

## STM position on Open Science

### Introduction

“Open Science” is a broad umbrella term used to describe a change in the way in which science is conducted, including the use of technology to make the practice of research more collaborative and open. Open Science encompasses broad themes, such as open access and open data, as well as research metrics, research integrity, and citizen science.

Publishers sit at the interface between researchers, their research and the rest of the world through our work to improve the quality and availability of scholarly communication. Through our strong relationships with the research community, the evolution of our business models to meet researcher and societal needs, and our expertise in technology and propensity to innovate, publishers are well placed to contribute to discussions around Open Science and to help translate aspiration into reality.

### STM Position on Open Science

Publishers are already engaged in a number of activities which complement the Open Science agenda. These include:

- **Open Access:** Publishers support sustainable approaches to open access and offer researchers diverse choices in how they publish their research. Authors can publish via the gold open access route, where the costs of publication are recovered up front by the author or on their behalf. Authors also have the option to make versions of their work available after a time delay, in a model which enables subscriptions to continue to support journal publication.
- **Open Data:** Individual publishers are developing tools and services to support researchers to make their data FAIR (Findable, Accessible, Interoperable, and Re-usable) and are engaged in discussions around the European Union Open Science Cloud. Publishers have also actively responded to community demand for citation principles for data, and a number of publishers have endorsed the [Joint Declaration of Data Citation Principles](#) to ensure researchers get proper credit for their work. STM itself has been involved in numerous projects looking at data citation and preservation, for example RDA and APARSEN.
- **Research Metrics:** Publishers are responding to researcher demand for new and innovative ways of measuring the research endeavour. These innovations seek to harness technology and reflect how researchers engage with each other and with the wider world. We favour a holistic approach, using a variety of robust measures, and look forward to working with the wider research community if and when agreement is reached on the types of alternative metrics that might play a useful role in assessment and evaluation.
- **Citizen Science:** Publishers are continually developing new ways of engaging both researchers and the wider community in science. Some examples include the publication of lay summaries of articles analysing important research, e.g. through programs such as PatientInform, and the opening up of scholarly communication to wider public audiences, e.g. through the Public Library Initiative in the UK.

- **Research Integrity:** Responsible peer review, an intrinsic part of the publishing process, is the backbone of research integrity. Publishers also invest in software to support plagiarism detection, e.g. Similarity Check, and sponsor education and training for authors. STM strongly supports publishers having and following ethical principles for peer review, publication and, where needed, retraction, whether those principles come about of their own initiative or whether they subscribe to those of STM or of the Committee on Publishing Ethics (COPE) or of any other association having the same minimum standards. Researchers wishing to submit papers for publication benefit from knowing that STM members subscribe to STM's own code of conduct and that STM strictly scrutinizes membership applications. STM also participates in the ThinkCheckSubmit initiative to help researchers identify reliable publishers and journals.

### **Enhancing and furthering Open Science**

As set out above, STM and our members are already playing a central role in furthering the Open Science agenda and we look forward to continuing to work with other stakeholders on this going forward. In this context STM is delighted to be part of the Open Science Policy Platform, a newly launched initiative by the European Commission.

We do believe however that it is important to keep in mind the following as we work collectively towards a more open and collaborative system of science:

- Copyright law is an enabler that allows for the development of new services and innovations across the sciences; not a barrier to such innovations. As such, copyright must be protected and supported in any Open Science framework. Licensing options are strongly recommended by STM and the way forward to extend the use of digital published content whilst ensuring both for quality and a sustainable future.
- STM believes that authors should have the freedom to publish in a journal of their choice where publication will have the greatest potential to advance their field and help foster their careers. Research funders and government policies with overly restrictive policies – such as unsustainably low embargo periods, coupled with limited or no funding for gold open access - work against this. In particular, STM remains concerned that the European Commission's plan set out in HORIZON2020 to encourage open access to research publications are not optimized to deliver the policy aims. As key stakeholders, we look forward to continuing to engage with all research funders, governments and the European Commission on this important agenda.
- STM Publishers are keen to work with other stakeholders to explore ways in which existing infrastructure can be used to facilitate better and seamless access. It should be the common and foremost goal of all stakeholders to avoid any duplication of effort. Regarding the efforts made by the European Commission via one of its OSPP working groups to establish an Open Science Cloud, which we support, STM publishers encourage this effort to focus on research data and be targeted to complement rather than duplicate existing infrastructure.
- Our experience in the management of research communication is that bottom-up is always more effective than top down. It is important to work with the researchers and avoid creating obstacles to their daily work.

### **Conclusion**

Publishers are at the forefront of innovation in science and are already contributing to the Open Science agenda in many ways including those set out above. We look forward to continuing to engage with all involved stakeholders including the European Commission and with the wider research community on this important area.

The International Association of Scientific, Technical and Medical Publishers (“STM”) is the leading global trade association for academic and professional publishers. It has over 120 members in 21 countries who each year collectively publish nearly 66% of all journal articles and hundreds of thousands of monographs and reference works. STM members include learned societies, university presses, private companies, new starts and established players.

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