Old Habits in a New World?

E-book management techniques at an academic library

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<td>As interest in the e-book market grows, both academic libraries and researchers strive to understand developing trends amongst patrons. The academic library is one venue where improvised measures in e-book collection management can freely abound. Recent studies have focused on establishing formalized management techniques. This study explores the e-book collection management techniques in use lens of Pierre Bourdieu’s field theory. Analysis revealed that library staff employ e-book collection management techniques that are both similar and dissimilar to those used in print book management. This study investigates both similarities and differences using Bourdieu’s field and habitus to enable explanation of relevant management choices. Analysis showed that librarians in both similar and different subject libraries employ both unique and complementary techniques to e-book collection management. Further inquiry shows possible connections between a librarian’s habitus and their subsequent approach to e-book management.</td>
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Introduction

The e-book has leapt into our lives and is shaping the way we approach, observe, and absorb information. New ways of looking at reading as an action, at publishing, selling, and purchasing are some of the very many ways the e-book has shaken our modern conventions. These fascinating topics are subjected to extensive research and investigation across the globe. It will be the goal here, however, to explore the e-book's impact on its' keeper, the library. What is it; how is it treated; by its very nature, how is the e-book affecting management techniques?

My initial interest in exploring the e-book from the perspective of the library came from a desire to understand the 'behind the scenes' aspect of everything e-book related. Many capable researchers have performed user-based studies of varying depths and loci to understand the impact of e-book use, yet my research-aims align with researchers like Magdalini Vasileiou, Rita Renner, Julie Shen and the many others who focus on the library and librarian's perspective.

Gone soon will be our image of 'grandmas in glasses' for the conventional librarian. The library, as a space and institution, is filling a revolutionary role in a changing society and technological environment.

Goal

The goal of this thesis is to explore the effects of e-book purchasing models as well as user and librarian perceptions on the e-book management techniques of academic, library professionals of the Uppsala University Library. I wish to see how one of the most prominent academic libraries in Sweden deals with current e-book developments and how it handles collection management tasks such as selection, purchasing, and metadata application. Among other things, this thesis will analyze management techniques as well as form an understanding of the library’s relationship with the other main actors (the publishers, aggregators, and users) involved in e-book development.

Research Questions

The librarian, as a representative entity of the university library, is the unit of analysis. This unit forms a professional group with a collective perspective and, as such, is representative of the library’s general e-book practices. Therefore, in order to arrive at the goals of this thesis, I have chosen to focus on questions that begin at the single unit of analysis: the librarian. By understanding the individual librarian, we can form a larger understanding of the library as an organizational actor.

What are the management techniques employed by the library staff? This first question, straightforward and largely descriptive, aims at uncovering the specific steps the librarians at Uppsala undertake when processing e-books as well as when developing and managing the e-book collection.

How do the librarians’ relationships with participant members (publishers, aggregators, users, and other library staff) influence selection, purchasing and metadata handling?

How is the e-book prepared for the collection - how is metadata acquired?
What are the conditions for access to the e-book collection and who sets them? How do these conditions specifically affect access for librarians and for the users?

**Limitations**

No study can be perfect. But it should be reproducible. I therefore did my best to eliminate personal bias; when this was not possible, I recognized and recorded that bias and made every attempt to remove it from the study. Although the challenge remains that the researcher can never fully remove his or her self from the study in focus. This has been admitted and accounted for as much as possible.

There is also the limitation of operating in a foreign language, comprehensibility and communication. Interviews were conducted in English although the native language of the respondents was Swedish. Different levels of comfort of communicating in English were detected and every effort was made to assume a relaxed atmosphere while maintaining professional interview techniques. Respondents were asked to clarify where statements were unclear and careful effort was made to insure accuracy.

**Organization of Thesis**

The organization of the thesis is broken down into the following segments. The first section presents and defines the main terms used in this area of study. The study will then progress to a section marked “literature review”. This section will address those titles and works within the realm of e-books in academic library research that have been informative and influential for fellow researchers and library staff. It will also highlight contemporary e-book research being made within Sweden, most notably by Kungliga Biblioteket, the National Library of Sweden.

Following the literature review, an explanation of theory will be introduced. Bourdieu’s Field Theory, as the relevant theory for this study, will be interpreted and an explanation of its application will be given. The thesis continues with a descriptive section on methodology and the methods of data collection and analysis employed in this study.

After presentation of the methodology, analysis begins. Three forms of analysis are explored. The section begins with an analysis of the case study’s organization and composition before a documentation analysis of relevant policy documents and the catalog. The thesis continues with an investigative analysis of the data acquired from the aforementioned interviews.

The final paragraphs bring together concluding thoughts and recommendations for future research.

**Definition of Terms**

The most common term used in this research paper is that of e-book. Although formatting can differ (ePub, mobi, .txt, etc.) as well as means of access (phone, computer, e-reader, digital rights management restrictions, etc.), an e-book is accepted as an electronic version of a print book (KB, 2010; KB, 2012). This does not include audiobooks; an e-book precludes some form of ‘reading’. The National Library of Sweden (KB) further narrows the definition by specifying that an e-book must be produced by a publisher or aggregator and distributed as an e-book. KB
does not include digital facsimiles of print books as e-books (scanned or photographed books). E-books that have been self-published or born-digital are difficult to categorize and are not mentioned in KB’s definition. Self-publishing involves the author publishing his or her work without the use of a third-party publisher. Born-digital e-books are those that never existed prior in print.

The varied nature of the e-book concept requires the definition to be varied. For this reason I cannot adopt KB’s definition of an e-book as my own. Results in this study will also show a perception of the e-book that is deeper than KB’s. In 2008, Vassiliou and Rowley co-wrote an article titled *Progressing the definition of “e-book”*. They categorize the leading trends permeating the e-book discussion according to technology, use, content and features. They propose a two-part definition:

1. An e-book is a digital object with textual and/or other content, which arises as a result of integrating the familiar concept of a book with features that can be provided in an electronic environment.
2. E-books, typically have in-use features such as search and cross reference functions, hypertext links, bookmarks, annotations, highlights, multimedia objects and interactive tools. (Vassiliou et al, 2008, p. 363)

The first part of the definition is considered to be “stable” while the second is “dynamic” and expected to change with new technological developments. This definition stands in contrast to the one given by KB and is the one preferred for this study.

The academic library is another concept that is in need of some clarification. An academic library is administratively connected to some form of higher-learning institution, college, or university. This does not include a library at the high school level. These libraries are known to contain subject relevant material and to serve a scholarly user-base that is either pursuing academic certification or publication.

Three terms that are often used in close proximity are: aggregator, vendor, and publisher. These three are providers of e-book resources. An aggregator is a company that manages licenses with various publishers in order to provide collections, i.e. packages, to their clients. Vendors (often referred to as 'booksellers' or the 'bookstores' during the interviews) sell individual titles upon request from various publishers. A publisher is not used out of context here and is the same as if for a printed book; it is possible yet impractical to purchase titles directly from the publisher.

Another trio of terms is copyright, license, and digital rights management. Copyrights and licenses are bought and sold, usually with the knowledge or intention of the author. Digital Rights Management (DRM) are tools of the aggregator, vendor, and publisher for the limitation and control of access to the digital material. An academic library purchases a license, which usually precludes some form of DRM attached to the product. A license can be seen as a concept

1 In Swedish, these terms are respectively defined as leverantör, försäljare, and förlag.
while the DRM is a technological limitation placed upon each file, limiting number of downloads, accessibility, necessity of a platform, etc.

User and patron are used synonymously and are understood to infer the same thing: a member of the scholarly institution.

A platform is a technical portal from which users can access material purchased by the university. Platforms can differ from publisher, to aggregator, to vendor. They provide various e-book functionality from scrolling through pages to read-aloud functionality.

Lastly, catalogue and collection are to be understood as two separate entities. A collection represents either a specific collection (the e-book collection) or the entire holdings of the library. This distinction is made clear in instances where one or the other is used. The catalogue is something different. It is a portal through which users (and librarians) can access the collection. For example, the Uppsala University e-book collection can be accessed through the library’s catalogue, Disa.

**General Introduction to the Literature Review**

This thesis examines e-book development within academic libraries of a small language and culture environment from the perspective of library staff. In this case, a small language and culture environment is one with a native language with a speaking population of less than 15 million. The small language and culture environment identified in this case is Uppsala University Library, Sweden. A review of relevant literature will examine both the global and domestic perspectives of e-book development. Due to the mass of research available on a global scale, more illustrative examples and description will come from this perspective. The intent is not to de-emphasize the Swedish case but a lack of material prevents an equally deep analysis.

One main focus of this study is to understand contemporary trends of e-collection development from the library’s perspective; research will focus on publications made within the past five years. Older research will be kept to a minimum but might feature in understanding the traditional methods of collection development employed by academic libraries (with emphasis placed on Sweden) as well as any references made to print material as a point of comparison.

A substantial amount of time has been spent gathering information and building an understanding of common collection building practices globally and in Sweden. Existing literature uncovers trends and influences brought about by emerging actors in the e-resource realm (i.e. aggregators, distributors, libraries, and users). Some general research was also made on the linguistic aspect of collection building in academic libraries (i.e. English vs. Swedish language books, those that are free of copyright and those that are not). The main focus of the study, however, is not on language but rather upon perspectives and relations so this part of the literature will be brief.

Presentation of the background research begins with the user perspective and continues to the library's perspective. The section concludes with a brief analysis of the research being produced in Sweden and what is being done to investigate trends from and within a Swedish perspective. This part of the literature review also contextualizes the case study by presenting broad and deep
information. The Swedish perspective allows the researcher and the reader to frame the study in a greater body of research.

**Literature Review - User Perspective**

One general observation made while collecting examples of prior research is the overall excess of interest placed on the user's perspective. Croft (2010), Martell (2007), Shelbourne (2009), Lomoth (2010), McKay (2011) and many others have produced informative studies on eBook trends from a user perspective. The current focus of today's eBook research appears to be focused on the user, which gives lighter emphasis to the other present perspectives: author, publisher, library/librarian, and aggregator.

It is not my intention to undermine the basis of these studies but to draw attention to the very apparent focus of modern literature - and to bring attention back to another actor in the field: the library. That said, I will spend a brief amount of time highlighting those voices of the user perspective before analyzing the research made regarding eBook development from the librarian perspective.

In the global community of academic and research libraries, there have been repeated discussions on the costs and benefits of adding electronic monographs to a library’s collection. These studies illuminate the turn of e-book research towards an understanding of current developments and trends of e-book integration and collection development, while previous studies pondered possible impacts of the rise of e-book popularity.

A probable cause for this turn of research focus could be that current e-book development and integration is not progressing as originally anticipated. Early research of e-book use in academic and research libraries seems to have leaned toward the future abandonment of print technology in favor of complete adoption of e-resources. A study in comparative user trends during this period remarked that “the value of electronic resources may already have eclipsed that of physical resources” (Martell, 2007). Such a study, however, ignores the trouble of usage statistics for e-books (from how to gather them to their analysis) and seems overly optimistic. This bias could be viewed as understandable in light of the overwhelming use of e-journal resources by researchers and academics. Recent studies on user patterns of usage reveal other trends such as the tenacity of print resources in comparison to the difficulties of e-collection development (Lomothe, 2010).

Most of the encountered studies either consciously or unconsciously examine eBook development from three spheres of interaction: the publisher/eBook aggregator, the library, and the user. Each individual sphere encounters unique difficulties with the rise of eBook integration in the academic library sector. A few of these difficulties are similar, for example those that deal with the technical aspects of eBook integration: how balance the creative rights of the writer while permitting access to the material. Other difficulties are unique to each sphere: the rise of eBook piracy among users and the economical impact this has on publishers/aggregators, the difficulty involved in collection development that particularly relates to the interlocking way in which eBooks are sold (packages vs. individually), how they are used, and the financial burden placed upon the academic library.
In 2009, Wendy Shelburne at the University of Illinois Library, USA, released a study on *E-book usage in an academic library: User attitudes and behaviors*. One of the first of its kind, this study provided information on a university community’s perception of e-book use, breaking down the user base into faculty, graduate, and undergraduate student. She notes the apparent shortcoming of the field in understanding user activities of e-books in academic libraries (Shelburne, 2009). Shelburne’s study also revealed the perceived advantages and disadvantages of e-book use from the user perspective. Lack of awareness of a collection’s contents was also considered the main block to the spread of e-book usage.

Since Shelburne’s study, a swath of new research has emerged with similar focus placed on understanding user trends in academic libraries (Croft, 2010). Rosie Croft and Corey Davis took a somewhat different approach in analyzing e-book usage in an academic library at the Royal Roads University, BC. They broke the analysis down further to its constituent parts, ranking respondents on a departmental basis. They explored the methods by which users (students) discovered e-books, whether from instruction, self discovery, or by word-of-mouth (Croft, 2010). Less prominent discoveries include the apparent lack of e-book usage from smartphones or other hand-held devices at this time in development of both the device and the software.

In 2010, Alain Lamothe from Laurentian University, CA, composed a quantitative study that analyzed usage statistics along with collection development methods. One powerful observation that Lamothe made was that publishers and aggregators do not report their usage statistics in any standardized format (Lamothe, 2010). Lamothe concluded that of two methods for recording e-book usage, viewings and searches, viewings more accurately describe when and if an e-book has actually been utilized. Searches were deemed inconclusive because fluctuations in the data can be attributed to a wide range of unrelated criteria. In this particular case study, the number of viewings per e-book was greatest for books that had been purchased on a case-by-base basis - as opposed to bulk or package e-book purchasing. Lomothe also discovered that the viewings/e-book usage ratio for the e-reference collection was considerably larger than that of other e-books.

A year later, Dana McKay (2011) broadly analyzed prior research, stating that discipline (aka different academic departments) clearly effects eBook use. She stated that eBooks and print books are often used under different circumstances. McKay strove to make a naturalistic study of reader’s habits; she noticed that although reading as an activity has not significantly changed in recent years, the patterns for what has been read in academia has dramatically altered. McKay’s main research goal was understanding how readers navigate and use e-books. Her methodology was to analyze the transaction log of a specific library for anonymized statistics about readers’ use. She separated results into three groups: usage statistics, document triage practice, and navigation within e-books. Some of the data provided similarities associated with traditional book use such as “users make decisions about the usefulness of material based on the cover image and the table of contents…” (McKay, 2011, p. 206), which has been proven in prior studies (Stieve et al. 2006). In conclusion, McKay noted the usefulness of e-book technology for human-computer interaction (HCI) practitioners in understanding reading behavior.
The Library's Perspective

In 2011, Chrzastowski made the supposition that the migration to eBook from book may be successful because both users and libraries can gain from the format. He listed the following as the “win-wins” from the library’s perspective:

…e-books have a low cost-per-eBook; have a low cost-per-use; are more cost effective to lend, store and preserve than print; offer greater accessibility to users (24/7 anywhere); offer greater availability to users (higher uses per e-book than print); and allow libraries to provide a broader collection variety due to low cost package purchases. (Chrzastowski, 2011, p. 14)

The Chrzastowski study revealed the strong incentives for libraries to migrate their print collections to digital, or to divert funds to digital collection development. Despite these "win-wins", the analysis found little evidence to conclude that e-books would ever comprise 100% of a library’s monograph collection. Chrzastowski concluded, however, that eBooks are an inevitable part of those collections’ futures.

The same year that Chrzastowski et al released their study, Ksenija Minčić-Obradović published a book titled E-books in Academic Libraries (2011), which thoroughly summarized the leading literature in the field, as well as many of those articles explored here. Her findings showed that despite significant amounts of research being done on the topic, more questions are being posed than answered. She also concluded that print and e-books coexist in academic libraries and that both formats fulfill roles that complement each other. It appears that e-books have established themselves in the academic community. Regardless of this strong foothold in academic libraries, there remain some disturbing challenges to e-book collection development.

Acquisition of e-book titles can be demanding, time consuming, and expensive. One source for confusion is the number of publishers, their respective platforms and purchasing models present in the market. Just as need for digital titles is increasing, so are the number of publishers involved in their production, which creates a diversity of platforms, purchasing methods, price, etc. Minčić-Obradović succinctly addresses the delicate and sometimes frustrating relationship between librarians and publishers:

Libraries often argue that the e-book industry has been driven by the convenience of the publishers and that publishers have been conservative in moving into the e-book market and in their delivery options. On the other hand, publishers accuse librarians of not being proactive enough, and having too much of a “wait and see” approach. (Minčić-Obradović, 2011, p. 27)

Despite the drawbacks of purchase models and price, eBook collections represent the majority of e-books in academic libraries (Ibid, pg. 28). Minčić-Obradović remarks that libraries avoid having to make individual purchases of titles when purchasing collections - favoring price first, followed by subject relevance and currency when making collection purchases.

From her experiences of working at the University of Auckland Library, Minčić-Obradović further explores how e-books can be used to support libraries in their role with their respective universities. Although she does not closely describe what this role is, it can be tentatively assumed that academic libraries that attend to a university are beholden to serve the community
there, i.e. students, professors, and researchers. Understanding the various barriers and challenges of e-book integration into the collection from the users' perspective is also a major facet of collection management. Such challenges have been noted in the previous section. It is worth an additional note to remark upon the importance of libraries understanding the needs, expectations, and abilities of their user base. The library's traditional tools to combat user-based issues is to establish lines of communication, i.e. a liaison librarian, education, and awareness campaigns. Like any material in a library's possession, if it is to be used, the library must ensure users know that it exists and how to use it. Knowledge of user needs, especially in an academic setting, should not be limited to students but encompass researchers and faculty. Julie Shen, 2010, published a short article on the e-book "lifestyle" with a similar question for academic librarians in focus: are faculty reading e-books too (Shen, 2010)? The academic, research library presents a different user base than a public or school library.

Magdalini Vasileiou has been contributing to the e-book research community continuously over the past few years. Her most recent work explores the lack of an e-book management framework in academic libraries and contribution of an initial framework design (Vasileiou, 2012). The lack of an e-book management framework is particularly troublesome because, in her opinion, it is difficult to compare and contrast outcomes from studies of e-book management without an agreed-upon framework.

Vassileiou conducted an interview-based study of academic library staff of several academic libraries in the UK in order to investigate their perceptions and experiences of e-book management. It is with great attention to her study that I designed and implemented this smaller project of a single case study. While Vassileiou's study was carried out with the intent of creating a management framework for e-book, the study conducted here has the intention of investigating the librarian's perspective of e-book management in a small language community.

Vassileiou's concern for development of an accepted e-book management framework came from her observation that e-books are becoming central to academic libraries' collections and are still in an early stage of development. The result of her study was a nine stage e-book management policy from a Collection Development Policy to Renewals and Cancellations. Her final statement, however, focuses upon the relationship between libraries and e-book vendors:

> The successful integration of e-books into universities is pivotally dependent on the relationship between libraries and e-book vendors. All parties need to work together to negotiate their way to a position in which the potential of e-books can be fully exploited. Ineffectual resolution of current issues and challenges has the potential to endanger the quality of service offered by libraries to their users, which in turn could threaten future support for academic libraries. (Vassileiou, 2012, p. 290)

The relationship between vendor and university library is crucial and it will be of key interest in this thesis. Reference to additional portions of Vassileiou's study will be made in the coming Investigation and Conclusion sections.
The Swedish Perspective

What research is being done on e-books in Sweden? When it comes down to e-books and universities, Kungliga Biblioteket (KB) plays a leading role in research and development. Universities, such as Högskolan I Borås and Uppsala University with established library science programs, are also producing a lot of the material currently available. The Central Statistics Bureau, on assignment from KB, also makes available detailed and regular statistics on various forms of e-resource use. From these materials it is possible to gain a general understanding of e-book development in Sweden.

KB and all universities in Sweden are recognized as government institutions and are therefore subject to government restrictions and control. This characteristic of organization is relevant when considering that levels of government interaction with regard to academic libraries differ from country to country.

Academic and related research. The interest and investigation of e-book development in Sweden is relatively young. Country-specific studies have taken off within the past ten years and within the past five when it comes to academic libraries. Research topics include user habits, patron driven acquisition (PDA), and general management.

Those theses that address user perspectives are Don’t judge a book by its cover - Using e-books in higher education (2012) by Anna Juneby of Malmö Högskola and PhD students and eBooks - a user study (2011) by Linda Borg of Högskolan i Borås. In 2010, Gustaf Hallquist completed his thesis: EBooks at university libraries - a study about digital acquisition also at Högskolen i Borås. Lastly, of the academic theses, an early example was written in 2008 by Hanna Olsson of Uppsala University, titled: The Hybrid Library - Marketing and Integration of E-books in Academic Libraries. A final article, based on a study of Patron Driven Acquisition was released as a collaborative effort from multiple Swedish universities: Patron driven acquisition as an acquisitions method at university and college libraries (Byström, 2012). From my research, I was unable to discover any further articles relevant to e-books and academic libraries that were published in the Swedish community. Yet surely this is not an exhaustive list.

In reference to the theses, I will not dispense their contents here - they act well in forming a basic image of the situation in Sweden but are not deemed highly relevant to this particular study.

KB studies. A rough outline of events handled by KB: In the mid-1990s, KB organized and formed the BIBSAM consortium. LIBRIS, the national cataloguing system, was formed in 2003. The first investigation explicitly directed towards e-books, was released by KB in cooperation
with the Swedish Library Organization in 2011. A pilot study was then released by KB in late 2012 regarding a comprehensive system for the distribution of e-books to libraries.

From the 2011 study, three things are worth bringing forth. Firstly, their definition of an e-book can be interpreted as a national interpretation of an e-book in Sweden. "An e-book is defined here as a text file, which can contain pictures and graphs, that has been created via a publishing format in order to promote reading from a computer, e-reader or smartphone." This definition excludes material that has been scanned, copied, or otherwise digitized in a picture format (similar to a .jpg or other image format). Also excluded are image files that have been OCR'd and made computer readable. Examples of excluded material include individual library's digital archives - also of questionable relevance are the materials collected under Project Runeberg. Therefore, the scope of this study focuses on e-books that are created and distributed by publishers and aggregators.

I find this definition of e-book highly problematic, considering other more liberal definitions that encompass the wider image of "e-book material" that are currently available. It also excludes a significant amount of historical and out-of-print material that is currently available in various formats.

Disregarding my skepticism, this narrow definition allows KB to perform a very succinct and specific study that focuses on the materials that bind together libraries and publishers.

Secondly, the purpose of the study is to 'map out' the e-book situation on a national level by analyzing technical developments, the actors involved, digitization, business/purchase models, KB's role, and the user's perspective.

Thirdly, the study concludes with a discussion of the problems involving the e-books "boom" in Sweden. At KB, they recognize three problems: the new technologies involved, developing functional distribution models, and offerings - both e-book accessibility and availability in Swedish. Besides these general problems, they also observe difficulties that are specific to each library type in Sweden. The research library, aka the academic library, has the issue of handling diverse platforms with different criteria for access.

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2 Titled: När kommer boomen? En kartläggnings av e-boken i Sverige ur ett biblioteksperspektiv
3 Titled: En förstudie: Sammanhållet nationellt system för distribution av e-böcker till bibliotek
4 Original Swedish: Den e-bok definieras här som en textfil, som kan innehålla bilder och grafer, som gjorts om till ett publiceringsformat för att underlätta läsning på datorer och/eller läsplattor och smartphones.
5 Although the study clearly states one of its’ main goals as: …som utgångspunkt att använda e-bokens inneboende potential, inte att hantera den som en tryckt bok. And so i further problematize their definition when they limit an e-book to the parameters of a printed book, ie restricted to the opinions and decisions of an accepted publisher.
Under 'solutions' is listed the oblique comment: All types of libraries will find strategies to promote free e-books in a thoughtful, effective manner. In addition, research libraries will create a means of better access to the scientific e-books from their own departments within their open archives. In this context, it is difficult to understand what is meant by 'free e-book'. Interview results from the study here show that this particular library has no intention of providing access to e-books that are made available through such repositories as Project Runeberg. The latter comment relevant to improving access to e-books published by the institution is also vague as thesis and other academic documents would not qualify as e-book under the definition given earlier on. Therefore, in my mind, directions for development in regards to academic libraries, their e-books, publications and licenses, remain ambiguous.

A recent pilot study, published in early 2013, focuses the development of a national system for the distribution of e-books to libraries in cooperation with Sveriges Kommuner och Landsting (SKL). Although the main focus rests on the question of e-book loans and public libraries, they emphasize that their efforts should not be viewed as solely applicable to public libraries.

Where the 2011 study made the claim that individual libraries would provide methods of accessibility for open-access material, this document states the new resolution that KB "via the national catalogue Libris, shall make literature in electronic form accessible for use via the library system" (Kungliga Biblioteket, 2013, p. 6). The 2013 pilot study is therefore an attempt to understand the environment and demands of such a system, as well as applicability and functionality.

Much of the document is concerned with the cooperation between SKL and KB, whose realms of influence and experience would overlap on such a project - and is therefore not of relevance to this particular study here. This section concludes with the following citation:

In this situation, there is a good reason to believe that the same fundamental technologies can be used to solve the needs of other library types. Not just public libraries but also university and high school libraries can be thought to benefit from a centralized and well-integrated distribution platform for that particular institution's publications or documents, both to other institutions or to the general public via a public library. (Kungliga Biblioteket, 2013, p. 8)

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6 Original Swedish: Alla bibliotekstyper kommer att hitta strategier för att lyfta fram fria e-böcker på ett genomtänkt sätt. Forskningsbiblioteken kommer utöver det att skapa en bredare tillgång till fria vetenskapliga e-böcker från det egna lärosätet inom sina öppna arkiv. pg. 23

7 Original Swedish: …KB via den nationella katalogen Libris ska göra litteratur i elektronisk form tillgänglig för förmedling via det allmänna biblioteksväsendet. pg. 6

8 Original Swedish: Det finns dock goda skäl att i det här sammanhanget lyfta fram att samma grundläggande teknik kan anpassas till att svara mot även andra bibliotekstypers behov. Inte minst universitets- och högskolebiblioteken kan tänkas vara hjälpta av en centraliserad och väl integrerad
This study leaves the reader with the knowledge that a nationally orchestrated and monitored system is in store for public libraries, with possible future application to research and university libraries.

**Statistical outcomes.** Regular analysis of yearly statistics of all library types is provided by a collaboration between *Sveriges Officiella Statistik* (SOS) and KB. These statistical studies contain data from libraries that are publicly funded and open to all citizens, which is a sizable percentage of all libraries in Sweden.

The results for 2012 show that "the use of e-media continues to increase at the expense of printed media." E-media attract more users, the study explains. In 2012, loans of printed materials reached 9 million at research libraries while downloads of electronic collections reached nearly 45 million. Similarly, physical loans, as well as inter-library loans have decreased in Sweden since 2011. A contributing factor could be the closing of 25 public libraries in 2011 but both these trends indicate a rising interest, or presence, of e-books in not only academic libraries in Sweden, but all libraries in Sweden.

Total national access of e-books, specifically, increased by 16% between 2011 and 2012. And since this thesis has an obtuse interest in those documents published by the university or individual department: publication of theses and articles increased by 35% in 2012. These two statistical observations were made on a national scale.

**Theory**

My mode of analysis has been influenced by the social theories developed by the sociologist Pierre Bourdieou. In this section, I will briefly present his field theory as well as its accepted and common applications. I will then further elaborate upon and present the applications of his theory in the realm of e-books and academic libraries. The section concludes with a description of how I apply his theory when analyzing the interview responses.

**Who is Pierre Bourdieu.** Pierre Bourdieu (1930-2002) was a French sociologist, anthropologist and philosopher whose study of cultural practices has produced a renown theoretical voice that "cuts across established academic disciplines and provides a powerful and
highly productive model for social analysis in diverse fields of activity" (Brown and Szeman (2000).

**Interpretation and Application of Field Theory**

**The Interpretation.** One definition of Bourdieu's field theory describes it so:

Bourdieu's field theory follows from Weber and Durkheim in portraying modernity as a process of differentiation into semiautonomous and increasingly specialized spheres of action (e.g., fields of politics, economics, religion, cultural production). Both within and among these spheres - or fields - relations of power fundamentally structure human action. (Benson, 2005, p.2)

This definition came from a study which applied Bourdieu's field theory to the realm of journalism; a study that further analyzed the relations in media production according to the social theories proposed by Bourdieu. Both Benson's and Grenfell's interpretation of Bourdieu is applied in this study.

In field theory, the semiautonomous spheres or *fields* interact, exchanging *capital*, which can come in various forms but exist mainly as either economic or cultural. But what is most important is that interaction occurs between people and groups of people, i.e. reality is social. As Bourdieu says: "To think in terms of field is to think relationally. In analytic terms, a field may be defined as a network or a configuration, of objective relations between positions" (qtd. Benson, 2005, p.3). The creation of these objective positions occurs from an ongoing process of marking one's difference between others - a process that is mostly enacted unconsciously.

Bourdieu's *field* is not a verdant expanse of grass in a sunny meadow. In fact, the French word Bourdieu employs for *field* is akin to a sports field, a force-field, or a field of battle (Grenfell, 2008). Things are happening in these types of fields; it is not a pastoral scene. The most common metaphor for the field, the sports field, is very apt. It is the structured, social space where 'transactions' and events occur. Games have rules, structure, and expectations for how the future can be.

An important concept of field theory is the understanding of *habitus*, which is the way(s) in which society affects individual actions and vice versa. One's habitus - assumptions, judgments, behaviors, etc. - is a long-term social construct that is under constant modification. *Habitus*, the second key element of Bourdieu's field theory, is an obscure, nebulous concept. The clearest definition that I could find described *habitus* as a "structure of the mind" built by the experiences and activities of everyday life (Scott, 2009, p.50). *Field* and *habitus* are considered to be mutually defining as each has an impact on the other. They are "mutually constituting" and by understanding both, one begins to comprehend the processes and practices associated with this study.

Although every field is hierarchized, with dominant actors, neither *field* nor *habitus* are to be considered "primary, dominant, or causal" (Grenfell, 2008, p.69). They have equal heft in the theory. *Habitus* has a unique role in that it is the "basis for social agents' understanding of their lives, including the field" (ibid).
Returning to the concept of *capital*, the main forms of economic and cultural capital exist in constant struggle. The former is generally stronger while the latter can legitimate wealth (Benson, 1999). Actors in a field gravitate toward these "poles", and measures of their respective wealth fluctuate depending on the direction they take.

In conclusion, Bourdieu's theories on social interaction are complex and multifaceted and it is my regret that I cannot further explicate them here - I can only lay out the skeleton of his theory for further research to provide with flesh and muscle.

**The Application.** The application of field theory to the study of e-books in academic libraries is valuable in that it will clarify the social relations that are present as well as the causation for various actions of the actors involved in e-book acquisition and management. This particular study will focus on a single actor, the librarian, and pull causation and understanding from a single case study.

Firstly, it is necessary to understand the concept of 'field' in this context:

…A field is a field of forces within which the agents occupy positions that statistically determine the positions they take with respect to the field, these position-takings being aimed either at conserving or transforming the structure of relations of forces that is constitutive of the field. (Benson, 2005, p.30)

In my opinion, identifying and defining the field of e-books is the most difficult in the application of Bourdieu's theory. It seems that the field can either be expanded or contracted dependent on the drives of the researcher: with the main question in this context being, should authors be included in the field? This implies an uncertainty of whether e-book creators should be included in the relevant field. My decision in excluding them, the authors and creators, in my field theory analysis is founded on the belief that once an author has submitted to the publisher (or vendor when considering self-published works), they have thus relinquished their 'capital' in the field. This could indelibly be argued and I welcome the criticism. Yet, for this study, I stand by my decision.

In the field of e-book management and acquisition, the actors (also known as agents) are: the sellers (publishers and vendors), the buyers (the university, i.e. the individual academic libraries), and the users (students, researchers, and staff). The position that these actors take in the field is:

…defined in relation to the *space of possibles* which is objectively realized as a *problematic* in the form of the actual or potential position-taking corresponding to the different positions; and it receives its distinctive value from its negative relationship with the coexistent position-takings to which it is objectively related and which determine it by delimiting it. (Bourdieu, 1983, p.64)

My interpretation of this is that the choices each actor makes is dependent not only upon the available or probable choices but also upon the comparative "negative" position-takings currently existing in the field. Changes are not only dependent on this 'repertoire' of choices but also upon the balance of forces between the various agents and the choices they have to make their desired outcome occur (Bourdieu, 1993). In reference to the provided definition of 'field', we see this
idea reiterated again - that actors make decisions (position-takings) with the goal of either 'conserving or transforming' the balance of forces that exist in the field (Benson, 2005, p.30).

How can this be specifically applied to the field of e-book acquisition and management? Firstly, the actors make decisions that either promote or unsettle the existing balance of forces. Possible decisions existing for the publisher are: adjustment of price, changing of the digital rights management (DRM) specifications, organization of the available packages, etc. These decisions denote position-takings that either promote or change the current balance of forces between actors. An increase in the price of an e-book package might encourage the library to consider an alternative source or abandon the package all together and so on for additional position-takings. It is understood in field theory that each actor behaves in such a way as determined by their social relation to other actors in the field, and their **habitus**, as described above.

The next main actor, the academic library, is difficult to place - are they independent or a subset of the university? My understanding and experience leads me to believe that although academic libraries and universities have differing fields of administration, when dealing with e-books, however, they act as a single unit. I therefore am referring interchangeably to the academic library and the university unless specific note is made. Possible decisions existing for the library are: the purchasing of packages or individual e-book titles, management of those titles - i.e. cataloging, advertisement, availability.

The final actor, the user, is the most constrained and dependent of the field. Their choices are limited to e-book selection, choosing between a print book or an e-book, making suggestions to the library and otherwise using or ignoring the available collection.

Sweden, with a unique organization and relationship between national library, government and university library, introducing an additional actor to the field: KB. I feel that KB should be considered an actor due to their role in negotiating contracts for the libraries (the BIBSAM consortium) and their creation and maintenance of the national catalogue, Libris. Also, the release of their most recent study implies an interest in a national e-book system, which would constrain e-books to their realm of influence.

Analysis of the interviews will further delve into the positions and position-takings of actors in the field of e-book management and acquisition.

**Methodology**

Methodology, in its' epistemological meaning, is the theoretical analysis of the methods or tools employed in a particular branch of science. This section is a presentation and analysis of the methods chosen and used for data collection and analysis.

This particular study pursues a qualitative research methodology, which is commonly understood to be descriptive and inferential (Gillham, 2010). The choice between qualitative and quantitative was made once the theory choice was set: Bourdieu's field theory. Of course, it may be possible to perform a quantitative analysis while employing field theory. My analytical choice, however, was based on understanding social relations, behavior, and environmental conditions - something which I feel quantitative analysis would not fulfill. Mixed methods could
have been an option but I already had found and made the choice of a case study. I therefore chose a qualitative case study analysis methodology for exploring my research questions.

The goal of this section is to present a carefully recorded, descriptive, and thorough account of this research project in order that it may at some point be reproduced.

**Ethics, Anonymity, and Confidentiality**

The integrity and privacy of the respondents was a big concern in this study. Regardless of whether or not Sweden is a litigious society, it is good and accepted research practice to maintain a high level of ethical awareness. This applies not only to the treatment of participants in a given study but also the handling and analysis of the data generated.

Some of the respondents expressed concern about anonymity and would only consent to interviews if their names would be excluded from the study. I made the decision to exclude not only their names but all of the respondents' names and will do my best to obscure their identity as much as the study allows. Of course, since this study will indirectly examine the effects of academic subjects on e-book management, absolute anonymity is nearly impossible as some reference to each department will have to be made.

The Swedish Research Council (VR) has released a text on good research practice (VR, 2011) that carefully dictates the balance of ethics, morals, and quality criteria. From this document, I was able to establish the credentials of “good research ethics”. These included the decision not to exclude any observations, even if they may prove detrimental to the outcome of my thesis. I also clarified my perception of morality as a researcher when creating a “code of ethics”. I rationalized my goal as a researcher: to pursue thorough, unbiased, methodical research that attempts no loss of integrity to the realm of library science nor the participants in the study.

**Limitations**

One of the main limitations of any study is the consideration of “observer bias”. This is a limitation because, until it is acknowledged, the researcher(s) risk skewing outcomes. In an effort to minimize observer bias, I acquainted myself with the spectrum of methodologies of social research as proposed by Jonathon W. Moses et al (2007) in *Ways of Knowing: Competing Methodologies in Social and Political Research*. This was done in order to educate oneself on the realm of interpretations and approaches to research.

The proposed spectrum has two poles: naturalism and constructivism. In brief, each dictates different methods of world perception, modes of analysis, and interpretations of reality. Although “observer bias” is a real threat to research integrity, the constructivist approach acknowledges the researchers role and relationship in the subject of study - as opposed to naturalism, which strives to remove the researcher's impact (Moses et al, pg. 16).

My position on the spectrum is to acknowledge the possible impact that an individual can make on the research outcomes, while striving to produce a replicable study through standardized interview questions and the removal of personal bias.
Case Study

I will here briefly elucidate my understanding of a 'case study'. My interpretation is a combination of the commonly accepted definitions of a case study. Gillham defines a case as "a unit of human activity embedded in the real world," whose key characteristic is "to answer specific research questions and which seeks a range of different kinds of evidence, evidence which is there in the case setting and which has to be abstracted and collated to get the best possible answers…” (Gillham, 2010, p.1-2). My understanding also includes the relationship between the phenomenon being studied as well as its' context, and how that relationship is sometimes unclear (Yin, 1994; Woodside, 2010). This idea, reminiscent of constructivist dogma, can be explained as the nearly inseparable relation between the case and its environment. I also believe that research of a specific case is enriched via an understanding and analysis of this environment. Therefore, when the case is presented in the following section Presentation of the case analysis, effort has been made in exploring and analyzing the context of the case (including relationships with government bodies) in both a broad and direct context (e-books).

The decision to use a case study research design for this project seemed natural as one of the key goals of both the research questions and the use of Bourdieu's theory of field research is that of understanding human interaction. Bourdieu's field theory emphasizes the social aspect of human interaction and, frankly, existence. A case study allows the researcher to go in-depth on a single instance of the perceived phenomenon and explore it to a minute level. It also employs multiple methods of analysis, as a means of approaching a research problem from various directions. This type of analysis - in this case, qualitative - produces vibrant, detailed results. According to Gillham's opinion, the time and effort spent in understanding the field (such as is normally done in the literature review) should be comparable to that which is spent on understanding the case (Gillham, 2010). Therefore, the case study analysis section will consist of three parts: a contextual analysis, a document analysis, and an interview analysis.

Contextual Analysis

When applied to different areas of study, from business and marketing to sociology, contextual analysis can assume different meanings. The broad understanding is self-relevant in the word: contextual. Analysis begins with questions like “where does the case operate?” and “what interactions dominate operation of the case?” Uppsala University library operates within a small culture environment - what does that mean? The contextual analysis will strive to answer these questions.

Document Analysis

Where contextual analysis encompasses the external environment that concerns the case, document analysis focuses on the internal environment: the structure, policies, and organization as recorded in the published documentation of that particular case (usually an institution). This segment of the analysis will examine documents on the organization of library staff, e-book policy, and the catalog (perceived as a single document). The purpose of this document analysis
is twofold: to illuminate the inner workings of the library and to pave the way for deeper understanding of the interview results.

A document analysis asks many questions, such as “what type of document is it,” and “what is the purpose of the document and why was it written?” Reliability of the documents will be ensured by their location on the university library webpage and date of publication. In this way, the reader can be sure that current, relevant material was analyzed.

The Qualitative Interview

A qualitative interview was chosen as the main form of data collection. As was mentioned before, a qualitative, in-depth analysis of a case study was chosen as the method for research. In addition, a qualitative interview - as opposed to a survey or discourse analysis - was chosen as it allows the researcher to take time and space to understand and explore the minute details of the case study.

Although there are many forms that a qualitative interview can take, from a structured interview to an unstructured interview (Rubin and Rubin, 2005, use the words 'planned' and 'flexible'), I chose a semi-structured interview design. Such a design would provide me with a structured interview path from which I could wander away, if responses moved my exploration in a slightly different direction. In this way, interviews took on a somewhat relaxed, conversational aspect that - I feel - allowed respondents to compose thoughtful, descriptive answers. I also felt that the structured aspect of the interview would be beneficial, considering my relative inexperience in conducting research interviews.

In Kvale and Brinkmann (2009), they repeatedly remark that, “there are not general standard procedures for research interviewing.” Despite this supposition, they state that, “an entire interview investigation has often tended to be a rather standardized affair.” My interpretation of this is that the variety of subjects, locations, and material available presupposes on-the-spot approaches to interview technique - something that an accomplished interviewer develops over time. That being said, the actual process of preparation to interview to analysis is somewhat standardized. Kvale and Brinkman recognize seven stages of the interview project:

1. Thematizing
2. Designing
3. Interviewing
4. Transcribing
5. Analyzing
6. Verifying
7. Reporting

While at first it was difficult to decide whether these steps should be taken within or without the concept of the overall research project - in particular reference to thematizing, which was later interpreted to mean an extensive knowledge of the topic, case study, and position of the interviewee - these seven stages represent the bulk of the interview portion of the research project.
Selecting interview respondents. Selection of the interview respondents was straightforward. Contact was first established with Uppsala University Library’s e-resources department. After consenting to an interview, the head of the department proffered the names and contact information of those librarians at the departmental libraries who would be best suited to participating in the project. These individuals were in charge of acquisitions at their respective libraries - in charge of purchasing individual e-book titles and maintaining relations with students and faculty, amongst other various duties.

Of the six professionals, four consented to an interview. Reasons for declining were based upon feelings of not being qualified to comment on e-book management or that the librarian dealt so seldom with the issue that it would be better to interview someone else. In conclusion, the four departmental libraries that responded and participated were: Medicinska Biblioteket, Ekonomikums Biblioteket, Ångströmsbiblioteket, and Karin-Boye-biblioteket. These libraries cover the subjects of medicine, economics, science, computer science, social sciences, and the relevant subjects that fall under one of these umbrella categories.

Regarding the subject libraries that declined to participate: I did not assume that these libraries related more or less to the subject of e-book management. It was the perspective of the respondent that their personal influence on the e-book collection was not relevant to any sort of study. From these respondents, one volunteered to participate in an interview that focused on the print book. The questions from the e-book interviews were written so that management of printed material was the focus. An interview from the print-perspective gives insight into the different techniques - from purchasing to accessibility - that the library employs. One can then make comparisons and analysis based from an understanding of both the print and e-book perspective.

Six librarians were interviewed in total. One represented the main e-resources department and five from the individual filial libraries. Of the five, one was interviewed on print-book management techniques. These librarians represent the e-book and print-book management policies of Uppsala University Library.

Notes on writing the interview questions. Initially, approximately 17 interview questions were drafted, reviewed, and finalized by both myself and staff familiar with interview techniques and the area of study. After two interviews were completed, certain facts came to light that required the addition of questions - as well as the elimination of those that solicited repetitive responses - in order to more adequately understand visible developments and trends. The questions asked the respondents about their perceptions of e-books and e-materials in general. The objective in asking these questions was to understand the thought processes and associations the staff had of e-books. This definition will then be compared to those provided by KB and the greater-world literature.

The librarian interviewed on the print-book collection perspective was given the exact same questions as those interviewed on the e-book collection, but rewritten for the print-perspective. For example, the question 'how would you describe the importance of this collection in comparison to the overall holdings of the library' (e-book perspective) was rewritten as 'how
Implementation

After preparation for the interview process was completed, i.e. completion of background research, interview questions were formulated, reviewed and finalized, and subjects were interviewed.

A small caveat to the research: it was my original intention with this study to examine the proportion and role of foreign language e-books in an academic setting. My initial results showed that nearly all e-books at Uppsala University Library are in English. Instead of pursuing the lack of Swedish language e-books in a Swedish academic institution, I chose to analyze the influences and methods of e-book management and selection. The case of the Swedish-language e-book will have to be explored in another research study.

My first research question focuses on e-book collection development techniques of the academic library. I wished to explore the effect of different actors’ influence on the collection’s development: students, research staff, and librarians. A series of questions were posed to explore the role these different actor groups play and an objective question of who influences the most. A question whose response depended on the selection of a value from a Likert Scale (here: important, more important, most important, etc.) to evaluate the importance of the collection in comparison to the overall holdings.

The second group of research questions focuses on collection management techniques such as those dealing with title selection and the production of metadata. These questions focused on uncovering the cause-and-effect relationship of the library and the publisher.

Interview candidates were contacted via email and, upon request, a copy of the interview questions were provided prior to the actual interview. This was considered the best choice due to the interview being conducted in English - not the native language of the participant. Knowledge of the questions in advance would give the interviewees the opportunity to familiarize themselves with the topic and to mentally prepare for questioning. This was also considered the simplest method of removing any anxiety related to interviewing as well as communication in a foreign language.

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10 Multiple, experienced sources were consulted on the proper formulation and efficacy of the interview questions.
Analysis of the Interview Material

The interviews were recorded with a laptop equipped with an audio recording program. Notes were also taken during and after each interview to insure thoroughness of data collection. Length of the interviews varied from 30 – 40 minutes.

After all the interviews were completed - excluding the comparative interview - the audio was transcribed. This was done with the assistance of an audio manipulation program on the computer that slowed the conversation to a speed where constant transcription could be achieved.

Coding, also known as indexing, of the transcripts followed the techniques as proposed by Kvale and Brinkmann (2009) on the coding of interviews focusing on meaning. This approach employs the technique known as “open coding”, which is the process of breaking down an interview into concepts, themes, topics or anything of relevancy. These blocks of meaning are then examined, compared, conceptualized and finally categorized.

My coding process followed this practice. The texts were initially read and notes were recorded. The texts were then reread and category headings were applied to each statement, concept or word that was identified in the first reading. When this first phase of coding was completed for all the interviews, analysis began question by question. I found the easiest way to visualize the interviewee’s responses was by creating spreadsheets of the relevant material. In this way, I could read, compare, and analyze without the chance of missing any material from the interviews.

Presentation of the case

This section will present the Uppsala University Library in two parts. Firstly, analysis will begin with a description of the university library’s internal organization. The second portion will analyze the national environment - the external organization - that has a visceral impact on the library’s internal workings.

The Uppsala University library is somewhat unique in organization in that departmental libraries are physically separated from the central library, i.e. they are located around the city of Uppsala with their respective departments. It might not be so unusual for a university to have a law library in the law department or a medical library in the medical department. Yet Uppsala University has eleven semi-autonomous departmental libraries with both overlapping and distinctive collections. The department for the libraries’ shared functions (Avdelningen för biblioteksgemensamma funktioner) contains units responsible for digital publication, IT, production, repro and e-resources. The following image outlines the internal structure of the Uppsala University library, which was published and procured from the university library’s webpage.
One unique aspect of Uppsala’s filial libraries not clearly evident from this image is the relative autonomy of each subject library. Although there is a centralized administrative structure, each individual library has a head librarian and staff. Conversations with staff of both Uppsala and Stockholm University libraries’ confirmed this organizational structure as being relatively unique.

The e-resources department is in charge of the development, management, and access problems of e-journals, databases, and e-books. Among their duties is the management and negotiation of the BIBSAM contracts, supervised by KB. It is this central department that handles the technical, managerial duties of the e-book collections that are purchased by the university, which are accessible to all university students and staff regardless of department affiliation. All of the librarians across the various sectional libraries meet regularly to discuss developments, address problems, and attend to any planning obligations.

What role do the departmental libraries play in e-book collection development? In answer to this question, my initial exploration of the library’s organizational documents did not reveal how each departmental library approaches the e-book collection. From the image above, no information is given on how each library operates or is structured at the individual level. The
interviews revealed that the subject librarians in charge of print acquisitions are also responsible for purchasing individual e-book titles; the central e-resources department handles the contracts with the international publishers and companies that provide the e-book packages.

At any time, the university library has either subscriptions or purchased access to some 15 to 20 e-book packages and subject collections. These collections blanket an array of subjects and departments from medicine (AccessMedicine, Medicine Complete, etc.) to psychology, history, and physics (subject packages from vendors such as Ebrary, EbscoHost, etc.). The entire university e-book collection is primarily made up of these packages - with the individual titles each purchased by the departmental librarian, constituting only a small portion of the overall collection.

The single e-book titles are purchased from ‘bookstore’ vendors. Although the university is contractually bound to certain vendors when purchasing print books, there are currently no similar contracts when it comes to e-books\textsuperscript{11}. The two vendors that the library purchases from are Dawsonera and EBL\textsuperscript{12}.

**Composition and description of the collection**

Figure 2 is taken from the Uppsala University library website.\textsuperscript{13} It shows raw figures and facts about the library such as the number of employees, loans, costs, etc.

\textsuperscript{11} Rumors say this might soon be changing.
\textsuperscript{12} Uppsala University library has a contract with Dawson Books, which could reasonably explain the library’s relationship with Dawsonera
\textsuperscript{13} http://www.ub.uu.se/sv/Om-biblioteket/Biblioteket-i-siffror/
The numbers that are interesting and applicable for this study are those for the total number of books and serials as well as the total number of e-book titles.

**Figure 2.** Statistical data from Uppsala University library. Retrieved from http://ub.uu.se/sv/Om-biblioteket/Biblioteket-i-siffror/ on 08/08/13
Firstly, there approximately 5 231 000 books and serial publications combined for all the departmental libraries. This figure appears to have fluctuated from 2008 to 2012 with a slight decrease overall. The university library, founded in 1620, has been amassing titles, both historical and current. A collection of over five million titles that encompasses over 130 000 running meters (a slight decrease in the past four years as well) does not appear to be threatened by the digital realm. The library has over 400 000 e-book titles and nearly 20 000 e-journals.

There is one figure that is missing from this table: there is no counting for the number of e-book loans. Neither is there information on the number of downloaded articles. Without this information, it is impossible to estimate e-book traffic versus print book traffic. The sheer quantity of print books versus e-books speaks of the long tradition Uppsala University library has in collection building.

**Contextual Analysis**

How are e-resources handled in Sweden? As an American living abroad, my initial introduction to e-resource management was one of confusion. Who handles contracts with vendors; what role does the Kungliga Biblioteket (the National Library of Sweden, hereafter referred to as KB) have with universities and commercial vendors; etc. In this section, I will very briefly explain the organization of e-resources that occurs beyond the university (organization within the university will be addressed in the section: *Presentation of the case*).

Above all, KB plays a major role in negotiating license agreements for digital information on behalf of 65 different universities, colleges, governmental agencies and research institutions - of which Uppsala University is a member. These license agreements can be with scholarly journal publishers, abstract and indexing databases, reference works, and eBooks. Although it is worth noting that the lion’s share of e-materials are e-journals and currently few e-book contracts exist. The group of institutions with negotiated agreements to digital content is known as the BIBSAM consortium.

Selection of digital material is made according to five established criteria relating to: applicability, price, access, copyright, and terms. A steering group comprised of representatives from member institutions focuses on developing strategies relevant to the license agreements.

KB is also responsible for the care and maintenance of the national library system known as LIBRIS - such as the catalogue, the inter-library loan system, the search system, and other affiliated features and services. Duties relevant to BIBSAM and maintenance of the catalogue

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14 The counting of statistics is a great issue for e-book usage analysis. It appears that similar problems might exist in the e-journal realm.

15 From När kommer boomen: Licensverksamheten vid KB har idag lång erfarenhet av att samordna BIBSAM-konsortiet och av att verka som en samlad röst och kravställare för de deltagande biblioteken gentemot förlag och innehållsleverantörer.
overlap as it is KB who is responsible for creating, by whatever means, catalogue entries for items from the negotiated license agreements. Member libraries, who have gone in on certain license agreements, have the catalogue entries for their collections created by KB in Libris.

In clarification, Uppsala University Library signs a license agreement negotiated through the BIBSAM consortium, whose catalogue entries are further managed by KB. This is a crude simplification of a complicated, well-thought out process.\textsuperscript{16}

**Presentation of documentation analysis**

The documents chosen for analysis in this section were selected according to the following criteria: publication on the library’s website, relevance to e-material management, and date of publication. Three documents will be analyzed. Analysis will begin with the “Goals and Strategies for Uppsala University Library 2013” followed by the university’s acquisition policies, and concluding with an analysis of the catalog.

**Goals and Strategies for Uppsala University Library, 2013**

The document begins with a description of Uppsala University’s goal for the library, published 2007: the library shall be distinguished internationally. The same 2007 document states that the library shall develop in pace with both technical developments and the needs of the university.

The university library plays an infrastructural “key role” and offers, among other things, competence within digitalization and scientific publication. Attention is repeatedly brought to the historical and cultural collection of Uppsala University and its’ need to be digitalized and made available to the greater user community. In terms of “vision” and “overarching goals,” the library’s area of strength will include digital publication and digitalization of cultural materials.

The following is an interesting presentation of the library: “The physical and the digital library will continue to exist in parallel and in constant interaction and the university library should be an international model in offering study and research environments, both physical and digital.\textsuperscript{17}” This image of the library is one of two separate, yet interconnected collections: the digital and the print. And of two separate - yet interconnected - user environments, the physical library space and the virtual library community.

The document continues with a list of three goals and strategies for the year 2013. Not all of these involve e-materials or the development of the e-book collection. Yet some do. For

\textsuperscript{16} For more information on BIBSAM, LIBRIS, and KB see www.kb.se.

\textsuperscript{17} The original Swedish: Det fysiska och det digitala biblioteket kommer även i framtiden att existera parallellt och i ständigt samspel, och universitetsbiblioteket skall vara ett internationellt föredöme i att erbjuda studie- och forskarmiljöer, såväl fysiska som digitala.
example, the goal “the collection shall be provided for, developed, and preserved as best as possible” includes several sub goals with proposed strategies that involve development of the digital collection. One such strategy is “prioritizing the purchase of digital resources when justified.” This strategy encourages library personnel to purchase digital resources when (it can be assumed) the choice is beneficial to the university library guidelines and policy documents.

The same goal is pursued from another direction: the continued strengthening and deepening of the staff’s competence in both education and IT (information technology). This goal encourages staff to become both familiar and competent with the technologies they use. Although much of the technology involved with the front-end management (versus server side technologies) of e-books is user friendly, there is much to learn that is not considered intuitive. Education of these technologies will give staff both confidence with the technology and the ability to educate users on, for example, proper access techniques.

Finally, “digitalization of older collections, directories and frequently requested materials is given high priority.” This step into the digital frontier, although completely independent of purchased or subscribed to e-book titles, is largely a result of Uppsala University’s long history. Once a significant amount of material has been digitalized (which much of it has) and made accessible to the user community, it will be interesting to see how these e-books come to shape both collection development and the university’s perception of the e-book.

Acquisition policies for electronic media

Information on Uppsala University library’s acquisition policies is published directly on the library’s website. This information is given in both Swedish and English and covers all aspects of collection building and maintenance.

All available information regarding e-material is presented in a short, two paragraph section. It is so brief and succinct that I will present the English version here:

Uppsala University Library follows the development of electronically published information and it buys more and more material in this form, namely databases, e-journals and e-books. Digital acquisition is subject to the same guidelines as printed materials. In those cases where material is proffered in packages, selection at the title level is not possible. Selection of free electronic resources must conform to the same criteria as other acquisitions.

When acquiring electronic media that spans more than one subject, it is of the utmost importance, that the subject libraries concerned work together. Decisions about new resources and other changes concerning such media will be taken by the University Library’s management group in co-operation with the reference group for acquisition.

The first sentence of this acquisition policy is extremely vague - is it a statement or a goal? “It buys more and more material in this form” does not conclusively tell the reader if the library strives to buy more e-material or is simply following the trend of e-material purchases at the university.

The acquisition policies document also clarifies the organization of acquisition responsibilities according to subject groups (library groups). There are four library groups: humanities, theology, and sociology; law, social sciences, and teacher training; cultural heritage
collections; medicine, pharmacy, technology, and natural science. Each group is to develop an acquisition plan, which is updated annually, on subject specific issues, organization, and plans. My research could not uncover the subject-specific acquisition plans of the library’s involved in the interview analysis: medicine, natural science, social science, and economics. It is therefore difficult to say how much policy would differ between departments and the four library groups. The document does state, however, that “continuous cooperation between the various subject libraries” is important for organization and function.

This type of organization is both vague and flexible. One can see both strengths and weaknesses to this structure: lack of uniformity, on the one hand, can lead to confusion while flexibility, on the other hand, can allow each subject to create tailored policy.

The Catalog

The catalog is being treated here as a document. At Uppsala University library - and at most other Swedish academic libraries - the collection is accessible via two routes - the university catalog and the national catalog, Libris. At Uppsala University, the library’s catalog is called Disa. Users have the option to explore the collection through either Libris and Disa. Although Uppsala University library gives access to approximately three different catalogs of three equally different collections (mostly historical in nature), the main collection is accessible via Disa.

\[\text{18} \text{ libris.kb.se} \]
\[\text{19} \text{ disaweb.ub.uu.se} \]
\[\text{20} \text{ For more information on Uppsala library’s other catalogs, visit:} \]
\[\text{http://www.ub.uu.se/sv/Sok/Bocker/}\]
Konrad, E-book Management

Figure 3. Uppsala University library's catalog homepage. Retrieved from http://disaweb.ub.uu.se/cgi-bin/chameleon on 08/08/13

Disa, pictured in Figure 3, provides the user with multiple means of exploring the catalog: quick search, advanced search, and indexed searching are the main methods of finding materials.

A single catalog post of an e-book provides descriptive metadata of that book: author, title, number of pages, publisher, etc. Access to the actual book is provided via a link.
Figure 4 is an example of a catalog post for an e-book (I performed a search for e-books available from Cambridge University Press because I was certain they existed in the catalog). *Ämne* indicates the Swedish subject headings that are applied manually by the subject librarians.
This particular post contains two book links: one for the contents/abstracts and another for the full text of the book. Virtual location of the book in the form of SAB and Dewey catalog coding is also given.

Libris, the National Library Catalog System, allows accessibility to all academic libraries and a handful of public libraries in Sweden. Libris is managed by KB and is in no way under control or moderation by Uppsala University library. For contrast, however, I will provide here a screen capture of the same e-book and how a user can acquire the material:

Figure 5. Example post from the Libris catalog. Retrieved from http://libris.kb.se/bib/13430132 on 08/08/13

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21 Svenskt klassifikationssystem för bibliotek, translated as the Swedish classification system for libraries.
Figure 5 also includes subject words, virtual location, and a brief description. The user can see that the same title is available in three Swedish libraries, including Uppsala. Access to Uppsala’s copy of the title is provided by a link to Disa and transports the user to the same Disa post as shown above. The actual convenience of having e-book posts in Libris is debatable. It is convenient to be able to see what a library has or does not have but it is also inconvenient as a non-Uppsala user cannot access Uppsala e-books. Inter-library loan is currently not a feature available for e-books and although temporary visitor status can be given to non-Uppsala users, they have to be on-campus in order to enjoy the privilege.

**Presentation of the Interview Results**

A presentation of responses will be carried out in the following manner: responses to questions will be summarized, categorized and coherently presented without deep interpretation or analysis, which will be carried out further along in the study. Responses are first categorized according to interview question and then more closely organized according to similarity (if any trends are presented) or dissimilarity (if two or fewer interviewees propose a dissenting response). Although there were a total of seventeen interview questions, these have been further combined when responses were seen to significantly overlap.

**What is an e-book**

As the interviews progressed, the responses brought new knowledge to the research goals and therefore upon the research process. I added an additional question to the interview list: what is the librarian's impression of e-book material? What is an e-book to them? Before beginning chronologically with the interview questions, I will clarify the perception of this concept as provided by the interview respondents.

KB gave a very narrow definition of the e-book. This definition appears even more constricting when compared to how the acquisitions librarians of this study interpreted the e-book. One respondent felt that an e-book was simply a book in digital form. A novel or a textbook in digital form was still an e-book - because the printed counterpart is also considered a book. Initial attempts to uncover an individual's perception of an e-book led to cryptic dialog:

**Questioner:** When I say e-book, what do you think?

**Respondent:** I think e-book.

Although "what is an e-book" can be considered a leading question, descriptive answers were a challenge to uncover. It was necessary to follow up with many questions in order to gain clearer understanding.

Another respondent also recognized a clear distinction between e-books and other forms of digital material. For her, the e-book is both purchased and read differently than a database or journal article. Although they are all forms of e-material, she said she had a clear and distinct impression of an e-book. The realm of e-material is populated with different examples with unique and distinct characteristics. Usage, purchasing models, and overall purpose were seen to
differ significantly, which allowed the librarians to have clear impressions of each. The e-book was largely defined according to the physical properties of its’ print counterpart: a cover, chapters, pages, etc..

Composition of the Collection

The first question explored the linguistic composition of the eBook collection at the university. This question revealed three points of interest.

Firstly, a majority of respondents were uncertain of what is meant by ‘foreign language’. In this setting, they were assured that any language other than Swedish should be considered a foreign language. The respondents then clarified that ‘foreign language’ should be replaced with ‘English,’ as that is the bulk of their holdings.

Secondly, three of five respondents respectively stated that the collection was 100%, 100% and 98% foreign language while the remaining respondents stated that the collection was ‘almost only’ foreign language or contained ‘a lot’ of foreign languages, i.e. English. When asked if they could think of any other examples of non-English e-books, two respondents replied that the Statens Offentliga Utredningar (SOU), although not owned by the university, are searchable and could be considered part of the collection. One respondent also brought up the United Nations’ collection of e-material (possibly with French documents) housed at the Dag Hammarskjöld library. These examples, however, are not necessarily to be considered ‘e-books’ but rather e-material and therefore the e-book collection is considered to be solely English.

Thirdly, the majority of respondents expressed frustration and dissatisfaction with the lack of e-books currently available in Swedish.

There are some things we want in Swedish but the publishers won’t release Swedish e-text books. We have a publisher called Student Literatur. They have a lot of textbooks. And we quite like them to, all universities, would like them to have e-books but they’re not interested.

Not only are there few e-books available, but Swedish publishers do not offer purchasing plans of e-textbooks for academic libraries. One respondent stated that their sectional library has very little printed material in Swedish, let alone e-material. Further discussion with respondents showed that they feel Swedish publishers are concerned with loosing a great deal of profit if they produce e-textbooks for universities.

The respondent from the print-book perspective remarked,

22 This could be a further point of contention as SOU are not considered e-books but more e-journal or database.
Konrad, E-book Management

…it is almost only English as the foreign language. Maybe some Norwegian because we have nursing [as a program] and nursing research has been big in Norway. So that is very unusual, just a few titles. We never buy French or German [or other foreign languages].

This statement echoed the e-book respondents' with the exception that the print-book collection (at this departmental library) had a considerable amount of material in Swedish. The respondent often heard that students wished for more textbooks and more copies of books they already possess in the collection. Due to high demand, this library has seven- and one-day loan periods for course books.

**E-book Collection Development: Techniques and Sources of Influence**

The following questions focused on exploring the techniques and tools employed by the librarians in developing the collection. Respondents were asked who was seen to provide the most influence in collection development overall: librarians, researchers and academic staff, and students.

Librarians were seen as having the most influence on collection development. One respondent felt that the academic staff had the most influence while another felt that both academic staff and librarians had the most influence.

> It’s of course mostly the librarians [who influence the collection]. But we try to get as many suggestions and have discussions with researchers and teachers.

One reason given for the librarian's leading role in collection development was the large e-book packages that dominate the collection. These packages are chosen by the e-resources department and leading sectional library personnel.

Although academic staff (researchers and professors) and students are both capable of making 'purchase suggestions' via the library's webpage, the latter rarely make use of this service.

> Where teachers, researchers [and students] can leave suggestions and it will come to us. Well, it will come in our email. And here we always buy, if it’s a good scientific book, we always buy it. It’s prioritized.

All respondents were interested in developing relations with their users, either via the 'purchase suggestions' feature mentioned before or via a liaison or contact librarian. One departmental librarian remarked on the notable increase in 'purchase suggestions' made after the contact librarian position had been created. She saw this increase as a positive influence on collection development as all suggestions made by academic staff are highly relevant to either course material or research being conducted by the respective department. Yet not every library supports this position - either abandoning it entirely or adding it to the duties of the acquisitions librarian.

All respondents mentioned that they would attempt to purchase any e-book suggestion made on the website. Two responded doubtfully to their ability at obtaining a recommended e-book.
I would say that it's a 50-50 chance that we get an eBook because we have two suppliers that we have to buy from. We can't go to Amazon or anything like that. We have to use EBL or Dawsonera. So if it's not there we can't buy it.

The same respondent also remarked that staff had considered changing purchase habits of print books by checking for an available e-book version simultaneously. But she and many of her colleagues remarked on some of the chafing aspects of the 'bookstore' vendor's DRM restrictions that detracted from their services. Also, if a requested book is only available from a publisher's package that the library has not acquired, that book might be impossible to acquire because of the costs of the packages as well as the book's limited availability via a bookstore vendor.

In summary, the librarian has the following sources for e-book collection development: librarians, academic staff, e-book vendors, and students. Sub-sources of influence could be seen as the web and social media but only one respondent cited her peers as a source of influence and another read commercial newsletters.

The print-book respondent replied similarly on the topic of the web-based suggestion forms.

If we get suggestions, we almost always accept them and buy the book if we can. … If students want us to buy books, we can often do that because we don't get so many [suggestions]. We wish we had more but that is a problem. The researchers of course are the ones we would like to hear more from.

This particular library caters to a high percentage of science faculty. A significant amount of the budget is allocated to e-journals and so print books receive neither a large percentage of the budget nor as much attention from the research faculty.

The e-journals are the main source for [the faculty's] research.

For this librarian, students benefited more from the physical collection than researchers, who were known to rarely enter the library or interact with staff. Therefore, this subject library emphasized establishing better contact with researchers and staff. On the subject of influence, her final word was that librarians hold the most influence in collection development because they "make the final decision."

**Importance of the EBook Collection**

The respondents were asked to rate the importance of the e-book collection in comparison to the overall holdings of the library. In order to encourage standardized responses, each was given a Likert scale from which to choose a value:

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23 For this university, the bookstore vendors are EBL and Dawsonera.
Very important, Important, Moderately important, Of little importance, and Unimportant

Two respondents chose "very important", one chose "important", one felt that e-books and print books share the same level of importance in the collection while one respondent felt that print books are more important than e-books.

The question prompted several of the respondents to "think out loud" and qualify their choice. Those who chose "very important" felt that the e-book collection consisted of not only new books but also high level academic books that are of extreme relevance to the user groups of each respective branch library. The e-collection, they stated, is much larger than the print collection and receives the principle part of acquisition's budgeting.24

I would say very important. Because it [the e-book collection] is mostly new books and it’s mostly nonfiction, so it’s the right type of books for our type of users. And we also have a very large amount of books so therefore it’s also a big possibility for users to find something they are interested in.

The respondent who chose "important" weighed the pros and cons of the print versus e-book collection. Although they do buy a lot of e-books, she reported, the library is not ready to go completely electronic. She conceded that the purchased and rented collections do provide up-to-date and modern materials, making the e-book collection more than "moderately important".

In qualifying her choice in deciding that the printed collection is more important than the e-book collection, one respondent provided similar details as her peers. Yes, she said, the e-book collection is large but ongoing problems with statistics makes it nearly impossible to understand how much of - or if at all - the e-book packages are being used. She was positive, or rather hopeful, that the e-book titles purchased singly from the bookstore vendors were being used regularly. Issues with DRM, the different platforms, and overall attitudes towards e-books impeded use and popularity of the collection. The respondent remarked that she and her peers at the library had noticed changes in the reading habits of their researchers: wanting more and more the ability to take their research with them. But she still found that some researchers would "personally buy the print edition" if the library would only purchase an e-book copy. Her inclination was to believe that e-book development had much to do with tablet and mobile phone technology - small screens make it cumbersome to read.

The respondent who felt that the e-book collection and print collection were of equal importance did not elaborate on her decision.

On the subject of the print collection, the librarian had difficulty answering. Having an up-to-date, modern print collect is high-priority for her but the e-journals are vital to the researcher.

24 The administrative branch of the library handles budgeting for the large collections while each branch library is given an individual budget.
It's a hard question. You have to have both.

And with the Likert scale:

Well, a little bit less important [than the e-resources] but it's still important.

Her initial response was to judge the importance of the collection based on the worth the user has with it. Her thoughts highlighted the research habits of not only disciplines but of individuals within those disciplines. A few faculty members had extremely close contact with the library and collection while others were never heard from.

**Purchasing and Selecting Titles**

The interviews continued on to an exploration of actual purchasing and selection techniques for e-books. Once again in the interview process, the distinction between e-book titles that are purchased individually versus titles purchased (or rented) from large packages came into focus. The sectional librarians made it clear that their realm of expertise did not apply to the packages. Three of the five respondents declined to talk about them in detail, as they were not involved in their purchase or selection. Only the respondent from the medical library talked in detail about the particular subject packages that are relevant to her users. She showed an extensive knowledge of the different publishers and the particular materials relevant to her users.

All of the respondents did, however, freely talk about the individual titles bought from the so-called "bookstore" vendors. Although there may be many bookstore vendors available on the market, the Uppsala university library patronizes two: EBL and Dawsonera. The respondents gave contradictory responses on whether or not the university is contractually bound to these two companies. Analysis of the library's documentation (located in the prior section) shows that the library (or the university) does not have contracts with certain e-book vendors.

In total, the respondents had four considerations for e-book selection: the vendor, the publisher, DRM, and price.

The contractual obligations to the bookstore vendors allowed the vendor to "set the rules" in terms of DRM, access, price - as one respondent noted. She was left with checking for availability and lacked the ability to "shop around". Another librarian referred to her "instructions" when buying e-books: to only purchase from these two vendors in order to limit the number of platforms from which to access the item. As an aside, the same librarian remarked that such restrictions would keep her from buying Swedish e-books, even if they were available. Dawsonera and EBL are big international companies that would probably not carry relatively unknown titles in foreign languages.

If it were possible, one respondent stated she would prefer to buy directly from the publisher on the basis of acquiring the "best" DRM. But even this has its' downside - every publisher has its' own platform for access and so many publishers would create a maze of platforms, which is also an issue that recurred frequently during the interviews.
Because that’s one of the big disadvantages with the way we purchase today and I think our users don’t like it. It’s so different - all the platforms are different with different rules. It’s hard for [the user] to get a grip on eBooks and to know how to use them.

In this way, the bookstore vendors are tolerated because they collect titles from different publishers and offer them through one platform.

An issue closely related to that of the different platforms is the consideration of DRM, which all of the librarians took under consideration when purchasing. As was mentioned, the "best" or "least" amount of DRM was encountered when purchasing directly from the publisher. But this also creates the issue with platforms and leads to "contracts" with different bookstore vendors as a means to allay the platform fever. Because DRM is a means of controlling access to content, all of the respondents took the issue seriously. One respondent specifically stated that she would prefer unlimited access for the whole university: unlimited downloads, multiple users, printing, etc.

The final consideration when purchasing individual e-book titles was price. When it came to selecting a title, one respondent would check to see if the price was reasonable in comparison to the print copy. If it was three times the price, she thought she would select the print version - even if the item was a patron suggestion for an e-book. However, she countered, if the item could be considered reference material and of use to others, she would choose the e-book. Another librarian felt that price only sometimes plays a role: depending on whether funding was available or not. Her e-book purchases were sometimes constrained due to the budgeting cycles at the university.

Well, now [mid-summer] is a good time of the year but later in the Autumn we might not have money.

Overall, the respondents felt that their method of purchasing individual e-book titles closely resembled their methods for purchasing print books.

The respondent on print books mentioned publisher, subject relevance and price as the main criteria for consideration when purchasing titles. She did not voice any concerns about availability, stating that Dawson and Adlibris supply all necessary titles. Books in Swedish can be acquired via a Swedish law (1993:1392) that requires a copy of all printed materials be sent to university libraries and the Royal Library in Sweden. Otherwise, and was often the case at this library, titles in Swedish are purchased from Dawson or Adlibris the same as English titles.

**Treating the E-books for the Catalog**

Respondents were asked how they treat purchased items for the catalog. Once the item is purchased, how do they, as acquisition librarians, import the item into the catalog and make them searchable for the user community.

Once again, each respondent made quite clear the distinction between those e-books bought singly and those purchased or subscribed to in a package. The distinction is necessary because each has its' own means of coming into the catalog and being made searchable with metadata, Marc records. Although the majority of my respondents did not directly deal with the package e-
books nor have any responsibilities regarding their processing, they were quite knowledgeable about the involved processes.

Briefly, in terms of the e-book packages, these titles are filtered through something known as the "link resolver"\(^{25}\). One respondent described it as a tool that connects the bibliographic information with the full text. Research on the internet reveals that there is much discussion underway as the current link resolver, SFX, is being abandoned by KB and each library will further be in charge of acquiring their own link resolver\(^ {26}\). They can choose whether to remain with SFX or move to a different service. In any case, the majority of the respondents were distressed about how the link resolver is currently being used and the implication this has on search-ability and metadata quality. They described the current metadata of the packages as "quite bad"; in the past, only title or author was available for each item. The metadata has improved, one respondent notes, but it is still poor.

And now [the record] will also have author and year. But that’s still bad. And there have been some efforts to enrich this metadata so when we export from the link resolver to Libris there have been some efforts to have marc records from the publishers and sort of blend but that blend is very complicated.

Another complaint was made regarding the delays that certain books have in reaching the catalog. Some titles reached the catalog sooner than others, which baffled the respondent.

The respondents had much more detailed information about the processing of single titles that they each purchase and process. The process of handling an e-book, one describes, is like that of a print book. Each book is handled manually with each subject librarian affixing the appropriate subject terms in Swedish and classifying it according to the Dewey System. Two respondents stated that once they had purchased the e-book, they immediately put it in the catalog. What happens is that Dawsonera and EBL will send the librarian a link to the book. This link is placed in the local catalog, which syncs to Libris (the national catalog) once every 24 hour cycle.

In order to find the appropriate metadata for the book, the librarians have two options: they can either request the Marc records from the supplier or do a remote search of the catalog client in Libris. The former seems to be the least popular method of acquiring the metadata. One respondent did not think she had the authorization to import a Marc post from the bookstore vendor into the catalog - while one respondent did this quite regularly. This particular respondent would "tick a box" at EBL's website and the vendor would send the complete Marc post, which she would enhance with subject terms and the Dewey classification. The popular method, of

\(^{25}\) "Länkserver", in Swedish. “Link resolver” appears to be a direct translation into English and it is unclear whether or not this is the appropriate English term (or even if there is an English equivalent).

\(^{26}\) http://librisbloggen.kb.se/tag/lankserver/
doing a remote search for a Marc post that another library has created for the material, was seen as quick and easy.

Lastly, one respondent felt that she seldom had to catalog an e-book because it was a rare occasion when she could acquire a title. She felt that she more often cataloged print books because an e-book copy was often unavailable to the university.

Respondent: Yes. You can get MARC records from our suppliers but I’ve never managed to get that working. I don’t know how to do that. And since it’s not that often, it’s actually quite easy to import the books.

Interviewer: Not that often?

Respondent: It’s not that often I import single e-books because mostly people want print books. Of course percent-age wise, they want the eBook but it’s not available.

In this scenario, the library is unable to fulfill a patron request due to the restrictions placed on vendors.

The print book respondent also imported metadata via a remote search at Libris.kb.se. She remarked that it took longer to find a quality record than it did when Libris held an agreement with WorldCat27.

Conditions for Access

When asked about conditions for access - who sets them and what they are - all respondents identified the publishers and aggregators as the culprit. The library, they insisted, was not responsible for setting any restrictions.

The university actually establishes the marginal amount of access restriction that comes from the library.

Respondent 1: I don’t think we [the library] set any restrictions. It’s the publishers who set restrictions.

Respondent 2: No, not the library but the university. You have to be a university user. Students, staff, researchers.

Respondent 3: Not that we set restrictions but we can sometimes choose how many simultaneous users we purchase for. And we always try to have more than one [simultaneous user].

27 More information on why and when the agreement between KB and WorldCat ended is located here (in Swedish): http://librisbloggen.kb.se/2011/12/14/kb-avslutar-forhandlingarna-med-oclc-angaaende-deltagande-i-worldcat/
These restrictions include user status of the individual: he/she must be either a student, staff member, researcher, or professor. In other words, one must be a member of the university community. Guests can gain access to the e-book collection by applying for temporary passwords. These "walk-in" users have the same privileges as any other university member.

The vendor or aggregator maintains authoritarian control over setting conditions for access. This happens regardless of whether a single title or a package is acquired. The librarian and institution have no influence over the restrictions placed on the material, replied multiple respondents. Some publishers and aggregators, however, offer more lenient DRM restrictions than others. "If possible, I prefer to avoid purchasing from Dawsonera/EBL because of their DRM" - was a common response. One publisher was thought of fondly: Springer was seen as being aware of the problems caused by tight restrictions and was viewed as being very liberal with their material.

The majority of respondents were interested in three facets of DRM restriction: the number of multiple users, downloading, and printing. When purchasing directly from a single publisher, access to the material is unlimited. Purchased packages also allow an unlimited number of users. Subscriptions require the purchase of a number of users: 1, 3, 5, or unlimited. The reason given for this concern of number of multiple users (a single print book can only sustain one user at a time) was given to the complicated technical aspect of making a request and establishing a queue system.

Downloading and printing are also tightly controlled to different degrees, depending on the aggregator or vendor. All respondents were interested in obtaining the best deal on downloading and printing; they favored being able to download at will and print as much as desired. Of course, most DRM are quite strict when it comes to downloading (frequently not allowed at all) or printing (only 10-15%).

A single respondent brought up accessibility issues for users with reading disabilities. She remarked that EBL and Dawsonera have built in "read-aloud" technology that is quite necessary for some of her users. Although this form of accessibility does not interact with DRM but rather as a service offered by the platform, this respondent considered her users needs when making e-book purchases.

For the print respondent, limited awareness of the collection is the main deterrent for access.

We think it’s a problem that it doesn’t get spread around so much about the nice, new books we have.

Difficulty in establishing contact with researchers and staff augmented this problem. Instead of conditions for access, which do exist in the sense that one needs a library card and can only loan the material for a certain length of time, a general knowledge of the collection and the ability to navigate the catalog were seen as the main detractors to accessibility.
The respondent did mention the Swedish law that limits copying of materials for personal use\(^28\). Yet this law is not strictly enforced nor explicitly seen as a condition for access.

**What Restrictions Mean for Librarians: Problems**

When asked about what ramifications they encountered from the vendor-imposed restrictions on access, the response was unanimous. Each respondent felt that the different platforms for each collection, from each vendor or aggregator, was a great detractor to e-book use.

Because the platform acts as a gateway to the material (which is housed at the vendor's website rather than locally), it limits how and in what ways you can interact with the material. Limitations on printing and downloading, for example, are so different from platform to platform that the user is easily confused, states one librarian.

Another felt the impact of the platform dilemma directly on her joint duties as educational librarian:

> When we try to talk about e-books, we always have to say 'let me show you this platform, but it can be different, and looks at this one…but it can be different.

Another respondent similarly found it difficult to explain something that did not make any sense. "It's confusing and difficult and I think DRM is basically why people resist e-books."

For one respondent, changing conditions amongst the bookstore vendors evoked concern. These vendors operate on the credit system. So far, the respondent remarked, their users have never consumed all their credits on a single item. But that may soon change as Dawsonera, in response to publishers' complaints, will be drastically lowering their credit system. She was concerned that such a decrease would change the way libraries and librarians rely on certain e-books as reference titles. Her response was to choose the alternate bookstore vendor, EBL, if such a change occurred.

It was the opinion of one respondent that publishers and vendors should enable inter-library loan capability of their material. Strict DRM prohibit libraries from sharing or loaning their digital material to non-university users. A library user from one university cannot gain access to another library's e-book holdings. "We should be able to give temporary logins to other libraries," stated the respondent.

Lastly, one respondent put it most succinctly: "When you want a book, everyone has their own reasons for the books use." Limitations on how that book can be used, from printing to downloading (and what form of access actually determines a 'credit point' or an actual loan) seriously detracts from the e-books' appeal. "Things are changing, and not always for the better."

\(^{28}\) [http://www.government.se/sb/d/6143](http://www.government.se/sb/d/6143)
The greatest limitation for the print collection was the lack of knowledge of its existence. Researchers and staff, unaware of the benefits or capabilities of the collection, expressed pessimism when it came to budgeting.

Yes, they see the cost for the library as sticking out. How can it cost so much? Because they don’t understand that e-journals cost so much. And they don’t understand that we work with the e-journals. So it’s a big problem. For them to understand, actually.

Even though the majority of students access the print collection regularly, the research faculty do not understand why the library, as a resource, costs so much. For this library, the relationship between librarian and researcher plays a large role in determining collection development and the library's position in the research community.

In-House Problem-Solving

Respondents were asked how (and if) they generally go about addressing these problems expressed in the previous section. In focusing on one issue - or the general existence of issues - the respondents expressed their general feelings of helplessness regarding DRM and accessibility.

Information on all the different platforms and restrictions is listed on the webpage, responded one librarian. The intention with this is to offer one-spot information on all the packages: how much can be printed, downloaded, copied, etc. But this type of education is mostly for other librarians, remarked the respondent. "I don't think the normal user would find it."

When it comes to handling all the different platforms, the same respondent felt that both students and librarians were united in the desire for a single platform. Yet no developments are being made in that direction and this librarian felt it was a decision made based on economic considerations. She reasoned that the platforms act as a means of advertisement and exposure to the publisher's logo and the functionality of that particular provider's platform.

The majority of respondents agreed that they can do little or nothing to change the decision-making processes of the publishers. The conditions are set; the library can either accept or decline, which means they either purchase or do not purchase the collection or book. Every time a new negotiation for a package comes around, one respondent said that they will ask the supervising staff to purchase something different, with better DRM.

We can't solve [these problems] obviously. We can try every time there's a new negotiation: please choose [an aggregator] with better DRM. My colleagues, my boss, and I, we prefer the big packages because we get a better deal with the DRM.

Along this line, she also stated that they pitch different collections to the researchers to see if one package is more appealing than another. Patron-drive acquisition was also attempted as a means of finding more books (and packages) that the user actually wants.

Responses on problem-solving were fairly diverse. One respondent felt she had absolutely no influence on affecting change.
I don't do anything to resolve these problems. I'm just a middle man in this.

While another had witnessed publishers change their conditions a number of times after multiple complaints from users. It was unclear whether she was referring to the global e-book market or the market in Sweden. She continued on by voicing her concern for the size of the e-book market in Sweden. The market is small compared to the rest of Europe and the US and she reasoned that Swedish customers (libraries) would have little influence in affecting change. So even though one respondent felt her only option was to voice complaints, there was little positive opinion that they would result in any changes.

The print-book respondent felt that knowledge of the collection's existence and potential was its greatest limitation. She and her colleagues were currently brainstorming potential solutions that would cultivate a closer relationship between the library and the research faculty. Possible solutions include outreach programs, newsletters, and education on how to properly use the catalog.

Analysis and Discussion

Now that the outcome of the interviews has been reported in a clear manner without interpretation, I will now add my own analysis. Analysis proceeds on two concurring levels. Firstly, the interviews are interpreted and analyzed on the research questions of this thesis. This portion of the analysis employs Bourdieu's Field Theory as a tool to help understand and clarify the actions and motives of the library staff. It is not the purpose to validate Bourdieu's theory but rather to carefully structure layers of social interaction in a complex field of diverse actors.

Implementation of Bourdieu's field theory is highly relevant to this field of study. The research questions focus on the social aspect of e-book collection management and the librarian as a human component of a complex process. Interview responses are examined through the lens of field and habitus. I will continue to make reference to these terms and their contextual meaning. It will promote understanding if these two concepts are kept in the foreground for consideration.

Bourdieu gives three steps for those performing field theory research. One begins by analyzing the positions of the field vis-à-vis the field of power, then continues by mapping out the relations between the positions occupied by social agents or institutions. The final step is analyzing the habitus of the social agents. These steps were performed but will not be discussed rote-by-rote here.

The second ancillary level presents a broad comparison of my research outcomes with those authors mentioned in the section "Literature Review". The purpose of this is to identify how the findings here relate with those in the field of e-book research. Are they similar or dissimilar? Do they prove or disprove other findings?

So much research has already been accomplished in the realm of e-book research and management techniques - my literature review barely scraped the iceberg - new material and findings are constantly being produced, revealing new facts and trends of extreme relevance. The
goal of this discussion is to briefly examine how some of my findings compare with those done under different conditions - with other case studies, different libraries, and using different data collection methods. It is not my intention to make a distinction between 'right' and 'wrong' results but rather to present findings that may or may not share similarities in a greater, world context.

Management Techniques

Reporting of the interview responses sufficiently answered the descriptive research question: what management techniques are employed by the responsible library staff? Respondents were able to list and describe their techniques, which sometimes differed and more often overlapped. In broad terms these techniques included steps to develop the e-book collection, purchasing techniques, and metadata techniques. Findings from the document analysis showed the relative autonomy given to each filial library in developing specific acquisition policies. Since that is the case, it is not surprising that this research encountered multiple techniques within one library “system”.

The outcome of Vasileiou's study was the suggestion of an e-book management regime, with specific, descriptive steps. She leads into her study with a statement on the importance of a structured e-book management plan for every university library. Without one, she reasons, it is difficult to compare findings between the studies that are constantly being produced. As such, this study revealed that lack of refined techniques for e-book management was evident within a single university. Each semi-autonomous library applied a slightly different approach when it came to management techniques. Within such a small study, it becomes difficult to make contrasts - but also reveals current acquisition and management policies. As Martell found, each departmental library has great potential to exploit selective policies to the advantage of each user-group. But such policy requires active and vigilant attention to detail - not to mention funding, personnel and the time to carry out and interpret a formal, evaluative study.

Influence

The second research question, “how do conditions or relationships influence these management techniques?” can be contextualized and understood by looking at the field. Recall that the field operates under structured rules and conditions (which are not considered to be static). Who determines the rules under which the librarian must operate? In this case, the departmental librarians operate at the lower end of the power-chain. Negotiations and acquisition policies are determined by the department for e-resources and even higher up in the policy documents established by the head librarian, and even the university. The departmental library has the ability to tailor the acquisition but must follow "rules of conduct" when purchasing individual titles. The publisher, vendor, and aggregators are the only ones with the power to set conditions for access to their materials. The individual librarian has no power to change these 'set' conditions and must consider ways to educate themselves and their users when it comes to operating different platforms.

One of the main difficulties in analyzing the librarian as an actor within a field is making generalizations. There is the librarian as an individual and then there is the librarian as concept.
Where does one draw the line with generalizations? When writing this section, I gave attention to ameliorating the balance between privacy (naming no single individual or giving indication of 'who said what') and that of identifying trends and position takings of individuals within a field. Therefore, my five respondents will be presented as the acquisition librarian of Uppsala University. Exceptions will only be made if one individual presents an opinion or action that is completely divergent - even then that individual will remain anonymous.

The departmental library and librarian operates within a seemingly constricting field and this promotes feelings of frustration, which were often expressed during the interviews. The conflicting rules and regulations of e-book access can be viewed as being in conflict with the librarian’s perceived role as an information resource manager. Their habitus, shaped by experiences and actions (mostly when it comes to purchasing individual titles), comes into conflict with their field when experiences of print titles conflict with emerging experiences related to e-books.

Whether a print book or an e-book, users at the Uppsala University library place a request using the same online form. This is a standard method of integrating user opinions into collection development and also one way in which librarians develop relationships with their users. In this way, collection development techniques are the same regardless of the desired material when it comes to integrating user suggestions. The library also recently attempted a trial period of Patron Driven Acquisition (PDA), which can be viewed as another way to integrate user habits and needs into collection development. PDA presented its’ own challenges and it remains unclear whether or not this will become an established method of e-book acquisition for this university (Byström, 2012).

The field explored here is that of e-book assimilation. This is a comparatively small field, whose operation occurs within and with other fields. This field, like all fields, is governed by rules of interaction. Acquisitions librarians have particular duties that are prescribed by not only their institution but also personal experience. Publishers obey international copyright laws and answer to internal codes of conduct for publishing and selling of material. Academic users behave and act in certain ways as well - they loan and return material, make requests and produce texts, graduate or teach. These rules promote expectations for conduct and, without them, a field would be anarchic.

Let us take a closer look at these 'rules of conduct' as expressed by the interview respondents.

Social agents who occupy particular positions understand how to behave in the field, and this understanding not only feels "natural" but can be explained using the truths, or doxa, that are common parlance within the field. (Grenfell, 2008)

The library, as an institution, has existed for centuries but the context in which it exists is constantly changing - necessitating change of the institution. A graduating student of library sciences today is keenly aware of the technological changes that have altered the role and perception of the librarians of our youth. When interviewing the librarians, there emerged a distinct conflict between behavior that felt "natural" and current e-book practice. This conflict exhibited itself when librarians were asked about the limitations placed on e-books. "The
conditions that come from the publishers, they always mean problems and trouble because the library wants to have unlimited access, of course." This statement, and others that promoted 'unlimited' access, were common responses during the interviews. Accessibility is a key concern for libraries and librarians, whose main *raison d'être* is promoting the accessibility of information. This is not a conflict every librarian feels with every publisher or aggregator. One respondent remarked that Springer is "aware of the issues with DRM" and is therefore quite liberal with their material. Another stated that DRM restrictions are usually more lenient when it came to the purchased packages or directly from publishers in general.

The interaction between librarian and publisher is, however, exceedingly complex and nearly dependent on a case-by-case basis. The fact that there is a clear distinction between single-title vendors and e-book packages illustrates the clean division in e-book accessibility. Means of assuaging the accessibility conflict have been attempted: Patron Driven Acquisition (PDA) being the most prominent (Byström, 2012). Even though PDA integrates the user into the purchasing process, it is still presents its own issues determining accessibility and visibility of the material.

Although actors occupy the field of the academic library, they do not occupy a single field at any one time. Like a set of Russian dolls, fields can be nested and actors can occupy multiple fields at a given moment. Neither is a field fixed as it is possible to trace the evolution of certain fields (Grenfell, 2008). For example, it would be possible to trace the evolution of the field of the academic library by looking at such changes brought about by governmental policy changes, institutional developments, and advances in technology. A field is not a stagnant entity. One respondent noticed that, amongst her patrons, she had observed changes in researcher reading habits from requesting print books to e-books. Yet still she had a core number of users, of diverse ages, who preferred the print version of the material. Although much of the field can remain unchanged, actions and relations between actors can change.

Within a field you have many different actors; that has been established. Each of these actors exerts a different amount of power:

> Even though a field is profoundly hierarchized, with dominant social agents and institutions having considerable power to determine what happens within it, there is still agency and change. (Grenfell, 2008)

Even with differences in power, agency (free will) and change are still possible and often expected. For example, the respondents felt they had little influence in convincing publishers and aggregators to reconsider their DRM policies. However, they maintained the ability to choose not to buy a certain package or to buy from somewhere else. Although this kind of advocacy was limited - the small Swedish market compared to the greater European and American markets - one respondent had known publishers to turn around after increases in DRM as a result of dissatisfied customers. A librarian's budgetary power is also quite limited. As one respondent noted, she had more flexibility in purchasing e-books at the beginning of a budgeting cycle.

Drawing the lines for this particular academic field is a daunting task. So far, I have just mentioned e-book suppliers and producers, librarians, and users. There remain overlapping fields in every corner: the field of e-book production (authors, publishers, users), the university as an entity of complex, beaurocratic relations, etc. Each is a "human construction" with a unique set
of beliefs. This brief glimpse at the field of e-book management in academic libraries should be of further research importance when questioning developments, conflicts, and concerns. The field, in all cases, "mediates what social agents do in specific social, economic, and cultural contexts" (Grenfell, 2008, p.75).

Martell, in 2007, published a study over changes in user patterns over a ten year period. One discovery he made was "...knowledge of how use varies by discipline, user status (undergraduate, graduate, faculty), nature of use (studying, teaching research), and type of library will enable librarians to allocate resources more effectively" (Martell, 2007, p.436). When the respondents of my study spoke of their users, from students to researchers, they all provided different perspectives. As, indeed, each librarian represented a different departmental library, these varying perspectives were both (I believe) a product of the former coupled with each library's means of approaching the user. From contact librarians and casual emails to intermediary databases, each library employed both similar and unique methods of developing relationships with their users. As Martell writes, there are many avenues for librarians to explore in order to exploit the potential of each library's virtual and physical contact with users.

When it comes to e-book collection development, the Information Automation Limited, affiliated with Jisc Collections, released a final report in 2009 that analyzed focus groups on e-book collection management techniques in UK university libraries. This study, somewhat similar to mine, also found that influence on collection development predominantly comes from the librarian. The UK study also highlighted the weight university and departmental librarians place on obtaining e-books for distance courses and programmes. I found it interesting that such a consideration was not mentioned in any of my interviews. This could be the relative lack of distance learning programs at Uppsala University compared to other universities. Or due to other undiscovered factors.

**Treated for the Catalog**

Once rights to the e-book have been acquired, how is the item treated for the catalog? The key to discoverability in a catalog is good metadata. Good metadata is descriptive and thorough; respondents repeatedly remarked on the poor metadata created by SFX, the link resolver. The respondents admitted that poor metadata is a result of using SFX in a way for which it was not designed. Attempts at enriching the metadata are being pursued and appear to be successful. My exploration of books from several of the large packages showed catalog posts with detailed metadata but when the entire e-book collection is composed of over 400,000 titles, visibility is key to utilization of all the books. Creation of metadata for individual titles was not an issue for any of the librarians. More often than not, the librarian was able to acquire the catalog post

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provided by the vendor - only in some cases did a librarian visit a third-party database for the retrieval of a catalog post.

Actual cataloging of individual e-books was seen as a no-hassle task. Metadata can be imported into the catalog with a few clicks of a mouse; communication with the bookstore vendors was also seen as fast and expedient. In contrast, experiences with the metadata for the packages were negative - a fault rather of the link server than of the actual vendor.

This research shows that the library is beholden to the technologies available for metadata production. In this case, the library misused a technical service (SFX) which produced poor metadata. The result is the pursuit of enrichment techniques: using a combination of tools and reaching out to the publisher or aggregator for advice.

There exist a few general rules that constrain *habitus*, which help enable researchers to understand and anticipate actor's actions in a field or instance. Firstly, "practices within a given situation are conditioned by expectation of the outcome of a given course of action, …thanks to the habitus, on experience of past outcomes" (Grenfell, 2008, p.58). Secondly, actors "come to gravitate toward those social fields (and positions within those fields) that best match their dispositions and to try to avoid those fields that involve a field-habitus clash" (Ibid, p.58-59). A small example of this can be illustrated in two respondents' different approaches to metadata creation: one felt more comfortable creating the catalog post by hand or importation via a national database while the other was fine with using the metadata provided by the vendor. This is an admittedly small example, but illustrative of how personal experiences and competencies can influence decisions based on "dispositions" and levels of comfort. Metadata production is but one example of how a librarian's *habitus* can impact choice and decision making processes. In this case study, the majority of respondents pursued overall similar methods of collecting or creating metadata irrespective of their individual experiences. What this implies is left for exploration in further studies geared towards exploring the effects of metadata techniques.

**Conditions for Access**

Accessibility of the material appeared to be the main concern. Accessibility outweighed even concerns for cost. As most respondents appeared willing to pay a substantial amount of money for a service, they were mostly concerned over the limitations, if any, their users would have. Libraries and librarians want full access of material for their users and this research supports that finding. When libraries are dissatisfied with the accessibility of a package, they can make contact and voice their concerns. However, respondents in this study felt ineffectual in changing provider policies. Whether because Sweden is a small market or that it has little influence in comparison to the greater European or American markets, dissatisfied respondents did not feel that change was guaranteed.

Nearly all respondents expressed frustration and exasperation with DRM. Their experiences were various but mostly negative. As was mentioned in the previous section, efforts to coerce publishers and aggregators to change their DRM policies were fairly ineffectual. Respondents also shared their users' frustration and confusion when it came to understanding the limitations
and features of individual platforms. One respondent stated quite frankly that it was sometimes difficult to remain positive when it came to e-books, to market them to users as a 'good thing'.

DRM were repeatedly cited in the arguments against e-books. Minčić-Obradović, in a whole book dedicated to the e-book in academic libraries, wrote about the dual role librarians have: to promote the interests of rights holders via upholding copyright and DRM as well as providing access to material "in order to encourage creativity, innovation, and research, as well as teaching and learning." My respondents exhibited a greater interest in the latter role and rather found DRM, although necessary to protect the rights of the author (to a certain extent), to be stifling and prohibitive. My research diverged slightly from Minčić-Obradović's in one other way: their study showed that communication from vendors and publishers to libraries was poor. In my study, bookstore vendors were known to be highly responsive to emails and phone calls. As for contact with the large package suppliers, multiple respondents reported receiving automated newsletters on package updates and book releases. Personal contact was not mentioned. Therefore, depending on the type of vendor, quality of communication differs greatly.

Vasileiou, in her recent study published 2012, reported something similar.

Librarians should develop their communication channels with e-book vendors in order to elucidate their needs and requirements, and encourage the vendors to increase their availability of core e-texts in all disciplines. (Vasileiou, 2012, p.285)

This statement leads one to believe that librarians should be in charge of establishing communication channels with e-book providers and not vice versa. Vasileiou strongly feels that librarians should step up and take initiative in forming strong relationships with e-book venders as a key step in taking action on the issues those libraries face in e-book integration. In this particular case study, interaction with the package vendors is relegated to the e-resources department and dependent upon their abilities in understanding the issues facing the departmental librarians (what complaints they hear from users, current trends or practices they notice, etc.). This type of organization depends on an extremely healthy internal communication policy.

Springer, one of the publishers often mentioned with fondness by respondents, has released several studies (White papers) on current e-book developments. One such study found that platform functionality is far from standardized (Springer, 2011). And that users "don't like to be told they have limited access" (Ibid, p.3). These findings mirror the reports given by my respondents and that the frustration associated with platforms and access limited by DRM restrictions is a global phenomenon.

30 My interviews revealed that librarians at this particular university have regular meetings to discuss different packages and related, internal developments.
Additional Findings

In pursuance of the research goals, this study uncovered some very pertinent information that can be viewed as divergent. Firstly, the divisions between single title e-books and e-book packages are so broad as to make them irreconcilable. Negotiations and contracts limit purchasing methods of both - yet in different ways. Channels of communication between the large package vendors and the bookstore vendors also differ. Budgeting for each occurs in different ways and at different times of the fiscal year. In terms of staff, librarians of the departmental libraries know very little about the technical aspects of the packages. They may participate in discussions when it comes to purchasing yet they do not (appear) to play a large role in this (large) aspect of collection development.

According to Lomoth's research in 2010, usage statistics from publishers and aggregators were not reported in any standardized way. One interviewee in my study stated that they [library staff] had no concrete usage data, no definite knowledge of how or in what way their purchased or rented packages are being used. As an individual who treasures statistics and the power of raw data, I found this news appalling. Three years after Lomoth's publication of his research have passed and still the problem of statistics analysis remains. Librarians do not have an accessible way of finding out how their e-book collections are being used, a critical method of understanding user habits and needs.

In terms of organization and negotiation of contracts, Lomoth also described a library consortium in Ontario, Canada, called COOL (Consortium of Ontario Libraries). This entity is responsible for representing public, university, and school library interests (commonly license agreements) with service providers (assumed to refer to both e-journal and e-book resource providers). The Swedish consortium Bibsam is therefore not a local phenomenon but perhaps unique in that it is managed by a government body. But one can conclude that it is not uncommon for a library to receive representation.

Then there is the persistent idea of a "migration" from print books to e-books. Some see this as an inevitable shift in user habits while others debate the extent to which e-books will come to dominate any library's holdings.31 In a library-based perspective study undertaken by Chrzastowski in 2011, the success of e-books was seen to depend on the value that both libraries and users can take away from the format. The surprisingly negative arguments that I encountered regarding e-book accessibility in my case study indicate persistent roadblocks to the success of the e-book in this particular environment.

Respondents purchased reference material in e-book format, whenever the opportunity arose. They stated that digital versions could support multiple users and could therefore be more readily

31 A recent study published by The Washington Post saw a leveling off of e-book purchases in 2013 as the technology “matures” before anticipated. Read: http://wapo.st/16htyMp
available for students and researchers. A 2009 survey of e-book technology in libraries made a similar supposition that academic libraries are “particularly well-suited to the e-market” because of their “large, expensive, and rapidly dated reference books” (Wilkins et al, 2009, p.1217).

**Summary**

The goal of this thesis is to explore the effects of e-book purchasing models as well as user and librarian perceptions on the e-book management techniques of academic library professionals of Uppsala University Library. This goal developed from the problem in the field: there is limited research on e-book management techniques at academic libraries.

Vassilieu's 2012 study developed seven stages for an e-book management framework, which laid the groundwork for establishing a consistent approach to management in general. There still existed an absence in the field of e-book research. This study attempted to explore and analyze the social interaction surrounding e-book management techniques at Uppsala University library as a form of case study analysis.

The case study employed various methods of data collection. Contextual analysis frames the case and provides an understanding of the environment in which the study is being held. Document analysis uncovered the formal guidelines and restrictions as posed by the university and the library management group. Finally, the qualitative interview scrutinized actual practices and experiences of individual library staff. By employing Bourdieu’s field theory, the causal relationships between the library, user, and publisher came to the fore.

What conclusions can be drawn from the data collected? Firstly, in answer to the question: what management techniques are employed by the library staff? It is clear that some techniques mimic those undertaken for print books and print materials. Metadata creation, which is in this case more metadata collection, is the same for either e-books or print books. Posts were collected via remote searches or catalogs and databases hosted - rather given access to - by the National Library of Sweden.

The library seems to face similar challenges regardless of the format of the collection, especially knowledge of the collection, its contents and use. Recall the print respondent struggled to entice researchers to take a greater interest in the print collection. Similarly, the majority of e-book respondents felt it a challenge to visualize the collection for their users. E-books cannot be displayed on a shelf. The larger package collections are especially difficult to visualize as they contain thousands of titles. In this scenario, librarians shared the difficulty in promoting a collection to a user base.

The similarity of both techniques and challenges in e-book management with print book management highlights the connection between those two worlds. Bourdieu’s *habitus* clarifies this interaction in a unique way: a librarian’s experiences, expectations, and habits form a method of approach. The print book came first and, for many academic departments, retains a prominent role in circulation statistics. Therefore, the librarian’s *habitus* is largely shaped by the print book. Comparatively, when interviewing librarians in charge of the science collections (physics, medicine, chemistry, biology, etc.), e-journals play an essential role in research practices for those disciplines. E-journals have become an accepted format for researchers and
students. The process for purchasing subscriptions and accessing individual articles has become streamlined for both libraries and users. Although it was not explored in this thesis, one could wonder if *habitus* was influenced by interactions with the e-book’s closest digital relative, the e-journal.

The key root of the word *habitus* is habit. Experiences compound to produce expectations, similar experiences produce repetitive behaviors thus establishing habits, *habitus*. The puzzle here is establishing the librarian's *habitus*. Is she making judgments according to her experiences with print-books, e-journals, prior experiences with e-books or a combination of all three? Here, I established the current habits of librarians in charge of e-book management. But are these habits in conflict with the librarian's experiences with print-books or even e-journals, which have found an established position in the research community?

There are certain aspects of e-book management, like metadata acquisition, that are nearly identical to print-books. Other aspects, especially accessibility and purchasing models, are radically different and stand in direct contrast to the librarian's experiences and expectations. Here, tension between the different actors (publishers, authors, libraries, and users) is tangible.

A few e-book management techniques differ wildly from the print book. Purchasing techniques are quite different. Investigation of e-book purchasing techniques revealed two categories of e-book: e-books can either be bought as packages or single titles. Purchasing methods of packages versus single titles are drastically different. Once the item or items have been purchased or subscribed to, methods of transferring the data or, in this case, record and link to the item to the catalog rely upon third party programs. These programs, the link resolver, interfere with metadata quality and creation for the packages. Also, purchasing of the packages requires a team effort, consideration by a group of librarians and sometimes research staff. The purchasing of single titles can be done with such in depth communication with peers. As was the case with patron suggestions via the website form, these titles are almost always purchased if available.

The education required for effective use of the material also differs wildly between e-books and print books. At the university level, it is unnecessary to teach a student how to read a book, navigate the table of contents or how to use an index of a print book. It also takes minimum instruction to explain the length of the loan, late fees, and the consequences of lost material. The current nature of e-book accessibility, however, requires knowledge of DRM and the restrictions they place on downloading, copying and reading of the material on various devices. Not only does the user need to be aware of DRM but also of the various platforms that publishers and aggregators require patrons to use in order to access their material. This causes a conflict between libraries and publishers. Aggregators, unlike publishers, were known to be more receptive to library complaints and concerns in this study. Even so, the respondents felt powerless to change what appeared to be policy guided by a large, global market.

Lastly, my research focused on how e-book selection and purchasing methods are affected by the library’s relationship with participant members: publishers, aggregators, patrons, and other library staff. Background information on the case showed the organization of the university libraries allows for relative autonomy of purchasing and collection develop - while conversely relying on close communication between staff in related disciplines.
This autonomy crosses over into the methods employed to reach-out to researchers and students on topics such as education and collection development. Although methods did overlap between the departmental libraries, they often differed. The difference was most keenly felt in libraries that were struggling to establish effective channels of communication with researchers, as opposed to those who had found success and were communicating effectively and regularly with their patrons. Each respondent, however, wanted more contact with researchers and students.

Despite the wish for closer contact, the majority of respondents felt that they (the librarian) had the most influence on collection development.

What are the consequences of this investigation to future research? One of the biggest consequences of this investigation on the field of e-book studies is that it is the only one so far to employ Bourdieu's field theory on e-book management techniques. By examining the librarian's habitus, one can better understand approaches to e-book management and the e-book's adoption into the academic library. This method highlights the social aspect of e-book integration.

Recommendations for further research

Continued research in this field could proceed in several directions. Bourdieu's field theory could be assessed from the perspective of the patron. In this study, the print book respondent noted that her patron researchers exhibited many different research habits. Some had regular, almost personal, contact with the library while others were practically invisible. These trends differed amongst researchers of the same department so the respondent did not feel research habits were necessarily dependent on the field of study, but rather on the individual's preferences. Future research could analyze more closely the way researchers interact with library collections, both print and digital, by employing Bourdieu's field theory. Such a study could also analyze the roles researchers play in the university - as researcher and professor. This could then be further developed into a cultural or anthropological study as American universities, as an example, are fairly different to Swedish universities. Do professors use e-books in the classroom or for their personal research?

Another opportunity for research depends on the future availability of usage statistics. More accurate measurements of e-book usage will allow libraries to better judge an e-book's (as single title or package) value. Accurate usage statistics will also give researchers access to raw data to explore use of the collection: who, when, what, for how long, etc. It is important for researchers and libraries to push for more uniform usage statistics.

Lastly, an application of Bourdieu's theory that focuses on the conversion of capital could be made using the same structure as was employed here. Identification of the different types of capital present and how they are exchanged between actors could play a fundamental role in explaining the sociological powers underlying action and choice.
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Appendix A – Interview Questions

Interview

Interviewee's name: ____________________________ Institution's name: ____________________________
Title: ____________________________ Date: ____________________________

1. Does your e-book collection include foreign language books?
   a. What percentage of the collection is comprised of foreign language books?

2. How do library staff influence development of the collection?

3. How do academic staff influence...?

4. How do students influence?

5. Which of these groups exert the most influence?

6. How would you describe the importance of this collection in comparison to the overall holdings of the library?
   □ Very Important □ Important □ Moderately Important □ Of Little Importance □ Unimportant

7. From whom does the library purchase these foreign language e-books?

8. How are the titles chosen?
7. What factors are taken into account when selecting e-book titles in foreign languages?

8. How are newly purchased items treated for the catalogue?
   
a. Does this treatment differ in anyway to conventional e-books?

9. How are metadata provided for foreign language e-books?

10. Who sets the conditions for access to the e-book collection?
    
a. If the library sets the conditions: What are the conditions for access set by the library?

    b. If the provider sets the conditions: What are the conditions for access set by the provider?

11. Do these conditions pose any problems from the point of view of the library?

12. What are these problems?

15. Ho are you resolving the problems?