



# Feedback from early adopters of ACM's Open Access model



Association for  
Computing Machinery

## Report Author

### **Mithu Lucraft**

Senior Consultant,  
TBI Communications

## Participating Interviewed Librarians

### **Curtis Brundy**

Iowa State University

### **Adam Der**

Max Planck Digital Library

### **Laura Hanscom**

Massachusetts Institute  
of Technology

### **Louise Otting**

Technical University of Delft

### **Nevena Tomic**

King Abdullah University  
of Science and Technology

### **Mathew Wilmott**

California Digital Library

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In January 2020, the Association for Computing Machinery (ACM) launched an ambitious five-year plan to transition to a fully Open Access (OA) publisher. Conference proceedings, journals, magazines, and newsletters satisfy a core segment of ACM's mission to advance computing as a science and a profession. By providing OA to ACM publications, inclusive of the ACM Digital Library's collection of more than 700,000 articles, the organization's goal was to amplify the reach of its authors' contributions, boost the impact of computing research, and help foster collaboration and innovation to advance computer science and facilitate real world change.

ACM has already seen evidence of these benefits since launching a hybrid Open Access option for authors in 2013. Usage and citations of OA journal articles, conference proceedings, and magazine articles in the ACM Digital Library have increased significantly. Early statistics trace usage as 3.7 times higher for OA content,<sup>1</sup> and citations average 1.7 times higher, compared to articles behind the paywall.<sup>2</sup>

Through 10 years of experimentation with OA, ACM could see the mounting enthusiasm and endorsement of OA grow among its authors and members year after year. But existing models, including hybrid OA, were not achieving enough momentum to make a complete transition to OA sustainable in the foreseeable future. The diverse communities that make up the computing field care deeply about the quality and value of ACM's publications and want to see this work continue to grow and thrive.

Prompted by a clarion call from its global membership to make a sustainable OA transition possible, the Association announced ACM Open in 2020 — a unique and innovative model with the potential to completely transform its journey to

OA. ACM worked with a group of top-tier research institutions to develop ACM Open, resulting in the introduction of an annual “flat fee” paid by institutions that covers the costs of “Read” access to the Digital Library and enables affiliated authors to publish papers OA at no additional cost.

Earlier this year, ACM reaffirmed its commitment to make a complete transition of all its publications to OA by the end of 2025. Progress to date has been strong and steady. Over the past three years, ACM has moved from less than 5% of research articles published OA annually to approximately 35% OA to date. Yet, challenges remain. Ultimately, the success of ACM's transition to sustainable OA is reliant on the engagement and participation of its partners.

This article presents feedback and perspectives from six of the earliest adopters of ACM Open: the University of California Digital Library; the Massachusetts Institute of Technology (MIT); Iowa State University; Max Planck Digital Library (MPDL); Delft University of Technology (TU Delft); and King Abdullah University of Science and Technology (KAUST). The model is explored both in terms of yearly OA growth, but more importantly, whether ACM Open is delivering value to the computing community and institutional partners around the world.

## ACM's Approach to OA

ACM has offered a variety of OA models since 2013, including offering all ACM authors the option to make their articles Gold OA through the payment of ACM's Open Access Article Processing Charge (APC). While APC-driven models have continued to form the basis of institutional agreements among many commercial publishers (including many Read and Publish models), there remain questions about the sustainability of these models, most notably their transformational nature.<sup>3</sup>

ACM recognized the value of engaging partners to

1 ACM Digital Library data, 2013–2019

2 Based on data from Dimensions taken May 8, 2023, spanning from 2013–2022

3 <https://scholarlykitchen.sspnet.org/2020/04/07/seeking-sustainability-publishing-models-for-an-open-access-age/>

**Figure 1: ACM Open Tiering price bands, 2024**

Tiers Level	Article Output Range	Tier Pricing (\$)
1	75+	\$95,000
2	60–74	\$70,000
3	40–59	\$50,000
4	30–39	\$35,000
5	20–29	\$25,000
6	16–19	\$20,000
7	12–15	\$15,000
8	8–11	\$12,000
9	4–7	\$9,500
10	0–3	\$6,000*

\* Tier 10 pricing decreases as the portion of content published OA increases

cultivate a sustainable OA approach. From 2018–2019, the Association worked with key representatives from the University of California System, MIT, Carnegie Mellon University, Iowa State University, and the University of Minnesota. The focus of this collaboration was to understand mutual shared goals and concerns regarding various OA models, aiming to develop a framework that would be less reliant on individual APCs and more focused on long-term sustainability. ACM made the decision to be transparent with its goals and its data, a move much appreciated by its collaborators. As Laura Hanscom, the Head of Scholarly Communications and Collections Strategy at MIT, explained: *“ACM was able to tell us what they were thinking, what their priorities and what their obstacles were. And we were also able to say what our leadership would be assessing, so that we would be able meet these in some kind of way or at least explain why we weren’t able to reach them.”*

To put these early discussions into context, much of ACM’s revenues from the ACM Digital Library come

from access (or “read”) licenses with more than 3,000 institutional subscribers worldwide. This income sustains the entire ACM Publications program, which in turn facilitates research and scholarship across a vast computing community spanning more than 150 countries. Meanwhile, ACM publishes approximately 30,000+ articles in its Digital Library annually, of which approximately 26,000 are peer-reviewed research articles. Analysis of the financial data revealed a striking disparity: while the top 1,000 institutional customers produce more than 80% of ACM’s published articles, they contribute merely 30% of Digital Library revenues. This disparity intensifies when one considers the top 100 institutions contribute about 33% of published articles but only 5% of the revenue. A shift from an access “read” model to one based on “publish” or APC-based models poses a formidable challenge: How can the same revenue be sourced from only one-third of the institutions? With the unpredictable nature of APC models based on publication output, there would be real budgeting challenges for institutions and new complexities for management of APC-associated workflows and funds.

Most of these early discussions were with collaborators who had not yet established transformative agreements with other commercial publishers. As such, ACM’s early adopters helped forge an innovative path forward, with a clear focus on sustainability at the forefront. As Curtis Brundy, Iowa State University’s Associate University Librarian for Scholarly Communications and Collections, said, *“We were not coming in with established workflows and ways of assessing things, except at a high level. We wanted to convert the subscription spend to Open Access income and we needed it to be done in a financially sustainable way.”*

Collaborators described this approach as unique. While institutional assessments of agreements are typically based on publication volumes, measures of alignment are also important. As Mathew Wilmott, the Assistant Director for Open Access Agreements at the

California Digital Library, pointed out: *“The enthusiasm that ACM showed for actually creating a transformation with their entire portfolio felt very mission driven and well aligned with the scholarly communications community, or the library community.”*

## How It Works

ACM Open is the first model to offer unlimited Open Access publication and unlimited Read Access for a fixed annual price, which, unlike other Read-and-Publish agreements, removes the risk of unpredictable pricing based on fluctuating yearly publications. When a university signs an ACM Open agreement, they know exactly what their fixed costs will be for each year of the agreement term, with most agreements spanning three years, and in some instances, up to seven. Feedback from partners suggests the costs for this model are viewed favorably, especially compared to other Read-and-Publish agreements.

Pricing for institutions is based on a tiered approach, with bands reflecting the average number of articles from corresponding authors affiliated with that institution over the preceding three complete years. The fixed cost covers an unlimited number of articles from that institution, unlimited Read Access to the ACM Digital Library’s full archive, and access to the *ACM Guide to Computing Literature* housed within the ACM Digital Library platform. More importantly, there are minimal administrative burdens with this OA model, with no eligibility checking required by institutions, and no additional fees to be paid by individual authors. While the largest research institutions, which publish the most articles with ACM, might see a notable increase in costs under ACM Open when compared to their historical read-only subscription spend, the affordability of ACM Open is clear when considering the exceptionally low price per article. The value to institutions is also clear for institutions that publish minimally with ACM, where fees are projected to decrease as the

overall percentage of OA increases.

Partners from the Max Planck Digital Library had the advantage of evaluating the agreement against other existing deals they have negotiated in Europe. Their insights underscore that the tiered model offers a route to predict future costs. Adam Derr, MPDL’s License Manager, explained: *“Many of our subscription agreements or early phase transformation agreements were based on past subscription fees or the idea of cost neutrality, or simply continuing with the same approach. We’re trying to assess how our costs would change in a hypothetical scenario where we live in a fully Open Access world. What we’re aiming to do with our agreements now, when they come up for renegotiation, is to move away from the subscription-based or subscription fee-based models and transition towards an economic model that focuses more on publishing services. ACM Open is already based on publishing, so the pricing model used for ACM Open is tied to the publishing output.”*

## ACM Open is Supporting Author Uptake of OA

ACM Open supports all authors from participating institutions, both corresponding authors and secondary authors affiliated with an institution participating in the program. As such, it is perhaps not surprising that OA continues to grow—indeed, industry data shows yearly growth of Gold OA in

Figure 2: Total OA article growth under ACM Open 2020–2022

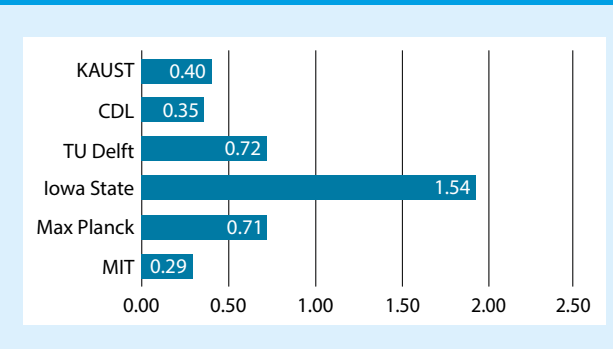
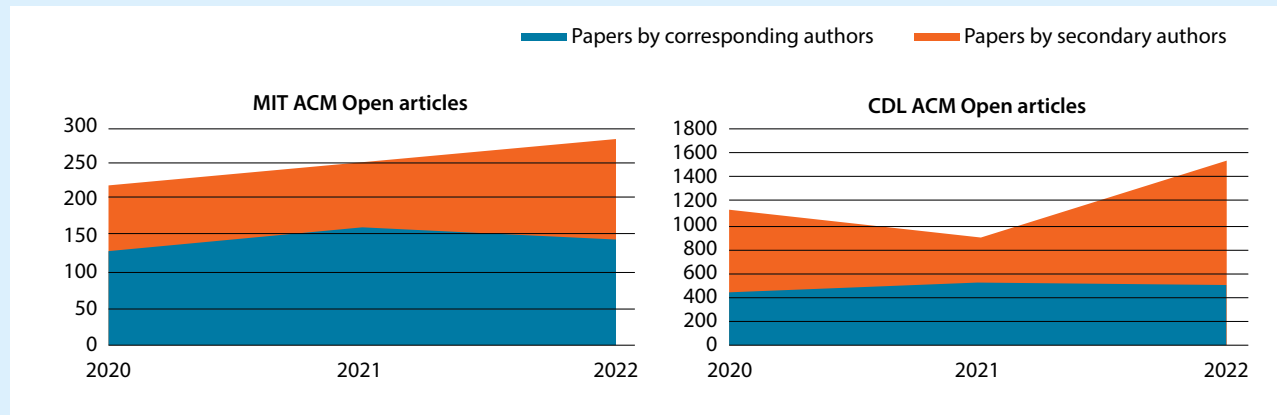


Figure 3: Growth of OA articles under ACM Open: CDL and MIT 2020–2022



information and computer sciences passing 118,000 OA publications in 2022.<sup>4</sup> Several of ACM Open’s early partners, notably Iowa State, have seen strong growth in OA publications between 2020 and 2022 (Figure 2).

What is also evident from these partnerships is that ACM Open has boosted OA adoption from non-corresponding authors, with particularly high growth from secondary authors at MIT and University of California Digital Library (CDL) consortia (Figure 3).

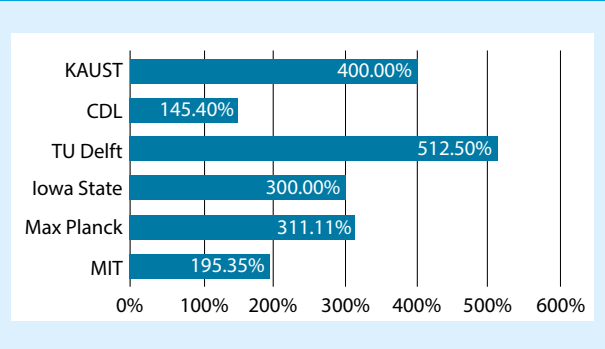
What is perhaps most notable in early partner data is the increasing volume of OA papers published under a CC-BY license, which facilitates the sharing and reuse permissions of the articles (Figure 4). Given

that many U.S. and European funding agencies favor the use of the CC-BY 4.0 License, it is encouraging to see significant growth rates for adoption of CC-BY licenses across ACM’s early partner data.

What each of these indicators illustrate is that making it easy for authors to choose OA enhances the author experience. Adam Derr from the MPDL, explained, *“If authors have to do an active opt-in to be Open Access, then there is very low uptake. It’s in the interest of the authors that their papers are published Open Access, but we have to do that in a way that is in partnership with the publishers to make it as smooth and as easy as possible.”* By making the choice of OA an integrated part of the ACM offer—for both corresponding and secondary authors—each institution is benefitting its community. Partners are seeing a positive response from their authors, as described by Curtis Brundy at Iowa State: *“There’s so many other reasons why an author is going to make a submission decision. Open Access is just one of those, but when they find out that it is going to be OA, it’s just a cherry on top and they’re really happy about it.”*

4 Source: <https://app.dimensions.ai>. Criteria: Fields of Research (ANZSRC 2020) is 46 Information and Computing Sciences; Open Access is Gold.

Figure 4: Growth of CC-BY license uptake 2020–2022



### Streamlining Administration for Institutions

A goal for most agreements is to reduce the administrative burden on institutions, but when every deal is based on different parameters—from the titles

included to caps on the number of articles covered—there is a significant amount of work involved for institutions in managing these agreements. ACM's complete content approach reduces the burden on teams with no requirement to evaluate individual articles for approval. This was particularly valuable for partners where infrastructure for managing OA was not in place. As Laura Hanscom at MIT described: *"In the U.S., in particular, we don't have the centralized infrastructure that a lot of libraries do in Europe, so for other agreements there has been an additional responsibility to assign a person for the day-to-day approving of articles. I would say that the investment that ACM has made to improve their infrastructure and their reporting capabilities for libraries has been a huge benefit."*

Another cited facet of agreements is their ability to increase visibility in overall expenditure of OA, thereby reducing 'APCs in the wild'.<sup>5</sup> The monitoring and tracking of OA publications is a critical component of what ACM Open has delivered, with individual dashboards for institutions allowing partners to understand both a granular picture of OA adoption as well as its impact (Figure 5). As Nevena Tomic, a Library Subject Specialist at KAUST, explained: *"Compared to other agreements, [ACM Open] is easier as we don't need to approve requests. We regularly visit the dashboard to check the numbers."*

ACM Open also provides automatic deposit of all accepted research articles into the institution's repository. For many of ACM's early partners, this was a highly valued feature, providing visibility of all open access content from the institution while again reducing a manual intervention for both authors and institution.

## Addressing the Question of Cost Evaluation

ACM Open seeks to achieve a revenue-neutral model. The tiered pricing, once fully adopted by all publishing institutions, is designed to generate

5 <https://doi.org/10.6084/m9.figshare.11988123.v4>

### The Role of Automatic Deposits for ACM Open Customers

"Auto deposit and the ability for repositories to be part of the scholarly communications ecosystem is really important to us and is something that we look at for all our publisher agreements. In some cases, our publishers, large and small, have been doing that since 2009. So, it's always interesting to us when other publishers say 'this is too technically difficult.'"

– Laura Hanscom, MIT

"The deposit works very well for us; we see no APCs in the wild and have experienced no problems with invoicing."

– Louise Otting,  
Library Collections Manager, TU Delft

"For institutions that have repositories, why would you not want to host the work you're paying to make open? And we don't want to pay to have it manually put in there, so if we automate that there is some value to it."

– Curtis Brundy, Iowa State

approximately the same amount of revenue currently produced by ACM's publications program. This does mean the largest research institutions, publishing the most articles with ACM, may experience an increase in costs compared with what those institutions may have previously paid for a historical read-only subscription to the Digital Library. Yet many early adopters of ACM Open appreciate its value in fostering a sustainable future. As the experience at CDL has shown, the growth of OA uptake has helped ensure the ACM Agreement is viewed as providing good value: *"Despite the fact that our library investment for ACM Open more than tripled what it was for our previous subscription with ACM, we're still getting really good value for what we're spending, in terms of how many publications we get,"* noted Mathew Wilmott.

The availability of a reporting dashboard is also

helping partners like KAUST in ongoing assessments of cost-savings. Said Nevena Tomic: *“We track the number of articles published under the agreement quarterly and calculate how much we saved in APC charges. It’s a fair approach and good value for money.”*

Partners also acknowledge that part of what ACM offers is the promise of a genuine transition to OA, recognizing that contributing to the journey itself is of key importance. As Mathew Wilmott, from CDL, pointed out: *“There is a planned pathway for moving to open access and for the institutions from the lowest tier in terms of publishing volume to see their costs decrease over time as the portion of content in the ACM Digital Library that is Open Access increases. I think the fact that we’re contributing to that transition is also an important piece of our assessment, because that’s not always the case with other publishers, but it’s clear that what we’re doing is contributing to transitioning to Open Access.”*

## Looking Forward: Delivering Equity for All

The long-term goal for all parties is to consider how ACM can deliver equitable OA, including benefitting those without the means to pay for an agreement.

Discussions around equity were key in ACM’s earliest conversations with partners. As Curtis Brundy commented: *“We have always had the equity piece front and center. We want to endorse models that are not going to create barriers for folks who are not in a position to pay.”* He adds: *There’s a final evolution to the tiered model that has to be that authors who do not have funding and cannot pay get to publish without being charged. I think part of the problem is that there needs to be enough libraries and consortium to participate in the new model to prove that it’s viable, to figure out how to structure in that equity piece.”*

A significant portion of the ACM Digital Library is currently OA or transitioning to OA, including the first 50 years of ACM’s archive (1951–2000); 10 ACM journals either launched as new Gold OA or flipped from a hybrid model; plans to flip *Communications of the ACM* magazine to a Gold OA model this fall;

as well as plans to flip the *International Conference Proceedings Series* (ICPS) to a 100% Gold OA model beginning January 1, 2024. The impact of the transition on ACM authors, ensuring those who wish to publish there can continue to do so regardless of financial ability, is paramount. For authors covered by institutions participating in ACM Open, as described in this article, the process could not be easier. However, for those authors outside of an agreement, ACM has partnered with Research4Life, going beyond the best practices for needs-based waivers to offer automated 100% waivers for authors based in low-income countries, and 50% waivers for authors based in lower-middle income countries. ACM also signed a read-and-publish agreement with Electronic Information for Libraries (EIFL), providing unrestricted access to all contents within the ACM Digital Library and unlimited open access publication for corresponding authors from 25 low- and lower-middle income countries. Moreover, ACM continues to offer needs-based waivers to authors anywhere in the world who find themselves unable to pay an APC and continue to engage with the community on the right objective criteria for assessing these waivers for ACM authors.

## Conclusion

It is important to restate here that ACM’s goal for ACM Open is not to generate a large surplus in revenue, but rather to sustainably transition revenues from a readership-based to an authorship-based model. When ACM Open launched, the Association made a commitment to the computing community and to its institutional Digital Library customers that it would be completely transparent about the financial impact of the transition before, during, and after the changeover is complete. The Association has continued to do by reporting ACM Publications Finances annually in Communications of the ACM. ACM Open will be significantly less expensive for nearly all institutions (big and small) compared to other transformative OA deals with other publishers



when considering the price per article. Fundamentally, it offers a sustainable approach to OA by delivering cost or income neutrality at the global level, if not necessarily at the institutional level, as the model is about rebalancing revenues and spend to better align with the costs of publishing.

The intent of this article is to share informative feedback about ACM Open from its pioneering partnerships. Indeed, ACM Open continues to see steady adoption. As of September 2023, 799 institutions signed agreements, including 124 added since the end of June. However, to reach financial sustainability, ACM must see the top 750-1000 of its largest university partners come onboard.

While this article traces the progress made to date, as well as shares some measurable results, ACM has heard from many institutions that funding for its “flat fee” is a barrier, since many of those institutions only utilize library budgets to pay these fees and tapping into other available budgets takes time and a new way of collaborating. By publicly emphasizing its December 31, 2025 deadline commitment for fully realized OA, and by acknowledging its sense of urgency and its determination to remove as many adoption barriers as possible along the way, ACM pledges to maintain the quality and authority of its publishing program and remain sustainable for the long-term.

The early adopters of ACM Open pointed out four obvious strengths of the model:

- It is increasing the uptake of OA for authors at those institutions.
- It is delivering increased visibility and impact for open access publications, compared with non-OA content.
- It is reducing administrative burdens for participating institutions, giving a clear understanding of yearly costs, with no article-level approvals required, and with clear institutional-level reporting on uptake.
- It is delivering a model for OA that aligns with the values of ACM partners.

As ACM continues to march toward a fully OA future, institutions worldwide are invited to collaborate and support that journey. You can follow our progress on our transformation to a fully Open Access Publisher here, and please contact us at [dl-info@hq.acm.org](mailto:dl-info@hq.acm.org) with any questions or requests for more information.

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**For additional information email:** [acmopen@hq.acm.org](mailto:acmopen@hq.acm.org)



**Association for  
Computing Machinery**

1601 Broadway, 10th Floor  
New York, NY 10019-7434, USA