China - Open science country note

Open science and the national context

In China, the topic of open science was first raised in connection with efforts to optimise S&T resource allocation and use. The State Plans for Medium- and Long-term Development of Science and Technology (2006-20), published in 2006, set a strategic objective of building the national S&T infrastructure platform and sharing a variety of resources, including scientific data and information.

The National Science and Technology Infrastructure Initiative, set up in 2005, has funded 23 S&T infrastructure platforms, including 6 data platforms and 1 literature platform.

Actions more specifically relating to open data and open access have been taken since 2010; these have included establishing the National S&T Report System; pilot projects involving open data in two research areas, health and agriculture); policy statements on open access to scientific publications.

Open science research and innovation actors

The Ministry of Science and Technology (MOST) – is the leading organisation in China for promoting broad S&T resource sharing, which it outlined in the national S&T strategy. The ministry established the National Science and Technology Infrastructure Initiative, and set up a dedicated centre to manage the initiative and monitor progress.

The Chinese Academy of Science (CAS) – leads research and policy development in open access to scientific publications. As one of the co-founders of Global Research Council (GRC), CAS endorsed the Action Plan towards Open Access in 2013 and delivered the Policy Statement on Open Access to Articles from Publicly Funded Scientific Research Projects in 2014.

The National Natural Science Foundation of China (NSFC) – was co-author (with CAS) of the Policy Statement on Open Access to Articles from Publicly Funded Scientific Research Projects in 2014.

Policy design - Open data

Open data practices are supported mainly by the National Science and Technology Infrastructure Initiative (NSTII).

In its first stage (2005-10), NSTII funded data centres whose activities included building information systems and establishing metadata standards. The centres are authorised to collect and disseminate open data.

Since 2011, NSTII has been supporting pilot projects involving open data in the research areas of health and agriculture. By April 2013, 1 923 projects sponsored by MOST major programmes have delivered metadata to these centres.

NSTII provides the incentive for data centres to deliver better services to users, in the form of a stipend based on service quantity and quality. As yet there is no such incentive for original data providers. Open data practices are justified by the belief that data generated in publicly funded

projects should be shared by and benefit more people. It is anticipated that open access provisions will appear in the MOST Grant Agreement in the next five-year-plan period (2016-20).

The legal framework for open data is not in place yet. Application of standard open licences or waivers will be considered.

Policy design- Open/increasing access to scientific publications

As mentioned above, CAS and NSFC jointly issued the Policy Statement on Open Access to Articles from Publicly Funded Scientific Research Projects in 2014.

In its policy statement, CAS requires its researchers and graduate students to deposit an electronic version of the final, peer-reviewed manuscripts of their articles resulting from any publicly funded scientific research projects into the open access repositories of their respective institutes at the time the article is published; the articles are to be made publicly available within 12 months of the official date of publication. This applies to manuscripts submitted and consequently published in academic journals after the policy statement was issued; however, CAS encourages the authors of articles published prior to that to comply as well.

As an incentive, CAS offers support to authors publishing research articles from publicly funded research projects in open access academic journals, in the form of reliable quality control and reasonable article processing charges. CAS has authorised its relevant departments to establish guidelines for selecting open access academic journals eligible for article processing charge funding, and to experiment with ways of transforming high-impact academic journals into open access journals.

Regarding legal issues, CAS has authorised its department responsible for library and information services to develop detailed guidelines for open access deposit of the aforementioned research articles in accordance with copyright laws.

Skills for open science and open data

CAS published a “Q&A on policy on open access to articles from publicly funded scientific research projects”, dealing with the frequently asked questions regarding OA practice.

Capacity building on open science and open data takes place through training workshops.

For example, the Third China Open Access Week – targeting directors from research and educational institutes, library directors and IR managers – summarised the trends, best practices and challenges in Chinese institutional repositories (IR) development.

Open science and international co-operation

As co-chair of Group on Earth Observation (GEO), China promotes free and open data principles.

CAS, as co-founder of the Global Research Council (GRC), endorsed the Action Plan towards Open Access.

China has been active in a number of international Big Science Projects, such as ITER (the International Thermonuclear Experimental Reactor) and SKA (the Square Kilometer Array) in recent

years.