



Expanded reach on a trusted platform

An update on ScienceDirect's
content syndication pilot

ScienceDirect®

Contents

1. Foreword	3
2. A recap of the pilot	4
3. Executive summary	5
4. What we've learnt from the research community	7
• Readers and Authors	7
• Clear feedback from Librarians	8
5. Why ScienceDirect: Strong reach and engagement	9
6. Increased global discoverability and content usage	10
7. Feedback from our partners	11
8. What's next?	12
9. Conclusions	13
10. Appendices	14

1 Foreword



Rose L'Huillier, Senior Vice President,
Researcher Products, Elsevier

It has been a year since ScienceDirect launched its pilot enabling researchers to search and discover Organic Chemistry and Transportation articles from five publishing partners alongside content from Elsevier journals. This is only the start of our journey; it has been an exciting year and we've learnt a lot.

I must thank our partners - ACS, IUCr Journals, Royal Society of Chemistry, Taylor and Francis, and Wiley - who have provided content for the pilot. We have worked closely with them over the past year to help ensure we are supporting their authors' needs. Thanks also to the many librarians and individual researchers that have provided their invaluable feedback and input on the project.

We believe scientific publishers have a joint responsibility to act as the guardians of trust in science, to enable continuous scientific advances for the benefit of humanity. It is important for publishers to collaborate and build systems of discovery and dissemination that promote and protect robust, verified, trustworthy knowledge. It is clearer than ever that we need better such systems, and the aim of this pilot is to explore new ways to help readers have easier access to the content they need on a platform they can trust; help authors reach more of the readers they want by having their publications and data presented on a highly visible, trusted platform that is rich in discovery and navigation aids; ensure that librarians continue to have the necessary awareness of and trust in how their patrons are accessing content in order to provide the highest quality and most relevant resources for the research communities they serve.

In order to achieve this, the pilot set out to address two key pieces of feedback from researchers: Literature reviews are very time-intensive and staying up to date with the latest research can be a real challenge, how can you make this process more efficient and help save my time? Additionally for authors, how can you make my research more visible, discoverable, and easier to access for others?

We feel ScienceDirect is in a strong position to do this: Over 19 million researchers worldwide regularly use our platform, regarding it as a trusted and authoritative source of peer-reviewed knowledge. Best-in-class technology and accessibility standards make it a sustainable, reliable and robust platform for the discovery and dissemination of knowledge.

While the pilot is still very new, we have produced this report as part of our commitment to keeping the research community updated on our progress. We have gathered data on how the content included in the pilot has been discovered and consumed, and gathered insights into how the collaboration is perceived by authors, readers and librarians. We also explore how the pilot will evolve using new technologies like GetFTR, Seamless Access and usage reporting functionalities. We hope you find the results interesting.

The pilot will continue and be expanded beyond its initial scope of organic chemistry and transportation content to cover additional research topics. American Society for Microbiology (ASM) and Brill will join the pilot and their research will be included on ScienceDirect in Spring/ Summer 2023, content from 36 journals will be added from both publishers. If your organization is interested in taking part, or to simply find out more, please do contact me: <https://nl.linkedin.com/in/roseolthof>

Rose L'Huillier,
Senior Vice President, Researcher Products,
Elsevier.

2 A recap of the pilot

In January 2022, ScienceDirect announced a joint pilot with the American Chemical Society (ACS), the Royal Society of Chemistry (RSC), Taylor & Francis, and Wiley to make selected Organic Chemistry and Transportation articles from these publishers discoverable on its platform alongside Elsevier content. IUCr Journals, published by the International Union of Crystallography, joined the initiative in August 2022 and Brill recently joined the pilot in April 2023.

The goals of the pilot are simple yet significant:

- For authors: Enable the broadest possible reach of authors' published work by bringing it to the 19 million researchers that visit ScienceDirect every month worldwide.
- For readers: Provide the most efficient discovery and delivery of essential research articles through inclusion in ScienceDirect search, recommendations, references, and in web search results.
- For librarians: Help maximize library investments by ensuring the widest dissemination of their authors' work and providing easiest access to content for entitled users in more places.
- For publishers and societies: Support continuous scientific advances through increased global reach and discoverability of relevant content on a trusted and authoritative platform.

During the pilot, researchers have been able to discover more than 100,000 articles from 38 industry-leading journals from the participating publishers, through search, recommendations and by browsing content. If an article is Open Access, the full text is available immediately in HTML. For all Open Access content and subscription content to which the user is entitled, researchers see a PDF button on ScienceDirect that indicates they have full text access, which takes them to the PDF hosted on the publisher website.

The immediate resolution of full text entitlement is a key aspect of the pilot. Entitled access is determined using GetFTR, a free-to-use solution for platforms like ScienceDirect that enables real-time entitlement checks for any article. The majority of research articles in the pilot are subscription-based. With GetFTR enabled, researchers can more easily access content their institution has made available to them when they are both on and off campus. It provides the capability for a site like ScienceDirect to streamline access to content, either with one click when a user is already authenticated, or by taking them directly to their institution sign-in screen.



3 Executive summary

“Scientific publishing should be about bringing research to the broadest audience possible.”
Librarian

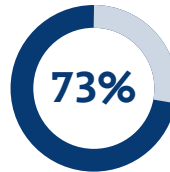
To understand the potential impact of syndicating content from multiple publishers on ScienceDirect and the benefits this can deliver to authors, researchers and librarians, we have analyzed quantitative data, including; path of discovery; country of origin; customer institution type; total aggregate discoverability; entitled usage; click-throughs to PDFs hosted by the original publisher. We have also carried out qualitative research, including in-person interviews and surveys of hundreds of authors, researchers and librarians.

The initial results point to authors and publishers benefiting from increased readership of research included in the pilot and better global discoverability, and show that readers value having comprehensive content better integrated into their workflows from a highly trusted and authoritative source of scientific information like ScienceDirect.

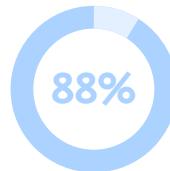
Key data points:



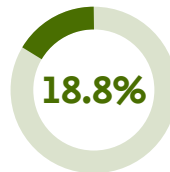
90% of ScienceDirect users think the pilot is a good idea.



73% of authors are either positive or very positive about their articles being shared in this way (20% are neutral).



88% of ScienceDirect users believe collaborations like this among publishers and discovery platforms are beneficial to researchers.



Individual journals included in the pilot saw increases of up to 18.8% in total reach.



Authors appreciate and expect publishers to do everything they can to maximize the global discoverability of their published work:

- 82% would choose to publish with a journal or publisher that was taking concrete steps to maximize the global discoverability and reach of their research.
- 91% believe ensuring global discoverability of research content is critically important.
- When it comes to the online version of their paper, the most important factor for authors is ensuring that the website where their paper is found is seen as trustworthy and authoritative, followed by ensuring that everyone who has access to their article can access the full text immediately.

Readers want comprehensive discovery and fewer steps between discovery and delivery:

- Readers value immediate availability of entitled full text above almost everything.
- Almost as important as immediate access, readers believe recommendations are an important part of the discovery process, and they want and expect articles to be recommended from all available high-quality sources.

- With the implementation of GetFTR, entitled users viewing Organic Chemistry content from other publishers included in the pilot have the same likelihood of downloading the PDF of partner publisher articles as they do for native Elsevier Organic Chemistry content.

Publishers and societies benefit from increased usage and global discoverability for the research they publish, on a trusted and authoritative platform:

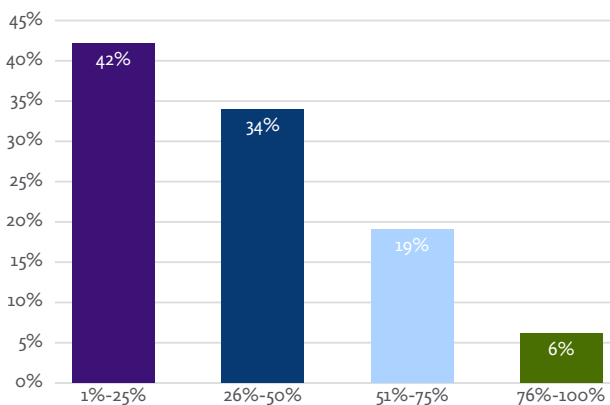
- The pilot resulted in an increase in discoverability: Individual journals including content in the pilot on ScienceDirect saw up to 7.9% increase in potential full text usage (visits to entitled articles) and an 18.8% increase in reach (all visits to content).
- Most visits to content in the pilot are coming from native ScienceDirect users (for example through search on the platform) – 3x more than visits to Elsevier content.



4 What we've learned from the research community

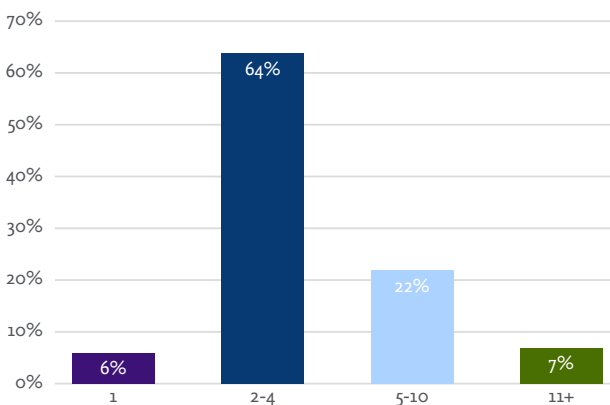
We carried out a survey of ScienceDirect users to get their attitudes and opinions on the research discovery process. Unsurprisingly, we know that readers are concerned that they spend too long searching for scientific literature, with over a quarter spending over 50% of their time searching for relevant research.

1) What percentage of time do you typically spend searching for scientific literature related to your work?



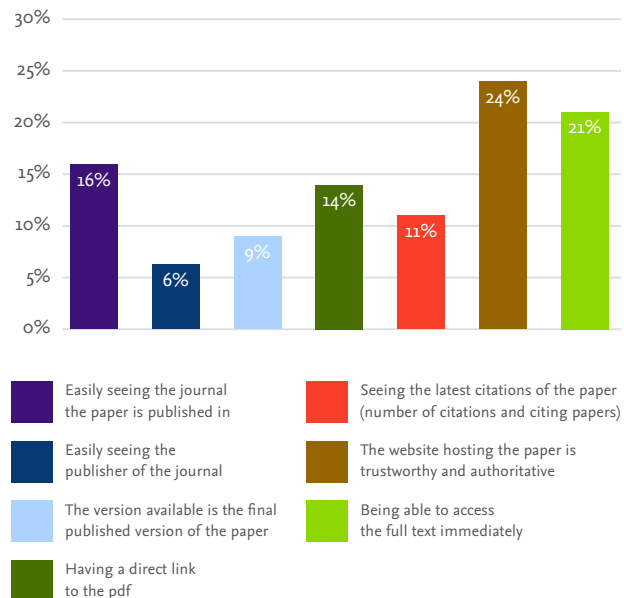
Researchers have to search a wide variety of platforms before they feel like they have completed a comprehensive literature search.

2) How many scientific literature platforms do you normally search before you feel like you have completed a comprehensive search?



When searching online, being able to access the content immediately from a trusted and authoritative site is an important factor, alongside immediate access to the full text, having links to the PDF, and easily seeing the journal the paper is published in.

3) Which of the following aspects are most important to you as a reader when accessing a paper online?





Librarians think content syndication has clear benefits

“It would just be really helpful to have [all the literature] together in one place where you could know this is a trusted place where you can get all this information.”

Librarian

We have gathered feedback from librarians over the past year to better understand the value of content syndication for them. They were clear on the benefits to both readers and authors:

“Decrease the steps from discovery to delivery.”

“Researchers have found the move to working from home difficult we need to make the journey from search to find as short as possible.”

“Making content more discoverable outside of ‘the West’ is very important.”

Librarians did not identify any downsides or perceived risks to the pilot. There was strong support for efficient entitlement checks and usage reporting. In short librarians want existing mechanisms for determining user affiliation and entitlements to be used, and usage reported accurately.

“Our researchers just want access but there is an element of authority that needs to come into play if we want the usage data to be truly reliable. There needs to be another layer before I would feel like I could trust that usage is actually coming from our researchers. I think the process that you describe [GetFTR + comprehensive usage reporting), I would trust that more.”

Librarian

We will continue to consult with librarians as the pilot evolves. The value of the pilot for librarians - extending the value of the institutional subscription by allowing library paid content to appear in innovative new services – has been well received.

“Every extra step between the user discovering a desired item and the library delivering it is a potential stumbling block. In reviewing the transaction logs, so many times we would see that a user got within a step or two of retrieving the content it appeared they were seeking but then took a wrong turn or encountered an unexpected barrier. If a link to full-text is in the full record, the discovery system should present that link prominently in the initial display. Discovery should be delivery.”

Lisa Janicke Hinchliffe, Scholarly Kitchen.

[Discovery Should be Delivery: User-Centric Principles for Discovery as a Service](#)



5 Why ScienceDirect: Strong reach and engagement

ScienceDirect has grown to be one of the largest and most trusted sources of scientific literature in the world:

- Over 650,000 searchers per day on the platform.
- Over 75 articles views per second.
- Over 110 million Monthly Visits.
- Ranked #1 most accessible homepage by the 2023 WebAIM Top Million study, with zero accessibility errors.

6 Increased global discoverability and content usage

“I believe in global discoverability. When I get a publisher who will make my ideas known globally, I will hurriedly continue to publish with them. Secondly, if I am updated on the number of people who read and make reference to my publication, it boosts my moral to work even harder.”

Researcher

There is a fragmented landscape for research discoverability, with hundreds of publishers and third-party platforms providing access to research. How people search and discover research also differs significantly based on where you are in the world.

A higher percentage of researchers visiting pilot content come from outside mature markets such as the Western Europe and the United States. Initial results show ScienceDirect is particularly helping to drive global discoverability of research in China, India, Japan and Brazil.

At the individual journal level, early results are encouraging and point to increased reach and usage for content included in the pilot on ScienceDirect:

For Organic Chemistry journals:

- 0.07% to 3.5% - range increase in usage of content included in the pilot.
- 0.01% to 10.7% - range increase in the reach of content included in the pilot.

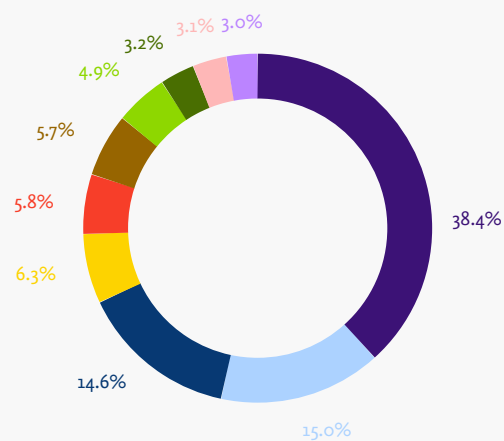
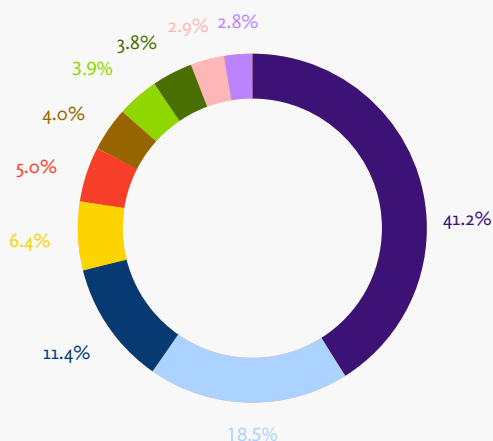
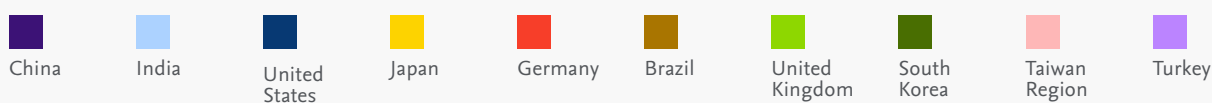
For Transportation journals:

- 2.1% to 7.9% - range increase in usage of content included in the pilot.
- 4.1% to 18.8% - range increase in the reach of content included in the pilot.

Reach increase includes all visits to content in the pilot on ScienceDirect, including both full text and abstracts. Usage is considered to be visits to Open Access articles or to subscribed access articles for which users are entitled to the full text.

Usage of partner organic chemistry content by country vs. Elsevier organic chemistry content

Top 10 Countries:





7 Feedback from our partners

“This pilot brings together each publisher’s unique and high impact content, together with ScienceDirect’s capabilities in research dissemination to its millions of global users. We want to understand what the benefits are to our readers and customers of providing content in this way.”

Dr Emma Wilson, Publishing Director of the Royal Society of Chemistry.

There are four consistent pieces of feedback we hear from our partners on why they choose to take part in the pilot:

Enhanced author experience

Researchers perceive their publisher as helping them to connect their work with a broader audience.

Better Data

More complete article level metrics and new insights into readership.

Strengthen journals through increased usage and submissions

Improved discovery leads directly to increased usage and citation, and eventual submissions..

Enhanced authors experience

Researchers perceive their publisher as helping them to connect with their work with a broader audience. Publishers are frequently asked by authors “find users who we wouldn’t reach otherwise.”

“At the American Chemical Society, we are always looking for new ways to support our readers and researchers. This innovative pilot helps to ensure we’re providing additional pathways to propel the global scientific community. We look forward to working with our readers as we continue to make enhancements and explore new opportunities to best meet their needs.”

Sarah Tegen, PhD, Senior Vice President, Journals Publishing Group at ACS Publications.



8 What's next?

While there could be initial uncertainty among librarians and readers around content syndication arrangements like this one, the benefits to readers' discovery and discoverability of authors' published content from syndication to sites like ScienceDirect seem clear. Some readers and librarians had questions such as: How will I know what I have access to? Does this mean that I can purchase other publishers' content via ScienceDirect? How can I be sure that the usage happening on ScienceDirect is from users at my institution? We believe that these concerns can be addressed through focus on clear user experience design and usage of services like GetFTR, and ensuring that all resulting activity is measured and communicated simply and transparently. Overall, we believe that the benefits for readers - and by extension authors and librarians - will far outweigh any other concerns.

GetFTR is a viable way to check and confirm entitlements, serving the needs of readers to get immediate access to full text and librarians to continue to trust in accurate authentication of their users. Starting in 2021, ScienceDirect integrated GetFTR into the reference links of Elsevier articles, providing pre-qualified PDF links to articles hosted on other publisher websites. The pilot has expanded ScienceDirect's use of GetFTR to provide those same links for individual articles hosted on the platform as part of the pilot. Both of these integrations prove that not only is GetFTR scalable enough to support full integration into the world's largest scientific publisher website, but having a pre-qualified PDF link is also a clear benefit to users that matches the native entitlement system used on ScienceDirect for Elsevier content in terms of click through rates and engagement.

Using GetFTR enables comprehensive usage reporting that libraries can trust. Interviews with librarians make clear the complicated interplay of utility, authentication, access and impact measurement concerns that have shaped the evolution of online delivery of scientific book and journal content over the past 25 years. Publishers have evolved systems that librarians can trust to ensure maximum legitimate access for as many entitled users as possible, with the resulting usage reported in coherent and consistent ways that enable decision making and productive negotiation with publishers as well as reporting of the library's impact within the institution. By basing new federated solutions on existing trusted systems and infrastructure, GetFTR provides a way of enabling the benefits of syndication of the original published content by extending access to entitled institutional users while maintaining the ability to measure and report on the impact of library investments in a simple, trustworthy and sustainable way that integrates seamlessly into existing library practices.



9 Conclusions

The aim of the pilot is to drive maximum reach and discoverability of authors' content; enable the most efficient discovery and delivery of full text for readers; and support achieving the best possible ROI for the librarians who facilitate dissemination and discovery for both authors and readers. It is clear that readers, authors and librarians see this pilot as positively enabling discoverability and dissemination of authors' published work. They understand how this evolution of ScienceDirect helps to ensure the widest possible global reach of research articles, in a measurable way and on a trusted platform.

Participating publisher journals are starting to see increased visits and usage of content that is included on ScienceDirect. There is a higher increase in researchers visiting partner pilot content on ScienceDirect when compared to the increase in researchers reading the Version of Record of the same article. It is clear the pilot is also supporting the global discoverability of research findings.

The pilot only includes recent content from major established publishers that already have advanced, highly established and well-known platforms. There were gains in discoverability of pilot content but, consistent with this wider context, not in considerable numbers. Content that is less discoverable – older content, content from publishers or journals with less well-established platforms – could see even bigger gains.

Any gains in discoverability of content can have big benefits, especially for authors. The nature of cutting-edge research articles is that much of what is published is only relevant to a fairly select group of people –improving the ability of even a small additional number of people to find that article delivers outsized benefits to both the author and the reader. We believe, and authors and readers seem to agree, that publishers need to be aggressive about ensuring that the content they publish on behalf of authors has the greatest chance to reach all interested readers, and arrangements like this can be an important tool for publishers to do that.

Feedback from librarians makes clear the complicated nature of authentication, access and impact measurement. Librarians want publishers and discovery platforms to reduce the number of steps readers take to access content, discovering research and then being able to read it should be unified. This needs to be done in a way that is easy for librarians to assess.

The combination of unique and high impact content from some of the world's leading publishers, together with ScienceDirect's best-in-class technology and capabilities in research dissemination to its millions of global users, has been initially well received. We will carry on the conversations with the research community and our partners, and continue to update on our progress.

It has been a little over 12 months since the pilot was launched, there's still a lot to learn and do. We openly invite other publishers and societies that are interested in joining the pilot, or who simply want to find out more, to get in contact. We are committed to being agile, open and transparent, to help academic and government communities advance knowledge for a better world.

10 Appendices

About the data

All data was taken from 1 February 2022 to 1 March 2023.

A variety of sources were used, including ScienceDirect platform and partner data. Market research with authors and researchers, and in-person interviews with librarians, were also carried out.