

# Future of Research Communities, Academic Societies, and Scholarly Information and "Publication" Activities: A Trial Discussion

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On the digital and Internet infrastructures that have become widespread, major change is becoming reality to handle research results and scholarly information. Stakeholders of the "research ecosystem" that supports the "science" as a social system, such as academic societies, the research community, research institutions, publishing bodies, and libraries and repositories, will also need to look to a new vision for the future of science.

Publication of research papers has been the most representative and most important as a process to share and publicize research results. Even there, the distribution of information, the process of publication, and the cost structure are changing. However, it is necessary to consider both those things that should not waver as the axis of academic activities based on the principles and methodologies of modern science and those things that should change and transform as the mechanisms in this new era.

The significance of the existence of many scientific societies and the many academic journals is not limited to providing many opportunities for the presentation of research results. The publication process often involves peer review by multiple experts and an editor or editorial board that makes publication decisions. As mentioned by Kawahata (JpGU, 2018), the editorial process is a place where value judgments are made about what kind of research results should be published, and it may be a place where the value standards of the research community are embodied.

In recent years, the value criteria for what constitutes a scientific research achievement have been changing, and there is a movement to recognize and share a wide range of academic outputs including papers, data, software, samples, protocols, etc. Even though the ideal form of scientific research based on modern scientific principles has not changed in the research community, the normative awareness of how research outputs should be regarded may be undergoing significant change.

In order to implement these changes, there are still many issues to be overcome, such as the philosophy, principles, consensus building of community norms, and specific policies and procedures. The author believes that it is worthwhile to consider the future of science and the scientific community as we deal with action items which we are facing right now to handle the research outputs as scientific achievements.

Keywords: Open Science, research outputs, academic publication