

Infrastructure first! E-books and academic libraries in Sweden

E-books are weird beings. Though at a first glance their similarity to the codex book makes them look like natural inhabitants of the library OPAC, the similarity to the codex is deceiving. E-books are a different kind of being, sometimes equally different from the codex as from the electronic journal articles that have been part of the academic mainstream since the mid 1990s. E-books might require new strategies and new ways of thinking. Since usage is increasing fast, it is important to share and discuss experiences regarding e-books. This article provides a description of the handling of e-books and e-content in general as regards the Swedish BIBSAM consortia and LIBRIS national union catalogue.



ANDERS SÖDERBÄCK

Co-ordinator
LIBRIS National Systems
The National Library of
Sweden

Swedish academic infrastructure

Since the early 1970s, Swedish academics have used the LIBRIS national union catalogue as a backbone in their cataloguing infrastructure. LIBRIS is government funded, maintained by the National Library, and participation is as of today open for every publicly funded Swedish library. LIBRIS, like similar international services, OCLC (USA), BIBSYS (Norway) and SUDOC (France), has provided an infrastructure for MARC-based shared cataloguing. Like its international counterparts, the work being done in LIBRIS today consists as much of automated loading as of manual creation of bibliographic records. LIBRIS does not handle circulation transactions. Therefore records created or loaded in LIBRIS are transferred to libraries' local integrated library systems (ILS) on a daily basis. Since 1997, LIBRIS has a publicly available web interface.

The BIBSAM consortium has been responsible for negotiating with publishers on a national level since the mid 1990s. Like LIBRIS, the administration of BIBSAM is provided by the National Library and the deals are offered to 75 libraries, 38 of which are universities or university colleges. In 2010, BIBSAM negotiated 'big deals' for 58 publishers. In 2010, the turnover for the BIBSAM consortium was 227.5 million Swedish krona (approximately 25 million Euros). Since Swedish academic libraries together spend around 50 million Euros on acquisitions (including the printed collections),

BIBSAM has a big responsibility and is a significant part of the Swedish academic infrastructure. Since its beginning, BIBSAM has focused on serials, while e-book licensing has been handled by the local libraries. Though there are a few e-book packages in the BIBSAM portfolio, e-books (including the *Swedish National Encyclopaedia* and the *Encyclopaedia Britannica*) make up only 3 % of the total consortial turnover.

Statistics

The numbers for 2010 are not yet published, but the library statistics published by the Swedish Art Council report that 5,598,777 e-books were downloaded from universities or university colleges in 2009.¹ Though this is significantly lower than the total number of downloaded journal articles (18,503,342), these numbers are very impressive when compared to the cost for purchasing e-books. Since the national statistics treat e-purchase as one lump sum, there is no number available for the total cost of e-book acquisitions in Swedish academic libraries. However, discussions with libraries suggest that e-books take up no more than 6% of money spent on acquisitions. From this perspective, e-books are highly used and seem to be a good investment for academic libraries.

The National Library statistics also report 2008 as the first year when the number of downloaded e-books was higher than the number of initial loans of hard copies. Though there are many sources of error in the collection of library statistics, and though different reading patterns between e-books and hard copies make a straightforward comparison problematic, these numbers seem to confirm the conclusion from the JISC national e-books observatory that ‘we have e-book take off’² and that ‘e-books are now part of the academic mainstream’.³ The numbers collected at national level in Sweden do not show any significant changes in the circulation of hard copies corresponding to the increased e-book usage, confirming another finding by JISC that ‘there is no evidence of any systematic impact of e-books on the print circulation’.⁴

The need for infrastructure

The connection between e-book usage and visibility in library OPACs has been observed in several studies.^{5,6} Many Swedish libraries have noted this connection and have worked with loading MARC records into their local databases. There are many advantages of loading records for e-books into the traditional catalogue, but it also requires much work behind the scenes. The pros and cons of loading e-book MARC records in an ILS have been described by, for example, Rossman, Foster and Babbitt.⁷

Since LIBRIS is an important hub for the academic libraries, many of them have expressed the need for accurate e-holdings in LIBRIS. Some

libraries go as far as to say that LIBRIS is meaningless to them without accurate e-holdings. Many different approaches to handling electronic content have been tried since the late 1990s. The main difficulties have come from an infrastructural difference between e-books and traditional library resources. E-books and journals are many and are available from many different sources. They are usually purchased as a service, where libraries buy a licence to access the resource rather than a permanently available copy. Titles are transferred between publishers, new packages are purchased by libraries while others are dropped, packages available for evaluation during shorter trial periods, different methods for purchasing both packages and individual titles: all this implies that library e-book holdings are ‘flickering’ rather than stable. Handling this for several libraries in a shared environment for many years felt like trying to stop a tidal wave with your bare hands.

In 2004, the National Library co-ordinated a consortial purchase of MetaLib (federated search engine) and SFX (link resolver). The consortium was called ‘Samsök’ (which could be translated as both ‘shared search’ and ‘federated search’), and a possibility of membership was offered to all 75 BIBSAM members. Today, 35 libraries are members of Samsök. Though uptake of federated search was a bit slow, SFX was an immediate success among the Samsök libraries, the main reason being that the knowledge base powering the SFX link resolver, as compared to the traditional catalogue, was an effective way of managing the ever changing e-holdings. The BIBSAM agreements are administered in SFX by the National Library.

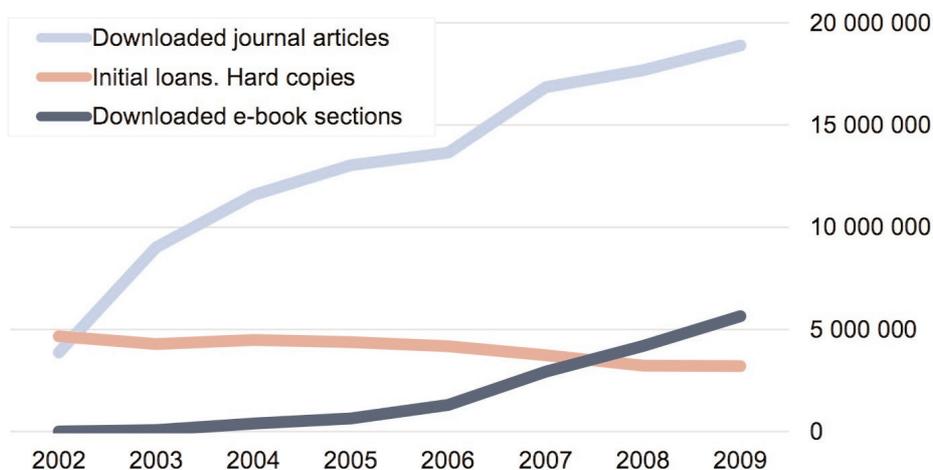


Figure 1. E-book & e-journal usage compared to initial hard copy loans in Sweden 2002–2009

Though managing a link resolver comes with its own frustrations, many of which are described by Culling⁸, SFX usage has sky-rocketed since measuring began in 2006. During 2010, the number of unique visitors increased from 57,517 to 630,087, an increase of 995 %. The number of requests to the SFX server increased by 1,717 %, from 7,792,991 to 141,236,489.

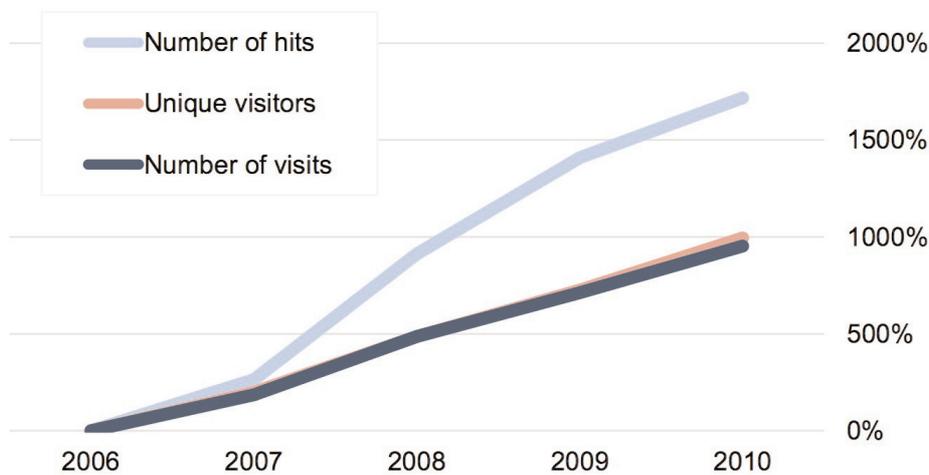
Loading holdings information from link resolver to LIBRIS
 Compared to the traditional catalogue, link resolvers have proved a working solution to handling information on library e-holdings. In 2008, a project for importing this information from SFX to LIBRIS was started, beginning with the Karolinska Institutet University Library; a highly specialized medical library with almost exclusively electronic holdings. The idea for this project came from the realization that a correct representation of library holdings was more important than exhaustive bibliographic descriptions of e-resources. Despite initial scepticism, the project turned out successfully, and more libraries were added.

The imports are done using a separation of bibliographic and holdings records, not putting any URLs in the bibliographic description but using holdings records to provide URLs to the library's link resolver. Since the bibliographic descriptions in SFX are very poor, information on holdings are matched against bibliographic records already in LIBRIS. If a bibliographic record is found, a corresponding holdings record is created. If no bibliographic record is found, a minimal bibliographic record is created using the

information available from the link resolver. Matching is done using available identifiers, such as ISBN/ISSN and the link resolver's own identification numbers. For e-books, the print ISBN is used. Though not perfect, it has proved a more reliable identifier than the eISBN. Freely available (open access) resources are treated separately, and here URLs linking directly to the resources are added to the bibliographic records.

As of today, holdings are imported to LIBRIS from 31 SFX libraries, and efforts are currently put into getting holdings data from other link resolvers, and from libraries outside the Samsök and BIBSAM consortia. In addition to the imports from link resolvers, routines for importing individual records delivered directly from publishers and booksellers have been established and are used by many libraries for single copy e-book purchases (e.g. from Dawsonera).

Problems with loading records from link resolvers
 The routine for importing holdings information from link resolvers implied prioritizing accurate representation of holdings over bibliographic quality. Though this is perceived as a necessary evil, it has meant a lowering of the overall bibliographic quality in LIBRIS. This is especially significant when looking at e-books, where the bibliographic information available from SFX is often nothing more than an ISBN, a title and a URL. Though bibliographic information on e-books is likely to improve in a coming SFX upgrade, it has to be remembered that link resolvers and their corresponding knowledge bases have not been created



*Samsök is an SFX and MetaLib consortia consisting of 35 Swedish academic and special libraries.

Figure 2. SFX Usage within Samsök 2006–2010

for providing bibliographic descriptions, but to provide accurate linking.

Successful attempts to provide an additional flow of bibliographic information directly from the publishers have been made using MARC records provided by Springer and Emerald. These additions, however, are not fully automated and still require manual work both when retrieving the records from the publisher and formatting records to fit them into the LIBRIS environment. Though automated retrieval and formatting is possible, it requires co-operation from the publishers in providing the records in such a way that makes automated retrieval possible, for example with a stable FTP-server or URL that can be checked for updates. Ideally, retrieval should be made possible through an established harvesting protocol such as the Open Archive Initiatives Protocol for Metadata Harvesting.⁹

Another issue is the dependency on information available from link resolver knowledge bases, which often is not as accurate and up to date as it should be. This issue is dependent on communication between publishers and knowledge base aggregators, and is currently beyond our immediate control. This issue is being dealt with in KBART, a joint initiative between UKSG and NISO to explore

and find efficient solutions to problems in the link resolver supply chain.^{10,11} The BIBSAM consortium is working on getting clauses that are compliant to KBART recommendations into all agreements with publishers. We are also making efforts to get named technical contacts from the publisher organizations, to discuss questions related to knowledge base updates and delivery of MARC records.

Conclusions

While the flickering nature of e-book and e-journal holdings is difficult to deal with, the increase in e-book usage from 2006 to 2010 implies that there is a working infrastructure for visibility and delivery of e-books. This infrastructure is still not fully functional and will require changes in both library and publisher organizations. It is our experience that both technical and licensing skills are needed for efficient handling of e-content. Evidence from BIBSAM, LIBRIS and Samsök shows a significant increase in e-book downloads and e-book usage between 2006 and 2010. Both these trends are indications that the nature of library systems is changing.

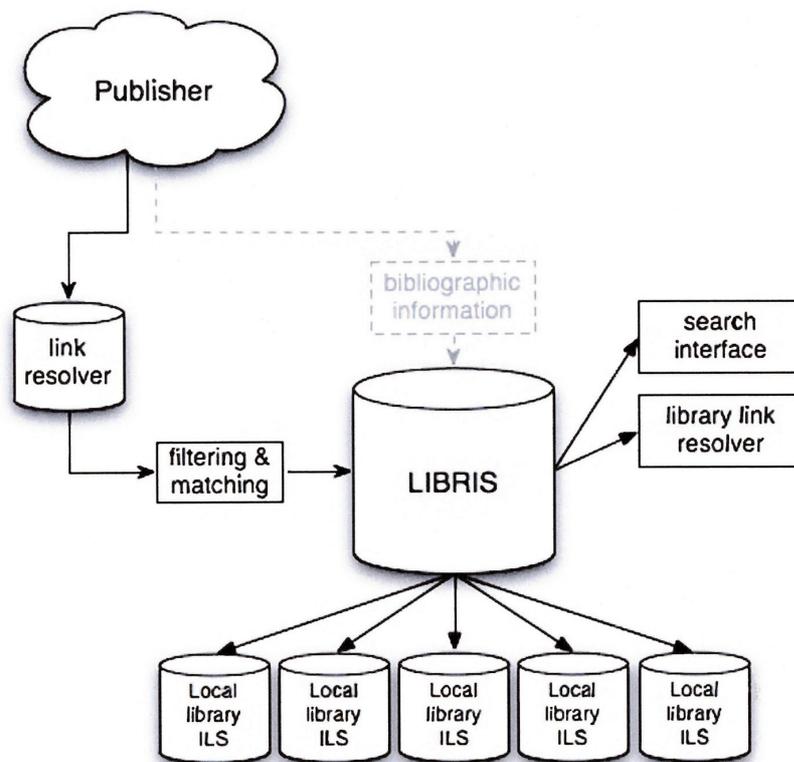


Figure 3. Flows of bibliographic and holdings information

It is likely that this change will also affect other traditional library areas such as, for example, cataloguing. For a national union catalogue such as LIBRIS, it is imperative to take this change into account when making priorities on future development of national services. When considering the future of library systems, it is likely that the link resolver provides a better point of departure than the traditional catalogue. Where traditional cataloguing has focused on making accurate descriptions of content in a database, the current trend is that we come to depend on flows of information between different systems and databases. Projects such as KBART will become increasingly important in developing an infrastructure that is beneficial for publishers, aggregators and libraries as well as for students and researchers.

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■ Anders Söderbäck
Co-ordinator
LIBRIS National Systems
The National Library of Sweden
E-mail: Anders.Soderback@kb.se

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