



GESELLSCHAFT DEUTSCHER CHEMIKER

On the Future of Scientific Publishing

A Position Paper of the Gesellschaft Deutscher Chemiker e.V.

Preamble

The Gesellschaft Deutscher Chemiker (GDCh, German Chemical Society) has more than 30,000 members and is thus the largest and most significant chemical society in continental Europe. In its statutes, the GDCh is bound to foster scientific publishing and information dissemination.

The future of scientific publication is strongly interrelated with the introduction of Open Access models that are being strived for in science policy. The term Open Access signifies that the reader has access at no charge to the digital content of publications, including enhanced user features. The considerations are of interest to the GDCh, in particular because it is the owner and co-owner of about 20 internationally renowned scientific journals. This portfolio includes *Angewandte Chemie*, which is one of the internationally leading chemistry journals worldwide, and also *ChemistryOpen*, which was the first journal with Gold Access to be founded by chemistry societies.

The GDCh openly welcomes new approaches in publishing as long as these approaches are for the benefit of science are based on a solid and resilient business model. The achievements of previous systems, which include quality management, sustainability, integrity, and adherence to good scientific practice, must be retained.

Open Access Models

In all of the Open Access models, scientific publications are available to everyone at no cost to them. The documents may be read, searched, downloaded, saved, linked, and printed at no cost. The funding of the services provided by the publisher can occur in different ways:

Gold Open Access: The article appears in an Open Access journal that is available free of cost to the reader in the internet. Generally this publication is funded by the authors (or their institute or the funding agency of the research project).

Green Open Access: Authors archive their articles, which were previously published in subscription-based journals, in an appropriate repository and make the articles freely accessible, if necessary after an embargo period (typically six to twelve months). The subscribers of the journal fund the publication; the costs of the development, operation, and running and maintenance of the repository are usually carried by the agency that is responsible for it.

Hybrid Model: Authors make their articles freely accessible in subscription-based journals by the payment of a fee per article, while other articles in this journal are still only accessible to the subscribers.

Scenarios and Standpoints

From the standpoint of the GDCh, the following aspects are to be considered in discussing the future of scientific publishing and information dissemination and the transformation to Open Access:

Quality assurance

Regardless of the technology platform or the underlying publication model, the GDCh has the overriding target of ensuring and improving the quality of scientific publishing. The GDCh therefore opposes the publication of scientific results in journals without quality controls. Non-refereed publications, for example on pre-print servers, are classified as such.

Archiving and Sustainability

Accessibility and searchability of the version of record of a scientific publication must be guaranteed in the long term – regardless of the publication model. In particular for documents that are only accessibly electronically, the corresponding metadata and methods of archival must be available.

No Financial Barriers for Authors

Every publication model must ensure that manuscripts that have undergone the refereeing process are successfully published in the journal for which they were submitted and positively reviewed. Non-scientific criteria should not be allowed to play a role in the decision for publication. In particular, this also applies to Gold Open Access. In that model, mechanisms must therefore be included to ensure that authors have access to the required financial means regardless of their status and their institute. Open Access must not hinder or disadvantage authors.

No Reallocation of Research Funds

The costs for the introduction of Open Access models or for setting up and maintaining institutional repositories must not be allowed to be at the expense of immediate research funding. If new publication models are to be funded by public monies, the budgets of the respective institutions must increase correspondingly.

Implications for Chemical Societies

A restructuring of publishing must not be at the expense of the activities of non-profit scientific societies like the GDCh. These societies use the surplus received from publishing solely for their activities in accord with their statutes and thus support the scientific community. The loss of this revenue would have the consequence that scientific societies would no longer be able to provide many important services, to the detriment of the scientists.

Financial Imponderability in the Transition to Open Access

The transition to Gold Open Access requires a redistribution of funding in publishing: At a local level, acquisition budgets of libraries have to be reallocated to the funding of author charges, and regionally and nationally research-intensive institutions must receive more funds for the publication of their results than those that are less research-intensive. For nations with a strong research component, such as Germany, this can result in increased costs.

The consequences of these measures, for example for libraries and the provision of literature and information that they provide, must be carefully examined. The complexity of such reallocation of funds and the additional financial burden that it brings in the transitional phase should also not be underestimated.

Furthermore, ways should be found that research-based companies in the chemical and pharmaceutical industry, whose scientists typically receive scientific literature without themselves being authors, still contribute to the funding in the future.

The transition to Green Open Access also contains imponderables. In particular, the economic consequences for publishers and the secured financing of the setting up and running of

repositories are hard to predict. However, successful experience in neighboring disciplines shows that the concomitant risks should be controllable.

Freedom of Publication

The freedom of researchers to decide for themselves in which medium they publish must not be restricted. The GDCh opposes mandates that force scientists into Open Access publication.

Recommendations

The GDCh supports the free access to scientific information. It recommends the Green Open Access model to its members, in other words subsequent freely accessible publication on document servers. This approach to Open Access, which is regulated by the newly created section 38 paragraph 4 (secondary publication rights) of the German copyright law, appears to the GDCh to be the most suitable at present for the development of the science and publication landscape.

Owing to the significance of Open Access for the future of scientific publishing, the GDCh appeals to its members, to chemically orientated scientific institutions and companies, and also to science policy makers, to consider critically the possibilities of Open Access and the above standpoints and requirements in order to make use of the chance to improve scientific communication.

Passed by the board of the GDCh on December 2, 2013.