



Draft

# A report on the results of Phase One of the Personal Information Environment Evaluation Programme

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## **1.0 Overview of the HeadLine PIE Evaluation programme**

The evaluation programme is comprised of two phases. The first phase involved an analysis of PIE log data collected between May 2000 and January 2001, and a questionnaire survey of end users at each of the partner sites during November/December 2000. The Phase One evaluation aims to report on the usage and usability of the HeadLine PIE from the end user's point of view and to enable recommendations to be made for improvements or further functionality.

The Phase Two evaluation will be informed by the results of the Phase One evaluation and will take place between April and July, 2001. Phase Two will involve a more detailed evaluation of end users use of the PIE at each site through the use of a questionnaire survey. In addition the project will use focus groups to help evaluate administrators' use of the PIE. The second phase will also evaluate the wider community's response to the PIE using a questionnaire survey.

## 2.0 PIE Log Data Analysis: Numbers of PIE Users

Currently there are three PIEs, one for each partner institution (London School of Economics, London Business School, and the University of Hertfordshire). PIE users at the partner sites include undergraduate and postgraduate students, academics, researchers, administrative staff and library staff. Guest users (from within the wider library community) are also using the PIEs. An analysis of PIE log data collected between May 2000 and January 2001 enabled the numbers of users using each PIE to be ascertained.

### 2.1 University of Hertfordshire (UoH) PIE users

In early May 2000, the very first version (1.0) of the PIE was made available to UoH Library staff and piloted to selected groups of undergraduate and postgraduate students. Forty students used the PIE between May and June 2000. The pilot testing enabled the project to identify necessary improvements to the PIE's functionality and to schedule these for later PIE versions.

The pilot testers were:

#### **Undergraduate students on the pathways:**

Business Studies level 2

Marketing level 1

Tourism Management levels 1 and 3

#### **Postgraduate students on the pathways:**

Decision Sciences (MSC)

Human Resource Management (MA)

International Business (MA)

Management Studies (MA)

MBA & variants

Media Management (MA)

The UoH PIE was up-graded to version 1.1 in August 2000 and to v1.2 on the 14<sup>th</sup> November 2000.

In early November 2000, the UoH PIE was made available to undergraduate Microeconomics students during compulsory library training sessions that included demonstrations of the PIE and "hands on" exercises.

Between May 2000 and January 2001, the following numbers of people used the UoH PIE:

Library staff	11
Academics	2
Undergraduate and postgraduate students	40 (the pilot testers)
Undergraduate Microeconomics students	115
Guest users	14

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Total	182
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## **2.2 London School of Economics (LSE) PIE users**

Towards the end of July 2000, the (v1.1) PIE was made available to academics and researchers in the LSE's Economics department, and to LSE Library staff. This PIE was subsequently presented to undergraduate Economics students in early October 2000. The LSE PIE was up-graded to version 1.2 on the 14<sup>th</sup> of November, 2000.

The undergraduates, researchers, academics and administrators in the Economics department were invited via email to use the PIE. The email invitation described the PIE's functionality and pointed users towards the PIE online guide. Due to undergraduates' busy schedules at that time of year, it was not feasible to provide undergraduates with PIE training at the time of the PIE launch. However, training sessions are planned for undergraduates during the 2001 Spring term.

Between July 2000 and January 2001, the following numbers of people used the LSE PIE:

Undergraduate students	51
Postgraduate students	4
Academics	5
Administrators	1
Library staff	25
Guest users	34

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Total	120
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## **2.3 London Business School (LBS) users**

In late July 2000, the LBS PIE (v1.1) was launched to LBS Library staff, and in early August 2000, this PIE was also launched to academics and Ph.D. students in the LBS Institute of Finance and Accounting. It was launched to full-time students in the LBS Masters in Finance course, and to MBA students taking Finance electives in late September 2000. The LBS PIE was upgraded to version 1.2 on the 22<sup>nd</sup> of November, 2000.

LBS target groups were also invited via email to use the PIE. Some of these groups received a PIE demonstration during a meeting with the liaison librarian.

Between July 2000 and January 2001, the following numbers of people used the LBS PIE:

Ph.D. students	4
Masters students	19
Academics	10
Library staff	7
Guest users	10

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Total	50
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## **2.4 Guest users**

In mid October 2000, the three institutional PIEs were launched to guest users within the wider library community. In total, 58 guests used the three PIEs between October 2000 and January 2001. Many of the guests used more than one of the three PIEs. There were 46 individual guest users. Thirty-six guest users had only used one PIE, eight guest users had used two PIEs and two guest users had used all three PIEs.

## **2.5 Total Number of PIE users**

Between May 2000 and January 2001, 352 people used the three PIEs.

UoH PIE	182
LSE PIE	120
LBS PIE	50

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Total	352
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### 3.0 The Questionnaire Survey

The questionnaire aimed to ascertain:

- Who the respondents were, e.g., whether they were an undergraduate or postgraduate student;
- From which country they mainly accessed the PIE, and whether they accessed it on-campus or off-campus, as well as from personal PCs or shared PCs;
- How often they had used the PIE;
- How frequently particular library resources were used and how frequently the same resources had been used via the PIE;
- How often they had used particular pages within the PIE;
- How often personalization and search functions had been used;
- Whether there were any additional resources that the respondents would like the PIE to include;
- Respondents' opinions on the usefulness of personalization functions and their opinions of the PIE as a whole.

A set of core questions was included in each of three web-based questionnaires -- one for each institution. The questionnaires did not contain any compulsory fields. Several questions were tailored to the particular institution. For example, the question "Please indicate how often you have used the following PIE pages" included the list of PIE pages that were contained within the particular institution's PIE.

The three questionnaires can be found via the following links:

LSE questionnaire <<http://www.headline.ac.uk/lsepie/LSEPIEquaire11-2000.html>>

LBS questionnaire <<http://www.headline.ac.uk/lbspie/LBSPIEquaire11-2000.html>>

UoH questionnaire <<http://www.headline.ac.uk/uhpie/UHPIEquaire11-2000.html>>.

### 3.1 Sample group

The sample group was comprised of the following groups of PIE users:

LSE	61	(all undergraduates, researchers, administrative staff and academics that had used the LSE PIE)
LBS	33	(all Masters and Ph.D. students, academics, and administrators that had used the LBS PIE)
UoH	59	(undergraduate Microeconomics students *)

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Total	153	
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\* During the PIE training sessions, the UoH's Microeconomics students were asked whether they would like to take part in the evaluation. The 59 who agreed to take part were included in the sample group. It is important to note that 17 of these 59 students had not used the PIE when the invitation to complete the questionnaire was sent out. The UoH students that were involved in pilot testing the first version of the PIE during May 2000 were not sampled. Most of these students had completed their studies by the time of the survey, and none of them had used the PIE since June 2000.

Invitations to complete the questionnaire were emailed to the sample group in late November and early December 2000. The invitations included a reminder of how to access the relevant PIE -- its URL and authentication instructions. The 17 UoH students that had not yet used the PIE were invited to do so. As an incentive to complete the questionnaire, all respondents who correctly entered their email addresses were entered in a prize drawing (one drawing per institution) for a £10 Amazon book voucher. Shortly before the deadline for returning the questionnaire, reminders were emailed to those who had not yet completed the questionnaire. Questionnaire responses were received by email via a "forms mailer" based at the University of Birmingham (<http://www.bham.ac.uk/htexec/formsmailer>).

### **3.2 Questionnaire response rate**

22 out of the 153 people in the sample group completed the questionnaire, a response rate of 14% (22/153). However, the PIE log data showed that three of the UoH respondents had not used the PIE. The data from these three respondents are not included within the results. Hence there were a total of 19 respondents in the results set and the actual response rate was 12% (19/153). The response rate was slightly disappointing, which can perhaps be attributed to the time of year. Students may have been busy with end of term course work and/or exams. Table 1 shows the response rate by institution.

**Table 1**

<b>Institution</b>	<b>Number in sample group</b>	<b>Number of respondents</b>	<b>Response rate</b>
LSE	61	9	15%
LBS	33	2	6%
UoH	59	8	14%
Total	153	19	12%

## 4.0 Results and Discussion

### 4.1 User type

The majority of respondents (79%) were undergraduate students, 11% were Masters students, 5% were academics and 5% were administrators. Table 2 illustrates the number of respondents of each user type per institution.

**Table 2**

<b>Institution</b>	<b>Undergraduates</b>	<b>Masters students</b>	<b>Academics</b>	<b>Administrators</b>
LSE	7		1	1
LBS		2		
UoH	8			
Total	15	2	1	1

The LSE undergraduates were on the following courses in the Economics Department:

#### **Course      Number of respondents**

EC102	3
EC201	1
EC210	1
EC202	2

The LSE administrator was a member of the Economics Department. The LSE academic was a member of the LSE's STICERD (Suntory and Toyota International Centres for Economics and related Disciplines). The two LBS students were both on the Masters in Finance course. Seven UoH respondents indicated that they were undergraduates on the pathways listed below, the eighth UoH respondent was also an undergraduate but didn't indicate which pathway they were following.

#### **Pathway              Number of respondents**

BAC1	1
BISF1	2
BS1	2
BTM1	1
MSC1	1
No response	1

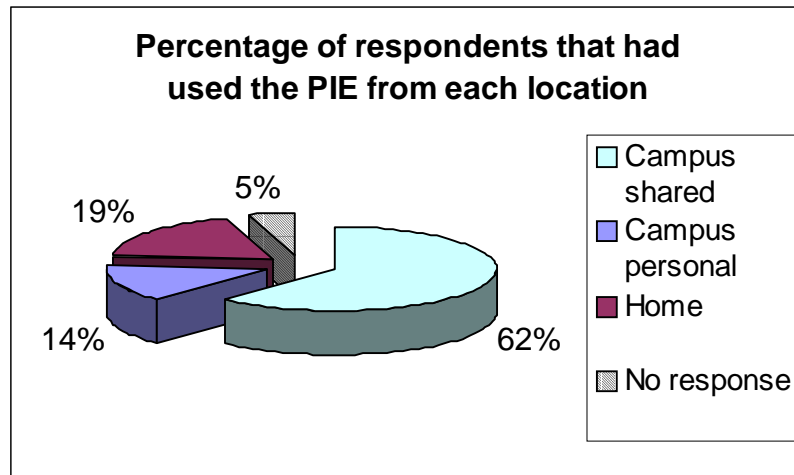
### 4.2 From which country do users mainly access the PIE?

All respondents indicated that they mainly accessed the PIE from the United Kingdom. Respondents were asked to list any other countries from which they had accessed the PIE. Only one respondent (a UoH undergraduate) indicated that they had used the PIE from other countries, listing both Germany and Dubai. However an analysis of the PIE log data showed that this respondent had only used the PIE once. These results were expected, as none of the student target groups were distance learners.

### 4.3 From what type of PC did the users access the PIE?

Respondents were asked to indicate whether they accessed the PIE from a shared PC on campus, from a personal PC on campus, or from a PC at home. More than one option could be selected. Figure 1 shows the percentage of respondents who had used the PIE from each location. The majority of respondents had used the PIE from a shared PC on campus. Presumably this is due to the high percentage of undergraduates in the sample group. The sample group included a high percentage of undergraduates, and undergraduates tend not to have access to a personal PC on campus. A higher percentage of respondents had used the PIE from home than had used the PIE from a personal PC on campus. The raw data can be seen in Table 3.

**Figure 1**



**Table 3**

	Campus shared	Campus personal	Home	No response
<b>LSE</b>	5	2	2	1
<b>LBS</b>	1	1	1	
<b>UoH</b>	7		1	
<b>Total</b>	13	3	4	1

One UoH and one LSE undergraduate indicated that they had used the PIE both from home and from a shared PC on campus. None of the UoH respondents (all undergraduates) had used the PIE from a personal PC on campus. One LSE undergraduate indicated that they had only used the PIE from home. The academic and the administrator were the only LSE respondents that had used the PIE from a personal PC on campus. One of the LBS masters students indicated that they had used the PIE from a personal PC on campus and from home.

Respondents were asked to rate the usefulness of accessing the PIE from off-campus locations. They were given the following options: "very useful", "useful", "not useful", or "no opinion". 74% indicated that they thought off-campus access was either "very useful" or "useful". None of the respondents indicated that off-campus access was "not useful".

### 4.4 How many times had the respondents used the PIE?

The questionnaire asked respondents to indicate whether they had used the PIE "once", "2 to 5 times", "6 to 9 times", "10 to 19 times", or "more than 20 times". Respondents who had only used the PIE

once were asked to explain why this was so. Figure 2 illustrates the number of times that respondents said that they had used the PIE.

None of the respondents indicated they had used the PIE more than nine times. Approximately two-thirds of respondents indicated they had used the PIE between two and five times. The highest frequency of PIE usage was observed in the UoH respondents. The four LSE respondents who had used the PIE only once each explained why this was the case:

*"Am not sure as to its uses."*

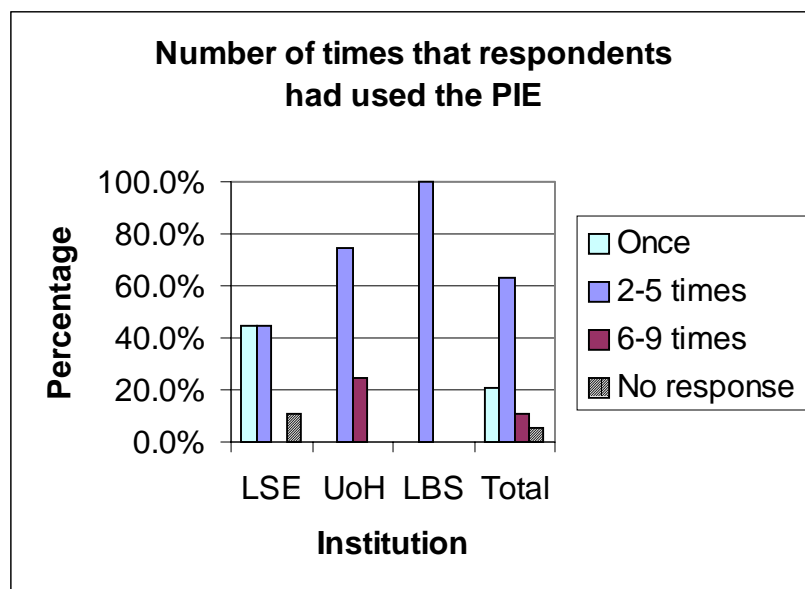
*"I don't understand how to use it and I don't understand what it's purpose is."*

*"I was curious but haven't had time since."*

*"I do not know how to use it or what it does."*

As mentioned earlier, the undergraduates, researchers, academics and administrators in the LSE's Economics department had not received any PIE training. The LSE respondents' comments indicate that training which includes a statement about the purpose of the PIE and information on its functionality is needed.

**Figure 2**



The actual number of times that the respondents (that had provided their email address in their questionnaire response) had used the PIE was ascertained using the PIE log data. Seven LSE respondents could be identified from their email address. Three of these seven respondents had used the PIE between two and five times, four had only used the PIE once. This is similar to what these LSE respondents had indicated on their questionnaires.

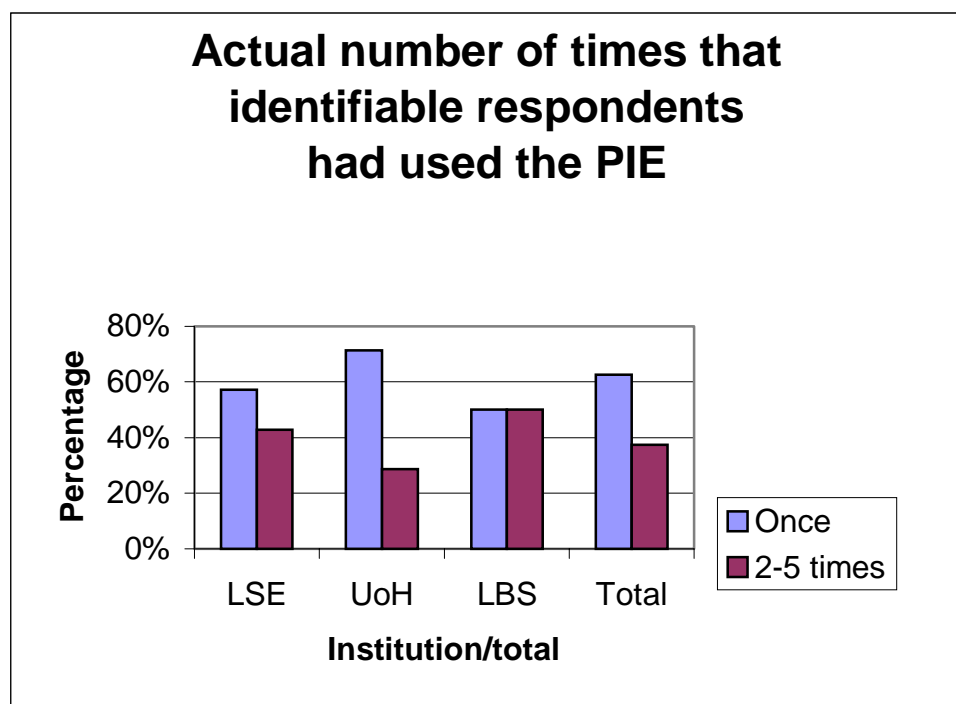
Both of the LBS respondents could be identified from their email address. Only one of them had used PIE more than once, (two times), whereas both respondents indicated that they had used the PIE 2-5 times on the questionnaire.

Seven UoH respondents could be identified from their email address. Five of the seven UoH respondents had only used the PIE once, two had indeed used the PIE more than once (both of these two had used the PIE twice). Hence in actual fact the frequency of UoH respondents PIE usage was lower than what they had indicated in the questionnaire.

The differences between the questionnaire responses and the data obtained in the PIE log illustrate that questionnaire responses are often unreliable.

The number of times that the (sixteen) identifiable respondents had actually used the PIE (according to the PIE log data) can be seen in Figure 3.

**Figure 3**



The PIE log data collected between October/November 2000 and January 2001 was analysed therefore enabling the number of return visits by all UoH, LSE and LBS users during this period to be ascertained.

**UoH:** 12 return visits, 8 individual people, two of whom had returned three times.

**LSE:** 7 return visits, 7 individual people, none had returned more than once.

**LBS:** 6 return visits, 5 individuals, one of whom had returned twice.

It is disappointing that such a low percentage of the PIE's users have used the PIE more than once. Increased promotion of the PIE to the user groups and further training in the use of the PIE would hopefully increase the number of return users.

#### **4.5 Resource Usage**

The respondents were firstly asked to indicate how often they used particular types of library resources (Library web pages, Library catalogue, bibliographic databases, financial/company information, market research information, electronic journals, working papers and web gateways). They were also asked to indicate how often they had used the same resources via the PIE. In addition to resources listed above, LSE and UoH respondents were asked how often they used exam papers (the LBS don't sit exams), LSE respondents were also asked how often they used reading lists (this question wasn't relevant to either UoH or LBS).

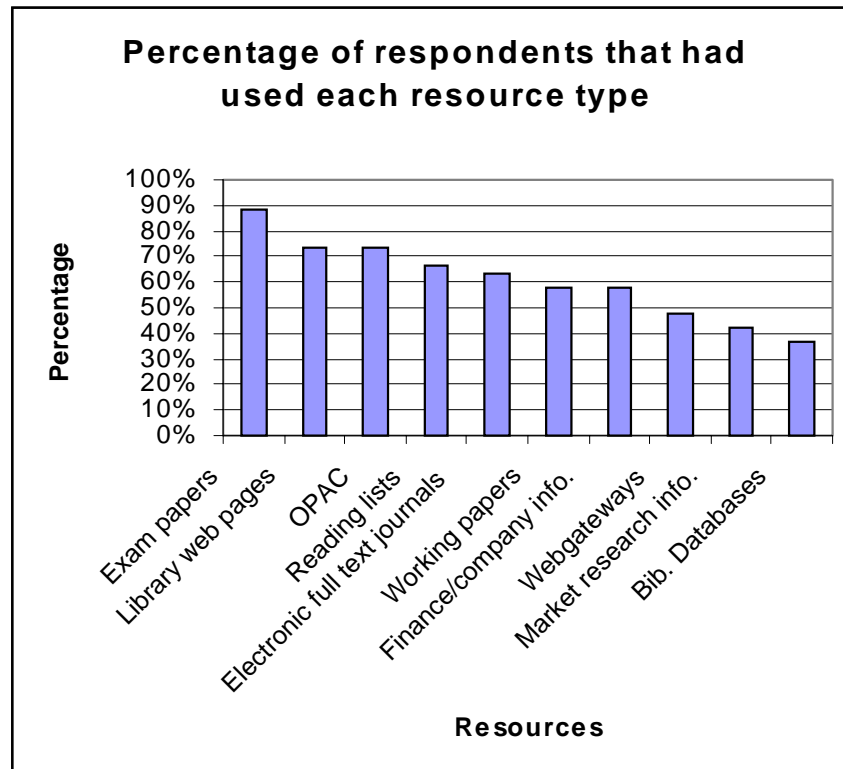
##### **4.51 Resource usage (not via the PIE)**

Tables 4A, 5A and 6A (see Appendix One) illustrate how frequently respondents used particular library resources. It is interesting to see that the LSE respondents (mainly undergraduates) had a lower level of resource usage than the UoH respondents (all undergraduates). The percentages of LSE respondents that indicated that they never used each of the resource categories were all relatively high (see tables 4A and 6A). It is perhaps the case that the LSE undergraduates had little need to use financial, company or market research information. It is difficult to draw conclusions about the frequency of resource usage by LBS respondents due to the small number in the sample.

Figure 4 shows the percentage of respondents who had used each particular library resource (not via the PIE). Exam papers were the most popular resource (88% of the 17 UoH and LSE respondents

indicated that they had used these), followed by library web pages and the library catalogue or OPAC (74% of the total number of respondents had used these). 67% of the nine LSE respondents indicated they had used reading lists (they may have used them in paper, or electronic form either via the library catalogue or via course web pages). 63% of the total number of respondents had used electronic full-text journals. Bibliographic databases were the least used resources; only 37% of respondents indicated they had used bibliographic databases.

**Figure 4**



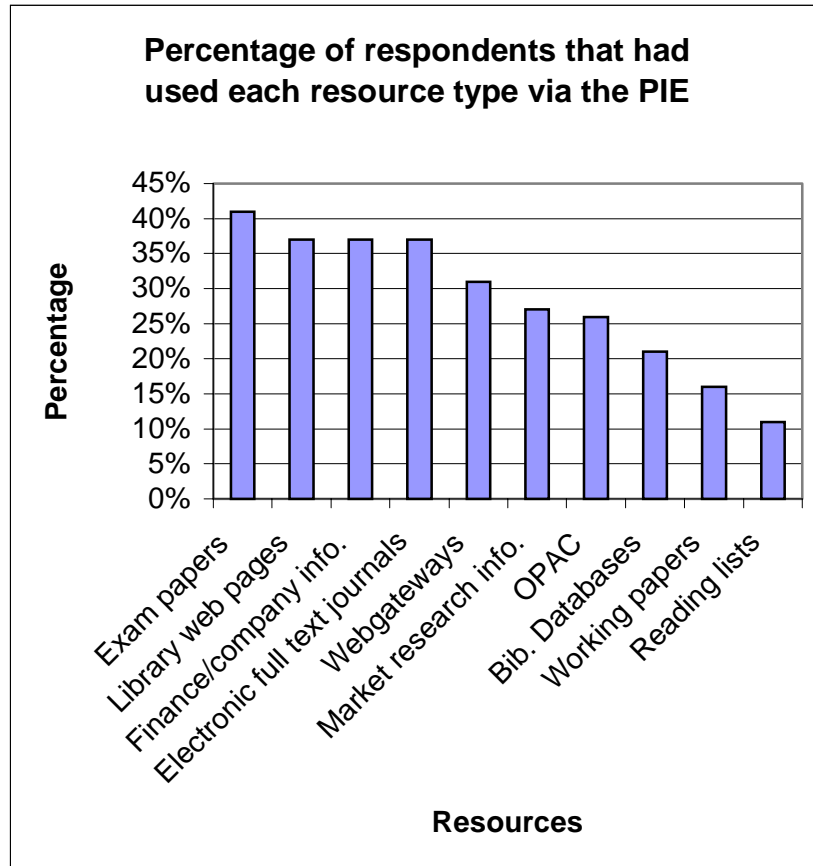
Respondents were asked to list any additional resources they used. Two LSE undergraduates listed additional resources. One mentioned using the '*Guardian/Independent CD Roms*' between 1-11 times per year. The other respondent had used '*solutions to maths exercises*' and '*lecture notes*' once or twice per month.

#### 4.52 Resource usage via the PIE

Tables 4B, 5B and 6B (see Appendix One) illustrate how frequently particular resources had been used via the PIE. None of the respondents indicated that they had used any resource via the PIE more than 5 times. The fairly low level of resource usage via the PIE is to be expected considering the low level of respondents that had used the PIE more than once.

Figure 5 shows the percentage of users who had used each resource type either once or more via the PIE. Again, exam papers were the most popular resources (41% of the 17 UoH and LSE respondents indicated that they had used exam papers via the PIE), followed by the library web pages, financial/company information, and/or electronic full text journals (each had been used by 37% of respondents). Reading lists were the least used resource via the PIE. Only one (11%) of the nine LSE respondents mentioned using them. The reading list resource location via the PIE takes the user to the reading lists available on the LSE Library catalogue.

**Figure 5**



Were there any additional resources that users would like to access via the PIE?

Just one respondent (an LBS Masters in Finance student who had used the PIE from home) specified additional resources he would like to be able to access via the PIE: 'Reuters and Datastream etc.'. These two resources are available within the LBS PIE, but they are restricted to on-campus use, hence the respondent couldn't use them from home. The respondent asked "*Why bother putting it (a resource) on if I can't access it?*"

The project "user requirements" study found that users want off-campus access to resources. The project team had discussed whether resources restricted to on-campus use (e.g., IP restricted services or stand-alone applications such as some CD-Roms) should be shown to users accessing the PIE from outside the campus IP. We decided that the PIE should show users all the resources they are entitled to use, but resource locations restricted to on-campus use should be greyed out for off-campus users and should include a brief note (within the 'alt' text) explaining why they are restricted. Users would be able to identify all resources relevant to their research, regardless of the location from which they accessed the PIE. This would enable users to plan on using a relevant on-campus, restricted resources when they are on campus.

#### **4.6 How many times had respondents used particular PIE pages?**

The questionnaire asked how many times respondents had used: their "default" page, the "All Resources" page, the "Customise" page, the "Help" page, the "Subject" page specifically set up for them (i.e., the "Microeconomics" page in the UoH PIE, the "Economics" page in the LSE PIE and the "Finance and Accounting" page in the LBS PIE) and the other subject pages. Tables 7 A, B and C (see Appendix Two) illustrate how many times respondents from each institution indicated that they had used each page. Table 8 illustrates the percentage of the total sample group who had used each page a particular number of times.

Overall, the most frequently used page was the user's "default" page, followed by the "Subject" page (relevant to the sample group) and then the "All Resources" page. The "Customise" and "Help" pages were the least frequently used. Only one or two respondents from each institution had used these pages, and none had used them more than once.

The UoH respondents had fairly high levels of usage of the: "Economics", "Accounting and management" and "Business studies" pages. These pages will have been of relevance to Microeconomics. The UoH respondents had low levels of usage of the: "Human resource management", "International business", "Marketing" and "Tourism" pages. These pages had been set up in early 2000 for the pilot testers and were of little relevance to Microeconomics.

**Table 8**

**Percentage of total respondents that had used particular PIE pages**

	<b>Default</b>	<b>All resources</b>	<b>Subject page</b>	<b>Customise</b>	<b>Help</b>
<b>10+times</b>			5%		
<b>6-9 times</b>	5%	5%			
<b>2-5times</b>	37%	21%	16%		
<b>Once</b>	26%	21%	42%	21%	5%
<b>Never</b>	11%	32%	21%	58%	74%
<b>No response</b>	21%	21%	16%	21%	21%

## **4.7 Personalisation and search functionality**

### **4.71 Frequency of usage**

Respondents were asked to indicate how often they had used the following PIE functions:

- Add resource to default page
- Change name of default page
- Add web links to default page
- Create additional PIE pages
- Share pages with other PIE users
- Search for resources contained within the PIE database

Tables 9A, B and C (see Appendix Three) illustrate how frequently respondents from each institution had used the personalisation and search functions. None of the respondents indicated that they had used any of the functions more than five times. "Adding a resource" was the only personalization function used by LSE and LBS respondents. "Adding a resource" is perhaps the simplest personalization function; it doesn't require the user to visit the "Customise" page. The UoH respondents had made full use of all the personalization functions.

Table 10 illustrates the percentage of the total sample group who had used each function a particular number of times. "Adding a resource" was the most popular personalization function; 47% of all respondents indicated that they had used this function at least once. The next most popular personalization function was "adding a web link" (16%), followed by "changing the default page name" (10%) and "sharing pages" with other PIE users (10%). Creating additional PIE pages was the least popular personalization function; only 5% of users indicated they had created additional PIE pages.

Forty-eight percent of all respondents indicated they had searched for resources contained within the PIE database. The two (100%) LBS respondents, 53% of UoH respondents and 33% of LSE respondents had used the search functionality.

None of the respondents listed any additional functions they would like the PIE to include.

**Table 10**

**Percentage of total sample group that had used each function a particular number of times**

	<b>Add resource</b>	<b>Change name</b>	<b>Add web link</b>	<b>Add pages</b>	<b>Share pages</b>	<b>Search</b>
<b>2-5times</b>	26%	5%	5%	5%	5%	32%
<b>Once</b>	21%	5%	11%		5%	16%
<b>Never</b>	42%	79%	74%	84%	79%	42%
<b>No response</b>	11%	11%	11%	11%	11%	11%

#### 4.72 Usefulness of personalisation and search functionality

Respondents were asked to indicate how useful they found the personalization and search functions. Tables 11A, B and C (see Appendix Four) illustrate how each institution's respondents rated the usefulness of the personalisation and search functionality. Relatively high percentages of LSE respondents had 'no opinion' about the usefulness of the personalisation functions. Perhaps they had not used these functions and so couldn't comment on their usefulness. High percentages of UoH respondents rated the personalisation and search functions as either 'useful' or 'very useful'.

Table 12 illustrates how the total sample group rated the usefulness of the personalization and search functionality. "Adding a resource" and "searching for resources" contained within the PIE database were rated as the most useful functions (68% of respondents listed these functions as either "useful" or "very useful"). "Adding a web link" was the next most useful personalization function (63%), followed by "sharing pages" with other PIE users (58%), "creating additional pages" (53%) and, lastly, "changing the default page name" (42%). Relatively low percentages of respondents thought that "changing the name of a page", "adding a web link" and "creating additional pages" were "not useful" functions.

**Table 12**

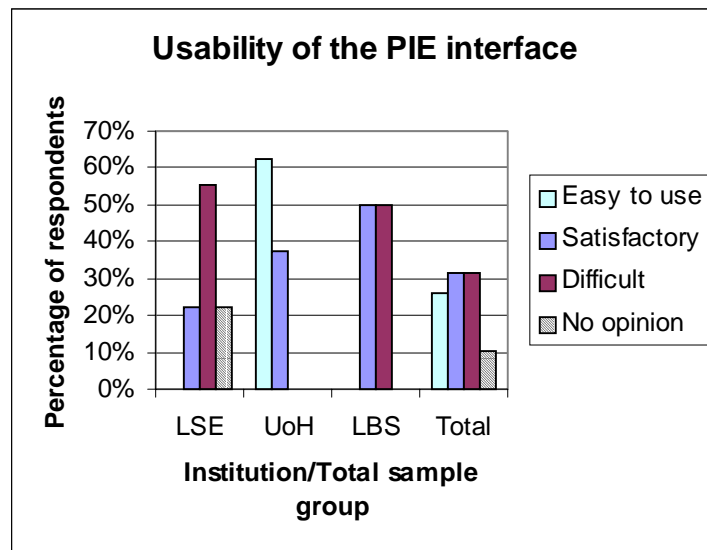
**Percentage of the total sample group that gave each rating for the usefulness of the personalisation and search functionality**

	<b>Add resource</b>	<b>Change name</b>	<b>Add web link</b>	<b>Add pages</b>	<b>Share pages</b>	<b>Search for resources in the PIE db</b>
<b>Very useful</b>	26%	11%	16%	11%	16%	42%
<b>Useful</b>	42%	32%	47%	42%	42%	26%
<b>Not useful</b>		21%	5%	11%		
<b>No opinion</b>	26%	32%	26%	32%	37%	26%
<b>No response</b>	5%	5%	5%	5%	5%	5%

#### 4.8 Usability of the PIE interface

Respondents were asked whether they found the PIE interface "Easy to use", "Satisfactory", "Difficult to use" or had "No opinion" on its usability. Figure 6 illustrates the percentage of respondents from each institution, and the percentage of total respondents who gave each rating.

**Figure 6**



Fifty-eight percent of the total sample group indicated the PIE interface was either "easy to use" or "satisfactory". Respondents from both the LSE and the LBS indicated that the PIE interface was difficult to use (32% of the total sample group). None of the UoH respondents indicated the PIE interface was difficult to use. In fact, 60% of the UoH respondents indicated the PIE was easy to use. Perhaps this was a consequence of the UoH PIE training and the lack of PIE training at the LSE and the LBS.

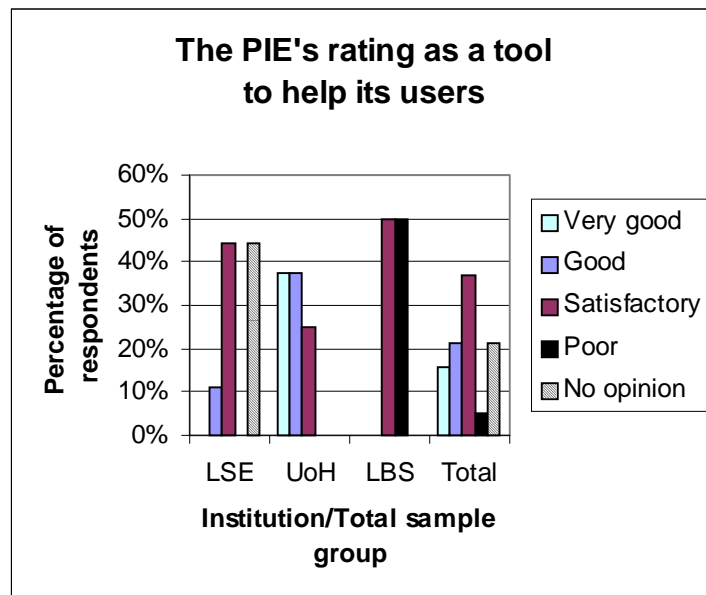
Respondents were asked to comment on the usability of the PIE interface. Their comments reflected the results above, and the comments suggest that a lack of training can result in a low level of satisfaction with the usability of the PIE interface.

#### **4.9 The PIE as a tool**

The respondents were asked to rate the usefulness of the PIE tool. Figure 7 illustrates the percentage of respondents from each institution, and the percentage of total respondents who gave each rating ("Very good", "Good", "Satisfactory", "Poor", "Very poor" and "No opinion").

**Figure 7**

UoH respondents were the only ones that rated the PIE as a "very good" tool. Seventy-six percent of



UoH respondents either indicated the PIE was a "very good" or a "good" tool. Just one LSE respondent (an undergraduate) rated the PIE as a "good" tool. Only one respondent (an LBS student) rated the PIE as a "poor" tool.

Thirty-seven percent of the total sample group thought that the PIE was either a "very good" or a "good" tool and 37% thought that it was a "satisfactory" tool. Five percent thought that the PIE was a "poor" tool and 21% had "no opinion".

One of the UoH undergraduates commented that the PIE "System is very slow." The UoH PIE currently contains the largest number of PIE pages, so downloading and customising pages can be slow.

Respondents were asked to comment on the PIE as a tool. One LSE undergraduate commented:

*"The search engine does not appear to be particularly good."*

It is possible that this respondent used the PIE before the search engine had been implemented.

One UoH undergraduate (who had rated the PIE as a 'very good' tool) gave a comment:

*"The PIE and specially the Headline are very useful and do help a lot. It would be nice if there is a method that makes it easier to enter. It could be made user orientated but it is good enough. Thank you for this nice information resource."*

One LBS respondent, a Masters in Finance student, completed the "further comments" section at the end of the questionnaire. He said:

*"LBS Forum is quicker. Ultimately, for this site to work (become user-accepted) it has to offer more than the alternative (LBS Forum). So far it doesn't -- being able to add some web links doesn't do much for me; I can just as easy add a favorite on my PC."*

(The Forum is the system through which the LBS provides access to Library resources and services.)

This respondent went on to say:

*"Screen layouts are not appealing. Site needs a graphic artist and a user acceptance analyst to work together on it."*

*"What would make me use it? a) better interface (make it less cluttered and more user friendly) b) faster c) give me access to the resources I can really use (Reuters, Datastream, etc)."*

## 5.0 Conclusions

The demand for access to library resources from off-campus locations is strong. Personalised library portals, such as the HeadLine PIE, can help to facilitate resource access, with the ultimate aim of enabling seamless access to resources regardless of the (authorised) user's location.

It was disappointing that, overall, the frequency of PIE usage had been quite low, but encouraging to see that those users who had been trained on the use of the PIE used the PIE more frequently than those who hadn't received training. It is hoped that increased promotion of the PIE to target groups and further training in the use of the PIE will increase the number of return users.

The statistics on library resource usage and usage via the PIE indicate the PIE is providing access to a broad enough range of resources for its current users. Users' views on the PIE's provision of restricted resource locations will be investigated in the Phase Two evaluation study. Perhaps the PIE should include an additional personalization function -- one that enables users to select whether or not the PIE should display resource locations not available to them from their current locations (e.g., from outside the campus IP).

The Phase Two evaluation will continue to monitor the use of particular PIE pages, personalization and search functions. It will attempt to find out whether usage changes as users become more experienced. For example, once users have their prime resources located on their default pages (through adding them from "subject" pages, the "All resources" page and from search results lists) does their use of subject pages decrease? Of course, this may depend on the type of user (researcher, academic, undergraduate student, etc.).

Perhaps certain experienced users will set up searches for new resources in their subject areas (saving them as lists on their default page) and set them to run at frequent intervals. The Phase Two evaluation will investigate the types of searches that PIE users perform, the range of search functionality used and the usability of the PIE's search interface.

The results of the questionnaire survey indicate the PIE isn't very easy to use by those who haven't received training. The design of the PIE's interface, its performance speed and competition with existing library services (such as the LBS' Forum) are important issues that require further investigation. The Phase Two evaluation will seek to ascertain which aspects of the PIE interface and PIE performance could be improved. The development of the PIE software has now been frozen. Therefore, these investigations will inform the development of any future hybrid library systems. The extent to which competition with existing library services influences the level of PIE usage by target groups at each institution will also be evaluated.



**Table 5A LBS respondents: Frequency of resource usage**

	Library web pages	OPAC	Bib. Databases	Finance/company info.	Market research info.	Electronic full text journals	Working papers	Web gateways
Everyday					50%			
3-4/week				50%				
1-2/week	50%	50%		50%				
1-2/month	50%				50%	100%	50%	
1-11/year		50%					50%	
Never			100%					100%

**Table 5B LBS respondents: frequency of resource usage via the PIE**

	Library web pages	OPAC	Bib. Databases	Finance/company info.	Market research info.	Electronic full text journals	Working papers	Webgateways
2-5 times	50%			50%				
Once				50%	50%			
Never	50%	100%	100%		50%	100%	100%	100%

**Table 6A UoH respondents: Frequency of resource usage**

	Library web pages	OPAC	Bib. Databases	Finance/ company info.	Market research info.	Electronic full text journals	Working papers	Web gateways	Exam papers
<b>Everyday</b>									
<b>3-4/week</b>	38%	25%		13%			13%		13%
<b>1-2/week</b>	25%	25%		25%		50%	13%	25%	13%
<b>1-2/month</b>	25%	38%	50%	13%	25%	38%	50%	50%	63%
<b>1-11/year</b>			13%	25%	25%		13%		13%
<b>Never</b>	13%	13%	38%	25%	38%	13%		25%	
<b>No response</b>					13%		13%		

**Table 6B UoH respondents: frequency of resource usage via the PIE**

	Library web pages	OPAC	Bib. Databases	Finance/ company info.	Market research info.	Electronic full text journals	Working papers	Web gateways	Exam papers
<b>2-5 times</b>	50%	38%	38%	50%	38%	50%	25%	63%	63%
<b>Once</b>			13%	13%	13%	13%	13%	13%	13%
<b>Never</b>	38%	63%	50%	38%	38%	25%	50%	25%	13%
<b>No response</b>	13%				13%	13%	13%		13%

## Appendix Two: Frequency of PIE page usage tables

**Table 7A LSE respondents: frequency of PIE page usage**

	Default	All resources	Economics	Customise	Help
<b>2-5times</b>	33%	11%	22%		
<b>Once</b>	22%	22%	22%	11%	11%
<b>Never</b>	22%	33%	33%	56%	56%
<b>No response</b>	22%	33%	22%	33%	33%

**Table 7B LBS respondents: frequency of PIE page usage**

	Default	All resources	Finance and Accounting	Customise	Help
<b>2-5times</b>	50%				
<b>Once</b>	50%	50%	100%	50%	
<b>Never</b>		50%		50%	100%

**Table 7C UoH respondents: frequency of PIE page usage**

	Default	All resources	Micro-economics	Customise	Help	Economics	Accounting & management	Business studies	HRM	Internat. business	Marketing	Tourism
<b>10+times</b>			13%			13%		13%				
<b>6-9 times</b>	13%	13%				13%	25%	13%				13%
<b>2-5times</b>	38%	38%	13%			63%	13%	13%	13%			
<b>Once</b>	25%	13%	50%	25%		13%	13%	25%		13%	25%	
<b>Never</b>		25%	13%	63%	88%		38%	38%	75%	75%	63%	75%
<b>No response</b>	25%	13%	13%	13%	13%		13%		13%	13%	13%	13%

## Appendix Three: Frequency of PIE function usage tables

**Table 9A LSE respondents: frequency of PIE function usage**

	Add resource	Change page name	Add web link	Add pages	Share pages	Search
<b>2-5times</b>	22%					22%
<b>Once</b>	11%					11%
<b>Never</b>	56%	89%	89%	89%	89%	56%
<b>No response</b>	11%	11%	11%	11%	11%	11%

**Table 9B LBS respondents: frequency of PIE function usage**

	Add resource	Change name	Add web link	Add pages	Share pages	Search
<b>2-5times</b>	50%					50%
<b>Once</b>						50%
<b>Never</b>	50%	100%	100%	100%	100%	

**Table 9C UoH respondents: frequency of PIE function usage**

	Add resource	Change name	Add web link	Add pages	Share pages	Search
<b>2-5times</b>	25%	13%	13%	13%	13%	38%
<b>Once</b>	38%	13%	25%		13%	13%
<b>Never</b>	25%	63%	50%	75%	63%	38%
<b>No response</b>	13%	13%	13%	13%	13%	13%

A report on the results of Phase One of the Personal Information Environment Evaluation Programme

## Appendix Four: Usefulness of PIE functionality tables

**Table 11A LSE respondents: usefulness of personalisation and search functionality**

	Add resource	Change name	Add web link	Add pages	Share pages	Search for resources in the PIE db
<b>Very useful</b>	11%		11%	11%	11%	22%
<b>Useful</b>	22%	22%	11%	11%	11%	11%
<b>Not useful</b>		11%	11%			
<b>No opinion</b>	56%	56%	56%	67%	67%	56%
<b>No response</b>	11%	11%	11%	11%	11%	11%

**Table 11B LBS respondents: usefulness of personalisation and search functionality**

	Add resource	Change name	Add web link	Add pages	Share pages	Search for resources in the PIE db
<b>Very useful</b>						100%
<b>Useful</b>	100%	50%	100%	50%	50%	
<b>Not useful</b>		50%		50%		
<b>No opinion</b>					50%	

**Table 11C UoH respondents: usefulness of personalisation and search functionality**

	Add resource	Change name	Add web link	Add pages	Share pages	Search for resources in the PIE db
<b>Very useful</b>	50%	25%	25%	13%	25%	50%
<b>Useful</b>	50%	38%	75%	75%	75%	50%
<b>Not useful</b>		25%		13%		
<b>No opinion</b>		13%				