personal calendar was less so, with staff responses to such a system mixed.

A number of staff had existing ways of managing their diary and were reluctant to duplicate information.

“I have my own my diary system – I’m not going to put it into a second system ... the last thing I want to is do it all again. For me a diary is only useful if I can carry it in my pocket” Teaching / Management Staff, University A

Others indicated that a personal calendar perhaps integrated with a ‘to do’ list would be useful.

Shared Calendar

The concept of a shared calendar was not explicitly reference by the ‘Calendars’ card but the issue of a shared calendars was raised by staff at three sites and by a student

survey respondent. Staff at University C felt that shared access to staff and departmental diaries would be a very useful portal feature.

"to issue invites / arrange meetings with a group of users (like MS Exchange) and have the system search for available timeslots for all invitees" Postgraduate Student, Survey ID397

"the other thing is setting up meetings – you get about 10 or 20 emails saying - 'I can do that' 'I can't do that' – so a calendar would be good" Support Staff, Institute of Higher Education

Whilst popular in theory, concerns were raised about staff response to shared calendar systems.

"I would love a central system... that would then reduce the amount of email people send letting people know their whereabouts and wasting time looking for people - that would be really useful. I'm not quite sure how that would go down in the field but as a manager that would be really useful" Management / Teaching Staff, University A.

Another focus group participant (Institute of Higher Education) indicated that staff may be resistant to the idea of 'surrendering' their diary to others. Similarly, where the idea had been raised previously within departments it had met with staff opposition.

"there was a lot of negative feeling... about the idea that a monolith [calendar] not a good idea and issues of reliability... and perhaps a Big Brother fear" Teaching Staff, University A

Leave Record

"View and update your annual leave record".

Among 'all staff', only 46% assigned access to their leave record to the important (33%) or very important (13%) stacks. The feature was considerably more popular with HE staff (19th) than with FE staff (29th).

Access to leave information was not raised by any interview or focus group participants.

Financial Systems

"Access institutional financial systems".

Access to financial systems received a low overall rating and was rated 23rd by 'all staff'. However, the feature was rated important or very important by 54% of administrative staff and 51% of support staff. The feature received its highest rating from administrative staff for whom it rated 11th.

Access to institutional financial systems was raised by a number of teaching staff in focus groups, particularly those also responsible for research or project funding,

references related to single sign-on and / or the currency and consistence of the information included.

Two participants, when asked about their experience of administrative systems such as finance or student records, commented on the use of online personal banking systems.

“when I logon I should have access to all the parts of information that I need access to internal and external - like banking etc” Teaching Staff, University A

Vote in Student Elections

“Submit your vote in student elections”.

The ability to cast votes in student elections received a low overall score as it lost points with staff for whom it was not relevant. However, it proved popular with only a limited number of students with 43% of students deeming it important or very important and a third rating it as unnecessary or not applicable. The feature rated 21st with students and roughly equally with FE and HE student respondents.

The ability to vote in student elections was not mentioned by participants in either interview or focus groups.

View Payslips

“View your payslip details”.

Only 35% of staff thought that access to their payslip details was either important or very important. The feature was downgraded by staff across roles and sectors. Issues of security or necessity may have resulted in the low rating of the feature.

Catering

“Use the portal to book catering for meeting or events”.

Access to catering information and bookings received a negative score from students, with 70% deeming it either not applicable (45%) or not necessary (25%). Although some staff respondents were moderately interested in the ability to book catering, only 38% felt that it was important or very important and even administrative staff rated the feature 30th.

The issue of booking catering was only raised once in interviews and focus groups by a participant at University A.

News

“Have news from local or national news sources delivered via the portal”.

Access to current news stories was seen as important or very important by only 23% of all respondents, with 41% judging it to be a low priority. The feature was afforded a low rating by staff and students across sectors and roles.

In interview and focus groups the majority of staff seemed unimpressed by access to news channels. Many indicated that they could get the same information elsewhere such as in the car on the way to work or from the BBC site directly.

One focus group participant felt that access to updated news may become a distraction for staff.

“how many people work more effectively by having updated news all day?”
Teaching Staff, University B

A limited number of staff and several students expressed an interest in access to the news.

“The link to the news is interesting, sometimes during the day I don’t get a chance to go and have a look or read a paper – so that would be useful”
Teaching Staff, Higher Education Institute

Students indicated that the news would be useful as they rarely bought a daily newspaper.

One member of teaching staff (University A) suggested that replacing current affairs news with specialist industry news feeds would be useful for his students. The requirement for current awareness of business developments meant that focused, rather than general news would be appropriate.

Weather

“Access local weather forecasts”.

Access to the weather was the lowest rated feature across sectors and categories. This was the only one to achieve a negative card score across every respondent type and role, with 51% of all respondents deeming it not applicable or not necessary, with the majority of the rest giving it only low priority.

In common with the survey results, all but two of the interview and focus group participants felt that access to weather information was unimportant.

"Apart from weather I think it's a good idea- I can't really see any problems with it" Postgraduate Student, University A

"Just look out of the window if you want the weather" Undergraduate Student, University C

"if you want to know the weather you'd look outside!" Student, FE College

Interview & Focus Group Features

The online survey required users to prioritise functions from a predetermined selection. Both the comments section of the survey, the interviews and the focus groups allowed stakeholders to raise their own issues and articulate their own needs. This section highlights those features which were raised by participants but which were not included in the online survey. The features have been ranked, as far as is possible, according to their popularity amongst participants.

Single Sign-on

Issues surrounding authentication and authorisation were raised frequently by survey, interview and focus group participants. The only group which did not mention authorisation and authentication issues were the FE college focus group participants.

In the view of one survey participant such issues were key to the development and success of portal systems

"solve the authentication and authorisation problems and the rest will look after itself" HE Support Staff, Survey ID126

Authorization and authentication issues were discussed both in relation to internal and external services and resources.

"It would be wonderful if users didn't have to use a number of different passwords to access services, whether they be internal services or services provides by outside organisations" Teaching Staff, Institute of Higher Education

Internal Information

Access to internal information systems such as finance, purchasing and student records were raised in interviews and focus groups by various categories of staff.

"from the staff perspective there are different corporate info systems that you need to log into in different places – it's basically a headache" Teaching Staff, University A

"if it saves me separately logging in to timetabling and students records, that would be wonderful" Teaching Staff, University B

Whilst staff commented on the burden of using and remembering multiple passwords such problems were also seen as applicable to students.

"I think it's one thing for staff, but when students had one login for the intranet and one for Blackboard and they just got so confused" Teaching Staff, Institute of Higher Education

At one site students commented on having been presented with five institutional usernames and passwords which, when combined with passwords for their personal services (such as hotmail, online banking or Amazon accounts), made the number of logons an obstacle to system usage.

*External Resources*⁸

The need for users to seamlessly access external resources was also raised by a number of participants.

"It's just a pain always logging in and out all the time from various websites... I think you'd have to make sure that the logging on was easy - that's the problem at the moment, signing in all the time ... There's a trade off with security issues - it would be worth it" Postgraduate Student, University A

Announcements

Along with campus and departmental news, the importance of internal announcements was commented on by staff, and to a lesser extent, by students.

"The need to be able to offer general announcements/information to all students and other announcements depending on their programme of study, etc, is important." HE Support Staff, Survey ID188

"if we send out emails we send them to .ac.uk addresses and quite a few don't check that very regularly... having announcements / messages they could see would be good" Teaching Staff, University A

"announcements and getting to know if your class was cancelled, because if you're at the computer writing an essay all day it would be easier to just look rather than packing up and going - that would be handy" Undergraduate Student, University A

⁸ A more detailed view of 'Stakeholder Requirements for External Resources in Institutional Portals' forms part Work Package 4 for the PORTAL project.

Where announcements are current deployed within the campus VLE, staff indicated that they were popular with students

"students go to the announcements more than they go to anything else, then they go there assignment pages, then the communication area" Teaching Staff, Institute of Higher Education

Evidence suggests that many staff were enthusiastic about announcements in large part due to the email overload they currently experience. A number of staff indicated that internal (institutional / department or course-wide) emails which rated as 'announcements' rather than discourses were becoming a problem.

"I spent 4 hours yesterday [Sunday] clearing my inbox... So if we could shift some of the email into the information portal so it's there if you want it or if there was a daily notice board... i think that would be better than this profligate use of 'all staff' email that's going on" Teaching Staff, Institute of Higher Education

"Emails do get lost and people don't read messages so somewhere for announcements would be good" Management / Teaching Staff, University A

When asked 'which single feature would sell a system like this to you' one focus group participant instantly replied

"getting rid of email to everyone" Teaching Staff, University B

Personalisation

The personalisation of institutional portal systems was implicit in much of the discussion surrounding individual features and portals in general. Both staff and students felt personalisation to be a key element in overcoming the information overload experienced by many.

Whilst one participant was impressed by the kind of personalisation available on some commercial sites:

"You go to the Amazon site and it says 'hello Julie' - its lovely and it tells you what I might like to buy, it's lovely - no hassle, just customer service" Teaching Staff, University A

Others saw the potential of applying broad institutional categories to information

"if you could tailor it so if you do one course you get that course's home page" Undergraduate Student, University A

The difference between complete personalisation and 'groupisation', based on a user's institutional role or department was raised by one JISC representative.

“There are ways that you can use behind the scenes personalisation to the great advantage of the user as a sort of information filter and to guide the user and that’s the direction it has to go in - guiding and helping without limiting. The thing with personalisation is that it implies the person and if you look at it from the course point of view it actually has more applicability because you can see that as a tool in learning and teaching, as a means for guiding the students and helping them along... what did someone call it... ‘group-isation’.” JISC Representative

Multiple Roles

Two survey respondents indicated that they occupied more than one institutional role (teaching staff / research staff, support staff / student) making assigning a role for the survey difficult. The issues of presenting information to users with more than one role was not raised within interviews or focus groups as participants.

Security

The issue of security was raised in interviews, focus groups and by survey respondents. The potential of portal systems to provide interfaces to sensitive information, such as academic results, personal information and financial data, lead to concerns surrounding security concerns for a number of participants.

“Users should be assured of security issues – that’s very important. E.g. No one but me should be able to access my records” FE Support Staff, Survey ID363

“The system would have to be secure – I wouldn’t want other people looking at my results” Student, FE College

“I think it all looks great but my only concern would be around data protection and access... The more information you get the tighter it has to be” Teaching Staff, University A

Whilst single sign-on was a popular feature of portal systems (see Single Sign-on) students participating in the focus group at University C indicated that where sensitive information such as exam results and access to their student records were included in the portal, a two stage security system would be required, perhaps comprising a pin number and a password.

In contrast, staff participants at University C felt that online access to such information would be more secure than only storing the data in hard copy in filing cabinets.

Reliability

Whilst perhaps not a feature of an institutional portal itself, both staff and students were concerned that the systems be supported by a robust network infrastructure.

“it just really needs to work” Undergraduate Student, University B

“The two big barriers are access and the reliability of the network...” Teaching Staff, Institute of Higher Education

Student participants in the FE College focus group were aware of the current strain on their network and were concerned that adding additional functionality would slow the system down.

Several participants indicated that the major drawback of institutional portal systems would be the potential for computer systems to fail and for users to lose access to the range of information and services available via the portal.

“if it crashed everyone would lose everything” Undergraduate Student, University B

One survey respondent acknowledged that:

“the need for robust infrastructure for this type of system would be a requirement that some institutions would find problematic” HE Support Staff, Survey ID502

Accessibility

Issues of the accessibility of portal systems were raised at all sites, and many staff and students seemed aware of the issues surrounding the accessibility of online resources. The need for systems to provide a variety of interfaces and the flexibility to enable users to alter colour schemes and font sizes to their personal preferences was raised by staff participating in the Institution of Higher Education focus group

“we have a large number of dyslexic students and it’s important that information can be accessed or read by a screen reader... they need to be able to change the fonts, or the sizes or colours” Teaching Staff, Institute of Higher Education

One staff member at University C felt that portals should not be designed geometrically but would allow users to create ‘messy’ concept maps of resources and features. It was felt that such a feature would assist certain users in navigating the portal.

Staff participating in the FE college focus group were concerned that neither literacy nor IT skills levels should be assumed, as some students would quickly become overwhelmed by pages containing textual content.

Off Campus Access

Both staff and students were keen to have access to systems from home. At a number of sites the issue of off campus access was raised due to the inability of users to access all or part of their current systems from off campus.

"[it needs to be] accessible from outside the campus, students must be able to see the stuff from home or it loses a lot of power" Teaching Staff, Institute of Higher Education

"It would be nice to have everything that we have access to on the intranet and everything we do at college at home as well – it would be so much easier than we could just get on with more work " Student, Institute of Higher Education

One survey participant indicated that a 'smart' system which could present different information depending on whether users logged in from on or off campus would be advantageous.

"I'd also like a smart portal developed – ie. if I log on from home I see different things than I do when on campus – ie. web email links from home are useful, but on site I use Exchange" HE Support Staff, Survey ID126

The view was shared by a focus group participant who acknowledged that particular features were more important when working from home :

"the thing I find really annoying as a member of staff is that some of the things that you might really want from home, like the phone book and the email search, you can't access from home ...if its online it should be accessible" Teaching Staff, Institute of Higher Education.

Contacts

Access to up to date telephone directories and easy access to email directories were raised in interviews, focus groups and via the survey comments section.

Support Services

The possibility of using the portal as a push tool for various campus support services was raised in interviews, focus groups and via the survey comments section. One student survey respondent complained that links to disability services were not included in the survey whilst a staff respondent stressed the importance of support services' inclusion.

"finding an easy path through information to do with non-academic aspects of student life, eg guidance on finance, hardship funds, child care, etc, etc is imperative" HE Support Staff, Survey ID188

Staff in support roles were keen to use the portal to direct information at potential users:

"the portal could throw at the student the possibility of learning support automatically and then they could switch it off, it could be a good channel to make people aware" Support / Teaching Staff, University A

"maybe all the IT pages could be brought to the central arena and also maybe all the online learning we currently have available, because it's underused currently..." Support Staff, Institute Higher Education

One member of HE support staff (University A) indicated that personalisation would allow relevant services to be directed to particular users, for example specialist library sessions for those registered on dissertation modules.

Similarly, Human Resources staff (University B) indicated that they would like the system to highlight e-learning staff development packages to relevant staff.

Curriculum Information

Of particular relevance to those staff participating in the FE college focus group was access to curriculum and quality information. Whilst within Higher Education course syllabi are largely internally developed, the Further Education sector works to syllabi developed by external awarding bodies. Access to updates, news and search facilities for such bodies would be high priority with FE staff, particularly teaching staff.

Research Information

Whilst information regarding teaching and learning was included as a feature in the online survey, research information was not. Access to news about funding calls, deadlines and research areas was suggested as a useful feature by a number of staff in HE sites.

"What we don't get and what we would quite like are regular updates from the research office here on research opportunities that may be off the main track" Teaching Staff, University A

Staff indicated that personalisation would be needed in order to provide information regarding research opportunities relevant to their subject areas and interests.

FAQ's

Staff at two (FE College and Institute of Higher Education) of the five sites commented on the need for students to have direct access to a database of frequently asked questions.

The need for these to be provided in a user focused way was specified, for example that 'opening hours' would provide information about opening times across campus rather than users accessing the library site to find library opening hours and the student union site to access shop opening hours.

Web Cam

The inclusion of a web cam feature was one which divided both staff and students participants.

A number of students were keen to have web cams around the campus at 'cool' places (FE College Students) and student focus group participants at University C thought it would be useful to have a web cam where queues assemble – such as the café, outside seating areas, and the campus bus stop – so that they could see how busy they were. Access to web cams was raised enthusiastically by an HE student survey respondent. Students at University A, which operated on more than one campus, were keen for web cams to reflect their campus rather than simply the main university site.

One participant at the Institution of Higher Education acknowledged that web cams would appeal to some of their students whilst a participant at University C felt that students would expect such features.

However, other students and a number of staff considered the facility inappropriate, and felt that the feature would use up valuable bandwidth.

Alternative Devices

The need for the portal to be accessible from a range of mobile communication devices was raised at two sites and voiced by a survey participant.

Student focus group participants at University C were also keen to have access to portal features, particularly their timetable and email, via WAP phones or personal organisers.

More students than staff raised the issues of access via mobile devices; the feature was raised by only one member of staff who made particular reference to the need for any portal based dairy system to be accessible off campus and via a handheld organiser.

Coursework Submission

The ability to upload assignments was requested by one student survey respondent (ID278).

When asked to rate their favourite features students participating in the focus group at University C felt that online submission would be more secure than the current system and awarded the feature first place.

Travel Information

Both staff and students in the focus groups at University C were keen to access dynamic travel information regarding timetables for buses serving the campus. Students described the inclusion of such a feature as "fantastically useful".

Staff at University C were also keen to have access to online maps and travel booking sites. One interview participant (University A) suggested that some staff would appreciate travel information from local stations and airports.

Adverts and Commercial Presence

The issue of having a commercial presence in the portal was raised by both students and a limited number of staff and provoked mixed reactions.

One survey respondent, in common with students at University C, was clear that adverts would undermine the appeal of the institutional portal:

"Make sure not to have too many adverts if at all, as they are just as annoying as spam mail" Undergraduate Student, Survey ID215

A number of participants indicated that free text messages from particular mobile phone companies or access to online retail services would constitute positive portal features. One survey respondent suggested the inclusion of:

"An automatic bookshop to buy books for your subjects" Undergraduate Student, ID518

Issues

Beyond the functional requirements for institutional portals outlined in the previous sections a number of broad issues emerged during data collection and analysis. These issues reflect the context in which institutional portals are being developed.

Access to Technology

Access to hardware, both on and off campus was frequently cited as a barrier to the effective deployment of institutional portals.

Whilst students' access to computers was raised by a number of staff it was noted that those returning to education or taking vocational continuing professional development course were often less confident in their use of IT and were less likely to own a computer.

"a lot of our students are mature and they're a little bit wary and also not many have computers at home and so we double up and have information on notice boards" Teaching Staff, University A

Similarly, staff participating in the FE College focus group were acutely aware that computer ownership was significant lower in the FE sector than in Higher Education. This, they felt, would be a barrier to uptake of such systems by students. The FE staff also indicated that the number of part-time staff working in the sector – who may not own a computer or have in-college access to a machine – may have consequences for the deployment of such systems.

The need for portals to be seen as developments with repercussions in numerous institutional areas, including computer access, was stressed by a JISC representative who indicated that

"It would take visionary leadership at the top of institutions, from our vice chancellors, to really ensure that an institution has joined up policies that would make portals work because it relates to a raft of policies ... policies about equipment provision" JISC Representative

Students also voiced concern over access to campus computers.

"the problem is that there aren't enough computers so the students can't actually get hold of the information – that's what I actually think is the biggest problem" Student, Institute of Higher Education

With regard to on-campus computer access, one focus group participant felt that institutional portals could actually help with access to hardware. She suggested that if information could be accessed more quickly students would be able to complete tasks in a shorter time thus freeing up machines for other users.

Currency and Cohesion

The currency and accuracy of the information which might 'feed' the portal were raised by both staff and students.

One respondent from an institution currently implementing an institutional portal noted that:

"our portal currently can't do all the things I have listed as 'very important', partly because we have a problem getting timely and accurate datafeeds"
Support Staff, Survey ID207

In a number of areas staff questioned the accuracy and coherence of the information which might be accessed via the portal.

"it [the portal] will tend to rely on the official timetable and what the centre doesn't seem to recognise is that in fact... hardly anybody is actually operating off the official timetable, it's one of the great fictions" Teaching / Management Staff, University A

"central information is the biggest bug of our life...the admission records, the student records, getting the right people on modules, getting the information out of AIS and particularly quality information. Every time I need quality statistics for a report every set of figures is different... The inconsistency of that information and keeping those records up to date [is vital] and it's the format of those reports, its not user friendly" Management Staff, University A

Maintenance

Whilst many participants were enthusiastic about the potential of institutional portals, a number expressed concern over the long term maintenance of such systems.

"The thing that would worry me most would be making sure that all the information from all the departments would be on it – there's nothing worse than using this wonderful thing and finding that half the stuff's not on it" Student, University A

"it's got to be something that actually works, that's not too complicated.. simple to use and simple to maintain and keep running. What worries me is that we actually create something so complicated and complex that we can't run with it"
Support Staff, University B

"I'm looking at this [portal screenshot] and it looks good but I'm thinking who's going to update that, and that and that – somebody will have to" Support Staff, Institute of Higher Education

"it would be great if it's kept up to date. I think the theory of this is good - but in practice it will take low priority and won't be kept up to date" Teaching Staff, University A

Experience of existing systems such as institutional and department websites, virtual learning environments and even physical notice boards led a number of participants to be sceptical about the long term maintenance of information included in the institutional portal.

At University A the planned roll out of an institutional portal has developed alongside

"The most difficult aspects of portal deployment are around process. Departments and sections have accrued communications practices over time which are widely variant. They have to see clear and tangible benefit to be persuaded to modify those practices and buy in to any centrally provided system... by coupling the development and deployment of a web content management system alongside the development and deployment of our portal we've achieved a small scale multiplier effect" Support Service Manager, University A

Roll Out

From their experiences of deploying both portals and other institutional systems a number of staff expressed views regarding the deployment of institutional portals.

Whilst the evidence collected for this study indicated that students were enthusiastic about the idea of the institutional portal one portal deploying institution has found their student body reluctant to use the portal.

"We have just introduced a portal for some of our students and it seems to be an uphill job convincing them of the benefits although we can see them clearly" Teaching Staff, Survey ID335

The need for the roll out of the institutional portal managed from a cross departmental perspective with staff support at all levels was raised by support staff:

"it needs strong staff support because the minute you loose support for something like this with the students its very hard to get them to go back...i don't think you can underestimate the fact that it has to work, the minute it doesn't you'll loose support from students rapidly, students are very fickle" Support Staff, Institute of Higher Education

And were echoed by a JISC representative:

"it's identifying all the systems on campus that need to be brought together and how that needs to happen and then implementing institutional policies that drive through that change... it's not the kind of development that can happen organically from the ground up it needs top down management" JISC Representative

Staff participants in the FE college focus group indicated that the large proportion of part time staff in the FE sector may mean that establishing support for new systems amongst staff could be problematic.

Several students were keen that

"it needs everything there otherwise people aren't going to use it very much"
Undergraduate Student, University A

Micro versus Macro

The role of departments – be they academic or support – within the institution emerged with regard to a number of different areas including news and announcements and look and feel.

Where institutions were divided between more than one geographical site the issue of campus identity was raised. Students at University A and University B were keen for portal content and appearance to reflect their distinctive campus identity rather than the standard institutional format.

Several interview and focus group participants were keen for news and events to be distributed at departmental as well as institutional level.

Announcements were another area in which the staff were keen to control content at a departmental, course or module level.

Similarly, one survey respondent indicated that:

"within the HE environment sometimes the variety between sites, departments, support services is important" Support Staff, HE Survey ID186

Empowering Staff

Several staff expressed a desire to have increased access to the information they needed. With regard to a number of systems – such as finance or student records – staff felt that more user friendly interfaces would enable them to access systems directly and with great ease. Others felt that the ability to access all the institutional systems they required would not only empower them, but would enable other staff to focus on their core activities

"if you ask for information you're going to wait a month to get it and by that time its too damn late... the reason we can't get at it is that we have to wait for

someone else... the more we can make things available to people so they can access them themselves, without involving some other poor soul having to make a judgement about their priorities the better" Teaching Staff, University A

One interviewee indicated that the current lack of direct access to information has human as well as practical ramifications,

"its emotional as well as practical - it doesn't make you feel good" Teaching Staff, University A

Expectations

Whilst participants were generally enthusiastic about the idea of institutional portals, genuine expectations of the system were mixed. Where a particular system had been problematic at an institution – be it the campus email, the VLE or the intranet - users were often wary of new systems. Comments surrounding the need for staff support for roll out, maintenance and the requirement for robust campus infrastructure reflect the extent to which stakeholder expectations are influenced, positively or negatively, by previous experiences.

The need for expectation management was apparent. Senior staff at one study site were concerned that running a focus session might create expectations in participants which could not be readily met by institutional systems.

Both staff and students in interviews and focus groups were keen for their comments to be fed back into their own institutions as well as into this report. One FE focus group participant joked that:

"I don't want to do this anymore because we're not getting it anyway!" Student, FE College

Mixed Economy

Whilst the idea of the institutional portal was generally well received, the need to maintain other points of access to information was of concern for some participants and seen as important for others.

"I wonder if the portal would be the only access point available to staff/students eventually or would there still be a requirement for other points of access to specific things?" HE Support Staff, Survey ID32

Students without computers at home were keen to still be provided with core information – such as handbook and module catalogues - in hard copy. Such comments, and the limited enthusiasm for features such as pay fines and fees, reflect the need for a 'mixed economy' approach to information and services. The human element in institutional relations was seen as vital by both staff and students

" I think it's very tempting to think here's this new magic box of tricks that's going to solve everything ... even if the answers are on the site they still want confirmation from a human being" Support Staff, Institute of Higher Education

"I'm not convinced that the students I want to check up on [the ones that may be struggling] ... are actually going to be logging on" Teaching Staff, University A

"it would be good to see grades online - to be able to have it on the screen if you wanted it but I wouldn't want to lose the contact with my supervisor"
Undergraduate Student, University A

Communication

Issues surrounding communication were apparent in a number of areas. Evidence suggests that institutional email has become a particularly problematic area. A number of staff described the information overload they experience with regard to their email. Correspondence from students and project partners sit beside spam, mailing list discussions, departmental and institutional announcements, meeting requests, causing one focus group participant to subvert the institutional communication system:

"I'm actually saying to people at the moment, if it's urgent ring me on my mobile because it might be 2 or 3 days before I get to your email among all the email that I have to go through" Teaching Staff, Institute of Higher Education

Student use of institutional email systems was mixed with several interview and focus group participants rarely, if ever, checking their .ac.uk addresses.

Cost

Remarkably the cost of deploying an institutional portal was raised explicitly by only one focus group participant.

Summary of Group Requirements

Features that appear in the top five for particular categories of respondents but which do not appear in the ten top-scoring features across 'All Respondents' are in *italics* in order to call attention to them. The facilities that do not appear in the overall top-ten, but are of particularly high importance to certain categories of respondents are:

- Careers information (for FE student)
- Conference alerts (for researchers)
- Forms and documentation (for administrative staff)
- Review your marks (for HE undergraduate students, FE students, and post-graduate students)
- Staff development (for administrative staff)
- Student records (for teaching staff)
- Teaching and learning information (for teaching staff)

FE Students

Feature	Score allocated by FE Students
<i>Review your marks</i>	222
Library administration	209
Deadline alerts	194
<i>Careers information</i>	191
Access or update teaching materials	185

In common with the survey results, student participants in the FE focus group indicated that reviewing their academic history (as opposed to collecting their results), accessing teaching materials (rated 6th) and accessing factual and realistic careers information would be important features. Alerts for major deadlines were deemed unimportant – due to the structure of the students' course – but alerts for intermediary tasks proved a popular feature.

Data gathered from students in the FE College focus group in a number of instances contradicted the evidence collected via the web based survey. Library administration, deadline alerts and access to timetables were deemed unimportant by focus group attendees – in large part due to the nature of their course – despite rating highly in the online survey.

Students participating in the FE focus group indicated that access to collaborative workspaces would be important. The use of chat rooms and shared internet bookmarks were cited as useful portal features.

The limited number of survey respondents who identified themselves as FE students, the single FE student focus group and the tensions between the qualitative and quantitative data suggests that results for FE students should be used only as indicators of views and preferences. More work should be done to further assess the range of views from the FE community.

HE Undergraduate Students

Feature	Score allocated by HE Undergraduate Students
Deadline alerts	242
<i>Review your marks</i>	230
Library administration	229
Access or update teaching materials	218
Search your favourite resources	208

In common with the survey results, undergraduate interviewees and focus group participants indicated that deadline alerts, reviewing (as opposed to collecting) their marks, their academic history, library administration, accessing teaching material and searching specific resources would prove popular portal features.

Whilst careers information proved popular with FE students, it was rated 12th by undergraduate respondents to the survey and received limited support from those in interviews and focus groups.

The idea of the institutional portal received its most enthusiastic reception from HE undergraduates – perhaps in part due to the number of participants in this category.

Despite the widespread use of external email accounts by undergraduate interviewees and focus group participants, access to other email accounts via the portal was rated 17th with survey respondents, whilst access to institutional email rated 10th.

Postgraduate Students

Feature	Score allocated by Postgraduate Students
Library administration	220
Search your favourite resources	220
Deadline alerts	207
Library & quality internet resources alerts	201
<i>Review your marks</i>	171
Access or update reading lists	167

Where the above features were mentioned, postgraduate students participating in interviews concurred that access to such features would be useful.

The limited number of postgraduate students participating in interviews and focus groups suggests that results for postgraduate students should be used only as indicators of views and preferences.

FE Staff

Feature	Score allocated by FE Staff
<i>Staff Development</i>	216
Library & Quality Internet Resource Alerts	215
Handbook	214
Access or Update Teaching Materials	213
Search Your Favourite Resources	204

A number of the above features - including search for resources, alerting services and accessing and developing teaching materials were referenced in the FE College focus group.

Neither access to handbooks nor staff development were referred to by participants in the FE college focus group.

Staff participants in the FE College focus group were keen to access external information relating to curriculum and quality issues.

The limited number of FE staff participating in the online survey and single FE focus groups suggests that results for FE staff should be used only as indicators of views and preferences.

HE Staff

Feature	Score allocated by HE Staff
Search your favourite resources	231
Personal information =2 nd	211
Library administration =2 nd	211
Access your institutional email	201
Library and Quality Internet Resources Alerts	197
Forms & documentation	192

Despite its statistical popularity with HE staff, a number of interviewees expressed scepticism over the value of access to personal information for staff. However, staff were keen for students to have a method of maintaining their own contact details.

Despite its statistical popularity, access to library administration was not mentioned by the majority of HE staff interview and focus group participants.

Interview and focus group evidence suggests that access to institutional email is vital to the work the majority of HE staff. Indeed a number of staff indicated that they were experiencing information overload in email.

The value of resource alerts was questioned by a number of HE staff due to the information overload many indicated they were experiencing.

In common with the survey results, access to institutional forms and documentation were popular with interview and focus group participants.

Interviews and focus groups reveal that the deployment of institutional, faculty and departmental announcements would also prove an important portal feature.

Despite a low statistical rating (28th), a number of HE staff indicated that access to an institutional events calendar would be a useful portal feature.

Research Staff

Feature	Score allocated by Research Staff
Search your favourite resources	237
Personal information	209
Library administration	205
Library & Quality Internet Resources alerts	190
<i>Conference alerts</i>	189

No staff whose role was solely research were interviewed or attended focus groups in the course of this work package. However, a number of teaching staff indicated that they both taught and conducted research.

The lack of research staff participating in interviews and focus groups suggests that the results for research staff should be used only as indicators of views and preferences.

Teaching Staff

Feature	Score allocated by Teaching Staff
Library and Quality Internet Resources Alerts	221
Search your favourite resources	220
Access or update teaching material	210
Library administration =4 th	205
<i>Teaching and learning information =4th</i>	205
<i>Student records</i>	202

A number of staff commented on the time pressure under which they work, such pressure perhaps reflects the popularity of alerting services amongst some teaching staff. Other staff questioned the value of alerts due to the information overload many indicated they were experiencing.

Both searching for information and accessing and updating teaching materials were predictably popular with this group.

Despite its statistical popularity, access to library administration was not mentioned by the majority of teaching staff interviewees and focus group participants.

In common with the survey results, access to teaching and learning information and to student records systems was popular with this group.

Support Staff

Feature	Score allocated by Support Staff
Search Your Favourite Resources	236
Access Your Institutional Email	225
Personal Information	220
Library Administration	212
Library and Quality Internet Resources Alerts	210
<i>Forms and Documentation 6th</i>	206

A high proportion of the support staff attending focus groups, participating in interviews and completing the online questionnaire were library, learning resource and information. This fact may account for the high ranking of library and information features within the support staff category.

Support staff interview and focus group participants were also keen to access professionally related materials such as information relating to new initiatives and news from professional bodies.

A number of support staff participating in interviews and focus groups indicated that institutional portals could act as tool with which to present information regarding support services to their audiences.

Administrative Staff

Feature	Score allocated by Administrative Staff
Staff development	211
Personal information	207
<i>Forms and documentation =3rd</i>	204
Search your favourite resources =3 rd	204
Access your institutional email	199
Campus news	187

Those administrative staff participating in interviews and focus groups concurred that access to forms and documentation and campus news would be important portals features.

Whilst the responsibilities and activities of administrative staff vary it was noteworthy that access to purchasing systems, room bookings, and catering bookings were not deemed important by this group of stakeholders.

The limited number of administrative staff participating in interviews and focus groups suggests that the results for administrative staff should be used only as indicators of views and preferences.

Conclusions

Communication

- “Email overload” is represented as a significant problem, particularly by teaching staff. By providing customised views of information to targeted groups and individuals, institutional portals may provide an effective alternative means to distribute and disseminate information.
- Higher Education interviewees and focus group participants indicated their support for systems which provided differentiated department level news, events, and announcements in addition to those provided at an ‘official’ institutional level. Coherence in the provision and management of this information is a significant, but distinct, factor in portal development and deployment

Learning and Teaching

- In general, features associated with Virtual Learning Environments/Course Management Systems, such as access to teaching materials, reading lists and discussion areas, did not rate equally amongst online survey participants. Certain features associated with these systems, such as deadline alerts, departmental news and instant messaging were popular with students, although the latter function may have been associated with a non learning-specific context. These issues will be addressed in greater detail in PORTAL Work Package 12 “Portals and VLE’s”
- Both teaching staff and students expressed doubts regarding the desirability of distributing exam and assignment marks via an institutional portal. As the objection is based around access to “bare” marks without adequate pastoral support for students who perform less well, the objection applies equally well to distribution from either the web, or indeed the postal service. It is possible that this opinion may be modified by practical experience of portal use: the ability to target pastoral support to individual students receiving examination or assignment results in close proximity to those results may, for example, be better enabled by an institutional portal. The ability to view their academic history easily was, however, popular with all categories of students.

Searching and Accessing Resources

- The ability to search, by various methods, emerged from the online survey as the most popular portal service. This included the ability to search the Web using a search engine; search the institutional library catalogue or online information databases; search for colleague contact information and search institutional documentation. Given the variance

of preferred search tools, flexible interfaces which provide facilities for the user to select preferences expressing choice of search tools and sources of information are essential to promote “buy in” to the portal development.

- In addition to features included in the online survey, single sign-on (to both internal and external services) rated as one of the most requested features of an institutional portal. This may have implications which should be taken into consideration when determining the future of national authentication systems, such as Athens in the UK, together with inter-institutional and commercial systems.
- Features which users access regularly from a single external point (such as national and international news, weather, alternative email and messaging services) frequently had a low rating. Doubts were expressed regarding the need to include such features in an institutional portal. These doubts may hinge on the interpretation of “inclusion”. As richer interfaces for the connection of portals and communication between portals develops, and the granularity of services these connections reveal are refined, this area of stakeholder preferences may be worthy of further consideration.

Accessibility

- The need for institutional portals to be accessible to users was of considerable concern to staff, and a more limited number of students, in both HE and FE. It was considered important that font sizes and colour schemes should be adjustable to accommodate the needs of differently able users.

General

- A limited number of those involved in research activities had misgivings regarding the deployment of institutional portals. Concerns were voiced that a ‘one-stop shop’ would fail to meet specialist needs; that duplication would occur between the portal and existing systems (such as institutional websites and the Virtual Learning Environment /Course Management System) or that portals would provide little added value beyond the systems currently available. Despite such misgivings the majority of institutional stakeholders expressed a desire for access to both internal and external resources, and services via a single ‘portal’. The concept of the institutional portal was particularly well received amongst student participants.
- The range of resources, both internal and external, raised in the course of the research by different groups of participants suggests a clear need for the institutional portal to be supported by an enterprise level person directory infrastructure capable of storing individual and group roles and preferences. Data standards for such a directory have been considered in PORTAL Work Package 6 “Metadata Standards for Portal Users”

- The ability to access the portal from a remote internet connection (ie, not on campus) emerged as a significant priority for a number of potential users.
- Given the emphasis on mobile telephony given by some respondents, the likelihood of the increased availability of a greater range of access devices, and the comments above, it might be appropriate to conclude that the effective delivery of personalised resources and applications by the portal requires the awareness and integration of information regarding person, device and location.
- Tensions exist around the ability of the user to control both the content and the “look and feel” of the institutional portal. These tensions expressed themselves primarily in terms of the ability to choose information sources and amend the appearance of the portal interface (a popular facility with both staff and students), whilst institutional representatives were keen to maintain control over key aspects of the content, look and feel of the institutional portal. These apparently conflicting priorities suggest that maintaining a balance between the two elements is critical to securing effective “buy-in” to the portal development by all sections of the institutional community.
- Stakeholders, particularly staff, expressed a need for efficient institutional processes and infrastructure in support of portal deployment. Specific concerns were raised over the need for a robust network; adequate hardware provision and around the quality and currency of the information accessed via the portal. The development of an institutional portal may well hold a mirror to institutional processes which are not effective, are ad hoc, or have not been reviewed for considerable periods of time. If institutional buy-in by senior management and commitment to review and revise such processes does not exist, the portal is unlikely to be held in high regard by the broad range of stakeholders it seeks to target.
- Evidence indicates, however, that the effective deployment of an institutional portal may well connect a range of stakeholders to the institution in a more personal manner than they have experienced previously, thus enhancing the effectiveness of the institutional as an inclusive organisation. The institutional portal may, therefore, play a critical part in the transformation of the institution into a genuine learning community.

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