



Review of Implementation of the Global Research Council Action Plan towards Open Access to Publications

Main Outcomes of the 2014 Survey of GRC Participating Organizations

May 2014

Introduction

"The advent of the internet led to fundamental changes both in the way research is carried out and how publishing is done. In order to maximise the scientific, scholarly and social benefits which arise from the possibility and even the necessity to share and discuss research results of any kind over the web, open access to these results is a prerequisite." ¹

The Global Research Council (GRC) *Action Plan towards Open Access to Publications* was endorsed as a living document in May 2013 at the 2nd GRC Annual Meeting held in Berlin, Germany. The Action Plan calls for GRC participants and other research funders to promote and support open access to publicly funded research outputs, with a specific focus on scholarly journal articles. The Plan suggests 14 groups of actions to stimulate and support open access, including raising awareness in the research community, promoting and supporting open access, and assessing the implementation of open access.

In order to monitor progress in implementation of the Action Plan, the GRC International Steering Committee, in conjunction with the GRC Regional Meeting participants, developed a review template to collect information on the state of open access implementation by GRC participating organizations. Recognizing the complex, diverse and evolving nature of open access, the review sought to accommodate various approaches, demonstrate individual country and regional efforts, share experiences, stimulate discussion, and to identify issues that need focused attention.

This summary report presents a brief overview of the key findings across regions and the GRC as a whole, including approaches to open access, initiatives and activities underway, and emerging issues and challenges raised by respondents. The summary report was tabled at the 3rd Annual Meeting of GRC on May 26-28, 2014 in Beijing, China. As the review has produced a rich database of regional and country-level information, the GRC may consider mechanisms for sharing more extensive and detailed results (see Recommendation 1).

Methodology

The approach and structure of the review was informed by input from participants at the five GRC Regional meetings that were held between October and December 2013. Survey questions were grouped into themes and topics using the Action Plan as the underlying framework. The organizations targeted by the survey included those that participate in the GRC Annual Meetings as well as other research-based agencies and funders that attend Regional Meetings. Each agency was asked to focus primarily on its own activities when responding; however, information about the activities of other research organizations in the same country was welcomed.

The template was distributed to 106 organizations in January 2014, and 64 organizations responded with completed templates by early April.

¹ Global Research Council Action Plan towards Open Access to Publications, May 2013.

Table 1: Survey response rate by region

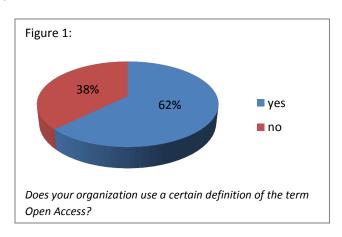
Region	Templates distributed	Templates returned
Africa	17	8
Americas	13	7
Asia-Pacific	22	13
Europe	41	30
Middle East / North Africa	13	6
Total:	106	64

The Chinese Academy of Sciences, through its National Science Library, was the main coordinator of the review, with support from a small working group which included participants from the Deutsche Forschungsgemeinschaft (DFG), Science Europe and the Natural Sciences and Engineering Research Council of Canada. Together, the working group members completed the final template design, distributed the template, reviewed and analysed the results, and prepared the summary report.

Key Findings

The following section provides an overview of the review results, organized by major topics and themes that emerged from the responses.

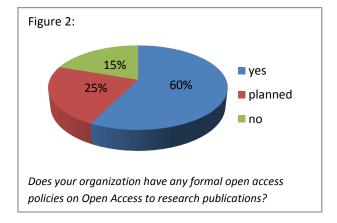
- 1. International Nature of Open Access: Overall, the survey responses underscored the fact that open access is truly a global issue, linked to the international nature of research and scholarly communication. Nearly all respondents emphasized the need for international cooperative efforts in order to maximize the progress and benefits of open access, and to minimize any barriers to international research collaboration. Numerous regional and international joint initiatives and active discussions around the policy environment and supporting infrastructure often carried out in close collaboration with the library and repository communities are underway.
- 2. Definition and Scope: Although the land-scape of open access is still evolving, nearly two-thirds of respondents use a specific definition of open access. The most frequently referenced definition was that of the Berlin Declaration. A few submissions referenced the Budapest Open Access Initiative which has been initiated by the Open Society Foundations as an original unified definition of Open Access. Finally, a number of respondents mentioned their endorsement of the GRC Action Plan towards Open Access to Publications.



• The predominant focus of most existing policies is on peer-reviewed journal articles. Nevertheless, many organizations extend the definition of open access to include consideration for the full range of research outputs, such as monographs and additional published material such

as data, figures, images, etc. Increasing access to and sharing of research data is a particular area of active discussion and interest.

- Many respondents clearly emphasized that considerations of access must be accompanied by the rights and capacity to re-use the material and to allow for computer-based operations such as text-mining.
- **3.** Policies and Approaches towards Implementation: Most funder policies allow for both 'Gold' and 'Green' approaches to making articles open access, although overall a majority of organizations express a preference at the present stage for the Green route, considered more affordable.
 - Over half of organizations have formal open access policies in place and many other respondents are in the process of drafting and preparing to implement policies.



- There is recognition of the need to revise policies as research and technology landscapes evolve, and some organizations are at the stage of revising their already existing policies. There is a trend toward stronger, more mandatory policies as organizations implement and gather feedback on existing policies.
- Many respondents emphasized the benefits of greater alignment of policies and approaches among organizations and regions.
- Adoption of open access policies tends to be challenging for some smaller organizations with limited resources.
- **4. Raising Awareness in the Research Community:** GRC participants are very active in providing information and promoting open access.
 - Almost all organizations are raising awareness and engaging with researchers and stakeholders by providing information via web sites and promotional materials, and through workshops, seminars, consultations and activities such as Open Access Week events.
 - These engagement activities and consultations generally show that a number of issues are not
 well understood within the research community, pointing to the important need for ongoing
 efforts to raise awareness and provide clear and straightforward information targeted at funding
 recipients (see also point 9, below).
 - A number of organizations, either individually or in groups, have commissioned studies into various aspects of open access that are helping to build the global knowledge base and inform discussion and development of policies and approaches to implementation.

- **5. Support for Open Access Journals:** Many GRC participants support open access journals ("Gold route") as one approach for providing open access to research results. However, the diverse forms of support for journals make it difficult to systematically compare responses.
 - Concern regarding Article Processing Charges (APCs) was one of the most predominant issues in survey responses. There are concerns about the affordability of the Golden Road, and that many countries could be seriously disadvantaged by a system that relies on upfront payment for publisher services.
 - Most agencies view APCs as an eligible expenditure from grant funds. Other forms of more direct support for journals can include providing dedicated funding for APCs; providing funding for open access journals; support for open access journal platforms; etc.
 - Respondents emphasized that the research community must clearly define the services that publishers shall provide. Funds should only be used to pay the publisher if the requirements for these services are clearly met.
 - There was a common desire for clear and transparent APC structures.
 - Mechanisms to reduce subscription costs in proportion to the take-up of open access publishing options by researchers (to avoid double-dipping) are of great interest, yet are technically challenging.
 - Some respondents mentioned the potential for redistributing some funding from library subscription budgets towards open access publication fees, pointing to the Sponsoring Consortium for Open Access Publishing in Particle Physics (SCOAP3) initiative that is experimenting with such a model.

A Regional Approach towards Open Access Publishing:

Scientific Electronic Library Online (SciELO)

SciELO is a cooperative decentralized platform for electronic publishing of scientific journals. Developed to meet the scientific communication needs of developing countries, particularly in Latin America and the Caribbean, it provides an efficient way to assure universal visibility and accessibility to their scientific literature — users can search within the entire collection or to the country level. In addition, the model allows for integrated measurement of the usage and impact of scientific journals. As of 2013, there were SciELO portals in eleven Latin American countries, plus five portals in development.

- **6. Support for Open Access Repositories:** The majority of open access policies tend towards the "Green" route to open access, encouraging and in some cases mandating deposition of articles into a repository.
 - Currently, repositories are most commonly hosted and maintained by universities. There are also a limited number of centralized disciplinary repositories.
 - In many countries, repositories have been connected into a federated network or association for greater accessibility of information and ease of harvesting.
 - Repositories are a key tool used by funding agencies to track compliance with open access policies.
 - A very small number of funding agencies will only take into account publications that have been deposited in repositories when considering funding or promotion decisions.
 - Repositories are often used to store research materials associated with deposited research articles.
 - An effective, sustainable repository network needs to be seen in the context of a broader infrastructure for e-Science and is an essential component to managing the whole life cycle of research information.

A Regional Approach towards Aggregating Repositories:

The OpenAIRE Project

The goal of OpenAIRE is to provide an infrastructure and support network for enabling open access to European funded research outputs, by harvesting content from the distributed network of institutional repositories across Europe. Started as a pilot within FP7, OpenAIRE has now entered the second stage of implementation as a service phase (OpenAIREplus). The OpenAIRE and OpenAIREplus projects bring together 41 pan-European partners, supporting an extensive helpdesk system with a network of national and regional liaison offices to aid local researchers in making their publications open access, and also providing a reporting and information management tool for the European Commission.

- **7. Monitoring and Incentives:** Monitoring compliance with open access mandates is a common and growing practice, and an integral component of successful policy implementation.
 - Many GRC participants have established a process or plan to monitor compliance, generally through requiring a list of open access publications in grant reports and/or monitoring deposition in open access repositories.

- At this time, only a very small number of organizations have implemented measures to counteract non-compliance observed through monitoring open access deposits (by withholding grant payments).
- Some organizations have shifted responsibility for monitoring compliance to universities or participate in cooperative initiatives or services (such as <u>FundRef</u> or <u>OpenAIRE</u>).
- **8. Broad Implications:** A number of respondents commented on the implications of open access on a wide range of topics in the academic landscape:
 - The development of open access intersects in interesting ways with many other important aspects
 of the research ecosystem including peer review, research integrity, evaluation and rewards, and
 career progression.
 - The implications of open access will vary for different stakeholders and research organizations, for example: the impact on different disciplines; the challenges and opportunities for developed and developing countries; and the impacts on researchers at different stages of their careers.
 - The issue of open access impact on conventional journals was often raised in terms of the ability
 to sustain domestic scholarly publishing systems, both in terms of commercial publishers as well
 as smaller not-for profit journals, many of which are published by scholarly societies.
 - Optimizing the transition towards open access will require more than just repositories and funding for journals. Organizations need to look more broadly at an infrastructure of shared enabling services – some already existing and some emerging – such as registries, identifier services, monitoring and management tools, etc.²
- **9. Communication and Information Gaps:** A number of issues are not well understood within the research community, or are currently not well defined within the evolving scholarly publishing system. These include:
 - Ownership and copyright provisions for scientific works arising from public funds, especially with regard to self-archiving and embargo periods for Green open access.
 - Appropriate licensing for granting the rights for re-use.
 - The overall cost and funding flows within the scientific information system as a whole, how it is organized and how funds flow between different parties including funders, grantees, institutions, libraries, publishers and scholarly associations.

² Knowledge Exchange (KE) is a co-operative effort that supports the use and development of Information and Communications Technologies (ICT) infrastructure for higher education and research. KE's multiphase "<u>Sustainability of Open Access Resources</u>" initiative examines issues relating to the economic sustainability of critical infrastructure services that support open access to scholarly research.

- How to weigh the costs of providing open access against the costs of barriers to access within the conventional system, and the missed opportunities these barriers create.
- Measures of impact and quality as assessed through journal impact factor or article level metrics.
- **10.** Challenges and Opportunities: The review of survey responses revealed several issues and challenges that were raised by a majority of organizations. These may point to areas of potential for cooperative action by GRC participants.

Alignment of Approaches to Open Access

There are many benefits to increased alignment of open access approaches and policies, including: greater clarity for researchers; facilitating research collaboration; a clear starting position for discussions among funders, researchers and publishers; and maximizing the effectiveness of policy implementation, education and promotion efforts, and the development of systems for monitoring and compliance. It is expected that alignment of approaches would help accelerate the transition towards a truly open research literature and scholarly communication system.

GRC participants recognize that both Green and Gold approaches to open access are likely to co-exist for some time. Each agency and world region will pursue approaches and activities that are most appropriate for their specific context. There is, however, an opportunity for organizations to move in the same direction towards fostering open access by exchanging information on successful initiatives and approaches. The GRC may consider developing two sets of common guidelines or best practices, possibly starting by defining essential requirements and conditions for providing either Green or Gold open access, in order to move agencies towards a closer level of coherence of approach.

Article Processing Charges

Many respondents commented on problems and challenges when dealing with APCs (from defining proper publisher services, to balancing APCs with payments for licenses, to avoiding double dipping, or to monitoring APCs.) A main concern is increasing transparency around costs and the pricing of services – it is important to clearly define the services that researchers and funders expect publishers to provide. Thus, this seems to be a wide field where more international collaboration is needed to create a good basis for negotiation with publishing houses. As a starting point for discussion on how to promote a competitive reasonably priced market for APC funded publishing, GRC participating organizations may refer to a recent study by Björk and Solomon (2014)³ that set out scenarios for how funders can develop their approaches for supporting APCs.

³ <u>Developing an Effective Market for Open Access Article Processing Charges</u>. Björk, B-C. and Solomon, C. March 2014

Assessing Impact and Providing Incentives

Methods, instruments and approaches to assess quality and impact or how scientific quality is increased through open access are still an emerging field and open for experimentation and development. Furthermore, approaches to incentivizing or even rewarding researchers and institutions for efforts in making materials available as open access are an active area of discussion. Most organizations are in the early stages of considering how to approach this. Thus, assessing impact and providing incentives seem to be fields where more international exchange and discussion of approaches would be helpful in order to stimulate their uptake or to define new and more suitable approaches

Conclusions and Recommendations

The survey revealed a variety of approaches and solutions, and different stages in the implementation of policies and measures. These differences were apparent across regions and also within regions from country to country. Conversely, science works very much across borders, and increasingly different publication practices and approaches may become potential obstacles to global science collaboration.

With its long-term objective of fostering multilateral research and collaboration across continents to benefit both developing and developed nations, the Global Research Council has an opportunity to fulfill a key role in helping move the implementation of open access forward in an efficient, coordinated and purposeful manner.

Further Use of the 2014 Review Data

GRC participating organizations were engaged and actively participated in the review of implementation of open access. The survey revealed a strong, widely shared interest in working towards open access, and in sharing information and best practices among organizations. The survey exercise itself helped to raise awareness of open access in many organizations, and most respondents agreed that they would use the results of the review for comparisons and to help them assess their progress relative to other organizations and regions.

The 64 completed templates contain a rich source of data, ideas, examples of practices and approaches, and raised many issues and suggestions that could nourish future discussion. Many GRC participants expressed an interest in using the GRC as a forum for sharing information and best practices. The GRC may wish to consider ways to maximize and leverage the value of the rich data that has been collected.

Recommendation 1: That GRC provide access to the rich survey data through one or more of the following options:

- a) Prepare a more extensive report that provides in-depth analysis of the responses, possibly structured as regional chapters
- b) Provide access to information through a central repository on the GRC website

The 2014 review provides a baseline on the implementation status of the Action Plan. In order to continue to monitor progress in implementing the Plan, and to measure the growth of openly accessible research worldwide, the GRC may wish to consider repeating the survey in future.

Recommendation 2: That GRC repeat the review of open access implementation periodically, at a frequency to be determined by GRC participants (e.g., every three years).

Ongoing Implementation of the Action Plan

The 2013 Action Plan is unique in comparison to other Statements developed by the GRC to date, by suggesting a number of specific actions which can be taken by organizations, either individually or in consortia. As a very young and growing organization, the GRC must consider how it sees its role or niche in fostering open access, relative to other international groups and associations.

In both 2013 and 2014, open access was one of two main topics on the agenda for the Annual Meeting. It is not the intent that the topic of open access continue to be a main focus of discussions at every upcoming meeting. However, if some GRC participants (individually or collectively) have made significant progress or taken an innovative approach towards a particular issue, it would be beneficial to provide a short progress update as information at the GRC Regional and/or Annual Meeting.

Recommendation 3: That GRC request regular updates on progress made towards Actions listed in the *Action Plan towards Open Access to Publications*, to be presented at the Annual Meetings by selected countries or groups of countries.

In order to make significant progress on advancing implementation of the Action Plan, it may be necessary for GRC to establish a standing expert committee or working group that would monitor, coordinate, and in some cases lead the implementation of specific actions from the Action Plan. This would be one way for GRC to ensure ongoing progress in implementing the Action Plan is achieved, and to truly have an impact within the evolving open access policy landscape. However, establishment of a more permanent working group would be contrary to the expressed nature of GRC as a virtual organization, and may set a precedent for GRC establishing working groups on other topics. The governance and operating principles of such a working group would also need to be confirmed.

Recommendation 4: That GRC consider the implications and potential benefits and challenges of establishing a standing working group to lead implementation of the *Action Plan towards Open Access to Publications*.

Potential Areas for Future Cooperation

Finally, the survey results may guide GRC participants in identifying future actions to be developed in a coordinated manner. There are a number of issues and challenges that are of interest to a majority of organizations, suggesting there may be benefits to tackling certain challenges or questions through a cooperative approach. Making progress on this type of question would require the creation of a standing working group as discussed above under Recommendation 4.

Recommendation 5: That GRC consider undertaking cooperative discussions and a scoping exercise towards greater cooperation in one or more of the following areas:

- a) Common guidelines for Green and for Gold open access approaches
- b) Dealing with APCs
- c) Incentives and rewards for researchers

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