

# Open Access: How Best to Prepare to Master This Challenge

By Wolfram Burgard

**P**ublishing results is a cornerstone of our scientific evolution, as it enables us to present and document our findings and results and provides the basis for innovation related to previous work. Our journals and conferences as well as *IEEE Robotics and Automation Magazine* play a key role in this. The current model for our publication process is that members of our Society generate the documents describing their work; organize the conference, journal, and magazine reviewing process; and also pay to access the papers. While this has worked out for many years and made our IEEE Robotics and Automation Society (RAS) strong, there is now a substantial push to change this model and provide open access for all our publications—funded largely by public agencies—to everyone.

This effort dates back to September 2018, when a group of research funding organizations, the Coalition S alliance (mainly based in Europe), announced the launch of a strategic initiative to vigorously promote full and immediate open access to research publications. This initiative, called *Plan S*, envisages that by 2021 all publications related to research projects funded by the agencies that joined the Coalition S alliance shall be open access and freely available without any embargo (<https://www.coalition-s.org/>).

Open access journals do not require subscription fees from organizations or individuals and consequently they can make all published papers immediately and freely available to the whole research community. In most cases, open access journals, however, do require fees from the authors for each published paper. These so-called author processing charges are expected to lie in the range of US\$1,000–2,000.

Thus far, all the journals sponsored or cosponsored by our Society, including this magazine, have been using a hybrid model, which allows authors to freely select their preferred option for accepted papers: fully accessible open access publication (with author processing charges) or regular publication (without charges but accessible to subscribed researchers only).

Unfortunately, this policy is not compatible with Plan S. Also, Coalition S does not allow the creation of so-called mirror journals, which have the exact same organization and name as the original journal but publish only in the open access format. Creating entirely new journals, however, introduces an enormous organizational burden. In addition, it will require time to establish key performance indices such as impact factors for these new media.

Our Society is faced with a complex situation, which made me decide to bundle our strongest forces and establish the RAS Ad Hoc Committee on



Open Access Publication Strategies, chaired by our Vice-President for Publication Activities Eugenio Guglielmelli and including me, Seth Hutchinson (RAS president-elect), Yasushi Nakauchi (RAS vice-president for financial activities), Venkat N. Krovi (RAS treasurer), and all editors-in-chief (EiCs)/immediate past EiCs of our flagship journals. This committee is also joined by key representatives of IEEE publication governance: Laura Creighton, director of IEEE Society Products and Audience Engagement–Technical Activities Operations, and Peter Luh, chair of the IEEE TAB Periodicals Committee. The aim of this committee is to develop the best strategy for our Society and a consequent action plan that is not only fully compliant with Plan S but also supports the further development of our publication portfolio in terms of quality, accessibility, attractiveness, and sustainability.

In the coming months, we will work with passion and enthusiasm to tackle the potential issues associated with the required transformation to ensure that our Society continues to offer high and inclusive quality standards with respect to publication services to our Society. All members are welcome to contact me or the members of the ad hoc committee to provide us with suggestions and support.