

Illustration inspired by the work of Jean-Claude Bradley



Open Research

THE OA EFFECT: HOW DOES OPEN ACCESS AFFECT THE USAGE OF SCHOLARLY BOOKS?

White paper

ADVANCING
DISCOVERY

Open Research: Journals, books, data and tools from:



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November 2017

Foreword

Springer Nature was created in 2015, but from our earliest days as Springer, Palgrave Macmillan and Nature, we have been publishing monographs and long-form research for some 175 years. The changing environment for book publishing has created both opportunities and challenges for researchers and their funders, for publishers, and for the wider community of readers and educators.

As a publisher, we have championed new models of scholarship, introducing ebooks in 2006, and our first open access (OA) book in 2011. OA provides one of the biggest opportunities for the research community, allowing for immediate, free access to research. It is a model which has matured in journal publishing, but which is still developing for academic books.

As a pioneer of open research, Springer Nature has now published more than 400 OA books and chapters under our SpringerOpen and Palgrave Macmillan imprints. With this breadth of publishing comes the opportunity to begin to analyse the real effect of OA on our books, both from a quantitative perspective, looking at the data from our own titles, and from a qualitative perspective, from the views of the authors and funders that we work with. Whilst previous reports have intimated the possible benefits of OA publishing for books, our research presents the first major comparative analysis of usage data for OA and non-OA scholarly books, and provides an informed view of how a book benefits from OA publication. It also highlights the challenges involved in measuring the impact of OA on scholarly books and suggests that there is much to do across the whole scholarly communications network in supporting authors and their funders. We welcome further discussion and collaboration in this important area.



Carrie Calder
Business Development and Policy
Director, Open Research
Springer Nature

Executive summary

How does
OA affect
usage?

It is frequently claimed that open access (OA) has the potential to increase usage and citations^{1,2}. This report substantiates such claims for books in particular, through benchmarking the performance of Springer Nature books made OA through the immediate (gold) route against that of equivalent non-OA books. The report includes findings from both quantitative analysis of internal book data (chapter downloads, citations and online mentions) and external interviews conducted with authors and funders. This enables the comparison of actual performance with perceptions of performance for OA books.

Part 1 of the report presents the findings of the quantitative analysis. The average performance of OA books, as measured by usage, citations and online mentions (see [Appendix 1](#)) for the first four years of each book's life, was compared with the average performance of non-OA titles. We found that Springer Nature OA books perform better than non-OA books published by Springer Nature in all three categories that we assessed:

- **Downloads:** On average, there are just under 30,000 chapter downloads per OA book within the first year of publication, which is 7 times more than for the average non-OA book.
- **Citations:** Citations are on average 50% higher for OA books than for non-OA books, over a four-year period.
- **Online mentions:** OA books receive an average of 10 times more online mentions than non-OA books, over a three-year period.

Our findings represent an early view on the effect of OA on books. We would recommend further analysis over a longer study period to monitor any continued effect of OA. The scope of this report could be broadened to include download statistics from other hosting platforms such as OAPEN and historical data from Palgrave Connect (Palgrave's former ebook platform), a breakdown of citations and online mentions by subject area, and OA chapters from hybrid books.

Part 2 presents feedback from authors and funders who were interviewed about their experiences and perceptions of OA book publishing with Springer Nature. Interviews focused on: the impact of OA on books; OA book metrics that are of most relevance to authors and funders; and authors' and funders' expectations and experiences of, as well as motivations for, OA book publishing.

The interviews show that increased visibility and wide dissemination of research are the most common motivations behind both the publishing and the funding of OA books. Those we spoke with argued that OA is not just a publishing model, but also a means of addressing the issue of equal access to knowledge and ensuring that publicly-funded research is available to all. Both authors and funders acknowledged that they feel insufficiently informed about the implications of publishing open access, and how to measure impact. We strongly recommend further discussion and research that reviews how metrics for OA books are collected, reported, assessed and shared. Further support for authors and funders in understanding the impact of OA books should also be explored.

Introduction

How can
impact be
measured?

Open access is making strides in the journals market but is still in relatively early stages in book publishing^{3,4}. It is widely accepted in the research community that OA advances knowledge and enables innovation, so much so that in May 2016 the European Council of Ministers set a goal of immediate open access to scientific journal articles as the default by 2020⁵. OA book publishing, however, is still gaining momentum and the landscape is rich in experimentation, with alternative business models being explored and pilots of new OA initiatives being launched⁶.

There is an expectation voiced by authors that OA publishing for books will have a positive impact on usage and citations, arising from research conducted for the OA journals market^{1,2}. There is a growing body of literature confirming that publishing OA increases article citations and online visibility in general, with one recent study revealing an open access citation advantage for journals of at least 10-20%^{7,8}. HEFCE's Monographs and Open Access Project, led by Geoffrey Crossick, points to the advantages of OA for monograph publishing and use, and cites the slower transition to digital publishing for books than for journals as the cause for the subsequent delay in adopting OA publishing for books⁹.

However, many of the authors and researchers interviewed for this report indicated that they knew little about the benefits of OA, or were sceptical about any direct positive impact. To date, a small number of studies have assessed bibliometrics and usage of OA books, such as the KU Research/Centre for Culture and Technology at Curtin University preprint¹⁰ on data for small monograph presses, Knowledge Unlatched's usage statistics reports¹¹ based on downloads and locations, and the recently published KU Research/JSTOR OA books usage study¹². But so far there has been little information directly comparing the impact of OA books with that of non-OA books.

One reason for the scarcity of studies in these areas may be the challenging nature of tracking the usage of OA books. Another reason may be the lack of standardised metrics for books. Bibliometric tools now available include Altmetric's Badges for Books and Springer Nature's Bookmetrix, both of which report on books' quantitative usage data, and Google Scholar, which tracks citations. The future of OA books depends on measuring and demonstrating impact – not only so that authors can track the usage and reach of their research, but also to enable OA book funders and institutions to justify their funding of OA publication costs. An increased focus on metrics to try to understand the benefits of OA can only be beneficial for all stakeholders. Aside from providing authors with invaluable knowledge of their readership and the expanded potential for collaborations, metrics help publishers retain and attract authors, guide their list, and find marketing opportunities¹³.

Part 1:

Quantitative findings



Summary

This section considers the implications of publishing a book OA versus non-OA. Three key metrics were considered: book downloads, citations, and online mentions.

For chapter downloads from the SpringerLink platform, OA books were benchmarked against non-OA books published in the same subject area and same month; for citations and mentions as tracked by Bookmetrix, comparisons were made between OA and non-OA titles published in the same year. Bookmetrix, developed together with Altmetric, is a platform which gives authors an overview of the reach, usage and readership of their book.

Findings are presented through a breakdown over time, cumulative averages, and variation by discipline and ranking. See [Appendices 1](#) and [2](#) for further information on definitions, limitations and methodology.

[Tables A](#) and [B](#) show the number of books included in each period of analysis. The group of books with the longest period of data (four years since publication) includes fewer books than the group with one month's worth of data, as more OA books are being published now compared to four years ago.

A total of 216 OA and 17,124 non-OA books were included in the analysis of download figures (see [Table A](#)).

Table A: Number of books included in downloads analysis

Time from publication:	1 month	6 months	1st year	2nd year	3rd year	4th year	Total
OA Books	216	196	138	67	26	9	216
Non-OA Books	17,124	15,537	12,592	9,110	5,740	2,307	17,124

A total of 182 OA and 14,356 non-OA books were included in the analysis of citations and mentions (see [Table B](#)).

Table B: Number of books included in citations & mentions analysis

Time from publication:	1st year	2nd year	3rd year	4th year	Total
OA Books	182	78	37	13	182
Non-OA Books	14,356	9,699	6,511	3,184	14,356

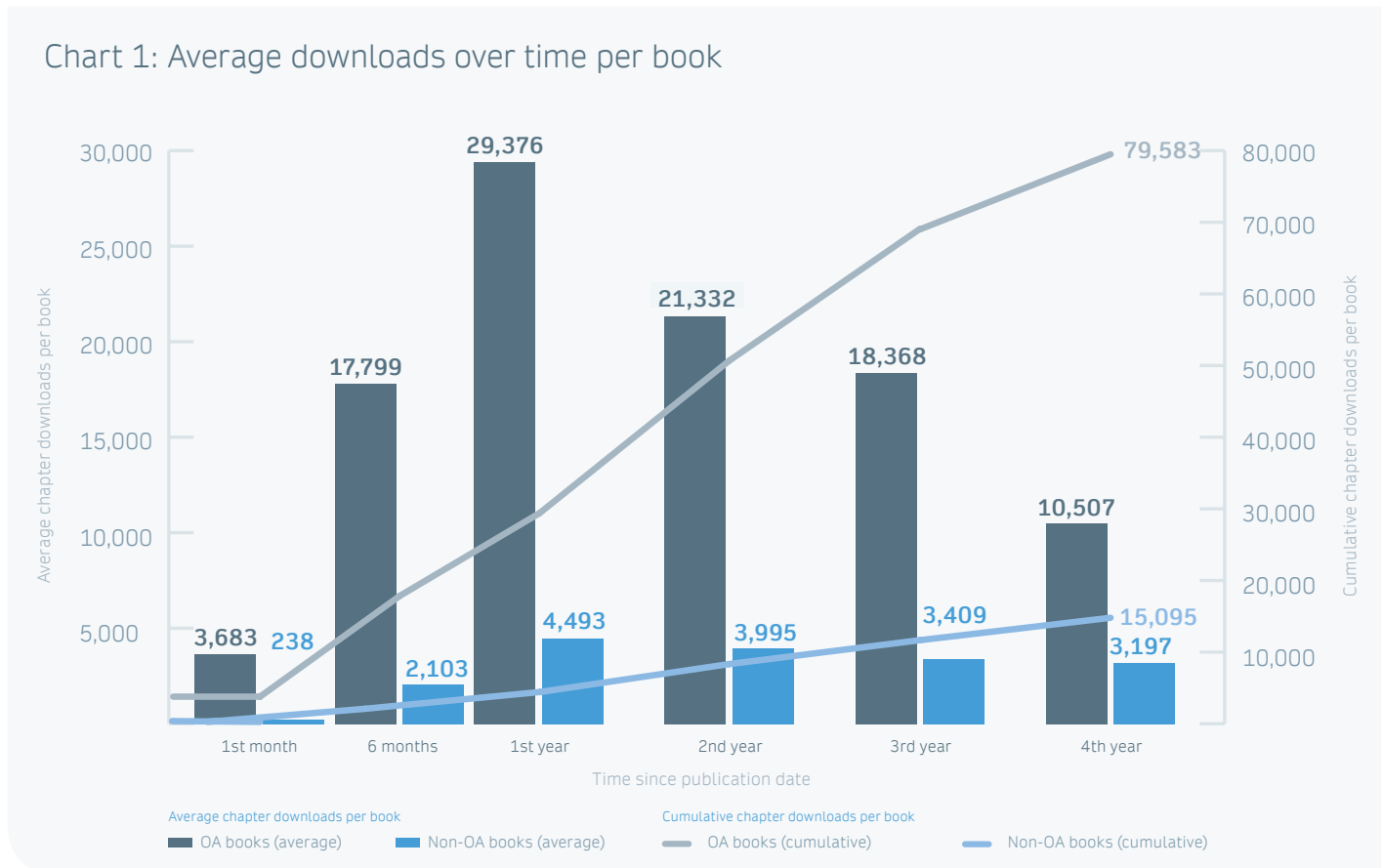
Download charts include figures broken down by first month, first six months, first year, second year and so on. The figures for the first month are included in those of the first six months and have not been double counted in the cumulative averages. Likewise, the figures for the first six months have been included in those of the first year.

Downloads

Both OA and non-OA books can be downloaded from Springer Nature's platform, SpringerLink. Springer Nature OA books are also available from other platforms, institutional repositories and websites; however this report focuses solely on SpringerLink downloads. The reporting period ran from 1 August 2012 to 14 July 2017. The SpringerLink database provides COUNTER-compliant statistics reports; downloads are recorded for individual chapters rather than as full book downloads.

Downloads for all books included in the report

Chart 1: Average downloads over time per book



Usage of OA books is significantly higher than for non-OA on average, with 6.5 times as many downloads in the first year.

- OA book downloads remain consistently higher than non-OA book downloads in each of the first four years after publication.
- OA book downloads peak on publication with 15.5 times as many downloads as for non-OA books within the first six months, decreasing over the remaining four years of the study period.
- The rate of downloads for non-OA books is steadier over the four years than that of OA downloads.

Annual downloads for OA and non-OA books both peak in the first year of a book's life. However:

- There are on average just under 30,000 chapter downloads in the first year of an OA book's life, with over half of these within the first six months.
- There are almost 4,500 non-OA chapter downloads on average in the first year, likewise with nearly half of these within the first six months.

Out of the top ten downloaded books on SpringerLink, seven are OA and three are non-OA (see [Appendix 3](#) for the list of titles, subject areas and download figures).

Table C: Observations on chapter downloads

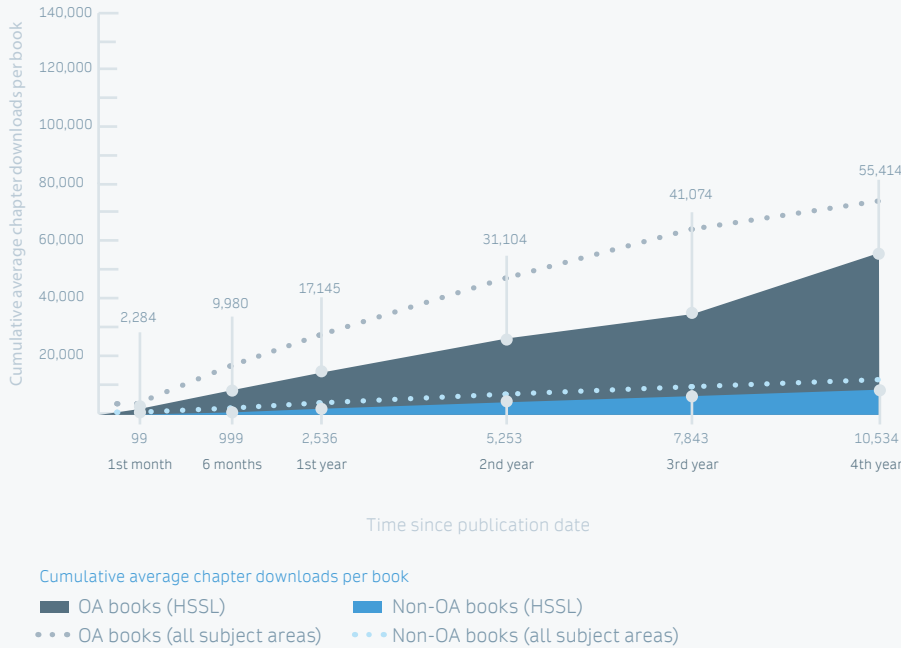
First month	There are 1,449% more chapter downloads for OA books in their first month than for non-OA books. This is 15.5 times as many, with 3,683 chapter downloads compared to 238.
First six months	There are 746% more chapter downloads for OA books in their first six months than for non-OA books. This is 8.5 times as many, with 17,799 chapter downloads compared to 2,103.
First year	There are 554% more chapter downloads for OA books in their first year than for non-OA books. This is 6.5 times as many, with 29,376 chapter downloads compared to 4,493.
Second year	There are 434% more chapter downloads for OA books in their second year than for non-OA books. This is 5 times as many, with 21,332 chapter downloads compared to 3,995.
Third year	There are 439% more chapter downloads for OA books in their third year than for non-OA books. This is 5 times as many, with 18,368 chapter downloads compared to 3,409.
Fourth year	There are 229% more chapter downloads for OA books in their fourth year than for non-OA books. This is 3 times as many, with 10,507 chapter downloads compared to 3,197.

Do downloads vary by subject area?

OA books are downloaded more than non-OA books in every subject area, but to varying degrees. Engineering, mathematics and computer science OA books are downloaded significantly more on average per book than any other subject area. Humanities, social sciences, business and economics OA books still show significantly higher downloads than their non-OA equivalents, but the effect is slightly less pronounced than in science, technology and medicine. The charts on page 9 onwards show breakdown by subject area.

Humanities, social sciences & law

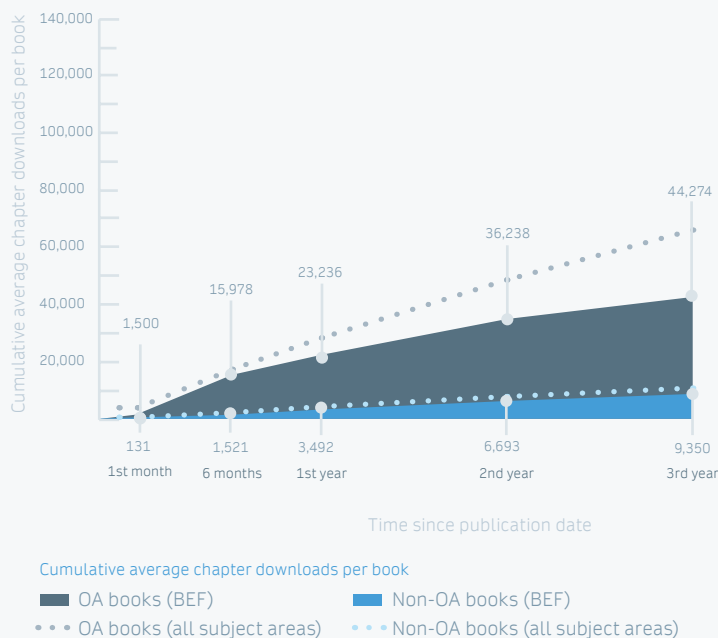
Chart 2: Average downloads by subject area
Humanities, social sciences & law



For humanities, social sciences and law, OA books are downloaded on average 6.7 times more than non-OA books, with an average of 17,145 chapter downloads for OA books against 2,536 for non-OA in the first year of a book's life. OA books in the humanities, social sciences and law receive fewer downloads than the average across all subject areas for OA books. The same applies to non-OA books in these fields.

Business, economics & finance

Chart 3: Average downloads by subject area
Business, economics, finance - 3 yrs only

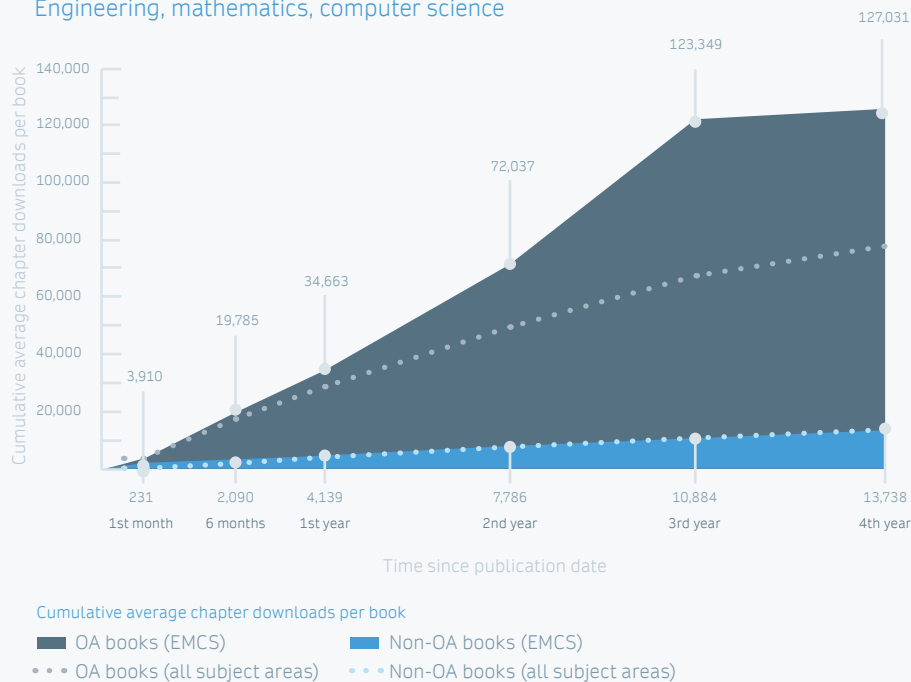


For business, economics and finance, OA books are downloaded on average 6.7 times more than non-OA books, with an average of 23,236 chapter downloads for OA books against 3,492 for non-OA in the first year of a book's life. OA books in business, economics and finance receive fewer downloads than the average across all subject areas for OA books. The same applies to non-OA books in these fields.

Engineering, mathematics & computer science

Chart 4: Average downloads by subject area

Engineering, mathematics, computer science

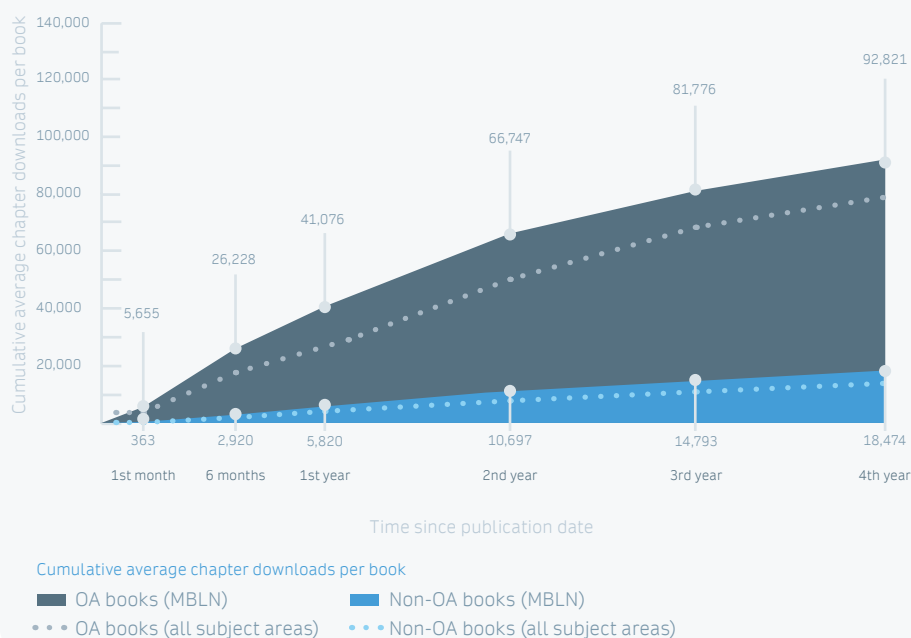


For engineering, mathematics and computer science, OA books are downloaded on average 8 times more than non-OA books, with an average of 34,663 chapter downloads for OA books against 4,139 for non-OA in the first year of a book's life. Engineering, mathematics and computer science OA books perform much better than the average number of downloads for OA books across all subject areas. Non-OA books in these fields are downloaded in line with the overall average.

Medicine, biomedicine, life sciences & natural sciences

Chart 5: Average downloads by subject area

Medicine, biomedicine, life sciences & natural sciences

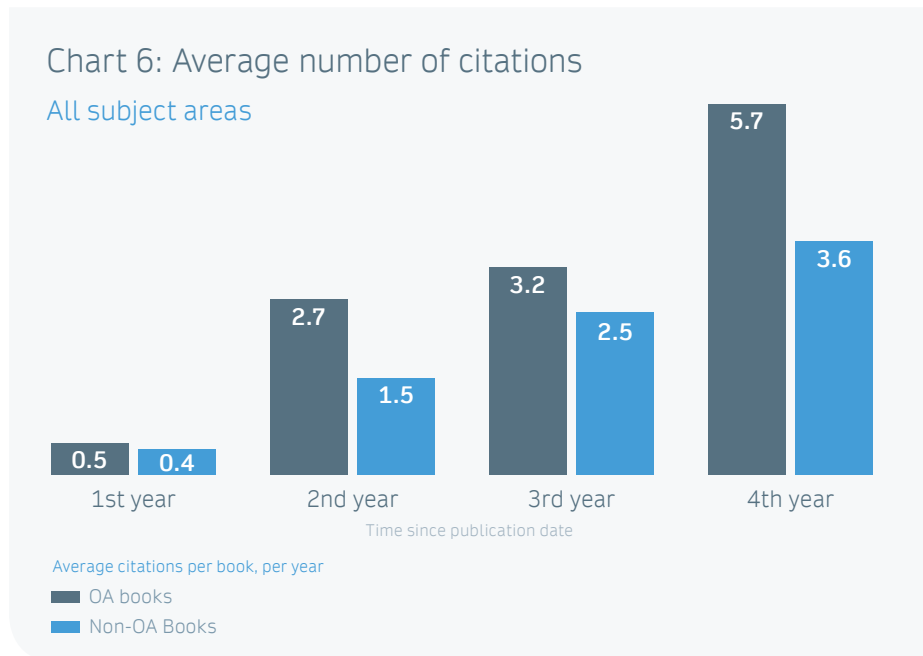


For medicine, biomedicine, life sciences and natural sciences, OA books are downloaded on average 7 times more than non-OA books, with an average of 41,076 chapter downloads for OA books against 5,820 for non-OA in the first year of a book's life. These OA books perform slightly better than the average number of downloads for OA books across all subject areas. Non-OA books in these subject areas are also downloaded slightly more than the overall average.

Citations and mentions

This section looks at citations and mentions as tracked by Bookmetrix, a Springer Nature tool which gives authors an overview of the reach, usage and readership of their book. Bookmetrix tracks citations in books and articles, and online mentions from a variety of different online sources (see [Appendix 1](#) and [Table E](#)).

Citations



Citations are on average 50% higher for OA than non-OA books over a four-year period: an OA book is cited on average 12 times within the first four years of its life, and a non-OA book 8 times.

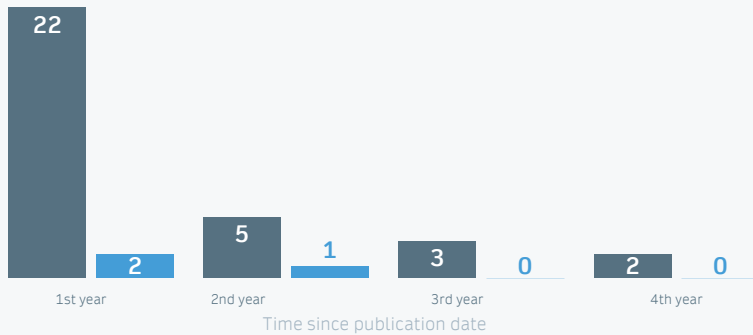
OA books receive more citations than non-OA books on average in each of the first four years after publication.

- There is a large increase in citations from the first to the second year of a book's life for both OA and non-OA.
- Citations peak in the fourth year for both OA and non-OA books. Without data over a longer period being available, it is not clear yet whether this is the overall peak.
- OA books see a sharper growth in citations between the first and second year compared with the second and third year where the number of citations holds steady.
- Non-OA books show a steady rate of growth year on year.

Online mentions

Chart 7: Average number of mentions

All subject areas



Average mentions per book, per year

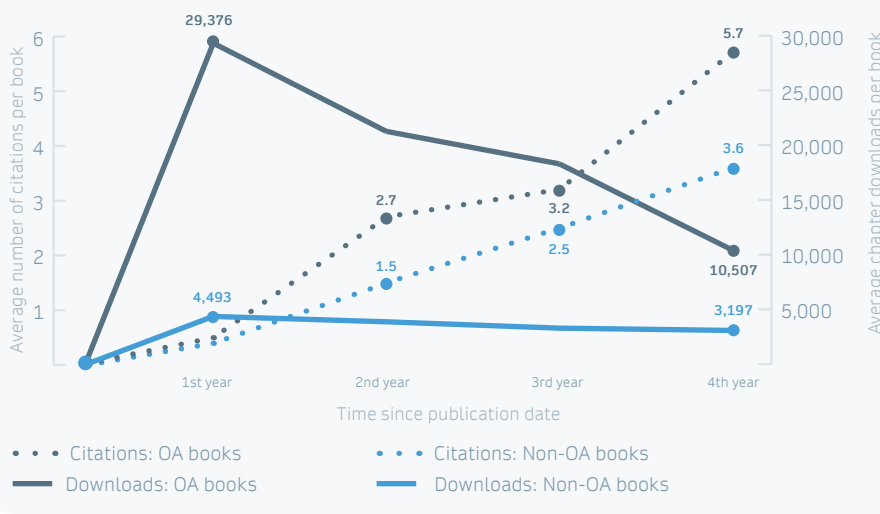
- OA books
- Non-OA books

For the first three years, an OA book is mentioned an average of 30 times, ten times more than a non-OA book.

The relationship between downloads and citations

Chart 8: Downloads and citations

All subject areas



No correlation was established between downloads and citations. However, we observed a common trend: books are mostly downloaded within the first year of publication but, as one might expect, there is a delay in citations as they build up over time, with older books receiving more citations. Where there is a higher level of downloads for OA books in year one, a higher level of citations is subsequently observed by year four. This may be a result of more readers having access to a title, given the pattern of citations shown over the four years, which suggests that readers are first downloading a book and then taking time to read, digest and perform further research before citing.

Part 2:

Qualitative findings



Summary

Interviews were conducted in mid-2017 with authors and funders of Springer Nature OA books (see [Appendices 4,5,6](#)), in order to:

- Understand expectations and motivations for OA publishing
- Investigate which OA book metrics are of most relevance to authors and funders
- Gain further insights into the effect of OA on books as experienced by authors and funders
- Understand if and how experiences of impact differ depending on whether OA was chosen.

Key findings

Increased visibility and wide dissemination of research are the most common motivations behind both publishing and funding OA books. Unsurprisingly both authors and funders also cite ethical motivations, stressing the fact that publicly-funded research should be available to everyone and calling for equal access to knowledge.

Springer Nature authors choosing to publish OA books are primarily motivated by the desire for their books to reach the widest possible audience, and for them to be shared and cited more than non-OA books. They value the ease of sharing books through direct links that OA enables, especially in regions where readers might not be able to afford a traditional print edition of the book.

Funders of Springer Nature OA books have two clear motivations in choosing to fund OA books. Large funding bodies point towards ethical motivations, arguing for public access to publicly-funded research and aiming to ensure its widest possible dissemination. Some larger funders have introduced funds specifically for OA books, following similar funding schemes for OA articles, as they are convinced that books should have the same status. Smaller organisations, which are not funding bodies per se, but rather institutes that have chosen to allocate part of their budgets to support OA publications, share the aforementioned public interest motive. In addition, they cite the desire to satisfy their authors' expectations when it comes to reaching a larger audience.

A lack of knowledge about the specific benefits of publishing books OA was apparent amongst both groups. Neither group felt sufficiently informed about the implications of publishing a book via an OA model. Interviewed authors acknowledged the large numbers of downloads as a possible benefit, yet remained sceptical about attributing this solely to OA, pointing to other factors such as the author's reputation, the book's topic, or additional marketing activities as having an influence on the overall usage and impact of their books. Neither group was generally aware of any new collaborations or opportunities having arisen directly as a result of their having published or funded OA books.

Reasons for publishing open access

The most commonly cited reasons by the authors and funders we interviewed for choosing to publish OA were:

- Easy access to research
- Wider dissemination
- Ethical motivations.



"My motivation was political, if it is publicly-funded research (which it is in my case), then I think the public has the right to access these results without any boundaries, not having to pay twice."

Anonymous, Philosophy Professor, Germany



"Open access is not an end in itself. Together with open science, it helps that research results can be replicated, verified, falsified, and reused for scholarly as well as practical applications. Therefore, it is the intrinsic duty of a research funder to enforce the transition to open access and open science politically and financially."

Falk Reckling, PhD, Head of Department, Strategy – Policy, Evaluation, Analysis, FWF Austrian Science Fund

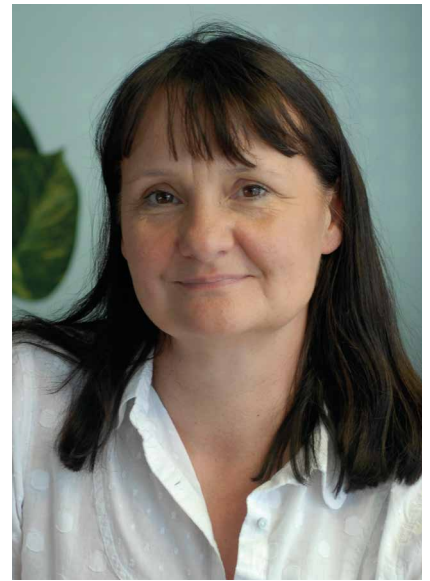


"It is not about visibility or any status-connected factor; it is really about bringing the content to people who shall be reading it."

Anonymous, Postdoctoral Scholar in Management Science and Engineering, USA

Other reasons included:

- Subject matter: Authors publishing books on open science itself or on international development in low-income countries believe that such topics demand to be published OA.
- The possibility of purchasing a cheaper print edition of the OA book.
- Expectations on the part of authors and funders that OA publication would lead to increased citations and downloads.
- A perception that OA publication would mean a faster publishing time.




"I work with issues that have to do with inequality, so for me publishing a book that wasn't OA on the impact of international development would be quite unethical, because I know that people in Uganda would not be able to read the book. For me it was an absolute critical component to the ethics of publishing."

Helen Louise Ackers, Chair in Global Social Justice, University of Salford


Experience of publishing open access

Dissemination and downloads

Neither the authors nor the funders we interviewed felt well informed about the effect of OA on their books. Most had not investigated the actual impact or were unsure about the possible ways of measuring it appropriately. Whilst interviewed authors claimed to see an increase in dissemination and a higher number of downloads, and pointed to these as being the main differences compared to their non-OA books, they were somewhat reluctant to attribute this success to OA alone. They mentioned a plethora of other factors that could have increased readership, from a highly appealing subject of the book, to an author's reputation, or their own efforts in promoting their book.

 "[An] author's reputation comes into play. I think it is the biggest reason, so that is why it is difficult to attribute the book's popularity to OA alone. All these factors combined made it to what it is."

Anonymous, Postdoctoral Scholar in Management Science and Engineering, USA

 "Readership was much bigger compared to our other traditional books. It is also because the topic is for a very wide audience, many people were interested in it and it is very easy to access, so a lot of things were in favour of that project. I don't think there are that many edited books with large readerships. I think the topic and also the people that we have selected helped to access a lot of people."


Sascha Friesike, Assistant Professor, KIN Research Group, VU Amsterdam, HIIG Berlin




"It is hard to say if something came from the book or from us being active in open science, because it all got mangled into one thing: we thought about the topic before we had the book, so it is hard to say what was the direct effect of the book."

Sascha Friesike, Assistant Professor, KIN Research Group, VU Amsterdam, HIIG Berlin

Some of the authors we interviewed claimed that they had not experienced any particular effect in publishing their books OA, with some even doubting the value of OA altogether.

 "People that are interested in my research would have read it regardless of open access; they would normally have access through a good university library anyway."

Anonymous, Philosophy Professor, Germany

 "I don't know what one can get out of open access, because I don't necessarily see advertisement or promotion being part of the deal. There is no promotional campaign. For me it is like you are paying to be published. [...] Without a big advertising campaign, how will people get to the book?"

Elżbieta M. Goździak, Research Professor, Georgetown University

Collaborations, research projects

Another way of assessing the effect of OA on books could be looking into collaborations that have stemmed from such publications. The authors and funders we interviewed for this report have not yet, however, experienced any collaborations or opportunities such as research projects as direct effects of publishing their books OA. There were rare cases where an OA book has been picked up and translated by researchers from another country.



"Not necessarily as a result of publishing OA, as such, but certainly as a result of putting the book together – we worked with a number of authors across different fields and areas (libraries, publishing, academia, bookselling), and have continuing relationships with many of these authors, several of whom we are working on further projects with."

Anonymous, Healthcare Professor, Germany

Most funders interviewed acknowledged that they have not investigated the question of collaborations or research projects stemming directly from OA books funded by them. FWF acknowledged having strong partnerships with other funding bodies and actively discusses OA policies with them.

Book metrics: An unknown territory?

Most Springer Nature authors interviewed had not investigated any book metrics or felt that they did not have enough data to track the actual impact of their books properly. They were all keen to see more from the Springer Nature tool Bookmetrix, and also expressed interest in regular reporting on metrics for OA editions as well as on print sales.

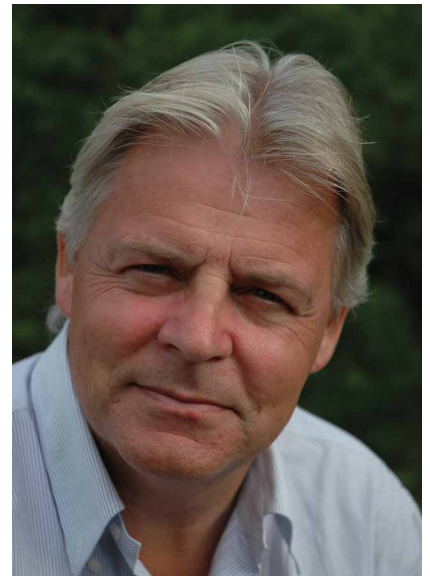


"We didn't do any analysis on the numbers for a comparative picture. However, during the second quarter after the book was uploaded on the net, Springer informed us that the book was heavily downloaded, in fact the largest number in the education sector during that quarter. Asian Development Bank has not been tracking the numbers for OA vs. conventional publications. While this was the first OA book, now Asian Development Bank adopts OA across the board."

Shanti Jagannathan, Asian Development Bank

The future of open access

Almost all the interviewed authors and funders underscored how important an experience it was for them to publish a book open access. Both groups also remain convinced that OA is the future of publishing and feel strongly about the principle of disseminating knowledge and making it freely available, especially in low income regions.



"I am more and more convinced that this [open access] is the way to publish in the future. We will see books develop as journals."

**Professor Thomas Elmqvist,
Stockholm University**



"I see open access as the future of scientific publishing."

Anonymous, Postdoctoral Scholar in Management Science and Engineering, USA

However, some are concerned that the model puts early career researchers (ECRs) with no access to funding at a disadvantage.



"If ECRs can't publish, they will not get jobs. That is the bottom line. And if publishing depends on access to large amounts of money, it is majorly problematic. I do approve of the idea that the non-academic public can read these texts. We are talking about a massive change in how knowledge is disseminated, aren't we? It is a huge, huge thing really. For me this is so important to disseminate important policy information in low-resource countries. For me it has been a massive, massive success. I can't express how important it is to be able to disseminate what I see as a cutting-edge work and to know that colleagues can read it in Uganda without having to pay for it. If we have to charge people to read, no one is going to read it. It has been a fantastic experience for me."

Helen Louise Ackers, Chair in Global Social Justice, University of Salford

Almost unanimously, the funders we interviewed see OA as the future of publishing and agree to a large extent that they would like to see a transition to a system in which all scholarly books (monographs, edited collections etc) are made accessible via an OA model – although it should be noted that these funders are leading in the funding of OA books and their opinions may not be representative.

Whilst appreciating the increased visibility and equal dissemination of knowledge that comes with OA, funders also acknowledged challenges that the model brings. They were concerned about high costs of publishing and would like to see more alternative models being developed to support a greater take-up of OA book publishing.



"Quality and cost remain a concern. I regularly receive emails from so-called OA journals around the world, and it is difficult to tell whether these are predatory journals and what their peer-review practices are. A colleague emailed me recently to crowdfund for their book, on a model of pre-selling copies. This may be more democratic than the current OA model, which favours authors who can access funds – but then again, to have a successful crowdfunding project you need to be established and have a wide network. Spreading funds between individuals and national research institutes lowers the cost of OA for everyone. So perhaps together, two different channels could be followed to raise money for OA publication."

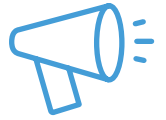
Anna Triandafyllidou, European University Institute, IMISCOE



"We believe in OA publishing; it's convenient to have the books that we write available for free. There is a political drive in Norway towards open access to research – it's not clear how it will be achieved, but OA publishing is one way to help meet this political agenda."

Professor Aslak Tveito, CEO, Simula Research Laboratory

Discussion



Our findings indicate that OA books perform better than those published via the traditional non-OA route, based on downloads (7 times more), citations (50% higher) and mentions (10 times more). Download statistics vary by subject area but Springer Nature OA books on average significantly outperform non-OA books. Springer Nature OA and non-OA books receive the same levels of publishing services so this difference cannot be attributed to varying levels of marketing and promotion. Based on expectations from previous studies on the effect of OA on journals publishing, such as Simba Information's *Global Scientific & Technical Publishing 2017-2021*¹⁴, and JISC/UCL's *In Support of Research*¹⁵, this result was anticipated. However, in confirming the benefits that OA publication brings specifically with respect to books, our report now presents a compelling argument to authors considering whether to publish an OA book in the future.

It should be pointed out, however, that whilst our report is an observational study which clearly shows that OA books receive more downloads, citations and mentions on average in comparison to non-OA books, it does not establish *causation* between OA and more downloads, citations and mentions.

Our findings clearly suggest a positive correlation between OA and the various book metrics, however further analysis is needed to establish if there is also causation between OA and a book's performance.

Other factors could be affecting the number of downloads, citations and mentions. For example, there may be a self-selection bias amongst authors that choose to publish an OA book. The differing reputations of institutions and authors and the inequality of access to BPC funding may affect whether a book is published via the OA route or may be reflected in a higher or lower number of downloads, citations and mentions.

A qualitative assessment of the motivation of OA book authors (Part 2) can provide some insight into key differences, but the sample size is limited and the results are only directional.

The interviews with Springer Nature OA book authors and funders reveal an interesting gap. Whilst the authors and funders expected OA books to have higher visibility than non-OA books and they decided to publish or fund an OA book to reach a wider audience, they did not feel sufficiently informed about the actual impact of their publications and felt that they lacked the tools to measure it in a reliable way. Even when acknowledging a high number of downloads, both groups remain unconvinced that the effect is purely a result of OA.

The OA choice is a complex one and motivations varied amongst the authors and funders we interviewed. The possibility of reaching a wider audience and gaining more readers was just as important to authors and funders overall as the ethical argument: that of the reader's right to access publicly-funded research. Several subject areas were pointed to by authors as being especially suitable for the OA book route, such as international development or migration issues.

Our report has highlighted further areas for research. For example, why is there a difference in patterns by subject area? Further studies could explore usage within disciplines, as well as factors that influence downloads and citations beyond OA publication. Further exploration of how publishers can support authors in understanding the effect of OA on their books should be considered. We plan to work on this as a next step (see [Conclusion and recommendations](#)).

How to monitor downloads

Download data in this report focuses solely on one data set: that of the official SpringerLink platform. However, Springer Nature OA books are also hosted on partner platforms as well as on other websites such as The Internet Archive and institutional repositories. The very nature of unrestricted access to OA publications and the use of a Creative Commons licence mean that the usage we are able to track is only a proportion of that which actually takes place. Files can be downloaded and emailed privately to peers, just as print copies could be lent or given to readers' contacts. Therefore these figures only paint part of the picture.

Taking a step back, it would be interesting to explore the wider question of how different publishers and platforms track the effect of OA on books (full book downloads vs. chapter downloads vs. book/page views) and the usefulness of the various metrics. The lack of standardised metrics is potentially problematic, as statistics are returned which cannot be benchmarked against other data sets.

Conclusion and recommendations



Part 1 of this report benchmarked the performance of Springer Nature OA books against equivalent non-OA books in terms of usage (chapter downloads), citations and online mentions.

We have established that OA books have an increased performance, based on downloads (7 times more), citations (50% higher) and mentions (10 times more). The download statistics vary by subject area but OA books always outperform non-OA books regardless.

The longest period of data we were able to report on was four years from publication. Open access is a relatively new business model for books, and there is insufficient data at this stage to give a complete overview of an OA book's life. As books have a much longer lifespan than scientific articles, and because citations build up over time, it is not possible to say what the definitive trends are, such as when the overall citation and usage peaks occur during an OA book's entire lifespan, until further research and analysis has been carried out⁹.

Indeed, as humanities and social sciences monographs tend to have a longer lifespan than other disciplines or journals, with usage peaking years after publication, we should continue to examine usage over a longer period of time.

Part 2 focused on feedback from authors and funders who were interviewed about their experience and perception of OA book publishing with Springer Nature. We found that increased visibility and a wider dissemination of research are the most popular motivations behind both publishing and funding OA books. The OA argument is also ethical as there is widespread agreement that readers should not only be able to read publicly-funded research but should also have equal access to knowledge.

Interviewed authors also stated that a benefit of OA is the ease in sharing books via direct links to encourage a wider readership, especially in regions where readers would not be able to afford a traditional print edition of the book.

Both authors and funders acknowledged feeling insufficiently informed about the implications of publishing books OA, and about how to measure impact, despite bibliometrics tools being at their disposal. There is a clear need for publishers to better communicate the effect of OA on their books.

We encourage others to build upon the foundation of this report by continuing to assess metrics and authors' and funders' perceptions of OA over a longer period and by broadening the scope.

Further research could:

- Continue to monitor the effect of OA on books using the same criteria as this report in order to gain insights over a longer period. More specifically, research into humanities and social sciences monographs shows that usage of these books actually peaks between 5-10 years after publication⁹
- Assess causation between open access and a book's performance
- Expand the scope to include:
 - Download statistics from other platforms where Springer Nature books are hosted (e.g. Palgrave Connect, Amazon Kindle, Google Books, OAPEN, PubMed's NCBI Bookshelf, FWF eBook Library, Web of Science, Scopus, The Internet Archive)
 - Citations and mentions by subject area (over time, a larger data set will provide more robust findings)
 - Geolocational usage for books hosted by the OAPEN Library
 - Indexers versus direct SpringerLink downloads: tracking the percentage of readers coming via DOAB and other indexers to SpringerLink
 - OA chapters from hybrid books
- Look at how publishers can support authors beyond publication, what services they can offer in order to maximise the potential of OA books, and how publishers can inform authors about the performance of their OA books.



Acknowledgements

We would like to thank the following people without whom this report could not have been written. Their knowledge, skills, advice and support have been instrumental throughout.

Table D: Acknowledgements		
Team	Name	Job Title
Maverick Publishing Specialists	Jenny Drey	Associate Consulting Editor
Open Research, Springer Nature	Carrie Calder	Business Development and Policy Director Open Research
	John Walker	Marketing Director Open Research
	Christos Petrou	Director Strategic Analytics
	Matteo Prandi	Marketing Analytics Manager Strategic Analytics
	Cath Jenkins	Workflow Coordinator Open Access Books
	Katie Laurentiev	Editorial Coordinator Open Access Books
	Bookmetrix, Springer Nature	Martijn Roelandse
Sebastian Bock		Product Manager
Arian Celina		Software Engineer
Liquin Peng		Software Engineer
Strategy & Market Intelligence, Springer Nature	Harald Wirsching	Director Strategy & Market Intelligence
	Dan Penny	Head of Market Intelligence - R&A
	Katie Allin	Senior Research Analyst
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About Springer Nature and OA books



Springer Nature publishes open access (OA) books and chapters under its SpringerOpen and Palgrave Macmillan imprints. Springer Nature helped to pioneer OA publishing, first piloting OA publication for books in 2011. We publish OA books across a wide range of areas in science, technology, medicine (STM), and the humanities and social sciences (HSS).

Springer's notable OA books list includes author Gerard t'Hooft, winner of the 1999 Nobel Prize in Physics and co-author Sir Timothy Berners-Lee, inventor of the World Wide Web and winner of the 2016 ACM A.M. Turing Award.

Palgrave Macmillan was one of the first publishers to offer an OA option for HSS and the first major publisher to offer CC BY for OA books. Palgrave Macmillan's notable OA titles include the first Wellcome Trust-funded OA monograph *Fungal Disease in Britain and the United States 1850-2000* as well as: *The Academic Book of the Future*, *Digital Kenya* and *European Citizenship After Brexit*.

Publishing an OA book with Springer Nature leads to 7 times more downloads, 50% more citations and 10 times more online mentions than publishing a book through the traditional closed route.

Different formats accepted

Springer Nature accepts complete monographs, edited volumes/collections, proceedings, protocols, and short-form books (SpringerBriefs and Palgrave Pivots). We also offer authors the option to publish individual chapters OA within otherwise non-OA edited collections ('hybrid' publishing).

Visibility and discoverability

OA books and chapters are made available immediately on publication via SpringerLink, Springer Nature's platform for all published content. The ePub and PDF files are both freely available to download and an HTML version is also available. To increase discoverability of our authors' work, OA books and chapters are also listed in the Directory of Open Access Books (DOAB) and, where appropriate, PubMed's NCBI Bookshelf.

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Bookmetrix

Bookmetrix is a unique platform that Springer Nature developed in partnership with Altmetric. It gives authors a comprehensive overview of the reach, usage and readership of their book or chapter by providing various book-level and chapter-level metrics all in one place.

Print availability

Print copies are available on demand for a significantly reduced price for those who wish to purchase the research in hard copy.

Appendices

This full report and additional summary tables showing download, citation and mention figures are available online at: springernature.com/the-oa-effect

Appendix 1: Definitions and limitations

Table E: Definitions	
Open access/OA	Open access (OA) publishing allows free distribution of and access to published articles and books. At Springer Nature open access books and articles are released via a Creative Commons Attribution International License (CC BY 4.0), which allows for unrestricted sharing and re-use providing the author is credited. Springer Nature OA authors retain copyright in their work.
Non-OA	'Non-OA' refers to books that are not open access. They may also be referred to as 'subscription' or 'closed' books.
Bookmetrix: Citations	Citations are sourced by Bookmetrix from CrossRef. Bookmetrix shows citation counts by year, as well as a listing of all books and articles that cite the book or chapter.
Bookmetrix: Online mentions	Online mentions are sourced by Bookmetrix from Altmetric, recording the total number of recorded online mentions over time, from a variety of different online sources such as policy documents, blogs, and mainstream and social media. At the book level, all online mentions that have been collected for the chapters and the book itself are aggregated.
SpringerLink: Downloads	Downloads are counted on a chapter level. If a reader downloads a full book, its chapter count is included in the COUNTER-compliant report.
Subject areas	Different disciplines were merged to create four subject groupings for ease of analysis: Business, economics & finance Engineering, mathematics & computer science Humanities, social sciences & law Medicine, biomedicine, life sciences & natural sciences
Book types: Monographs	Springer Nature does not officially define the format of a monograph, however it is generally understood to be a long-form publication (70-100,000 words) of a specialist scholarly work on a single subject or an aspect of a subject, usually by a single author.
Book types: Contributed volumes	Springer Nature does not officially define the format of a contributed volume (also known as edited volume/collection), however it is generally understood to be a collection of scholarly or scientific chapters written by different contributors/authors. The chapters in a contributed volume are original works.
Book types: SpringerBriefs	A SpringerBrief is a concise summary of cutting-edge research and practical applications across a wide spectrum of fields. Featuring compact volumes of 50 to 125 pages, the series covers a range of content from professional to academic.
Book types: Palgrave Pivots	The format of a Palgrave Pivot enables authors to publish at lengths of between 25,000 and 50,000 words which is longer than a journal article, but shorter than a monograph, taking advantage of a swift and flexible publication process to dramatically reduce publication times.

Limitations of this report

Palgrave Macmillan

Due to the Springer Nature merger in 2015, data for Palgrave Macmillan is limited.

- Palgrave Macmillan books were integrated into SpringerLink at the end of 2015. Palgrave Connect, the equivalent hosting platform to SpringerLink, counted downloads as full book downloads whereas SpringerLink counts chapter downloads. Therefore we were unable to merge the two sets of data.
- Online mentions for Palgrave Macmillan titles from Bookmetrix are only available from 2015 due to the migration. Citations are unaffected.

Criteria

The following types of books were excluded from this report:

Book type: Atlas, graduate/advanced undergraduate textbooks, handbooks, laboratory books, phd theses, proceedings, professional books, undergraduate textbooks. This report also excludes OA chapters within hybrid books.

Imprints: Apress

Publication dates: Palgrave Macmillan titles published before 2016 and Springer titles published before August 2012.

Languages: Any non-English language book.

Appendix 2: Methodology

We established criteria defining which books would be included in the report, and aimed to be as inclusive as possible so that as many books as possible could be analysed, for more robust results. Based on the criteria outlined in [Table F](#), a sample of 216 Springer Nature OA books and 17,124 non-OA books were included in the downloads analysis (see [Table A](#)) and 184 OA books and 14,357 non-OA books in the citations and mentions analysis (see [Table B](#)).

Only downloads from SpringerLink have been included in this analysis. Download statistics from other platforms where Springer Nature books are hosted have been excluded (e.g. Palgrave Connect, Amazon Kindle, Google Books, OAPEN, PubMed's NCBI Bookshelf, FWF eBook Library). Other websites such as The Internet Archive or institutional repositories have not been tracked. Therefore figures in this report only paint part of the picture.

Citations and mentions from before a book's publication date have been excluded from our analysis.

Outliers

Two books that fit our criteria for this report performed exceptionally well regarding chapter downloads. Their data was therefore removed from our analysis in order not to skew calculating averages. These were:

- Non-OA Springer contributed volume *Neural Networks: Tricks of the Trade - Lecture Notes* (Editors: Montavon, Grégoire, Orr, Geneviève, Müller, Klaus-Robert) in Computer Science (2012) with 1,579,680 chapter downloads.
- OA Springer contributed volume *Urbanization, Biodiversity and Ecosystem Services: Challenges and Opportunities* (Editors: Elmqvist, Th., Fragkias, M., Goodness, J., Güneralp, B., Marcotullio, P.J., McDonald, R.I., Parnell, S., Schwenius, M., Sendstad, M., Seto, K.C., Wilkinson, C), in Medicine, Biomedical, Mathematics, Life Sciences & Natural Sciences (2013) with 760,177 chapter downloads.

Three further books also performed very well when looking at citations and mentions. We therefore also excluded these titles from our analysis:

- Non-OA Springer contributed volume *Challenging Popular Myths of Sex, Gender and Biology* (Editor: Ah-King, Malin) in Medicine, Biomedical, Life Sciences & Natural Sciences (2013) with 1195 mentions.
- OA Springer monograph *Agricultural Implications of the Fukushima Nuclear Accident* (Editors: Nakanishi, Tomoko M., Tanoi, Keitaro) in Medicine, Biomedical, Life Sciences & Natural Sciences (2013) with 399 mentions.
- OA Springer contributed volume *Marine Anthropogenic Litter* (Editors: Bergmann, Melanie, Gutow, Lars, Klages, Michael) in Medicine, Biomedical, Life Sciences & Natural Sciences (2015) with 135 citations.

Table F: Criteria for books included

Imprints	Palgrave Macmillan, Springer (incl. Adis, Atlantis, Birkhäuser, Copernicus, Edizioni della Normale, Humana, Island, Physica, SensePublishers, Springer Gabler, Springer Spektrum, Springer Vieweg, Springer VS, TMC Asser)
Book types	Contributed volumes, monographs, SpringerBriefs, Palgrave Pivots. Born-OA titles only (a small number of Springer Nature titles were 'flipped' as part of an OAPEN pilot project)
Subject areas	All (science, technology, medicine, humanities & social sciences)
Publication dates	Palgrave Macmillan books published from January 2016 onwards* Springer books published from August 2012 onwards *As Palgrave Macmillan merged into Springer Nature along with Springer and other imprints in 2015, data before this period is not available for chapter downloads of Palgrave Macmillan titles.
Language	English only
Downloads	The majority of Palgrave Macmillan titles were uploaded to SpringerLink after publication, due to the merger. This caused an issue in identifying when the first month of publication was for Palgrave titles. In order to have the strongest analysis possible, we included only books that have at least one download in the first month. This criterion was applied consistently across both imprints and for both types of books (OA and non-OA).

Table G: Data sources

Chapter downloads	SpringerLink database
Citations, mentions	Bookmetrix database

Appendix 3: Top 10 downloaded books

The top 10 downloaded titles from this report's shortlist were all published by Springer, although this may not be representative as we were not able to include Palgrave Macmillan books published prior to 2016.

Table H: Top 10 downloaded books

Title	Publication Month	Subject area	Book format	Access	Total chapter downloads
<i>Opening Science: The Evolving Guide on How the Internet is Changing Research, Collaboration and Scholarly Publishing</i>	2013-12	Engineering	Monograph	OA	328,257
<i>The Handbook of Salutogenesis</i>	2016-09	Medicine	Contributed volume	OA	313,508
<i>Experimental Robotics: The 12th International Symposium on Experimental Robotics</i>	2013-08	Engineering	Monograph	Non-OA	308,924
<i>Neuromuscular Disorders in Clinical Practice</i>	2013-10	Medicine	Contributed volume	Non-OA	281,056
<i>Subseafloor Biosphere Linked to Hydrothermal Systems</i>	2015-01	Earth and Environmental Science	Monograph	OA	275,563
<i>The European Higher Education Area</i>	2015-10	Humanities, Social Sciences and Law	Contributed volume	OA	261,629
<i>Imaging Spine After Treatment: A Case-based Atlas</i>	2013-11	Medicine	Contributed volume	Non-OA	261,384
<i>Marine Anthropogenic Litter</i>	2015-06	Biomedical and Life Sciences	Contributed volume	OA	254,715
<i>Enabling Things to Talk: Designing IoT solutions with the IoT Architectural Reference Model</i>	2013-10	Computer Science	Monograph	OA	246,761
<i>The Impact of Food Bioactives on Health: in vitro and ex vivo models</i>	2015-04	Biomedical and Life Sciences	Contributed volume	OA	243,872

Appendix 4: Interviewed authors and funders



Author and funder profiles and methodology

Authors selected for interviews had all published an OA book with Springer Nature during the four-year period of 2012 to 2016, and represent a variety of academic disciplines. They include individual authors, co-authors, and editors of collective works. They had all previously published an average of four books; the most experienced one had published seven, whilst two authors had not published any books prior to their Springer Nature OA book. Most authors did not have any previous OA book publishing experience.

We interviewed five funders. Two are not OA funding bodies per se, but institutions or organisations that allocate part of their budgets to support OA publications (International Migration, Integration and Social Cohesion in Europe (IMISCOE), Simula Research Laboratory). These smaller funders focus on funding very specific projects relating to the organisation's main areas of interest. The three major OA funders we interviewed (the Wellcome Trust, the Austrian Science Fund (FWF) and the European Research Council (ERC)) cover a wide spectrum of disciplines in both the humanities and social sciences, and science, technology and medicine. It is important to keep in mind that the funders that were selected represent the leaders in the funding of OA books and their pro-OA approach cannot be seen as representative of all research funders.

Both groups were asked to comment on reasons for publishing OA and their experience of OA impact on books. Funders were additionally asked how they saw the future of OA books.

Table I: Authors who were interviewed

Author/Editor	Title/Subject area	Publication date	Imprint
Thomas Elmqvist	<i>Urbanization, Biodiversity and Ecosystem Services: Challenges and Opportunities. A Global Assessment</i>	2013	Springer
Sönke Bartling, Sascha Friesike	<i>Opening Science: The Evolving Guide on How the Internet is Changing Research, Collaboration and Scholarly Publishing</i>	2014	Springer
Michael Worboys	<i>Fungal Disease in Britain and the United States 1850-2000: Mycoses and Modernity</i>	2013	Palgrave Macmillan
Helen Louise Ackers	<i>Healthcare, Frugal Innovation, and Professional: A Cost-Benefit Analysis</i>	2017	Palgrave Macmillan
Marie Louise Seeberg, Elżbieta M. Goździak	<i>Contested Childhoods: Growing up in Migrancy. Migration, Governance, Identities</i>	2016	Springer
Shanti Jagannathan	<i>Skills Development for Inclusive and Sustainable Growth in Developing Asia-Pacific</i>	2013	Springer
Rebecca E. Lyons	<i>The Academic Book of the Future</i>	2016	Palgrave Macmillan
Anonymous	Philosophy	2014	Springer
Anonymous	History of Science	2015	Palgrave Macmillan
Anonymous	Economy-wide Country Studies	2017	Palgrave Macmillan
Anonymous	Computer Science	2016	Springer
Anonymous	Artificial Intelligence	2012	Springer

Table J: Funders who were interviewed

Funder	Person interviewed
IMISCOE (International Migration, Integration and Social Cohesion)	Anna Triandafyllidou Professor European University Institute
Simula Research Laboratory	Aslak Tveito CEO
Wellcome Trust	Hannah Hope Open Research Co-ordinator
FWF (Austrian Science Fund)	Falk Reckling Head of Department Strategy – Policy, Evaluation, Analysis
ERC (European Research Council)	Martin Stokhof Member of the Scientific Council

Appendix 5: Author questionnaire

Interview questions for authors

Author profile

1. How many books have you previously published in total?
2. Which publishers have you published with?
3. Which subject areas have you published in?
4. How many of those books were open access?
5. How was this specific OA book funded?

Reasons for publishing open access

6. Why did you decide to publish this book OA?
7. What were you hoping to achieve by making your book OA?
8. What was the most important aspect of open access for you?

Experience of OA impact

9. What has been the effect(s) of publishing this book OA?
10. Have any new opportunities (i.e. new research projects) presented themselves as a result of you publishing OA? Have any new opportunities emerged from outside of your immediate network?
11. Have any new collaborations emerged?
12. Have you noticed any difference in the impact of your OA book versus your other publications published in a traditional model?
13. Have you actively promoted your book - if so, how? Were the promotional activities different from those used for your traditional books?
14. Has your perception of open access changed since you published the OA book and if so, how?

Appendix 6: Funder questionnaire

Interview questions for funders

Funder profile

1. How many OA books have you funded so far overall, including Springer Nature titles?
2. Which subject areas did the published OA books cover?
3. Which other publishers have you cooperated with?
4. Do you also provide funding for non-OA books?

Reasons for funding open access books

5. Why do you fund OA books?
6. What do you hope to achieve by funding OA books?
7. What is the most important aspect of open access for your funding organization?

Experience of OA impact

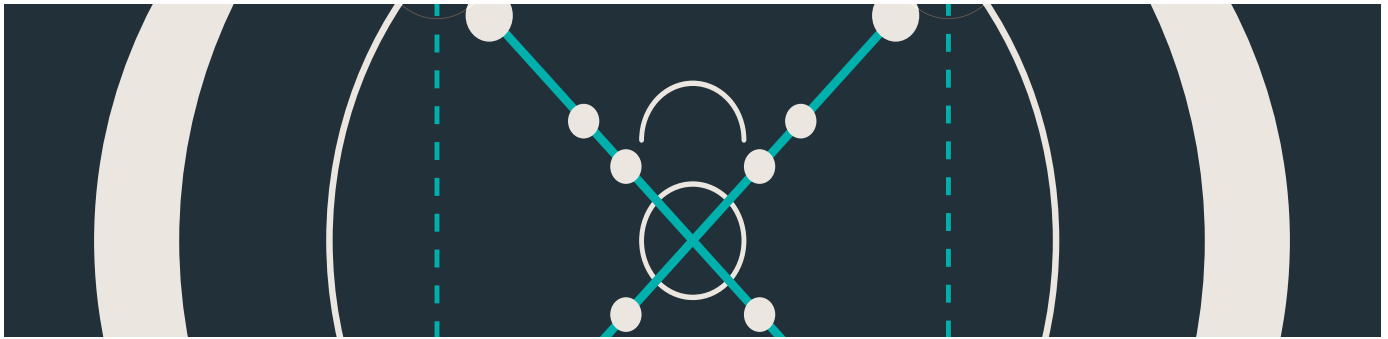
8. What has been the effect(s) of publishing books OA under your funding?
9. Have any new opportunities/collaborations/partnerships presented themselves as a result of OA books projects funded by your organization?
10. Have you noticed any difference in the impact of publishing a traditional book versus an OA book?
11. Have you actively promoted OA books you provided funds for - if so, how? Were the promotional activities different from those used for traditional books?

Future of OA books

12. To what extent do you agree or disagree with the statement: "I would like to see a transition to a system in which all scholarly books (monographs, edited collections) are made accessible via an open access model"?

Appendix 7: References

- ¹ Jubb, M. (June 2017). *Academic Books and their Future*. p.177. Retrieved October 30, 2017, from https://academicbookfuture.files.wordpress.com/2017/06/academic-books-and-their-futures_jubb1.pdf
- ² Suber, P. (2012). *Open Access*. Preface + pp.15,16. Retrieved October 30, 2017, from https://mitpress.mit.edu/sites/default/files/9780262517638_Open_Access_PDF_Version.pdf
- ³ Collins, E., Milloy, C. (January 2016). *OAPEN-UK final report: A five-year study into open access monograph publishing in the humanities and social sciences*. p.21. Retrieved September 27, 2017, from <http://oapen-uk.jiscebooks.org/files/2016/01/OAPEN-UK-final-report.pdf>
- ⁴ Ayris, P., Speicher, L. (2016). *UCL Press: the UK's 'first fully open access' university press*. Retrieved September 27, 2017, from <https://insights.uksg.org/articles/10.1629/uksg.257/>
- ⁵ Research Consulting/OpenAIRE (February 2017). *Towards a competitive and sustainable open access publishing market in Europe*. p.3. Retrieved from <https://blogs.openaire.eu/wp-content/uploads/2017/03/OA-market-report-28Final-13-March-201729-1.pdf>
- ⁶ Simba Information (Oct 2016). *Open Access Book Publishing 2016-2020 Report*. pp.8,9. Retrieved September 27, 2017, from <https://www.simbainformation.com/Open-Access-Book-10410716/>
- ⁷ Wagner, A.B. (December 2016). *Citation Impact Advantages of Open Access (OA) Articles over non-OA Articles*. Retrieved September 27, 2017, from <http://www.acsu.buffalo.edu/~abwagner/>
- ⁸ Wang, X, Liu, C, Mao, Z, Fang, Z. (2015). *The open access advantage considering citation, article usage and social media attention*. Retrieved October 4, 2017, from <https://link.springer.com/article/10.1007/s11192-015-1547-0>
- ⁹ Crossick, G. (January 2015). *Monographs and Open Access: A report to HEFCE*. Section 3.3., point 41. Retrieved September 27, 2017, from <http://www.hefce.ac.uk/pubs/rereports/year/2015/monographs/>
- ¹⁰ Montgomery, L. (2017). *Getting the best out of data for small monograph presses: A case study of UCL Press*. Retrieved 27 September, 2017, from https://www.academia.edu/34125677/Getting_the_best_out_of_data_for_small_monograph_presses_A_case_study_of_UCL_press_1
- ¹¹ *Latest Usage Statistics for KU Collections* (2017). Retrieved September 27, 2017, from <http://knowledgeunlatched.org/ku-research/usage-statistics/>
- ¹² Montgomery, L., Saunders N., Pinter, F., Ozaygen A. (Oct 2017). *Exploring usage of open access books via the JSTOR platform*. Retrieved October 30, 2017, from http://www.kuresearch.org/PDF/jstor_report.pdf
- ¹³ Clark, J. (2017). *Altmetrics for books: tracking engagement and driving discovery*. Retrieved September 27, 2017, from <https://www.altmetric.com/blog/altmetrics-for-books-tracking-engagement-and-driving-discovery/>
- ¹⁴ Simba Information (Sept 2017). *Global Scientific & Technical Publishing 2017-2021*. Retrieved October 30, 2017, from <https://www.simbainformation.com/Global-Scientific-Technical-10845051/>
- ¹⁵ Ayris, P. (March 2011). *Open Access: In Support of Research*. Retrieved September 27, 2017, from http://crc.nottingham.ac.uk/projects/rcs/OA-In_Support_of_Research.pdf



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Corrigendum

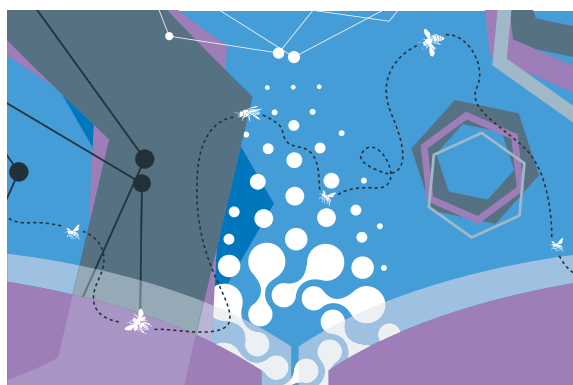
The OA effect: How does open access affect the usage of scholarly books?

Published online: 7 November 2017; updated: 16 January 2018

In the original version of this report on page 10 in the accompanying paragraph next to **Chart 5: Medicine, biomedicine, life sciences & natural**, the download figures were incorrect. The correct figures are as below:

For medicine, biomedicine, life sciences and natural sciences, OA books are downloaded on average 7 times more than non-OA books, with an average of 41,076 chapter downloads for OA books against 5,820 for non-OA in the first year of a book's life. These OA books perform slightly better than the average number of downloads for OA books across all subject areas. Non-OA books in these subject areas are also downloaded slightly more than the overall average.

This error has now been corrected in the PDF version of the report.



Jean-Claude Bradley (1969 – 2014)

Jean-Claude Bradley was a chemist and passionate proponent of open science. Following an early career in patent driven nanotechnology, Bradley came to believe that the work he was doing wasn't benefitting mankind in the way he had hoped. At Drexel University, working on antimalarials, he coined the term 'Open Notebook Science' for an approach which aimed to make the details and raw scientific data of every experiment done in the lab freely available within hours of production. Bradley was founding Editor-in-Chief of Chemistry Central Journal and a founding Editor of the Journal of Cheminformatics. In 2007 he was awarded a Blue Obelisk award for achievements in promoting open data, open source and open standards.

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