E-book usage: counting the challenges and opportunities

August 2017
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1 Executive summary

1.1 Introduction

Data are increasingly driving decision-making, supporting policy development across a range of organisations. In an academic context, data are key, enabling evaluation of content and services and supporting efficient use of limited resources. Across academic libraries, a growing proportion of an increasingly stretched budget is being spent on e-resources each year. Within this context, demonstrating a return on investment is imperative but gathering data about e-resource usage, particularly the use of e-books, is not always easy. Assessing and evaluating e-book usage is a complex and challenging task with processes and workflows in development. A transition from print to e-books represents a significant change for libraries, and the availability of reliable usage statistics to support purchase decisions is vital. Libraries require access to consistent and reliable data and effective tools to help analyse the value and impact of e-resources.

This research sought to understand some of the challenges in this space, whilst trying to identify some opportunities for change. Understanding challenges of global concern, and requiring global solutions is the focus of this report. This research outlines how libraries and library consortia are acquiring and evaluating e-books, how usage statistics feature within library workflows, the issues faced in doing so and the resulting impact of these issues on understanding usage and informing purchasing of new titles. From a publisher perspective, this report indicates how usage data are being used within the organisation, the requirements of customers and the challenges involved in providing usage data for e-books.

The impetus for this work originated from development of Jisc’s library analytics resource, the Journal Usage Statistics Portal (JUSP). JUSP aims to remove some of the pain associated with managing usage data by offering librarians access to accurate and comparable statistics to analyse the value and impact of their e-resources. Whilst extending JUSP’s remit beyond journals to include e-book usage statistics in 2016, challenges affecting the development, delivery and management of consistent e-book usage data and effective services became apparent. Implementation highlighted a general lack of clarity and consistency around treatment of usage data for e-books. At the same time, it was abundantly clear that there were significant opportunities for greater standardisation, communication and collaboration in this area. Subsequently, work to explore issues and challenges in more depth and to identify opportunities got underway.

1.2 Scope and approach

Although primarily focused on e-book usage data, it is apparent that libraries need to access a range of supporting and contextual data in order to evaluate e-resources and make decisions based on that data. Therefore, it was necessary to consider e-book usage data within a broader context for the purposes of this research. Case study participants were asked to consider a broad range of questions as seen in Appendix C of this report. However,
some topic areas particularly resonated with case study participants and this report reflects those views and concerns. The scope of this study is not intended to be completely exhaustive but rather to reflect the perspective of those consulted during this research and the themes that emerged. The focus is primarily on usage data as opposed to aspects such as learner analytics or user-centred data which were outside scope. Although the study focused on a small number of case studies the interviews revealed both similarities and a divergence of opinion with regard to certain aspects.

At the outset, a literature review aimed to explore current global and predicted trends over the next 3-5 years while maintaining a focus on e-books and usage data in an academic context. The review also aimed to consider different purchasing and business models, including consortium purchasing and to reflect usage data requirements both in the UK and globally.

This review augmented some of the themes that emerged during an e-book usage statistics forum held in London in July 2016. These themes were explored in more detail through a series of case study interviews. As the nature of e-book publishing and distribution is global in nature, the case studies attempted to reflect the situation by including participants from a small cross-section of library consortia, academic libraries, publishers and aggregators in the UK, US and Australia.

» Representing UK academic libraries and UK library consortia
  » The Open University
  » Brunel University
  » University of Hull (representing the Northern Collaboration)
  » Scottish Higher Education Digital Library (SHEDL)

» Representing US library consortia
  » Pennsylvania Academic Library Consortium, Inc. (PALCI)

» Representing Australian academic libraries and Australian library consortia
  » The University of Melbourne, University of New South Wales; and University of the Sunshine Coast. These are all members of CAUL (Council of Australian University Librarians)

» Representing Content aggregators
  » Askews and Holts

» Representing Publishers
  » Springer-Nature
  » Oxford University Press (OUP)
1.3 The e-book market

Research indicated the growing importance and use of e-books in academia, with a higher proportion of the monograph budget now being spent on e-books and policies that prioritised e-book purchases over print. However, the area of e-books is one filled with complexity from the perspective of acquisition, management and evaluation.

Libraries and consortia in this study were using a wide variety of models including individual title purchase, subject collections, subscriptions, approval plans, Evidence Based Acquisition or Selection (EBA or EBS) and Patron Driven Acquisition (PDA) also referred to as Demand Driven Acquisition (DDA). A description of these terms as we have used them in this report can be found in the glossary. They were using a mixture of purchasing models from both publishers and aggregators and cited advantages and disadvantages of different approaches. Amongst libraries, collections or titles acquired directly from publishers were favoured in some cases as there were no usage caps on licences, and their platforms were generally free from Digital Rights Management (DRM). There was also a preference for definitively owning items. However, aggregators can offer books from a range of publishers on a single platform, and in some cases, they are the only available source for an online version. Libraries also benefit from automated purchasing workflows and discount pricing when part of a consortium. Agreements negotiated with purchasing consortia would also determine which approach offered the best value for money.

1.4 Usage data

The type of purchase model influences approaches to analysis and evaluation of content, with robust data seen as critical to decision making processes.

Publishers and aggregators participating in this study highlighted the importance of consistent and trustworthy usage statistics and reliable data. They highlighted the ways in which they support library customers such as calculating cost per download to indicate value for money, investigating usage patterns to identify system issues or changing user behaviour, and reporting turnaways to identify titles in demand and make subscription suggestions.

Libraries and library consortia were found to be collecting a range of usage statistics in order to conduct tasks such as assessing titles for purchase or promotion, or institutional reporting on usage of resources to demonstrate value. In the UK, submitting data for the annual SCONUL return was also important. Usage statistics were collected to evaluate the different purchase models used. This was seen by some libraries as especially important for PDA as money taken from the budget required regular reporting.

A requirement for comparable usage data indicates a preference for COUNTER compliant usage reports, which are used to show patterns of use, either snapshots or longer term trends. The increasing use of turnaways to support reporting, new purchase decisions or upgrades was apparent from many of the library case study interviews and from suppliers.

In consortium deals where usage may be one of the factors affecting how much members pay, data are an important element and reviewed regularly.
1.5 The challenges

The move to e-books represents a more fundamental change in the way libraries operate than the move to e-journals some years ago. It also presents far more challenges, which can be summarised as follows:

**Standards**

1. COUNTER-compliant usage data not available for all products and services making accurate usage comparison impossible across some suppliers
2. Release 4 of the COUNTER Code of Practice leads to incompatibilities in BR1 & BR2 reports
3. Lack of canonical identifiers has an adverse impact on work processes, making the process of matching up titles from different sources time consuming and leading to inaccuracies
4. Work processes for libraries and suppliers surrounding analysis and evaluation of usage data are often manual and labour intensive
5. Efficient and effective workflows take time to establish and implement and a range of processes are required for varying acquisition models

**Communications**

6. Requirements of library customers may not always be fully understood by suppliers where there are national differences, e.g. national reporting requirements such as SCONUL in the UK
7. Library and supplier requirements and system limitations may not be fully understood or appreciated

**Collection management and analysis**

8. Lack of authoritative information about entitlements versus purchase models impacts upon understanding and analysis of usage data
9. Information about zero use of titles supports collection management and evaluation. However, the COUNTER book reports omit zero use

1.6 The opportunities

Each of the challenges identified presents an opportunity for action. A number of organisations will recognise the concerns expressed in this report and will have a role to play in helping to resolve some of the challenges. The report includes an action plan in section 7 which identifies the key players. These are outlined briefly below.

| Setting the standards | » COUNTER  
|                      | » NISO  
|                      | » KBART |
### Implementing the standards

- Suppliers

### Encouraging standards implementation

- Library customers
- Library and purchasing consortia
- Jisc through initiatives such as JUSP

### Communication

- Usus
- National reporting processes and organisations such as SCONUL, ARL and CAUL
- Jisc through initiatives such as JUSP

### Collection management and analysis

- KBART and KBART Automation
- Jisc’s Library Support Services
- National Bibliographic Knowledgebase

### Review of progress

Jisc plans to review progress in August 2019 against the actions set out in this report, maintaining dialogue with the key players identified in the interim.
2 Background and context

Against a backdrop of increasing pressure on library budgets, demonstrating a return on investment for costly e-resources is critical. Data are driving decision-making in libraries, supporting provision of appropriate, user-focused content and resources. However, whilst academic libraries are spending a significant and increasing allocation of their budget on e-books each year, gathering data about their use isn't always easy. Within this context, access to consistent data and effective tools is of paramount importance.

Jisc’s library analytics resource, the Journal Usage Statistics Portal (JUSP), aims to remove some of the pain associated with managing usage data by offering librarians access to accurate and comparable statistics to analyse the value and impact of their e-resources.² Initially focused on journal usage data, JUSP extended its remit to include an e-book usage statistics element from February 2016. This service enhancement highlighted several issues affecting development, delivery and management of consistent e-book usage data and effective services. This situation affects JUSP and the delivery of a usage statistics service to its users. However, the issues raised are not specific to the UK or the academic sector but are of global concern and require global solutions.

An initial step towards defining key issues with regard to e-book usage data was an e-books discussion forum which Jisc organised in July 2016, bringing together representatives of academic libraries, consortia, e-book platform aggregators and publishers, together with the Director of COUNTER, the organisation that provides the standard for consistent reporting of e-resource usage.³ The purpose of the forum was to work together in a supportive environment and plan actions which will advance clarity and consistency of e-resource usage data. During that meeting, attendees were supportive of the idea of further research around e-book usage which would seek to discover solutions to the challenges identified. This report outlines the outcome of that research.

This report will ultimately be of interest to anyone that has responsibility for creating, managing, developing, delivering and supporting usage statistics and standards for e-books.

2.1 Aim

The primary aim of this study was to explore issues surrounding e-book usage statistics from the perspective of academic libraries, publishers and aggregators. The research sought to identify global solutions to the problems by translating challenges into practical, actionable recommendations. The intended output of this research was a report involving a critical review of available literature, supplemented by a small number of case studies.

2.2 Scope

A literature review aimed to explore current global and predicted trends over the next 3-5 years while maintaining a focus on e-books and usage data in an academic context. The review also aimed to examine different purchasing and business models, including consortium purchasing and to consider usage data requirements both in the UK and globally.

As the nature of e-book publishing and distribution is global in nature, the case studies attempted to reflect the situation by drawing participants from a number of countries and a variety of institutions and suppliers.

Case study participants were asked to consider a broad range of questions as seen in Appendix C of this report. However, some topic areas particularly resonated with case study participants and this report reflects those views and concerns. The scope of this study is not intended to be completely exhaustive but rather to reflect the perspective of those consulted during this research and the themes that emerged. The focus is primarily on usage data as opposed to aspects such as learner analytics or user-centred data which were outside scope.
3 Methodology

A qualitative approach was employed to gather information to illustrate how libraries and library consortia are acquiring and evaluating e-books, how usage statistics feature within library workflows, the challenges and resulting impact as well as requirements for change. Discussions with e-book providers focused on how usage data are being used within the organisation, the requirements of customers and the challenges involved in providing usage data for e-books.

We therefore asked a small cross-section of publishers, individual academic libraries, e-book aggregators and library consortia to be interviewed. The interviews were conducted by telephone or Skype and followed a question framework (Appendix C) which had been sent to the participants in advance. A total of 9 interviews were conducted representing the following organisations:

» Representing UK academic libraries and UK library consortia
  › The Open University
  › Brunel University
  › University of Hull (representing the Northern Collaboration)
  › Scottish Higher Education Digital Library (SHEDL)

» Representing US library consortia
  › Pennsylvania Academic Library Consortium, Inc. (PALCI)

» Representing Australian academic libraries and Australian library consortia
  › The University of Melbourne, University of New South Wales; and University of the Sunshine Coast. These are all members of CAUL (Council of Australian University Librarians)

» Representing Content aggregators
  › Askews and Holts

» Representing Publishers
  › Springer-Nature
  › Oxford University Press (OUP)

The notes from each interview were developed as a case study which was sent to the participant for verification, approval and consent for them to be made public.
4 Literature review

The available literature around e-book usage statistics was reviewed to understand the current landscape. Several themes emerged and these are outlined below. Although not intended to be completely exhaustive, this review provides some context for the themes raised during case study interviews.

4.1 Global trends

There is no doubt that there has been an increase in the number of e-books in academic libraries over the past few years, with a higher proportion of the monographs budget now spent on e-books. The move to e-books has been slower to take off than the already established shift to e-journals though the two trends are closely linked.

According to a 2013 survey undertaken by Wiley, spending on e-books was expected to equal spending on print by 2016, and already approximately a quarter of a library’s book collection was digital.\(^4\) In the ARL statistics for 2013/14 the mean percentage of e-books as a total for the collection for 155 North American university libraries (including those with very large print collections) was 17%.\(^5\)

A series of reports were commissioned by EBSCO from Red Sage Consulting in 2012 looking at the future role of the academic library, access to content, the role of subscription agents and future forces for change.\(^6\) With the importance of electronic resources and bibliometric analysis, it sees an important strategic role for librarians and reports that important factors for librarians included recent usage by faculty and staff, value for money and cost per use.

In a white paper, ‘The costs of print book collections: making the case for large scale e-book acquisitions’, Springer compares the cost of physical storage to large scale e-book investment. They point out that digital collections see far higher use of titles as the content is more discoverable, with cost per use being easier to track than for print.\(^7\)

Another Springer White Paper presented highlights from a 2014 survey of 450 customers across the globe and asked respondents for their views on emerging library trends.\(^8\) Among these trends was the continued move to electronic, with over 30% of respondents predicting that between 50-90% of their library book collection would be electronic, and over 50% predicting that their journal collection would be nearly 100% electronic. It found that all major e-book business models were used, with e-journals still being considered a more stable format than e-books.

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ProQuest reports on a recent global survey of more than 460 librarians, 73% of whom came from North America and 11% from the UK. This survey looked at academic library book purchasing trends and pointed to the budget constraints that had led libraries to adopt demand driven acquisition. It found that libraries had not yet developed consistent practices to maintain this model and make collections more accessible while publishers purchasing models were still unpredictable. For example, ProQuest has over the past few years offered a range of different purchase models from Subscription, to Demand-Driven Acquisition (DDA) and Short Term Loan (STL), with evidenced-based models offered by various publishers. The results from the survey showed:

» The shift away from print is still a gradual one, with 54% of respondents still spending only up to 20% of their monograph budgets on e-books

» 70% of libraries were using multiple acquisition models, with 15% using four or more

» Among libraries using aggregators for e-book purchase, 76% used perpetual access title-by-title purchasing, 56% subscription, 48% use DDA purchase and 22% DDA STL

» 60% of DDA customers work with aggregators to build up their DDA plan, with detailed usage data to create an individual profile, whereas others convert approval plans to DDA or create their own profile

According to the survey, the shift to e-books was still in its early stages, with publishers searching for the right balance in pricing and access and libraries developing standard processes to support the various and changing business models.

The survey report ends with this conclusion:

> Evaluating usage on a regular basis and diversifying acquisition models will be key to delivering success and demonstrating value.

The move to e-books can thus be seen as representing a more fundamental change in the way libraries operate than the move to e-journals some years ago. It also presents far more challenges.

### 4.2 Purchase models

> For libraries purchasing e-books there is a dizzying array of choices available, and each institution has to determine which of these options they are going to pursue.

Moore here describes the move to an e-only collection policy, citing among the reasons the increased use of distance learning and the benefits of ‘anytime, anywhere’ access, with studies showing an increased use of e-books compared to print. In her literature review, she notes the following challenges:

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importance of continual assessment, including collecting and using usage statistics to inform future purchases
reviewing platforms for new features, functionality, and accessibility
and checking in with users to make sure that their needs are being served

In 'Comparing Digital Apples and Oranges', Tovstiadi and Wiersma demonstrate how e-books are represented across multiple platforms. They discovered differences in presentation and inaccurate metadata in checking titles in publisher packages and with aggregators.

Kerby and Trei, in their article ‘Minding the gap’ examined e-book offerings from six major publishers, looking at DRM (Digital Rights Management), usage allowances and purchasing availability. They found variability in the different publisher platforms, and a problem of package overlap.

Some libraries are concerned about long term preservation and access and the Charlotte Initiative is an example of one project looking to examine these issues. Licence terms are an intergral part of the purchase model, and the Charlotte Initiative lists three prinicples for e-book licence terms:

- Provision of irrevocable perpetual access and archival rights
- Allowance for unlimited simultaneous users
- Freedom from any Digital Rights Management (DRM), including (but not limited to) use of proprietary formats, restricted access to content, or time-limited access terms

A particularly detailed account of the processes involved in e-book acquisition and evaluation is provided by Goertzen in her account of the e-book program development study at Columbia University Libraries. It includes an observation of e-book workflows, looking at how titles are acquired, discovered, accessed and preserved, including an analysis of usage statistics. In examining usage trends, she used the COUNTER Book Report 2 (BR2) results alongside their own title lists, but found it was not possible to filter COUNTER lists by collection, so needed to filter the data manually.

Quoting a study by Ashcroft in 2011 she asserts that:

49 percent of respondents indicated that usage statistics are the most important driver in e-book purchasing decisions

From her own findings, Goertzen is able to show that:

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One of the largest issues facing academic libraries is that it is difficult to determine which titles or packages were purchased and which are accessed through subscriptions. This lack of information creates significant challenges when librarians and staff try to determine how collections can be used.

A further article by Goertzen and Klahn covers much the same ground, but includes more detail about the benefits of standardised COUNTER reporting:

> When vendors are compliant with COUNTER it makes assessment more manageable and meaningful by standardizing what is considered use. Therefore, we are no longer comparing apples to oranges but rather apples to apples.  

From the literature published over the past year, it would appear that Demand Driven Acquisition (DDA) otherwise known as Patron Driven Acquisition (PDA) has become the model of choice, certainly in the US, where many of the articles retrieved for this review describe trials in individual libraries using some form of DDA/PDA model. This view is strongly supported by Levine-Clark:

> To the extent possible, the preferred mode of acquisition will be DDA for monographs, articles, and any other material types. In some cases, DDA will not be offered, and in others usage statistics will show that a subscription or even a package purchase makes more sense. But DDA will be the default. DDA will continue to grow because it allows libraries to spend money more wisely and to provide their users with much deeper and broader collections than was ever possible under traditional speculative purchasing models.

The National Information Standards organization (NISO) published a report on Demand Driven Acquisition of Monographs in June, 2014. This produced detailed guidelines for best practice for libraries setting up a DDA programme, looking at different acquisition models. The report stresses the importance of assessment, using both COUNTER reports to analyse usage and vendor/supplier reports for more detailed analysis of cost and other factors:

> vendor/supplier reports can sometimes include additional usage data beyond those included in COUNTER reports, such as the length of time in a book, pages viewed, pages copied, pages printed, and downloads. Unfortunately, this sort of data is not standardized across platforms, so crosssupplier comparison is difficult.

Zhang, Yin and others present a scenario analysis approach to evaluating a DDA plan at Kent State University Libraries (KSUL). This was linked to the ebrary platform, with auto purchase after a set number of uses. The results (using COUNTER BR2) showed that usage was higher than for print.

Proctor describes how the University of Wyoming took part in a trial of Elsevier’s Evidence Based Selection (EBS) model, a model that required an access fee for an agreed amount of content. At the end of the year, when usage figures were available, the library then acquires content to the value of the access fee paid. Recognising that a

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substantial amount of a library’s print stock does not circulate, Proctor felt that this DDA model worked well, even if titles were shown only to have had one use.

Dewland and See looked specifically at the metrics libraries should use to evaluate PDA. They described studies at the University of Arizona where cost per use of PDA programmes had been compared to individual purchase. Selection records were in the OPAC and in the discovery system Summon and print books were also included in the analysis. COUNTER section requests (BR2) were used for e-books and cost per use calculated on a subject basis using Library of Congress (LC) class numbers assigned to titles.

They found the most challenging task was integrating data from three separate systems into one database noting that:

*Data collection is a universal challenge for librarians.*

Normalising the data posed significant problems, for example:

- different formats were used for ISBNs
- inconsistent metadata for publisher names

Branch and others present an account of a study at Santa Clara University to assess their DDA program. In looking at both EBL and COUNTER data, they found great differences in the quantity and diversity of usage data provided:

*Talk with your e-book providers to urge for better standards and more detailed usage data. Provide input to COUNTER, explaining your assessment needs. Simply adding three data points would give libraries valuable insight into how an e-book is used:*

  - Percentage of pages read per session
  - Amount of time e-book is accessed
  - Call numbers of e-books to allow assessment by discipline

In a project at the University of Florida to assess cost and usage of e-books using three different acquisition methods, Carrico and others found that the PDA/DDA model was increasingly popular. In comparing large publisher packages, single titles and two PDA plans for three broad subject areas sorted by LC class, they found PDA to be the most cost effective model.

The study used publisher or vendor usage statistics including COUNTER statistics, although noted the lack of subject designation within COUNTER.

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The authors recognise the differences in defining use by different publishers or vendors. For MyiLibrary, for example, they used ‘hits’ or visits a title received as the nearest equivalent of full text section or chapter requests:  

While these differences in defining use pose limitations on the ability to truly compare the cost and usage of various acquisitions methods, they do not eliminate the effectiveness of the study entirely. In many ways, these differences highlight the inconsistencies found between e-book providers that librarians must attempt to reconcile and strengthen the call for more robust, standardized publisher-or vendor-supplied usage reports.

A British study also showed a preference for the PDA model. Stone and Heyhoe-Pullar describe a large PDA trial with EBL at the University of Huddersfield. The trial included all subjects but was generally restricted to titles published in 2010 or later. COUNTER reports were used along with Dewey class numbers to analyse usage by subject. PDA was found to be a solution to the perennial problem of ‘not enough books’ and is now firmly embedded in the university’s collection management policy.

Also in the UK, Heppell and Farmer introduce accounts of the experience of using the PDA model in three university libraries. The libraries found that the PDA model was very popular with students but budgetary constraints and the need to demonstrate value for money meant that libraries should continue to work with suppliers on developing appropriate purchase models.

An article by Wells and Sallenback from Curtin University Library in Perth, Western Australia, takes as its starting point the statement made in 2013 by the Australian Library and Information Association (ALIA) that ‘library print and e-book collections will establish a 50:50 equilibrium by 2020’ and looks at the development of an ‘e-preferred’ acquisition strategy at Curtin University library, with particular reference to e-books. While stressing the value of e-books, they point to a number of factors that have prevented them from following the acceptance now given to e-journals, notably:

» complexity and non-standardisation of interfaces
» sometimes limitations to single user
» digital rights management (DRM) sometimes restricting access

Having started with e-books in a small way in 2002, Curtin now makes heavy use of PDA, with their entry in the national statistics from the Council of Australian University Librarians (CAUL) showing rapid increase in the number of e-books acquired compared to print, the proportion of e-books purchased having risen from 8.4% in 2010 to 36.7% in 2014. Taking PDA titles into account, this figure rises to 51.4% with the proportion of the monographs budget now used for e-titles having risen from 53% in 2010 to 91% in 2014,

Georgas looks at a different problem within e-book packages. In ‘The Case of the Disappearing E-Book’ she describes an analysis of titles that ‘disappeared’ over a one year period from ebrary Academic Complete at Brooklyn College, City University of New York.\textsuperscript{26} She points to the instability of the e-book market and the need for ‘big picture’ usage studies across institutions and vendors, to supplement the number of usage studies relating to individual institutions. She sees a need also for:

\begin{quote}
证据支持的研究，比较不同订阅包中e-book内容（包括增加和删除的标题），并评估各种e-book模型（订阅，永久访问，用户驱动）的易用性，并考察用户偏好和需求，以及哪些平台最能确保和保护他们的权益作为e-book读者（访问，隐私）。
\end{quote}

4.3 ‘Big picture studies’

The Primary Research Group’s study of academic library use of e-books provides data on e-book spending in 2015-16 with projections to 2017 from 41 academic libraries mainly in the US.\textsuperscript{27} It considers different licensing models and content providers (both publishers and aggregators), and looks at duplication of titles in both print and electronic format. This study updates their 2014 survey which also covers many aspects of the e-book market, and includes a section on usage statistics and issues identified.\textsuperscript{28}

Broadly, the 2014 survey showed:

» A preference for aggregators over individual publishers, to avoid going to multiple platforms.

» Difficulties in obtaining statistical data and developing reports on e-book use, for example:

› e-book reports that do not distinguish between firm order and subscription title

› different ways of accessing data from each supplier

› lack of COUNTER compliance

» Few had developed their own reports on e-book use, though some had tried to manipulate data in Excel. Problems included:

› difficulties in cross-tabulating vendor usage lists with own title lists

› inconsistent use of ISBN/eISBN even among vendor’s own reports

› hard to separate subscription use from ‘purchased’ use


\textsuperscript{27} Primary Research Group, (2017). \textit{Academic library use of eBooks}. Available at: \url{http://www.primaryresearch.com/Publication.aspx}

\textsuperscript{28} Primary Research Group (2014). \textit{Academic library use of eBooks}. Available at: \url{http://www.primaryresearch.com/Publication.aspx}
impossibility of getting use based on year of purchase of e-book

Michael Levine-Clark and Kari Paulson examined usage of 750,000 e-books from ebrary and EBL (ProQuest) in a large scale study of 20,000 libraries. The study was commissioned by ProQuest as a preliminary to the joining together of the two services, now both owned by ProQuest. The article points to the difficulty of combining usage data from two separate platforms, and suggests that a number of measures in addition to usage are necessary to evaluate a collection.

The two sets of data from ebrary and EBL were treated separately as the data sets had not yet been merged. The study looked at four types of usage:

- Usage compared to availability i.e. % of titles visible that are used
- Usage patterns per session – level of usage of different types per session
- Usage of most popular titles
- Intensive versus extensive use
- Percentage of titles in given LC class that are used with number of times used

Within a global survey like this, local patterns will vary significantly but the study indicates the scale of use of e-books and provides some interesting breakdowns by subject or geographic area.

The COUNTER e-books metrics survey by Information Power (October 2014) brought together views of librarians and e-book vendors, identified a number of issues with e-book statistics and produced recommendations that have formed part of the planning for the draft COUNTER release 5. It also found that librarians were interested in a subject breakdown of usage of their e-books collection, and suggests THEMA (the subject category scheme for a global book trade) as a possible way forward.

Both the Information Power and the Primary Research studies identify problems in the way titles and eISBNs are presented, even within the same supplier.

In a presentation, Folan and Grace described their survey of a sample of librarians asking what were their key messages to publishers. From 235 responses, Ebook licensing, pricing and models was one of the top ten emerging themes:

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E-book issues rose high in the response table. There is confusion and mistrust about different models being used by different publishers and aggregators, dissatisfaction with the technologies, printing, downloading and DRM, and above all the pricing.

### 4.4 Case studies

In the UK, the JISC national e-books observatory project (2007-2010) collected a large amount of data including a deep log analysis of the MyiLibrary platform comparing usage of 26 textbooks provided freely by JISC with some 10,000 other books purchased by libraries and available on the platform. It noted the particularly high use of the 26 textbooks specially selected by JISC.

KB+ eBooks Co-Design Project (March 2014) identified a number of ‘pain points’ experienced by librarians in working with e-books including a specific reference to usage statistics and other relevant issues.

Studies of individual libraries in the UK and the approach they have taken include Terry Bucknell’s analysis of usage of SpringerLink e-books at the University of Liverpool and Anna Grigson’s evaluation of business models through usage analysis at the University of Westminster. Bucknell used the Springer title lists to give both subject and date range to titles in his usage analysis. In a number of studies reviewed, librarians had attempted to apply a subject category to the titles using classifications provided by aggregators or publishers where these were available.

Taking a different approach, Jennings analysed archives from relevant JISCMail lists using the search term ‘usage’. She notes that e-book usage was a popular topic from 2006 onwards, and draws attention to some of the practical problems librarians faced in analysing e-book usage.

‘Ebooks in education’ edited by Hazel Woodward includes a number of library case studies and examples of how e-books are being used at Westminster, Portsmouth, Sussex, Plymouth and Coventry universities. From its chapters, we learn that the University of Westminster in 2014 had 330,000 e-books (purchased, subscribed or OA) and 20 e-book collections, while Portsmouth after 10 years of e-book growth now had 476,000 titles from 15 suppliers (a mix of aggregators and publishers). Portsmouth reports that 92% of its top 50 titles in ebrary were outright purchases, while at Westminster most usage also comes from single title purchases.

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Rayner and Coyle describe a different approach at the University of Manchester library, where a series of e-textbook pilots were introduced to provide e-textbooks to students directly through the Virtual Learning Environment (VLE).\(^{40}\) Also at the University of Manchester, Kirkwood describes a project looking at new ways of collection development with the move away from subject-based teams at the University of Manchester.\(^{41}\) They found that:

> The quality of (meta)data remains a huge hindrance to data-driven approaches. A proper understanding of usage data is an urgent but intractable issue.

Lewellen and others analysed e-book use at the University of Massachusetts Amherst, comparing use of ProQuest’s Electronic Book Library (EBL) with use of print materials.\(^{42}\)

While some of these studies have used COUNTER e-book statistics (or identified issues with them), others have used different methods such as deep log analysis, or for individual libraries, other statistics supplied by aggregators or publishers such as page views or sessions. Most place usage statistics within the wider context of e-book evaluation, including for example user surveys or focus group findings.

### 4.5 Aggregators

The 2014 Primary Research Group survey on Academic Library Use of eBooks suggests that aggregators rather than individual publishers are how many academic libraries acquire e-book content, although there was a wide spread within the sample with percentage spend ranging from 0% to 100%.\(^{43}\)

The acquisition by ProQuest of Coutts Information Services and MyiLibrary from Ingram Content Group has increased the number of e-book titles which will be available through the new ProQuest platform and with their existing EBL and ebrary offerings made ProQuest one of the major players in the e-book market.\(^{44}\)

Tim Gillett conducted an interview with Kari Paulson of ProQuest and Heather Sherman of Dawson Books which is reported in the issue of Research Information for April/May 2015 under the title ‘Necessity, the mother of invention for aggregators’.\(^{45}\)

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\(^{42}\) Lewellen, R. and others, (2016). EBL ebook use compared to the use of equivalent print books and other eresources. *Performance measurement and metrics* 17(2), pp. 150-164.


Aske about current trends, they instance more widespread adoption of e-books and increasing usage by students, with more experimenting with alternative access models, such as evidence based acquisition and models for consortia. Sherman estimates that up to 50% of a library’s spend goes on key reading list titles, and up to 30% on PDA spend. Both these depend on being able to aggregate material across different publishers. They recognise that libraries must use a range of different suppliers, with PDA now for many libraries a standard part of library collection management policy and an increase in paid for rentals (or short term loans) as the trigger for purchase.

As asked about new trends, they expected to see more experimenting with pricing and access models and more sophisticated purchase decisions before the e-book market reached maturity.

In a white paper published in February 2017, ProQuest explores the complexities of managing an e-book collection, comparing the management of print and digital books, and looking at the obstacles and opportunities presented by the move to e-books. The paper looks particularly at the role of aggregators in negotiating with publishers and providing support, including usage statistics, to libraries.

In an article in Inside Higher Education, Carl Straumscheim describes how in the past year JSTOR has doubled its e-book sales and the number of library customers. Launched in 2013 with just 20 publishers and 15,000 books, it now includes 100 publishers and 400,000 books. He quotes one of these publishers, Richard Brown, Director of Georgetown University Press:

“The fact is that ship has sailed,” Brown said. “There’s just no way libraries are going to buy monographs the way they used to. … Where else is the revenue going to come from? Our approach is to get [books] onto as many platforms as possible, see which one of them works and have a diverse portfolio.”

In an interview with Laura Brown of JSTOR in Across the Grain, April 2016, David Parker explores the challenge of discovery and use that e-books face compared to journal articles. JSTOR offers chapter level discovery, seeing chapters as the default search result rather than the book. Brown notes the enormous rate of growth in use as more titles have been added to the DDA offering, with usage in the first 2 months of 2016 40% up on usage in the previous year. Journal usage statistics are used to help libraries choose titles for pick and mix or DDA, and weekly usage statistics are provided.

A JSTOR presentation from their recent forum on trends in e-book acquisition and best practices gave detailed usage figures for its e-book collection, broken down by subject area, and an account of the various packages available. They are able to supply holdings comparisons, produce BR2 reports as well as Book Report 3 (BR3) showing access denials and weekly DDA reports showing chapter views and chapter downloads. The presentation

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48 Parker, D., (2016) Blurring Lines — The Chapter, Not the Book, as the Unit of Discovery: An Interview with Laura Brown of JSTOR. Against the grain, April 2016, pp.47-48. Available at: http://about.jstor.org/sites/default/files/misc/JSTOR_Laura_Brown_ATG_Interview_April2016.pdf
illustrates the significantly higher use of titles acquired on the DDA model in the UK compared to other business models available on the JSTOR platform.

4.6 Consortium purchase

The NISO guide to recommended practice shows how special attention is needed to the collection of usage statistics for consortia.49

The International Coalition of Library Consortia (ICOLC) website lists around 170 library consortia world-wide, of which 59% are in the US and 23% in Europe.50 In an article in Insights, Celeste Feather gives a description of the history and work of ICOLC, including its current concerns with the collection of consortial usage statistics and issues connected to the procurement and usage of e-books.51

Harloe and others describe DDA pilots at the ConnectNY consortium of 18 institutions.52 He sees consortia purchasing as giving better bargaining power with publishers, and reports on the potential to produce a very good return on investment (ROI).

A further US library consortium is described in Lowe and Randall’s account of the implementation and management of a demand-driven e-books pilot at USMAI (University System of Maryland and Associated Institutions) with 16 members.53 EBL was chosen for the pilot. Problems were noted where libraries had different discovery systems and the rising costs of short term loans were a concern.

In a presentation to the 2014 Scottish Confederation of University and Research Libraries (SCURL) conference on the collective purchase of e-books, Richard Parsons and others explained the e-book purchasing scheme set up jointly by SCOPNet, SHEDL (Scottish Higher Education Digital Library) and APUC (Advanced Procurement for Universities and Colleges).54 This covered title by title purchase from aggregators, DRM-free packages from publishers and aggregator packages. It resulted in five deals, with a heavily discounted average cost per title. The presentation stressed the key role of usage data in understanding the value of the purchased models.

In the UK, in addition to e-book deals being negotiated with library consortia such as SHEDL, purchasing consortia such as SUPC or APUC may also be active in negotiations. A Jisc project led by Royal Holloway, University of London, considered proposals (E-BASS25) for the M25 consortium purchase of e-books based on a PDA model. Lewis describes plans for a new Joint Consortia Agreement for books and e-books and as a prelude to this lists the top ten priorities used by the University of East Anglia when evaluating e-book suppliers.

4.7 Discovery

As studies have shown, libraries may be making their e-book titles accessible through their Resource Discovery Services (RDS) as well as through the OPAC. The possible effect of this on usage data for e-journals and e-books is discussed in an article in Serials Review by Spezi and others. Out of 62 responses, over 90% included e-books in the RDS.

The study included e-book usage analysis using BR2 from five libraries with the aim of seeing whether implementation of the RDS had led to increased use. Even taking account of the general increase in number of e-books over the period surveyed, there was evidence of increased use through the RDS. It was noted that libraries were not generally comparing data relating to the RDS with data showing actual usage of the resources themselves.

Library guides provide a good indication of the e-book packages a library holds, the business model they use, and how access is provided to end users. For example, the University of St Andrews library lists 17 e-book collections. Although most e-books are available through the library catalogue, instructions for each collection may differ once the user locates a title of interest. This will depend on the full availability of the title, the arrangements for printing or downloading, or the number of agreed users. The University of York library lists five collections, with detailed instructions for each, plus a larger number of individual e-books or collections in its e-resources list. These examples serve to illustrate the complexity of the e-book market, and the challenges faced by librarians in making their e-book collections fully accessible to their users. This complexity is further highlighted for UK higher education by the work of the e-book accessibility audit team whose audit of individual e-book suppliers draws attention to a range of accessibility issues.

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59 University of York, Library ebooks guide [online]. Available at: http://subjectguides.york.ac.uk/ebooks [Accessed 6 March 2017]
4.8 National and international reporting requirements

In the UK, the Society of College, National and University Libraries (SCONUL) asks for information about the number of e-books, expenditure on e-books, and number of ‘accesses’. Libraries are asked to base this latter figure on the BR2 report wherever possible and a multiplier is used to produce a standard result when only BR1 is available. In view of the difficulties in getting accurate usage statistics for those publishers/aggregators who are not COUNTER compliant, it is doubtful whether these figures will always be reliable yet they are important in showing growing use of e-books.

In North America, the Association of Research Libraries (ARL) has questions on use of electronic resources (full-text article requests, regular searches and federated searches) and recommends that only data that follows the COUNTER code should be reported.61 E-books are specifically excluded from the question on circulation. The Association of College and Research Libraries (ACRL) has detailed instructions for reporting on e-book usage using BR1, BR2 or ‘the most valid and reliable response possible for e-book usage’.62 A note acknowledges some of the difficulties:

Libraries may need to ask vendors for e-book usage reports; reports may not be delivered automatically or in easily-understood formats by the vendor to the library.

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5 Related initiatives

In addition to the work and activities reported in the literature review, there are ongoing initiatives that are currently working to resolve a number of the challenges highlighted by libraries and content providers.

In the area of usage statistics, COUNTER, the organisation that provides the standard to support comparable counting and measurement of e-resources, first covered e-books in Release 1 of the Code of Practice for Books and Reference Works in 2006, and in 2012 combined these with journals and databases in a single Release 4 of the Code of Practice. A glossary in Appendix A describes each COUNTER report and its unit of measurement. In 2015, COUNTER introduced a new optional report, Book Report 7: Number of Successful Unique Title Requests by Month and Title in a Session, to help reconcile BR1 and BR2 by counting unique accesses to a title rather than parts used.63

The COUNTER Code of Practice Release 5 will introduce changes in the way usage is counted, recorded and made available. With the introduction of Release 5 of the Code of Practice, COUNTER seeks to reduce complexity of the standard and inconsistencies in report names, metric types and report formats, as well as addressing the changing needs of libraries and vendors.64, 65 At the time of writing, the draft of COUNTER Release 5 has been revised following feedback from publishers, vendors and libraries during the consultation period. There will be a number of beneficial changes that will address concerns around current interpretation of whole book and section requests. These changes are discussed in more detail in the recommendations section. The new Code of Practice will include a deadline for implementation of January 2019.

The National Information Standards Organization (NISO) identifies, develops, maintains, and publishes technical standards related to the management of information and is accredited by the American National Standards Institute (ANSI).66 It has a co-ordinating role in a number of related initiatives, including SUSHI. Following release 3 of the COUNTER Code of Practice, content providers were required to support the Standardized Usage Statistics Harvesting Initiative (SUSHI) standard. This is an ANSI/NISO standard for retrieving XML versions of COUNTER reports.67

SUSHI automates the data harvesting process and encourages publishers to provide usage data in a standard format (COUNTER XML) to support automated data retrieval. When a provider offers SUSHI this enables libraries to automate the collection of usage statistics through in-house or commercial systems with varying degrees of

interoperability with library and electronic resource management systems. It also supports efficient collection of usage data at a national or consortium level.

JUSP, a usage statistics portal provided by Jisc in the UK, is an example of how standards such as COUNTER and SUSHI create efficiencies in workflows. JUSP harvests COUNTER compliant reports from publishers and presents them to libraries through a single interface. Initially focusing on journals, in 2015 JUSP extended its service to include book reports.

In France, the Couperin consortium provides libraries with a similar service called Mutualisation et Evaluation des Statistiques d'Utilisation des Ressources Electroniques (MESURE), based on JUSP code. ⁶⁸

JUSP is also supporting an IMLS (Institute of Museum and Library Services) project to develop and test an international, modular, open technology, proof of concept platform for the collection, display, and analysis of data about licensed electronic resources. The project is called CC-PLUS (Consortia Collaborating on a Platform for Library Usage Statistics) and will adapt generic components of JUSP’s codebase to address the challenges surrounding community-identified usage data.

Usage statistics are a complex area and issues identified by one library or publisher can impact on the wider community. Usus is a community website on usage that aims to provide a forum for discussion of usage issues. ⁶⁹ Along with links to useful resources, it offers a support network for librarians trying to make sense of usage data.

COUNTER, Usus and JUSP focus on how usage statistics are counted and presented, but acknowledge the need for libraries to view these in the context of entitlements. In response to questions from libraries about supplying data on non-use of books, COUNTER endorses a NISO initiative, currently known as KBART-Automation, which aims to automate the process of gathering entitlement lists using the same mechanism as that used for COUNTER reports, the SUSHI protocol. ⁷⁰ ⁷¹ By also ensuring that matched identifiers are available in both reports, this will enable libraries and publishers to easily and quickly create merged reports with the information they need.

The Knowledge Base And Related Tools (KBART) working group is an initiative with NISO that recommends best practices for formatting and distributing title lists to improve metadata quality. ⁷² While previously focused on journals during Phase I, KBART Phase II Recommended Practice focuses on more advanced and complex issues including the poor quality of e-book metadata given its growing importance for discovery. Following these recommendations minimises the manipulation required to use the information in services such as link resolvers and discovery systems and so avoids duplication of effort.

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Other (originally journal-focused) initiatives, such as Global Open Knowledgebase (GOkb) have begun to extend coverage to include books. In 2017, Knowledge Base Plus (KB+) also extended it service to include e-book packages for perpetual agreements with static title lists which will help UK academic libraries identify entitlements.

Also in the UK, Jisc is developing the National Bibliographic Knowledgebase (NBK) to support the management of both print and digital library collections by bringing together the catalogue data from over 200 libraries. This will require a coordinated approach to authority controls and identifiers. Merging with usage data is specifically mentioned as an outcome.\textsuperscript{73}

Work is also underway to tackle the questions around platform differences and availability. E-books Decision Support and Availability Tracking are two tools that were initially developed through KB+ and the Global Open Knowledgebase (GOkb) to enable libraries to share knowledge about e-book platforms and to track e-books as they enter or leave packages. Jisc will consider the ways in which these tools are developed in future through initiatives such as NBK.

In addition to these large activities, over the last few years there have been numerous webinars, surveys, research activities and events focusing on e-books and the issues surrounding them, showing the community's interest. In the UK, regional library groups such as the Northern Collaboration and M25 Consortium arrange events to bring libraries together to share experiences. A Jisc e-book forum that took place in London, UK in July 2016 was found to be beneficial and offer a good model for future events.

6 Discussion

In this section we discuss a number of themes arising from the literature review and case studies.

6.1 The e-book market

6.1.1 Increase in number of e-books and use by libraries

The number of e-books now available to libraries has increased greatly over the past few years as more publishers are making their collections available online. Large publishers will themselves have substantial collections available to libraries in a variety of different packages and using different purchase models. Among case study publishers, Springer Nature, for example, offers over 230,000 e-books. Far larger numbers of e-books from a variety of different publishers are available from aggregators. ProQuest, for example, offers access to over 810,000 e-books from more than 650 publishers.\(^7\)

With the wider availability of e-books, it was clear from items consulted for the literature review and from the case study libraries that e-books were of increasing importance with growing use.

6.1.2 Publishers and aggregators

The relationships between publishers and other types of book suppliers are complex, and the terminology used to describe different types of book suppliers can vary. For the purposes of this report we have loosely used the term aggregator for any provider supplying titles from a range of publishers through a single platform. E-book aggregators provide access to a large volume of titles from many different publishers through a single platform. Generally, aggregators licence the content from the publishers and resell this to libraries under a variety of business models. Publishers may also make their titles available in their own collections on their own platforms, although it is not uncommon for publishers to make their content available on multiple platforms to increase distribution. For example, larger publishers often have their own e-book platform, but smaller university presses and society publishers are reliant on aggregators and partner publishers and presses for online distribution of titles. In this way some publishers act as both a publisher and an alternative host supplier.

For libraries, aggregators offer a wide range of content while providing a consistent user experience. Another key benefit is the high level of integration with library management systems which enables efficient workflows by automating a number of tasks such as sending orders, loading records and invoicing. On the other hand, publishers have more flexibility in what they do with their own platforms and content and usually offer perpetual access and unrestricted use on their own platform. Some case studies mentioned frustration about where a title is available

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to purchase. In some cases, libraries have opted to actively seek out dual platform licenses and this is something PALCI is now exploring at the consortial level.75

Issues identified in the literature review regarding Digital Rights Management (DRM) and unlimited access were also of concern to case study libraries. Publishers generally offer the benefit of no DRM limits in their own collections and allow unlimited users. Aggregators may be more restricted by the requirements of individual publishers. On the other hand, aggregators give access to a far greater range of titles and may also offer a range of additional features on their platform.

Libraries in this study were using a mixture of publisher and aggregator collections. The Northern Collaboration pointed out that while aggregators provided a large amount of content, licences and platforms could be barriers to use. They felt that some publishers were now more restrictive in their agreements with aggregators. At the same time, libraries had more sophisticated requirements when considering platforms, such as Digital Rights Management (DRM) and the quality of MARC records.

At Brunel, most e-book content was purchased through aggregators. Libraries benefit from automated purchasing workflows and discount pricing when part of a consortium. The library also had a few publisher collections and pointed to the advantages of these in having no usage caps, no DRM restrictions and perpetual access.

At the Open University, publisher collections or individual purchases were generally preferred as these had no usage caps on the licences and offered unlimited DRM. Aggregators are able to offer books from a range of publishers on a single platform, in some cases they are the only available source for an online version.

SHEDL consortium representatives felt that over the past few years some publishers had placed more restrictions on titles offered through aggregators and at a time of library budget restrictions pointed to rising costs with more limits on access.

The three Australian libraries in the study also showed a preference for using platforms which had fewer DRM clauses and where items were definitely owned.

The US consortium, PALCI, gave its libraries a choice of two aggregators (ProQuest and Ebsco), though also had some publisher deals, pointing out that a variety of different approaches were needed, with no perfect solution.

6.1.3 Purchasing consortia

In addition to purchasing at an institutional level, libraries may also belong to purchasing consortia that will negotiate advantageous deals on their behalf.

A library consortium can be made up of any number of libraries collaborating on a range of activities, but joint negotiation and purchasing are a common feature. Library purchasing consortia enable libraries to negotiate favourable deals and terms with content providers. Costs are a key factor, but interoperability and adherence to standards are other factors that feature. National and regional consortia such as Jisc Collections in the UK, SHEDL in Scotland, PALCI in the US and CAUL in Australia are just some examples of the hundreds of library consortia. In the area of e-books, activities may involve cooperative or shared purchasing or the negotiation of favourable terms.

In the UK, regional university purchasing consortia offer shared procurement services for higher education institutions. They manage the procurement process in line with regulations and provide framework agreements for the supply of a wide range of goods and services to universities. In the case of print and electronic books there is a joint consortial agreement that offers a single framework at a national level.76

6.1.4 Purchasing models used

In the literature review, published articles from mainly US academic libraries showed a preference for the Demand Driven Acquisition (DDA) model, more commonly referred to as Patron Driven Acquisition (PDA) by libraries in the UK. The libraries and consortia taking part in this study were using a variety of models and choice depended on a number of factors..

The Open University had a variety of models in use, from individual title purchase to subject collections, PDA, EBA and subscriptions. There were now more individual purchases, as the library was called to show value and justify its expenditure. This method ensured that titles needed for courses remained available, where access to titles within collections using other models may suddenly be withdrawn. E-books were purchased throughout the year, on a ‘first come first served’ basis.

Brunel had run a number of PDA programmes, though the largest proportion of its expenditure was still on individually selected titles.

In the SHEDL consortium, e-books are acquired in three ways:

» shared content using a variety of models including EBA. This model was felt to offer good value for money, with access to a wide range of content, some of which would be owned in perpetuity at the end of the agreement.

» individual titles that can be purchased by individual libraries using a Framework agreement negotiated by SHEDL

» subscriptions to e-book collections for individual libraries using a Framework agreement negotiated by SHEDL

Within the Northern Collaboration there are examples of libraries using both the PDA and EBA models. For libraries using the PDA model, some chose to purchase on first request, while University of Hull opted for the rental model where the title needs to be used three times before a purchase is triggered. Although this increases the cost, it ensures that titles bought are definitely needed. Libraries also saw EBA as an extra dimension to customer service, as a form of ‘document supply’ that gave users instant access. The US consortium PALCI initially used a DDA model with the ‘Purchase at first use’ option rather than short term loan, on the grounds that when a title had been used once within the Consortium others would also use it. More recently it has shifted to the EBA model as this model gave librarians a greater opportunity to be involved in purchasing decisions. PALCI was recently successful in developing a pilot program with JSTOR, creating one of the first aggregator EBA programs for collective e-book purchasing. Following its success this program is now being used by other libraries and consortia across the United States.

The three Australian libraries consulted were using a variety of models and approaches, with the view that it was ‘about having a mix that suits you and your institution’. One librarian felt that more robust data was needed before they were ready to move to a DDA model, another pointed out that it depended on what the publisher was able to provide.

6.2 Collection and use of usage data

6.2.1 Provision of usage data: suppliers’ perspective

Suppliers in this study were asked what usage data they provided and how they understood that libraries were using the data. All emphasised the importance they placed on providing reliable usage statistics to their customers. For Askews and Holts ‘robust, consistent e-book statistics are ‘important to our customers and therefore important to us’. For OUP ‘robust, consistent and trustworthy e-book statistics are important and OUP is keen that customers are receiving the correct information’.

All recognised the importance of supplying COUNTER compliant reports. Springer provides COUNTER BR2 reports, as well as versions enhanced with package and copyright year. These data will be used by the publisher where usage peaks have been reported so that these can be investigated. BR3 reports are also used to advise customers on the most appropriate package.

OUP were also providing COUNTER usage statistics to support their customers. They used the data to identify possible issues for customers, for example, decline in usage may indicate user behaviour, statistical or system issues. The publisher can also identify use per IP address in order to spot anomalies and report this to customers. They use usage statistics to calculate cost per download, showing the customer value for money.

6.2.2 Collection of usage data: library perspective

Case study libraries were asked what usage statistics they collected and how they then used them.
At the Open University, COUNTER BR1, BR2 and BR3 are collected when possible. Where these are not available, they look at what data are provided by the supplier and use that which seems the most comparable.

At Brunel, the BR2 report is collected routinely, but BR1 and BR3 reports are also used. In addition, non-standard turnaway reports are collected.

For the Northern Collaboration collection of usage statistics varies among member libraries, some collecting regularly, others for ad hoc purposes. The various COUNTER BR reports are used, and there is growing interest across the consortium in turnaways, low use and removing items from the collection.

6.2.3 Automated collection

Automating the collection of usage data via a range of tools was seen to offer time efficiencies for case study libraries. A range of tools are currently available to libraries who wish to automate data collection using the SUSHI protocol, and a library can opt to purchase a system or develop an in-house system. The capability to gather reports using SUSHI is often a component or module within an electronic resource management systems (ERMS). UStat, Alma Analytics, EBSCO Usage Consolidation and Intota Assessment are well known examples of statistics tools from library systems providers.

For libraries and consortia preferring to develop their own system, aids are provided in the form of tools, guides and open source code on the NISO SUSHI website. For libraries using an ERMS or LMS, configuring SUSHI for each provider may simply require selecting options from a menu and entering key details.

In some cases, the statistics consolidation provider may offer a service managing statistics collection for the library including both SUSHI and manually gathered COUNTER reports. EBSCO and Intota offer this service for instance.

Data collection is the first step and in addition to automating collection of usage statistics, these systems also tend to offer features for reporting and analysis. The addition of contextual information such as cost and subscription data are usually possible by manual entry or through other related, interoperable services such as Alma, EBSCONET Subscription Management or Intota. This enables cost-per-use calculations of individual subscriptions and packages and budget level reporting.

One of the Australian libraries described using MPS Insight Library for getting a dashboard report for management reporting, and also using the Primo interface and Alma for additional information. These different data sets enable access to a fuller picture of usage.

6.2.4 Library use of data collected

Publishers and suppliers recognised the importance of usage statistics for their customers. For OUP, the understanding was that customers were using them for purchasing decisions on the EBA model, working out return on investment (ROI), as well as turnaways to identify titles in demand. Similarly for Springer, customers were using the statistics to calculate cost per download or, where the package has a single payment for access, they will look at trends over time and calculate the percentage of the package used. For Askews and Holts also, their customers were understood to be using statistics to support purchasing and to report to budget holders.

At the Open University, usage statistics for existing collections are reviewed at the beginning of the year to see if changes should be made, or titles promoted. There is increasing interest in identifying books that have and have not been used. Turnaway figures are used when considering new purchases or upgrades. Subscription packages are reviewed annually to check on usage, while for purchased titles usage is not routinely checked, though there is now more interest in looking at past purchases to inform future development. Data from these reviews are used for an annual ‘resource review report’ for subscription packages, looking at development and also evidence of low use where more promotion may be needed. The library may also receive ad hoc requests for future purchase, where turnaway figures will be used where available, or usage of similar collections.

At Brunel, usage statistics are collected for the annual SCONUL return, for compiling annual reports on the usage of each collection for senior management and for departments. Usage data for titles on subscription are used to support renewal decisions or whether to purchase in perpetuity. Turnaway figures are also used, to see whether upgrades or changes of model would give best value for money.

At the University of Hull, data are used for reporting anonymised student activity to faculty, reporting to management teams for purchasing strategies and for identifying purchasing priorities and evaluating different models. Usage statistics are collected to evaluate the different models used. With PDA this is especially important as money is taken from the budget and needs to be reported on regularly. For reporting on usage data for their PDA model, Hull produces a snapshot which compares books on the PDA model and those bought outright. For longer term trends, they look at books bought two years ago and how they are being used, demonstrating how students are using good quality material. Twice a year a report is presented to faculty deans showing how students are using the library. COUNTER reports are used to show patterns of use, either snapshots using BR2 or longer term trends. Looking at trends always produces the problem of determining whether heavy use is over a short or long period. Hull are increasingly interested in low use, and question whether such titles should be removed from the system, where they may be affecting discoverability.

The SHEDL members were using the BR2 for the SCONUL return, with the BR1 possibly used for the value of titles, and the BR3 less used, though publishers will use it to highlight titles for the library to buy. For decisions on purchase, research needs and reading lists are preferred to turnaway reports.

As a consortium, PALCI deals with usage data every day with mid year and end of year reviews. Data are analysed each month. Regular reports are used to assess value and are made available to members. There are webinars for members twice a year and at the end of the year decisions are made on whether to continue with the programme or not. As usage is one of the factors affecting how much members pay, this is an important element.
The Australian libraries were using data to compare PDA purchases with confirmed e-book purchases looking at comparative usage and costs and for making renewal decisions.

One Australian library reported on collecting statistics in an ad hoc way for particular projects, for example looking at non-use.

### 6.2.5 Open access books

While some of the case study libraries reported on their Open Access e-book collections, these were not generally seen as a high priority in terms of usage reporting, though one Australian library pointed out that OA e-books were now seen as being increasingly important for certain courses.

### 6.3 Contextual information to support analysis and use

One of the valuable services provided by publishers and aggregators is the provision of additional reports that provide the contextual information that libraries need to consider in addition to usage data when making decisions about renewal or when compiling reports for faculty or library management.

Both case study publishers provided enhanced metadata. Springer Nature include package and copyright year and are also able to supply the costs of a print title to enable comparisons. OUP provide data on request on usage by collection or cost per use. Askews and Holts provide reports in real time including subject classification and the results of questionnaire surveys completed by users that allow breakdown by faculty or budget code.

In addition to usage statistics, libraries were collecting additional information to help evaluate their e-book collections. The contextual information of interest to libraries fell broadly into the following categories.

#### 6.3.1 User information

Case study libraries were all interested in any information that could be obtained on their users. Members of the Northern Collaboration described a shift towards more user-related data with libraries using authentication logs to identify academic departments and year of study. This improved awareness and understanding of student activity, but the work was time-consuming and staff intensive. Askews and Holts supplied questionnaires for users to complete allowing breakdown by faculty or budget code. This questionnaire was being used at Hull, with users being asked their department and why they wanted the book. Similar forms were used at the Open University with PDA models to identify undergraduate or postgraduate users. They were also using EZProxy to determine user type. At Brunel, the number of logins to a platform were recorded using access counts via Shibboleth or EZProxy.

#### 6.3.2 Class numbers or subject coding

In addition to user information, members of the Northern Collaboration explained how libraries needed to look at reports other than those from COUNTER to get contextual information. For example, class numbers and subject coding. Such reports are often available on suppliers’ websites and can help in discussions with faculty or in identifying gaps in provision. Matching up these title reports with COUNTER usage data was time consuming, and
care in interpretation was needed, as contextual information from one supplier may not be comparable with that from another:

*Contextual information is very helpful, but the information from say, Askews and Holts, won’t be comparable with Dawson or Sage for example. It is not possible to pull together to form a global picture. It is important to put a ‘health warning’ on the information and be clear about what the data shows. If there are patterns observed, .. it is OK to report on these, so long as they are aware that they are comparing apples and bananas.*

*(Northern Collaboration)*

The SHEDL consortium looks at both usage data and subject classification to determine whether titles are relevant to subject needs. It is also essential within the consortium to identify key subject areas for each library, with usage data being used with other factors at a local level such as reading list data and course knowledge.

### 6.3.3 Contextual information

Suppliers offer a range of custom reports and libraries will also request specific information from them. Members of the SHEDL consortium explained how they needed tailored information from publishers to add to the BR1 and BR2 reports, for example, how many titles have been used, what percentage of the collection has been used, data for use and non-use, cost per use. The consortium had found publishers generally responsive in providing this additional information.

PALCI is also interested in contextual information such as cost per use, cost per title, number of institutions using the title and, depending on model, cost per purchase. They had provided suppliers with spreadsheets showing the data points they would like ideally. They found suppliers did try to meet these but were mostly unable to deliver all of them.

From the supplier viewpoint, while some reports can be routinely supplied on request, others may be time-consuming to compile for an individual library. OUP noted that providing such special reports on request may involve a great deal of extra work when the data needs to be manipulated in a different fashion in order to produce the report.

One essential requirement for libraries is the ability to calculate cost per use or cost per title, to demonstrate value for money. For EBA models it is essential to calculate return on investment in order to identify purchases at the end of the EBA period. For subscription models, cost data helps to inform cancellation or renewal decisions. For PDA models, data helps to inform the success of the PDA period and supports comparison against other e-book purchases. Cost data are available from suppliers, but clearly this needs to be matched against usage statistics. The Australian libraries explained how they downloaded data annually to analyse cost per use for renewal decisions based on a benchmark figure.

### 6.3.4 National drivers

It is important to remember that usage statistics with related contextual information are needed to fulfil the library’s contribution towards national library statistics such as those for SCONUL in the UK, which a number of case study libraries mentioned. With the National Student Survey (NSS) in the UK, and in similar surveys elsewhere, student satisfaction is a driver for improving availability of resources and usage statistics are a useful
6.4 The challenges

It should be a given that we get satisfactory usage data. I should just be able to get some usage data on a regular basis without any problem.

(PALCI)

There was broad agreement among those interviewed for the case studies on the challenges faced by those dealing with e-book usage statistics. These followed the pattern identified in the literature review and in the JUSP e-book discussion forum. The following major challenges were identified.

6.4.1 When COUNTER data are inconsistent

The main issues around COUNTER data were seen as:

» Definition of ‘section’

As several case study participants pointed out, the definition of a ‘section’ for a dictionary or encyclopaedia will refer to an individual entry which is very different from a section of a textbook. This means that the BR2 report (Number of successful section requests by month and title) may produce misleading overall results which will also impact on attempts to match with other data, for example to determine cost per use. This difficulty was recognised by both libraries and suppliers interviewed for this study.

» Comparing results from BR1 and BR2

The lack of consistency among suppliers, with some providing the BR1 report (number of successful title requests by month and title) and some the BR2 report (number of successful section requests by month and title) meant that case study libraries could not make direct comparisons between different suppliers. This was particularly a problem when making decisions about changing platforms.

The optional COUNTER BR7 report (number of successful unique title requests by month and title in a session) aims at reconciling BR1 and BR2, and allowing for comparable usage of e-books regardless of the hosting site and unit of delivery by providing a count by title, of unique accesses to an e-book during a session. However, this report is rarely applied.

6.4.2 Not enough suppliers are COUNTER compliant

The number of suppliers who are not providing COUNTER e-book reports continues to be a problem and leads libraries to search for any statistics they can find that are roughly comparable. The lower number of e-book suppliers providing COUNTER reports via SUSHI makes the task of collecting usage statistics much more difficult and time-consuming than for e-journals.
6.4.3 Difficulty of dealing with non-COUNTER data

That would be my big wish – that the publishers themselves and the aggregators get their act together in calling their use the same thing, so we can rely on what they are sending us.

(The Open University)

Case study libraries pointed to the difficulties caused when vendors were supplying non-COUNTER data or no data at all. This meant a large amount of effort in getting statistics from multiple sources and the need to justify the effort involved in terms of the results gained. Libraries had to decide what data they could use when no COUNTER statistics were available. At Brunel, they took whatever usage they could get, for example click throughs from the link resolver. For the Northern Collaboration, it was difficult and time consuming to compare e-books from more than one source, due particularly to the lack of consistency in non-COUNTER reports from different suppliers. When reporting on e-book usage, it was necessary to give ‘a health warning’ to show that results were not strictly comparable.

Lack of consistency across the providers is a big issue as it means that comparing use of e-books from more than one source is difficult, time-consuming and has to carry warnings.

(Northern Collaboration)

Where libraries were looking to evidence from turnaways to inform future purchases, the varying vendor interpretations of turnaways meant that these often gave inadequate data for decision-making. One library also questioned the accuracy of turnaway data where it was found to relate to titles that had already been bought.

6.4.4 Lack of common identifiers

Biggest issue .... is where IBSNs don’t tie up. The library might have a title from an aggregator, the publisher and through Academic Complete, but each provider has called it something slightly different and haven’t used the same ISBN or eISBN.

(The Open University)

For the Open University, the lack of a common identifier for an e-book title presents one of the major challenges. The same ISBN or eISBN is not used consistently, with e-books available through aggregators, publishers or as part of a package often having slightly different titles and different ISBNs or eISBNs. When trying to track usage of titles according to whether they are outright purchases, subscriptions or unowned content, matching up the title lists with usage reports is particularly difficult when the data are not presented in a consistent fashion. The Northern Collaboration also explained how the already laborious process of matching titles from different sources was made worse by the inconsistent use of e-book identifiers.

This is a particular problem with aggregators, who are harvesting and presenting data from multiple sources. This makes tracking titles available through different models very difficult and care has to be taken to avoid overlap.

It is evident therefore that problems of metadata quality not only apply to usage data but also affect the discoverability of content through the library’s discovery system. There are a number of initiatives contributing to improving this situation including KBART and NBK.

As a publisher, OUP recognised the challenge of having different and inconsistent ISBNs between publisher and aggregator, with some titles having multiple ISBNs. This created problems when a customer wanted to avoid duplicate purchase of a title on an aggregator and publisher platform.
As an aggregator, Askews and Holts themselves saw ISBNs as a lesser challenge, as they use the publisher ISBN on their platform, rather than allocating their own identifier. However, they recognised as a general problem for many platforms that ISBN numbers may vary for each version of a book and this may not always be clear to customers, possibly resulting in duplicate purchases.

6.4.5 Exclusion of nil use titles

The COUNTER book reports do not require the inclusion of nil use titles so libraries need to compare titles in usage reports with publisher title lists. For the Open University, this presents a problem in identifying which available titles have nil use. Checking publisher lists for this information may sometimes reveal titles that have been purchased but not switched on.

6.4.6 E-book reports do not distinguish between purchases, subscription or unowned content

Another difficulty is that the usage reports do not generally identify which titles have been purchased, which are on subscription and which are unowned. To PALCI, making this distinction represented the greatest challenge. Faculty members need to know that content will continually be available and for the EBA model it is important to know whether the library already has the title, to avoid duplicate purchase.

For the Open University also, it was not always clear from the statistics how the library had purchased the book, whether outright or on subscription. This meant going through usage reports line by line, relying on individual and team knowledge. Looking at usage statistics in such detail was worthwhile, for example it may show that low usage was due to a package not being switched on. Such work, however, was time consuming and labour intensive.

For SHEDL also there was a problem in comparing the value of owned and leased e-books and for tracking titles available in different models. When changes were made to the content of a deal after the subscription had been agreed, it was difficult to see what titles were currently available and how to interpret usage figures when titles had changed within a deal during the year. There was also a concern that e-books that had been acquired through a PDA model might not always be available. At Glasgow, a bad experience where an e-book was removed and could not be replaced on the particular model used, had made some academics cautious about using e-books rather than print.

6.4.7 Work processes

It was obvious from all the case study libraries and suppliers that dealing with these challenges was both time consuming and labour intensive, involving a lot of manual work to provide a context for the usage statistics and to make comparisons between different suppliers, models and subscriptions. Some libraries gave examples of the workarounds they used to help overcome some of these challenges. The Northern Collaboration, for example, uses a standard calculation for comparing BR1 and BR2 statistics, as is also a requirement in the UK when completing the SCONUL return. They also use EXCEL VLOOKUP to merge usage and titles to analyse results at
the end an EBA agreement. The publisher may send several different spreadsheets to be matched up and this is a very time consuming process.

Some libraries have also experimented with using only download figures to compare usage from different aggregators, but as aggregators may count items in different ways and most users view online rather than download, this was not felt to be a very reliable method.

The Open University interviewee provided a document illustrating a large piece of work done for a report to evaluate different purchasing models with a view to making the case for the purchase of a large aggregator collection, looking at a range of key performance indicators based on the BR1 and BR2. Metrics such as number of titles, usage ranges, costs and averages had been used. The process had been extremely time-consuming and could not be done on a regular basis.

6.5 Requirements for change

For both libraries and suppliers, the sheer number of e-book titles and the variety of usage models makes finding solutions to the challenges outlined above a daunting but necessary task. The research aimed to surface challenges and to identify some possible solutions. Several initiatives with potential to support change are outlined below.

6.5.1 COUNTER compliance

Proposed changes to COUNTER, as part of the move to Release 5 of the Code of Practice, will address some of the incompatibilities noted in the BR1 and BR2 and the difficulties in the definition of a ‘section’.

There is a clear requirement for more suppliers to become fully COUNTER compliant. COUNTER itself has the leading role here in encouraging more suppliers to join and in shaping the standard and will continue to actively pursue this aim. Other international organisations such as the National Information Standards Organisation (NISO) and Usus, the community forum for discussion of issues relating to usage data, provide opportunities for discussion and understanding of the issues involved.

In the UK, JUSP, in working with libraries and suppliers and in offering COUNTER and SUSHI expertise has a role to play in supporting development and adherence to the standard. Librarians themselves can use their influence to question suppliers that do not yet provide COUNTER usage data. Purchasing consortia and library consortia that provide deals to their members can help in defining expectations for COUNTER compliance during negotiations.

6.5.2 Need for consistent use of common identifiers

The issue of titles not matching up, either because of different ISBNs or eISBNs or variations in the form of the title itself is problematic and the need to combine usage data with contextual information is very time-consuming. Though much of this information is library-specific and can only be provided by the library itself or through an individual supplier, lack of consistent metadata makes joining together information from different sources particularly difficult and comparisons between data from different suppliers can be especially challenging.

The KBART Phase II Recommended Practice document discusses the importance having up-to-date metadata for e-books in the context of discovery. It also notes that quality of e-book metadata has been poor, with missing eISBNs being just one example.\(^8\)

Initiatives such as the National Bibliographic Knowledgebase (NBK) aim to tackle these challenges on a national scale by providing shared services for UK academic and research libraries.\(^8\) NBK will include catalogue data from 200+ libraries, aiming to improve overall quality of bibliographic data through a coordinated approach to authority controls and identifier frameworks and hopes to be able to aggregate bibliographic data with availability and usage data. NBK will also explore provision of master identifiers to address the types of challenges indicated above.

Initiatives such as the Global Open Knowledgebase (GOkb) e-books Decision Support and Availability Tracking tools, following a pilot with libraries in the UK are key. These tools support pooling of collective knowledge about e-book platforms and enable tracking of e-books as they enter or leave packages.

6.5.3 Need for a method of identifying entitlements

It is important for libraries to be able to distinguish between the titles they have purchased outright, those that are on subscription and those that are not owned. For case study libraries and library consortia, this was one of the major challenges and led to a number of difficulties. This problem has been recognised by NISO who have set up a working group to make proposals on ‘Recommended Practice for Enhancing KBART for Automated Exchange of Title Lists and Library Holdings (Short Title: KBART Automation)’.\(^8\) The proposal recognises that it is not within the scope of COUNTER to expand its reports to include holdings information but that libraries should be able to get their subscribed title lists directly from their suppliers. An expanded KBART specification allowing the exchange of holdings using automated data harvesting would allow the merging of holdings data with COUNTER usage reports.

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At the same time, this proposal would settle the matter of the reporting of nil use titles. As is acknowledged in Draft 2 of COUNTER release 5, COUNTER is unable to consider reporting on nil use because of the size of the reports it would produce, and the difficulties for suppliers who may have holdings information separate from usage. 84 Instead, COUNTER looks to the NISO KBART Automation initiative to allow libraries to combine holdings and usage data and so identify nil use titles that are owned.

The working group set up to make proposals for KBART Automation is due to report in November 2017. It should be noted that the automated merging of usage data with holdings information using an expanded KBART specification will require the publisher’s own identifier to be included in both holdings and usage reports. It is recognised that this will be no easy task:

6.5.4 Ongoing dialogue between librarians and suppliers

There is a shared responsibility for resolving all the challenges associated with e-book usage data. At the moment, there is a gap in the needs, and understanding of those needs, between publishers, aggregators and libraries. There is need of a space to speak to publishers and aggregators and explain that these are all really important issues for libraries, but HE libraries also need to articulate what they want clearly and effectively.

(Northern Collaboration)

The research highlighted the value of surfacing issues and challenges through regular and ongoing communications. Events such as the Jisc e-book discussion forum were thought to provide a good model. Proposals made at the forum included the sharing of templates and subject classifications used by suppliers to explore areas for greater co-operation.

Suppliers often receive requests for information and data without a clear understanding of background and context. Work to clarify and communicate requirements could be particularly beneficial.

Clearly, opportunities for e-resource librarians and supplier representatives to convene and share ideas and approaches are key. This will help to support understanding from various perspectives and to develop a consensus on approaches towards solutions.

This report aimed to highlight challenges concerning the development, delivery and evaluation of e-book usage statistics. The following table highlights some key roles and activities but we invite all parties to join us and to help support change.

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## 7 Opportunities and actions

<table>
<thead>
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<th>Challenge</th>
<th>Opportunity</th>
<th>Responsibility</th>
<th>How</th>
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<td>Standards</td>
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</table>
| 1. COUNTER-compliant usage data not available for all products and services making accurate usage comparison impossible across some suppliers | Increase COUNTER membership by encouraging more suppliers to join and to comply with the Code of Practice (CoP). | • COUNTER  
  • Suppliers  
  • All relevant stakeholders | COUNTER continue to encourage broader participation and membership.  
  The COUNTER website provides helpful information about achieving compliance and includes a register of compliant vendors.  
  [https://www.projectcounter.org/about/register/](https://www.projectcounter.org/about/register/)  
  All stakeholders can extol the benefits of access to accurate, comparable, standards-based data whilst lobbying suppliers to achieve compliance.  
  COUNTER welcome information from library customers where a supplier doesn’t conform to the standard. COUNTER will always contact the publisher to provide support and advice.  
  On occasions a supplier might refuse to conform and customer pressure can be very helpful. |
<table>
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<tr>
<th></th>
<th>COUNTER Release 5 provides opportunity for broad discussion and debate concerning implementation of the standard, leading to improvements to be delivered through a revised Release 5 Code of Practice by January 2019.</th>
<th>COUNTER conducted widespread communications around Release 5, providing significant opportunity for all stakeholders to influence the new standard.</th>
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<td></td>
<td>COUNTER Release 5 will provide renewed opportunities to encourage and support suppliers in terms of implementation and adherence to the standard.</td>
<td>Release 5 will introduce dated logos to demonstrate COUNTER compliance. Publishers will be able to display a logo on their website to indicate compliance. Anything over one year will not be compliant.</td>
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<td></td>
<td>There will also be opportunities to provide feedback to COUNTER if there are implementation challenges or issues with interpretation of the standard.</td>
<td>Jisc through initiatives such as JUSP provides free support and advice to participating publishers concerning COUNTER implementation. JUSP will continue to provide feedback to COUNTER where there are issues with interpretation of the standard.</td>
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<td></td>
<td>There are opportunities for library customers and purchasing consortia to influence suppliers by indicating COUNTER compliance as part of their contract with vendors.</td>
<td>Ensure that model licences and clauses are available to support libraries and consortia.</td>
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<td>2.</td>
<td>Release 4 of the COUNTER Code of Practice leads to incompatibilities in BR1 &amp; BR2 reports</td>
<td>This is a recognised issue. Proposed changes to the COUNTER Code of Practice Release 5 will address current incompatibilities.</td>
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<td>Library customers</td>
<td>Provide guidance to assist libraries in evaluating whether suppliers are in fact COUNTER compliant.</td>
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<td></td>
<td>Suppliers</td>
<td>A dated logo to be introduced with COUNTER Release 5 will provide a quality mark for library customers and purchasing consortia to assess compliance.</td>
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<td>COUNTER</td>
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<td>Jisc (through initiatives such as JUSP)</td>
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<td>3.</td>
<td>Lack of canonical identifiers has an adverse impact on work processes, e.g. time consuming and inaccurate</td>
<td>COUNTER, the KBART Standing Committee and the community in general recognises the importance of accurate metadata and is working with the community to support development of and adherence to standards.</td>
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<td></td>
<td>Suppliers</td>
<td>Encourage KBART endorsement by suppliers.</td>
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<td></td>
<td>KBART Standing Committee</td>
<td>COUNTER to encourage adherence to appropriate and applicable standards.</td>
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<td>COUNTER</td>
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<td></td>
<td>Jisc through initiatives such as development of its Library</td>
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<tr>
<td>4. Work processes for libraries and suppliers surrounding analysis and evaluation of usage data are often manual and labour intensive</td>
<td>Increasing budget pressures and a need to demonstrate a return on investment for costly e-resources means that tools to support efficient work processes are key and this is driving change.</td>
<td>Support Services</td>
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| | | • COUNTER  
• NISO  
• Jisc through initiatives such as JUSP, together with international partners such as CAVAL in Australia and projects such as CC-PLUS in the U.S. | Encourage development of, and adherence to, appropriate standards to support interoperability and automation of processes.  
Develop and deliver automated tools and communicate the time savings efficiencies of automation. Providers of commercial Library and Electronic Resource Management Systems and associated tools already deliver these services.  
The provision and development of automated tools is also addressed through services such as JUSP and projects such as CC-PLUS.  
It is anticipated that COUNTER and/or the community will provide tools to assist with automation around COUNTER Release 5. |
<p>| 5. Efficient and effective workflows take time to establish and implement and a range of specific processes are required for varying acquisition models | As noted above, the increasing need for efficient, optimal work processes is a force for change. Workshops and conference sessions have highlighted a desire to share ideas and best practice but this needs coordination and support. | Support Services |
| | | • Jisc through initiatives such as JUSP, together with international | Communicate and present some generic workflows for a range of acquisition models which could be adapted to meet the needs of individual libraries. This will assist libraries in establishing and implementing their own work |</p>
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<td>partners such as CAVAL and projects such as CC-PLUS processes, reducing duplication of effort and sharing best practice. Initiatives such as JUSP or Usus and projects such as CC-PLUS could help to facilitate this type of activity.</td>
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<td><strong>Communications</strong></td>
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<tr>
<td>6. Requirements of library customers not always fully understood by suppliers where there are national differences, e.g. national reporting requirements such as SCONUL in the UK.</td>
<td>A Jisc e-book forum and subsequent conversations highlighted the particular challenge that suppliers face when asked to provide information and data without understanding either the context or timescales for delivery.</td>
<td>• Usus • National organisations and bodies representing libraries such as SCONUL in the UK, CAUL in Australia and ARL in the U.S. • Jisc</td>
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<td>7. Library and supplier requirements and system limitations not fully understood or appreciated</td>
<td>Case study interviews conducted as part of this research highlighted a discrepancy between requirements of various stakeholders and deliverables. There is an opportunity to ensure</td>
<td>• Usus • Jisc through initiatives such as JUSP,</td>
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greater clarity and understanding of requirements and current limitations with a view to addressing challenges.

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<th>Collection management and analysis</th>
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<td><strong>8.</strong> Lack of authoritative information about entitlements versus purchase models impacts upon understanding and analysis of usage data</td>
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<td><strong>9.</strong> Information about zero use of titles supports collection management and evaluation but the COUNTER book reports omit zero use</td>
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This research provided a valuable opportunity to highlight some challenges in this space. Jisc aims to review progress in August 2019.

- Jisc

This activity will be conducted by Jisc in conjunction with relevant stakeholders.
8 Bibliography


PARKER, D., ed., (2016). Blurring lines — the chapter, not the book, as the unit of discovery: an interview with Laura Brown of JSTOR. *Against the Grain*, April 2016, 28(2), pp.47-48. Available at:


Appendix A: Glossary

**Aggregator** – A term used for an e-book supplier that hosts content from multiple publishers.

**Approval plan** – An arrangement between a book supplier and a library where titles are automatically supplied on publication based on pre-set criteria.

**Auto-purchase** – An automatic purchase by the library of perpetual access to an e-book based on an agreed usage criteria as part of a DDA program.

**Book Report 1 (BR1)** - Number of Successful Title Requests by Month and Title (COUNTER definition). Counts whole book views/downloads where requesting the whole book is the only option.

**Book Report 2 (BR2)** - Number of Successful Section Requests by Month and Title (COUNTER definition). Counts views/downloads of sections of a book. Definition of a section varies between platforms, but should be the smallest section it is possible to request, usually chapters or pages.

**Book Report 3 (BR3)** - Access Denied to Content Items by Month, Title and Category (COUNTER definition).

**Book Report 4 (BR4)** - Access Denied to Content items by Month, Platform and Category (COUNTER definition).

**Book Report 5 (BR5)** - Total Searches by Month and Title (COUNTER definition).

**Book Report 7 (BR7)** - Number of Successful Unique Title Requests by Month and Title in a Session (COUNTER definition). Optional report.

**Consortium purchase** – where content is purchased collaboratively by a group of libraries for shared use.

**COUNTER-compliant usage statistics** - Usage statistics which conform to the criteria laid down in the latest COUNTER Code of Practice.

**COUNTER code of practice** - A code of practice that allows the usage of online information products and services to be measured in a credible, consistent and compatible way using vendor-generated data (http://www.projectcounter.org/code_practice.html).

**Demand Driven Acquisition (DDA)** also referred to as **Patron Driven Acquisition (PDA)**. An acquisition model in which the vendor opens up access to a subset of the collection, and acquisitions (purchase or rental) are made at the point of need.

**Dewey Decimal Classification (DDC)** system is used in libraries to organise material according to a number that indicates subject content.

**Digital Rights Management (DRM)** are restrictions on how users interact with the content such as the amount that can be printed, copied and downloaded. Publisher platforms are usually DRM-free.

**Evidence-Based Acquisition (EBA)** also referred to as **Evidence-based Selection (EBS)** is a variation of DDA in which a collection is made available for a period (usually 6-12 months) by the publisher with a committed spend. Full access is guaranteed for the full period, and libraries have full control over the final selection of titles to be purchased, but have usage evidence to support the decisions.
Library of Congress (LC) class - Library of Congress Classification (LCC) is a classification system used by libraries to organise material. Items on the same topic are grouped into the same class.

Licenced/subscribed – refers to content that is leased for a period rather than purchased outright in perpetuity.

Link resolver – A system that links a user from a reference to an appropriate version of the full-text.

Resource Discovery Service/System (RDS), or simply Discovery Tool, sometimes also called a Web-scale Discovery System. Provides a single search box with post-search filters, and searches across the library catalogue and other systems such as IRs, as well as an index containing metadata from databases and publishers. Libraries control what is made available to search from a central index from their RDS supplier.

OPAC – stands for Open Public Access Catalogue, but often now simply referred to as library catalogue, is an interface that allows anyone to search the library’s holdings and view records for individual items. This is distinguished from the resource discovery systems which uses the library’s catalogue as one of its data sources.

Short Term Loan (STL) - A lease of an e-book for a brief period within a DDA program.

THEMA – a subject category scheme used by book publishing businesses.

University purchasing consortium - a membership-based buying organisation for universities that develops and manages framework agreements. The cover a wide range of services including libraries. Usually regional. (Examples, LUPC, SUPC, NWUPC etc.).

Vendor – meaning can vary in different contexts, but generally any provider, publisher or aggregator that is selling and suppling content to a library.
Appendix B: Case studies

UK academic libraries and UK library consortia

The Open University

This case study features the library at the Open University (OU), a distance learning university that provides undergraduate and postgraduate courses in a range of subject areas. Alison Brock is an e-content advisor in the library and in this case study shares her experiences of working with e-book usage data.

Purchasing and evaluating e-books

The Open University library acquires content through individual title purchases, subject collections, Patron Driven Acquisition (PDA), Evidence Based Acquisition (EBA) and subscriptions. Over the last few years purchasing has become granular, with more individual titles purchased throughout the year rather than being reviewed as a whole, and so treated in a similar way to document delivery requests. Alongside this the library is also being increasingly asked to demonstrate value and there is more need to justify purchases.

For individual purchases, the preferred option is to purchase direct from publishers as these tend to provide an unlimited DRM (Digital Rights Management) free option, but the library will also consider the aggregator version if the publisher one is not available. For each title suggested, the library will consider the purpose (research, module production, supporting students), pricing, and how students will use it, before recommending a purchase option to the academic librarian.

The subscription packages are reviewed annually to check that they still have reasonable usage. Conversely, for outright purchases usage is not routinely checked and usage of a title may only be looked at once, if at all. Until recently it has not been considered worth reviewing usage of purchased content. However, as there is a push to buy more e-books, there is an increasing interest in evaluating past purchases to inform future development of the collection. This type of work is very time consuming and not done on a regular basis. In 2014, Alison undertook a large piece of work to evaluate the different purchasing methods used in the previous year, including EBA, subject collections and individual purchases. In this she used metrics such as number of titles, total usage, usage ranges, cost and averages. The final report was later used to provide evidence to library management and in making a case for the purchase of a large aggregated collection.

Key uses of usage data

Usage reports are collected on an annual basis. The library will collect COUNTER BR1 (Book Report 1 counting whole book requests), BR2 (Book Report 2 counting section requests) and BR3 (Book Report 3 counting access denials) reports from those that provide them. If these are not provided, they will look at what the supplier does provide and find the most comparable to a BR1 or BR2. Other types of usage data are also looked at to provide different information or if publisher reports are unavailable altogether. EZproxy logs can be used to look at usage by user type e.g. across different faculties or staff and students. With some programmes, such as EBL, the library was able to collect additional user information such as whether the user is postgraduate or undergraduate.
The data in these reports are used to collate an annual ‘resource review report’ for subscription packages and this shows the development of products over the last few years. The library may also look for low use packages which may need promotion. The usage data are also used in one-off reports such as the one developed in 2014 which included a table of key performance indicators such as number of titles requested, number of accesses, number of requests per user, nil use, low use etc. The library also receives ad hoc requests related to potential purchases. When considering the purchase of a collection, the library will look at turnaway figures if available, or usage of similar collections previously purchased.

Challenges identified

The greatest issue the library has encountered is where IBSNs and titles do not tie up, making it impossible to trace titles between providers. The library might have a title from an aggregator, the publisher and through a package, but each provider has called it something slightly different and has not used the same ISBN or eISBN. Related to this is the problem that many providers are unable to produce a single list combining usage statistics with other information such as a list of titles owned, meaning that the library needs to struggle with merging information and handling large quantities of data. Even reports from the same provider may have variations in the titles (e.g. do not have the subtitle) which means that it is not easy to match and track usage of outright purchased, subscribed and un-owned content. In addition, as COUNTER reports do not report on non-use they also have a problem identifying nil-use on owed content.

As some providers only provide the BR1 or BR2, this makes it difficult to compare packages across providers. Also there is inconsistency in what is being counted due to the resources type, such as the Oxford English Dictionary (OED) which counts views of each individual entry.

Having to go to each supplier for usage data is another challenge. Not only is it time consuming to collect the reports, they need to maintain administrative information and navigate often unfamiliar sites in order to locate reports.

There are also concerns about incorrect data following cases where publishers have informed the library about turnaways on titles which they have already bought. In some cases, it may just be because the data were collected prior to purchase, but other times it is wrong.

Meeting the challenges

Given the challenges around BR1 and BR2 mentioned above, direct comparison of basic usage between providers is not possible to do confidently. One approach which was attempted in order to allow better comparison was to turn raw data into metrics which could be used to compare packages and EBA to individual purchases. However, this came with its own challenges. Firstly, there was a lot of data to process, and secondly there were still uncertainties about the meaning of the figures. Is high use an indicator of long term value, or was it only used for month one and then not used for the rest of the year?

To identify purchased, subscribed and un-owned content it was necessary to focus on certain collections and rely on individual and team knowledge. Analysis is often only possible for those who know the collection very well, but even then there may still be need to refer back to the list provided by the publisher and go through reports line-by-line.
There are benefits to looking at usage reports in detail, and in one instance, noticing low use on known titles identified that access to a new collection had not been switched on and they were reimbursed. However, the current approaches used at the OU library are time consuming and labour intensive.

More recently the OU library has started using ALMA to gather and store COUNTER Book reports. This option was previously not available in UStat and it is hoped that this will enable them to perform a greater analysis of our e-book content. It is still early days, the service only went live in May 2017, but there are plans to use ALMA Analytics over the summer to try and get some meaningful e-book data across providers.

**Priorities for future improvement**

The OU library would like to see a move by publishers to allow more individual titles to be available to purchase direct on an unlimited DRM free licence. The priority in relation to usage data is to have more consistency between how usage is counted and displayed across publishers and aggregators so that libraries can rely on the information. Alison hopes that the next release of COUNTER will address some of the issues by providing more specific guidelines and requirements to improve consistency.

**Brunel University**

This case study features the library at Brunel University London, a UK higher education institution. Dom Benson is E-resources Librarian and in this case shares the library’s experiences of working with e-book usage data.

**Purchasing and evaluating e-books**

The majority of e-book content at Brunel University is purchased through aggregators which provide coverage from many publishers. The aggregators are part of the Southern Universities Purchasing Consortium (SUPC) agreement which ensures that the library is getting the best deal and complies with the University’s purchasing requirements. The library has also run several Patron Driven Acquisition (PDA) programmes, although the more traditional model of selected individual titles still accounts for the largest proportion of purchases, estimated at around 2-3 times that of PDA. Although most purchases are through aggregators, the library has a handful of collections direct from publishers. The advantages of purchasing direct from a publisher is that they generally offer options with no usage caps, no DRM restrictions and perpetual access.

When evaluating providers, platform considerations are the most important factors, and issues with usability and reliability could lead to a switch in main supplier. As far as publisher platforms are concerned, it is generally felt that these worked fairly well, and decisions to acquire publisher collections are made by the budget holders.

**Key uses of usage data**

The BR2 (COUNTER Book Report 2 counting section requests) is collected routinely for usage reporting, but the library will look at any data available from the provider such as BR1 (COUNTER Book Report 1 counting whole book downloads). BR3 (COUNTER Book Report 3 counting access denials) and other non-standard turnaway reports are also collected. Custom reports provided by aggregators during PDA programmes have also been used. It was found that Dawson provided a good PDA report on a regular basis, and MyiLibrary also supplied a report when requested. The library is also able to obtain information about the number of logins to a platform by looking at
anonymised access counts via Shibboleth and EZproxy. However, these data are incomplete as users do not need to re-authenticate so only their first access is recorded.

The collected data are used for the SCONUL return, annual reporting and answering ad hoc requests. The annual report is sent to the senior management team and each department, and it monitors the number of books and journals, as well as the usage of each collection. Usage data are used in different ways depending on type of purchase. In the case of subscriptions, they want to know whether it is worth supporting an on-going subscription, as well as considering whether it is more cost effective to buy titles in perpetuity. Turnaway data can suggest areas where money would be best spent, for example, whether to upgrade to a multi-user licence or credit model.

Challenges identified

Reporting on e-book usage is a very time consuming process, so although there is a wish to report more frequently, this is far too much work to do more than once a year. As well as the time spent compiling the data, there are challenges in interpreting the data, for example, when looking at year-on-year trends it is not possible to tell whether this is due to changes in user behaviour or changes in the way use is counted such as the move from COUNTER Release 4.

Concerns about metadata quality are much broader than usage data, and incomplete and mismatching data cause problems within the library’s discovery layer. These problems with metadata are due partly to the conflicting interests of some vendors (e.g. EBSCO and ProQuest), but some vendors simply do not have the required level of detail in the metadata. Dom is a member of the KBART (Knowledge Bases And Related Tools) standing committee and noted that they were finding it very difficult to get data from some vendors as they just do not have the resource to put into development.

Meeting the challenges

At Brunel the library makes use of standards and tools to automate processes as much as possible to reduce time spent on data collection. The Journal Usage Statistics Portal (JUSP) is valued as they know the data are being checked and it makes the data readily available when they need it. The library also then gathers the JUSP data into 360 COUNTER to pull together additional usage and other information.

Priorities for future improvement

Brunel library would like to see more publishers supplying e-book reports in JUSP and coverage at the moment is limited. The library is also using the Knowledge Base+ (KB+) service for managing journals and would like to see a similar service for books.

Better quality data from providers is key to freeing up time needed to look at usage and creating reports. KBART (Knowledge Bases And Related Tools) is a standard that is focused on working towards improving quality and consistency of the metadata. Books were not previously covered in KBART 1, but there is a new requirement to KBART 2 that should improve the situation. Dom hopes that providers will supply better data and be KBART compliant, but expects this to take a considerably long time because of the number of titles involved.
University of Hull representing the Northern Collaboration, Content Special Interest Group (SIG)

This case study features the Northern Collaboration, a group of 26 higher education libraries in the north of England with Special Interest Groups that meet to discuss issues, share knowledge and identify areas of collaboration. Maggie Sarjantson is Collections and Skills Advisor at the University of Hull and an active member of the Northern Collaboration Content SIG. In this case study she represents the libraries in that Group as she explains the common experiences and challenges of these libraries. Examples are drawn from the University of Hull.

Purchasing and evaluating e-books

Libraries’ approaches to e-book purchase decisions are becoming more complex in response to the varying quality of the many e-book platforms. Although some libraries operate an ‘e-preferred’ policy, there are some cases where a print copy is purchased rather than the only electronic version available. There are three factors that have influenced this change in attitude: platform quality, restricted licences, and user expectations.

When making decisions about where and how to acquire content, there is a need to balance the requirements of the end user and the library. For students it is about ease of access to content, but for libraries it is a question of providing content at scale. Aggregators provide content at scale, but the licences and platforms can be barriers to use. Recently some publishers have changed their agreements with aggregators to be more restrictive. It has also been observed that students have higher expectations due to increased fees and their personal experience of e-books from Amazon and others. They have a clearer idea of what they want and need, and use a mix of print and electronic formats. Libraries have more sophisticated requirements when considering platforms, for example, considering Digital Rights Management (DRM) and the quality of the MARC records supplied.

Certain purchasing models are not just about collection development, but also a form of ‘document supply’. For example, Evidenced Based Acquisition (EBA) is an important extra dimension to customer service, providing instantaneous access without the need to request.

Key uses of usage data

The collection and use of usage data varies across libraries: some collect regularly and systematically, others for ad hoc purposes. Internal funding arrangements may help to determine what data are collected, and how they are used and reported. At the University of Hull, the key uses for the data are reporting anonymized student activity to faculty; management teams to determine purchasing strategies; operationally to identify purchasing priorities; and to evaluate various models or platforms. Across the Northern Collaboration there is also growing interest in turnaways, low use and managing items out of library collections.

Generally, now e-books are an established format, there seems to be a move away from evidencing their value. However, some libraries use data to explain to faculty the benefits of Patron Driven Acquisition (PDA), which effectively gives purchasing rights to students. Data repeatedly show that students pick good quality material that continues to be heavily used.
While libraries continue to use data to determine value for money and compare products, there is a shift towards more user-related data. Some libraries are using anonymized data from authentication logs to identify the academic departments and year of study to which users belong. Where use is low among a particular cohort libraries liaise with academic colleagues to improve awareness, arrange information literacy sessions, discuss the inclusion of e-books in reading lists, etc. This kind of analysis significantly improves libraries’ understanding of student activity and can add real value for Faculty and students. However, it is time-consuming and staff-intensive.

Therefore, libraries try to use existing contextual information alongside the usage reports. This means going beyond the COUNTER reports to look at the other reports available on the aggregator’s or publisher’s website. From here libraries can get information such as classification numbers and coding to enable them to think about the usage in different terms.

**Challenges identified**

Lack of consistency across the providers is a big issue as it means that comparing use of e-books from more than one source is difficult, time-consuming and has to carry warnings. There are three areas where inconsistencies are found: providers supply either the BR1 or BR2, within the BR2 there are different uses of ‘section’, and some providers do not supply COUNTER standard reports.

As there is no contextual information in the COUNTER Book Report, libraries need to match usage of titles with information from other sources, a process that is very time-consuming. For example, there is no easy way to identify reading list titles within the usage reports because the various systems can’t talk to one another. This means either laborious manual checks on long lists, or spot-checks on heavily-used items, and those with zero usage. This situation is made worse by the inconsistent use of eBook identifiers, which makes a number of library processes difficult, for example de-duplicating records for PDA.

Publishers occasionally send libraries non-COUNTER turnaways and there are concerns about how this information is presented. Sometimes all a library receives from the publisher is a total number of failed accesses, with no details about when these attempts occurred or the period covered. Libraries cannot make a decision on inadequate data.

**Meeting the challenges**

The Northern Collaboration has been involved in a Jisc pilot project which consists of testing two tools related to the purchasing and evaluation of e-books. Decision Support enables libraries to pool collective knowledge about different e-book platforms. Availability Tracking is to aid tracking of e-books as they enter and leave packages.

Libraries employ approaches to work around some of these challenges, such as by using standard calculations to compare BR1 and BR2 figures, or making use of Excel VLOOKUP to merge information in two or more spreadsheets. Some libraries have tried analysing download figures to compare aggregator usage. However, downloads account for only a small portion of usages, with users preferring to read online, so these counts are low and do not show the full picture.
Priorities for future improvement

Maggie expressed two priorities for future development: to see everyone who claims to be providing COUNTER reports to be applying the COUNTER standard appropriately, and to see consistency in the definition of ‘section’ in BR2s.

There is a shared responsibility for resolving all the challenges associated with e-book usage data. At the moment, there is a gap in the needs and understanding of those needs, between publishers, aggregators and libraries. There is need of a space to speak to publishers and aggregators and explain that these are all really important issues for libraries, but higher education libraries also need to articulate what they want clearly and effectively.

Scottish Higher Education Digital Library (SHEDL)

This case study is based on the work and experiences of members of the Scottish Higher Education Digital Library (SHEDL), a collaborative purchasing consortium which has provided access to online journals and e-books for 18 Higher Education Institutions in Scotland, the National Library of Scotland and National Museums Scotland since 2009. Examples are drawn from University of Stirling and University of Glasgow.

Purchasing and evaluating e-books

Although there is no collection management policy at a consortium level, libraries within the consortium have their own, differing, policies and practices. For example, Stirling has a stated preference for purchasing e-books whereas Glasgow has more than one policy for teaching and research requirements. The consortium uses a range of purchasing models: Evidenced Based Acquisition (EBA), collections, subscriptions and title-by-title on a credit-based or limited concurrent user basis.

The e-books are acquired in three ways. Individual titles which are not shared across the consortium are purchased by individual libraries from aggregators and institutions can make use of PDA models. These are acquired through a Framework agreement negotiated by the consortium. Shared content is acquired using a variety of models including an Evidence Based Acquisition model which is generally considered good value for money and gives access to a wide range of content, a proportion of which is owned in perpetuity at the end of the agreement. This allows all the participating institutions to own the same range of titles. The third acquisition method is by subscription from individual libraries to e-book collections through ProQuest or EBSCO within a Framework agreement negotiated by SHEDL.

The interviewees have perceived changes to e-book acquisition over the last two years; library budgets are tighter whereas costs are rising and access is becoming more restrictive. The consortium has agreements with some publishers for Open Access e-books, but generally individual libraries provide access to services such as Knowledge Unlatched, Open Library or OpenBook.

Key uses of usage data

The consortium uses usage data in order to evaluate e-book deals, for reporting to consortium members and to SCONUL. Although COUNTER BR1 and BR2 reports are useful for SCONUL reporting, tailored reports from publishers are required to indicate which titles have been used, what percentage of the total collection has been
used, and the cost per download. When dealing with a group of institutions it is essential to know the key titles for each subject area for each library as a title may not look heavily used overall but is a key text for a specific research or teaching area. Therefore evaluation involves considering usage statistics alongside other factors at a local library level such as reading list data and course knowledge.

Consortium members use COUNTER BR2 for SCONUL returns, and BR1 for assessing the value of titles. BR3 (turnaway) statistics are used to indicate research and reading list requirements for non-subscribed content.

Challenges identified

The interviewees reported a range of challenges with e-books. They related that it is difficult to maintain and justify an e-preference policy when texts acquired by those means are expensive, have restricted use or access is withdrawn. For example, Glasgow University lost access to an e-book obtained through a credit-based model due to the expiry of credit and then could not regain access which was problematic for librarians and academic staff. Similarly, publishers can withdraw e-books from sale. After such experiences, some academics from SHEDL institutions prefer to have print copies.

Other challenges were identified as: the inconsistent interpretation of a section for BR2 reporting; e-books from databases or aggregators that do not provide COUNTER statistics; not being confident that data provided by suppliers (both COUNTER compliant and non-COUNTER compliant) is reliable and accurate; tracking titles for entry or withdrawal from the catalogue; and comparison of the value of owned e-books and leased e-books especially when an e-book has only been available for less than a year. It was stated that comparison cannot be made between statistical usage of a print book and an e-book because any access to each section of an e-book can be counted, whereas only the issue of a print book is calculated, not the number of times that it is read in the library without its removal. SHEDL has a particular difficulty with title lists to import into discovery tools because of bespoke deals with suppliers.

Changes made to the content of a particular deal after the initial subscription was agreed was seen as a challenge. This makes it difficult to be clear about which titles are currently available as well as being able to interpret annual usage figures where titles have changed within a deal.

Meeting the challenges

The participants considered that at a local level addressing some of these challenges would be resource intensive. One of the participants considered that some of these challenges could be met by the creation of an e-book specialist post within their library as there is sufficient work to be done.

Priorities for future improvement

The participants made the suggestion that in order to improve e-book usage data in the UK a UK working group on e-book statistics should be convened to meet once or twice a year in order to share experiences and offer solutions.
US library consortia

PALCI (Pennsylvania Academic Library Consortium, Inc.)

This is a case study of PALCI (Pennsylvania Academic Library Consortium, Inc.), a United States consortium which includes 67 university and research libraries, Pennsylvania state library, Philadelphia Museum of Art and other institutions with a combined patron population of approximately 8oo,000. The original purpose for the consortium was to share physical resources through a form of interlibrary loan and the ethos of sharing resources is still a strong part of the consortium.

Purchasing and evaluating e-books

PALCI does not yet have a documented Collections management policy for e-books. They have working strategies put into place and have convened a collection development advisory group which will identify shared needs across the consortium to produce documented guidelines. Individual libraries do not appear to have any separate e-book collection development policies although e-books may be referenced in broader monographs policies.

The consortium has acquired e-books using several different approaches. Initially, with the intention of shifting spend across the consortium from physical sharing of items to e access, a Demand Driven Acquisition (DDA) model was used. The DDA model is a "Purchase on First Use" approach, where shared purchases were made based on a consortium member’s use of the content. The consortium declined to use other models, like short term loans to avoid paying for content more than once. The disadvantage of this model was that it was difficult to plan budgets in advance and there was fluctuating access to e-books when funds ran out. PALCI is still using DDA, but is also now trialing Evidence Based Acquisition (EBA) because this model provides stability of access and budget, and librarians can influence purchasing decisions. PALCI also uses a subscription based model with a major e-book aggregator. At present, PALCI works with aggregators for e-book content, although the consortium does have some publisher subscriptions for other e-resources. Presently, open access e-books do not feature in the collections.

The interviewee recognised at the current time there is no single perfect model and commented that ‘there is no one right way in terms of models so we need to approach it in a multitude of different ways to find the right mix’.

Key uses of usage data

PALCI employs usage data in a number of ways. This includes: unit costs of e-books; cost per use, cost per title, cost per purchase; how many times an e-book gets used after it has been purchased on a Purchase At First Use basis; and titles that are not used. Turnaways and the number of simultaneous accesses to e-books are analysed to understand whether sufficient copies of an e-book have been made available. For DDA and EBA items the number of titles used at multiple libraries is examined to assess value. In some cases e-book usage data are compared with inter-lending of purchased titles. E-book usage from aggregator and publisher platforms is compared by counting user sessions as that is considered to provide the most comparable data.

Usage data are important to consortium members as it has an impact on the costs of participating in the consortium. Where the overall cost of a particular subscription is determined by usage e.g. DDA, usage data are
one factor which is used for determining individual consortium member’s subscription costs. However, usage data is not the only factor that is considered when determining members’ costs, other factors can include size of institution (determined by FTE), Carnegie classification; level of degrees awarded; as well as a flat participation fee.

At a consortium level, usage data are collected manually as there is not enough resource to automate the process. Reports are obtained from suppliers, however members consider that the accuracy of data given varies in quality from one supplier to another. The data are used for reporting to the members monthly and 6 monthly, when purchasing decisions are made.

**Challenges identified**

Overall the e-books models were considered more challenging than e-journals and PALCI recognise many challenges in respect of e-books.

The main challenges for PALCI in collecting e-book usage data are: gathering relevant data from suppliers; inconsistent interpretation; the difficulty of making comparisons when some suppliers provide COUNTER compliant data and others do not; title tracking and reports that do not identify which titles are owned. As PALCI is a consortium of a large number of organisations the relevant data includes knowing which books are owned by any individual library and which library has triggered the purchase of a book and in which other library has the e-book subsequently been used. Knowing ownership of a title (whether purchased, subscribed or unowned) is important not only because that prevents duplication of purchase but also because academic staff require stable and accessible e-books to use in teaching and for examinations.

Inconsistency of data is an issue for PALCI when making decisions about purchasing models. The interviewee finds that ISBNs are useful to some extent when attempting to track titles that have been borrowed across the consortium members, but they are “not standard enough” - title tracking is challenging without a standard identifier.

Evaluation of e-books at a consortium level using usage statistics provides additional challenges in determining the best methods to use. This includes, how the value of one e-book which is heavily used in one institution might be judged against another e-book which has lower usage but is used by many consortium members.

**Meeting the challenges**

To solve the consortium’s immediate challenges, the interviewee has attempted to gather the data she needs from suppliers by sending them a spreadsheet to complete. The spreadsheet includes data for the consortium wide use of all titles purchased, viewed, not purchased and the breakdown of those figures per use per institution. She reports that so far this strategy has only had limited success with suppliers being unable to provide all the data points required. In order to track titles that have been added or deleted from the consortium members’ catalogues, she is sent individual reports by email – there is no central resource for her to discover what has been deleted.

In general, the interviewee considered that the consortium could refuse to buy products from suppliers that do not provide high quality data but she realises that this action would not be effective unless all libraries take a stance together. She believes that the joint effort of libraries, consortia and publishers should be combined to insist on developing standards and feed-back of accurate data.
Priorities for future improvement

The interviewee's priority for the consortium is to develop an EBA purchasing model that is based on shared resources, using funding previously allocated for interlibrary loans. She believes that librarians should work with publishers to allow unlimited user access to titles in a way that fairly compensates publishers for mutual benefit.

To enable this, it is considered that good quality, consistent, reliable and comparable usage data provided from suppliers is necessary. This should not be seen by suppliers as 'an afterthought' and should be an essential factor in choosing and evaluating any consortia deal and that good quality, accurate data reporting from suppliers is so important that it should be the basis for concluding deals.

Australian academic libraries and Australian library consortia

University of Melbourne, University of New South Wales, and University of the Sunshine Coast - members of CAUL (Council of Australian University Librarians)

The following case study presents the perspectives of three Australian university library services: University of Melbourne; University of New South Wales, and University of the Sunshine Coast. These are all members of CAUL (Council of Australian University Librarians) which is a professional organisation that seeks to encourage collaboration across Australian academic libraries. Amongst other priorities, CAUL works with publishers to increase access to information sources, on behalf of its members and is creating a community where members can share statistics and best practice.

Purchasing and evaluating e-books

The three libraries acquire e-books in a range of ways including: different variations of PDA (Patron Driven Acquisition); EBS (Evidence Based Selection); approval plans; subscribing to individual packages and purchasing individual titles. It was generally considered that it was 'about having a mix that suits you and your institution'. One interviewee observed that the models through which e-books were acquired were often dependent on what the publisher could provide. Another interviewee expressed a desire to take titles from platforms where there were fewer Digital Rights Management clauses and items were clearly owned. One librarian considered that more robust data would be required to support justifying a move toward a more demand driven model of purchasing.

The libraries also provided access to a collection of Open Access e-books through JSTOR and Knowledge Unlatched. One of the participants commented that OA e-books are becoming more important for certain courses in her university,

Key uses of usage data

The libraries use e-book usage data in a variety of ways and to different extents. This includes:
» comparing PDA purchases with confirmed e-book purchases by examining comparative usage and costs

» annual reporting on trends

» making renewal decisions

One librarian reported collecting statistics on an ad hoc basis for specific analysis projects such as looking at the percentage of non-use in a collection.

In contrast, another participant stated that their establishment uses MPS Insight Library service to gather the majority of statistics and this provided a dashboard report for management reporting. To supplement this statistics are also obtained from the Primo user interface to get an idea of what people were accessing there, as well as ‘user resolve statistics’ from Alma which counts the number of times users click through to a resource. Together these sets of data help build up a fuller picture of collection usage, some of which would not be captured if only one source was used. The library downloads usage information on an annual basis from individual vendor platforms and then analyses cost per use, in order to make renewal decisions based on a particular benchmark for cost per use. In cases where low usage is found, the information may be used to promote particular items.

Although generally the libraries used data that was regularly provided from vendors, in a few one-off instances, libraries have asked vendors for additional information such as specific collection level data.

**Challenges identified**
The libraries had encountered a range of common challenges relating to the collection and use of e-book statistics. These included:

» Matching COUNTER usage data with information about purchase information at a local level involves finding a consistent identifier for each title. This could be complicated when there are inconsistent identifiers, for example, some publishers using ISBN and others using eISBN

» Presenting the complexity of information and the data in a meaningful way

» Not being able to accurately understand usage of certain titles where some vendors provide non-COUNTER compliant data or do not provide data at all.

» Vendors providing different COUNTER reports, for example, some provide BR1 and others BR2.

» The considerable effort involved in gathering e-book data from multiple sources. One librarian considered that the effort in collecting e-book data from multiple sources needed to be justified in terms of the questions that the data could answer and the insights provided

The interpretation of e-book usage statistics was considered more complex than that of e-journals. This was because it was considered that there are many different possible e-book metrics which could be open to interpretation and may influence users’ behaviour. This included different types of ‘uses’ of e-books, for example, whether an item was downloaded, printed or read online. In addition, one interviewee questioned whether user behaviour might be influenced by whether a title was DRM free or whether it was only available to read online versus available for download. Comparison between vendor packages was also difficult when data was presented
in different ways between different vendors, for example, downloading a whole book to access a single chapter
would increase the overall chapter usage count considerably. Another mentioned that some publishers were not
transparent about the turnaway figures supplied at sales meetings so further analysis was required to get a true
picture.

Having to consider usage and costs of short term loans, which are not owned by the library within a PDA Model so
may no longer be in your collection, was seen as a challenge. Overall it was agreed that the biggest challenge was
around consistency of e-book data and ensuring vendors are reporting the same thing, adhering to COUNTER
guidelines, and providing a consistent identifier for titles.

Meeting the challenges
Each of the libraries have worked to deal with the challenges presented as best they could as and when issues have
arisen.

In response to the challenge of marrying information on how items were purchased with COUNTER usage data,
one participant described a database that they had produced with title information, ISBN, copyright year, any
form of electronic publication date indicator and subject areas, which has enabled analysis against a range of
criteria as well as how much of a collection was being used along with rates of non-use.

It was considered that more automation of the collection of usage statistics could save time and an ideal solution
would include automated download of data via SUSHI. One interviewee commented that they would like a single
application that allowed them to view usage of all individual e-books in one place, as well as identifying its platform
of origin.

One participant referred to a previous e-book platform which required users to provide some demographic data
upon log in. This approach was suggested as one possible way to get more granular data about who was using
particular resources e.g. faculty and whether they were undergraduate or post graduate.

One interviewee described a pragmatic process used to get an overview of general trends across e-books. This
involved gathering data from the top 25 platforms which she could demonstrate provided 96% of the data she
needed to produce a “reasonable picture” of trends to present to a wider audience.

It was hoped that COUNTER could continue to push for vendors to provide consistent statistics and that individual
libraries needed to also continue to tell vendors of their requirements for COUNTER compliant e-book usage
statistics.

Priorities for future improvement
In an ideal situation, libraries would like to have all e-book providers adhering to the COUNTER Code of Practice
and be able to combine usage statistics with other data sources locally in order to undertake further analysis, for
example subject area and information about how the e-book was acquired. In addition, more granular data about
the users of e-books such as mode of study and subject area would be desirable to know.

Overall there was a desire to see an improvement in consistency of e-book usage statistics. This included having
a single consistent common identifier for an e-book as well as ensuring that all vendors are measuring usage in the
same way e.g. a section request is interpreted the same way by all vendors.
Automation of the collection of usage data to save time was considered important too.

**Content aggregators**

**Askews and Holts**

This case study features Askews and Holts Library Services Ltd (Askews and Holts). The Company has a long background in library supply for public, school and academic libraries and have been supplying an e-book service since 2010. It is drawn from an interview with a representative of the company.

**Key uses of usage data**

Askews and Holts collect a great deal of usage statistics to feed back to their customers because they believe that they can achieve a competitive edge over other suppliers if they provide customers with all their requirements. Robust, consistent e-book statistics are “important to our customers and therefore important to us”. As well as feeding the statistics back to the customer they also use the data to assess their system and any issues that may have been reported. For example the usage data can show whether an e-book has been accessed and the amount that has been read.

The company goes beyond collecting the data necessary for COUNTER reports. For certain services, it anonymously records individual user’s behaviour, for example the number of pages read in each session. Abuse of the system can then be reported back to the library. The company offers a questionnaire service to a library; the system can ask a reader questions before they access a book allowing the library to find out who wants to read which book and why. This information can be broken down by faculty or budget code and exported by the library into a CSV file for analysis. Further statistics gathered includes a book’s classification code to enable subject reporting. The reports are consistent, clear and accessible to library staff 24 hours a day in real time as well as exportable to spreadsheets. They are comparable over time periods, such as termly or yearly and have been designed in this way to suit customer requirements.

The company understands that customers use the statistics to inform purchasing; report to budget holders; in their response to the National Student Survey and for COUNTER reporting. Because COUNTER reporting it is a statutory requirement for customers the company considers that it is “statutory for us to be able to provide it”.

**Challenges identified**

The foremost challenge in comparing usage data for Askews and Holts is inconsistency of reports and reporting guidelines across the industry. The interpretation of a section of an e-book could mean many things; chapter, page or paragraph which makes it difficult to compare the use of a section. For example, measuring a dictionary or encyclopaedia against a monograph or text book, where a section could be a paragraph for an encyclopaedia or a chapter for a text book.

ISBN numbers are a lesser challenge for the company because they use the publisher ISBN on their platform, rather than allocating their own identifier. However, as ISBN numbers vary for each version of a book, a different number for a PDF to an e-pub version, it is not always clear to customers and occasionally duplicate purchases are made.
by error. This multiplicity of ISBN for one title causes problems for many platforms and makes accurate reporting very difficult. However, the issue is not within the control of Askews and Holts.

A large quantity of meta-data leads to the inevitability of inaccuracies occurring. The industry has systems in place to deal with print meta-data but so far there are no systems for dealing with inaccurate e-book meta-data. Askews and Holts manage to enhance the meta-data they receive from publishers to be able to produce good catalogue records.

Meeting the challenges

The situation is very complex and a complete resolution may not be immediately possible. However, the representative of the company suggested that JUSP can provide a single source of information and can issue recommendations that will help standardise and develop clear guidelines of ways of recording the information. This is due to their facilitation with industry groups and their method of dealing with reports. They consider that the JUSP team should produce clear guidelines for a standard method of recording and reporting – “the sooner guidelines are issued and made clear, the better”.

Priorities for future improvement

The representative stated that the most important improvement in e-book usage statistics is the production of clear guidelines for COUNTER reporting. They are aware that COUNTER 5 is in progress but they believe that the interpretation of standards will vary unless there are clear guidelines of how to implement them. They realise that changing systems in order to comply with consistent guidelines would be lengthy and costly, but believe that it would be worthwhile because it is beneficial for the future.

Publishers

Springer Nature

Springer-Link is the platform which distributes Springer Nature’s e-books, e-journals and other reference works on science, mathematics and medicine. Springer e-books are also available through third party aggregator services. This case study is based on an interview with the technical team spokesperson.

Key uses of usage data

Springer Nature provides COUNTER BR2 reports for e-books that have been used. As Springer Nature provide over 230,000 e-books titles, only BR2 data relating to e-books which have been used during a specific period are included. BR3 (turnaway) data are also provided but Springer Nature does not provide BR1 reports.

The Springer Nature technical team also provide considerable enhancement of the basic COUNTER data which includes enriching metadata by adding package and copyright year to the ISBN. This additional work by the publisher enables customers to have enriched information without undertaking additional work themselves and more fully reflects the business model.
E-book usage data with enhanced metadata (including whether there is an institutional or consortium subscription) is used by Springer Nature’s sales team in instances where atypical peaks in usage have been reported and these can be investigated at a more granular level. In addition, BR3 data (turnaways) is used by the sales team to spot whether a different package containing the resources that users have tried to access unsuccessfully, would be more appropriate for a customer.

The interviewee understands that customers use the statistics to calculate cost per download for e-books in certain packages. Where there is a package with a single payment for access, customers may use the data to look at trends in usage over time and calculating the percentage of the package used.

Additional statistics that Springer Nature can provide include: the cost of the equivalent print version of an e-book and in exceptional circumstances usage by IP address which can be used to determine usage by department or individual. Springer Nature prefers customers to download reports via the SUSHI protocol or services such as JUSP because they handle a great number of e-books.

**Challenges identified**

The two major challenges that Springer Nature faces in providing their customers with e-book usage statistics are the quantity of e-books that they publish and keeping up with COUNTER changes. The interviewee would like to see a way of adding the business model to the data so that the reports could be viewed together.

Springer Nature is able to obtain usage data relating to their e-books from third party aggregators however this is not regularly provided and would need to be requested on an ad hoc basis and involve extra effort.

The interviewee did not see metadata as a problem as links could be made in their system. The only challenge would be when a title had been assigned to the wrong package and this had to be corrected.

**Meeting the challenges**

The interview suggested the possibility of a service connecting to Springer Nature’s MARC tool using the SUSHI protocol to pull together fuller reports that include the meta-data for business models.

**Priorities for future improvement**

The interviewee did not express any priorities for the future of e-book usage data.

**Oxford University Press**

The home of the Oxford English Dictionary (OED) and prestigious encyclopaedia, OUP is a UK based publishing company and a department of Oxford University. Its academic and educational printing and publishing activities date back to the 15th Century and it first embraced digital technology in 2000 when OED was published online.

**Key uses of usage data**

OUP generally only use usage statistics to support customers and do not use statistics as a basis for developing pricing models.
OUP uses usage data as a tool to address customers’ possible issues. For example, should the use of a resource decline it could indicate end user behaviour, statistical or system issues. OUP have the ability to identify use per IP address in order to spot anomalies and report this to customers, but this is not done as a matter of course. OUP looks at usage data, calculating cost per download, as an indication of value for money from a customer viewpoint.

OUP use BR3 reports to identify turnaways which may point to resources that a user has unsuccessfully attempted to access online. This can be used as a tool to make subscription suggestions to customers.

OUP provides statistics as a service for individual customers, for instance, when asked for statistics in an alternative format than COUNTER reports alone, for example to look at usage by collection rather than individual e-book title and specific formats to support the SCONUL annual return. The interviewee reports that this task takes considerable effort. For example, to calculate cost per e-book as OUP mainly sells collections rather than individual titles and law case studies without ISBN numbers.

The interviewee understands that libraries use the statistics to make purchasing decisions, for example purchasing the most used books under an Evidence Based Acquisition model; working out return on investment for renewing resources or using turnaway reports to identify e-books wanted by end users. As far as she is aware customers do not ask OUP to provide statistics at the level of individual user behaviour.

Robust, consistent and trustworthy e-book statistics are important and OUP is keen that customers are receiving the correct information.

The interviewee uses JUSP statistics in order to ensure they are seeing what the customer is seeing and also at times refer to the JUSP statistics to check any anomalies in their own data.

Currently OUP does not monitor statistics on a daily basis. Although this could be beneficial, such a role is not currently part of their workflow and would have resourcing implications.

**Challenges identified**

The interviewee realises that the variability of what is termed a section makes comparison of usage between platforms very difficult. For example, what is termed a section of the OED is different to what is considered a section of a text book.

Having different and inconsistent ISBNs between publishers and aggregators is a challenge. In addition, some items can have multiple ISBNs which is problematic, for example when a customer wants to avoid a duplicate purchase of an e-book on an aggregator platform and the identical title on OUP’s platform.

OUP has e-books hosted on other aggregator platforms but cannot monitor their usage through third parties. The interviewee acknowledges that this may be an issue for libraries.

For OUP adapting to new releases of the COUNTER Code of Practice can be resource intensive.

**Meeting the challenges**

In the view of the interviewee, COUNTER is the organisation best placed to meet the challenges because they are developing the industry standard in order to assist in the production of consistent and comparable statistics.
Priorities for future improvement

The interviewee believes that the most important improvement in e-book usage statistics is the production of reliable and consistent statistics so that the publishers and customers can trust them completely.
Appendix C: Interview questions

The participants in the case studies were sent details of the aim and objectives as well as an outline of the questions before the interview. Below are the four question frameworks for libraries, consortia, publishers and aggregators.

Aim

The primary aim of this study is to translate key issues and challenges relating to e-book usage statistics (from the perspective of libraries, publishers and aggregators) into practical, actionable recommendations.

Objectives

» To discover how libraries are building up e-book collections
» To assess how identified challenges have an impact on workflows
» To identify emerging standards and best practice

Questions for libraries

Acquisition and evaluation of e-books

1. Do you have a documented collection management policy in relation to e-books?
2. How do you acquire e-books?
3. Approximately how many e-book collections do you have?
4. What purchasing models do you use?
5. How do you manage Open Access e-books?
6. How does your library evaluate e-book deals?
7. In your perspective, have things changed in relation to the acquisition and evaluation of e-books over the last 2 years?
8. Do usage statistics affect your approach to e-book collection management?
9. What systems do you use to enable the discovery of e-books?

Collection and use of e-book statistics

10. Can you describe where the analysis of e-book statistics feature within your workflow?
11. How does the approach to reviewing and evaluating direct publisher stats and aggregator stats differ?
12. What e-book statistics are you currently using?
13. How are you using COUNTER book reports (BR1,2,3) at present?
14. Are you combining usage data with other sources of information?
15. Have you requested customised reports from publishers tailored to your specific needs?

16. How are you reporting usage data and to whom?

**Challenges with using usage statistics in e-book management**

The following common problems have been reported to us in relation to e-book statistics.

- Section requests are inconsistent and BR2s are not comparable
- BR1, BR2 and non-COUNTER reports are not comparable
- There is a lack of unique identifiers and knowledge bases which makes it difficult to compile usage data with business models, entitlements, subject area and print information
- Tracking titles across different business models and platforms is difficult because there is no master identifier for example, ISBN and eISBN formats and metadata
- Standard processes for e-book management are still in development
- Some publishers and vendors do not supply standard usage reports
- E-book reports that do not distinguish between purchased, subscribed and unowned content
- Accessing data from each supplier due to different platforms
- Keeping track of added or deleted titles or identifying titles that have been dropped

17. Do you perceive these to be challenges?

18. Do you face any other challenges with respect to e-book statistics or the management of e-books more generally?

19. On what other issues are robust e-books statistics dependent?

20. Who do you consider responsible to solve these challenges?

21. If you could improve anything in relation to e-book statistics what would be your priority?

**Future**

22. Looking forward, what is your impression of the use of e-books in your library in the next few years?

**Questions for consortia**

**Acquisition and evaluation of e-books**

1. Are you aware that any of your members have a documented collection management policy in relation to e-books?

2. How does your consortium acquire e-books?

3. Do you know approximately how many e-book collections your members have?
4. What purchasing models do you use?

5. In your perspective, have things changed in relation to the acquisition and evaluation of e-books over the last 2 years?

6. How does your consortium manage Open Access e-books?

7. How does your consortium evaluate e-book deals?

8. Do usage statistics affect the consortium approach to e-book collection management?

9. Does your consortium have a shared discovery service for e-books?

**Collection and use of e-book statistics**

10. Can you describe where the analysis of e-book statistics feature within your workflow?

11. How does the approach to reviewing and evaluating direct publisher stats and aggregator stats differ?

12. What e-book statistics are your members currently using?

13. How are your members using COUNTER reports (BR1, 2, 3) at present?

14. Does your consortium compare usage data with other factors?

15. Have you requested customised reports from publishers tailored to your consortium?

16. How are you reporting usage data and to whom?

17. How does the consortium manage Open Access e-books?

18. Can you describe where the analysis of e-book statistics feature within your workflow?

19. How does the approach to reviewing and evaluating direct publisher stats and aggregator stats differ?

**Challenges with using usage statistics in e-book management**

The following common problems have been reported to us in relation to e-book statistics.

› Section requests are inconsistent and BR2s are not comparable

› BR1, BR2 and non-COUNTER reports are not comparable

› There are a lack of unique identifiers and knowledge bases which makes it difficult to compile usage data with business models, entitlements, subject area and print information

› Tracking titles across different business models and platforms is difficult because there is no master identifier for example, ISBN and eISBN formats and metadata

› Standard processes for e-book management are still in development

› Some publishers and vendors do not supply standard usage reports
E-book reports that do not distinguish between purchased, subscribed and unowned content

Accessing data from each supplier due to different platforms

Keeping track of added or deleted titles or identifying titles that have been dropped

20. Do you perceive these to be challenges?

21. Are there other challenges with respect to e-book statistics or the management of e-books more generally?

22. On what other issues are robust e-books statistics dependent?

23. Who do you consider responsible to solve these challenges?

Future

24. Looking forward, what is your impression of the use of e-books in your library in the next few years?

Questions for publishers

E-books statistics provided

1. Can you describe the type of usage data you use and how that supports decision making within the organisation?

2. What form of usage data are you generally compiling or creating for your library customers?

3. Do you have an impression about how libraries are currently using e-book statistics?

4. What are your customers’ requirements in terms of usage statistics?

5. Are your customers asking for additional statistical data or additional data sources?

6. How do you use e-books usage statistics?

7. For publishers: Do you host e-books on other platforms?

8. How important to you is it to have robust and consistent e-books statistics?

Challenges with e-books usage statistics

9. In your opinion what are the challenges in providing your customers with e-books usage statistics?

Questions for aggregators

E-books statistics provided

1. Can you describe the type of usage data you use and how that supports decision making within the organisation?

2. What form of usage data are you generally compiling or creating for your library customers?
3. Do you have an impression about how libraries are currently using e-book statistics?

4. What are your customers’ requirements in terms of usage statistics?

5. Are your customers asking for additional statistical data or additional data sources?

6. How do you use e-books usage statistics?

7. Do you supply publishers with usage data from your platform?

8. How important to you is it to have robust and consistent e-books statistics?

Challenges with e-books usage statistics

9. In your opinion what are the challenges in providing your customers with e-books usage statistics?