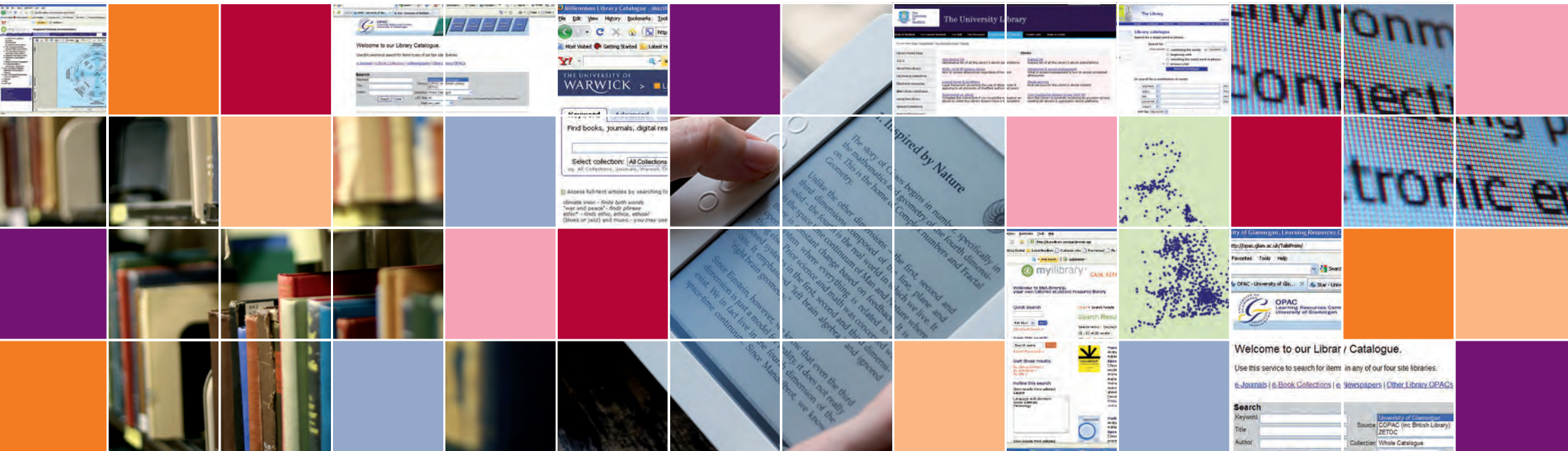


JISC national e-books observatory project

Key findings and recommendations



Final Report, November 2009

JISC national e-books observatory project aims

To license a collection of course text e-books that are highly relevant to UK HE taught course students in four discipline areas:

- Business and management studies
- Engineering
- Medicine (not mental health or nursing)
- Media studies.

To evaluate the use of the course text e-books through deep log analysis and to assess the impact of the 'free at the point of use' e-books upon publishers, aggregators and libraries.

To transfer knowledge acquired during the project to publishers, aggregators and libraries to help stimulate the emerging course text e-books market.

Definitions

The JISC national e-books observatory project is referred to in this report as the '**Observatory project**.'

The '**JISC disciplines**' are business and management studies, engineering, medicine and media studies.

Where the term '**e-book**' is used, it refers to generic e-books available via the library, retail channels or on the web.

Where the term '**course text e-book**' is used, it refers to electronic versions of course texts that support taught course students (e.g. undergraduates)

Where the term '**JISC e-book**' is used, it is specific to the 36 titles licensed for the Observatory project.

CIBER was provided with the raw server logs for the other e-books available on the MyLibrary platform that were actively being used by the 127 universities. This was about 10,000 e-books and provided a control group against which use the JISC e-books could be compared. These are referred to as the '**non JISC e-books**'.

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Acknowledgements

We would like to thank the many librarians, students, academics, publishers and platform vendors that gave freely of their time to make this project so successful.

Special thanks are due to Caren Milloy and Lorraine Estelle of JISC Collections, the members of the JISC national e-books observatory project board and to Richard Knight of Nielsen BookData UK who provided us with the UK print sales data and advice. Chris Armstrong and Ray Lonsdale, from Information Automation Limited, played a key role in this project by undertaking the qualitative research.

The CIBER team is: Ian Rowlands, David Nicholas, Paul Huntington, David Clark, Hamid Jamali and Tom Nicholas.

We are also grateful to the JISC E-books Working Group for their work on drawing out recommendations to the key stakeholders in the e-books market. These draw on their wide experience and other information sources, not just this project. They should not be read as CIBER's conclusions to this study but as a standalone document.

Executive summary

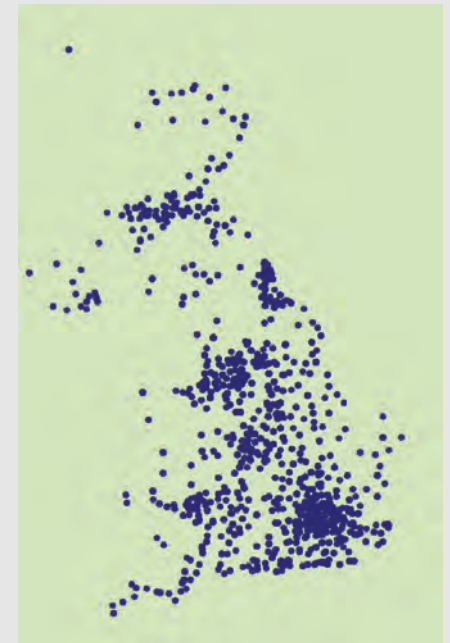
For a quick overview of CIBER's findings

Executive summary 1 of 2

JISC national e-books observatory project

- ★ E-books are now part of the academic mainstream: nearly 65% of teaching staff and students have used an e-book to support their work or study or for leisure purposes.
- ★ More than half of users said that the last e-book they used was provided courtesy of their university library. Libraries are therefore a key player in the emerging market for e-books at present. However, alternative models are emerging (such as Bloomsbury's experiments with open access books) and we need to keep a watching brief.
- ★ Demand for short loan collection print titles far exceeds their supply: nearly a quarter of students reported being 'dissatisfied' or 'very dissatisfied' with library provision of textbooks, and around half of teaching staff said that their students regularly complained about this.
- ★ For librarians, course text e-books are a valuable back-up for hard pressed short loan collections, offering a 'safety valve' at times of peak demand, rather than a direct substitution for hard copy.
- ★ Course text e-book use is highly seasonal, often varying by more than 50% month-on-month, and linked very specifically to the teaching and assessment calendar.
- ★ Use of course text e-books appears to be based on convenience and the advantages they offer such as enabling students and staff to fit work and study more easily into their busy lifestyles: almost a third of pages viewed are viewed off campus and at all hours of the day.
- ★ Although users value the flexibility and convenience of course text e-books, use on some platforms is compromised by technical and other barriers to their effective use. These include limitations on printing, downloading and slow speeds. There is more to learn about effective information design for screen-based e-books, from further research and by learning from best practice in the field.
- ★ The Observatory project harnessed national interest (52,000 responses from every corner of the UK) and increased knowledge and awareness of the issues surrounding course text e-books. The time is ripe for a major expansion of library provision.

Geographic location of exit survey respondents
2009 user survey (n=22,335)



Executive summary 2 of 2

JISC national e-books observatory project

- ★ Behavioural evidence from the Observatory project strongly suggests that course text e-books are currently used for quick fact extraction and brief viewing rather than for continuous reading, which may conflict with the assumptions about their use made by publishers (and authors). They are being used as though they are encyclopedias or dictionaries rather than extended continuous text.
- ★ E-book platforms and interfaces need to be accessible and developed around principles of user-centred design: they are far from ideal, and in some cases, barely serviceable.
- ★ There is too much complexity in the e-books market. Librarians find business models for course text e-books are often inappropriate for the communities they serve, the licences over complicated, and they perceive the prices to be too high.
- ★ CIBER's deep log analyses found much variation in levels of interest in course text e-books and e-books generally by subject: they proved popular in business studies, much less so in engineering. Age and gender are also important predictors of e-book take-up. More research is needed to understand these differences and their practical implications.
- ★ Users want a more standardised online experience: they are confused by the variety of routes and platforms through which they can find and discover e-books and other electronic content. This all may change if publishers work with Google to index their content.
- ★ Within the limited time frame of the Observatory project, no conclusive negative impact on UK print sales was evident. This is consistent with the view emerging from a range of evidence that print and e-versions of important course texts are complementary, not substitutes for one another.
- ★ Sales in the UK textbook market are relatively flat and continuing pressures on student disposable income mean this is likely to continue. Figures from the Department for Innovation, Universities and Skills show that student spending on course-related textbooks fell by nearly a fifth between 2004/05 and 2007/08. The pressures to find viable and sustainable business models will intensify for publishers and librarians alike.
- ★ The library catalogue and links from library web pages are the major routes by which users discover e-books. Technical tools are not enough: discovery need to be actively supported by promotion and marketing to ensure equality of access to course texts across the whole institution.
- ★ CIBER's analysis of the user surveys has identified a cluster of e-book 'super users', an important group of early adopters. They read more titles, at greater length, and are serious and highly focused students with very positive attitudes to the library and premium electronic content. They are likely to be opinion formers and a very interesting target audience for focus groups, interviews, promotion and marketing.

Setting the scene

The Observatory project in context

Setting the scene 1 of 4

Background to the project

Short loan collections in university libraries are always under pressure. To relieve this pressure and to provide equality of access to all their users, librarians want electronic access. However, finding sustainable e-book business models that allow university libraries to offer electronic access to all their users and that are also profitable for publishers is an ongoing quest.

One of the main reasons for this has been a lack of market research on e-book user behaviour and what impact free at the point of use access to course text e-books via the university library has on traditional textbook print sales. These 'unknowns' have held publishers back from making more of their course texts available as e-books and as a consequence, prevented libraries from providing equality of access to their short loan titles.

In 2007, the JISC national e-books observatory project was set up to undertake the necessary market research to help publishers, e-book aggregators, libraries and funding bodies to take informed decisions based on evidence rather than assumptions.

The project was funded by JISC and managed by JISC Collections.

The philosophy behind the Observatory project is a simple one: observing impacts, changes in attitudes, perceptions and actual behaviours in real time. This required a high level of collaboration and participation. The Observatory project kicked off with the licensing of 36 course text e-books for students on business and management studies, media studies, engineering, and medicine courses. These e-books were selected by university librarians and made available free of charge to all users in UK universities. Seven publishers, two e-book aggregators and 127 universities participated in the project and worked with JISC Collections and CIBER at University College London.

Setting the scene 2 of 4

Background to the project

During 2008 and 2009 a wealth of data was collected:

- ★ Benchmarking user surveys carried out in January 2008 and in January 2009 explored current users' awareness, perceptions and attitudes towards e-books in general and course text e-books in particular. Together, these surveys received over 52,000 responses.
- ★ Raw server logs were analysed to see exactly how users discovered, navigated through and used the JISC e-books that were made available.
- ★ Focus groups were held at eight universities. Data gathered from the focus groups held with students, teaching staff and librarians has been analysed to explore user behaviours and attitudes.
- ★ Library circulation and retail sales data were analysed against the usage of the course text e-books.
- ★ This summary combines data from the deep log analysis report, the user survey report, the focus groups, and the print and circulation data reports. Readers are encouraged to read the individual working papers referenced at the end of this report.

JISC national e-books observatory project aims

To license a collection of course text e-books that are highly relevant to UK HE taught course students in four discipline areas:

- ★ Business and management studies
- ★ Engineering
- ★ Medicine (not mental health or nursing)
- ★ Media studies.

To evaluate the use of the course text e-books through deep log analysis and to assess the impact of the 'free at the point of use' e-books upon publishers, aggregators and libraries.

To transfer knowledge acquired during the project to publishers, aggregators and libraries to help stimulate the emerging course text e-books market.

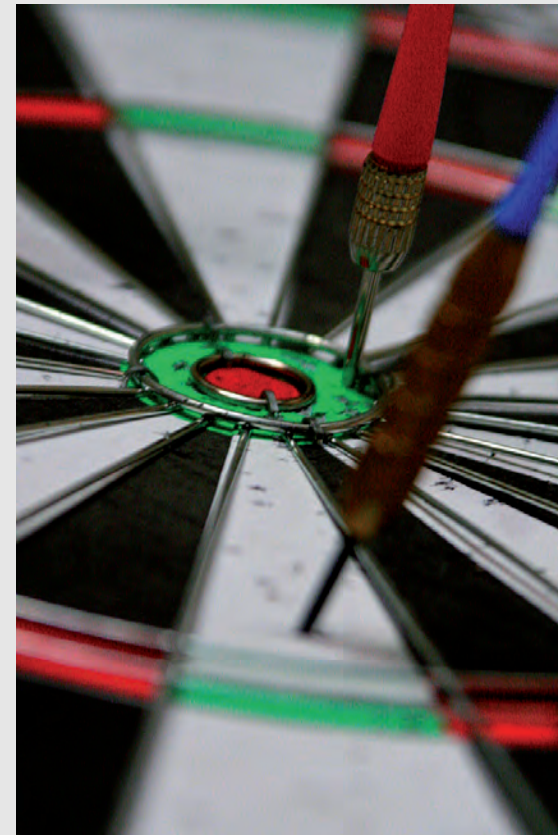
Setting the scene 3 of 4

Study aims and objectives

CIBER received funding from the JISC to undertake the deep log analysis (DLA) study.

DLA study aims and objectives

- ★ To collect information on attitudes and behaviour regarding e-books in general by students and staff.
- ★ To monitor, analyse and evaluate the usage of the JISC e-books by deep log methods.
- ★ Assess, understand and report on the behaviours of users highlighted by deep log analysis through qualitative research.
- ★ Analyse the deep log data for usage of each JISC e-book against print sales figures over the lifetime of the study and three years previously.
- ★ Analyse the deep log data for each JISC e-book against library print circulation data over the lifetime of the project.
- ★ Gain a better understanding of the collection management issues surrounding course text e-books.
- ★ Suggest priority areas for further research.



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Setting the scene 4 of 4

The Observatory project in context: The virtual scholar

Over the past nine years, CIBER has studied the information-seeking behaviour of millions of users on a range of digital platforms including newspaper web sites, health kiosks, interactive television, and scholarly e-journals and databases. This is the first time, we believe, that deep log analysis has been used to shine light on how course text e-books are actually used.

If we see the same behaviour with regard to e-books as we are seeing with e-journals, we might expect the following characteristics to emerge:

- ★ Virtual scholars are 'promiscuous': so they are sure to go elsewhere for their information, and not solely to e-books. As a result, any study like this can only pick up some of their use, and some of their needs.
- ★ They 'bounce' and 'flick' through e-resources: they are unlikely to view many pages in a single session, especially given how unintuitive many platforms are.
- ★ They need and have to navigate in order to spot what they want (and e-books are relatively unfamiliar territory), so a good deal of their time is likely to be spent on cover pages, menus and tables of contents.

- ★ They view and 'power browse' as much as read pages online, so page and session times will typically be short and numbers of page views low, but in the case of course text e-books, numbers may be boosted by the importance of the text in their learning.
- ★ Users are often confused and unsure what content to trust and how to determine the quality of it. This may lead to longer viewing times and higher bounce rates by users from digital platforms: the digital equivalent of all the books being booked out at the library.
- ★ Use is diverse and differs according to gender, age, job, full or part time status, time of day, location, type of institution and nationality, so there is unlikely to be a stereotypical, uniform approach to e-books that works for all users.

We offer these thoughts as background and context to what follows.

Study findings: the user perspective

What CIBER found out about users

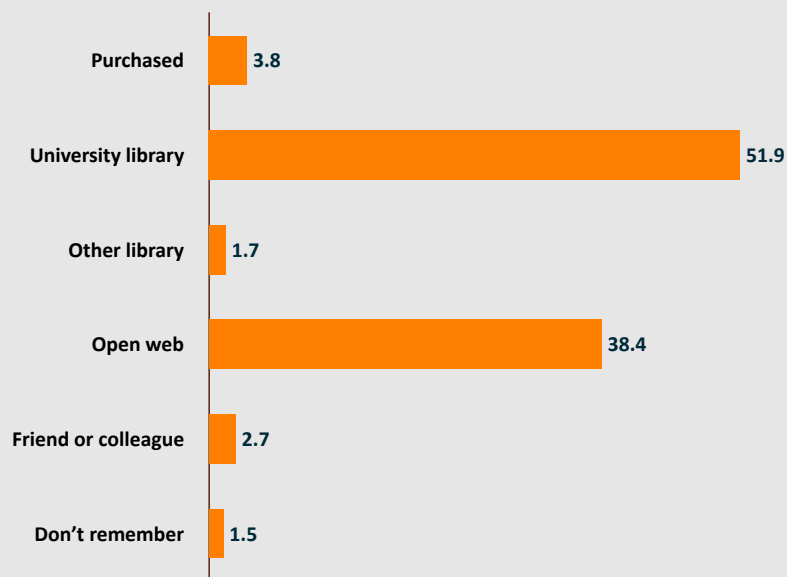
The user perspective 1 of 12

E-books and the university library

The 2009 user survey revealed that a clear majority, 64.6%, of university students and their teachers (combined) told us that they are now using e-books, whether supplied by a library, obtained from the open web, or purchased, to support their work or study or for leisure purposes. As yet, there is little evidence of willingness to pay for course text e-books. When asked how they sourced the last e-book they read, less than one reading in twenty was a personal paid-for e-book:

Sources of general e-book reading 2009 user survey

Thinking back to the last time you used an e-book, how did you get hold of it? Percentages, teaching staff and students combined, 2009 (n=14,963).



E-books have entered into the mainstream of academic life and people are increasingly expecting to source e-book materials from their university library (see below):

University library-provided e-books 2008 and 2009 user surveys

Thinking back to the last time you used an e-book, how did you get hold of it? (Percentages who answered 'from my university library') (n=14,095).

	2008	2009	Percentage points difference
Students in a JISC discipline	43.5%	51.5%	8.0
All other students	45.5%	52.3%	6.8
Teachers in a JISC discipline	50.3%	54.0%	3.7
All other teachers	50.1%	56.8%	6.7

In the twelve months between the two surveys there has been a notable increase in the use of university library-provided e-books: up by eight percentage points in the case of students in the four JISC disciplines (media studies, medicine, engineering, and business and management).

The message is clear: As with e-journals, students and teachers are looking to their university library to provide them with access to course text e-books to support their studies.

The user perspective 2 of 12

Bottlenecks in the system

However, when I am not able to go to the library, or all copies are out, the electronic version is a true salvation, as I am able to use it without competing with other students, and have it at my disposal 24/7
(Student)

Much student use of library content is closely tied to course assignments, projects and exams. This creates exceptional short-term peaks of demand on the print collection. When demand outstrips supply, bottlenecks are created leading to inconvenience and anxiety for students unable to borrow a course text when they most need it.

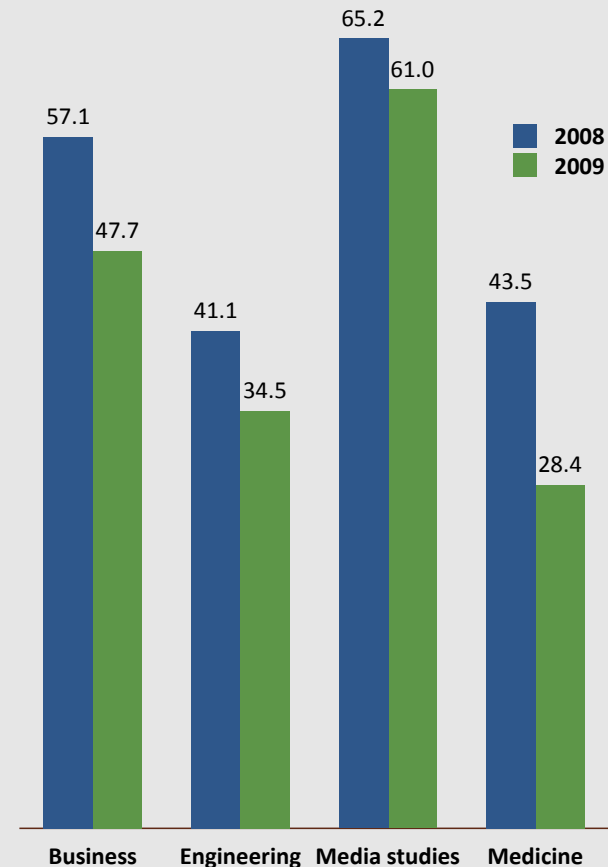
Unlimited concurrent access to e-content is the obvious solution. A major benefit of course text e-books is their convenience: they may be consulted 24/7 from any location with an internet connection. More than half of students responding to the user surveys now visit their university's digital library mostly or exclusively from home. A stronger *prima facie* case for library and publisher investment in course texts e-books could hardly be made.

A finding of the 2009 user survey - when benchmarked against the 2008 entrance survey - is that levels of student satisfaction with library provided printed course textbooks rose significantly over the relatively short period of the Observatory project. Students who responded that they were 'satisfied' or 'very satisfied' rose from 44.6 to 47.9 % ($n=38,599$). This effect is not limited to those disciplines participating in the study - here satisfaction rose by 3.2 percentage points - and appears to be a general effect.

This finding is given further weight (opposite) by university teachers, who report that the level of student complaints about library provision of printed course texts diminished sharply in each of the JISC disciplines over the course of the study.

Unlimited concurrent access to course text e-books offer libraries a 'safety valve' enabling them to offer equality of access during the sharpest peaks of demand. This in return can help reduce complaints and increase student satisfaction.

Level of student complaints 2008 and 2009 user surveys
Do your students regularly report back any problems concerning library provision of textbooks?
Percentages of university teachers answering 'yes' (n=1,428)



The user perspective 3 of 12

User demand for e-books

Between November 2007 to December 2008, 36 course text e-books were made available by JISC Collections at 127 universities on two platforms: MyiLibrary (business, engineering and media studies titles) and Ovid (medical titles).

On the MyiLibrary platform users made over 46,000 visits to the 26 titles available, and viewed more than 761,000 pages. Each title attracted around 18,800 page views on average. Typically, a session lasted around 13 minutes and resulted in eight pages being viewed. Session lengths here are considerably longer than for the e-journal platforms that CIBER has investigated in other studies. The top ten universities in terms of JISC e-book use on the MyiLibrary platform are shown opposite. They are universities of various sizes but there is clearly something special about these 'superusers': they account for more than a quarter of use. Compared against the 10,000 non JISC e-books that universities subscribe to on the MyiLibrary platform, the JISC e-books proved relatively popular. Seven of them appeared in the top ten most popular e-books on the MyiLibrary platform over the term of the Observatory project.

These findings suggest that, with the right titles, it is possible to generate high volumes of e-book use.

The top ten universities in terms of JISC e-book use deep log analysis of MyiLibrary titles
Rank and percentage of total use, November 2007 to December 2008

University	% total use	Rank
Sheffield Hallam University	3.72%	1
University of Sheffield	3.55%	2
University of Glamorgan	3.27%	3
University of Birmingham	2.88%	4
University of Nottingham	2.31%	5
University of Cambridge	2.24%	6
Brunel University	2.23%	7
University of Bath	2.22%	8
Lancaster University	2.16%	9
University of Warwick	2.11%	10
Total	26.68%	

The user perspective 4 of 12

How users find e-books

... there's so many different bits of information on one page – it literally needs a flash up saying 'e-Book available' – click on it and be like Wow! (Student)

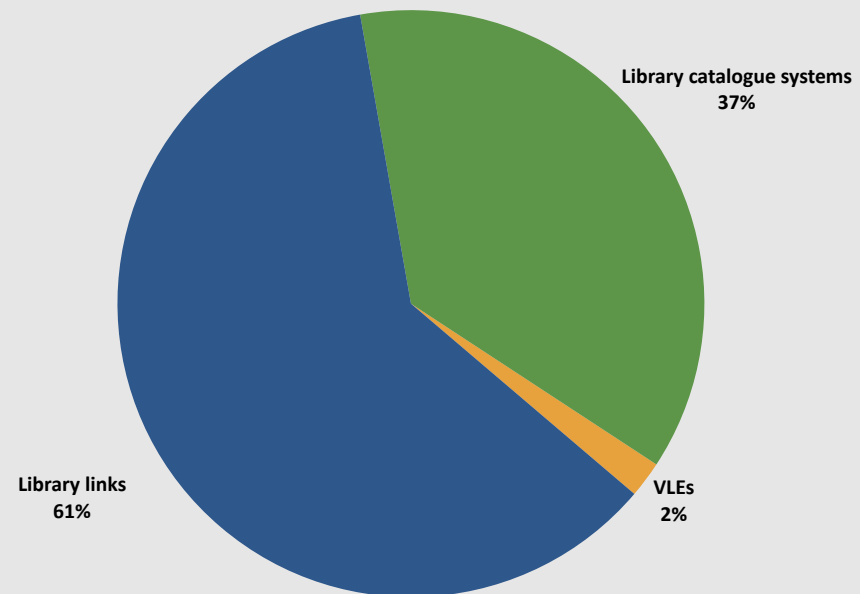
Both the focus groups (which covered both platforms) and the deep log analysis of the JISC e-books confirm that links from the library web site and catalogue entries supported by high quality metadata are essential if users are to find the e-books they need. Federated search is little used by students and, indeed, appears to be a source of confusion rather than a useful discovery tool as far as e-books are concerned. If publishers work more closely with Google and index their content, this will all change.

The referrer link of the log provides an indication of where users came from before they arrived at the MyiLibrary platform. Although it was not possible to identify the origin of 44% of visits to the JISC e-books, an analysis of the remainder (opposite) makes it clear that the library plays a central role in the discovery of e-books. Similar patterns were evident for the other e-books available on the platform.

Although the clearly identifiable incidence of JISC e-book use via virtual learning environments (VLEs) is low across the sector, where content is accessed via a VLE, users typically spend longer and view more pages.

High quality metadata plays a key role in e-book discovery. Users are confused by the wide range of access methods provided: library web pages, catalogues, federated search, etc. Discovery needs to be simpler.

Identifiable referrer links to the JISC e-books deep log analysis at 127 universities
Percentage of total visits, November 2007 to December 2008



The user perspective 5 of 12

How e-books are used

Evidence from the focus groups, deep log analysis and user surveys suggests that students and teachers consume e-books in small chunks: for grazing and extracting information rather than for lengthy reading. Only 5% of users spent more than five minutes viewing a page and 85% spent less than a minute. Much of the time that users spend on e-book platforms is devoted to navigation and finding content, so these figures suggest that a large amount of power browsing and flicking is taking place. The focus groups reported little evidence of e-book content being downloaded, although cutting and pasting behaviour was commonplace, often to enable citation or referencing, or for copying complex material.

Users prefer to print out material for later reading and note taking on paper rather than use the note taking facilities provided on the aggregator's platform.

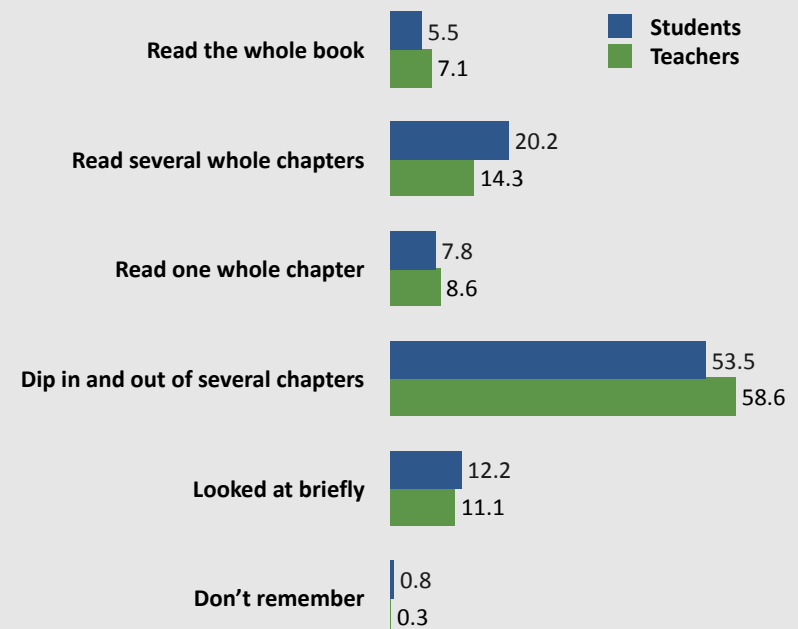
The graph opposite shows the widespread preference for dipping in and out of several chapters and supports the short page view times measured. However a small proportion do spend over a minute viewing a page and this may indicate a preference for reading several chapters online as also seen in the graph opposite.

Again, I think there is a distinction between reading text from the screen for short periods of time and sitting down and reading a novel or something. And this is possibly why people tend - I think we came to a reasonable consensus that people tend to use e-books for finding specific pieces of information rather than in terms of extensive reading (Student)

Screen reading behaviour 2009 user survey

How much of your last e-book did you read online? (n=4,779)

Staff and students in JISC disciplines only



Currently the use of e-books mostly satisfies the need for brief information and rapid fact extraction. This may be due to poor usability, as reported later, but suggests that print titles are required and that e-books complement the use of print.

The user perspective 6 of 12

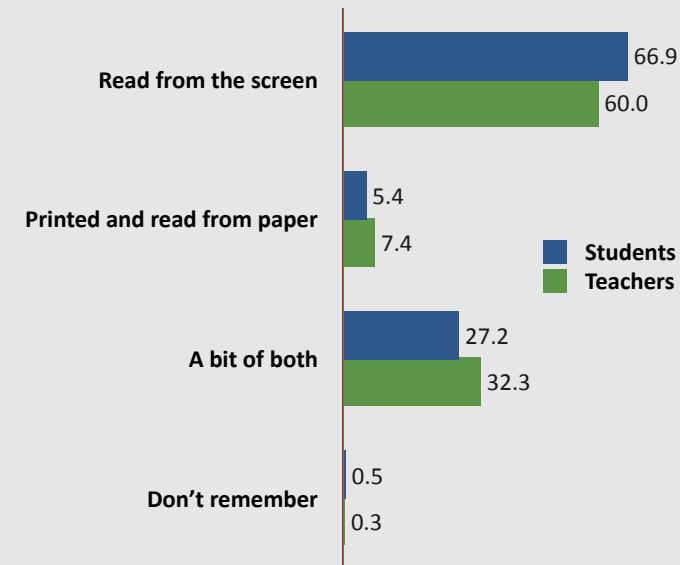
How e-books are used

Much viewing of e-books, around 60%, is directly from the screen rather than from paper or a mixture of both screen and hard copy. This proportion is strikingly similar for students and teaching staff and is independent of age: even beyond the normal retirement age, 44% of respondents say they generally read direct from the screen.

Whether this is a genuine preference or a form of behaviour that is shaped by the various restrictions (such as digital rights management, and limitations on how much content may be printed) that currently apply to e-books is difficult to say. Certainly a number of respondents in the 2008 and 2009 surveys and the focus groups said that they found prolonged screen reading to be very tiring and that it was generally harder to concentrate and to absorb information in this way.

Participants in the focus groups reported some difficulty in finding information in e-books: simple search was not regarded as a useful access mechanism since most course texts are designed to be read continuously rather than being chunked into more search engine friendly encyclopedia-style entries. Most users seem to rely on a mix of browsing tables of contents and simple search: advanced searching and expanding tables of contents were only rarely used.

Mode of reading e-books content 2009 user survey
How did you read the contents? (n=4,785)
Teaching staff and students in JISC disciplines only



Users spend most of their time viewing e-books directly from the screen, for reasons that are obvious: speed, pragmatism and problems associated with printing and downloading. This finding chimes both with a highly focused 'fact finding' approach to using content and also with an indication that discovery tools on e-book platforms are not yet fully fit for purpose.

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When and where e-books are used

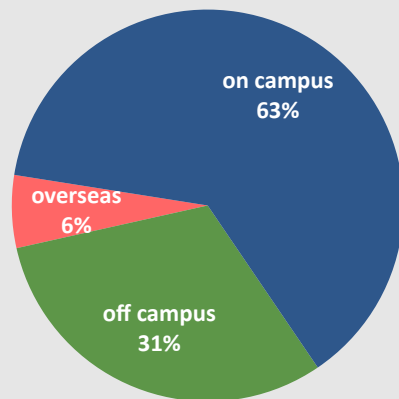
One of the key advantages of course text e-books for busy students and teaching staff is that access can be made from anywhere and at any time.

Location

Almost a third of page views were made off campus within the UK and another 6% from students overseas. Off-campus use was heaviest in March and June, when it accounted for more than 40% of use, and at its lightest in September, when it fell to 26% of all page views.

Use of JISC e-books by location deep log analysis of MyiLibrary titles

Percentage of page views, November 2007 to December 2008

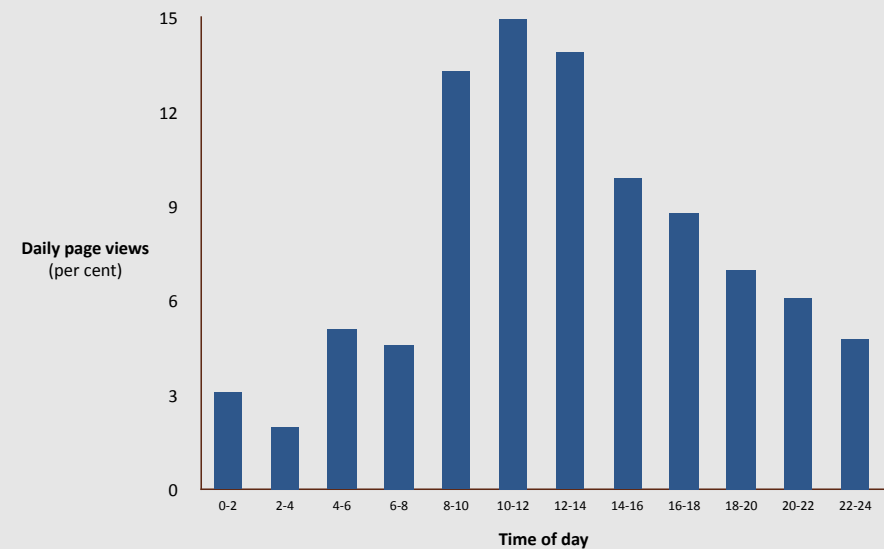


Time of day

E-books are used throughout the day and night, with the heaviest use occurring between 8 a.m. and 2 p.m.

Use of JISC e-books by time of day deep log analysis of MyiLibrary titles

Percentage of daily page views, November 2007 to December 2008



Course text e-books enable students and staff to fit work and study flexibly into their busy lifestyles.

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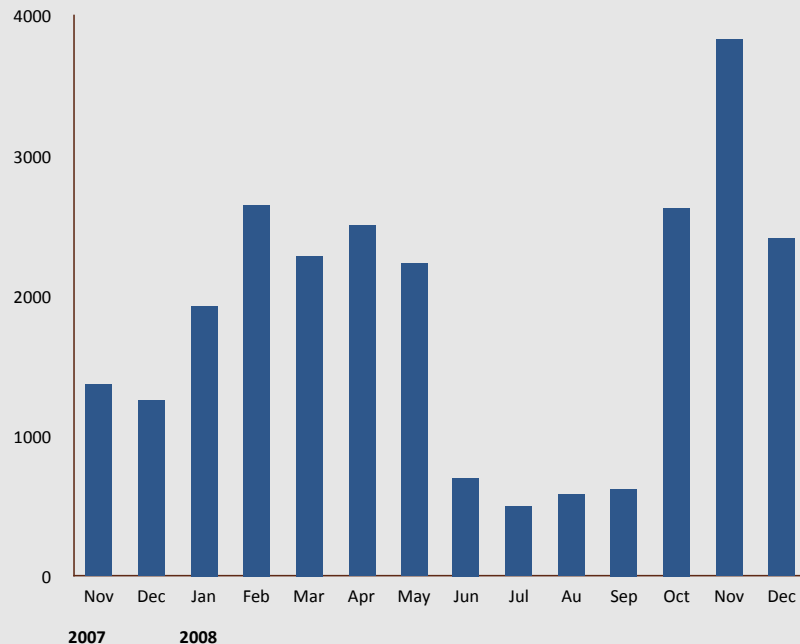
When and where e-books are used

Time of year

Levels of JISC e-book use varied enormously throughout the year, often by more than 50% month-on-month, and are much more closely tied to the peaks and troughs of the teaching year than is the case with e-journals, for instance.

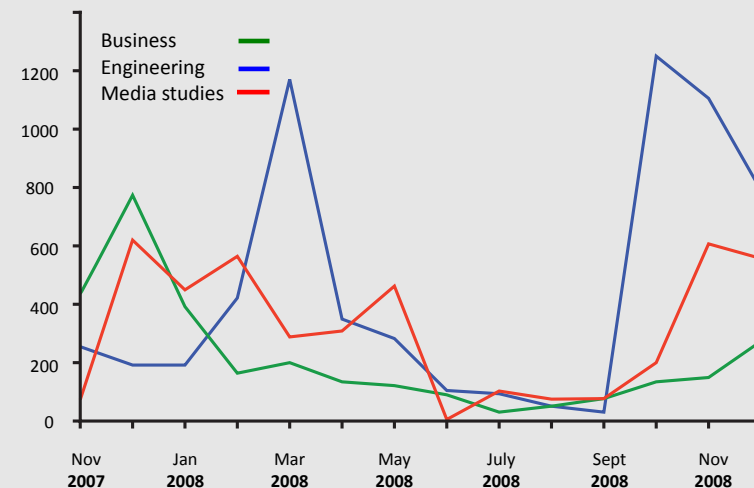
Use of JISC e-books by month deep log analysis of MyiLibrary titles

Average monthly page views, November 2007 to December 2008



Use of JISC e-books by time of year deep log analysis of MyiLibrary titles at the University of Birmingham

Monthly page views, November 2007 to December 2008



The data above (University of Birmingham) reveal complex seasonal patterns at the subject level.

The course text e-book 'tap' is only turned on when it is needed. Use is very sensitive to specific course demands and this needs to be reflected in access models.

The user perspective 9 of 12

Usability and accessibility issues

It is clear from the Observatory project that currently the use of course text e-books is primarily driven by needs for brief information and fact extraction, such as capturing bibliographic references, images, quotes or tables for incorporation into other work. High value is therefore placed on the ability to manipulate the content for those with print related disabilities. The print version is still perceived as the preferred format for continuous extended reading for several reasons, including:

- ★ the familiarity of the physical book.
- ★ it facilitates greater concentration.
- ★ it is more conducive than the course text e-book to certain forms of reading behaviour, such as scanning and browsing.
- ★ the printed page is also seen to be more conducive to note making, annotation and highlighting.

Many e-book interfaces make poor use of the available screen space, resulting in too little actual visible text (i.e. partial page views), too much visual clutter in the form of navigational tools, etc., and currently offer a relatively poor reading experience.

Staff and students in the focus groups said that they disliked being required to undertake *two* navigational activities: scrolling and the next-page button. This makes browsing and skimming difficult and means that the lower half of the page may be inadvertently ignored.

Within-page images and tables do not render well (particularly with screen reading software) and zoom often destroys page format or makes content flow incorrectly on screen. Colour and aesthetics of the screen presentation both received adverse comments. If e-books are going to be read for more extended periods from the screen, the available display features should be fully used. This is particularly important for those with learning or reading difficulties, like dyslexia, who may need the facility to change background and text colours, as well as the size of fonts and images.

There is an opportunity to make e-books easier to use and fully accessible to all users. Further research and user centred design principles need to be implemented to improve the user experience.

The user perspective 10 of 12

What users want from e-books

In the 2008 user survey we asked the open question “In your opinion, what are the three biggest advantages that e-books offer compared with printed books?” and analysed the responses. The results (opposite) show that the key perceived value of e-books is that users can get at them wherever they are and at whatever time. Searchability is the second most popular response, rising to 15.4% if we include ‘navigation’. Even in the case of pdf files, the Ctrl+F feature was mentioned as a favourite feature for finding relevant content. Comments here included “Could search within the text using key words” and “Easy location of words and phrases via the ‘find’ mechanism.” Many of the comments reiterated the fact that course text e-books offer a solution to hard-pressed short loan collections. These calls came especially from distance learners and part-time students.

In general, our research shows that users want:

- ★ more course text e-book titles to be made available
- ★ better promotion of e-books by tutors and the library to raise awareness of what is available
- ★ more training in how to access and use e-resources
- ★ more interactivity within the course text e-book
- ★ unlimited concurrent access
- ★ easier and more reliable remote access
- ★ the ability to print out more than one page at a time
- ★ the ability to put course text e-book content onto portable devices
- ★ aggressive digital rights management (DRM) restrictions to be lifted

Library users are enthusiastic about e-books because of the convenience they offer and the ways in which they can use them in their learning tasks. But this is currently compromised by poor usability and other barriers.

Perceived e-book advantages 2008 user survey
Top ten unsolicited benefits, staff and students
(n=11,763)

Advantage	n	%
Online access	6,169	52.4
Searchability	1,556	13.2
Cost	1,266	10.8
Portability	623	5.3
Convenience	340	2.9
Eco-friendly	323	2.8
Storage	258	2.2
Easy to navigate	253	2.2
Multiple users	203	1.7
Easy to locate	152	1.3

The user perspective 11 of 12

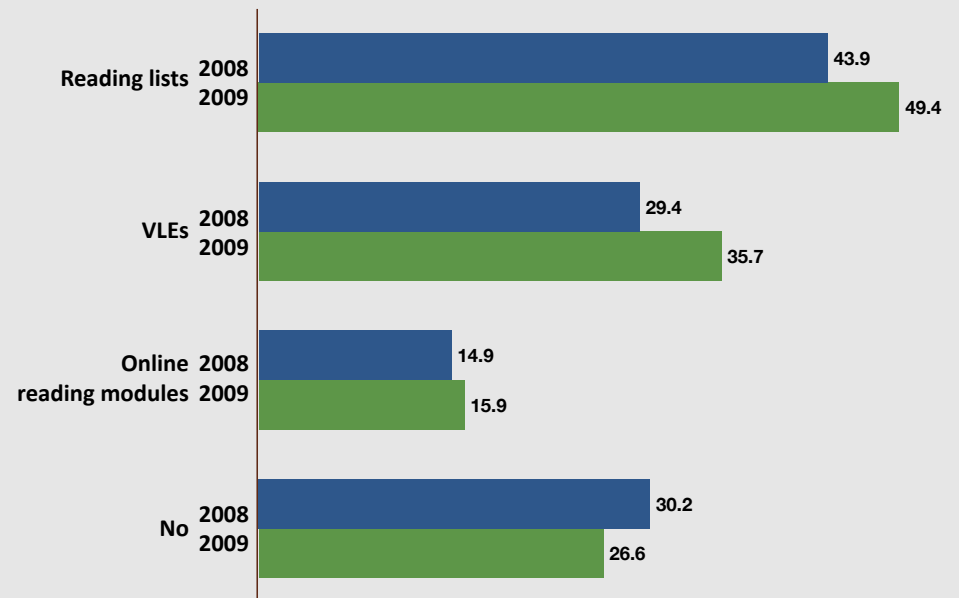
Use in learning and teaching

I think they find it very convenient I think they do more reading than they did when I used to give them paper stuff to read because they can get to it quickly (Academic)

Comparing the 2008 and 2009 users surveys, a significant shift in terms of the number of teaching staff who actively recommend e-books to their students took place (opposite). The extent to which this may be attributable to the promotion and publicity associated with the Observatory project, or simply due to a rising tide of general interest in e-books is unclear. But there is a real gathering of momentum.

An increasing number of academics now actively recommend course text e-books to their students for reasons of equality of access and convenience.

E-book recommendations 2008 and 2009 user surveys combined
Do you actively encourage your students to use e-book materials?
Percentages of all teaching staff (n=939)



The user perspective 12 of 12

Portrait of a super user

What are the characteristics of students who are the most avid readers of e-books (defined broadly)? Here we define a 'super user' here as someone who had looked at five or more e-books within the four weeks leading into CIBER's user surveys. The analysis that follows is based on 8,800 students in the four JISC disciplines, of whom 17.5% are 'super users'.

The survey data reveal that super users are:

- ★ older than most students, typically 22-35 [6.9].
- ★ more likely to be male [3.0] than female.
- ★ most likely to be found on business studies [6.5] or engineering [2.6] courses, and very thin on the ground on medical courses [-10.4].
- ★ much more likely to get their e-book readings from their university library [12.7] than lighter e-book users.
- ★ wider and more extensive readers of e-books: as well as reading from a wider range of titles, session times are longer: they are much more likely to spend more than 20 minutes each session [8.9] and to use JISC e-books more extensively, consuming whole books or at least several whole chapters [13.1].
- ★ not geeks: the super user phenomenon cannot be explained by an unusual interest in technology: they are no more or no less dependent on the internet resources [-0.1] than lighter e-book users when it comes to collecting information for their assignments.

The figures in square brackets below are adjusted standard residuals, a simple measure of the sharpness of the difference between e-book 'super users' and the rest of the student population. As a rule of thumb, a value of 2 or greater points to a really meaningful difference; a value of less than two should be interpreted as 'no difference'.

- ★ typical with respect to their reliance on online course delivery through managed or virtual learning environments: they are no more or no less dependent on this information resource [0.2].
- ★ whereas lighter users of library-provided e-books tend to discover these resources through the library catalogue [2.6], super users instead show a preference for navigating to e-book content via library web pages [2.3]. It is clear that they are proactively seeking out e-book content, not simply stumbling across it.
- ★ in summary, super users of e-books are serious and highly focused students who are highly dependent on the premium electronic content [7.7] on offer through their university library, which they tend to visit more frequently than other students: they are very much more likely to be daily visitors to the physical [6.1] as well as the digital library [14.7] and to record higher satisfaction levels with regard to the availability of print textbooks [very satisfied = 4.3].

Understanding super users is important because, in marketing terms, they are likely to be early adopters of e-books, and a very useful audience for beta testing new offerings and offering candid feedback.

Study findings: the library perspective

Building the library of the future (CIBER)

The library perspective 1 of 5

Collection management issues for e-books

For librarians, the key attractions of e-books are that they:

- ★ provide a good practical solution to the library needs of non conventional students.
- ★ offer effective solutions to the management issues surrounding short loan collections (including problems of theft and vandalism).
- ★ provide a solution to spikes in demand by providing concurrent access.
- ★ offer functionality not found in hard copy, including search, citation help and cut-and-paste.

For these reasons, librarians believe in a mixed economy of print and electronic copies, and that the two formats are highly complementary, at least for the moment.

On the other hand, librarians regularly voice concern that the bewildering variety of licensing and business models is time consuming and not attuned to the needs of their users. Librarians would welcome more dialogue with publishers on this important issue: there is a significant gap between what they need and what publishers and aggregators are offering. There are also issues around the staff skills and experience needed to negotiate complex licence terms and conditions in this area and subsequently to administer those licences.

Librarians voice widespread concerns over what they perceive as the high prices of course text e-books, especially in the context of them often being acquired to ease the pressure on the print collection.

Continuity of access to course text e-books is an important issue for libraries and their users, especially in the context of workflow issues around catalogues, federated search engines and virtual learning environments (VLEs).

Librarians, university staff and publishers can enrich the user experience through use of course text e-books via the VLE. However, librarians noted that this requires greater co-operation throughout the university and with publishers to ensure that the processes and workflows are established, include best practice and meet the terms of the licence.

The library has a central role in the provision of course text e-books to its users but it is currently complex. The central role of a licensing organisation, such as JISC Collections, can help facilitate the development of licensing and business models that meet all stakeholders needs.

The library perspective 2 of 5

Promoting e-books

Librarians used a wide variety of promotional methods to raise awareness of the JISC e-books, including social networking applications, subject-specific bookmarks advertising e-books, putting stickers on the hard copy advertising the fact that the text was also available electronically or placing dummy e-books on the shelf thus offering users a prompt when all the print copies were on loan.

The two user surveys (opposite), together with the library focus groups, confirm that a broad promotional strategy is needed to get the message across. The library website is the single most effective way to inform users about the existence of e-books, but this needs to be backed up with high quality catalogue entries and by engaging students through their teaching and, especially, through library induction sessions.

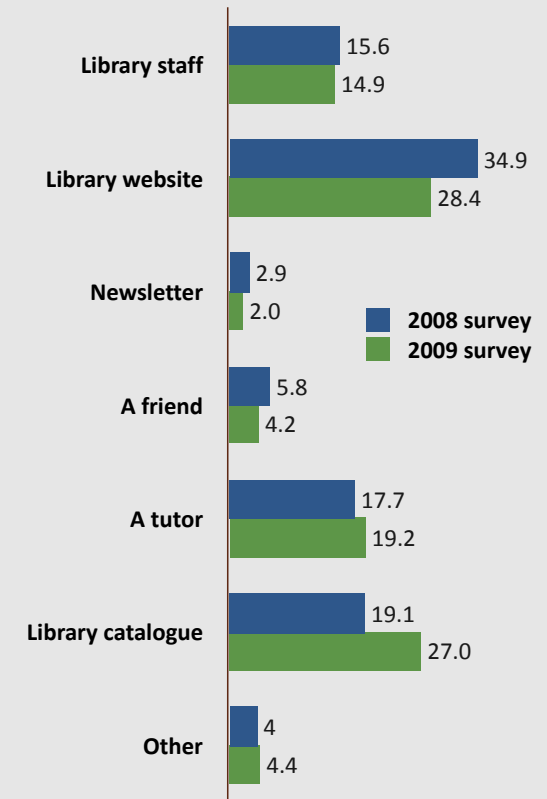
Broadly speaking, the two user surveys tell the same story, although the number of students in JISC disciplines who said that they had used a library e-book rose by a factor of nearly four between the 2008 and 2009 user surveys.

Feedback from the participating universities suggests that the Observatory project has been successful in generally raising the profile of e-books. However there were some issues about how specifically the JISC e-books could be promoted and several librarians said that they preferred to market e-books in a general way since they are committed to promoting all e-books, not just specific titles.

In the light of increasing user dependence on open content, it is essential that promotional strategies work.

Universities need to develop a strategy for raising awareness of all types of e-books and developing information literacy. Teaching staff should also be encouraged to engage more actively in pointing out to students the range of high quality free and paid for e-book content that is available.

Promotion of e-books 2008 and 2009 user surveys
[If you have used e-books from your university library] how did you first find out about them?
Students in a JISC discipline (n=11,734)



The library perspective 3 of 5

Discovery and access issues

A consistent finding of CIBER's research on the virtual scholar is that, in today's impatient two-click digital culture, users will gravitate towards the open web if libraries or publishers place unnecessary barriers in their way. For example, the focus groups and surveys show that overly restrictive digital rights management (DRM) is a major turn off for many users, a barrier too far.

Libraries and publishers need to work together to make e-books easily discoverable. Given the importance of the library catalogue as a means for users to discover e-book content, it is clearly essential that high quality metadata (currently the most used format is MARC) is supplied with e-books as a matter of course. The focus groups found that federated search is not much used by students trying to locate e-books. Students are confused over the mechanics of accessing electronic content and what library web pages, the library catalogue and federated search are offering. Libraries need to get across a simpler message here. Many students showed little real understanding of the distinction between the e-resources provided through their own institution or via the open web. This is a major challenge for librarians, teachers and publishers to demonstrate the added value that they bring to the learning process.



Library Card Catalogue by Paxsimius
Attribution-Non-Commercial-Share Alike 2.0 Generic

There is a bewildering variety of e-content, and a proliferation of ways to get to it. Users don't know how to get to what they want. Libraries face a big challenge in providing clear access routes to e-content. Discovery needs to be made as simple as possible and publishers and aggregators can help here in providing high quality metadata with their e-books.

The library perspective 4 of 5

Impact of e-books on print circulation

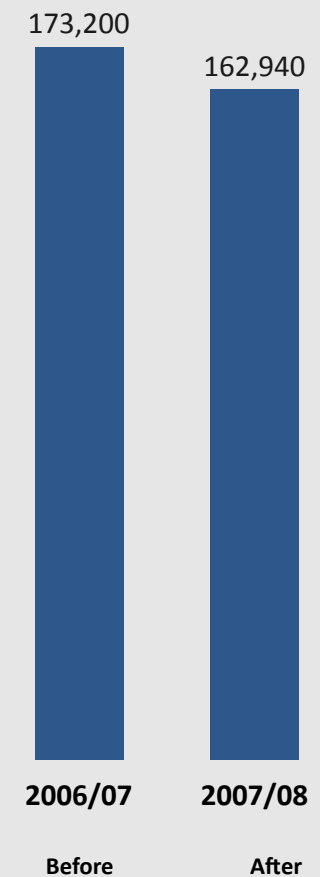
Library circulation for the hard copy versions of the JISC e-books, as measured by total days off the library shelf, fell by six per cent between 2006/07 (before) and 2007/08 (during the Observatory project). This is statistically insignificant, and there is no evidence of any systematic impact of e-books on the print circulation of the JISC e-books .

A typical hard copy loan title was out on loan for 51.5 days in 2006/07 and for 47.4 days in 2007/08, the slight easing on 'loan pressure' being due to a net increase of around two per cent in the number of loan copies available. Evidently, libraries still continued to purchase hard copy.

There appears to be a consistent relationship between print circulation and electronic access, irrespective of publisher or subject. Expressed as an informal rule of thumb, for every two-week loan one would expect to see 50 electronic sessions. Seen in this context, free-at-the-point-of-use course text e-books do not seem to have led to massive consumption - the cookie jar was not raided!

These findings tend to support a view that librarians often articulated: that they believe in a mixed economy for hard copy and course text e-books. The two formats appear, from this evidence, to be complementary and to stimulate overall use for the content.

Impact on hard copy circulation
Total loan days at 37 universities



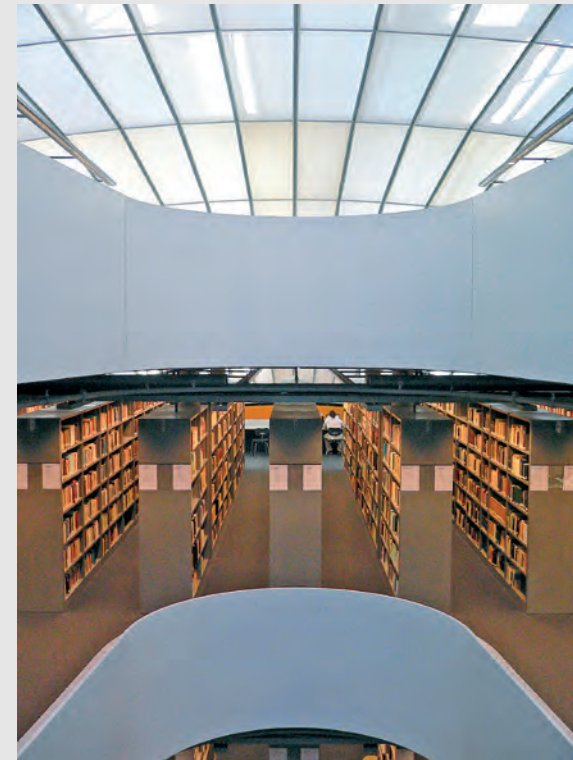
The library perspective 5 of 5

How e-books fit in to the library experience

The availability of electronic book content has the potential to transform the library experience of many hundreds of thousands of users. Library-provided course text e-books are growing in popularity and, given the right titles and the right support, some titles are already making a major and unique contribution to learning and teaching. They are especially valued off-campus to extend the physical and temporal boundaries of the traditional library. They are very helpful to librarians as they can not be vandalised or stolen and they offer a vital 'safety valve' for coping with demand peaks at critical points in the university calendar.

The evidence from this study suggests that course text e-books are being used differently from hard copy, and to support different kinds of activity: for fact checking, brief information, and as a source of valuable 'cut and paste' materials such as quotes, tables, images and bibliographic references. As such, they are not a direct substitute for the extended reading opportunities that hard copy still affords.

Library users inhabit a world of fantastic choice and diversity on the open web, and are hungry for digital content. Delivering the 'library of the future' requires the libraries and publishers of the future to offer access to many more course text e-books.



Another Day in the Library by Svenwerk
(Philology Library at the Free University, Berlin)
Creative Commons

Study findings: the publisher perspective

New opportunities, new challenges (CIBER)

The publisher perspective 1 of 6

The student market for course texts

In the traditional hard copy only model of textbook publishing, sales directly to students typically account for between 70-90 % of publishers' revenues, the rest being derived from institutional sales, including academic libraries. It is difficult to quantify the UK market value for textbooks for a variety of reasons, not least issues of definition and uncertainties about the size of the second hand market, but the figures below are broadly indicative of a problem facing publishers:

Trends in the UK market for textbooks

Current prices

Year	2003/2004	2004/2005	2005/2006	2006/2007
University and HE College libraries (a)	£50.1m	£50.4m	£50.1m	n.a.
UK under-graduates (b)	n.a.	£219.5m	£218.0m	£209.2m

Sources: (a) The UK Book Publishing Industry in Statistics 2008 (Publishers Association). (b) Academic and Professional Market Statistics 2009 (Publishers Association)

Sales are relatively flat and the continuing pressures on student disposable income make it unlikely that this trend will change substantially in the immediate future. Official figures from the Department for Innovation, Universities and Skills (DIUS, opposite) show that full time students spend around £130 each year on course textbooks.

This figure has declined by nearly a fifth since the previous survey (2004/05) and students reported their inability to afford textbooks as a major stress factor.

Total student direct course costs

Average spend in sterling by home students, 2007/08 (n=2,336)



Source: Student Income and Expenditure Survey 2007/08 (Department for Innovation, Universities and Skills, April 2009).

Library budgets for books are also getting very thinly stretched, not least because of the upward pressure on journal prices and exchange rate issues.

Staying still is not an option. The pressure to find viable and sustainable business models for course text e-books is likely to intensify, as consumer expectations for immediate access to digital content continue to rise.

The publisher perspective 2 of 6

Use of JISC e-books by subject area

CIBER studies have consistently shown that information-seeking behaviour and use varies, often significantly, by subject discipline.

The five business and management titles proved the most popular offering of the JISC e-books, accounting for about 45% of all use on the back of just 19% of the titles. The seven media studies e-books also 'punched above their weight', with 31% of use and a quarter of the titles. Engineering titles, which made up about half (53%) of the JISC e-books generated less than a quarter (22%) of use.

Small, but statistically highly significant, subject differences were evident in this study with regard to:

- ★ *Seasonal patterns:* use of business and media studies titles peaked at different times of the year: business in August and media studies in April.
- ★ *Page view times:* around 50% of media studies users viewed pages for less than five seconds, a very high percentage. In contrast, engineering and business users spent much longer.

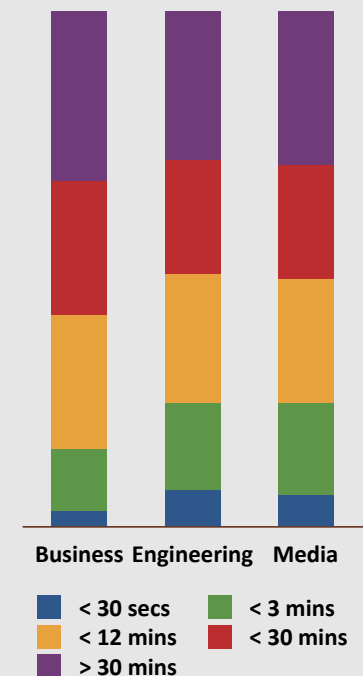
★ *Typical session lengths:* as can be seen opposite, users also differ in terms of typical session length, with 59% of business session lasting for more than 12 minutes compared with 51% when engineering or media studies books were viewed.

★ *Location:* business users are far more likely to conduct e-book sessions off campus, media studies users far less likely.

These differences reflect different styles and patterns of work and different ways of consuming e-content. For example, we know that many business students are part-time or distance learners and spend much of their study time off campus. In contrast, engineering students spend a great deal of their time in practical laboratory sessions and may even access course text e-books from there.

More research is clearly needed on what users actually do while they are conducting an e-book session (JISC has recently commissioned an observational study of all e-resources to explore this in more detail for business students).

Session lengths by subject
Percent of MyiLibrary sessions



Subject differences are real. Business models and publishing priorities need to reflect these variations to enhance the user experience.

The publisher perspective 3 of 6

Use of JISC e-books by title

There was considerable variation, as might have been expected, in the comparative levels of electronic access for the 26 titles available through the MyiLibrary platform (opposite). Some titles clearly dominated: in fact, the top five titles attracted more than half (52%) of all use.

Business and management titles proved the most popular with all five titles featured in the top ten most used JISC e-books. Media Studies were also popular with 3 titles in the top ten and all seven in the top 20. The usage figures for engineering titles are comparatively low, with just two titles in the top ten.

Over the course of the Observatory project, sixteen of the JISC e-books featured in the top 50 most used e-books across a control sample of 10,000 other e-books on the MyiLibrary platform.

Interestingly, JISC e-books seem to have been used slightly differently: typically, they attracted fewer page views per title and sessions were considerably shorter.

This project has demonstrated that course text e-books, if they are the right ones, can be very popular with library users.

Use of JISC e-books

MyiLibrary platform, November 2007 to December 2008, page views

Title	Page views	% total use
<i>Organisational Behaviour and Analysis:</i>	82,787	10.9
<i>Media Gender and Identity</i>	81,205	10.7
<i>Management Concepts & Practices</i>	77,746	10.2
<i>Integrated Marketing Communication</i>	77,298	10.2
<i>Marketing Strategy & Competitive Positioning</i>	74,018	9.7
<i>Cinema Studies: The Key Concepts</i>	62,574	8.2
<i>Power without Responsibility</i>	42,013	5.5
<i>Chemical Engineering Volume 6: Chemical Engineering Design</i>	36,541	4.8
<i>The Dynamics of Employee Relations</i>	31,833	4.2
<i>Engineering Materials 1</i>	27,634	3.6
<i>Public Relations Handbook</i>	23,584	3.1
<i>Structural and Stress Analysis</i>	18,608	2.4
<i>Chemical Engineering Volume 2</i>	15,112	2.0
<i>Media Institutions and Audiences</i>	14,623	1.9
<i>Measurement and Instrumentation Principles</i>	13,273	1.7
<i>Aerodynamics for Engineering Students</i>	12,391	1.6
<i>Engineering Materials 2</i>	11,319	1.5
<i>English for Journalists</i>	9,676	1.3
<i>Writing for Journalists</i>	9,620	1.3
<i>Fundamentals of Wireless Communication</i>	8,883	1.2
<i>Modern Structural Analysis</i>	8,264	1.1
<i>A Short Course in Foundation Engineering</i>	5,725	0.8
<i>Better Places to Live</i>	5,001	0.7
<i>Conceptual Structural Design</i>	4,944	0.6
<i>A Short Course in Soil and Rock Slope Engineering</i>	3,736	0.5
<i>Better Places to Work</i>	2,944	0.4
Total	761,352	100.0

The publisher perspective 4 of 6

The impact on print sales

During the course of the Observatory project, publishers brought out new print editions of eight of the titles included in the Observatory project. Excluding these, so that a direct comparison can be made, UK print sales for the remaining 28 titles fell by 14.2% between 2006 and 2007 (before the Observatory project) and by 7.5% between 2007 and 2008. This finding is statistically insignificant: the difference between these two sets of figures could be explained by random variation. However, there are some indications that 2008 sales held up better than predicted based upon sales of a basket of similar print titles provided by Nielsen BookData UK (opposite).

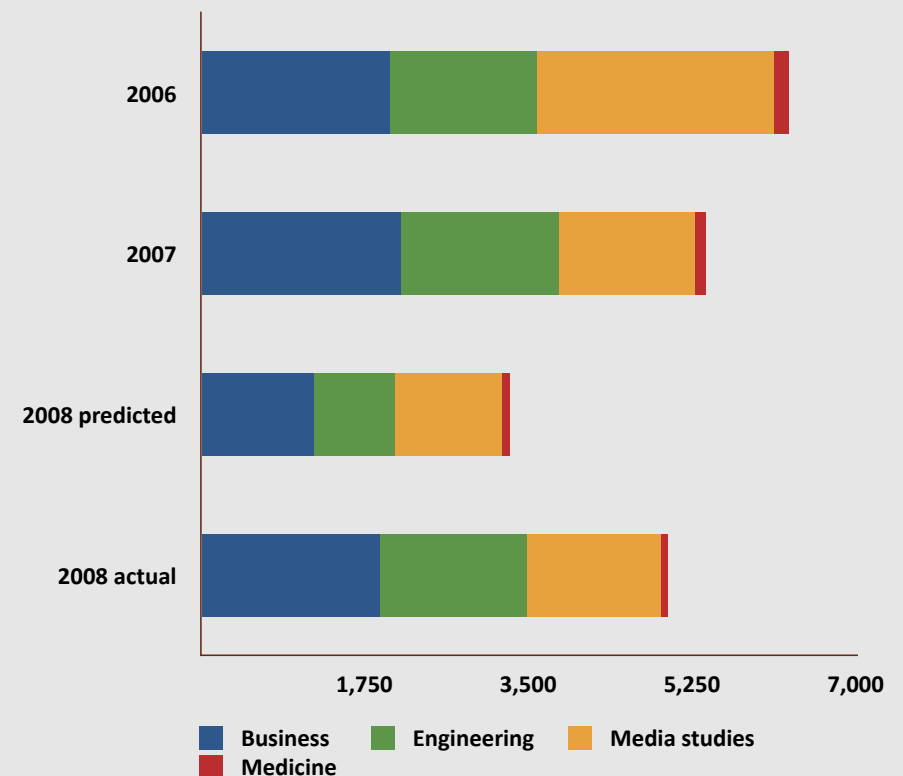
The JISC e-books represent around one per cent of total UK sales volume in their respective print markets, and the deep log analysis study ran for a little over a year, so it is difficult to generalise outside of this context. This study shows that, so far, it is unlikely that free-at-the-point-of-use course text e-books have materially impacted UK print sales.

There are no short-term indications that free at the point of use e-books made available through the university library impact negatively on print sales to students. Currently course text e-books are supplementary to print: electronic versions are used for quick fact extraction and if the user wants to read at length they may well still purchase the print edition.

I'm used to using electronic resources but for sort of 'sound-bites' or for an input of a particular bit of information, whereas I use [print] books in a more general way – I absorb the information over a section (Academic)

UK print sales (copies sold to individual consumers through a panel of retail bookshops and e-retailers; same editions) for the 36 books included in the study

November 2007 to December 2008 (Data provided by Nielsen BookData UK).



The publisher perspective 5 of 6

The impact on print sales

As we have seen, when compared to a basket of similar titles, UK retail print sales probably held up rather well over the period of the Observatory project. When we focus on the ten most highly used titles (opposite), we find in these cases that, with two exceptions, print sales were actually very positive.

Although there is no evidence of any correlation between electronic usage and sales of the print edition (we are dealing cautiously, given the small numbers), neither is there any evidence that library-licensed course text e-books are likely to lead to a decline in print sales.

Evidence from other studies, such as that carried out by the Royal Society of Chemistry, are consistent with the message here: e-books are not necessarily a threat to hard copy sales and, in certain situations, may actually boost them.

Clearly, there is much more to learn here and JISC Collections is testing this issue further through a series of business model trials with publishers, e-book aggregators and libraries.

Print sales and e-book use 2008

Expected and actual UK print sales ranked by e-book usage (Data provided by Nielsen BookData UK)

Usage rank	Title	Expected sales	Actual sales	Difference
1	<i>Organisational Behaviour and Analysis</i>	271	883	+612
2	<i>Media, Gender and Identity</i>	213	291	+78
3	<i>Management Concepts and Practices</i>	191	360	+169
4	<i>Integrated Marketing Communication</i>	572	741	+338
5	<i>Marketing Strategy and Competitive Positioning</i>	337	640	+641
6	<i>Cinema Studies: The Key Concepts</i>	336	508	+172
7	<i>Power without Responsibility</i>	561	528	-33
8	<i>Chemical Engineering, Volume 6</i>	219	317	+98
9	<i>The Dynamics of Employee Relations</i>	352	283	-69
10	<i>Engineering Materials, Volume 1</i>	206	417	+211

The publisher perspective 6 of 6

What makes a good e-books platform?

*Effective promotion can only be done on effective products
(Librarian)*

From our research we conclude that, to be effective, a good e-books platform should offer:

- ★ easy discovery via the library catalogue or via a popular external search engine such as Google Scholar.
 - ★ a critical mass of relevant course text e-books to encourage library users to look in the first place.
 - ★ the most recent edition of the course text available without embargo.
 - ★ avoid the use of over-restrictive digital rights management (DRM) technologies and harsh copyright warnings that simply frustrate and scare users, turning them off.
 - ★ high quality software features that enable enlarging, hyperlinking, and the inclusion of audio and visual material.
 - ★ a fast environment in which pages load quickly.
 - ★ good use of the available screen space: not too cluttered and allowing a large proportion of the `printed page` to be visible.
 - ★ users with print related disabilities the ability to personalise the e-books interface and manipulate the content to meet their particular needs.
 - ★ assurances and continuity of access to all e-books purchased.
- ★ finally, and above all, be flexible and developed on principles of user centred design - users should not need to be trained to use an e-books platform, no-one receives training to use Amazon!

Publisher and aggregator platforms need to conform to a common set of standards that allow users to access all content, e-books, e-journals, images, etc., easily and intuitively.

Libraries, publishers, aggregators and users need to collaborate to make this vision a reality.



Dyslexia by Tiberiu Anu
Creative Commons

Recommendations for further research

Creating the evidence base to make e-books a productive reality (CIBER)

Recommendations for further research

Where next?

Further research is need on the following areas as a matter of priority:

- ★ Despite massive investment across the higher education community, and society in general, we know very little about how electronic content is read (or viewed). Assumptions about information structure and design that carry over from the print era may or may not be valid for the digital consumer. We simply don't know what good information design means in this new era because the research and evidence base is inadequate. Studies (empirical and conceptual) around the notion of 'online reading' and its implications for learning and information retention are needed. One such project would be to investigate the differences between the electronic and printed textbook in supporting learning.
- ★ Further user centred research on interface design is critical if screen-based e-books are to be as useful in practice as they are in theory. Considerable evidence exists that current designs are sub-optimal and, in all probability, a stumbling block that is holding back the development of the market. Get to know your users!
- ★ Deep log analysis reveals considerable subject diversity in information seeking behaviour with respect to e-books. More research here could be very helpful in guiding research questions for the previous item.
- ★ We know very little about student purchasing behaviour with regard to course texts in either print or electronic forms, nor how far the second hand market and clubbing together to buy textbooks impact sales. Market research here would be of great value to librarians as well as publishers to embed changes.
- ★ Virtual learning environments (VLEs) and online reading modules offer exciting new modes of learning and, potentially, new markets for e-content. But our understanding of a whole range of issues needs to be clarified: the interface between librarians, technical staff and academics is often unclear, as are the appropriate business models and licensing arrangements.
- ★ Critically, we need more research into course text e-books business models that are predictable, simple to understand, cheap to administer and that offer value for money and sustainability for both sides of the agreement (including archiving issues).
- ★ Given the reported confusion that students experience when trying to access e-books, we need to determine how students actually employ OPACs, federated search and library web portals to access the e-resources made available to them.

Stakeholder recommendations

A response to CIBER's findings by the JISC E-books Working Group

Stakeholder recommendations 1 of 6

A response to CIBER's findings by the JISC E-books Working Group

Since 2002, the JISC E-books Working Group has been meeting with publishers, undertaking studies and exploring new licensing and technical standards in order to champion the availability of course text e-books through the university library.

Why? Well because librarians want to provide equity of access to course texts to all their students and staff. In 2007, the Group released its Vision:

The UK education community will have access to quality e-book content that is of high relevance to teaching, learning and research across the broadest range of subject areas.

Flexible business and licensing models will support a diversity of needs, allowing users to do what they want when they want and how they want for educational purposes. All e-books will be easily discoverable and consistent standards will allow all content to be fully integrated into library, learning and research environments.

E-Books Working Group 2007

The Vision led to the JISC national e-books observatory project, the largest evidence base on e-books in UK. Drawing on this huge evidence base, findings of previous reports and their own expertise and experience, the Group presents their recommendations to stakeholders.

These recommendations are practical and constructive. If we continue to work collaboratively, to share ideas and solutions it is possible to not only achieve the Vision but to improve upon it.

Caren Milloy

JISC national e-books observatory project manager

Stakeholder recommendations 2 of 6

A response to CIBER's findings by the JISC E-books Working Group

Some headline statements:

1. The Observatory project presents clear evidence that the university library has a role to play in the supply chain for course text e-books.
2. Library licensed content will increasingly compete for attention against content on the open web.
3. The digital information landscape is confusing. Academic literacy training and clear standardised signage is required to make discovering, accessing and using e-books (and all e-content) a simple process.
4. The user experience associated with e-books can be improved. A good experience is key to brand recognition and customer retention; both for the library and for the publisher/aggregator.
5. The availability of all course texts online combined with intuitive platforms will foster high levels use and increase the adoption of course text e-books in teaching and learning. This in turn will provide equity of access to all users and increase student satisfaction.
6. The current fragmentation within the e-books supply chain stifles its growth. The future of e-books, whatever that may be, requires sharing of knowledge and information.
7. The Observatory project has provided a huge evidence base of user behaviour. The course text e-book market is still in its 'teenage years' but by harnessing the evidence base and through continual collaboration between all stakeholders, the market can mature quickly and in line with user expectations.

It is within the context of the findings reported and the above statements, that the following recommendations are made.

Stakeholder recommendations 3 of 6

A response to CIBER's findings by the JISC E-books Working Group

Finding and buying course text e-books

As shown in the Observatory project, librarians want to buy e-books / course text e-books to provide equity of access. Currently librarians have to go to a variety of sources to find out if the course text e-books they want to purchase are available, how much they cost, in what formats they are available and on which platforms. Publishers, e-book aggregators, e-book vendors, bibliographic services and libraries need to coordinate to create a 'one stop shop' for this information. This service will enable more e-books to be bought.

With 65% of the academic population using e-books, e-books are set to become mainstream. It is important that teaching staff, who are central to the use of course texts by students, liaise with their library to recommend course text e-books for purchase.

Library budgets and publishers' revenue are increasingly under pressure. Prices that are affordable for libraries and profitable for publishers and aggregators is essential. Publishers and e-book aggregators should be encouraged by the findings of the Observatory and look to expand and build upon their sales of course text e-books.

Despite the increase in the amount of course text e-books available for purchase by libraries and students, there still remains a lack of critical mass of titles relevant to UK courses. In addition, librarians often still see the latest edition only available in print rather than electronic. Publishers are encouraged to make all their course texts available electronically.

The imposition of VAT on digital content is a significant obstacle to the development of a marketplace for e-books and everyone should lobby for zero rating on e-books.

Licensing course text e-books

Publishers, e-book aggregators and librarians should work with JISC Collections and the Publishers Association to reach agreement on a common set of licensing terms and conditions for course text e-books that are easy to understand. This would help reduce the large amounts of time and effort that is spent on licensing and also enable librarians to better promote to their users what can and can not be done.

Archival access and continuity of access to licensed e-books was a concern of the library community. This warrants further discussion by publishers, e-book aggregators and libraries and requires the development of a transparent policy and the inclusion of relevant clauses in e-book licences. This work should be led by JISC Collections and the Publishers Association.

Stakeholder recommendations 4 of 6

A response to CIBER's findings by the JISC E-books Working Group

Standards

It is extremely important that course text e-books are accessible to all users. Users with print related disabilities currently face problems in accessing and personalising the text and reading interface and this has to be resolved quickly. Publishers and e-book aggregators should take on board the comments from the Observatory project and liaise with institutions and JISC TechDis in order to ensure that platforms are accessible to all users with print related disabilities.

Librarians and publishers wish to accurately assess the usage of course text e-books to develop pricing models and to calculate value for money. COUNTER is the set of standards and protocols governing the recording and exchange of usage data. All publishers and e-book aggregators should become members of COUNTER.

The COUNTER Code for E-books needs to be developed in line with actual user behaviour to work out what is the best and most realistic way of counting usage for course text e-books.

Publishers should include their book content in plagiarism checking services to aid the identification of plagiarism in student work. Doing so would aid teachers and help to increase student's understanding of ownership of content.

Digital rights management (DRM) systems should either be removed or developed in line with actual user behaviour.

Metadata issues

In order for a central e-books catalogue - a one stop shop - to be created, quality metadata must be supplied and an agreement on the identification processes for e-books such as the use of an ISBN for each format and platform must be accepted by all in the industry. This is also a recommendation of the recent Research Information Network report 'Creating catalogues: bibliographic records in a networked world'.

Publishers and aggregators should collaborate with libraries and library management system providers to develop and implement metadata standards that will support the discovery of e-books by users, whether via the library catalogue or other discovery tools. Such metadata is essential in providing clear signposts as to what content is available.

Discovering course text e-books

The results from the Observatory project show that users were confused by the multiplicity of access routes to e-books (catalogue, web page, federated search...) and struggled to understand what e-content the library was making available to them. Librarians should harness the wealth of comments and feedback gathered in this project to develop library resource discovery strategies in line with user needs and expectations. This will also involve discussions with library management system providers, publishers, e-book aggregators and keeping abreast of the innovative developments in library catalogues.

Stakeholder recommendations 5 of 6

A response to CIBER's findings by the JISC E-books Working Group

Academic search engines such as Google Scholar are rapidly becoming the discovery tool of choice for many students and their teachers: Publishers and e-book aggregators should focus on opening up content for indexing as this is essential to discovery.

Teaching staff should continue to be proactive in adding course text e-books to online reading lists and VLEs to aid their students to access course texts at a time and place convenient to increasingly busy users. Whether the student then uses the electronic copy or uses the print in the library, purchases a print or electronic copy or shares a friends copy is up to them.

The successful incorporation of e-books into VLEs requires greater co-operation and dialogue between librarians, learning technologists and academic staff. Understanding the processes involved in selecting, licensing, adding and removing course text e-book content from the VLE is necessary for all involved. The library can coordinate the sharing of this knowledge.

Promotion

The Observatory project demonstrates that active promotion leads to higher use. Librarians should share best practice for promotion of course text e-books and engage with their teaching staff and students.

Publishers are encouraged to develop marketing materials for e-books that can be customised and repurposed by librarians to suit a variety of audiences.

CIBER research into the digital consumer strongly suggests that users no longer have any real sense of "collection" in the electronic library: materials are often lodged in inappropriate silos that reflect library and publisher workflows rather than in coherent collections meaningful to users. Librarians need to develop branding strategies that align with academic literacy, promote quality and trust and fit with the mental maps of users.

Using course text e-books

The results from the Observatory project show that users experienced a number of problems using e-books and their interfaces. Publishers and e-book aggregators should harness the research provided by this project to ensure that user expectations are met in the academic environment.

Publishers and aggregators should invest further in user-centred design and testing to find out how users actually want to use course text e-books and what tools they value. Understanding user behaviour is essential to this process and we hope that the results of this project will be useful.

Stakeholder recommendations 6 of 6

A response to CIBER's findings by the JISC E-books Working Group

The authors of course texts are often teachers within universities. Teaching staff should work with publishers to develop course text e-books in line with the expectations of users, harness the data provided in this project in the design and development of e-books and urge their publishers to make course text e-books available through the library.

Training

Until discovery methods and e-book platforms become intuitive, librarians will need to continue to provide training to their users. There was a high call for this in the user focus groups.

Teaching staff and librarians need to continue to teach academic literacy to their students to ensure that they use course text e-books well and understand issues of piracy, plagiarism and copyright.

Collaborate and experiment

The speed with which the e-books market is developing means that librarians can struggle to keep up to date with valuable news and information, for example on the potential impact of the proposed Google Books Settlement. Organisations such as JISC and JISC Collections should work to gather information into one central location and disseminate to universities.

Publishers and aggregators are encouraged to share good practice across all areas to help overcome the current fragmentation in the market and supply chain. This includes sharing research with one another and with the library and academic communities.

The development of shared service with a suit of tools to analyse COUNTER statistics for e-books and establish value for money would be of high value to the library community in the current economic environment.

Librarians and publishers should continue to experiment with e-book business models and access models. Sharing ideas, suggestions and results of internal projects will be essential when dealing with the expectation of accessing course text e-books on portable and mobile devices.

Background notes

Research design and further information (CIBER)

Background notes 1 of 4

Research design

Deep log analysis

Deep log analysis is a proprietary CIBER methodology that helps librarians, publishers and other suppliers of web-based content to a better understanding of how consumers actually use their services. By analysing raw transactional server-side logs, CIBER is able to develop a series of user metrics that describe how users interact with the system: for example, session length, numbers of content or other pages viewed, whether or not an internal search engine was used, which titles and subjects were viewed, and when an access took place. This data reflects what people actually do online: not what they think they did, and not what they think they ought to say to a researcher. A further advantage of deep log analysis is that it is possible to avoid sampling biases and errors: CIBER analysed use of all the e-books (including JISC e-books) on the MyiLibrary platform throughout the Observatory project.

User surveys

Two large-scale online user surveys were conducted in the period January to March in 2008 and 2009, with the earlier survey forming a benchmark against which to monitor change.

The questionnaire was piloted extensively and distributed to participating libraries as a web link to the survey database (Survey Monkey Professional). Libraries used a variety of methods to disseminate the invitation to join the survey: from direct mailings to links on library home pages or inclusion in staff and student newsletters. The exercise generated 52,154 usable responses, making it almost certainly the largest survey into e-book use, attitudes and behaviour ever conducted. Although the sample frame is a convenience sample, the size of the response and its demographic profile, mean that we can be pretty sure that the findings reported may be generalised across the whole UK higher education sector.

Library circulation of hard copies

Data on numbers of loan copies of the equivalent printed course texts were collected from a sample of 37 universities for the academic years 2006/07 (i.e. before the Observatory project) and for 2007/2008, again using an online survey method. Since different institutions have different loan periods, a pragmatic decision was taken to record loan days (the total number of days that loan copies - of any status - were off the shelf and being borrowed) as a standard across institutions.

Background notes 2 of 4

Research design

UK print sales

Data on UK retail print sales at title level were supplied by Nielsen BookScan UK for calendar years 2007 and 2008. In practice, the JISC e-books did not come fully on stream until early in 2008, so 2007 can reasonably be regarded as 'before the experiment'. The sales data refer to UK sales of new copies though a panel of major booksellers, including Amazon. No information was available on the second hand market, although this is likely to be a significant influence on purchasing behaviour.

There are many unknowns when we consider print sales, quite apart from the impact of the second hand market. Generally speaking, course texts undergo a process of attrition after their sales peak, typically in year two. The rate of attrition is determined by a range of factors, including the appearance of new competing titles, backlisting, and, of course, variation in demand as courses and modules are introduced, change, or are withdrawn.

To provide a valid basis for understanding print sales in 2008, and any potential impact of the Observatory project, we compared sales of each title with a basket of similar course texts: those that were published in the same subject area in, say, 2004, that were still available in a 2004 edition. This offers an industry benchmark against which any changes in sales volume for the JISC e-books could be compared.

Interviews and focus groups

Qualitative data enrich, and provide explanations to underpin, raw quantitative data. They offer human reasons for actions observable in the deep log statistics.

On the basis of the deep log data, eight universities were initially selected by CIBER as case studies for interviews and focus groups by Information Automation Limited. A further seven institutions were added for the student and academic focus groups. The first part of this study was to investigate the issues surrounding the acquisition of e-books from a library collection management perspective. This component, which involved depth interviews with a range of library staff, explored: selection; licensing and pricing models; cataloguing and MARC records; ways of accessing e-books; promotion; evaluation; and the software interface.

The other component, interviews and focus groups with students and academic staff at the case study and other institutions, aimed at a better understanding of: work patterns as they relate to e- and p-books; attitudes to reading; selection (teachers only); location and content discovery issues; added-value and on-screen design issues; impacts on teaching and learning; users' views on the promotion of e-books; purchasing behaviour (students only).

Setting the scene 3 of 4

Definitions and study limitations

Definitions

The JISC national e-books observatory project is referred to in this report as the **'Observatory project.'**

The **'JISC disciplines'** are business and management studies, engineering, medicine and media studies.

Where the term **'e-book'** is used, it refers to generic e-books available via the library, retail channels or on the web.

Where the term **'course text e-book'** is used, it refers to electronic versions of course texts that support taught course students (e.g. undergraduates)

Where the term **'JISC e-book'** is used, it is specific to the 36 titles licensed for the Observatory project.

CIBER was provided with the raw server logs for the other e-books available on the MyiLibrary platform that were actively being used by the 127 universities. This was about 10,000 e-books and provided a control group against which use the JISC e-books could be compared. These are referred to as the **'non JISC e-books'**.

Study limitations:

The number of JISC e-books is relatively small (36), however the evidence base of use is large (127 universities).

The Observatory project did measure the impact on retail print sales to students when they are provided with free at the point of use access via the library. It did not measure institutional sales to university libraries or library purchasing behaviour.

Deep log analysis was undertaken on the 26 business and management, media studies and engineering JISC e-books on the MyiLibrary platform. Unfortunately, due to technical issues at Wolters Kluwer / Ovid, CIBER was unable to undertake a deep log analysis of the medical titles.

The number of participants in the student and academic focus groups is smaller than was originally set out however the level of detail gathered in the focus groups was high.

The print sales analysis used Nielsen data rather than data supplied by the publishers involved in the project. Nielsen's methodology is transparent and reflects actual retail sales and provided consistency for analysis.

Background notes 4 of 4

Further information

Further information on the Observatory Project and all reports are available at www.jiscebooksproject.org

- ★ JISC national e-books observatory project, Key Findings and Recommendations, Final Report, November 2009
- ★ Scholarly e-books usage and information seeking behaviour: a deep log analysis of MyiLibrary, Final Report, CIBER
- ★ Headline findings from the user surveys, CIBER
- ★ Assessing the impact of electronic course texts on print sales and library hard copy circulation, CIBER
- ★ E-book use by academic staff and students in UK universities, Focus Groups Report, Information Automation Limited
- ★ E-book collection management in UK universities, Focus Groups Report, Information Automation Limited
- ★ Establishing methods for future studies on the impact of e-books, Information Automation Limited

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