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Original Citation

Chowcat, Ian, Kay, David, Stephens, Owen, Devenney, Amy and Stone, Graham (2014) eBooks Co--Design Report. Project Report. Jisc/SCONUL. (Unpublished)

This version is available at http://eprints.hud.ac.uk/id/eprint/20168/

eBooks Co-Design Report

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March 31, 2014

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1 - Executive Summary

As part of the Jisc Co-Design programme, the KB+ project team, supported by the University of Huddersfield, undertook a consultation exercise to identify and assess the pain points relating to eBooks as reported by academic libraries and their users.

1.1 - Background

Feedback from the 2012 Jisc Library Management programme (notably from EBASS25) and through the JUSP and Knowledgebase Plus (KB+) services confirmed that libraries have continuing and even increasing concerns across the processes involved in the selection, management and delivery of e-books, relating both to back-of-house functions and to the end user experience.

Jisc and SCONUL therefore agreed to undertake a study under the Co-Design programme, running from October 2013 to February 2014, in order to:

- **Understand the pain points** experienced by libraries in terms of management and user experience in dealing with eBooks in all their guises

- **Identify actions** that might be taken at local library, consortium or national levels and in the supply chain to address those pain points - involving JUSP and KB+ where applicable

1.2 - Approach

Aligned to the Jisc Co-Design principles and guided by the SCONUL Shared and Collaborative Services Working Group, the review followed a pattern of library consultation and analysis that served the community well in the development of the business case for the KB+ service (2011):

- **Step 1 – Identify the variety of supply chain models** with which libraries currently interact, ranging from purchase to subscription to open access, covering individual titles and collections, recognizing the trends towards PDA and chapter level options and taking account of the role of new generation library platforms.

- **Step 2 – Review the published literature**, drawing on a combination of UK projects and reports and evidence from elsewhere in the world, especially North America, and noting that authors are predominantly from the library community rather systems consultants, supply chain actors or user voices.

- **Step 3 – Consult with libraries** individually and in groups about the pain points they face in these areas; this included review of common ground with academic libraries from Ireland (CONUL members) and from the US (Kuali OLE Consortium).

- **Step 4 – Document and synthesise** the consultation 'pain points' and other findings in a manner useful to the participating libraries as well as informing project outcomes and recommendations.

- **Step 5 – Identify areas where the problems are tractable** and make recommendations on how and with whom changes might be enabled, locally or 'above-campus', and including any opportunities for extending services such as KB+ and JUSP.

The initial scoping document and materials arising form this work were incrementally posted on the KB+ wiki.

1.3 – Findings

Each focus group delegate completed the 'Pain Points Matrix' to organise personal key issues under four headings:

- Problems that seem intractable (too big/too complex/out of our control)
- Problems we can solve locally ourselves
- Problems that require local resolution but would benefit from above-campus support
- Problems that can be tackled through above-campus or community action (e.g. through a shared service)

Drawn from over 500 delegate submissions, a total of 47 pain points were identified through the consultation process and further validated through a voting process (see Section 3) as potentially benefitting from 'above campus' support.

The range of concerns is illustrated by the Top 12 (25%) pain points, all of which received over 66% majority endorsement (Vote of 26/37 or more) for 'above campus' support.

Category	Pain Point	Vote	Rec
H - Devices & Accessibility	Improve e-book compatibility with mobile devices	36	R3
H - Devices & Accessibility	Compatibility with accessibility software	36	R3
A - Business Practice	Share knowledge on procurement issues	34	R6
B – Licensing	Standardise and simplify licensing	32	R5
A - Business Practice	Adopt a community approach to negotiating with publishers	30	R5
C - Selection	Single e-book acquisition and discovery service including pricing and models	30	R8
F - Evaluation & Analytics	Better usage stats – JUSP for e-books	30	R9
E - Metadata & Discovery	Normalise e-book ISBNs	28	R4
I - Continuing Access	Provide continuing and archival access	28	R6
I - Continuing Access	Preservation of DRM free content	26	R6
C – Selection	Finding out what e-books are available	26	R7
F - Evaluation & Analytics	Share techniques for local stats collection	26	R9

1.4 – Recommendations

Throughout the study, library managers, e-resource practitioners and procurement experts in the UK, Ireland and North America consistently asserted that 'now is the time' to tackle a range of business, operational and technical e-books issues, ideally in partnership with the supply chain. Many aspects of the market were presented as fundamentally 'broken' from the perspective of academic libraries and their users, to the extent that any promise of waiting for the market to settle does not seem credible.

A key aspect of the analysis has therefore been to ascertain the optimum means of intervention (or 'solution channel'), especially where above campus support is proposed. As detailed in Section 4, this has resulted in eight recommendations in three groupings. A further 'umbrella' recommendation recognizes that the overall undertaking would benefit significantly from the leadership and coordination of a stakeholder Collaboration Group. In addition, Section 5 highlights underlying workforce and skills considerations.

	SCONUL Priority	Activity Lead	Activity Type	Develop One-off	Data Up front	Data Recurrent	Other Staffing	Start Year	Duration	Risk Type	Risk Likeli-hood	Risk Sever-ity
R1 – Collaboration Group	1	Jisc	Leadership	n/a	n/a	n/a	Volunteer	2014, May	3 years	Ineffective leadership	2	5
R2 – UK Stakeholder Organisations	2	SCONUL	Above-campus Lobbying	n/a	n/a	n/a	Volunteer	2014	Ongoing	Lack of leverage	2	4
R3 - Trade User Groups	4	SCONUL	Individual Libraries Lobbying	n/a	n/a	n/a	Volunteer	2015	Ongoing	Poor choice of issues; Lack of traction	3	3
R4 – International Community	3	Jisc	Standard-isation	n/a	n/a	n/a	Volunteer	2014	Ongoing	Long game; tortuous process	4	2
R5a – Negotiation	1	Jisc Collections	Contractual	n/a	n/a	n/a	Core business	2014	Ongoing	Poor choice of issues	2	5
R5b – Alternative Publishing Models	2	Jisc Collections	Innovation Projects	n/a	n/a	n/a	Project funding	2014	2 years	Sustain-ability; Extensibility	4	4
R6a – Procurement Advice	1	Jisc Collections	Best Practice	n/a	n/a	n/a	Core business	2014	1 year	Complexity of scenarios	3	2
R6b – Access in Perpetuity	2	Jisc Collections	Investigation	n/a	n/a	n/a	Project funding	2014, October	6 months	Complexity of scenarios	3	2
R7 - Availability Tracking (KB+)	1	Jisc Collections	Prototype KB+ Extension	Yes	Auto-mated	Auto-mated	n/a	2014, October	6 months	Supply side barriers; Technical issues	3	3
R8 - Decision Support (KB+)	1	Jisc Collections	KB+ Extension	Yes	Yes	Yes	Library Volunteers	2014, May	1 year	Keeping up to date	3	4
R9a - Usage (COUNTER data)	1	Jisc Collections	JUSP Extension	Yes	n/a	Yes	n/a	2014, Jan	Ongoing	Provider buy-in	3	4
R9b – Usage (Local data)	2	Jisc	Technical Exemplars & Best Practice	Yes	n/a	Auto-mated	Project funding	2014, October	9 months	Local HEI response	3	4

The study highlighted significant mutual engagement of UK academic libraries with these prospects, in common with libraries in Ireland and in the United States, as well as the support of key partners such as SUPC and Jisc Collections. SCONUL and Jisc are therefore urged to progress these recommendations at the earliest opportunity through a combination of advocacy and services.

1.5 - Acknowledgements

In presenting this report and its recommendations, we acknowledge the support and involvement of the UK, Irish and Kuali OLE library communities. As detailed in Appendix A, over 100 practitioners from 69 libraries took part in focus groups and voting. In addition we are grateful to the organisations that provided meeting spaces for the focus groups and for the assistance of CONUL, the Kuali Foundation, M25, SHEDL and WHEEL in making arrangements.

We are also indebted to the support and insights of colleagues at Jisc Collections and SUPC, and of the SCONUL Steering Group (the Shared Services Working Group, chaired by Mark Toole).

Finally, but by no means least, we recognise the considerable contribution of Graham Stone and Amy Devenney of the University of Huddersfield as members of the project team.

Ian Chowcat, David Kay & Owen Stephens, March 2014

2 – Approach

2.1 - Literature Review

Since the 1980's, when e-books first appeared on the consumer market, libraries slowly began to incorporate them into their holdings. Uptake has escalated strongly over the last decade and SCONUL returns indicate that 100% of university libraries in the UK and Ireland now hold e-books as part of their collections. The 2011-12 SCONUL return indicated that an average of 26.6% of monograph spend in UK university libraries was on e-books. The average in Scotland was over 30% and higher still for libraries adopting a preferred e-book acquisition policy.

Despite this apparent universal acceptance of e-books as suitable resources for academic libraries there are strong indications that libraries are still unsure about committing significant proportions of their budgets to e-books. Conversely feedback from the users suggests that the promise of e-books availability at anytime from anywhere has made them an important resource. If users are increasingly turning to e-books in their studies why are libraries not correspondingly increasing their acquisition of e-books?

By examining the literature, this paper aims to define the existing problem spaces for e-books. It begins by pulling out the issues identified in published literature, which are mainly issues reported by librarians or library researchers rather than by the users themselves. It then examines the issues that arise from the acquisition, management, delivery and evaluation of e-books on a daily basis and operational level before concluding with an overview of the problems and irritations that arise for users around e-books.

2.2 - Consultation

The consultation process involved a series of Home Nation and regional events (November 2013 – January 2014) where libraries reviewed pain points and priorities. In order to explore key issues in greater depth, complementary individual workshops were held with four libraries (Huddersfield, Newcastle, Wolverhampton and York).

- **Ireland** (CONUL) – Royal College of Surgeons – Tuesday 28 January
- **Midlands** – University of Leicester – Tuesday 26 November
- **M25** – London School of Hygiene and Tropical Medicine – Friday 29 November
- **North** – Sheffield Technology Park – Tuesday 3 December
- **South West** – University of Gloucestershire, Cheltenham – Friday 6 December
- **Scotland** (SCURL) – National Library of Scotland – Monday 9 December
- **Wales** (WHEEL) – University of Cardiff – Friday 13 December
- **M25** – UCL, School of Pharmacy – Monday 16 December

These events engaged with over 100 managers and practitioners from 62 institutions (see Appendix B). All the focus groups were organized around a common topic guide (see Appendix C). They were planned to be interactive, supported by evidence from the literature and materials prepared to elicit perspectives of e-resource managers and practitioners on key topics:

- **Selection decisions** – relating to licensing terms, accuracy of bibliographic identifiers
- **Workflow challenges** - relating to acquisition / subscription, activation, ingest in to catalogue and discovery layers

- **User experience** – relating to discovery, access, currency of content

Each delegate completed the 'Pain Points Matrix' to organise personal key issues under four headings:

- Problems that seem intractable (too big/too complex/out of our control)
- Problems we can solve locally ourselves
- Problems that require local resolution but would benefit from above-campus support
- Problems that can be tackled through above-campus or community action (e.g. through a shared service)

The issues identified (there were over 500 submissions) were synthesized under around 60 headings, and distilled to the 47 'pain points' with the potential for above-campus or community intervention, excluding explicitly local issues (see Section 3).

These 47 pain points were then subjected to a validation vote, repeating the approach used successfully in the LAMP project whereby every consultation delegate was invited to classify the full list rather than those points detailed by their particular focus group. It was also subject to voting by international partners from CONUL (Ireland) and the Kuali OLE Consortium (US) and to review meetings with Jisc Collections and SUPC.

2.3 - Synthesis

In order to understand the impact on libraries and their users and also the potential channels for change, the reported pain points were broadly classified in two dimensions – functional areas and solution channels.

As the headings and sub-headings are closely derived from the library and sector stakeholder consultation, it is suggested that these classifications should be of value to the groups involved in implementation of recommendations and for downstream analysis of the evolving problem space.

Functional Areas

Whilst the number of pain points in each area is not significant (many of the pain points could be classified in multiple areas), the distribution is nevertheless an interesting indicator, though the priority rankings are more significant (see Section 3).

> Purchasing (23 pain points)
> > A - Business Practice (12)
> > B – Licensing (6)
> > C – Selection (5)
>
> Management (13)
> > D - Workflow & Administration (5)
> > E – Metadata & Discovery (6)
> > F – Evaluation & Analytics (2)
>
> Access (11)
> > G - User Support (6)
> > H - Devices & Accessibility (2)
> > I - Continuing Access (3)

Solution Channels

Many of pain points can be addressed in a concerted manner through a combination of channels, which, if well orchestrated, might lead to greater chances of success. The report recommendations (Section 4) are each linked to key channels. At a the individual pain point level, the accompanying spreadsheet (Appendix D) maps each pain point to the recommended Solution Channels.

Sharing practice
A – Sharing operational practice
B – Sharing technical practice

Advocacy
C - Sector advocacy
D – Supply side (trade) advocacy
E - Standardisation activity

Pressure Points
F - National (or above-campus) negotiation
G - Supplier user groups
H - International community

Online Services
I - KB+ / GOKb
J - JUSP
K - Other sector shared services
L – 3rd party services (outside the sector)

Innovation
M - Alternative models

It should be noted that all of the above are mapped to individual pain points with the exception of (L) 3rd Party Services.

3 - Pain Point Descriptions

3.1 - Pain Point Index

As described in Section 2, delegates were invited to vote on the means of addressing and priority of the 47 Pain Points in 9 Categories derived from the synthesis of the e-books workshops.

The Pain Points are listed here by Category in descending order of voting 'approval', where the supporting columns indicate:
- Voting Score - in the range +38 to -38
- Voting Ranking – in the range 1st to 47th
- Recommendation Number – cross-ref to Section 4

Descriptions of the Pain Points are provided in Section 3.3.

A – Business Practice	Score	Rank	Rec
A1 - Share knowledge on procurement issues	34	3	R6
A2 - Adopt a community approach to negotiating with publishers	30	5	R5
A3 - Too many business models and too inflexible	20	17	R2
A4 - Insufficient availability in e-format (including e-textbooks)	20	17	R5
A5 - Pricing of collections	20	17	R5
A6 - Set up a Jisc / community aggregator service	20	17	R6
A7 - E-textbooks unaffordable	14	32	R5
A8 - E-book publication timing lagging behind print	14	32	R2
A9 - Arbitrary Platform Fees for ongoing access	10	35	R5
A10 - Adopt a consortium approach to purchasing	10	35	R5
A11 - Make it easier for libraries to buy direct from publishers	8	39	R5
A12 - Publishers targeting faculty and students directly	-10	47	R2
B – Licensing			
B1 - Standardise and simplify licensing	32	4	R5
B2 - Establish UK licenses for free collections such as Hathi Trust	22	16	R6
B3 - Extend licences to cover visitors, partner institutions and 'ILL'	20	17	R2
B4 - Standardise DRM	20	17	R4
B5 - Clarify legacy issues – library ownership and preservation	18	23	R5
B6 - DRM imposes too many restrictions	18	23	R5
C – Selection			
C1 - Single e-book acquisition and discovery service incl. pricing	30	5	R8
C2 - Finding out what e-books are available	26	10	R7
C3 - Shared evaluation and decision matrix to inform purchasing	16	30	R8
C4 - Keeping up to date with changing availability and editions	14	32	R7
C5 - Develop routes to selection for Gold OA e-book publishers	10	35	R7
D – Workflow & Administration			
D1 - Share workflows for acquisition and collection management	18	23	R3
D2 - Easier management of variations in credit models	16	30	R5
D3 - Too many workflows	4	40	n/a

D4 - Better management of PDA	2	44	R3
D5 - Weeding is not straightforward	-8	45	R3
E – Metadata & Discovery			
E1 - Normalise e-book ISBNs	28	8	R4
E2 - Standardise authentication services	24	13	R3
E3 - Catalogue compatibility / synchronisation with discovery layer	18	23	R7
E4 - Quality of MARC records	18	23	R5
E5 - Improve MARC records workflows	18	23	R3
E6 - Better discovery and metadata for free e-books	18	23	R4
F – Evaluation & Analytics			
F1 - Better usage stats – JUSP for e-books	30	5	R9
F2 - Share techniques for local stats collection	26	10	R9
G – User Support			
G1 - Shared technical information on formats and restrictions	24	13	R8
G2 – Standardise formats and interfaces	10	35	n/a
G3 - Too many formats, platforms, and interfaces	4	40	n/a
G4 - Under-exploitation of interactivity in e-books	4	40	n/a
G5 - Support for training / guidance for end users – with suppliers	4	40	R3
G6 - Managing user expectations	-8	45	n/a
H – Devices & Accessibility			
H1 - Improve e-book compatibility with mobile devices	36	1	R3
H2 – Compatibility with accessibility software	36	1	R3
I – Continuing Access			
I1 - Provide continuing and archival access	28	8	R6
I2 - Preservation of DRM free content	26	10	R6
I3 - Commensurate fees for continuing and archival access	24	13	R6

Key - n/a – As flagged in the table, the following pain points formed part of the library validation process but are not referenced in the recommendations that follow (Section 6) because they are at odds with the likely workings of a competitive marketplace. Unsurprisingly they were ranked very low in the voting process.

- D3 - Too many workflows
- G2 - Standardise formats and interfaces
- G3 - Too many formats, platforms, and interfaces
- G4 - Under-exploitation of interactivity in e-books
- G6 - Managing user expectations

3.2 – Local Pain Points
Focus Group delegates identified a large number of e-books related issues that will continue to be addressed locally. The most frequently recurring issues are ordered here by approximate frequency of mentions, highest first. Whilst other delegates proposed that some of these issues might at least be partially addressed by above-campus support, this list provides a useful indication of continuing importance of local skills and expertise.

1. Workflows
2. Print versus electronic decision-making

3. Metrics
4. Supplier selection
5. Weeding
6. Collection management
7. PDA management
8. Library staff training and guidance
9. User (academics and students) training and guidance
10. User (academics and students) awareness and engagement
11. Discoverability of e-books generally
12. Reading lists
13. Off-campus access
14. Catalogue records
15. Liaison with university finance and IT
16. Re-organisation of library teams
17. Budgets including VAT issues
18. Improving user experience (through such as better use of discovery layer, authentication and campus PC standardisation)
19. Discoverability of free / open access e-books

3.3 - Pain Point Descriptions
Listed by group in descending order of priority voting

A – Business Practice

A1 - Share knowledge on procurement issues
Notwithstanding the value of aggregator framework agreements, libraries are aware of a wide variety of procurement issues where they would benefit both from sharing experience and from expert advice (from such as Jisc Collections).

A2 - Adopt a community approach to negotiating with publishers
Frameworks agreements deal with aggregators not with publishers; when contracting directly with publishers, libraries are often acting in isolation and therefore not benefitting from collective negotiation in terms of best practice, processes and pricing.

A3 - Too many business models and too inflexible
An inevitable consequence of a competitive open yet immature market is that new sales and subscription models are always emerging. As many of the players operate more widely than HE and UK territory, they are not flexible in addressing local or consortium requirements.

A4 - Insufficient availability in e-format (including e-textbooks)
Many titles of interest in teaching and learning are not, and are unlikely ever to be published in e-format. This is typically true of texts of longstanding interest (especially in the humanities) that are still within copyright and so are outside the digitisation efforts of such as Hathi Trust.

A5 - Pricing of collections
The ways that key titles are enveloped by aggregators and publishers within broad lower priority collections are clearly not beneficial to libraries. This follows the practice imposed through deals in the e-journal market, and seems even less equitable on account of the absence (or uncertainty) of access in perpetuity.

A6 - Set up a Jisc / community aggregator service

The aggregator role, negotiating collection content, licensing and pricing directly with publishers, might be played more beneficially by a sector facing entity. Jisc Collections is named as a prime example on the basis of its work with e-journals and with e-book collections such as Jisc Historic Books.

A7 - E-textbooks unaffordable
E-textbooks can command a premium price, though that is not necessarily reflected in the remuneration of academic contributors. Whilst print textbooks are costly, the pricing models for the requisite concurrent access are taking the economic challenge to another level.

A8 - E-book publication timing lagging behind print
There appears to be a global practice for the majority of publishers that e-book publication follows later than print. Whilst this may be a consequence of publishing and distribution processes, it is suggested that this is a marketing tactic that mimics film (cinema first, then DVD / streaming). Delay proves frustrating in some cases and adds significant cost where purchase in both formats is necessary.

A9 - Arbitrary Platform Fees for ongoing access
Where ongoing access is part of the license arrangement, publishers and aggregators have taken to charging annual platform fees. Whilst these are relatively small, a library must make provision for multiple variable fees in perpetuity.

A10 - Adopt a consortium approach to purchasing
It is inefficient in terms of duplicated effort for individual libraries to be dealing with the same publishers. Furthermore price and terms are not as advantageous as they might be with the sort of approach enabled by purchasing consortia and by Jisc Collections.

A11 - Make it easier for libraries to buy direct from publishers
For a library to purchase from a publisher involves stumbling blocks, such as making the case to procurement management within the institution, appraisal of licensing terms and assessment of the platform. These may be prohibitive.

A12 - Publishers targeting faculty and students directly
Textbook publishers have always targeted faculty and students directly, though a number of channels. However, these methods are more worrying in the digital world. Notwithstanding publishing delays, 'What you see is what you get' worked with print. However with digital there are a variety of unseen pitfalls that may only become apparent when a cohort has the title 'to hand', ranging from device suitability and accessibility to supporting platform features ('Can I annotate?') to long term access rights. The library's advice is rarely taken by the purchasers (e.g. faculty), yet the library is the default point of support and complaint for the users.

B – Licensing

B1 - Standardise and simplify licensing
Both publishers and aggregators are evolving terms and conditions on the fly – partially driven by market forces and uncertainties regarding the business proposition, partially through carbon copying approaches from other areas of their business. Libraries feel the absence of the stabilising mutuality and expectations introduced by the Jisc standard licence in NESLi2. Furthermore, whilst purchasing consortia have addressed financial aspects, it is emphasised that e-books licensing requires standardisation of a range of technical and rights issues

B2 - Establish UK licenses for free collections such as Hathi Trust
There is a variety of reasons why digitised collections are not widely or confidently exploited in the UK. A core professional concern relates to the licensing, where the terms may be unclear or expressed regarding another territory (such as the US).

B3 - Extend licences to cover visitors, partner institutions and 'ILL'
Libraries face considerable difficulties in achieving appropriate licensing of e-books for uses beyond the enrolled or employed users for a named campus. This impacts visitors from other institutions (notably walk-in access), collaborative partners and, increasingly significantly remote / overseas campuses. Whilst it is understood that publishers need to protect their position and that aggregators may be restricted in terms of territory, the resulting imbalance of generic collection site costs relative to user numbers in restricted subject areas is close to untenable (e.g. a delivery involving partnership less than 100 management students in South East Asia).

B4 - Standardise DRM
The implementation of Digital Rights Management (DRM) differs across the range of publishers and aggregators. This is a source of confusion and frustration for users and also a drain on library support teams. At worst, it is (unfairly) perceived to reflect a poor quality library service rather than the arbitrary and sometime ill-conceived decisions of vendors.

B5 – Clarify legacy issues – library ownership and preservation
There is considerable uncertainty in libraries regarding the ongoing or perpetual access rights associated with licenses, whether purchase or subscription. This stems from a number of factors ranging from conspiracy (vendor obfuscation) to chaos (licensing invented on the fly in a rapidly evolving market) to the core issues of definition and use of terminology in licences. These uncertainties extend beyond the provision of access to the expectation of continued availability and the opportunity of / responsibility for preservation for long term access (notably for DRM free items).

B6 - DRM imposes too many restrictions
Some implementations of DRM (Digital Rights Management software) impose restrictions that make the content incompatible with user expectations and with typical and reasonable ways of working with reference to multiple device access and print, based on their experience with e-journals and consumer e-book platforms.

C – Selection

C1 - Single e-book acquisition and discovery service including pricing
When selecting and acquiring e-books, it is hard to compare the collections on offer (for example from the aggregators included on purchasing agreements), on account of both the scale and volatility of the offers. Comparison requirements include titles (especially key reading list requirements), edition information, subscription / purchase models, licensing terms and pricing.

C2 - Finding out what e-books are available
It is time consuming to assess the current availability of specific titles across the range of aggregator and publisher offers. It is furthermore difficult to track down some titles and alternative offers on account of the variability of metadata (notably title expressions and ISBNs) for the 'same' title.

C3 - Shared evaluation and decision matrix to inform purchasing

Selection options to purchase or to subscribe to titles are difficult to compare without access to a range of characteristics, relating not only to price but also to platform, format, DRM and licensing. This data, which is takes time and expertise to collect and document, is also required to support users if the title or collection is acquired.

C4 - Keeping up to date with changing availability and editions
The scale and volatility of e-books offers, whether for purchase, subscription or Open Access, presents a perpetual challenge not only at the point of selection but also, and equally importantly, in supporting access. This is sufficiently problematic for some libraries to dismiss the possibility of supplying core reading list items from aggregator subscriptions, preferring to buy reliable print stock in addition.

C5 - Develop routes to selection for Gold OA e-book publishers
Whilst Open Access e-books are becoming more commonly available, suppliers are not necessarily well placed to ensure these options are visible to library selectors, especially as they will not occur in aggregator offers. If OA e-books are to be acquired they need to be visible not only on publisher sites but also in aggregated discovery and comparison tools.

D – Workflow & Administration

D1 - Share workflows for acquisition and collection management
E-books workflows from acquisition to usage assessment are not well established, they are inconsistent across providers and differ according to management systems. Libraries find themselves working in isolation and reinventing wheel in terms of optimal approaches.

D2 - Easier management of variations in credit models
Credit models, covering entitlement with a purchasing agreement, differ from supplier to supplier and from time to time and are therefore a particular source of difficulty, in terms not only of management complexity but also of unpredictable change.

D3 - Too many workflows
The variety of workflows across different suppliers (aggregators, publishers) and models (notably complicated by PDA) is an unavoidable consequence of competition. Whilst this pain may be alleviated as the market matures, it should not be the focus of our recommendations.

D4 - Better management of PDA
PDA has been both a welcome model and also a significant administrative burden. Even more than in other areas of e-books processing, it is suggested that suppliers have hurriedly attempted to re-purpose poorly fitting processes around a ballooning variety of PDA models.

D5 - Weeding is not straightforward
The weeding of electronic content (whether outdated in terms of edition or no longer available) from local catalogues and discovery applications is a difficult task to plan and execute, especially given volatility of availability and poor quality catalogue records.

E – Metadata & Discovery

E1 - Normalise e-book ISBNs
New ISBNs are allocated for each new supply variant (e.g. new aggregator or platform). Consequently the ISBN is of negligible value as a reference point for identifying the 'same' title or for managing e-book collections.

E2 - Standardise authentication services
The workings of the plethora of supplier platforms mitigate against the single authentication approach that is central to HE thinking, perhaps not helped by the relative significance of the sector to global content providers.

E3 - Catalogue compatibility / synchronisation with discovery layer
Keeping e-book records in the catalogue in synch with the availability represented in any chosen discovery layer – and vice-versa – represents a significant resource drain. The resulting disparities are frustrating to lecturers and users and an everyday challenge to library support teams.

E4 - Quality of MARC records
Perhaps as a consequence of the transience of the items, the MARC records supplied with e-books, especially by aggregators, are of poor quality that are likely to inhibit discovery as well as making administration difficult.

E5 - Improve MARC records workflows
The flow of MARC records through institutional systems, especially in PDA scenarios, typically represents an unduly convoluted route to the eventual discovery outcome. This is largely a function of the mixture of systems being used within a library, but a single vendor solution may not represent the assumed panacea.

E6 - Better discovery and metadata for free e-books
Less attention has been given in the UK to the positioning of free e-books (both scanned out of copyright and born digital) than in such as the US. There is an uncertainty about how and where to expose these titles that is not helped by quality of the metadata in many cases and by the undifferentiated nature of large free collections such as Hathi Trust in discovery layer products.

F – Evaluation & Analytics

F1 - Better usage stats – JUSP for e-books
By comparison with print collections, it is untenable that libraries have so little information on the usage of e-resources, and especially their subscribed e-books. The work of encouraging providers to make COUNTER stats available, ideally standardising their interpretation, and also of collecting and processing the data is wasteful of local resources.

F2 - Share techniques for local stats collection
Whilst COUNTER can indicate value derived from collections, it cannot monitor the nature of use, for which purpose both library and learning analytics require user level access data. In particular libraries need transaction level data to ascertain best purchase / access models. This data would typically come from the local authentication service such as EZproxy, but the principles of such use and the techniques for configuration and analysis are not widely established between libraries and IT services.

G – User Support

G1 - Shared technical information on formats and restrictions
Ranging from device compatibility to access restrictions, a huge range of technical issues and their consequences impact the users of e-books and therefore library support services. The same information is required by every institution using a particular platform, yet efforts to glean selection information and to provide user advice are widely duplicated.

G2 - Standardise formats and interfaces
The variety of formats and interfaces across different suppliers (aggregators, publishers) and models (notably complicated by PDA) is an unavoidable consequence of competition.
Whilst this pain may be alleviated through standardisation as the market matures, it should not be the focus of our recommendations.

G3 - Too many formats, platforms, and interfaces
The variety of interfaces across different suppliers (aggregators, publishers) and models (notably complicated by PDA) is an unavoidable consequence of competition at this stage in the market (consider the video parallel, most recently DVD v Bluray).
Whilst the resulting frustrations may be addressed by local guidance and training for both staff and users, it should not be the focus of our recommendations.

G4 - Under-exploitation of interactivity in e-books
There is a strong likelihood that many users are unaware of the different interactive features (e.g. book shelf, annotation) offered by e-book platforms.
Whilst this may be addressed by local guidance and training, it should not be the focus of our recommendations.

G5 - Support for training / guidance for end users – with suppliers
Given the diversity and therefore the confusion and frustrations surrounding e-books, guidance and training for library staff and end users is essential; however, the task of developing and maintaining accurate and suitably targeted material, duplicated across every institution, is extremely challenging – and collaboration with suppliers in these respects could be improved.

G6 - Managing user expectations
The consequence of being part of a competitive global market (i.e. digital content generally) is that users will develop expectations from using other contexts and platforms.
Whilst such friction may be addressed by local guidance and training, it should not be the focus of our recommendations.

H – Devices & Accessibility

H1 - Improve e-book compatibility with mobile devices
The mobile device landscape is highly volatile, despite some areas of standardisation (such as operating systems), and that situation is expected to persist for some years. Furthermore increasing numbers of users expect to use mobile devices to access e-books at least part of the time. Consequently the promise of e-books is both alluring and frustrating to users, lacking the relative clarity of such as the Kindle offer.

H2 - Compatibility with accessibility software
Libraries have a strong commitment and obligation to provide equal and appropriate opportunities to users across the spectrum of disability and impairment. Whilst tremendous progress has been made in the accessibility technologies, widely adopted in educational software, e-book platform suppliers do not seem to buy in to this core requirement.

I – Continuing Access

I1 - Provide continuing and archival access
There is considerable uncertainly in many cases about what ongoing access is being offered under aggregator and publisher license terms. The lack of clarity of terminology means that this consideration is often not properly considered at the point of purchase. The consequences are not only about achieving value for money (though that is very important) but also about what the library collection might contain in the medium to long term, especially when educational texts might increasingly be published on an e-only basis – even old editions are worth having in many circumstances.

I2 - Preservation of DRM free content
There is an expectation that DRM free content is being made available in perpetuity. Whilst some e-book titles are not of interest beyond the life of the current edition, it would be prudent to provide a preservation platform in order that institutions might maximise their investment under the terms of the license.

I3 - Commensurate fees for continuing and archival access
There is considerable uncertainly not only about what access in perpetuity is being offered under license terms, but also concerning the channels for such access and the associated service costs, including the ability of original or archival providers to impose apparently arbitrary platform fees.

4 - Recommendations

4.1 - Overview

Priority recommendations arising from the e-books library consultation are divided in to three groups:

- Group 1 – Advocacy
- Group 2 – Direct Action
- Group 3 – Information Services

Each recommendation is described in this section in a standard format:

- The Problem
- Pain Points Cross-reference
- Recommendation
- Lead Role
- Solution Channels

In addition, the recommendations are profiled with reference to resourcing and risk as follows:

	SCONUL Priority	Activity Lead	Activity Type	Develop One-off	Data Up front	Data Recurrent	Other Staffing	Start Year	Duration	Risk Type	Risk Likeli-hood	Risk Sever-ity
R1 – Collaboration Group	1	Jisc	Leadership	n/a	n/a	n/a	Volunteer	2014, May	3 years	Ineffective leadership	2	5
R2 – UK Stakeholder Organisations	2	SCONUL	Above-campus Lobbying	n/a	n/a	n/a	Volunteer	2014	Ongoing	Lack of leverage	2	4
R3 - Trade User Groups	4	SCONUL	Individual Libraries Lobbying	n/a	n/a	n/a	Volunteer	2015	Ongoing	Poor choice of issues; Lack of traction	3	3
R4 – International Community	3	Jisc	Standard-isation	n/a	n/a	n/a	Volunteer	2014	Ongoing	Long game; tortuous process	4	2
R5a – Negotiation	1	Jisc Collections	Contractual	n/a	n/a	n/a	Core business	2014	Ongoing	Poor choice of issues	2	5
R5b – Alternative Publishing Models	2	Jisc Collections	Innovation Projects	n/a	n/a	n/a	Project funding	2014	2 years	Sustain-ability; Extensibility	4	4
R6a – Procurement Advice	1	Jisc Collections	Best Practice	n/a	n/a	n/a	Core business	2014	1 year	Complexity of scenarios	3	2
R6b – Access in Perpetuity	2	Jisc Collections	Investigation	n/a	n/a	n/a	Project funding	2014, October	6 months	Complexity of scenarios	3	2
R7 - Availability Tracking (KB+)	1	Jisc Collections	Prototype KB+ Extension	Yes	Auto-mated	Auto-mated	n/a	2014, October	6 months	Supply side barriers; Technical issues	3	3
R8 - Decision Support (KB+)	1	Jisc Collections	KB+ Extension	Yes	Yes	Yes	Library Volunteers	2014, May	1 year	Keeping up to date	3	4
R9a - Usage (COUNTER data)	1	Jisc Collections	JUSP Extension	Yes	n/a	Yes	n/a	2014, Jan	Ongoing	Provider buy-in	3	4
R9b – Usage (Local data)	2	Jisc	Technical Exemplars & Best Practice	Yes	n/a	Auto-mated	Project funding	2014, October	9 months	Local HEI response	3	4

These recommendations were derived from assessing both realistic opportunities for progress (tractability) and also the community priority (utility) of the 47 Pain Points raised and validated though the library consultation.

Whilst the three groups and the pain points themselves overlap in many ways, offering considerable cross-cutting synergy, these divisions provide a framework for targeting and tracking recommendations. Furthermore, actors such as SCONUL, Jisc Collections and purchasing consortia (e.g. APUC, SUPC) should be well placed to identify the common threads, to coordinate the opportunities and therefore to maximise the benefits. We therefore start with an umbrella recommendation regarding collaboration.

4.2 – Collaboration Group
The cohering recommendation (R1) is for the establishment of an eBooks Collaboration Group.

The Problem
Interventions to date (such as procurement and purchasing negotiations) have had a positive influence on the evolving e-book marketplace and on the supporting processes. However, this report highlights a fundamental need for greater coordination across the HE community in order to drive and cohere activity, to maximise influence and to track ongoing technical change. This is especially the case as the e-book supply chain is not strongly focused on the needs of HE or of the UK market in particular, and therefore this is much more of an issue for e-books than for e-journals.

Pain Points
This 'umbrella' recommendation arises from stakeholder review of the challenges and opportunities that have been highlighted by libraries and is not therefore linked to particular group of pain points.

Recommendation
It is strongly recommended that the co-design partners should establish a Collaboration Group of demand-side stakeholders in order to coordinate the response to the challenges raised in this report, engaging with sector leadership (UUK, the Funding and Research Councils) to further debate in the broadest context.

The group should include APUC, Jisc (including Jisc Collections), RLUK, SCONUL and SUPC (potentially representing other regional purchasing consortia). It may also benefit from the involvement of CONUL, SHEDL, WHEEL and the National Libraries, as well as international links with such as LIBER (covering European dimensions).

Whilst this might be conceived as a Task & Finish Group specifically around the recommendations herein, it might be deemed to have a wider purpose or longer life. It is therefore recommended that the group be formed with an initial tenure of two years, which should be annually reviewed.

Lead Role
The lead role for this recommendation might be played by **Jisc**, working with the partners listed above.

Solution Channels
(This collaboration group will service the underlying eight recommendations and is therefore not concerned with the particular solution channels).

4.3 - Group 1: Advocacy

Whilst advocacy can make a valuable contribution to addressing most pain points, this group of recommendations focuses on pain points where other types of activity (such as negotiation, shared services and information systems) are unlikely to drive progress.

The Advocacy recommendations are divided according to the type and level of the advocates that might take the lead with particular pain points. These groups may be reconfigured to capitalise on appetite, energy and synergy.

R2 - UK Stakeholder Organisations

The Problem

There are issues of business practice that are regarded by libraries as unhelpful, perhaps dubiously motivated and even ethically questionable. They typically sit outside those things that can be explicitly addressed in framework or contract negotiations.

Pain Points

Pain Point	Opportunity	Priority
Too many business models and too inflexible	Weak	17
Extend licences to cover visitors and partner institutions	Weak	17
E-publication timing lagging behind print	Medium	32
Publishers targeting faculty and students directly	Medium	47

Recommendation

It is recommended that the UK library stakeholder organisations covering Further and Higher Education (notably SCONUL and RLUK) should work together with supply side representatives (at trade level as well as individual publishers and aggregators) to develop a healthy mutual dialogue over these issues.

Lead Role

The lead role for this recommendation might be played by **SCONUL**, working with CONUL, RLUK. SHEDL and WHEEL

Solution Channels

Advocacy (Sector, Supply side)

R3 Trade User Groups

The Problem

Some pain points are particular to individual publishers or aggregators. Whilst they might be headlined in negotiation and contracting, practical and effective remedies involve shared understanding of the requirements and priorities of users and libraries.

Pain Points

Pain Point	Opportunity	Priority
Improve e-book compatibility with mobile devices	Medium	1
Provide versions accessible to disabled users	Medium	1
Standardise authentication services	Weak	13
Improve MARC records and associated workflows	Weak	23
Share workflows for acquisition, collection management	Strong	23
Support for training and guidance of end users	Strong	40
Better management of PDA	Medium	44
Weeding is not straightforward	Medium	45

Recommendation
Whilst such issues might be addressed in negotiation (see below), the combined pressure of / dialogue with informed customers can offer a more useful mechanism for assisting suppliers to understand issues and to prioritise mutually beneficial enhancements. User Groups, such as exist for some suppliers and are typical of other sectors (e.g. software), can provide such a mechanism. Therefore suppliers should be 'encouraged' to set up user groups and customers should work together in a concerted manner to leverage that channel. Whilst this relies on the efforts of participating libraries, Jisc Collections, SUPC and APUC should be able to help in setting this in motion. Accessibility expertise from Jisc Advance TechDis may also be valuable.

Lead Role
The lead role for this recommendation might be played by **SCONUL**, working with lead libraries for each supplier user group.

Solution Channels
Shared practice (Operational, Technical)
Advocacy (Supply side)
Pressure Points (User groups)

R4 – International Community
The Problem
Some issues, especially relating to standardisation, are matters for the international community. For example, there are pain points regarding e-book metadata (notably the workings of ISBN allocation) and the positioning of free and open access e-books. Key channels for standardization and for cohering practice will include NISO and a variety of influencers such as CNI, DOAB, EDItEUR, Hathi Trust, KBART and ODI.

Pain Points

Pain Point	Opportunity	Priority
Normalise e-book ISBNs	Weak	8

Standardise DRM	Weak	17
Better discovery and metadata for free e-books	Weak	23

Recommendation
These issues are typically hard to move and extremely time consuming over long periods. Whilst the UK community should seek to influence improvements at this level, matters of standardisation and international practice are low priority relative to other recommendations here.

Lead Role
The lead role for this recommendation might be played by **Jisc.**

Solution Channels
Shared practice (Technical)
Advocacy (Standardisation)

4.4 - Group 2: Direct Action

Some pain points can be directly addressed in specific ways, exploiting mechanisms already to hand. The recommendations cover two distinct types of 'direct action' – items actionable through negotiations with suppliers around frameworks and contracts (R5) and items that fall outside the scope of suppler responsibility that might be addressed through above-campus shared services (R6).

R5 - Negotiation

The Problem
There is a wide range of issues regarding what is purchased (e.g. title availability, pricing models), how it is supplied (library workflows, user experience) and on what terms. It is interesting that e-format availability was regarded as less of an issue by US respondents. Whilst these types of pain points might be addressed in the procurement, such negotiations have typically focused on price and very little on the wider set of issues that might be categorised as 'access'.

Pain Points

Pain Point	Opportunity	Priority
Standardise and simplify licensing	Strong	4
Community approach to negotiating with publishers	Strong	5
Collections level pricing	Medium	17
Insufficient availability in e-format	Medium	17
Quality of MARC records	Weak	23
Clarify library ownership and rights in perpetuity	Strong	23
DRM imposes too many restrictions	Medium	23
Easier management of variations in credit models	Medium	30

E-textbooks unaffordable	Medium	33
Arbitrary Platform Fees for ongoing access	Medium	35
Adopt a consortium approach to purchasing	Strong	35
Make it easier for libraries to buy direct from publishers	Strong	39

Recommendation
Procurement negotiations with both aggregators and publishers and the resulting frameworks should involve firm redress-able criteria that address these pain points. At the very least it should be clear when a supplier is not offering to support the requisite criteria (for example – No guarantee of title availability). The definition of the necessary criteria will be of the essence and may be best enabled through the decision support lists, as proposed under R8. Negotiators should be expected to feedback advice and best practice to libraries as well as to establish agreements.

It should be noted that much e-book publisher activity is driven by global market considerations, and therefore international relationships will be important in addressing these pain points.

Alternatively, some of these pain points (e.g. affordability of e-textbooks) might be addressed by developing alternative publishing models to seed new market behaviour in parallel with negotiation.

Lead Role
The lead role for this recommendation might be played by **Jisc Collections**, working with APUC, SUPC and other active UK purchasing consortia and connecting with those leading in wider markets (for example, through LIBER).

Solution Channels
Advocacy (Sector, Supply side)
Pressure Points (Negotiation)
Alternative Models

R6 – Above-Campus Support Services

The Problem
Some pain points fall outside the expected role of aggregators or publishers and are also beyond the capacity of individual institutions to influence or resolve. Where institutions do address these matters, they may involve potentially avoidable inefficiencies and duplication of effort. However, it is important to be aware that such interventions may be regarded as anti-competitive (e.g. Jisc forming its own aggregator service), the real need being to redress a market failure rather to invent an alternative.

Pain Points

Pain Point	Opportunity	Priority
Share knowledge on procurement issues including VAT	Strong	3
Provide for continuing and archival access	Medium	8

Preserve DRM free content	Strong	10
Affordable fees for archival access	Medium	13
UK licensing / engagement re- free collections like Hathi	Strong	16
Set up a Jisc aggregator service	Weak	17

Recommendation

These opportunities should be considered case-by-case. However, some can be addressed together; for example, issues around licensing and access in perpetuity (linked to preservation and fees) are recurrent in a number of these pain points as well as under Negotiation. Whilst taking account of critical signs of market failure in developing services, stakeholders should take care not to introduce anti-competitive models (for example, a Jisc aggregator service). Two priorities are headlined:

It will be highly beneficial for an experienced party (e.g. Jisc Collections) to lead local advocacy and to maintain guidance material on procurement issues and other best practice lessons arising from these recommendations.

It is also recommended that Jisc Collections should review and define a systematic response covering access in perpetuity, both for commercial and open access content, covering licensing terms, archiving and retrieval services.

Lead Role

The lead role for this recommendation might be played by **Jisc Collections**, working with purchasing consortia and other relevant Jisc / UK services

Solution Channels

Shared practice (Operational)
Advocacy (Library, Supply side)
Online Services (Other sector shared services)

R4.5 - Group 3: Information Services

Libraries have suggested a number of ways in which shared information, mediated through above campus services and maintained collaboratively once-for-all, can make a strong contribution to alleviating e-books pain points. In so doing, emphasis has been consistently placed on the role that could be played by existing services, specifically JUSP and KB+.

R7 - Availability Tracking (KB+)

The Problem

The e-book market is fast moving (e.g. new titles) and uncertain (e.g. titles moving in and out of aggregator collections, new editions published). Such volatility and uncertainty presents challenges not only in supplier selection but also in guaranteeing key title availability (notably for reading lists), in representing current availability in the Discovery layer, and in terms of reliable user support (where a title may unpredictably disappear). Furthermore, the inclusion of OA e-book publisher titles (e.g. from Ubiquity or university presses) in the selection and discovery process is currently and is likely to remain problematic. It is interesting that keeping track of availability was regarded as an even more significant problem by US libraries, where e-format may be in better supply.

Pain Points

Pain Point	Opportunity	Priority
Finding out what e-books are available	Medium	10
Catalogue records synchronisation with discovery layer	Medium	23
Keeping up to date with changing availability	Medium	32
Develop routes to selection for Gold OA publishers	Medium	35

Recommendation

Bearing in mind the considerable duplicated effort relating to this information, it is a high priority to develop a shared response, involving suppliers where possible (in the manner KB+ has achieved for e-journals). These challenges of title availability are also closely related to the comparison of terms, conditions and technical factors covered in Recommendation 8.

These pain points might be significantly alleviated by providing latest listings for key aggregators / publishers / collections (as opposed to every e-book in the world), tracking title movement in and out of collections, identifying new editions, and mapping ISBN/s where feasible (potentially using X-ISBN as part of the solution). Libraries could also share critical corrections (added / removed titles) to these collection lists instead of keeping local checklists, thus closing the loop in terms of more current and accurate KB listings.

This has some chance of success based on an initial technical feasibility exercise (see Appendix A), based on data from such as Dawson, Coutts, EBL and Ebrary. This initial investigation supports the value of an investment to identify what might be deliverable in an automated manner in terms of list comparisons and change alerts. A Phase 1 prototype based on major framework suppliers plus leading OA sources would maximise value and limit risk of wasting money. It would also open up dialogue with the data supply chain (aggregators, publishers, Knowledge Base and Discovery Layer vendors) and potentially link to international investment in the GOKb framework. It is noted that this service should be expected to make a key contribution to the success of other recommendations (e.g. Advocacy and Negotiation). This recommendation is further detailed in Section 6 of the Co-design report.

Lead Role

The lead role for this recommendation might be played by **Jisc Collections**, working with the KB+ development team, user libraries and the international GOKb project board.

Solution Channels

Shared practice (Operational)
Advocacy (Supply side)
Online Services (KB+ / GOKb

R8 - Decision Support (KB+)

The Problem

Libraries need access to up-to-date information about e-book offers (both 'collections' and individual titles) covering licenses, formats, platform characteristics and a variety of technical and UX issues. Every library needs the same decision

support information to assist with selection, and even more importantly for trouble shooting and user support. The extent and significance of the challenge exemplified by the information matrix maintained by the University of Hull, covering 27 pieces of information for each of 11 e-book supply options that they track. Most UK HE libraries need the same detail (and more - some would also wish to include pricing information) and collectively they need to track more collections.

Pain Points

Pain Point	Opportunity	Priority
Single e-book acquisition and discovery service incl pricing	Medium	5
Technical information on formats and use restrictions	Strong	13
Evaluation and decision matrix to inform purchasing	Strong	30

Recommendation
Bearing in mind the extent of duplicated effort and the professional uncertainty relating this information, it is a high priority to develop a shared response. The comparison of terms, conditions and technical factors is also closely related to the title availability issues covered in Recommendation 7.

The necessary data could be maintained through an updating service resourced by an intermediary (such as Jisc Collections) working in tandem with information contributors from library e-resource teams. This is community application that can be readily designed and feasibly delivered. There would be no substantive difficulty in adding the necessary data structures and user interface to KB+ or the compatible international GOKb framework. It is noted that this service should be expected to make a key contribution to the success of other recommendations (e.g. Advocacy and Negotiation). This recommendation is further detailed in Section 6 of the Co-design report.

Lead Role
The lead role for this recommendation might be played by **Jisc Collections**, working with KB+ development partners, user libraries and the international GOKb project board.

Solution Channels
Shared practice (Operational, Technical)
Advocacy (Supply side)
Online Services (KB+ / GOKb)

R9 - Usage (JUSP)
The Problem
Generation of reliable and consistently meaningful COUNTER statistics is at a relatively embryonic stage, with many providers yet to come to terms with the requirement and not necessarily convinced of the imperative. Furthermore, whilst COUNTER can indicate value derived from collections, it cannot monitor the nature of use, for which purpose both library and learning analytics require user level access data. Libraries therefore need two kinds of information: COUNTER data for assessment of packages / collections, and transaction level data to ascertain best

purchase / access model, which would typically come from the local authentication service such as EZproxy if appropriately configured.

Pain Points

Pain Point	Opportunity	Priority
Better usage stats – JUSP for e-books	Strong	5
Share practice and methods for local stats collection	Strong	10

Recommendation
The JUSP team is already piloting the addition of e-book usage statistics to the service; it is recommended that the service should receive the necessary financial support to progress that appropriately.

Meanwhile the libraries at Huddersfield and the Open University have developed methods for configuring EZproxy and processing the relevant usage data; it is recommended that they should be approached to lead a project that will make methods, code and associated practice available to the sector. This will benefit from Jisc linkages to authentication issues and to broader analytics and personalisation developments (such as LAMP).

Lead Role
The lead role for this recommendation might be played by **Jisc**, working with the JUSP development partners, JUSP user libraries and the LAMP project.

Solution Channels
Shared practice (Technical)
Advocacy (Library, Sector, Supply side, Standardisation)
Online Services (JUSP)

5 – Workforce & Skills (Recommendation 10)

This addtional 10th recommendation takes the form of an underlying long haul consideration for Jisc and SCONUL rather than an immediate call for action.

What sort of change are we talking about?

Too some extent, as in the e-journals world portrayed in the 2011 SCONUL report, thus consultation is keenly focused on things that individual libraries need not / ought not to be doing. The consequent implications for the workforce and for skills are therefore about alternative and better use of time and effort – not necessarily related to the management of e-resources.

However, libraries and their e-resource specialists recognized through out the consultation that the range of pain points in what will be an evolving and unstable areas of activity for the foreseeable future demand a mixed response. As set out in the focus group matrix and in the voting template, it is imperative to differentiate across the spectrum of:

- Problems that seem intractable (too big/too complex/out of our control)
- Problems we can solve locally ourselves
- Problems that require local resolution but would benefit from above-campus support
- Problems that can be tackled through above-campus or community action (e.g. through a shared service)

Very few problems were regarded as truly **'too big' or 'too complex'** to be addressed other than those stemming from the essentially open competitive marketplace (such as *A12 'Suppliers targeting students and faculty directly'* and *G3 'Too many formats, platforms and interfaces'*) or, on the other side of the same coin, from the variety of user expectations and practices (such as *G6 'Managing user expectations'*).

Written focus group responses identified with considerable consistency a large number of '**problems that we can solve locally'**, of which 19 headline examples are listed in Section 3.2.

Predominantly, however, the library consultation highlighted pain points that that are potentially addressable either through interventions that **support local resolution** (notably improved data, technical information, procurement guidance) or through interventions that **service the problem above-campus** (notably advocacy, negotiation, standardization and the development of shared IT solutions).

So what are the implications for skills?

Without doubt library teams need and, by their own account, wish to be empowered to respond proactively and collaboratively. This is not simply a matter of setting up the channels and the IT systems and 'it will happen'.

As with KB+ and other shared services, it is increasingly recognized that community action implies a different management and practitioner mindset than might have been prevalent in the days of the specialized local cataloguing team or of 'me and my

spreadsheet'. The necessary ways of planning, thinking, doing and managing will need to be embedded broadly and deeply in to professional development and new entrant qualifications.

In addition there will be requirements for more semi-technical skills around working with large data sets arising from such as local authentication services (for example using tools like Open Refine, a feasible progression from spreadsheets) and also around technical trouble shooting and authoring documentation to a standard that has community value.

Are there other workforce implications?

As shared services are increasingly identified as opportunities in the e-resource space (and similarly in digital asset management covering such as OA publications and research data), there may need to be more formal clearer and less fragile methods for justifying and varying the staffing likely to be involved in any shared service. This should recognise that shared service staffing requirements

- Will require some central roles regardless of the intended community effort
- Will typically require front loading
- Will not necessarily vary proportionately to institutional take-up
- Will often be shaped by supply side responses (both positive and negative)
- Will involve advocacy and training role to maximise local benefit and community contribution
- Should be expected to persist as long as the service is used

Whilst the recommendations in this report assume collaborative stakeholder effort (especially involving purchasing consortia, Jisc and SCONUL), particular emphasis is placed on the capability and capacity of Jisc Collections (i.e. the Jisc Content group) to play a lead role. This will require appropriate resourcing. However, up front investment in a management position, supported by an additional Data Manager with technical skills, would not be disproportionate relative to the UK sector investment in e-books and the level of library concern about the pain points reported here.

Meanwhile, for the individual library, it is generally recognized (and is no different in the case of e-books opportunities described here) that typically pared-down teams mean that

- Time will be freed rather than posts becoming redundant
- The emphasis will be on moving effort from duplicated admin and management tasks to the customer interface, to integration with learning, teaching and research, and to service innovation
- Meanwhile improved data will mean that the market will work better, providing leverage with suppliers and dialogue with internal customers to deliver required content more economically and efficiently

6 - Recommended KBplus / GOKb Developments

6.1 – Scope

Section 6 sets out high level feasibility for and implications of introducing the recommended new areas of functionality (R7 'Availability Tracking' and R8 'Decision Support') in to the shared e-resource knowledge base service platforms operated by Jisc Collections, namely KB+ and GOKb.

By default, it is recommended that both requirements should be considered for introduction to GOKb (the global service) because they relate to challenges shared in common that will benefit from exposure as well as increasing likelihood of resolution on an open international platform. Furthermore availability and features tracking, including OA titles, will be of interest in the second phase of GOKb support that is under consideration from the Andrew W. Mellon Foundation for 2014-15.

Given this approach, suitable use of persistent identifiers for such as packages / collections and licenses will enable the data to be filtered, displayed and localised appropriately within the UK KB+ environment.

This section outlines high level feasibility and technical considerations that will inform design and build. In each case the proposed next steps will include detailed assessment of phasing, timing and budget.

6.2 – Availability Tracking (R7)

Requirement

It is proposed that the reported pain points might be significantly alleviated by providing latest listings for key aggregators / publishers (as opposed to every e-book in the world), tracking title movement in and out of collections, identifying new editions, and mapping ISBNs where feasible (potentially using X-ISBN as part of the solution). Libraries could also share critical corrections (reporting added / removed titles) to these collection lists instead of each keeping local checklists, thus closing the loop in terms of more current and accurate KB listings. Availability tracking is also closely related to the decision support requirements (comparison of terms, conditions and technical factors) set out in Section 6.3.

Initial investigations (see Appendix A) suggest some chance of success in terms of data acquisition and therefore support the value of an investment to identify what might be deliverable in an automated manner in terms of list comparisons and change alerts.

Data Model

Management of e-books in a supply chain context (as opposed to e-books as bibliographic entities) needs to focus on availability (e.g. titles moving in and out of packages), currency (e.g. changing editions) and ease of access (including unambiguous discovery).

The core GOKb 'Bill of Materials' component based data model is capable of handling e-book titles to that end, even though they need to be described differently from e-journal titles. Adjustments will be required to take account of
- Editions
- The appropriate anchor point for ISBNs, probably at the TIPP (Title / Provider / Platform) level

Data Acquisition

The nature and scale of the problem (at least an order of magnitude greater in volume of titles and with much higher volatility) suggests that a closely editor controlled process would be impractical. The prototype will therefore focus on the potential for
- Automated collection from agreed supplier sources, which may vary from APIs and file downloads to scraping web sites
- Editorial mediation of rules-tracked exceptions
- Local library input of change discovered through local processes (such as unavailable listed titles)

Save for Later

It is important to differentiate between what might be feasibly and beneficially achieved in an initial prototype development / pilot service and where this might lead in the longer term.

| Recommended Prototype	Future Opportunities
1 – Focus on UK purchasing framework suppliers and leading OA sources	Add individual publishers
2 – Focus on automation of data acquisition and ease of library corrections	Round trip data improvement involving suppliers
3 – Apply and assess existing GOKb data management mechanisms - notably rules validated import, review requests	Consideration of additional tools
4 – Access through GOKb web application and APIs	Import into KB+, including local management of key titles (as per e-journal aggregators)
5 – Making e-book package data openly available to existing global KB providers in their standard formats	Other reuse, such as Linked Open Data
6 – No user alerts	User alerts based on title changes within packages of interest
7 – No attempt to engage with ISBN issues	Participation on the standardization process

Next Steps

- Approach - A service prototype based on purchasing framework suppliers plus leading OA sources would maximise value and limit risk of wasting money. This would lead to a period of beta service testing for automated data acquisition.

- Timing – 6 to 9 months design, development and data acquisition testing from Autumn 2014, ideally to coincide with GOKb Phase 2 development

- Investment – Less than £120k covering development costs and financial support for a small number of library 'beta partners' with an active interest in aggregator data, coordinated by a Jisc Collections Data Manager

- Dependencies – Release of GOKb API in R3.0 (April 2014)

6.3 – Decision Support (R8)

Requirement

Libraries need access to up-to-date information about e-book offers covering
- Licence terms and conditions
- Formats
- DRM
- Platform user features and characteristics
- Device compatibility
- A variety of other technical and UX issues
- Some would wish to include pricing information.

Every library needs the same information to assist with selection, and even more importantly in trouble shooting and user support. The comparison of terms, conditions and technical factors is also closely related to the availability tracking requirement detailed in Section 6.2.

The extent and significance of the challenge is in part illustrated by the information matrix maintained by the University of Hull covering 27 pieces of information for each of 11 e-book supply options that they need to track.

The necessary data could be maintained through an updating service resourced by an intermediary (such as Jisc Collections) working in tandem with information contributors from library e-resource teams.

Data Model

There would be no substantive difficulty in adding the necessary data structures and user interface to KB+ or the international GOKb framework. The logical entity model is as illustrated here.
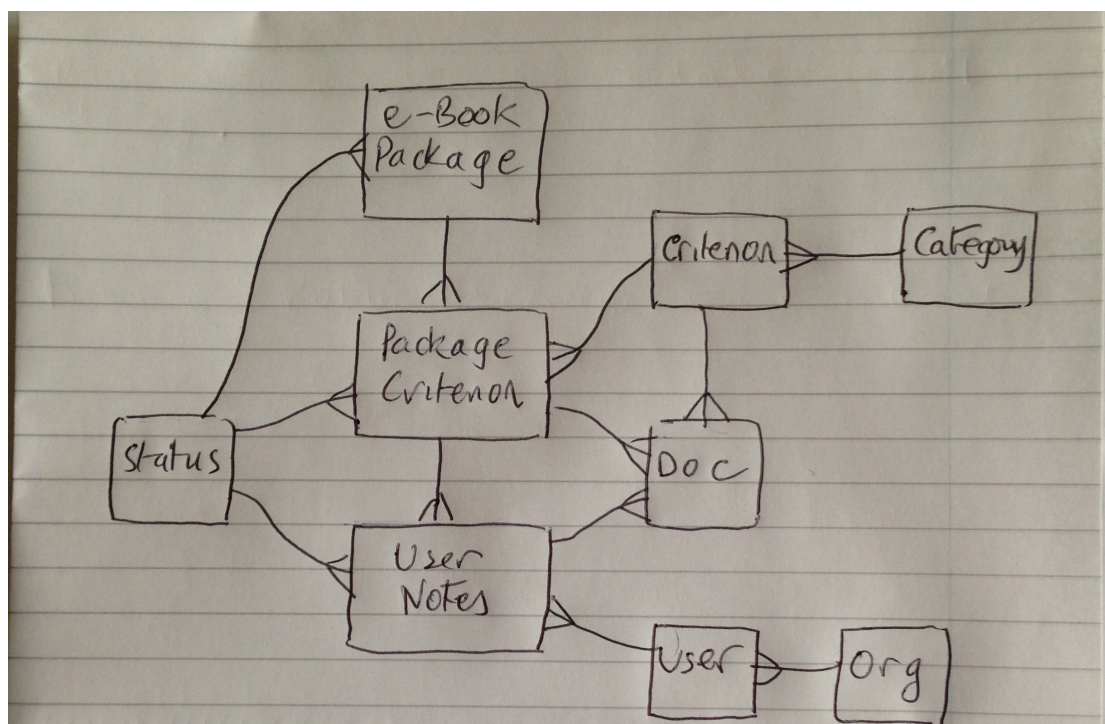
The logical entities are

Entity	Example Data Value
Org	University of Huddersfield
User	Graham Stone
Service Category (GOKb Ref Data Cat)	Devices
Service Criterion (GOKb Ref Data Cat)	iPhone 5c
Status (GOKb Ref Data Cat)	Current
e-Book Package (GOKb Component Type)	Dawson ERA
Package Criterion	iPhone 5c with Dawson ERA
User Note	GS Note - browser issues on IPhone5
Document	Huddersfield iPhone Support Manual

Package Criterion would be the major new entity (which should arguably be modeled as a Component Type in GOKb) with the following attributes:
- Package Criterion ID
- Date Created / Last Edited
- User Created / Last Edited
- Package ID (Foreign Key)
- Criterion ID (Foreign Key)
- Public Note (The field containing the key data for this service)

Data Acquisition

A working group of institutions should provide the data to launch the service – ideally including Hull. Data will then be acquired and updated through community effort, though it is recommended that Jisc Collections should assist with data standardization, validation and entry through a new Data Manager role. New data could therefore be added as new deals and platforms become available.

Whilst some data is territory specific, there will be opportunity for an international effort regarding some collections and platforms.

Over time it is expected that suppliers (aggregators and publishers) would see value in playing their part in updating this data source, especially if it becomes a reference point for procurement. The provision of supplier notes / advice fields may offer a suitable mechanism.

Save for Later

It is important to differentiate between what might be feasibly and beneficially achieved in an initial release and where this might lead in the longer term.

Recommended Release 1	Future Opportunities
1 – Administrator defined Categories	User defined Categories
2 – Administrator defined Criteria	User defined Criteria
3 – Same attributes for all Criteria	Attributes differ according to Category
4 – 'Traffic light' representation of all Package Criteria incl. licence key terms	Licence comparison
5 – Documents of any type (e.g. Word, screenshot) can be linked to Package Criteria and User Notes	Full text searchable documents
6 – User sees only User Notes (and linked documents) from own organization	More complex groupings for sharing
7 – One Public Notes field per Package Criterion	Multiple Public Notes per criterion
8 – Search / browse by Package	More extensive searching / filtering
9 – CSV export by Package to help local guidance authors (e.g. LibGuides)	More extensive export options
10 – Only editable by GOKb Editors and institutional users	Vendors have edit permission for Vendor Notes and Dcouments

Next Steps

- Approach – Following the next step of initial data modeling and wireframe design with a 'working group' of libraries (addressing questions of information typing, attributes and filtering rather than core structures), it would be feasible to move directly to service software development and data collection.

- Timing – 6 months design and development project from the earliest opportunity as this represents a very tangible outcome of the Co-Design project combining low costs with high interest.

- Investment – Costing should be firmed up after the initial modeling exercise (itself less than £10k); however it is suggested that development costs should not

exceed £50k. The requirement for additional Jisc Collections Data Manager resource is also noted (see Section 5).

- Dependencies – This requires new CRUD functionality without changes to existing functions, forms or data and with no import or export requirements. There are no dependencies other than synchronization with the wider GOKb (or KB+) development and release road map.

Appendix A – Tracking Title Availability (Technical Feasibility)

Scope

This report was commissioned from Knowledge Integration (the lead GOKb / KB+ development partner) based on a 4-day feasibility assignment, supported by guidance from the University of Huddersfield.

The objective was to establish the technical feasibility of gathering and collating data that would meet the Availability Tracking requirements identified in the E-books Co-design consultation (see R7), namely (in order of priority):

- To automate gathering of title availability information for key packages, notably aggregators approved in UK purchasing frameworks
- To continuously update that data, identifying titles / editions that are removed / added
- To establish links between titles on a 'same as' or 'connected to' basis, bearing in mind that the bibliographic data (e.g. Titles) are consistent and that ISBNs are not helpfully allocated

This technical investigation work was entirely based on e-book data that could be harvested from accessible sources rather than by approaching the supplier (whether aggregator or publisher). Those sources include file download from supplier catalogue sites, file download from Knowledge Bases (e.g. Summon), and screen scraping web pages. These represent a worst case scenario for the intended activity in that suppliers may be willing to collaborate more closely with the GOKb / KB+ service, as have the global KB suppliers in the current e-journals work.

Key Technical Feasibility Questions
1. What acquisition methods proved feasible? (Download, Screen Scraping)
2. Do the volumes of titles in supplier collections present a technical problem for download or scraping?
3. Does the combined volume of titles present a technical problem for comparison and other computing operations?
4. What title metadata is required as a minimum?
5. Is the available title metadata sufficient to perform comparison and matching tasks?
6. What type / level of human intervention might be required?
7. Assuming the service might initially track in the order of 1 to 2 million title offers (TIPPs) from 10 to 20 supplier sources, how frequently could updates be performed?
8. Is the necessary computing power affordable and where might it be located?

1. What data acquisition methods proved feasible?

Nine sources were evaluated:
- Source 1 - Dawson Era
    - https://www.dawsonera.com
- Source 2 - Coutts MyILibrary
    - http://www.myilibrary.com/Content.aspx
- Source 3 - EBL

- o http://www.public.j.eblib.com/EBLWeb/choice/?mode=publiccatalogEbsco NetLibrary
- Source 4 - Proquest ebrary Academic Complete
  - o http://site.ebrary.com/lib/academiccompletetitles/home.action
- Source 5 - Yankee Book Peddler
  - o http://www.ybp.com/acad/ebooks.htm
- Source 6 - Cambridge University Press
  - o http://ebooks.cambridge.org
- Source 7 – Elsevier
  - o http://www.elsevier-etextbooks.com
- Source 8 – Springer
  - o http://link.springer.com/search?facet-content-type=%22Book%22&from=SL
- Source 9 – Wiley
  - o http://eu.wiley.com/WileyCDA/Section/id-302238.html

Each source was evaluated as follows:
1. Robots.txt - Does the site have a robots.txt? If so does it prohibit crawling? Does the site have a sitemap?
2. Download - Information about data download if available
3. Search / Harvest without Login - Is it possible to search/crawl without authenticating?
4. Authentication method - If needed, how does the site authenticate?
5. Title enumeration - Is it possible to easily generate a [page-able] list of all titles from the search or browse interface?
6. Metadata in search results to populate index (Quality n/5) - Does the search results page alone contain enough information to populate an index, or would an agent need to follow individual item links to get full details?
7. Search Page Scrape-able - How scrape-able is the search results page?
8. Details page per item - Does the site have a details page per item?
9. Metadata in details page to populate index (Quality n/5) - Does the details page carry sufficient info to populate an index?
10. Details Page Scrape-able - Is the details page scrape-able?
11. Edition Information – Is this available?
12. Overall Strategy - What overall strategy would we use if crawling the site?

Seven of the nine sources were amenable to indexing as follows:
- 3 were easy to ingest
- 2 were index-able with simple agents solely from search results pages (so fast harvesting)
- 2 would need to fetch a page for each item (therefore substantially slower)

Issues requiring resolution:
- 1 site had a prohibitive robots.txt, which would preclude scraping without specific permission.
- 1 site had a restrictive robots.txt but an exceptionally good sitemap, which mitigates the need to crawl the search page.
- 1 robots.txt would substantially impede harvest time (e.g. 1 week for a full run)

because of the request delay parameter.
- 1 source was not accessible - free signup but the access email arrived too late
- 1 source was scrape-able but brittle mark up would increase likelihood of breakage

Note on speed:
- For a site of 100000 items, returning 10 per page, a site indexed solely from search results pages needs only 10,000 requests, whereas a site needing to fetch the details page in addition would require 110,000 requests. Generally we would not wish to issue more than 1 request per second so as not to appear to be Denial of Service (DOS) attacks on the site. This means that for a site harvestable by search page alone indexing 100000 items takes 3 hours, versus 31 hours for a site where all items need to be individually collected.

Note on metadata:
- There was no explicit "Collection" / 'Package' property in the pages reviewed, but we assume this can be implied by the data source.
- Price was not always available on anonymous search

2. Do the volumes of titles in suppliers collections present a technical problem for harvesting / download / scraping?

The collections that are available as downloadable dumps present no problems in terms of volume, processing or indexing.

The collections that can be scraped from search results pages are likely to be easily manageable. A balanced approach is required to re-running the agent to detect collection changes (added, deleted), but there no issues beyond the agent needing to behave as "Good Citizen".

Issues are likely to arise around errors/clashes in identifiers, as experience in KB+ and GoKB has shown, so some kind of problem reporting workflow / procedure might be useful

3. Does the combined volume of titles present a technical problem for comparison and other computing operations?

In terms of storage and processing the amount of data is easily manageable by a modern well-managed mid-range workgroup level server.

4. What title metadata is required as a minimum?

Based on experience with KB+ and GOKb and the algorithms used there, the assumption is that Title and at least 1 standard identifier is needed. Cross-referencing can give a good indication of matching errors.

5. Is the available title metadata sufficient to perform comparison and matching tasks?

It certainly seems to be – whilst it could not be regarded as "Rich" metadata, it is sufficient.

6. What type / level of human intervention might be required?

Periodic updates - Where file dumps are used as opposed to crawling, someone needs to obtain the dump files and launch the ingest process.

Data cleaning – Some intervention required to resolve conflicts where Titles are not matched or are wrongly matched (Workflow / Review); this might be crowd-sourced through a web interface.

7. Assuming the service might initially track in the order of 1 to 2 million Title offers (TIPPs) from 10 to 20 supplier sources, how frequently could updates be performed?

It is hard to say across the board; for example,
- The site supporting Sitemap could be updated every evening with almost no overhead
- At the other extreme, the site needing to fetch each details page would take over a day to per cycle
- Data uploads can be performed overnight if an electronic download service is available

The biggest time delay is imposed by being a "Good Citizen":
- We should wait a second between each request
- Some providers might appreciate harvests taking place over the weekend when traffic is low

Conservatively, as crawls could be run in parallel, weekly updates across the range of targets should be possible.

8. Is the necessary computing power affordable and where might it be located?

A well-configured mid-range workgroup server should handle this task with spare capacity. Most of the processing time is spent waiting between requests.

Indexing tasks could perhaps be run in the AWS cloud in 'off hours'. Bandwidth is likely to be a critical factor and a further possible issue is that sites sometimes block AWS addresses en-masse to mitigate ongoing Denial Of Service (DOS) attacks.

Appendix B - Consultation Participants

A1 – UK & Irish Institutions

As described in Section 2, a total of **107 practitioners** from **62 UK and Irish university libraries** plus the National Library of Scotland attended 12 focus groups.

- Cardiff (WHEEL) – 9 practitioners
- Cheltenham - 10
- Dublin (CONUL) - 7
- Edinburgh (SHEDL) - 17
- Leicester - 6
- London LSHTM – 13
- London UCL - 14
- Sheffield - 9
- Individual libraries = 22 (Huddersfield, Newcastle, Wolverhampton, York)

As described in Section 2, delegates were subsequently invited to vote on the means of addressing and the priority of the 47 Pain Points derived from the synthesis of the e-books workshops. A total of 38 full responses were received from **34 UK and Irish university libraries**. It should be noted that in several cases a number of library staff worked together on a single response.

The participating institutions were:

Library	Focus Group (62)	Vote (34)
Anglia Ruskin	Yes	
Aston	Yes	Yes
Bangor	Yes	
Bath Spa	Yes	Yes
Bedfordshire	Yes	
Birkbeck College UL	Yes	Yes
Birmingham	Yes	Yes
Brighton	Yes	Yes
Bristol	Yes	Yes
Cambridge	Yes	
Canterbury	Yes	Yes
Cardiff	Yes	
Cardiff Met	Yes	
City University	Yes	Yes
Coventry	Yes	Yes
Derby	Yes	Yes
DIU, Ireland	Yes	
Dundee	Yes	
Edge Hill	Yes	Yes
Edinburgh	Yes	
Exeter	Yes	Yes
Glasgow Caledonian	Yes	
Glasgow School of Art	Yes	Yes
Gloucestershire	Yes	Yes
Huddersfield	Yes	Yes

Hull	Yes	Yes
Imperial	Yes	Yes
Institute of Education UL	Yes	Yes
Kent	Yes	Yes
King's College London	Yes	Yes
Leeds	Yes	Yes
Leeds College of Art	Yes	Yes
Leicester	Yes	Yes
Limerick, Ireland	Yes	
London Business School	Yes	
London School of Hygiene & Tropical Medicine	Yes	
Manchester	Yes	Yes
Manchester Met	Yes	Yes
Napier	Yes	
National University of Ireland	Yes	Yes
Newcastle	Yes	
Northumbria	Yes	
Open University	Yes	
Oxford Brookes	Yes	Yes
Portsmouth	Yes	Yes
Reading	Yes	Yes
Robert Gordon	Yes	
Royal College of Surgeons, Ireland	Yes	
Royal Holloway UL	Yes	
St Andrews	Yes	
St Mary's UL	Yes	
SRUC	Yes	
Stirling	Yes	
Swansea	Yes	Yes
University College Cork, Ireland	Yes	Yes
University College Dublin, Ireland	Yes	
University of East London	Yes	
University of the Highlands & the Islands	Yes	
University of West Scotland	Yes	
Warwick	Yes	Yes
Wolverhampton	Yes	Yes
York	Yes	Yes

A2 - US Participation

Eight US academic libraries were represented at the focus group meeting held at Kuali Days in San Diego (November 2013):

- Indiana University
- Lehigh University
- North Carolina State University
- University of Chicago
- University of Florida
- University of Maryland
- University of Pennsylvania
- Villanova University

Five voting responses were received from Lehigh University, North Carolina State University, the University of Florida and the University of Pennsylvania.

Appendix C - Focus Group Topic Guide

This Topic Guide was the basis for the community and the individual library Focus Groups that are reported in Section 2.

Aims of the study (5 mins)
- The study aims to define the e-book problem space in terms of acquisition, management, delivery and evaluation and the associated user experience. It is being carried out by Sero Consulting, with input from Knowledge Integration (the KB+ development team) and the University of Huddersfield. We are also collaborating with a number of different supply chain organisations.
- In consulting with a range of institutions it is hoped that we will be able to identify and synthesise the common issues and identify those that are realistically tractable locally or through shared activity.
- The aim of the focus groups is to explore the issues in depth with expert practitioners. The sessions are divided into two parts, focusing respectively on the library experience and what we know about the user experience, and concludes with a look at future scenarios.

The Library Experience (90 minutes)
We want to examine each step in the acquisitions process individually: selection, management, delivery and evaluation. When discussing issues within the acquisitions process please can you:
- Provide evidence from your own experiences
- Rank the issues in the order of importance
- Where appropriate, locate pain points on the relevant work flow diagram
- Provide ideas for possible solutions, where feasible (use the supplied matrix)

(a) Setting the scene (20 mins –whole group discussion and individual work)
To start us thinking about e-books we would like you to identify:
- The principal reason why e-books are important
- The single pain point most apparent to you in your role
- Your sense of the biggest pain point faced by your library as a whole
- Complete the matrix we will supply to help create a picture of the issues

(b) Selection (Small group work - 20 mins)
Explore in detail:
- Factors influencing the supplier of PDA
- For individual purchased titles how do you decide whether to purchase the requested title in print or electronic format?
- How do you decide which supplier to purchase the e-book from?
- Issues with licensing and terms and conditions
- Where do free e-book collections fit in (e.g. Hathi Trust, Gutenberg, IA)?

(c) Feedback from small groups (10 mins)

(d) Management, delivery and evaluation (whole group discussion - 30mins)
- Issues encountered during PDA relating to the management of the scheme

- Issues encountered in managing the content of e-collections
- Issues encountered in managing individual purchased titles
- What problems are encountered in delivering content to users?
- What issues do you encounter in evaluating your e-book offering?

(e) Review of priority issues for action (whole group and individuals – 10 mins)
Review and revise the matrix completed at the start of the session

The User Experience (45 minutes)
The literature on e-books brings out a series of user 'pain points'. In the main, these are reported by libraries and library researchers rather than from primary research with users. For each of the themes identified below, we are interested in discussing:
- To what extent do these chime with your own experience?
- Do you have evidence from users you can share, or are you planning any user surveys on ebooks?
- Can you rank the issues in order of importance?
- How can these issues be resolved, and who needs to lead (use the matrix)?

Multiple systems:
– Too many e-book formats
– Too many sources
– Too many platforms and interfaces
– Too many reading apps

Too many restrictions on use:
– Limitations on viewing, such as how long, how often, and by how many
– Limitations on using texts – printing, annotating
– Limitations on where to view - offline, off-campus, on tablets or e-readers
– For tutors, limitations on use in course packs and handouts

Too little user choice and control:
– Users want e-books in the format, on the device and reading app they prefer
– They want anytime anywhere access
– They want to be able to use e-books as they can use physical texts
– They don't want to be forced to read on computer if they have e-readers

Incompatibility with non-academic e-book systems, and inferior as well:
– Users find the functionality and navigation inferior to commercial offerings
– They find discovery systems difficult to navigate and often misleading
– Integration with their commercial e-book purchases is hard
– For accessibility needs, difficult navigation of discovery systems and content

An under-developed e-book ecosystem:
– Lags in availability
– Lags in purchasing
– Limited catalogue for academic books
– Very limited inter-library loan system for e-books
– Under-use of the potential for interactivity, especially in EPUB books.

What does the future hold? (15 minutes)
Looking beyond current priorities, what do you think will be the big issues for libraries in e-books in the future?

Appendix D - Pain Point Priorities Matrix (xls)

This spreadsheet contains the full set of data that is referenced and tabulated elsewhere in this report.

It is provided in a separate file (140314 Ebooks Co-design Pain Point Priorities), which may be useful for further analysis.