



# White Paper

The Springer Book Archives:

Reflections on closing the gap in research

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## One Hundred Ten Thousand Books

Springer is well known for publishing the latest research, cutting edge developments and ground breaking discoveries, and has done so since 1842. Authors including Rudolf Diesel, Werner von Siemens and Emil Fischer are an important part of Springer's story and thanks to the Springer Book Archives (SBA) they are also part of the company's pioneering future.

Over 110,000 books are now available as part of the Springer Book Archives, dating back to the beginning of the company, while a vast majority of all books in the SBA originate from the last 30 years. Bringing these books to a modern audience has required an enormous investment of resources.

### Very Popular

Usage statistics are showing that readers derive significant value from titles. Springer has a rich history in publishing in many disciplines and older books are still read by a large number of users across the world, receiving numerous citations in modern works.

In many cases, the Springer Book Archives project has had to overcome the destruction of records by two world wars. But still, the team has ensured access to these titles for years to come. Indeed, Springer is now convinced that all larger publishing companies should be attempting to preserve older titles, not only making historical research available to today's scholars, but committing to preserving it in the long term.

This paper is the story of how the Springer Book Archives came into being and how important titles were rescued from the fragility of a few print copies to become part of the world's largest collection of eBooks. The SBA has been embraced by leading universities worldwide, to be studied and enjoyed by modern scientists and to become, once again, part of the ongoing conversation that is scientific enquiry.

### The Genesis

Springer is a publisher with a strong sense of philanthropy and responsibility to its authors and titles. The Springer Book Archives project was a key part of Springer's strategic mission to make research available and accessible in the digital world.

### It started with journals

The foray into digital publishing began with journals, the first Springer publications to go online. This program proved to be extremely well received and grew to include journal back issues. But at the time the journals went online there was not a definitive business model for digital books. Springer was determined to find a way to keep publishing books and to put them online. Packaging eBooks as subject collections was an immediately successful approach.



## Books were next...

The Springer eBooks program began with titles published in 2005, but it quickly became clear that earlier titles continued to be vital to scholars and indeed some of these older books are the very foundations on which their subjects are built. Researchers need to be able to refer back to these titles, reference them and use them for teaching. Moreover, different subject areas have different histories, so Computer Science benefits from having many essential works first published in the 1970's and 1980's, but in Mathematics and Physics, some relevant titles are much, much older.

Springer could see the value to the scholarly community in making a deep archive of eBooks available, thanks to the success of the journal archives program. Therefore a pilot project to make older book titles available online was launched in 2010.

## Creating the Springer Book Archives

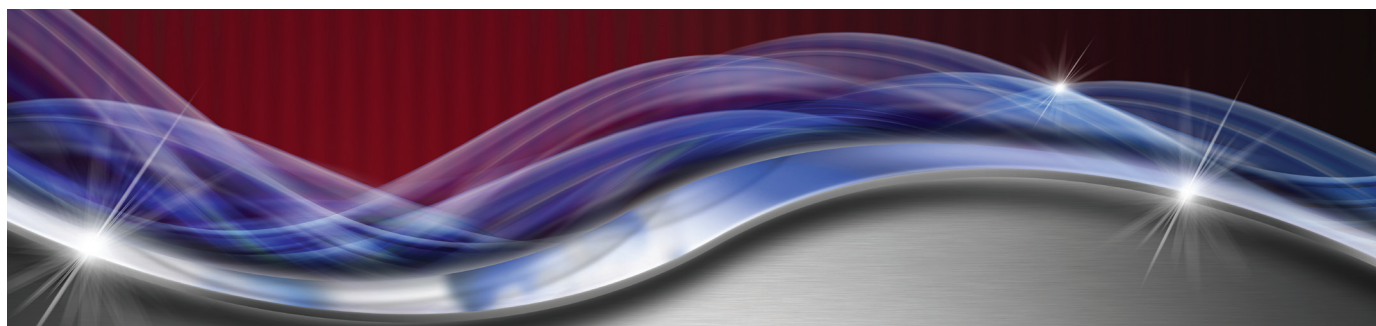
Springer's mission to make this research available and accessible meant that no titles were deemed out of scope of the project: the aim was to digitize all editions of English and German titles published by Springer from 1842 to 2004.

## Springer: From bookshop to leading publisher

Springer started as a bookshop in Berlin in 1842 and started publishing shortly after. Over time, Springer has grown through the acquisition of smaller publishing houses, as well as the introduction of new imprints. For example, the Springer Book Archives contains around 50 different imprints, including titles by the longstanding engineering publisher Vieweg (now SpringerVieweg), the economics book portfolio Gabler (now SpringerGabler), the U.S. IT publisher Apress, and the U.S. science publisher Copernicus.

## Finding the records

Unfortunately, during the two centuries since the Springer publishing house was founded, there have been so many events that there was no comprehensive record of all works published by Springer dating back to the origins of the company. Inconsistent record keeping across time and imprints, coupled with the loss of records, also meant it was not possible to exhaustively list every title that was published by Springer. But it was possible to identify at least 100,000 titles for digitization. The team then turned to library catalogues and other sources to locate titles for which a record did not exist in-house. During this process the original list grew to a total of 110,000 titles.



## Locating the Books

The next challenge was to locate physical copies of titles to scan. While Springer owned at least one copy of a good majority of the SBA list, there were many titles of which Springer did not have a copy, ranging from single titles to missing volumes of a multi-volume set. There were also books that Springer owned, but were simply not in a good enough condition to be scanned, so replacements had to be found.

The first approach to finding books was to attempt to buy a physical copy on the open market by working with antiquarian booksellers to find rare titles. Towards the end of the project, the final gaps were filled with loans of books from libraries. In some cases the books were scanned on site, but for the majority of the content, Springer borrowed the books, shipped them to scanning facilities and returned them to the lending library in time for the next semester, while ensuring they remained in prime condition.

## Gathering Bibliographic Data

The availability of bibliographic information was also a challenge. Creating an accurate list of titles required having reliable identifiers such as author, title, edition, and copyright year. But publishing standards have changed significantly since the 19th century, so capturing the right metadata was not easy. For some titles the bibliographic data was simply incomplete, but for others it was practically non-existent. Indeed, the most consistent identifier, the ISBN, was only created in the 1960s and widely adopted in the 1970s.

To overcome this obstacle, the team developed a database that uses different intelligent text algorithms to create a pattern between known bibliographic data to try and determine the missing pieces. These were then matched to the books.

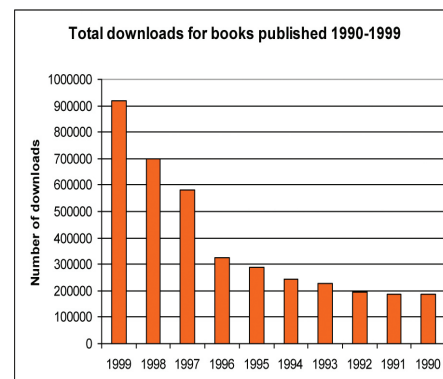
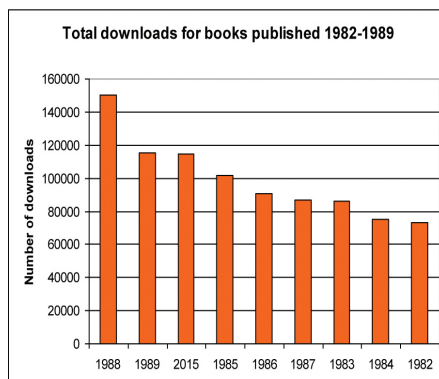
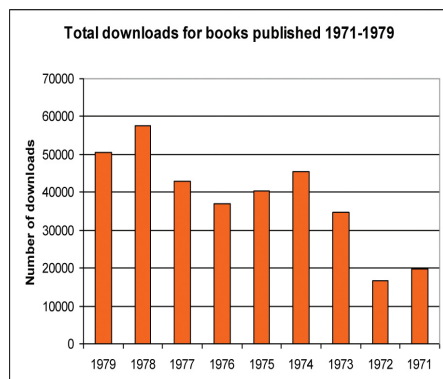
## Launching the Springer Book Archives

Within three years enough titles were ready for the launch of the product. The Springer Book Archives was officially launched in January 2013 at the American Library Association's Midwinter meeting. By early 2013, thanks to the efforts of over 900 Springer employees and many partner librarians and authors, the Springer Book Archives came to life. The works are divided into 11 subject collections in English (approximately 56,000 titles) and five in German (approximately 54,000 titles).

### Titanium and Titanium Alloys, 1982

After ascertaining that Springer did not hold a copy of this work, an antiquarian book finding service was used to locate and purchase a physical copy of the book. Once scanned, metadata was added to make the title discoverable again. The title has received thousands of downloads since its inclusion in the Springer Book Archives.





## The early adopters

The team was delighted when one of the first purchasers, the Max Planck Society, made the retro-digitized books, many of which had been out print for a long time, available to staff in 82 Max Planck institutes in Germany, via the SpringerLink platform.

## Measuring the Impact

Today, the SBA has been adopted by universities and research institutions globally. It has become a vital source for research, providing access to out-of-print or hard-to-find titles that until now might have only been accessible in a handful of libraries, or via library loan.

## Excellent usage

Significantly, libraries that have purchased the SBA have seen higher than average usage when compared to other, more contemporary eBook collections they own. For example, in a recent blog post published by the Leibniz Universität Hannover it was noted that usage of the Springer Book Archives was high by both students and scientists, with 25 percent of the collection being read at any one time.<sup>1</sup> The author goes on to comment that this is “pretty high use, especially when you consider that these are older publications”. The university also found that, on average, each book was used 21.7 times.

Positive usage trends were also noted at the University of Auckland and University of Melbourne. Between January and July 2014, the University of Auckland registered 264,609 full text downloads, while the University of Melbourne has seen chapter downloads increase from 28 percent in 2013 to 37 percent in the first nine months of 2014.

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Leibniz Universität Hannover

[1] 1 TIB Blog, Die Springer Book Archives: Über 40.000 E-Books für die Leibniz Universität Hannover <http://blogs.tib.eu/wp/tib/2014/09/22/die-springer-book-archives-ueber-40-000-e-books-fuer-die-leibniz-universitaet-hannover/>



## University of Melbourne

"For the University of Melbourne, the Springer Book Archives was attractive because it offered a large and rich source of high quality academic eBooks dating back to the early 19th century," commented University Librarian, Philip Kent. "Springer's offering was one of the first 'Big Deals' for eBooks. In purchasing the collection we sought to obtain instant access to thousands of books including works of famous scientists".



*"the Springer Book Archives was attractive because it offered a large and rich source of high quality academic eBooks dating back to the early 19th century"*

**Philip Kent – University Librarian,  
University of Melbourne**

As Philip Kent, observed, "It is interesting to analyze the age of titles accessed and the titles that have been heavily used. For example, there have been 42 downloads from just four books published prior to 1900 in our usage stats from January to September 2014. There is a steady growth in titles published and used from the first half of the 20th century. Commensurate with the explosion in scholarly publishing, there is an understandable growth in titles used post World War II. On the other hand, 18 titles have been downloaded more than 400 times in the 2014 period but two titles stand out; Probability (1993) was downloaded 1166 times and Computational Mechanics 95 (1995) was downloaded 1036 times."

One notable advantage of purchasing the collection was that it enabled the institution to obtain digital access to approximately 33,000 titles that were already held in print, while at the same time as growing their digital collection by an additional 77,000 eBooks. It has provided an opportunity for the institution to innovate and to begin to understand the implications of large numbers of eBooks, while at the same time enabling the university to redress gaps in past acquisitions. Additionally, new titles are added to the collection as they become available, yielding easy access to an even greater body of literature.

Over the next few years, it is anticipated that further analysis of usage of Springer Book Archives and other eBook collections will help to inform storage decisions and assist the University of Melbourne in understanding the research needs of academics and students. For example, the institution is looking to relocate some of its print stock to stores and rely more heavily on the eBook format in response to ongoing requests for additional library seating for patrons. Mr Kent concluded "It is still early days in the large-scale usage of eBooks. However, while I anticipated that storage and access issues would be paramount, perhaps the most exciting opportunity that Springer Book Archives presents is to understand in greater detail what resources can make a transformational experience for world class research and scholarship."

## University of Auckland

Janet Copsey, University Librarian and Director, Libraries and Learning Services, University of Auckland also commented, "Our downloads do seem amazing but they are also a clear indication of the value of e-content at the University of Auckland. Even though we have an extensive legacy in print collections, the majority of our overall collection is now digital and located somewhere in the cloud rather than on-site in the libraries."



*"Our downloads do seem amazing"*

**Janet Copsey – University Librarian  
and Director, University of Auckland**

This significant level of use is echoed across SBA customers: Researchers and students are finding that the SBA provides a variety of benefits in supporting their work. Students and academics are very busy so the 24/7 opportunity to use large numbers of scholarly books is especially valuable. At the same time, full text searching means that sources that were not considered in the past become instantly accessible, providing rich context, particularly in multi-disciplinary research.

Other examples of use that stand out include the way in which the SBA provides titles that offer deeper context to support set texts being read by students, as well as access to classic textbooks that are still being recommended by lecturers but for which new editions have not been published.



*"[researchers and post-doctoral students] are looking back on their own subject area and need to see what has been written before."*

Martin Borg – University Librarian,  
Borås University

## University of Borås

At University of Borås in Sweden, a deeper analysis of the inter-library loan requests highlighted that library patrons were requesting access to books that had been published up to 30 years ago, many of which are no longer available for purchase in print format. "It made us realize that there was still a need for these books," said, Martin Borg, University Librarian. Researchers found relevance in older titles as well as new titles. While the SBA provides valuable information across all subject areas, it was the usage of titles in Computer Science that Martin Borg, noted in particular. "We purchased the collection in May 2014 so it's too early at present to understand usage patterns by department, but when I look through the list of books we now have access to, then there are really interesting things to look at. For example, in Computer Science, looking at how this has evolved over time and how the subject has developed which is interesting to see in the book collection." Mr Borg also feels that the collection allows researchers and post-doctoral students to access recent publications on niche topics: "We can now offer books from the 1980's, 1990's and so on which we can't buy in print anymore, but which readers still use. We think it's a good service for undergrads, but I see it mainly as a service for researchers and post-doctoral students. They're looking back on their own subject area and need to see what has been written before."

## Istanbul Technical University

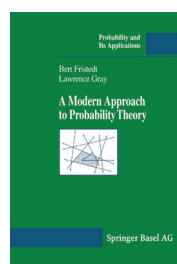
At Istanbul Technical University the purchase of the ebook collection was driven by the recognition that academics would find the content to be useful: "We have purchased the Springer Book Archives because it is highly preferred content by ITU academics, and consequently creates low cost per eBook title."



*"it is highly preferred content by ITU academics"*

Mrs. Goknur Aslan – Library Director,  
Istanbul Technical University

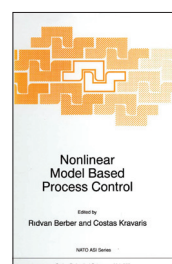
## Selection of highly used titles in SBA



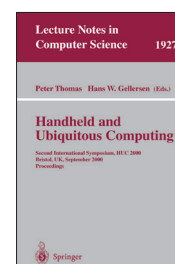
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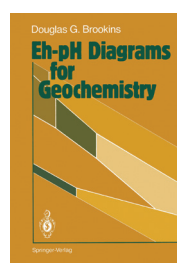
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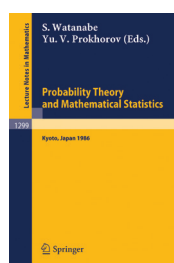
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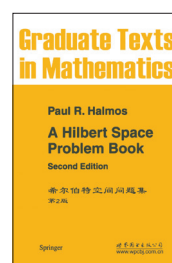
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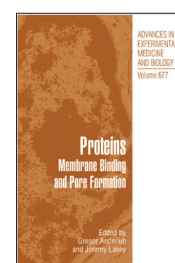
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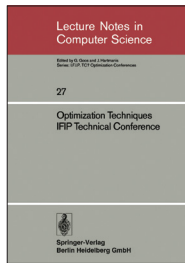
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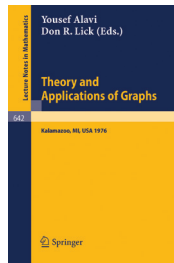
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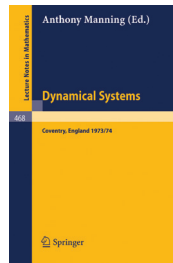
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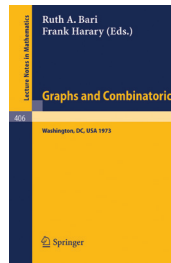
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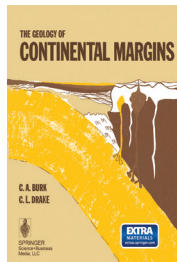
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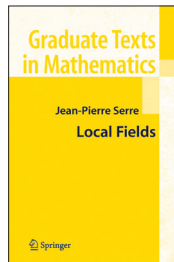
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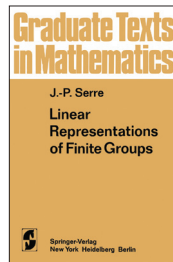
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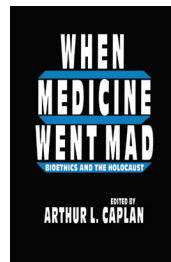
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## Facing the Future

Digital preservation is fraught with complexity, but the reaction to the creation of the SBA has been so positive that Springer is renewing its efforts to identify and preserve more books that were published during the company's long history.

In an exciting development, Springer is now working with the Deutsche Nationalbibliothek (German National Library) to digitize Springer titles from the list that are unfortunately still missing. Deutsche Nationalbibliothek has a legal commitment to make their books available for all to read, and Springer's experience in creating the SBA will make an important contribution to fulfilling that commitment.

The Springer Book Archives team would like to thank all the librarians, publishers and partners whose invaluable help and support helped make the Springer Book Archives a reality.



[springer.com/salescontacts](https://www.springer.com/salescontacts)

## The Springer Book Archives

Via SpringerLink, researchers will have easy access to books by the finest minds in science, many previously unavailable in electronic format. Eminent authors in the collection include luminaries such as Rudolf Diesel, Werner von Siemens and Emil Fischer.

As with all Springer eBooks, books from the Springer Book Archives are available as eReader-compatible PDFs and are DRM-free. There are no limits on the number of simultaneous users, printing or downloading. The Springer Book Archives are available in 11 subject collections in English, and in an addition five subject collections for the German program. Subject collections can be licensed individually, as a one-off purchase, with continuous access. Flexible licensing options are available.

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