The use of electronic information services by students at Glasgow Caledonian University: background to the project and introductory focus groups

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Abstract
This paper reports on the first stage of a study on the usage of electronic information services (EIS) by staff and students at Glasgow Caledonian University (GCU) and Leeds Metropolitan University (LMU). The study used by qualitative and quantitative methodologies. The questionnaires used at GCU were modeled on those developed at LMU. The project aimed to monitor off-campus usage of EIS, the use of passworded databases, and the freely available internet. The volume of electronic citations in students' course work and the possibility of developing routine performance indicators were also examined. Focus Groups were conducted with both staff and students between November 2001 and March 2002. These suggested, inter alia, that paramedics are the heaviest users of EIS and that paramedicine is the subject area where EIS are most integrated into the curriculum. Attitudes to the internet are extremely varied. Mode of attendance and workplace usage are important factors.

Introduction and background
Interest in the usage of electronic information services (EIS) by students at Glasgow Caledonian University (GCU) developed out of an earlier project which focused specifically on the use of library and information services by staff and researchers at GCU (Ferguson and Crawford 2001). This led to contacts with the School of Information Management at Leeds Metropolitan University (LMU) where similar work had been done. (Hewitson 2000); (Hewitson 2002b) and which led to a joint interest in student usage of EIS. As a result of a meeting held at Leeds Metropolitan University in October 2001 it was agreed to undertake limited collaboration. GCU would use the questionnaire instruments, either in original or modified form developed at LMU so an identified repertoire of issues could be further pursued. These would form the core of an integrated programme of activities which would build upon work previously undertaken at GCU and elsewhere. LMU had designed questionnaires for both staff and students and it was decided to use these with modifications although two questionnaires would be administered to students rather than one.

Glasgow Caledonian University and Leeds Metropolitan University are both new universities, founded in 1992. GCU has over 16,000 students and, at the time of the beginning of the Project, was divided into three faculties: Health, Business School and Science and Technology. Between the administration of the first and second student

surveys GCU was reorganised into 8 schools. This made analysis of usage by subject easier.

LMU has more than twice as many students as GCU. There are 35,000 organised into five faculties. These comprise a total of 17 schools.

After discussion with LMU and other researchers in EIS usage the following research methods for GCU emerged
- Preliminary focus groups with students and staff - November 2001 – March 2002
- First (short) student questionnaire – March 2002
- Staff questionnaire - May- July 2002
- Second student questionnaire – October 2002 – February 2003
- Comparison between paper and electronic citations in students' coursework
- Collection of routine performance indicators on the usage of electronic information services

These areas of anticipated activity reflected discussions about aims which were initially identified as follows:

- To estimate off-campus use of EIS
- To investigate use made of EIS by academic staff for research and teaching purposes
- To monitor of the usage of passworded EIS by students
- To investigate the usage of freely available non-passworded internet sites compared with passworded EIS

Discussion also identified the desirability of extending the study into the secondary school sector to identify the pre-existing skills of prospective students. This issue was subsequently progressed at GCU as a separate project (the Drumchapel Project).
The wider motivation for the Project came from work elsewhere which had produced broadly pessimistic outcomes. The first cycle of the Justeis project found the resources most used by students to be the Internet, OPACs and email. The use of e-journals, web databases and JISC mediated services was also found to be low (Armstrong 2001). Another major longitudinal study is the Jubilee (2003) study which has examined a range of subject areas and so far has identified little change in patterns of usage over time.

The Jubilee Project described a repertoire of issues which are finding their way into EIS evaluation:

- Insufficient number of PCs for student access – access issue
- Insufficient number of hi-spec machines for staff use
- Usage statistics from publishers of limited value
- Extent of integration of EIS into the curriculum
- Problems with password notification
- Multiplicity of passwords
- Access to and reliability of printing facilities
- ICT skills in relation to age of user
- Off site access restrictions

- Insufficient technical support
- Disciplines at different evolutionary stages
- Effects of mode of attendance
- Users' ability to evaluate quality of EIS

The project began with externally facilitated focus groups in November and December 2001 on which this article reports. A part time research assistant began work in March 2002 and left in October 2002. A replacement began work in December 2002 and finished in May 2003. Because of the October – December hiatus there was some delay in administering the second student questionnaire. However this did introduce a longitudinal element into the study.

The focus groups
Focus group activity has been a regular activity at GCU since 1997 and the need to evaluate problems of EIS usage were identified as long ago as February 1998 when focus group was held with six students from the B.Sc. Health Sciences programme on the use of electronic services. This generated such comments as: 'Don't really believe it [EIS] will help us all that much' and ' No time to waste learning all this stuff [ICT /EIS skills] as well. (Crawford 2002). These points highlight two cogent themes which emerge, among others, in the overall study:

1. Student attitudes to EIS and their potential for change
2. The embedding of EIS in the curriculum

The focus groups with students
Four focus groups took place between 19th and 21st November 2001, followed by a fifth on 4th December. These comprised the following subjects: podiatry, nursing, Diploma in Management Studies/Master of Business Administration (DMS/MBA), Specialist Practice Nursing and Nursing full time Honours. Although paramedicine predominated, there were still varied comments which suggested themes for further study by questionnaire, notably off-campus access.

Group responses
Podiatrists
This included such comments as 'We use Athens because we are told to… ;'Many of us are not confident with the technology and have trouble downloading email and getting printouts'; 'Athens is a last resort'. 'Older students are less confident with IT than the younger ones and therefore need more technical help. [The academic liaison librarian] was very helpful but does not have time to help all the time. Most technical aid comes from other students'; 'On balance the Internet is better and preferable.' and perhaps most significantly 'For most people in the class we:

1. start with the catalogue
2. then Internet
3. then Athens

Nursing
The nurses were aware of Athens registration, used it and preferred passworded access because it gave access to nursing databases which they could name e.g. Cinahl.

and electronic journals. Time saving was their priority and therefore full text access to everything was what mattered most. A memorable comment was:

> 'We have no time to play around or even to take a broad educational view. It has to be relevant to assignments. We just want to get through the course and get out of here'.

DMS/MBA
This group estimated Internet and journal (presumed paper) use as about 30% of the total and passworded databases, the remaining 70%. While the Web was used for case studies and presentations passworded databases were preferred. They noted:

> 'Although the Internet is more familiar 'Passworded' is still preferable because: it is more focused and therefore quicker e.g. start in Business Management then narrow down to, for example TQM'.

As with the nurses speed was a priority.

> 'With Athens people really like it. They are excited that time can be saved from the provision of good direction. We have some problems getting into Athens but it is probably our own fault. The others that we use are Emerald and Anbar. We need anything that speeds up the process. This is essential in our overloaded course.'

Specialist Practice Nursing Students
This group of part time students presented the most sophisticated analysis. They knew about Athens and could list specific databases. 'Saves time and money' (i.e. traveling in to University) was their view. They offered some particularly telling comments:

> 'Yes we use electronic services to a very high degree. Every piece of work that we do needs backup evidence from research e.g. matching drugs to specific illnesses. Critical thinking and analysis is [the] key to our course. Traditional library research methods would not deliver at the level we now require. Electronic services are, without doubt, the best thing about the Library.'

> 'We cannot trust Internet direct[ion] to companies e.g. drug companies [which] are unlikely to provide unbiased research evidence especially if they did not pay for it. Our research will be implemented in practice and can influence practice. We need best practice for the good of the patients and we get respect and 'clout'

Here is clear evidence of information derived from EIS being carried over into the work situation and a critical attitude to the Internet is demonstrated. They were also enthusiastic about off-campus access:

> '90% of our use is off-campus'; If we could get access to full text we probably would do everything 'off-campus' and would not be here adding to queues at the counter for computers and photocopiers. We are serious students who are here for more than just a bit of paper'

Nursing full time Honours
This group broadly echoed the Specialist Practice Nursing Students. They described themselves as:

> 'Very course driven. Revolving around exams, problem based case studies, assignments and Practice Based Enquiry. Practice Based Enquiry must be used when 'out on practice' for example, diabetic specialisms, up to date journals…This is much more joy of learning and fulfilling…'

All were registered with Athens and could name relevant databases like Medline and Cinahl. Periods 'out on practice' were noted as raising issues which made EIS usage relevant. They all preferred passworded databases.

> 'First choice is always passworded. This is relevant, bona fide research and very reliable. We use this all the time. Mainly used for course work and practice based stuff, but a real advantage for people with family commitments.'

The Internet, by contrast, was perceived as 'slow, full of gobbledygook and porn'. Nursing was viewed as continuous learning and EIS therefore essential. More collaboration between Library and teaching staff was considered necessary.

Overview of student focus groups
Clearly there are varying attitudes to the Internet with some groups apparently more sophisticated in their attitudes than others. Subject groupings are also making a clear impact with evidence of paramedicine being integrated into the curriculum and a hierarchy of use levels by subject is emerging. Problems with printing are mentioned but less familiar in an EIS context is the importance of other students as a source of help. The rise in off-campus use and the importance of time saving strategies are worth noting. This, coupled with the importance attached to EIS shows that the nature and location of off-campus use is an important theme. Some groups praised the help from subject librarians but noted that their time is limited. Another recurring theme was the uncertainty about the difference between Athens databases, non-Athens databases and electronic services generally, like Blackboard. This raises questions about the validity of research data collected and whether this phenomenon is unique to GCU.

Focus groups with staff
Two focus groups with staff were held on 3rd and 4th December 2001 respectively.

Research staff
Varying attitudes to the Internet emerged showing that preferences for passworded databases do not necessarily reflect higher academic values. 'Depends on what you are looking for' was their comment. Again time and convenience were emphasised and 'passworded stuff' was considered to take too long. Hostility to passwords and the need to remember them was notable among this group.

> 'Often a free search on the Internet produces more'; It is inconvenient and I resent having to remember lists of passwords'.

Off-campus use was considered important.

> 'Off-campus use is great, apart from having to work with lists of passwords'.; 'If I cannot get access when working from home it is a complete waste of my day'.

This group did not see any relationship between higher academic level work and the use of passworded databases.

Lecturing staff
Although this group initially said that their main use is Athens they now prefer the Internet 'because losing or forgetting passwords is so time consuming and inconvenient.'

> 'Expectations are running high. Demands on lecturers' time are increasing so fast, easy and simple are the main criteria. Passwords can be a time consuming nuisance'

This group admitted to low IT confidence: 'Low IT confidence means 'normal' channels first', and drew attention to the use of traditional resources. Working from home was important to them.

> 'We work from home in the same way we would at workplace. It is a computer and a desk. There is no difference'.

Overview of staff focus groups
A desire for speed and off-campus access, and a dislike of passwords were important themes for the staff groups. The lack of any perceived relationship between passworded databases and higher academic work was notable.

The web pages focus group
This focus group was held on February 27th 2002 specifically on the Library's web pages but was of limited value as only two people (both research fellows) attended. This showed the web pages to be used for a wide range of functions such as accessing other library catalogues, renewing books and placing holds. The lack of access to all facilities within databases (Ingenta was mentioned) was a subject of complaint and the value of Google was juxtaposed against this. There was no clear preference for any particular search strategy.

The Work-Based Learning focus group
This group was held in March 2002 and aimed to investigate the Library and information needs of Work-Based Learning (post graduate level) students who study mainly in the workplace and at home. The students do not follow a standard programme. Each student negotiates an individual programme with the programme organiser. This showed Work-Based Learning students to have the greatest IT problems as evidenced by statements like 'Cannot trust the IT systems'; It [IT] is still very new. Access to computers at work ranged from 'pretty limited to 'hardly at all' They did echo other groups in two comments. 'Information search[ing] must be simple and time efficient. Work based learning is NOT at all like being a full time

student'; 'Passwords are hard to remember'. This was one of the groups where the issue of mode of attendance was raised.

Comparing the GCU focus groups with the qualitative work of LMU
At LMU (Hewitson, 2002a) the work was more interview based although two focus groups of first year students were also held. By the end of June 2002 17 interviews had been completed: 10 of the interviewees were female and 7 were male.
Faculty representation was as follows –

Health and Environment	3 students
Information and Engineering Systems	4 students
Cultural and Educational Studies	6 students
Leeds Business School	4 students

The broad conclusions were that there appeared to be very limited previous experience of EIS amongst students. Although some students have had some contact with different sources, it still does not prepare them for the wide variety of sources that are available within an HE library. Many students are not aware of what many of these services actually are, with the majority using the Internet as their primary electronic reference source.

Similarly there appears to be problems with students adapting to learning within HE, e.g. writing in the third person and critical thinking. For some students this coupled with the wealth of new information sources presents problems

As with the staff study, IT skills are a major issue affecting take up of EIS. Of those interviewed, it was the younger students who appeared much more confident, with mature students admitting to having problems.

Academic staff are the key motivators when it comes to EIS. Those students who used EIS other than the Internet did so because an academic member of staff had taken the time to show them how to use them and display its relevance to their subject area. Students who had not had this type of induction tended to feel lost at the amount of information that was made available to them. This point indicates that more co-operation is needed with academic staff if EIS is to be more central to student needs.

The Internet is the major source for students (and staff) in finding information. Due to the age of many undergraduates now entering HE, the Internet is now a central part of how they find information. The challenge to LSS is to see to what extent it can persuade students to incorporate other sources of electronic information into their work.

The LMU study reflected some issues identified at GCU:
• the need for critical assessment of sources
• the importance of IT skills
• the key role of academic staff
 but reliance on the Internet is much more marked than at GCU.

The overall conclusions from the GCU focus groups on EIS and the Library's web pages were:

1. There is a need for more sophisticated Internet searching
2. Paramedicine is the subject area where EIS are most integrated into the curriculum
3. Paramedics are the heaviest users of EIS
4. There are widely varying attitudes to the Internet
5. There is less of a link between the use of passworded EIS and academic quality of information gathering than expected.
6. Mode of attendance (FT, PT, distance learning, sandwich etc.) is a factor in EIS usage
7. Workplace usage is becoming an important issue
8. EIS usage must represent a time saving strategy
9. Students use each other as a source of help and advice

The focus groups and questionnaire design
The focus groups aided in refining the questionnaires. The first questionnaire to students was a simple one and aimed to identify the usage and non-usage of both Athens databases and non-Athens passworded databases. Off-campus Internet access and usage was the other main theme. Questions about mode of attendance, faculty and gender were also included to permit correlations.

The second questionnaire revisited issues like gender, mode of attendance, school, use and non-use of Athens and non-Athens databases, and off-campus usage. It also collected information on how EIS are accessed, the importance/integration of EIS in programmes and reviewed the issues of whether users preferred the freely searchable Internet to passworded electronic information databases.

The staff questionnaire followed a broadly similar agenda but also asked questions about ICT skills and usage including frequency and also sought for their views about student attitudes to EIS and they their role, if any, in encouraging usage.

Reports on the questionnaires and other aspects of the Project will appear in due course.

References
Armstrong, Chris (2001) Low ICT use by students. *Library Association Record,* vol.103, no. 6, pp. 358-359.

Crawford, John (2002) A study of issues in administering library services to nursing studies students at Glasgow Caledonian University. *Health information and libraries journal,* vol. 19, no. 2, June. pp.90-97.

Ferguson, Rona and Crawford, John (2001) The use of library and information resources by research staff at Glasgow Caledonian University. *Library and information research news.* vol. 25, no. 79, pp. 31-38.

Hewitson, Andrew (2000) The use and awareness of electronic information services by academic staff at Leeds Metropolitan University. *Library & Information Research News,* vol. 24, no. 78, pp. 17- 22.

Hewitson, Andrew (2002) [EIS Student survey]. (an unpublished internal report.). Leeds Metropolitan University.

Hewitson, Andrew (2002) Use and awareness of electronic information services by academic staff at Leeds Metropolitan University: a qualitative study. *Journal of Librarianship and Information Science*, March, vol. 34, no. 1, pp. 43-52

Jubilee Project. (2003). URL: http://online.northumbria.ac.uk/faculties/art/information_studies/imri/rarea/im/hfe/jub/hfjubilee.htm

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