A STUDY ON STUDENT AND STAFF AWARENESS, ACCEPTANCE AND USAGE OF E-BOOKS AT TWO QUEENSLAND UNIVERSITIES

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Abstract

Aims

Previous research on e-books has generally focused on business models and content delivery. This investigation, sponsored by the Queensland University Librarians Office of Cooperation (QULOC) aims to verify the quantitative and qualitative aspects of client awareness (or non-awareness), acceptance (or non-acceptance), usage levels (or non-use) and usage patterns of electronic books amongst students and staff at selected local universities. Results will inform library marketing, information literacy and collection development priorities.

Methods

Griffith University and University of Southern Queensland developed and made available online surveys via the institutions' library web sites and catalogues. Print versions of the survey were also distributed in libraries. Various e-book publishers were approached to provide deep log usage statistics. Responses to multiple choice and textual responses were quantitatively and qualitatively analysed.

Results

Over 2,200 students and staff responded and survey responses indicated a high level of awareness of ebooks amongst both staff and students, but relatively low usage, with the library catalogue being the major access point. Both students and staff generally liked ebooks and many had used ebooks in their subject area, but not within the context of resources for courses. Most preferred the library to purchase books in both print and electronic format with 24x7 access and ebook database searching being the most popular reasons for liking ebooks, while difficulty in reading from the screen for extended periods of time was the main reason for disliking ebooks. Few would read an entire ebook on the screen. Printing before reading was common. Usage log statistics from sample publishers were used to verify findings.

Conclusion

Results are discussed in the context of the available literature. Responses can be used in collection development to ensure ebooks are appropriately considered within collection development strategies and that ebooks are well received and used by clients.

1. Introduction

After a lengthy and perhaps cautious start, publishers are bringing a greater number of electronic books (ebooks) to the information market via an ever-widening range of business and technical models. University libraries in Australia have been purchasing ebooks for a considerable time and are now purchasing more ebooks than ever before.

The Information Resources and Access Working Party of Queensland University Libraries Office of Cooperation (QULOC, 2008) in 2007 discussed the need for further information to inform collection development and acquisition of ebooks to ensure they meet clients' needs. Working party members concluded that such information would be important before their institutions invested greater funds in the purchase of ebooks. Few existing studies, all non-Australian, had been found to focus on end-user perceptions of ebooks which could inform collection development planning activities. In response to this, QULOC funded a small local study on user perceptions of ebooks.

Two Queensland universities undertook the study:

- Griffith University (Griffith) which is a large multi-campus metropolitan university in Brisbane and the Gold Coast with about 30,000 full time equivalent (fte) students/staff and
- University of Southern Queensland (USQ), a regional multi-campus university based in Toowoomba with about 13,000 fte students/staff and a high percentage of students enrolled in the off-campus mode.

Both university libraries have been making ebook services available in significant numbers and from multiple sources for about 5 years.

2. Aims of the survey

The survey aimed to verify quantitative and qualitative aspects of client awareness (or non-awareness), acceptance (or non-acceptance), usage levels (or non-usage) and usage patterns of electronic books amongst students and staff at the two Queensland universities.

The results of the survey will be used to plan resource development policies and funding allocations for the purchase of ebooks which reflect the requirements and expectations of the respective university communities. Information gained will be shared amongst QULOC institutions and with the broader library community.

3. Literature Review

In early 2007 when the ideas for this project were being developed, there already existed a large number of studies on ebooks, but these tended to focus on the content, technology platforms, business models and drivers, how many and what ebooks particular libraries had purchased, and to a lesser extent, what publisher-

derived usage statistics had been recorded. Relatively few studies had focused on the customer side of awareness, acceptance or reasons for use of ebooks.

Chu (2003) was one of the first to seek feedback from library users on ebooks and surveyed just 27 non-randomly selected library science students in 2002. Only one third of these students had ever used ebooks. Reasons for using ebooks included availability around the clock and searchability. The main reasons for not using ebooks included "lack of thought or exposure" to ebooks, need for special hardware, and difficulty in reading on a screen.

Levin-Clark (2006) conducted a survey of library users at the University of Denver's Penrose Library to determine their degree of awareness of ebooks, how and why they used them, and their level of satisfaction. It was found that half of library users used ebooks, albeit only occasionally, and liked the online convenience and searchability, but preferred to read only small portions of ebooks.

An increasing number of studies then became available from 2007.

Walton (2007) found that at Southwest Baptist University, clients spoke of a perceived increase in learning difficulty when using ebooks. Ebooks were less used than were print books, either to conduct research or study from textbooks, or for leisure reading. Advantages of ebooks included the digital format, portability, searchability and scalability while disadvantages included ebooks being hard on the eyes and not easy to read. The use of ebooks was found not yet to be mainstreamed and to be supplemental to print books.

Connoway (2007) in an Academic Research Libraries study of only 20 respondents found that 25% preferred to read online, 45% would buy an ebook, 70% would lease an ebook and 75% claim to read ebooks online, while 28% would read between 4 pages and a chapter online.

JISC (2007) commenced the National eBooks Observatory Project to assess impacts, observe behaviours and develop new models to stimulate the ebooks market by licensing a collection of ebooks. It aimed to achieve a high participation rate by making them freely available over a range of technology platforms, in order for publishers' deep log statistics and observational analysis to be used. A report of findings from the first, benchmark user survey was published in 2008 and found student dissatisfaction with the low availability of print textbooks in the library to be a primary motivator for using ebooks. Some 60% of students were already using ebooks, although fewer than 5% of students had purchased their own copy. Interestingly, over 50% of ebook users of all ages reported that they read from the screen; but 35% of readers spent less than 10 minutes reading on screen in a session. Some 62% of respondents said they had used ebooks.

Carlock and Perry (2007) held a focus group of only 6 participants at Arizona State University and found that ebook users had generally unsatisfactory experiences with ebooks, citing unreliability, lack of usability, and the need for a steep learning curve to use multiple interfaces.

eBrary, a major ebook publisher, ran the Global eBook Survey in 2008, with respondents from over 2,100 colleges and universities worldwide. Some of the results more pertinent to this study include: over half of the respondents described their awareness of electronic library resources as good or excellent; half of the

respondents knew their library had ebooks; but more than half had never used them, primarily because they don't know where to find them, or they preferred to read print books. While Google was the most popular online resource, print books were considered the most trust-worthy for research and class assignments. A list of features including searching, anytime off-campus access, multi user, downloading, copying and pasting, printing, zooming, highlighting, automatic citations, emailing, annotating, book reviews, multimedia, note taking and more, were all considered important.

Rowlands et al (2007) distributed an email survey to staff and students of the University College London and received over 1,800 responses. It was found that 44% of responders had used ebooks and that age was a good predictor of usage, with under-35s using ebooks more heavily, and interestingly, users preferring to read from the screen than from paper. Reading lists, library catalogues, personal recommendations and Google were the most commonly used ebook discovery tools. The University College London (2007) then also began the SuperBook project, with results due in late 2008 prior to the writing of this study.

It is interesting that there appears to be as yet no theoretical framework in the literature to inform or summarise analysis. The authors have attempted in section 6 to begin that analysis. It is clear from the proliferation of recent papers that others have had similar ideas at about the same time as did the QULOC Information Resources and Access Working Party. This study appears, however, to be the first Australian work.

4. Methods

A questionnaire survey was designed by Martin Borchert and Clare Tittel. Griffith and USQ liaised and shared the tools with QULOC IRA Working Party members so the survey questions met the needs of all member institutions. The student and staff survey instruments for Griffith are provided as Appendix 1 and 2 respectively. The same survey tools were used for USQ, except for minor differences reflecting the names of academic areas and existing ebook services used. The survey was conducted over three weeks at USQ and four weeks for Griffith, from the end of March 2008 to mid April 2008, as an online survey and supported with printed questionnaires. The survey consisted of separate instruments for students and staff with a few questions specific to the staff survey.

The following instruments were used:

- The online survey was made available via a link on each institution's library homepage and administered through the software Survey Methods (2008).
- A library blog post promoted the survey on the USQ Library website, notification was placed on the university's secure portal, a global email was sent to all university staff, and articles featured in each University's newsletter.
- Printed questionnaires were variously distributed to students in the refectories and in campus libraries and were distributed to staff mail boxes.

As the response figures on the online survey were already quite high after only a few days, the distribution of printed survey questionnaires was discontinued at USQ after a week and at Griffith after two weeks. The responses from the printed

questionnaires were later transferred to the online survey to take advantage of the analytical tools available through the survey software used. Survey results were collated by each institution separately to ascertain institutional differences as a result of academic, student and collection profiles, and were also combined.

5. Results

The response rate was quite high. A total of 2,084 responses were received and 1,732 students and 352 staff completed the survey. From the student responses received, (894 from Griffith, 838 from USQ), 67% of respondents are female. The average age range of students at both institutions is 20-29 years. Across the two institutions, 77% of students were undergraduates, 18% postgraduate coursework and 5% were postgraduate research. There was a good range of responses from students across all faculties. The highest response rate for Griffith was 27% from the Arts & Humanities area, followed by Business (25%) and Health (25%). For USQ, it was from Business (28%), followed by Education (27% and Science (18%) (Appendix 3).

About 177 or 50% of the 352 responses from staff were from general staff. The high proportion of responses from this group was unexpected. These responses were from faculty administration, learning and teaching and library. As academic staff select and recommend resources for students to use, only their responses have been included. Of the total academic staff responses received, 63% were female and 37% male. The average age range was 40-49 years at Griffith and 40-59 years at USQ. The highest response rate by faculty for Griffith academic staff was from Arts & Humanities (17%) followed by Health(14% and Business (9%). For USQ it was from the Faculty of Sciences (23%), then Education (23%) and Business (21%) (Appendix 4).

Ninety-three percent of students at Griffith and 54% of students at USQ indicated they study in on-campus mode. About 7% of Griffith students study in external mode and 4% via web mode. These figures are much higher at USQ, with 48% and 10% of students indicating they study via off-campus or web-mode (Appendices 3). The response rate of on- and off- campus respondents is representative for each institution, with USQ having a higher proportion of off campus enrolments and a slightly older age profile than Griffith.

Eighty-nine percent of responding academics are involved in teaching on campus students, 47% in teaching off campus students and 23% via web mode. A much higher proportion of USQ academics (83%) than Griffith (37%) is involved with teaching off campus students.

5.1 Awareness

We asked a series of questions about awareness of ebooks. Awareness levels of the ebook format amongst students and staff was very high with over 80% and 90% positive responses. Awareness that their universities are providing ebooks was also high with responses over 70% for students and 80% for staff. However, the proportion of students who were unsure (12%) about what is an ebook provides grounds for some caution in interpreting the results (Appendix 5).

For 42% of students the primary source for identifying/locating ebooks is the library catalogue and for 25% of students it is a web search engine. Eighteen percent of students find out about ebooks through course resources. 53% of staff respondents find ebooks through the library catalogue, 23% from library staff, 10% through the library website and 19% through web search engines like Google. It is heartening that 18% of responses are for course resources, given the generally low proportion of ebooks that are currently linked in courses (Appendix 6).

Staff are far more focussed: they use Library resources more than students do, and the effect of Faculty Librarian advice and training is also very evident. It could be a generational effect that they located ebooks first through the catalogue, but also a consequence of a need for more specific searching.

Both students and staff generally liked ebooks and many had used ebooks in their subject area, although not necessarily within the context of course resources (see Appendix 9).

5.2 Usage

Nineteen percent of students strongly agree and 41% agree that they like ebooks (Appendix 7). There is a strong base of 60% of student respondents who are appreciative of the ebook format. Twelve percent of staff strongly agree and 33% agree that they like ebooks. At USQ 55% of staff respondents said that they liked ebooks, while the Griffith figure was 32%. This inter-university difference is striking, for which the reasons are suggested in further discussion.

Nineteen percent (28% staff) have used ebooks often, while forty-five percent of students and 48% of staff have used ebooks a couple of times. However, fifteen percent of students and 8% of staff have used an ebook only once and 20% (17% staff) have never used an ebook (Appendix 8). This proportion of use is still not high compared with the well known heavy use of e-journals and databases, but is close to usage in the JISC survey and higher than surveys reported by Levin-Clark (2006),Rowlands et al (2007) and eBrary (2007). Influential factors require additional investigation and may include awareness, total numbers of ebooks, numbers of relevant ebooks and the extent of embedding of links into course materials.

Sixty-one percent of students say they have used an ebook in their subject area, while 27% have not and 13% have never searched for an ebook in their subject area. This means 40% of student respondents have not made any use of ebooks provided by their university library in the context of their studies (Appendix 9). Appendix 10 shows that 70% of education students have used an ebook in their subject area, 76% in arts and IT, 62% in business, 55% in health, 52% in science, 50% in engineering and the lowest was 45% of law students.

Fifty-eight percent of responding staff have used an ebook in their subject area, whilst 32% have not. The high percentage of academics saying that they have used an ebook in their subject area is higher than expected considering that the number of ebooks at each university is still relatively limited when compared with other electronic resources. Griffith and USQ have been acquiring ebooks for a

relatively short period of time (5 years), which will have an impact on usage and awareness.

Eighteen percent of academic staff have gone to the next level, and used ebooks(s) in their course material, although 82% have not (see Appendix 11a). At USQ 27% of academic staff indicated that they are using ebooks in their course materials, as opposed to Griffith academic staff, of which 15% indicated this.

Surprisingly the Arts & Humanities are standing out with 50% of USQ respondents from that faculty integrating ebooks in their course material. This is by far the highest usage of any faculty; the lowest being Information Technology (see Appendix 11b) Griffith's IT ebooks similarly were not integrated into course materials (see Appendix 11c). One reason for the rather low usage of ebooks in course material could be lack of available and suitable materials. Other reasons could include reluctance to update course materials, copyright concerns, uncertainty of continued access to annually subscribed material and lack of awareness of a parallel e-format for previously selected print-format titles. The under-representation of this format in course material needs further investigation, and also promotional effort, particularly since 51% of academics at USQ agree that ebooks are suitable for the courses they teach (Appendix 12).

When asked in which format they would prefer the library purchased resources, the majority of students and staff alike were strongly opposed to the library buying only ebooks. At the same time, the greater majority of both groups supported the library continuing to buy ebooks. This is also underlined by the high minority of USQ academic respondents saying that they find ebooks suitable for the courses they teach and for their own research. Griffith staff are less engaged (Appendix 12).

Why is the ebook format is liked or even preferred to the print format? The responses indicate that users are well aware of the specific advantages and characteristics of this format (Appendix 13). The most liked feature of ebooks is the 24x7 access from home or office. This was consistent across institutions and respondent type. Library users are becoming increasingly time-independent learners and assume instant accessibility. The next most important feature for staff and students is searching functionality that enables users to search across a whole ebook or to search across a complete collection of ebooks. This gives an ebook a functional advantage over the print book with its dependence on indexes and tables of contents for searching. The advantage of not needing to physically borrow that is clearly favoured by students probably reflects both the off-campus means of student access, but perhaps also could reflect frustration with existing loan conditions. Online referencing and copying and pasting were other reasons why ebooks are liked.

The main reasons selected by students why ebooks are disliked included difficulty in reading from the screen (48%), cost of printing pages (44%), slow downloads (38%) and online access problems (38%) (Appendix 14). Access problems and slow downloads though still important are not ranking as highly as a reason for dislike, which may well indicate / confirm increasing stability of technical infrastructure and ebook services. The main dislike factors for academics were difficulty in reading from the screen (63%), slow downloads (47%), cost of printing pages (43%) and online access problems (41%). Is age-related eye strain a factor, or is it a cultural issue? We suspect the latter but this requires more investigation. Do academics have slower equipment/network access? Or download larger files?

Or are they less tolerant of speed barriers? From these results it is clear that the most serious barrier to the acceptance of ebooks is the dislike of reading from the computer screen. This is in agreement with some previous studies, but not all.

5.3 Usage patterns

Students and staff approach the ebook format with a view to extracting particular information. Twenty-seven percent of student respondents (35% staff) prefer to read excerpts and 33% (26% staff) prefer to read a chapter, whilst only 7% of students and 6% of staff respondents said they would read an entire ebook online (Appendix 15).

Forty-eight percent of students and 43% of staff would read an ebook online whilst 51% of students and 57% of staff would prefer to print and read from the printed copy. Forty-nine percent of students and 38% of staff respondents would read an entire book on the screen, and 51% of students and 62% of staff said they would print an entire ebook and read from the printed copy (Appendix 16).

However, log statistics from the ebook services contradict this pattern of usage. There is a much smaller percentage of pages printed than viewed, so it is more likely that only a very small percentage of users would read an entire ebook, much less print the entire work, even if copyright laws or publishers permitted this.

Forty percent of student and 38% of staff respondents indicate that they can spend 30 minutes reading from the screen, 21% of students and 31% of staff can spend 10 minutes reading from the screen, 21% of students and 15% of staff one hour. 13% of students and 10% of staff would spend two and more hours reading from the screen (see Appendix 17).

Log statistics from USQ of the ebook provider Books24x7 show that 47% or the biggest group of users are spending up to 30 minutes in this service per session and more users are spending up to 2 hours or even longer in the service that they reported.

Over a period of eight months,1,180 USQ users logged into Books24X7. Fifty percent of users had only 1 session during this time; 22% of users had 2 to 3 sessions; 14% had 4 to 9 sessions and 11% had over 10 sessions. This means that 50% of users log in only once, and are then not returning. The reasons for this require further investigation.

Twenty-five percent of users are repeat customers for which ebooks appear to be meeting a significant need. The combination of time spent and number of pages viewed for this group also provides useful information. Twenty percent of users spent 0 to 1 minute in the service. Forty-seven percent spent 2 to 30 minutes per session. Eleven percent of users spent up to 1 hour, 6% up to 2 hours and 14% spent over two hours per session logged into Books24x7. 32% of users were not opening any documents or were viewing only one page. These comprised 8% of all sessions. Twenty-five percent of users were viewing 2 to 10 pages and these comprised 9% of all sessions. Ten percent of users were viewing more than 100 pages, comprising 20% of all sessions.

Almost a third of the users who use the service are not receiving any results. These could be first-time or casual users, or even students in a class being shown ebooks for the first time. Log data shows that these users typically do not return. There is also a group of users (almost a third) who do not spend a great deal of time searching, but are retrieving results. The final third of users are frequent and therefore experienced users, who are getting sufficiently good results to return and could be considered satisfied customers.

The log statistics from the "eBrary" service over a one year period show that on average 12 pages were viewed per session, 0.4 pages per session were copied and 1.5 pages per session were printed. The overall number of pages viewed by session is quite comparable with the statistics from Books24x7. Unfortunately data about the number of pages printed or copied was not available from the latter service. (Log statistics are available in Appendix 18).

5.4 Services used

Finally, we sought to identify particular ebook services which respondents had used. The services listed were those which the libraries make available but also included ProQuest and Ebsco, which are heavily used platforms for various ejournal databases though not specifically ebook platforms (Appendices 19 and 20).

All ebook services listed had been used, but clearly at both universities the generalist services with large suites of content were most recognised and used (Books@OVID, EBL, eBrary, Informit). At USQ, 52% of academics selected eBrary and 46% Ebsco. Surprisingly, 23% of academic respondents also selected ScienceDirect ebooks and 21% recognised Wiley Interscience, though USQ has only a very small number of ebook titles in these services. eBrary emerged as USQ's favourite ebook service which is confirmed by its usage statistics. The wider range of ebook services available at Griffith is a reflection of the more diverse subject areas taught and researched at the larger institution. Griffith has had 55,000 plus EBL ebook titles available via its library catalogue since early 2007 and the high recognition of EBL is recognition of this. The ProQuest name is very well known for ejournals and that factor will have mitigated the lack of ebooks through that service.

The high selection of EBSCO (USQ) and ProQuest (Griffith) suggests some confusion between ebooks and e-journals/databases.

Finally students and staff were able to offer their opinion/comments on ebooks in general. Overall the comments were positive and representative examples are found in Appendices 21 and 22.

6. Discussion

6.1 Awareness

The level of awareness of ebooks and of their availability in the respective university libraries amongst students and academic staff, is unexpectedly high regardless of subject, mode of teaching, gender and age. This contrasts with the Chu (2003) study. The perceived awareness level is in agreement with more recent studies (Rowlands, 2007; and eBrary, 2008). We suggest that general awareness of ebooks has substantially increased since then, both as the result of the general increase in electronic resource use since then but also as the result of the greatly increased content now available in ebook format.

Major factors for creating awareness about the availability of ebooks are access through the library catalogue for both students and staff; and for academics, promotion through library staff. Continuing improvement in awareness amongst academic staff will depend particularly significantly on the advocacy and activities of library liaison with faculty in academic departments. Increasing awareness amongst students will require a greater promotion through academic staff and greater inclusion of ebooks in course resources and course material, but also more active promotion and improving visibility of this format amongst other library information resources.

This study found that the library catalogue and library staff were more influential awareness mechanisms than the library website. This contrasts with the primacy of the website reported in the JISC study (2007), and confirms the emphasis found in the UCL Superbook study (2007).

6.2 Acceptance

The level of acceptance of ebooks differed between students and staff, and also between staff at the two universities. Students are more accepting of ebooks than are staff. This appears to correlate with the previous study by Rowlands (2007) that age was a good predictor of usage of ebooks. Staff at USQ are more accepting of ebooks than are staff at Griffith and this appears to correlate with USQ having a greater online presence in course offerings, although a direct cause and effect relationship cannot be assumed. USQ staff would however, obtain significant benefits in online delivery of course materials by using ebooks over print books.

6.3 Usage

Results from this study indicate that both students and staff prefer to read only extracts or chapters from ebooks rather than the whole ebook. One of the greatest factors affecting both acceptance and usage of ebooks appeared to be users' comfort levels with reading from the screen. This study indicated that most users preferred to read ebooks from the screen for only up to 30 minutes. This was substantiated by log statistics obtained from Books24x7 which confirm that most users are readings online for up to 30 minutes only and open 100 ebook pages or less during a session. Results from this study seem to agree with those found by Chu (2003), Connoway (2007) and to a lesser extent the JISC (2008) study, but this last study also reported that over 50% of ebook users read from the screen.

6.4 A model of ebook adoption

The following model is inspired by the work on innovation diffusion of Rogers (1995) and a typology of Internet use developed by Howard, Rainie and Jones (2001). In their suggested typology, four 'ideal types' of users (Netizens, Utilitarians, Experimenters and Newcomers) are elucidated using length of Internet experience and frequency of use as variables. In our study, the two variables selected are amount of use and awareness/satisfaction, The four quadrant model is a tentative and conceptual attempt to represent how ebooks are currently meeting the needs of our users.

Learners/lurkers: are either learning the system (in classes?) or are trying the system without a specified need. They probably don't stay long enough to locate or use the material they need, and certainly don't browse other related topics or books.

Browsers: Browsers spend time in ebook services but possibly don't gain the benefits that they wish. They don't download a lot of material, though they may make notes from the screen, and may annotate, mark etc. This typology doesn't identify whether such users are inefficient but keen, or are efficient because they don't download material.

Efficient users:, These have a functional approach to using information services (Howard et.al, p. 393). Possibly with a known item to search for, they locate the item and either find the answer, or print/download the required materials, then exit. If they don't locate the material, they don't attempt to substitute or explore.

Satisfied users: These users are more like the good library users of old: they search, browse and spend time in single or multiple services and are confident in their use.

Figure 1. suggests that there are various pathways from complete ignorance of ebooks to engagement with and satisfaction in use of ebooks.

Amount of use	Browsers (Experimenters)	Satisfied Users (Netizens)
	Learners / Lurkers (Newcomers)	Efficient Users (Utilitarians)

Awareness / satisfaction

Figure 1.: Typology of ebook users

6.5 Implications for collection development

The overall positive acceptance of ebooks, and the preference for books to be purchased in both print and ebook format, can be used to inform the collection development policies and activities of each institution. That users prefer to have both formats available indicates that collection development policies and practices should be flexible: purchase of ebooks should not replace purchase of print books. Feedback supporting both formats should be taken in the general sense and not in the specific sense that every book should be purchased in both print and ebook format.

Particularly encouraging was that academics thought that ebooks would be suitable for the courses they teach and would be preferred for their own research and scholarship if suitable titles were available. Students, especially off-campus students, clearly expressed a desire for more textbooks and ebooks in their subject areas. The textbook issue is in direct alignment with the JISC (2007) National eBook Observatory Project which identified access to course textbooks as a primary issue for library access to books in both print and ebook formats. Libraries should work closely with academics in all subject areas to select texts and other course resources keeping available ebooks in mind.

6.6 Promotion

Because content is now much more extensive, and user acceptance is high, academic staff are much more likely to be able to select textbooks and other standard publications, and more specifically chapters and excerpts of ebooks, for specific course readings. This would promote the use of ebooks through the links from online courses to specific ebook titles. Linking at the chapter level may be highly desirable where possible because most users reported a preference for reading only excerpts online.

Ebook promotion needs to leverage the convenience, searchability and accessibility of ebooks as a format. Remote students, students studying at home or at work, and students in a hurry to research assignments are attracted to ebooks simply because of the time they save. This suggests ebooks should be promoted as a collection, or as a brand within the University. Collections of ebooks presented as ebook databases can be promoted in their own right. A problem with this is that many ebook database products have non-subject based names that are meaningless to library users. Providing access to lists of ebook databases on the library web site provides some contextualised access. It is probably more client focused and meaningful to promote ebooks in the context of the library's ebook collection as a whole using a filtered search of all ebook records in the library catalogue, narrowing search results using facets, or using a federated database search service and open URL resolver service.

Although searching is generally marketed as a key selling point for ebooks, our survey results did not particularly support the specific promotion of the added

features of ebooks such as, highlighting and note taking, automatic citations, zooming, annotating, book reviews and multimedia.

6.7 Evaluation of Survey Method and Instrument

Following the completion of the study, some comments are made about the survey method and the survey instrument.

Survey method:

- The high response rate for both institutions indicates that the right approach for promoting the survey was taken and access points for the survey on the library websites and other locations were appropriate
- Print surveys were initially thought to be important as it was thought that online survey access would be self selecting for ebook proficient users. The printed questionnaires were not nearly as popular as the online instrument, although they were easily available and attractive. However, in the early days of the survey, clients who were approached to complete the print survey said that they preferred to do the survey online at a time convenient to them.
- The selection of *Survey Methods* (2008) as survey software was a good decision as it allowed generation, graphing and charting of detailed reports for all questions and by each respondent group. Reports could be exported in various formats such as excel or PDF files and were easy to generate. Hindsight with using Survey Methods says we should not have developed two separate surveys for staff and students, but should have used one single survey for both groups. This was because we were unable to combine results in a single report. As a result, additional collation and manipulation of raw data files was necessary.

Survey instrument:

- Questions had been developed to match similar surveys done overseas to provide us with comparison data. This was a productive approach
- The sequence of questions could have been more logical to follow the order of awareness acceptance usage
- Some questions of acceptance of ebooks in comparison to print books were too complex and the request to apply a ranking value was confusing
- Additional control questions relating to use of print books would have made interpretation of results more rigorous because it would have allowed a direct comparison of results for ebooks and print books. We note that the recent ebrary survey did ask such control questions
- The set of questions about usage patterns did not prove to be as meaningful as intended, because we were not able to obtain the detailed log statistics from a variety of publishers as originally intended. This topic could be explored in a separate further study that could include both deep log data from providers, keyboard tracking surveys, and observational studies. We are pleased that the JISC Observatory Project is taking that approach
- There is a multitude of information contained in the responses which can still be further explored with follow up interviews with staff or students
- We conclude that the instrument developed for this survey should probably not be used in its current form by other libraries without some reworking. Reformulation of some questions and restructuring of order would be necessary.

7. Conclusion

Both Griffith and USQ consider the QULOC eBook Survey to be a success because response rates from students and staff were reasonably high, useful responses were obtained, and some issues with the awareness, usage and acceptance were identified. Considerable insight can be drawn from the survey results. This will be used to confirm the collection development strategy as outlined in the Griffith's Information Resources Management Guide and USQ's Resource Development Policy.

Griffith and USQ aim to continue their existing approach to collect monographs in both print and electronic format, and will endeavour to purchase more texts in electronic format when available giving equivalent priority to each format though not necessarily equal numbers. We intend to use user-driven purchasing models, restrict when possible the numbers of platforms accessed to those with demonstrated high use, and continue to use non-platform-dependant discovery means. Results from external ebook studies will be used to reaffirm the approach.

The success of the study suggests a follow-up study could be conducted in the future. It would be interesting to see how awareness, usage and acceptance may change over time, and also whether collection development policies regarding ebooks have been successful or not. It is yet to determined by Griffith, USQ and QULOC if a follow-up study will be pursued. Equity issues surrounding the availability and usage of ebooks could also be considered in a subsequent study.

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Appendices

Appendix 1 – Survey tool – Griffith University / QULOC ebook survey tool for students

The University library is conducting a survey on student awareness, acceptance and use of electronic books (ebooks). A similar survey is being conducted for staff. The results of the survey will be used to help us plan and build the library collections for the future. The survey should take only 10 minutes to complete.

Please provide your contact details on the final page if you wish to be included in the lucky draw to win a \$75 gift voucher. All responses will be treated confidentially.

1. The following statements are about you.

	 1.1 I am an: Undergraduate student Postgraduate coursework student Postgraduate research student
	1.2 I am: Eremale Male
	 1.3 I am in the following age group: Less than 20 years old 20-29 years old 30-39 years old 40-49 years old 50-59 years old 60 years or older
	I am a student in the following area(s). (You may select more than one):
	 Arts & Humanities Education Law Business Engineering Environment Information Technology
	I am enrolled in the following mode of study. (You may select more than one). Internal students Off campus students (On campus) (External mode) (Web mode)
2.	The following statements are about your awareness level of eBooks.
	2.1 I have heard of ebooks: Yes No
lf	you answered 'No' to Statement 2.1, you have completed the survey, thank you. If you answered 'Yes', please proceed to the next question.
	2.2 I know what an ebook is: Yes No Not sure
	2.3 I have used an ebook: Once A couple of times

I am aware that my University library provides access to ebooks: 2.4

	Yes	🗌 No	Not sure
2.5	I found out about e	books from	:
	 Library catalogue Course resources Other University s Other (please indicate) 	taff	Library web site search Library Staff Web search engine (e.g. Google)
Tho f	ollowing statement	te aro abou	t your acceptance level of abooks

3. The following statements are about your acceptance level of ebooks.

3.1	I have used	an ebook in r	my subject area
	Yes	🗌 No	I have not searched

Using the following grading scheme please circle your response to the statements:

Strong	1 ly disagree	2 Disa	2 gree	Ne	3 eutral		4 ree	5 Strongly agree
3.2	Ebooks are as g	good as	s print l	pooks				
		1	2	3	4	5		
3.3	The library shou buy ebooks	ıld con	tinue to	purch	ase bo	oks in pi	rint form	nat only and not
		1	2	3	4	5		
3.4	The library shou	Ild pure	chase b	books ii	n both	print and	d ebook	format
		1	2	3	4	5		
3.5	The library shou format	ıld puro	chase b	ook tit	les in e	book foi	rmat ins	tead of print
		1	2	3	4	5		
3.6	I like using eboo	oks bec	cause:	(Please	e rank f	rom 1 =	highes	t to 7 = lowest)
□ s □ c	4x7 access from h earching across t opying and pastir ther (please indic	he ebo ng		;	Sear		ross a o	w the book database of books ing

3.7 I dislike using ebooks because: (Please rank from 1 = highest to 5 = lowest)

 Online access problems Cost of printing pages Other (please indicate) 	ownloads y in reading from the screen
---	--

Continuing to use the following grading scheme please circle your response statement 4.1:

4.

1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Usage and Usage P	atterns			
4.1 I like using eb	ooks			
	1 2	3 4 5		
4.2 I prefer to read	d:			
 The whole ebook Chapters from eb 		cerpts from ebo of the aforemer		
4.3 When I read a	part of an eb	ook, such as a	chapter, I prefe	er to:
Read it on the sc	reen 🗌 Pri	nt and read fron	n the printed co	ру
4.4 When I read a	n entire eboo	k I prefer to:		
Read it on the sc	reen 🗌 Pri	nt and read fron	n the printed co	ру
4.5 When I use et time reading from the		omfortably spen :	d the following	amount of
10 minutes2 hours	30 minute More than]1 hour]Not at all	

4.6 I have used the following ebook services:

 Bennetts eTitlebooks24x7 Books@OVID Clinics@Ovid CRC Press titles: ENGnetBASE NEUROSCIENCEnetBASE EBL eBook Library eBrary EBSCO Facts and Comparisons Humana Press titles: BioMedProtocols NeuroSciNow Informit eLibrary Knovel.com Lecture Notes in Computer Science McGraw-Hills Access Medicine Other (please indicate) 	 OECD : source OECD studies, periodicals and statistics : online MDConsult NetLibrary Project Gutenberg ProQuest PsycBooks (APA) PsycEXTRA (APA) Proquest Dissertations full-text Safari Business Books Online Safari Technical Books Online ScienceDirect eBooks STAT!Ref - Nursing and Allied Health Collection STAT!Ref - Dental collection Taylor & Francis eBook Collection Wiley InterScience OnlineBook
4.7 My favourite ebook service is	
Because:	

5. Have your say

Please provide any additional comments about ebooks:

Thank you for completing the survey.

Please provide your contact details below if you wish to be included in the lucky draw to win a \$75 gift voucher. All responses will be treated confidentially.

First name:

Contact Phone No:

Appendix 2 – Survey tool – Griffith University / QULOC ebook survey tool for staff

The University library is conducting a survey on staff awareness, acceptance and use of electronic books (ebooks). A similar survey is being conducted for students. The results of the survey will be used to help us plan and build the library collections for the future. The survey should take only 10 minutes to complete.

Please provide your contact details on the final page if you wish to be included in the lucky draw to win a \$75 gift voucher. All responses will be treated confidentially.

1. The following statements are about you.

1.1	I am:	Academi	c staff	General	staff	
1.2	I am:	E Female		Male		
1.3 a		he following ag ess than 20 ye 0-29 years old 0-39 years old 0-49 years old 0-59 years old 0 years or olde	ars old			
1.41a	am a si	aff member in	the following	area(s). (Yo	u may select	more than one):
	E H	dministration ducation ealth aw	Enginee	umananities ring ion Services	Busines	
t ([_	<pre>Plea Inter</pre>	tudents in the tase tick this bo rnal students campus)	x if do not tea	ich) ous students		ous students
2.	The f	ollowing state	ements are a	bout your av	vareness lev	vel of ebooks.
	2.1	I have heard	of ebooks:	□ Y	es	🗌 No
If you answered 'No' to Statement 2.1, you have completed the survey, thank you. If you answered 'Yes', please proceed to the next question.						
	2.2	I know what	an ebook is:	Yes	🗌 No	Not sure
	2.3	I have used a	an ebook:	Once	A coup	le of times

2.6 I am aware that my University library provides access to ebooks:

Yes	🗌 No	Not sure	

2.7 I found out about ebooks from:

Library catalogue search	Library web site search
Course resources	Library Staff
Other University staff	Web search engine (e.g. Google)
Other (please indicate)	

3. The following statements are about your acceptance level of ebooks.

		book in my subject area :	
	using ebook	(s) in my course materials or courses readings	S

Using the following grading scheme please circle your response to the statements:

Strong	1 Iy disagree	2 Disagre	e	3 Neuti	al	4 Agree	5 Strongly agree
3.3	eBooks are as good as print books						
	1	2	3	4	5		
3.4 not buy ebo	The library shou oks	uld continu	ue to pi	urchase	books	s in print for	mat only and
	1	2	3	4	5		
3.6	The library sho	uld purcha	ise boc	k titles	in both	print and e	book format
	1	2	3	4	5		
3.7	The library show print format	uld purcha	ise boc	ok titles	in ebo	ok format in	stead of
	1	2	3	4	5		
3.7 If available, I would prefer to use ebooks as resources than print books for the courses I teach							
(Please tick this box if you do not teach)							

1 2 3 4 5

3.8 ebooks are suitable resources for the courses I teach(Please tick this box if do not teach)

1 2 3 4 5

3.9 If available, I would prefer to use ebooks for my research and scholarship

(Please tick this box if are not involved in research)

1

2 3 4 5

- 3.10 I like using ebooks because: (Please rank from 1 = highest to 7 = lowest)
- 24x7 access from home or office
 Searching across the ebook
 Copying and pasting
 Other (please indicate)
 I don't have to borrow the book
 Searching across a database of books
 Easy online referencing
- 3.11 I dislike using ebooks because: (Please rank from 1 = highest to 5 = lowest)

Continuing to use the following grading scheme please circle your response statement 4.1:

	Strong	1 ly disagree	I	2 Disagre	e	3 Neut	ral	4 Agree	5 Strongly agree
4.	Usag	e and Usage	Patte	erns					
	4.1	I like using e	book	6					
			1	2	3	4	5		
	4.3	I prefer to rea	ad:						
		The whoChapters			5		•	s from ebo e aforemer	
	4.3	When I read	a par	t of an e	ebook,	such a	is a ch	apter, I pret	fer to:
		Read it c	on the	screen	F	Print an	d read	from the p	rinted copy
	4.4	When I read	an er	ntire ebo	ok I p	refer to	:		
		Read it c	on the	screen	F	Print an	d read	from the p	rinted copy

4.5 When I use ebooks I can comfortably spend the following amount of time reading from the screen:

	ninutes I hour e than 2 hours I Not at all
 4.7 I have used the following ebo Bennetts eTitleBooks24x7 Books@OVID Clinics@Ovid CRC Press titles: ENGnetBASE NEUROSCIENCEnetBASE EBL EBook Library eBrary EBSCO Facts and Comparisons Humana Press titles: BioMedProtocols 	
 NeuroSciNow Informit eLibrary Knovel.com Lecture Notes in Computer Science McGraw-Hills Access Medicine 	 STAT!Ref - Nursing and Allied Health Collection STAT!Ref - Dental collection Taylor & Francis eBook Collection Wiley InterScience OnlineBook
Other (please indicate)	
4.7 My favourite ebook service is	S:
Because:	

6. Have your say

Please provide any additional comments about ebooks:

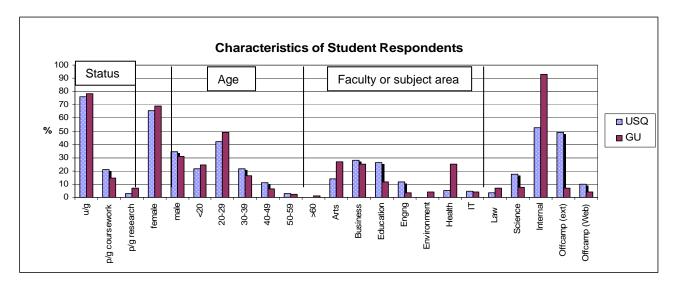
Thank you for completing the survey.

Please provide your contact details below if you wish to be included in the lucky draw to win a \$75 gift voucher. All responses will be treated confidentially.

First name:

Contact Phone No:

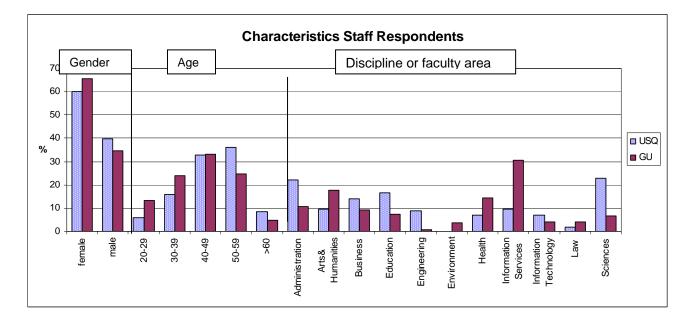
Appendix 3 -



Characteristics of student respondents from both institutions

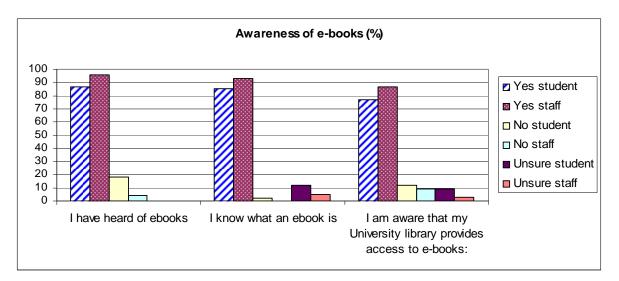
Appendix 4 –

Characteristics of staff responses from both institutions



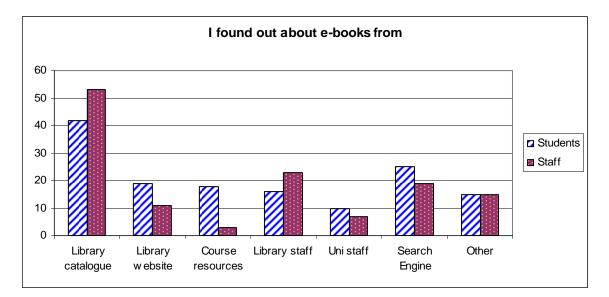
Appendix 5 –

Awareness of ebooks



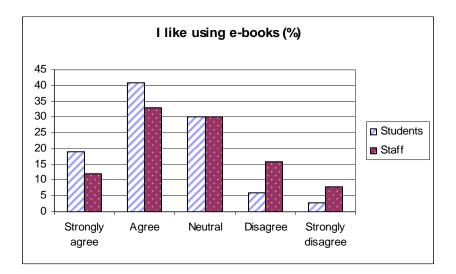
Appendix 6 –

Source of awareness



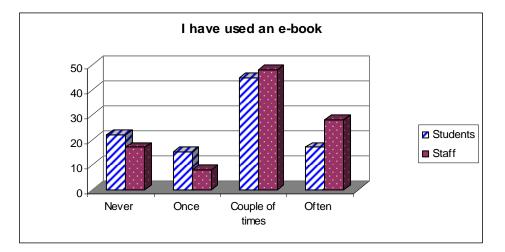
Appendix 7 –

Attitude towards ebooks



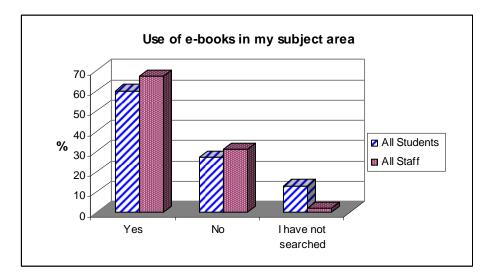
Appendix 8 –

Usage of ebooks



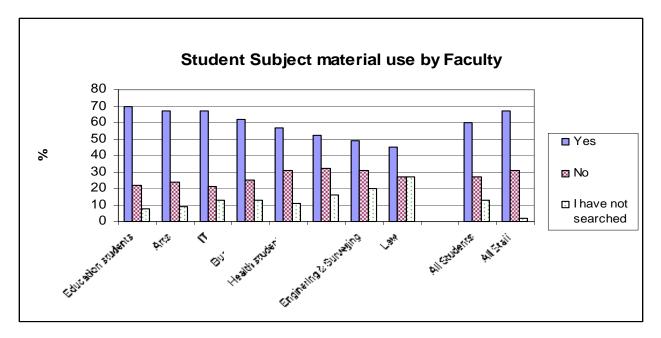
Appendix 9 –

Use of ebooks in subject areas



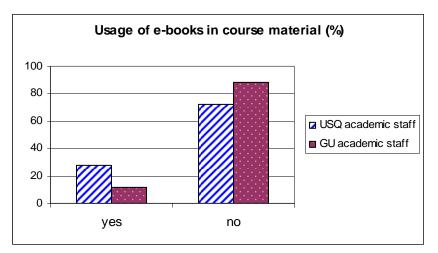
Appendix 10 –

Use of ebooks in subject area Total and by Faculty

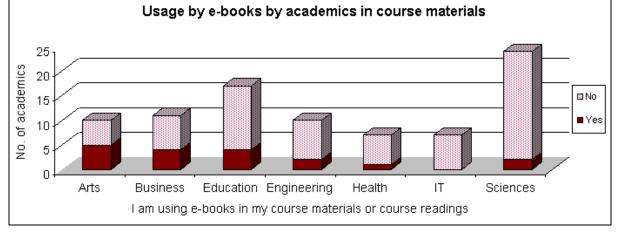


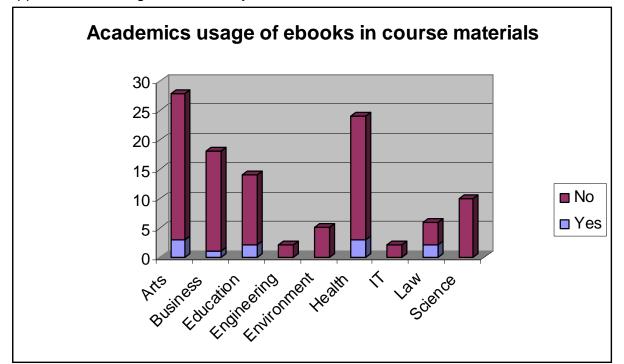
Appendix 11 -

Appendix 11a Using ebooks in course materials



Appendix 11b Usage of ebooks by USQ academics in course materials

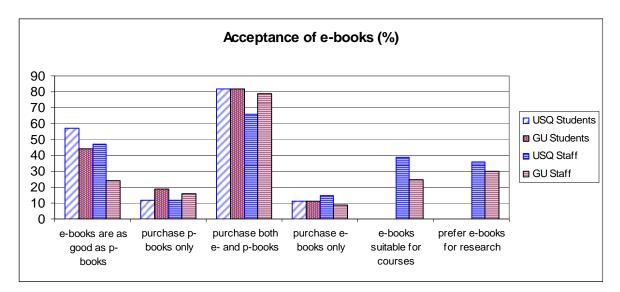




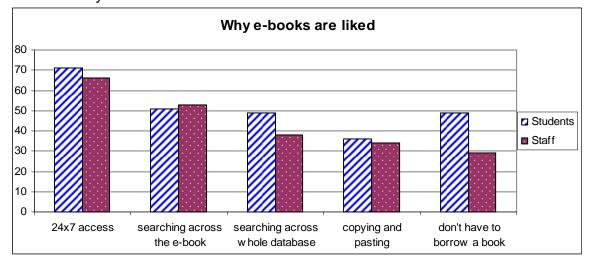
Appendix 11c Usage of ebooks by Griffith academics in course materials

Appendix 12 -

Student and staff acceptance of ebooks



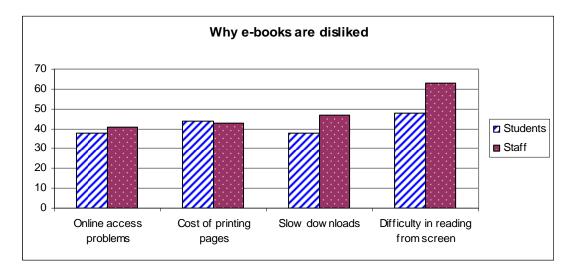
Appendix 13 -



Reasons why ebooks are liked

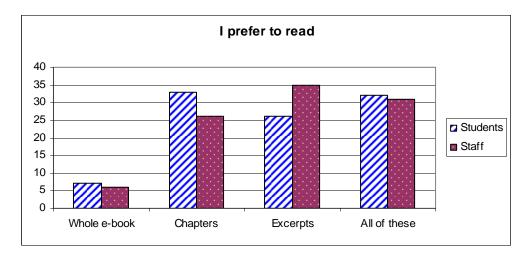
Appendix 14 -

Reasons why ebooks are disliked



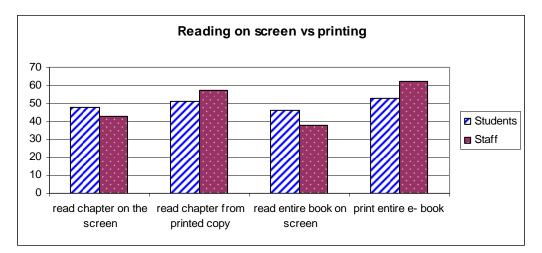
Appendix 15 –

How ebooks are read



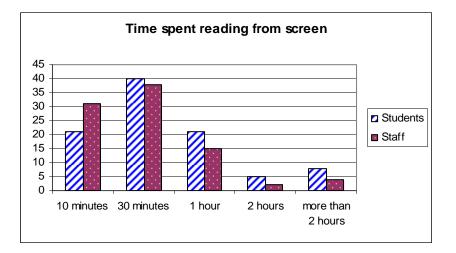
Appendix 16 –

Reading on screen vs printing



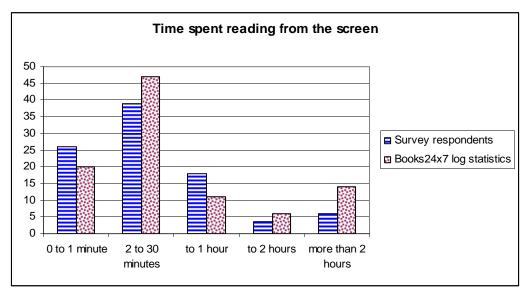
Appendix 17 –

Time comfortably spent reading from the screen



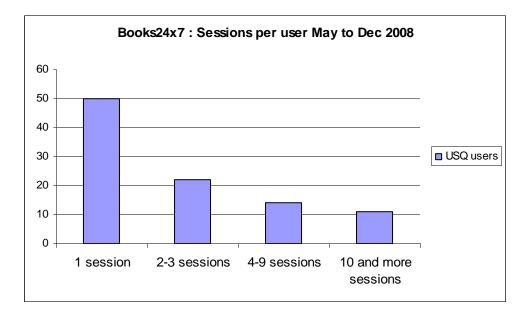
Appendix 18 –

Log statistics



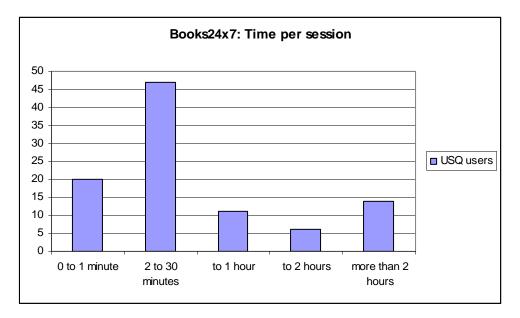
Books 24x7. Length of time reading on the screen

Number of session per user over 8 months

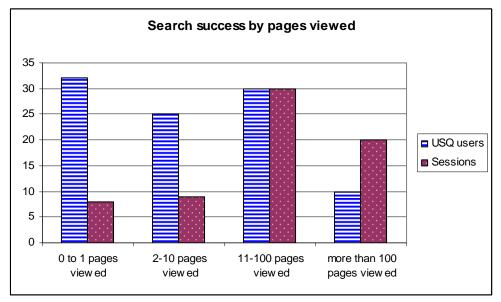


Appendix 18 continued

Ebrary log statistics

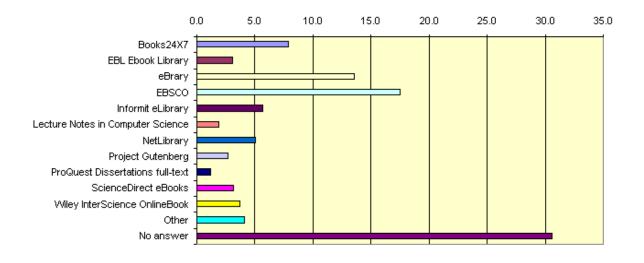


Pages viewed by session

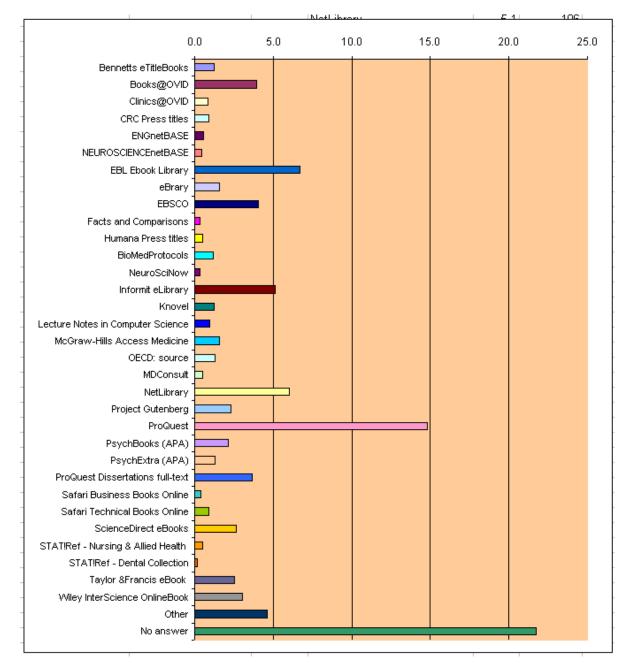


Appendix 19 –

Specific ebook services (USQ responses) - % of total responses



Appendix 20 –



Specific ebook services (all Griffith responses) - % of total responses

Appendix 21 – Student comments

USQ

I have viewed the library resources on how to use ebooks, however I still feel I don't have the skills to use ebooks to the best advantage.

I wish there were more of them.

In summary, I think they provide a good service.

It is always better to have online access which not only saves time it has other benefits too.

Need to be able to access faster.

Need more ebooks in all subject areas.

Ebooks are very convenient on a notebook.

Saves printing pages. Great portability.

Ebooks not convenient on a PC. Need to print pages.

No portability.

I am really happy with the ebooks offered by USQ. I think they should be promoted more (I found out through other students their availability and how to use them).

However, printed books are also very important.

They sound quite basic, in that they must be a book accessed and read on the internet. The name sounds familiar but I have never been told about, seen or used one of them. It would be a great idea if there were online textbooks, as in many courses a lot of the required texts offer only the minimal necessary information. It's hard enough to afford student life without spending hundreds of dollars on textbooks which you will never fully read and which will not be useful in the long run.

Have not had a lot of experience with them. Textbooks online as ebooks would be awesome for those of us experiencing financial difficulty in getting books for subjects. Some of the older books are great even if access is only available in ebook.

Because I am a distance education student, I heavily rely on ebooks. They are invaluable. I would like to see many more ebooks and journals though USQ. They are also convenient & I love that I can make notes online, highlight, copy & paste etc.

The downsides are: the search functions-too slow & time consuming. I can't concentrate for long when reading online. I don't like the bookshelf in ebrary - it's too erratic, especially with all my highlights.

I'd like to use ebooks, because I'm external student, difficult to find and buy textbook from own country, so find and buy or download any ebooks through the

internet, if I buy textbook through online shopping, I need to wait many days for let the textbook delivery to my home.

Griffith University

An extremely useful means of obtaining reference material in an accurate and expedient manner.

there are great and easy to use.

I like having access to ebooks of popular titles. Often all copies have been borrowed from the library, and it is very helpful to be able to access the text from home.

I didn't realise that there was so many ebooks.

I am currently overseas on exchange and Griffith ebooks are proving invaluable to my research. Through ebooks, I have access to two libraries (both at Griffith and my overseas university), which gives me even greater choice of sources when researching. It also allows me to continue to use the system from my home institution, which I am familiar with and is very convenient.

The best thing ever for external students, no opening hours or renewals or late fees.

ebooks easy to use and beats overdue library fines.

It is the only one I know how to use.

I don't remember which services I have used, always accessed through library catalogue.

Because it is free! (through the Griffith Library website).

It is the one I am most familiar with, plus it allows printing of page ranges, rather than page by page.

I can download it, read it within the borrow time, and be finished with it without needing to return it - ie, risk library fines.

Appendix 22 – Staff comments

USQ

They are an essential part of contemporary research patterns. They are immediately available and easily searched for relevant materials. They allow excerpts to be copied and used where required. They save considerable expense for students and save having to transport printed copies to difficult locations.

Ebooks help EXT, ONC-Twba, ONC-Spr, and ONC-FC students enrolled in my undergraduate courses. Ebooks help psychology honours students who live intrastate and interstate and who are doing research projects with me. Ebooks help me complete my research projects. Unfortunately, EXT students who are in prison and who are taking my courses can not access ebooks.

ebooks are very handy. I think Library needs to publicize the availability of ebooks bit more. They should also be easily "findable" in the Library Catalogue.

Ease of access by students make ebooks very suitable for additional material for courses.

Good resources to ensure students from around the globe have access to textbooks.

Ebooks are an excellent resource for off-campus students. However, I prefer to read in print format as would prefer a balance of both types.

I need more information to access ebooks efficiently; someone told me you cannot use Endnote with ebooks and that is not efficient. Dislike ebooks: loads one page at a time so can't search whole book for a key term.

Sorry. I have never heard of them.

I download and purchase ebooks. However, the service the library subscribes to does not allow downloads - just part of a page at a time. It is worse than useless.

Griffith

Having access to my own 'bookshelf' of ebooks and being able to make notes, review books or tagged pages etc at a later date is invaluable. By having my own electronic library bookshelf I am able to maintain, monitor and update this information. If the electronic library also enabled storage of PDF journal articles, tagging, notes etc. as well this would be a powerful resource. If it is available I don't know about it, which suggests an information dissemination issue.

While I use some e books my main interest in e books is to provide access to books electronically for the online delivery of programs where students need to access books in a timely fashion.

In this time of rising educational costs for students ebooks are a viable cost effective option - IF they have access to computers and afford the download or printing.

These are great for courses with large numbers of students as they allow lots of students to access the books rather than them "fighting" over the one or two print copies. However, for indepth reading they are frustrating and quite unsuitable for research/scholarship purposes.

Slow download and restricted to one day on computer – useless.

They are all equally bad because ebook as a book form is a very bad idea, especially in the university teaching and learning environment.

I find access to ebooks to be too restrictive.

END REPORT