ABSTRACT. SpringerLink is a subscription-based web platform for searching and accessing Springer’s collection of electronic materials. It is designed for students, researchers, educators, clinicians, and other professionals. It covers scientific, technological, and medical topics. This review will assess its content, navigation, search functions, and describe any special features.

KEYWORDS. SpringerLink, electronic books, health sciences, product review, Springer Nature

AUTHOR. Rachel L. Walden, MLIS (rachel.l.walden@vanderbilt.edu) is a Health Sciences Informationist at Annette and Irwin Eskind Family Biomedical Library, Vanderbilt University, 2209 Garland Ave, Nashville, TN 37232.
INTRODUCTION

In 2015, Springer Nature Group was created after the merger of Macmillan Science & Education and Springer Science+Business Media. Health science librarians will recognize some of their larger brands, BMC, Scientific American, Springer Nature, and Springer Healthcare. Their 2021 fact sheet states that in 2020 more than 13,000 new books, 370,000 articles, 124,000 open access articles and 3,000 journals were published. They also have reported one billion downloads in 2020 from their websites and platforms (Springer Nature Press Office, 2021). A license is required to access Springer Nature content and those are available to academic institutions, governments, and corporations. Springer can tailor options based on population numbers and research intensity.


ACCESS

Springer uses several methods to recognize users and subscriptions can be set up for the best approach for individual institutions. Those options are IP recognition, personal logins, http referrer, Shibboleth or Athens logins, proxy servers, or Single Sign-On (SSO) (Springer Support, 2021). Once users have reached the home page through their institutions’ access point, they then have multiple ways to interact with and search for materials. Springer’s entire collection is
available on SpringerLink, but users will only be able to access full text for the content that their subscription covers.

NAVIGATION

The SpringerLink home page provides multiple options for browsing and searching of materials, as shown in Figure 1. Along with a highlight reel of featured books and journals. They advertise that new books and journals are added every single day.

[PLACE FIGURE HERE]
Legend: FIGURE 1. SpringerLink home page

Browsing

There are three different ways you can browse the collection: by discipline, by content type, or alphabetically by title. Directly from the home page users will see the full list of all 24 disciplines; these are all hyperlinked and lead users to the full list of materials in their discipline of choice. The top two disciplines for those in the health sciences would be biomedicine (840,166 results) and medicine and public health (2,847,091 results). Disciplines can be further narrowed down using subdisciplines. The options for biomedicine are: neurosciences, pharmacology/toxicology, molecular medicine, cell biology, and human genetics. Subdisciplines for medicine and public health are: internal medicine, oncology, pharmacology/toxicology, general medicine/public health, and drug safety and pharmacovigilance. Users can also browse directly by content type: articles, chapters, conference papers, reference work entries, protocols, and videos. Users will notice that books are not one of the listed content types since they can browse using the ‘Books A-Z’ list which is one of the options at the top of the home page. Instead, SpringerLink has chapters as a content type, which is useful if users need a quick summary or background information on a topic and do not have the time to read a full book. The other A-Z list provided is for ‘Journals A-Z’ and both A-Z lists provide only the title of the book
or journals. Users have the option to select a letter to browse or to use the search bar to get to the title they are interested in (see Figure 2). The search bar can also be used on any page to run a keyword search within the results set. Once users choose either a book or journal title they will be taken to the landing page for that item, and it will have the hyperlinked table of contents for books or the full list of volume and issues for journals.

[PLACE FIGURE HERE]
Legend: FIGURE 2. A-Z browsing

**Searching**

SpringerLink allows for both basic and advanced searching. The main search bar allows for ‘Google style’ searching which includes an auto-suggest feature. SpringerLink default is to only return results containing all words entered into the search box, with no regard to case sensitivity. It will also not provide any spell checking. Searches will have stemming applied. For example if users search “legal” they will also get results that contain the words “illegal,” “legalities,” and “paralegal.” SpringerLink does allow for both phrases searching and the standard Boolean Operators AND, OR, NOT. The operator NEAR is allowed in the updated site and will search for keywords within ten words. To do phrase matching users will need to put their search terms within quotation marks. Wildcard searching is also allowed with the use of a question mark (?) replacing a single character, i.e. “te?t”) or asterisk (*) replacing any number of characters, i.e. “educat*”. Searching in SpringerLink is stated be case-insensitive but when tested using Boolean operators in both lower case and all caps it did result in a different number of results.

The advanced search feature can be found by clicking the gear icon located to the right of the search bar. With the advanced search users can search by author, title, varied phrase matching, and the option to only return results from a specific date range, as shown in Figure 3.
Users can also search using DOIs when they have them in either the basic or advanced search bar.

[PLACE FIGURE HERE]
Legend: FIGURE 3. Advanced searching

Managing results

Once users are on the results page either by browsing or inputting a basic or advanced search, they can then further refine by content type, discipline, subdiscipline, and language (see Figure 4). Some of the content types users might encounter are articles, chapters, conference papers, reference work entries, books, protocols, conference proceedings, reference works, journals, video segments, and book series. There are standard sort options of relevance, newest first, and oldest first. Results can also be limited by publication dates. The results are not numbered so users cannot determine how many results are on a page, but they can easily move between pages from both the top and bottom of the results. Up to 1,000 results can be downloaded as a CSV for any search performed. The CSV file will include the title, author(s), DOI or URL, publication date, and ISBN/ISSN. Users can also subscribe to RSS feeds of results. There is no option to export to a reference manager such as Endnote or Zotero. Searches, materials, citations cannot be emailed or saved, which are functions typically seen in other databases.

The option to include or hide preview-only content is available at the top of the results page for any search. This can be both a good and bad thing. Showing all materials does give users a better idea of what is available on a topic. This can also cause complaints from users, when they see items that their library is unable to provide access due to their budget and the price of materials. On the other hand, it could be a useful tool in assisting with collection development, when users’ requests are used to drive purchasing. Also, it is good to be aware that it could be
confusing to users when they open the preview-only content and see the note to access via your institution which then leads users to a page where they can type in the institution name. If their institution does not subscribe to the content, they will get a message saying it is not available, which is extra time and steps taken to then be told they cannot access the resource.

[PLACE FIGURE HERE]
Legend: FIGURE 4. Refining your search

**USABILITY**

*Accessibility*

All Springer Nature websites are compatible with recent versions of popular screen readers, operating system screen magnifiers, speech recognition software, and operating system speech packages so that they are as accessible as possible to those with visual, hearing, cognitive and motor impairments (Springer Nature, 2021b). The website has an easy to distinguish grey palette with the use of yellow to easily highlight those materials that are preview-only content. The font and color choices, spacing, and use of white space make the web pages easy to read without a lot of distractions that often seen on other sites. Older versions of the website included ads and a recent activity tracker which showed what other users were searching for. The removal of these greatly improves the look and ease of reading the site along with lessoning distractions. Another change is the removal of any ‘Refine Your Search’ options that are not applicable to your search. For example, if there are no entries in Dutch for an inputted search, the user will not see that option listed under ‘Language.’ This keeps the screen from being cluttered with options that will not be useful and will not impact the number of results.
CONTENT

E-books

E-books can be downloaded in both PDF and EPUB format and this can be the entire book or even individual chapters depending on users’ needs. Depending on the format they can then be read on various reading devices, for example iPad, Kindle, or Kobo. All materials on SpringerLink are DRM-free which allows for downloading, copying, and printing. An entire class of students or entire hospital departments can also access individual e-books since Springer supports unlimited concurrent users, which facilitates distance learning. To assist with cataloging and access Springer provides MARC records for all their titles which can be loaded into the library catalog. These records can come directly from Springer or from OCLC for those with a OCLC Cataloging and Metadata Subscription (Springer Nature, 2021a).

When looking at the results list of books, most are shown with the title, author or editor, publication date, and an image of the book cover (see Figure 5). Titles are hyperlinked and lead to the title of contents and all download options. They also give the number of downloads for that particular title along with a few sentences about the book, which can include a summary of the topics discussed or information on any updates or revisions from previous editions. There is also a tab labelled ‘About this Book’ that has a full abstract, list of keywords, author/editor affiliations, and full bibliographic information.

[PLACE FIGURE HERE]
Legend: FIGURE 5. E-book

Journals

SpringerLink has a new journal landing page with an updated layout. The top of the webpage has an image of the cover page of the journal along with a search bar for searching within the journal. Then there is a hyperlinked list of volumes and issues in order of newest first.
There are no article titles listed on this main page so users will have to go to each volume and issue to see any individual titles. The right side has a section for authors with links to submission guidelines, ethics information, publishing fees, and contact information. There is also an ‘Explore’ section that lead users to online first articles and the option to set up journal alerts. The new site is very clean and easy to navigate but it is missing some rather important sections that the journal pages on the main Springer site still have. For example, the scope statement, information about the editorial board, and the impact factor are all missing. Browsing journals and looking at their impact factor is an important step in determining journals to publish with and being able to easily access that information will be missed. Individual article pages allow for downloading of the PDF, citation metrics, downloadable citation for uploading into reference managers, and full-size versions of any figures from the article. When looking at individual volumes and issues from a journal users will see similar sections from the main journal page, cover image, search bar, and ‘For Authors’ section. Users will also have an entire list of articles in that issue along with that number stated right after the volume issue information. Each article entry has the hyperlinked article title, author(s) names, publication date, page numbers and article type. Some common ones users will see are narrative review, qualitative review, systematic review, and research paper.

**Videos**

The ‘Videos’ section on SpringerLink include both educational videos and learning courses. Videos are grouped by featured videos and then a list of videos by topic: Professional and Applied Computing, Medicine, and Business and Management. Currently there are total of 252 videos with 90 that are indexed under Medicine.

**Information for Librarians**
The librarians link on the SpringerLink home page leads to a page where all the tools and resources to get the most out of one’s subscription are located. It includes marketing resources, access for training including blogs, tutorials, webinars, and newsletter sign ups. Along with resources for account managers, collection, and liaison librarians.

**CONCLUSION**

SpringerLink has an extensive collection of titles and varied content types along with the various subscription options make it an option to consider for health science libraries. The availability of MARC records, which streamline cataloging and assist with access is a great added feature. Even though it is missing some of the attractive aspects of other databases such as the downloading of citations to reference managers or emailed results, overall, it is a good platform. Its selling points are in its ease of navigation and searching, which busy students and researchers will find useful. It could be frustrating to see all the different content types when users are specifically looking for just one type, such as a book, but with a few clicks users can easily limit to books only. Librarians might want to consider user education because of the ‘Preview-Only Content’ so that there is an understating from the beginning that not everything on the site will be available due to the budget.
REFERENCES


https://www.springernature.com/gp/librarians/tools-services/implement/marc-records


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