

# **The Future of eBooks? Will Print disappear? An End-User Perspective**

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## **Abstract**

### **Purpose:**

Ebooks are a hot topic. Traditional book publishing, especially in the academic world, is changing at a rapid pace. The question on everybody's mind is what direction book publishing will take? Will print survive in the Google-generation, or is it destined to be totally replaced by eBooks?

Springer publishes over 4000 book titles annually, which are converted into eBooks almost without exception. Being the market leader and innovator of a new business model in electronic books in the STM area, Springer has conducted a study on the implications of the Springer eBook collection in comparison to its print book activities. The main purpose is to find out whether eBooks are cannibalizing print books, as well as an assessment of factors that are influencing eBook usage.

### **Design/methodology/approach:**

This study is based upon interviews with both end-users and librarians. And in addition, Springer has assessed the (COUNTER compliant) usage statistics from SpringerLink.

### **Findings:**

Overall, Springer's eBook usage is already 50% of its journal usage, while the amount of content compared to journals is only 15%. Taking this success of eBook usage into account, Springer still believes strongly in the print model, and has recently launched MyCopy: heavily discounted print-on-demand books from the electronic versions.

### **Originality/value:**

The study shows that print and electronic can exist together, and will complement each other's strengths.

### **Paper type:**

Case study

### **Keywords:**

Ebooks, usage, print books, cannibalisation

## 1. Introduction

### 1.1 What are eBooks?

In principal an eBook is quite similar to a print book: only the medium is different. For a traditional print book the medium is paper. Because an eBook is the digital representation of the printed material (print book), the medium can vary from a (laptop) computer to digital eBook reader, PDA, mobile phone or even (through a desktop printer) traditional paper. Usually the content is available in PDF or HTML format, but also plain text or XML formats. This makes the content much more versatile, and flexible than the traditional print book.

All these features enable an eBook to be fully indexed. Readers can also find these books through search engines (such as Google), the library catalog (OPAC) or the publisher platform, so the primary difference between print books and eBooks is that eBooks are exposed and visible to a larger audience. In the traditional paper subscription model, we see that books have less availability. In general people use eBooks more than they use books that only exist in print (Figure 1).

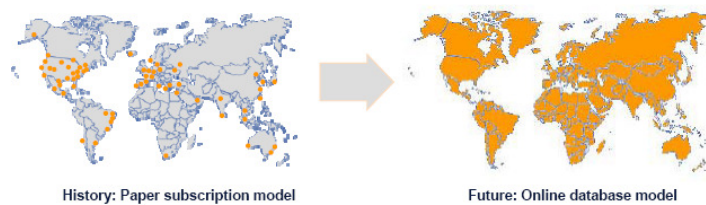


Figure 1. Potential audience for electronic resources compared to print

Print books can only be read by physically going to a library, while through the internet, basically the whole world has access to the content at any time of the day.

### 1.2 Who uses eBooks?

In the Academic and professional book market a number of groups exist. The smallest group is basic and applied researchers, who mostly read but also write books. In addition, developers enlarge this group. Finally a large user base of students and developers complements the audience for academic (e)Books.

Comparison of the audience groups for scientific journals and books shows that only the tip of the pyramid is core users who both read and write content for journals. Thus, the audience for academic journals is much smaller than the audience for books. Clearly, the core user group for books is bigger by far than the core user group for academic journals (Figure 2).

CIBER (Centre for Information Behaviour and the Evaluation of Research) said that its research “suggests that eBooks will be the next publishing success story, although demand here could be even more spectacular, simply as a result of the enormous size of the student population, hungry for highly digested content.”

In general, researchers say: “One needs to read books, before one can understand (academic) journals”.

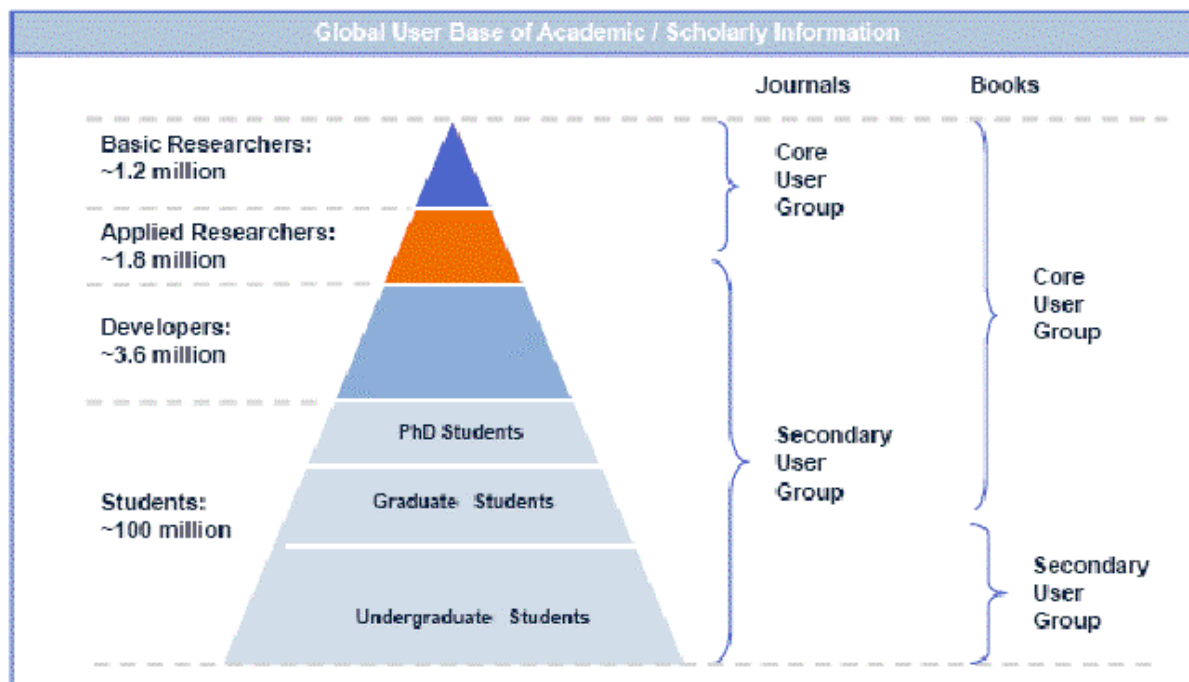


Figure 2. Pyramid of user groups for academic information – Audience for eBooks larger than for journals

### 1.3 What do libraries and researchers say about eBooks?

At the end of the first full year after the launch of Springer eBooks, Springer performed a study on the usage of the eBook collection, and published the results in 2007 in a white paper: “eBooks – Costs and Benefits to Academic and Research Libraries” (Springer, 2007).

Many libraries recognize that eBooks offer an ideal opportunity to increase existing collections while at the same time enhancing users’ experiences. Some libraries have adopted significant eBook acquisitions programs; however, the librarians interviewed agreed that eBooks are still in the early days and that the market for eBooks is just developing.

Springer eBook customers observed the following about eBooks:

“The users must be gradually brought to accept them. That was our idea with the Springer offering, to take a big leap forward with the eBooks and try to make clear to people what

possibilities eBooks offer” (University of Muenster, Germany).

“They [eBooks] won’t go away this time; this time they’re here to stay. Between publishers, agents and librarians, we all have a lot to learn and a lot of changes to make” (University of Illinois Urbana-Champaign). (Springer, 2007)

One year later, in 2008, another white paper was written: eBooks – The End User Perspective” (Springer, 2008). For this whitepaper a number of end-users at some selected universities and institutions were surveyed about their perception of eBooks.

In this white paper, a user at the University of Muenster says:

“With eBooks you can find relevant content much faster by searching for keywords. You can use them anytime and everywhere, in contrast to library-provided books, which are often not available when you need them.” (Springer, 2008)

Other researchers comment on the portability of books, and say they prefer the electronic version, as this allows them to bring much more content. Print books are still preferred for cover-to-cover and heavy reading.

Finally, a user at the University of Turku, Finland, says: “I don’t need to wait for eBooks to be returned to the library. It’s faster to find specific information by using [the] search option instead of flip-flopping pages.”

## **1.4 Library System Integration**

Once a library has access to their eBooks collection, librarians need to make the collection visible to users. eBook publishers should provide ways through which patrons can find eBook content. That information can be in the form of MARC records, or URL lists that can be inserted in the OPAC, Linkresolvers, as well as A-Z lists.

This chapter describes what Springer has to offer regarding Library Systems. Please see section 2.1, for discussion of how MARC records influence usage.

### **1.4.1 MARC records**

The Springer eBook Collection provides MARC 21 records, a standardized form of electronic cataloging records.

Springer provides MARC records to all eBook customers. There are currently two options for libraries:

#### **Option 1: Springer “Basic” MARC Records**

Springer offers eBook customers “Springer MARC-21 Records” at no additional charge. These records are generated using Springer metadata and contain the most common fields needed for libraries to load eBooks into their OPACs.

#### **Option 2: “OCLC-Springer” MARCs**

MARC records for Springer eBook collections will be available through “OCLC’s WorldCat Collection Sets” service. Libraries also have the option of downloading the records themselves from WorldCat using lists of OCLC control numbers provided by Springer and the batch processing capabilities of the “OCLC Connexion” client cataloging software.

Springer also provides its MARC records through other sources for specific languages, such as Germany (MAB 2) and Japan (NII, NACSIS).

### **1.4.2 Other Library Integration Services**

Springer participates in “Serials Solutions new eBook services”, which will include Springer eBook data in the “Serials Solution KnowledgeBase”, MARC record service, and other products. Springer has also provided eBook data to ExLibris for integration into their products, most notably SFX.

## **1.5 Other Springer eBook features to evaluate**

Some other features of the Springer eBooks include:

- **Full Ownership Model:**  
Springer offers its eBooks on a full-ownership model with no maintenance or administrative fees; once a library purchases an eBook collection, that content will be accessible on SpringerLink in perpetuity.
- **No Restriction on Usage:**

Unlike many other eBook offerings, Springer does not in any way restrict usage—there are no limits on the number of concurrent users, nor limits on the number of views for a given eBook or chapter. Springer allows eBook printing, emailing, and non-systematic downloading. Libraries also have digital ILL (Interlibrary Loan) rights and may include Springer eBook content in course packs.

- No DRM (Digital Rights Management):  
Springer eBooks on SpringerLink are published without any restrictions on copying, printing and sharing. All eBooks are free of DRM.

## 2. eBook usage and discoverability

Libraries value usage reports, as they show a return on investment of the purchased content. Springer provides COUNTER Book Report 2 reports for all eBooks, accessible via the administrative module of SpringerLink. Springer also offers COUNTER compliant consortium level eBook reports, as well as reports only on the subject collection level.

One full year after the launch of the eBooks program at Springer, Springer investigated the usage reports on a total level, as well as on a customer level. This research for Springer uncovered some very interesting findings on what drives usage, specifically for eBooks.

### 2.1 What drives usage?

Several factors drive usage. Obviously the usage of online content is driven by visibility and discoverability of the content in major search engines such as Google.

Assessment of the referrals to SpringerLink, specifically for the eBook content, showed that Google and A&I (abstract and indexing) databases are large contributors of traffic; however, the library catalog points users to eBook content even more than these general search engines.

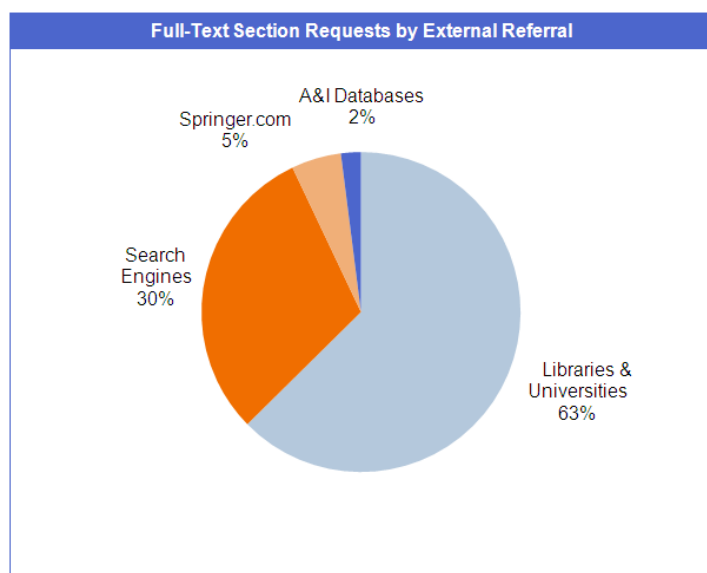


Figure 3. Referrals SpringerLink eBooks, excl blanks – Libraries and Google are main eBook usage drivers

Figure 3 illustrates that, specifically for eBooks, the library website and catalogs are huge drivers of traffic to the content, in this case the Springer content platform: SpringerLink. Customer-level research also reveals a usage increase when MARC records are loaded into the library's OPAC.

Monitoring the eBook usage at two universities in Australia before and after implementation of MARC records in the library catalog, shows a steep increase in eBook usage after MARC records were loaded.

The Melbourne University Library loaded MARC records around May 2007, and the University of Auckland did the same around September 2007. A graphical representation of the usage can be seen in Figure 4.

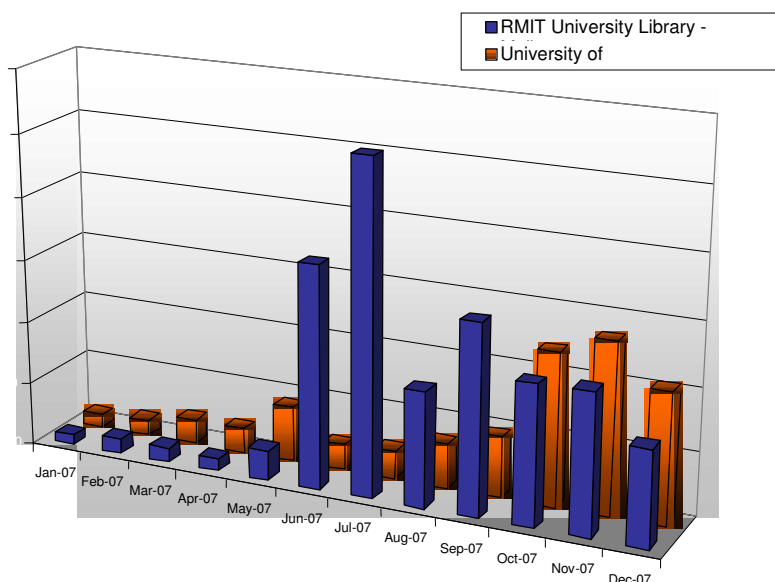
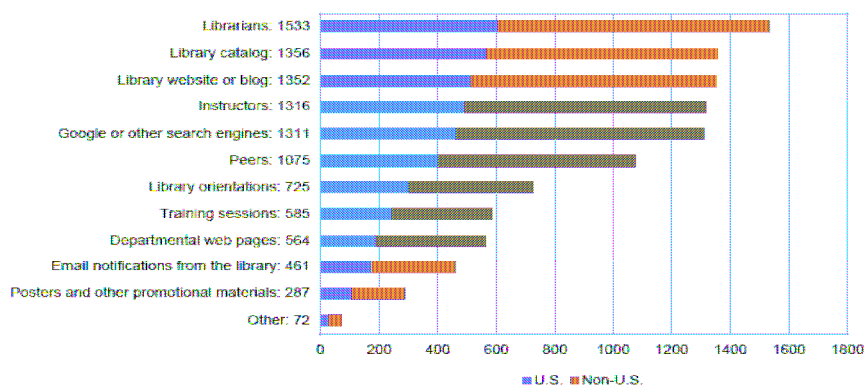


Figure 4. "The MARC effect" – MARC records loaded in May 2007 (Melbourne) and September 2007 (Auckland) causing steep increase in usage

Additionally, Figure 5, reveals the first, second and third ways that students identify as sources of information about eBooks: Librarians, the library catalog or the library website or blog. Libraries play a very important role in making content visible and findable for their patrons. Thus libraries drive usage.

**17. How did you learn about e-books?**



Total number of respondents: 3058

Figure 5. *eBrary 2008 Global Student eBook study result* – Libraries are eBook usage drivers

These conclusions mesh up well with one of the findings about the usage of cataloged books during the SuperBook Project, performed at University College London. Cataloged books are twice as likely to be used than non-cataloged books.

### 3. Springer eBook usage

#### 3.1 General numbers

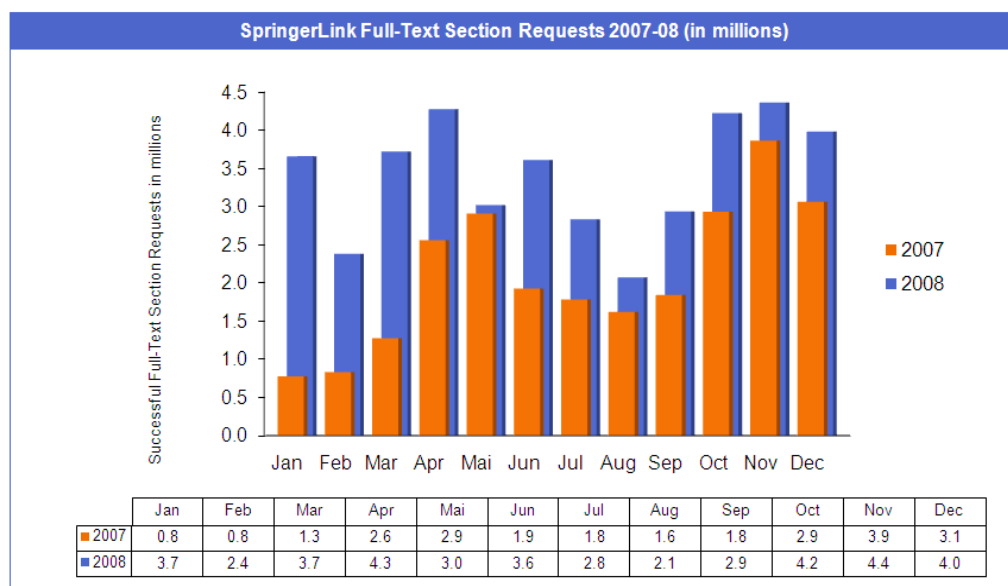


Figure 6. SpringerLink eBook fulltext section downloads 2007 & 2008- usage grows from 25 million section downloads in 2007 to 41 million in 2008

Springer’s studies of eBook usage indicate that our strategies have been very successful. From year to year, usage has consistently increased. In the last two years for which we have data, usage increased by 16 million full text section downloads, from 25 million downloads in 2007 to 41 million downloads in 2008 (Figure 6).

#### 3.2 Trends in eBook usage

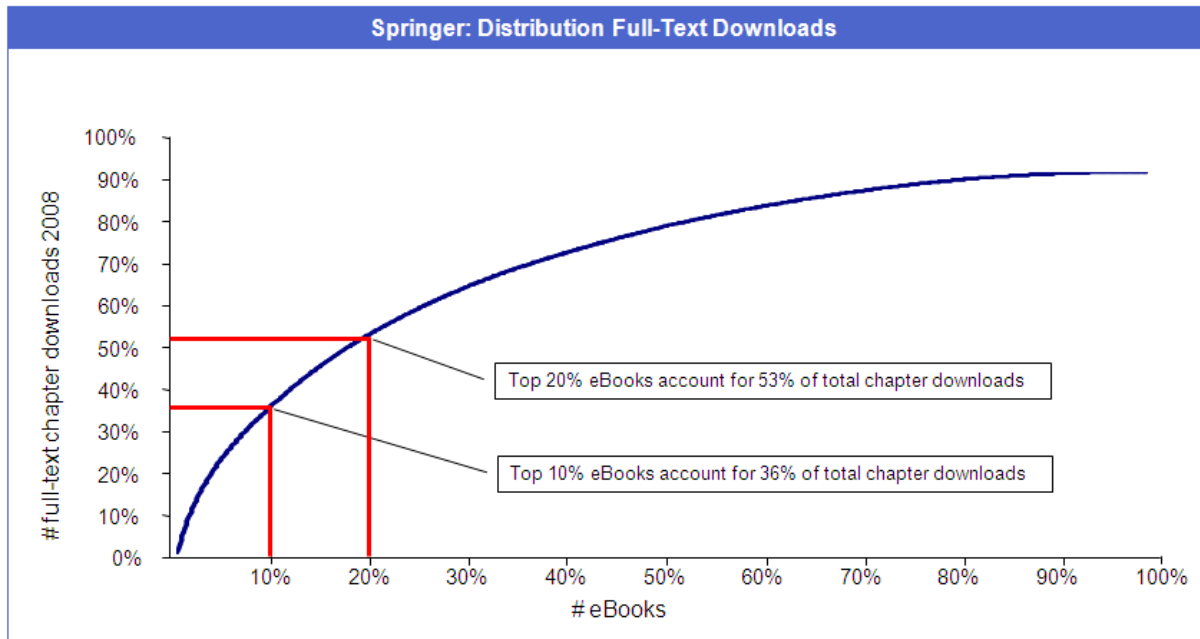
When looking at the detailed usage statistics for eBooks, we see that usage for specific titles peaks in specific months. Usually, these titles are part of a course pack that is given only once a year.

Because Springer has ‘journalized’ the eBook content (eBooks are available on chapter basis – i.e. one PDF/HTML file for each chapter or entry), chapters are returned as search results. For other books, which are read cover to cover, we see that all chapters are downloaded in one session.

As explained in chapter 1.2 (Who uses eBooks), we see that the audience for books is generally different from the audience for journals. Therefore you can say that looking at absolute usage numbers, higher usage for eBooks can be expected than for journals.

#### 3.3 Distribution of usage

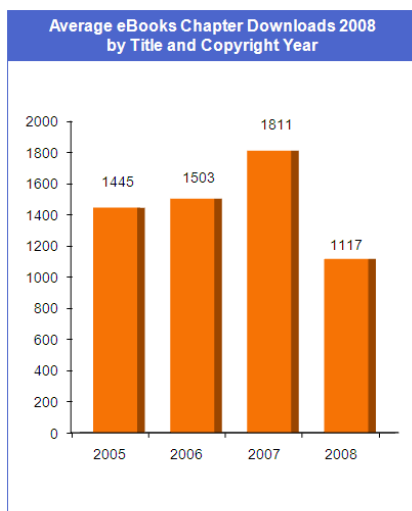
During Springer’s eBook usage study, we looked at the distribution of usage. The study investigated whether usage was concentrated on a small number of titles, on one or more copyright years, as well as on various booktypes and subject collections.



(N = 12,953)

Figure 7. Distribution of eBook usage over number of books – Many titles of a collection are being used: large “title reach”

In Figure 7, you can see that usage is not convincingly concentrated on just a very small number of books, especially when compared with a journals program, where usually 80% of the usage is generated by only 20% of the content. The Springer eBooks are very widely used, and there is a true longtail of usage. When assessing usage files for single universities, we discover a large ‘title reach’, and very little concentration of usage on only a small number of titles.



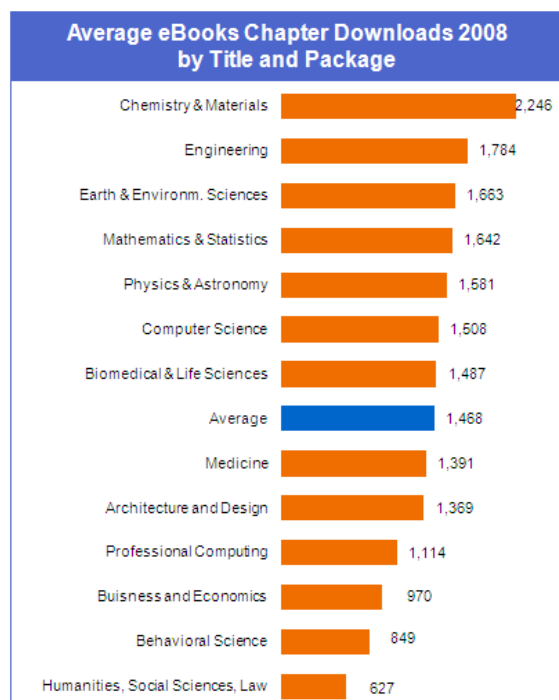
(N = 12,953)

Figure 8. eBook usage distributed over copyright years

The average usage by title and copyright year was calculated from all eBook usage in January to December 2008. This exercise shows that books from older copyright years (2005 and 2006) are nearly as popular as books from 2007 and 2008. In Figure 8, you will see that the average for 2008 is lower; however, this is explained by the fact that not all books from this copyright year were



available for the entire year. In a journals environment, we see that most of the usage goes to the most recent content. For eBooks the age of the content seems to play a less important role.



(N = 12,953)

Figure 9. Average eBook chapter downloads by title and package on SpringerLink – usage very evenly distributed over various subjects

Springer divides its eBooks into 13 subject collections. Assessment of the usage distributed over these subject collections reveals widespread usage of these collections (see Figure 9).

There is a relatively homogenous picture across the STM disciplines; however, there is one exception: “Chemistry & Materials Science” has the highest average download numbers. This is partly caused by the highly used “Springer Handbooks series”, to which quite a few titles in this collection belong. The disciplines in the “Social Sciences and Humanities” have lower usage numbers. This could be a result of product mix, as not that many textbooks and handbooks are available in this collection.

### 3.4 Usage metrics

eBook usage is still in its early stages. For libraries that have implemented an eBook collection or are evaluating a trial, and want to decide on its success, Springer has defined a couple of metrics, which are shown in Table 1.

Metric	Description	Comments
Title Reach	Number of book titles that have been used	Useful metric. In the print world, many books were never taken from the shelf. Google and MARC records make “less popular” books visible to its (smaller) audience.
Cost per use	Price paid divided by number of uses	Somewhat useful. This is generic and an average. May be useful in proving ROI if figures are high. But remember, Springer eBooks are sold on ownership model. This will decrease over the years.
Cost per title used	Total Cost divided by number of titles with usage	Somewhat useful, however because books can be accessed perpetually, the cost will go down over the years.
Age of used books	Is the age of books relevant when used?	Slightly older books are used nearly as frequently as newer books. eBook collection keeps its value over the years.
eBook usage compared to journal usage	eBook chapter usage compared to journal article usage.	“Journalization” of book content makes “chapter” and “articles” more similar. Springer sees a 20-60% at some large customers. This will increase over the years.

Table 1. eBook usage metrics to investigate

#### 4. Effect of eBooks on print book sales

To evaluate a possible cannibalization of print books as a result of providing access to eBooks, Springer assessed the situation in three different countries, Turkey, Greece and Germany.

These selected countries have nationwide eBook distribution deals, or cover most universities and /or research institutions. Therefore in these countries comparable figures can be generated which look at both eBook usage and print book sales.

Generally speaking we see a growth in print book sales in countries where Springer has reached a high eBook penetration. Although proof is hard to find, Springer believes, that the larger visibility of the academic content draws attention to its books, and results in increased print-purchases, as well as growing eBook usage. In Figure 10, you can see a graphical representation of the growth in print book sales in the three selected countries.

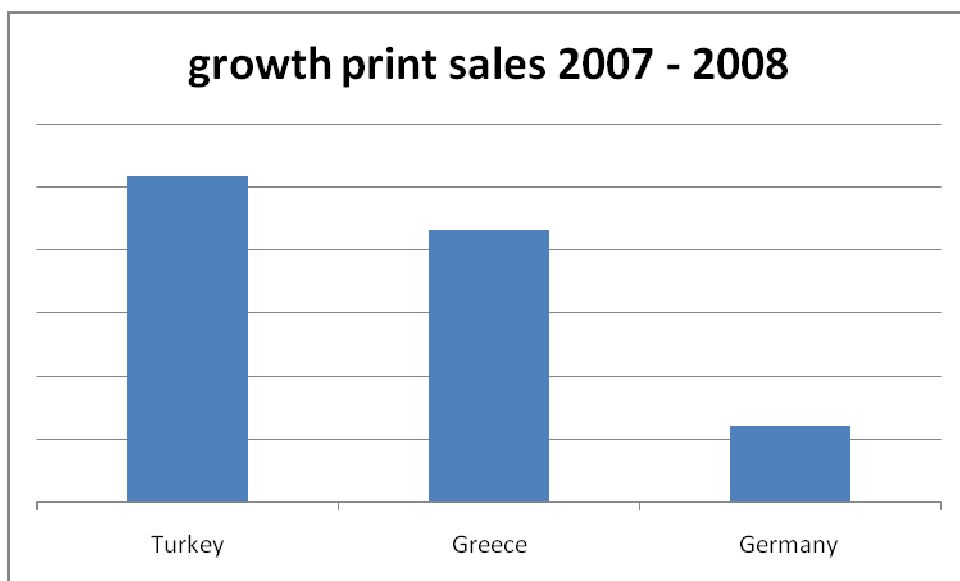


Figure 10. Growth in Springer print book sales in countries with large eBook penetration. eBooks are not cannibalizing print books

Figure 11 shows that eBook usage in these countries is increasing rapidly, and although there is no direct correlation between eBook usage and print book sales, we can see that eBook usage is not cannibalizing print book sales. In all of the selected countries, the increase in print book sales is above the industry standard.

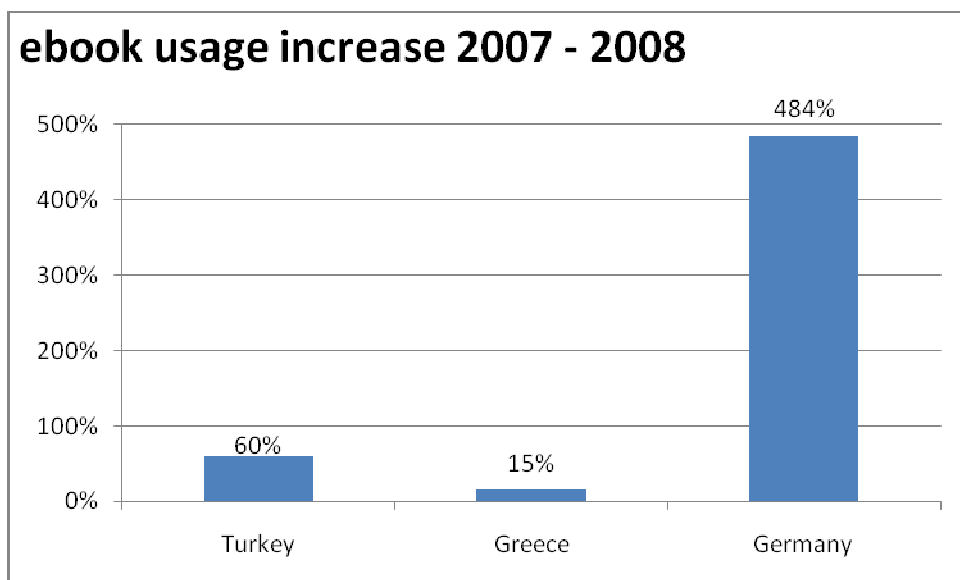


Figure 11. Growth in eBook usage in countries with large eBook penetration. eBook usage is exploding!

#### 4.1 Turkey

Most members of the ANKOS consortium in Turkey have access to the Springer eBooks. This consortium covers all of the major Turkish universities and research institutions. When we assess the usage of the eBooks both in 2007 and 2008, we see a growth in usage of 60%. We can conclude that eBooks have successfully caught on in Turkey. The print book sales in Turkey in 2008 grew about 5 times as much as in Germany, which is above the industry standard.

## 4.2 Greece

The Heal Link consortium in Greece, covering the major Greek universities, was one of the early adopters of the Springer eBooks. The increase in usage from 2007 to 2008 was 15%, while the amount of eBooks the Greeks had access to did not increase during 2008. This usage growth is thus solely generated by the same content, autonomous growth. At the same time, Springer noticed an increase of print book sales in Greece well above the industry standard and similar to the print book sales increase in Turkey.

## 4.3 Germany

Besides a large (e)Book program mostly in the English language, Springer publishes a considerable number of German language books. Because of a large adoption of Springer eBooks in Germany, Springer has assessed the cannibalization of textbooks specifically in Germany.

Apart from a large increase in eBook usage, Springer sees a stable increase of print book sales in Germany above the industry standard. In Germany the eBook program did not lead to a dramatic growth in print book sales as happened in other countries like Turkey and Greece, but on the other hand, the large increase in eBook access in Germany did not cause a cannibalization of print book sales.

## 5. Innovations

### 5.1 eBook readers

More dedicated eBook readers such as “electronic ink devices”, as well as mobile phones and PDAs are becoming more popular every day. We have gathered some facts about the market with regards to mobile electronic devices to read eBooks:

- Sony revealed that 300,000 Sony Readers [Sony’s eBook reader] had been sold globally since device launch in Oct 2006. (*December 2008*)
- According to a source at Amazon, "on a title-by-title basis, of the 130,000 titles available on Kindle [Amazon’s eBook reader] and in physical form, Kindle sales now make up over 12% of sales for those titles." (*July 2008*)
- iRex Technologies is doubling iLiad [iRex’ eBook reader] sales every 12 months (*January 2009*)
- theiphoneblog.com published: Based on revenue from iPhones, Apple was the #3 *cellphone* maker last quarter, behind only Nokia and Samsung. In 2008 Apple sold more iPhones (10 million units) than RIM sold BlackBerrys (*Oct 2008*)

In the 2008 Springer whitepaper “eBooks – The End User Perspective” end-users comment on using (e)Books as follows:

“I can carry and read [an eBook] everywhere! I can put it on my small laptop or PDA and finish my literature research while traveling on the train” *User at CWI Amsterdam*

“eBooks are great for research. Cover to cover: print rules” *User at university of Turku*

“In general I find eBooks more useful in instances where I ‘use’ (find specific data) rather than ‘read’ (from cover to cover)” *User at University of Illinois at Urbana-Champaign*

(Springer, 2008)

Most of the dedicated eReaders that are available on the market now, overcome the problems perceived with computer screen reading, and apply electronic ink technology. These devices have a paper-like static screen, and consume very little energy. Users have the ability to store hundreds of books on one device that reads like paper.

Reading the same books on mobile phones or PDAs, that are usually equipped with LCD screens, can carry many titles, and can display color, is uncomfortable as displays are usually small size. Furthermore, reading for a long period would not be possible because of limited battery-life.

Nevertheless, being able to store hundreds, if not thousands of titles, and being able to search through them, is a great advantage. Springer eBooks are available in PDF format, and all dedicated eBook readers support this format.

## **5.2 MyCopy – Linking print to electronic**

Although Springer eBooks are very successful, Springer has recognized the value of print. Even in countries where Springer has reached a high eBook penetration, print book sales are still increasing (see chapter 4). Therefore, Springer has started “MyCopy”, heavily discounted print-on-demand books for Springer eBook customers.

MyCopy allows a library’s registered patrons to order soft cover copies, for their personal use, of those Springer eBooks that the library has previously purchased. These soft cover copies are printed using Print on Demand technology. Initially, a small number of selected libraries and research institutions in the USA and Canada are taking part in the pilot project, with more test partners set to join in 2009.

It is the goal of the MyCopy pilot to assess the value and effect of print on demand with libraries and end users. MyCopy is meant to stimulate the use, access, and attractiveness of the Springer eBook Collection. After all, the end-user is looking for information, and the format (print or electronic) in which they prefer to digest this information should be available to them.

The MyCopy offer is currently valid for more than 11,000 eBooks out of a total of over 30,000 Springer eBooks published since 2005. MyCopy books feature a full color cover while the book content itself is printed in black and white. They can be ordered by registered patrons at libraries that have previously purchased a Springer eBook collection. All MyCopy books are priced at \$24.95 (including shipping and handling within the USA and Canada). End-users are charged directly.

Libraries participating in the MyCopy pilot recognize the value of the program:

“This project represents a very innovative way in which to look at both publisher and library services or electronic content in the future, and MyCopy is a great value-add to our site license for these eBooks.” ~Wendy Allen Shelburne, Assistant professor, Acquisitions (University of Illinois, Urbana-Champaign)

Springer will continue to evaluate the MyCopy pilot and look for possible worldwide implementation.

## **6. Conclusions**

Springer’s usage studies reveal that students and researchers are convinced about the success of eBooks because of findability and ease of use; however, they perceive reading from the computer or PDA screen as difficult. In these cases print books are still preferred for cover to cover reading.

The advantages of dedicated eBook readers take away part of that problem, because they have better readable screens and still have the opportunity to store many more titles in one small device. Still, print is not going away, as is shown by the success of the Springer’s MyCopy.

The assessment of both eBook usage as well as print book sales in some specific countries, where Springer has a large eBook-penetration, shows that not only is usage growing dramatically, the print business is not being cannibalized by eBooks, and in some cases eBooks are even driving print book sales.

By giving students and researchers access to large eBook collections, they are given access to a valuable database of content. Search engines such as Google (-booksearch) and library catalogs play the most important role by making eBooks findable and used, and thus help users to find exactly the content they need, from a critical mass. Users can now find that needle in the haystack and decide how they want it: an eBook, print book or download on an electronic device.

Print books are here to stay; eBooks will enhance access to more science and research.

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