Morressier

The ambiguous role of integrated infrastructure in the scholarly publishing industry

Discover why effective research publishing thrives on infrastructure and innovation

As the science publishing industry continues to evolve, some barriers and challenges impede the effective dissemination of research. This is why digital infrastructure remains the key to the future of publishing. Reconfiguring the infrastructural norms and adopting innovative technologies is vital for the future of research publishing.

Introduction

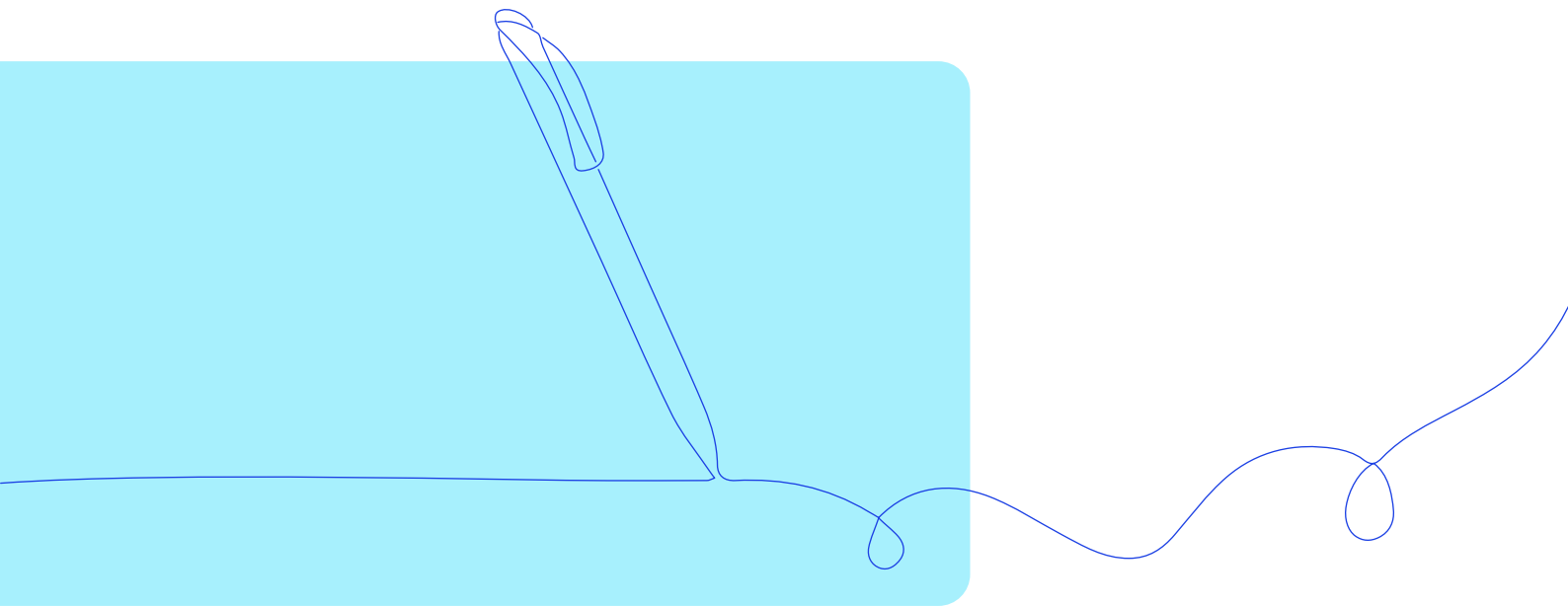
Why is digital transformation crucial to progress in publishing?

Publishing is the most established and reliable channel for science to reach audiences on the global stage. However, scholarly publishers must innovate and discover better ways to serve researchers. Whether it means adapting their processes, innovating content distribution formats, or adding value to researchers beyond publishing itself, more needs to be done to help advance scientific discovery.

Infrastructure in this context means the use of digital technology for effective documentation, distribution, and usage of scientific research data. Research in this digital age requires innovative infrastructure in the form of virtual libraries, databases, seamless in-platform workflows and user insights, and communication and networking tools. Embracing digital infrastructure is key to improving publishing processes and meeting the needs of today's research content readers.

The industry needs effective and automated workflows, transparent peer review systems, and tools that enable the distribution of various content formats, allowing publishers to successfully navigate the content distribution journey. To make this possible, publishers must adopt new-generation digital infrastructure to initiate systemic change that will also help diversify and improve revenue generation.

Integrating technological infrastructure into research publishing can be a force for positive transformation. We will highlight the powerful connection between digital infrastructure and the research lifecycle and how the industry can harness it for the progress of science.



Key takeaways

A restructured approach to integration is pivotal to industry growth.

1) **Publishing infrastructure benefits publishers, researchers, and research content users.** Scholarly publishing has evolved over time, but one thing that remains the same is the need to disseminate research content to the scholarly community and the wider public while preserving it for the future. Integrating publish infrastructure can make these goals a reality by:
   - **Facilitating research inquiry**
   - **Improving communication and collaboration**
   - **Accelerating discoveries and creating new knowledge**

2) **Integrated infrastructure can enable the industry to understand research publishing models and find answers to ways forward.** The traditional norm of publishing revenue generation through subscription fees, licensed content, and reprint fees is being challenged. Additionally, fee-based, free-access, and open-access models are constantly the topic of scrutiny. Digital infrastructure, which provides diversified revenue opportunities and sustainable alternatives, could be the answer.

3) **Technological tools can make a difference in helping the industry save money and improve efficiency in workflows and data usage.** Digital infrastructure cannot replace human inputs in peer review, but it can help fill the gaps, improve efficiency and enhance publishers' ability to review research content at scale and handle the ever-growing number of submissions. This will help accelerate the research lifecycle and enable publishers to use data insights to improve their publishing processes.

3) **Barriers to scholarly communication and collaboration can be surmounted when innovative research infrastructure is introduced across the research lifecycle.** Interdisciplinary collaboration and effective communication are essential pieces of the scientific publishing process. Investing in publishing infrastructure is critical to remain competitive and useful in the industry while helping remove the financial, language, and location barriers that prevent the effective dissemination of scholarly research.

Let's discover how these insights can **shape** the future of scholarly publishing.

The role of infrastructure in the evolving dynamics of scholarly publishing

Infrastructure for improving publishing process

Innovation in publishing processes can help the industry meet the needs of researchers and world learners in a bid to accelerate discoveries. The vision for a thriving industry can be achieved if we shift the focus to address the infrastructural needs of publishing processes.

From solving integrity issues and improving transparency in peer review to integrating early-stage research and addressing the concerns of reproducibility of research, infrastructure is the missing link.

Ensuring integrity and transparency

The research community and the public trust and depend on publishers to validate the research content they consume. On the other hand, researchers need to see better transparency to ensure there is no bias in the review process. Adopting digital infrastructure that makes integrity checks seamless and the process of evaluating research very open and transparent is vital to meeting the needs of stakeholders. Infrastructure can provide externally visible and standardized tools for checking plagiarism, manipulation of results, fabrication, and other research integrity issues.

The role of infrastructure in the evolving dynamics of scholarly publishing

Efficiency in publishing process

Lack of efficiency in peer review and other necessary publishing processes means that research will take more time to reach the mainstream and achieve its purpose.
There has been a steady, significant growth in the amount of peer-reviewed articles published yearly. However, innovative publishing infrastructure can be vital to speeding up research.

The STM association estimates that more than **2.5 million** articles are published by **28,000** peer-reviewed journals yearly.

Publishers can start by employing tools and approaches that improve efficiency in processing submissions and handling previously rejected papers to prevent wasting time and resources. Documenting and using data on errors previously found during the review can help prevent the need to start from scratch when research papers are resubmitted, thereby speeding up the process.

Integrating conference proceedings as part of the research lifecycle

Academic conferences present opportunities for researchers to share their ideas and gain insights from others in their field. When carefully documented, these conference proceedings can serve as historical data that shows the progress from early-stage research to new discovery. Digital publishing infrastructure is pivotal to integrating these proceedings into the research lifecycle for a better understanding of the progress of science.

The role of infrastructure in the evolving dynamics of scholarly publishing

Infrastructure for innovative scholarly communication and adding value beyond publishing

Effective scholarly communication requires innovative infrastructure that powers research sharing, collaboration, and public engagement with scientific endeavors. As publishers struggle to handle the ever-increasing wave of new research content, researchers are also faced with the need for enhanced collaboration and communication that will help them produce accurate findings that will impact the scientific community. Other important scholarly communication factors that need infrastructure include; making content accessible in various formats and bringing science to the public through innovative open-access models that are beneficial to all stakeholders.

Visibility and accessibility of research

Infrastructure can play a vital role in helping the industry become more efficient and understand the research-driven advances affecting the way science is reviewed, shared, and used.

Visibility across end-to-end publishing is key to transformation. Being able to close gaps, minimize error, and improve efficiency are key drivers in promoting an impactful transformation for infrastructure. Status quo is not sustainable – we are in "an age of acceleration," and the time for actionable change is now (McKinley).

Trish Hyde, Chief Sales Officer, Morressier

The role of infrastructure in the evolving dynamics of scholarly publishing

Improved research recognition and researcher reputations

Infrastructure plays an important role in ensuring the success of publications; it is a prerequisite for research performance. Publishers can add value to researchers by integrating digital facilities and innovative distribution approaches. This will help ensure their work is easily found and cited; thereby increasing recognition for the content and the researchers.

Reaching broader audiences through innovative approaches

The publishing industry needs a cultural shift to curtail the escalating cost of accessing research content. Virtual libraries make research available to world learners, but when these contents are locked up behind paywalls, the aim of reaching broader audiences becomes defeated. There is a need to review models that limit the access and use of peer-reviewed articles that could become the turning points of scientific discoveries.

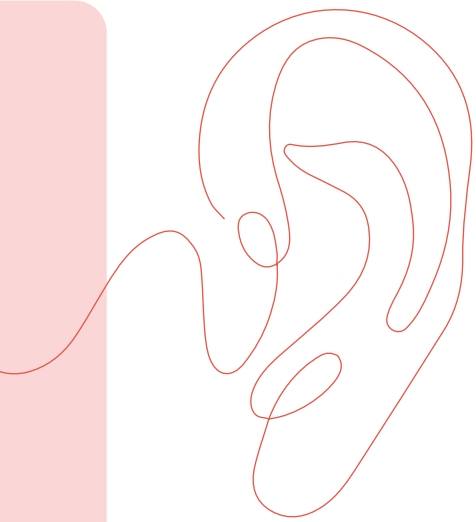
The risks associated with lack of publishing infrastructure

The publishing industry is advancing so fast that stakeholders who do not integrate innovative infrastructure may be left out. The research community and world learners rely on virtual libraries to stay informed on new findings and discoveries. They also trust publishers to make sure the content they consume is accurate, factual, and represents the highest standards of integrity.

Digital infrastructure benefits the public, researchers, and publishers alike. Without integrating publishing innovations, the industry would be at risk of stagnated growth, inefficient publishing processes, poor science communication, and inability to add value to researchers beyond publishing. To add to that, the reader and author's data insights that digital transformation can help publishers harness will also be lost or underutilized.

Frequent retractions that result from ineffective review processes can cost publishers and researchers. Furthermore, poor peer review workflows would see integrity issues slip through the cracks and potentially damage the publisher's reputation. These could lead to a loss of readership and members who no longer trust the publisher due to the poor integrity of their publications.

Challenges of integrity, peer review, and inefficiency of research communication



The scholarly community and the general public rely on publishers to ensure accessibility and quality of research. But integrity challenges such as tortured phrasing, plagiarism and salami slicing, and ineffective review and communication make this goal even harder to reach. As publishers battle to ensure they publish quality content and avoid the cost of retractions, digital infrastructure can create a seismic shift that transforms the publishing process for good.

Ways forward for the future of scholarly publishing

Integrating digital infrastructure means rethinking the traditional process of publishing. However, as the industry continues to evolve, issues such as open access, the complexity of peer review, and research fraud continue to impede the effective dissemination of science to global audiences. We believe digital publishing infrastructure is fundamental to solving these problems and creating opportunities for research publishers to help accelerate discovery.

The dramatic transformations made possible by integrated infrastructures can offer tangible benefits to everyone involved at every stage of the research lifecycle. It can also help speed up the delivery and quality of research content shared. Additionally, innovative infrastructure can act as the intersection between open access models, thereby making research available to global audiences, including researchers in developing regions.

Publishers also need to start utilizing customer/user data that is at their disposal to develop a cohesive approach to managing their publishing process. Research has an important role to play in world advancement, and improved infrastructure can help stakeholders steer the course.

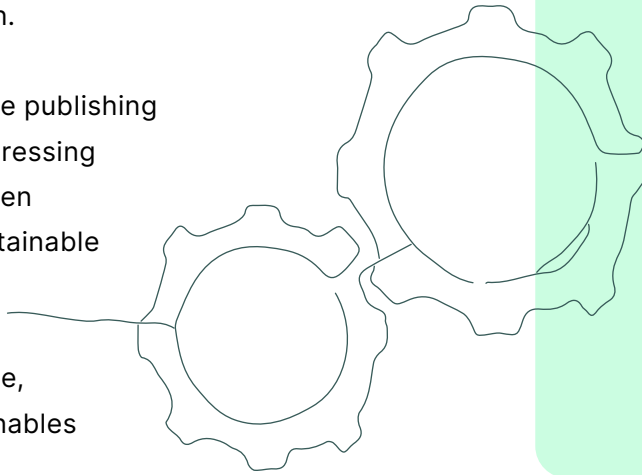
Ways forward for the future of scholarly publishing

Impacts of the changing role of publishing infrastructure

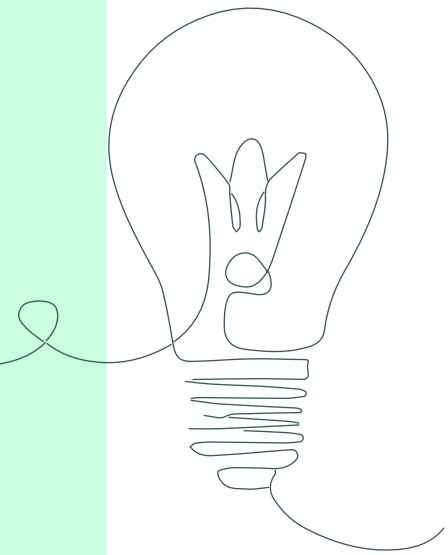
Publishing infrastructure is evolving from ineffective manual workflows that are slow, unreliable and lack the ability to accurately qualify research.

Integrated infrastructure will potentially affect every aspect of the publishing industry, from ensuring diversity and inclusion in research to addressing research integrity and open access concerns. Infrastructure-driven solutions to these challenges are important prerequisites for sustainable growth in the industry.

Recognizing the fact that the publishing industry is a dynamic one, stakeholders need to support and integrate infrastructure that enables scholars and publishers to stay ahead of the curve.



Morressier's vision, solutions, and innovations



Morressier is committed to supporting the future of the publishing industry by providing tools and infrastructure that enhance the full publishing process. Our fully integrated platform offers end-to-end workflows that seamlessly support all stages of the research lifecycle. From publishing conference proceedings and providing an integrity checker dashboard to infrastructural integrations that help validate research and ensure the quality of research. Our author ID verification features also help ensure transparency in peer review while creating opportunities for collaboration and improved recognition. The value of an integrated platform also means organizations and publishers have a holistic view of user data and insights to forecast trends and emerging topics that will accelerate research breakthroughs even further.

We envision a scholarly community that has all it needs to find solutions to critical world problems and evolve beyond the traditional publishing models that affect the progress of science.

Conclusion

The ever-increasing influx of submissions means that the publishing industry will constantly have its hands full with research content to distribute to audiences. However, trust and quality are everything in an industry heavily relied upon to validate research. Integrated infrastructure is the way forward if the industry means to effectively perform its duties, publish scholarly works, and add value to researchers and the world's learners.

Morressier is here to continuously bring the earliest ideas of research to the spotlight and provide the infrastructure that accelerates scientific discovery, validation, and dissemination.