Priority Initiative
"Digital Information"

of the

Alliance of Science Organisations in Germany

Extending the Cooperation 2013 - 2017
Priority Initiative "Digital Information" of the Alliance Partner Organisations

Alliance Initiative "Digital Information" – Guiding Principle

The guiding principle of this priority initiative is to equip scientists and scholars with the information infrastructure best suited to meeting their research needs. This entails digital access to publications, research data, services, tools and virtual research and communication environments, available to the user without costs or other barriers, and the right to make use of them. Creating a sustainable, integrated, digital research environment that provides all German researchers with the broadest possible access to relevant published knowledge, research data and tools, no matter where or when they need it, will therefore remain a key priority.

The Alliance partner organisations will also continue to promote Germany as an internationally competitive centre of research by concentrating competencies and resources and jointly addressing current and future issues. They are particularly concerned with coordinating their policies and practical decisions in relation to digital research infrastructures, pooling their financial resources in this area, and, where necessary, making additional resources available.

The Alliance of Science Organisations in Germany has therefore agreed to continue the Priority Initiative Digital Information, launched in 2008, for the period 2013 to 2017. The aims of the priority initiative are:

- To guarantee the broadest possible access to digital publications, research data and other source materials and thus ensure that they can be used in other research contexts
- To create an optimal framework for the international distribution and reception of German publications and research data
- To ensure the long-term availability of the digital media and contents that have been acquired from around the world and their integration in the digital research environment
- To support IT-based research by means of innovative information technologies and digital methods
Alliance Initiative "Digital Information" – Summary

Priority Areas of the Collaboration
The partner organisations within the Alliance agree to continue coordinating and combining their activities and resources in the following priority areas:

1. National licensing
2. Open access
3. National hosting strategy
4. Research data
5. Virtual research environments
6. Legal frameworks

There are also relevant topics that fall within the scope of two or more working groups and for which there is a need for action for a particular period. These cross-disciplinary topics are handled by ad-hoc working groups with a defined time limit. At the present time there are ad-hoc working groups for Open Access Gold and Usage Rights.
Alliance Initiative "Digital Information" –
Priority Areas in Detail

The six priority areas are described using a standard format. First comes a brief introduction to the particular area, followed by an abbreviated summary of progress and finally the outlook and objectives for the next few years. All documents and sources referenced here are listed in full on the website www.allianzinitiative.de/en.

National Licensing

One of the core elements of a digital research environment is the accessibility and availability of published knowledge. The broadest possible availability of digital publications can be achieved through national licenses on the one hand, and activities in the area of open access on the other. The partners will work towards embedding their licence agreements with the scientific publishing houses in national consortium agreements. This will provide a better service to scientists and scholars, and ensure the responsible use of public funds. Another important objective is to influence and help shape the development of business models and licensing standards in the best interests of the research community.

Summary of Progress

In this priority area, the model of Alliance licences has been developed on the basis of DFG-funded national licences. A set of principles was drawn up for the acquisition of Alliance licences to establish a high standard in licensing practice. Negotiations with providers have demonstrated that these standards can be achieved if the negotiating interests of licensees are combined and licences are negotiated on the national level.

In terms of the further development of business models, the Alliance has succeeded in achieving a shift towards more subject orientation in licence packages. Furthermore, through the conclusion of Alliance licenses it was not only possible to acquire content but also extended usage rights. This applies to
the right to local hosting\(^1\), the Moving Wall component\(^2\) and the Open Access component\(^3\).

In addition to the objectives defined in 2008, the working group has developed a model licence that can be used by all libraries as a template for creating licence agreements.

**Outlook and Objectives 2013 - 2017**

The market for scientific information, which has always been very much a supplier's market, can only be positively influenced in the long term through a concerted approach. The aim must be to achieve demand-oriented rather than supply-oriented licence packages. Over the next few years the replacement of prevailing business models, which still use printed material as their reference, will continue to be promoted through the development and establishment of research-friendly business models. In a second stage of the cooperation within the Alliance initiative, further licence agreements of Alliance partner organisations will be embedded in national consortium agreements which meet the basic criteria for the acquisition of Alliance licences. Additionally, the aim will be to further develop the current guidelines with extensive usage rights, and to also establish them as a licensing standard in contexts other than the Alliance initiative.

**Open Access**

*The term "open access" describes the goal of making knowledge globally accessible and usable in digital form without financial, technical or legal barriers. In order to ensure that scientific knowledge – continuously extended, modified and documented in scientific publications – is made available in accordance with this principle, a forward-looking digital research environment must ensure well-organised and sustainably funded access to publications without costs or obstacles relating to usage rights.*

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\(^1\) Providers undertake to supply the data in physical form upon request.
\(^2\) After a specified period the licensed content is made available to all scientific institutions in Germany.
\(^3\) Authors from institutions which participate in a journal licence have the right to make their articles which have appeared in this journal available through open access and/or allow them to be made available through their institutions.
Summary of Progress

One key outcome of activities in this priority area is the consistent positioning of the Alliance of Science Organisations in Germany on key issues in open-access publishing. The academic world and politicians now recognise the fact that the Alliance is speaking with a unified voice, for example through the influence of relevant papers on draft legislation and initiatives. Brochures produced by the working group have raised awareness of the issue of open access at universities and research institutions. This was reinforced by further awareness-raising measures (such as special events and panel discussions), establishing the group as an important partner in a national and European context. The introduction of the Open Access component in Alliance licences deserves mention as an important building block for the paradigm shift towards open access.

Outlook and Objectives 2013 - 2017

So far, activities have been focused on the provision of detailed information about open access in order to promote this publishing paradigm. In the future this focus on research policy will be systematically complemented by recommendations and guidelines that more effectively address the concrete implementation of open access by universities and research institutions and, if necessary, in different fields. In this way support will be given to effectively promote the transition to an open access culture.

The concrete aims of the working group are to promote funding for the "golden road”, define criteria for the adoption of open access publication fees, work to increase the content of open-access repositories and collaboratively support international open access infrastructures. Due consideration will be given to discussions and initiatives of Science Europe and the newly founded Global Research Council.

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4 The golden road refers to the immediate publication of scientific papers in relevant periodicals in accordance with open access criteria. An alternative is the green road, where scientific publications are archived on open access document servers (repositories) either at the same time as publication or at a later date. The golden road requires an open access business model; the green road does not change the current subscription model.
National Hosting Strategy

Working in a coordinated process at national level, the National Hosting Strategy working group identifies ways in which research organisations can satisfy the demand for the permanent accessibility of digital publications by creating a back-up hosting solution ("safety net").

Summary of Progress

A milestone was reached in February 2010 with the presentation of a jointly funded study, supervised by the working group. The study, "Ensuring Perpetual Access: Establishing a Federated Strategy on Perpetual Access and Hosting of Electronic Resources for Germany", analyses the current situation in Germany, describes various international approaches and sets out scenarios and recommendations to take German research into the future.

In March 2010 the study was presented to a large professional audience and discussed in various working groups. Two solutions have since emerged in the shape of LOCKSS and Portico, which are now being evaluated in more detail by two sub-groups with additional members. The third core component of a coordinated joint concept for Germany, also under discussion, is the establishment and expansion of independent hosting solutions.

In early 2011 it became apparent that the numerous as yet unresolved questions could no longer be dealt with by the working groups alone (in addition to other responsibilities). So towards the end of 2011 a call for tenders was prepared for a DFG project in which previously collated findings and key insights would be refined and developed into a workable national strategy. The call was issued in January 2012 and the project is scheduled to get underway by the autumn of 2013.

Outlook and Objectives 2013 - 2017

With respect to the DFG project, the working group will serve as an expert sounding board for the project team and, subsequently, actively support the transfer of the project outcomes with a view to implementing a "safety net" for sustainable access to electronic information resources (the National Hosting Strategy). In the next stage the working group will then address the issue of
long-term archiving, for example by promoting networking between the National Hosting solution and existing long-term archiving projects and initiatives. The group will also cooperate more closely with other Alliance working groups on cross-topic issues (such as licensing, open access, research data and virtual research environments).

**Research Data**

*Research data is data produced by scientific projects, for example by means of digitization, the study of sources, experiments, measurements, surveys or questionnaires. The availability and usability of digital information includes access to research data with no costs or barriers. It is important to note, firstly, that this can only be achieved in a national and in many cases an international context, and secondly that developments in relation to research data are progressing at different rates in different disciplines, and may also have varying degrees of urgency. The aim is to initiate and support the necessary processes on a science-driven basis to be able to develop and implement research infrastructures that are usable for specific disciplines. Accompanying professional information management methods will help to collect and archive this data and make it available for further use.*

**Summary of Progress**

As a core task, a policy paper on the handling of research data was drawn up and approved by the executive committees of the partner organisations. As this was the first policy paper on research data in Germany, the careful reconcilement process took some time. The policy paper now provides a common stance at national level agreed by all partner organisations in relation to research data, which will serve as a guideline for activities over the next few years. The policy paper was entered into the international debate through various national and international channels (including Knowledge Exchange and an information workshop at the DFG office in Washington).

Additionally, members of the working group participated in expert committees at both national level (e.g. the Leibniz Association's Research Data Working Group) and international level (e.g. G8+O5 on Global Research Infrastructures,
Sub-Group on Data), promoting the issue of research data and presenting the German perspective.

**Outlook and Objectives 2013 - 2017**

The working group is concerned with four main topics. 

**Research data management.** This area includes the comparative examination of examples of existing data management checklists and the specification of recommendations on citations for research data. The development of a proposal for minimum requirements for metadata to improve data interoperability and the exchange of metadata also needs to be named here.

**Usability and availability of research data.** Selected examples of relevant "success stories" will be collected in order to highlight the benefits of the usability and availability of research data and to encourage the publication of research data as standard in all disciplines.

**Cost structures.** Cost structures play a crucial role in the installation of suitable research data centres and research infrastructures, both national and local. The setup, development and operating costs for selected research data centres in different disciplines will be evaluated in order to obtain a clearer picture of the cost factors for local and distributed data centres in the field of data management.

**Legal frameworks.** In addition to clarifying fundamental legal frameworks (for example rights relating to data), mechanisms and guidelines will be developed with the objective to ensure free access to research data and its unrestricted use for scientific purposes. This must not hinder the use of scientific data for technology transfer or knowledge transfer projects, patent applications, or for the provision of value-added services (such as databases with specific evaluation or search software).

**Virtual Research Environments**

A virtual research environment (VRE) is a working platform that permits collaborative research by a number of researchers working simultaneously at different locations, without limitations. It has the potential to support the complete research process, from data gathering, discussion and data processing to the publication of results. From a technology point of view it is
mainly based on software services and communication networks. VREs are essential components of modern research infrastructures and make a decisive contribution to the productivity and competitiveness of research.

**Summary of Progress**

The working group was established in early 2010, somewhat later than the launch of the Alliance initiative, and began by suggesting a definition of a virtual research environment. A survey was then carried out among operators of selected VREs to obtain more details about the nature and organisation of these environments. After evaluating the results of the survey, a set of guidelines was compiled for supporting researchers who want to develop a VRE. The guidelines, the definition and the questionnaire are available in English and German on the website of the working group.

**Outlook and Objectives 2013 - 2017**

The working group has four tasks.

*Mapping and analysis.* Existing VREs will be described, standardised, substantiated and analysed on the basis of the above-mentioned survey and in collaboration with the CARPET project⁵. This will make it easier for research groups to reuse existing services and tools and will allow the identification of commonalities and particular features as part of a synoptic analysis. Based on this information recommendations could be defined for future funding programmes, for example.

*Transition to permanent operation.* There is currently no virtual research environment intended for long-term use. Guidelines for the transition to permanent operation will help us to analyse existing funding models in other areas (e.g. data centres) in terms of their applicability to cross-institutional, cross-border VREs. Recommendations will be developed for moving a VRE from the setup phase to the operational phase, in other words institutionalizing it. Licence and cost models will not be taken into account in the initial stage.

*Legal issues.* This area is concerned with legal issues relating to new

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⁵ Community for Academic Reviewing, Publishing and Editorial Technology: information platform for projects and applications in electronic publishing technology. A DFG project with the working title "VFU I", currently at the planning stage, anticipates the creation of an infrastructure that will allow information exchange and communication by means of virtual research environments using the CARPET infrastructure.
organisational forms and types (e.g. cross-border usage of nationally funded resources) - identifying such issues, developing possible solutions together with competent partners and initiating their implementation.

*Exchange of experiences.* A series of thematic workshops focusing on practical experience will encourage researchers engaged in current projects to discuss their experiences - in particular the evaluation of key success factors for VREs, such as acceptance, quality, technology and social aspects.

**Legal Frameworks**

At present, the establishment and use of integrated digital research environments is being hampered by two factors which must be addressed in the political sphere. These are the latest amendment to German copyright law and the different rates of value added tax for printed and digital publications. The Alliance initiative partners are working to achieve a joint, research-friendly position with the relevant stakeholders and to serve as a "lever" for the initiative in the political arena.

**Summary of Progress**

So far the working group has focused on activities relating to the third stage of the amendment of the Copyright Act and is seeking to make the views of the Alliance partner organisations heard in political processes. With this in mind it has drawn up various policy papers and background information on the future of copyright law, which have been sent mainly to the Federal Ministry of Justice (BMJ) but also to the European Commission and other bodies. Several of these were drawn up with the assistance of the Open Access working group. In addition, representatives of the Alliance partner organisations participated in five consultations with the Ministry of Justice and four policy meetings with senior politicians, in the preparation of which the Legal Frameworks and Open Access groups were actively involved. In this context it is significant that a consensus was reached with the Standing Conference of the Ministers of Education and Cultural Affairs in Germany and a joint position was established on a key demand, the introduction of an inalienable secondary publication right. Support for the Alliance's positions was obtained from all parties represented in the German parliament (Bundestag).
Outlook and Objectives 2013 - 2017

In view of the continuation of the legislation process for the third stage of the Copyright Act and the legal issues that continue to arise in other working groups of the Alliance initiative, the working group proposes that in the coming period, its activities should be split into two areas. Firstly, it should continue to be active with respect to the copyright law amendment process, for example by commenting on the coming draft (in collaboration with the legal advisers of the Alliance organisations) and promote the Alliance's position on copyright issues in consultation with the Conference of the Ministers of Education and Cultural Affairs. Secondly, it should handle preliminary work for cross-disciplinary topics of the Alliance initiative. This relates to Open Access Gold publishing, usage rights for publications and research data, the long-term funding of open access community services, and the inalienable secondary publication right. The group may require additional legal experts for particular purposes.

As there has not so far been any sign of political willingness to change the rate of VAT for digital media, the Legal Frameworks group saw no realistic chance of achieving success in this area. However, in view of recent statements from the European Commission and German politicians, calling for equal rates of taxation for printed and digital media, there may be a future need for action here. The Legal Frameworks group will monitor developments in the political debate.

Ad-hoc Working Groups for Cross-Disciplinary issues

Strategically relevant topics that fall within the scope of two or more working groups and for which there is a need for action for a particular period are addressed by ad-hoc working groups. Ad-hoc working groups are set up on the basis of a clearly defined task and have a specific time frame.

Open Access Gold

It is becoming increasingly urgent to link the issues of open access and licensing. The environment is much more favourable to the systematic incorporation of open access in licences now than it was five years ago. There are now few publishers who do not have at least one open-access periodical in their portfolio. The "golden road" of direct open access publishing is
increasingly being viewed as a valid business model for the future. The Alliance initiative should respond to these developments and be actively involved in laying the foundations for the transformation of the current subscription system to a publication cost model. It is therefore proposed that the expertise of the two relevant working groups, Licensing and Open Access, should be combined and an ad-hoc working group set up to deal with strategic and operational issues relating to the introduction of (potentially major) open access agreements in line with the publication cost model. It would be advisable to draw also on the expertise of universities who already have experience of setting up and administering publication funds.

The task of the ad-hoc working group is to analyse the structural interdependencies between strategic, legal, administrative and financial objectives and measures in order to develop recommendations and concrete scenarios for the conclusion of open access agreements. The discussions and decisions of European and international committees and organisations (e.g. Science Europe and the National Science Foundation) on Open Access Gold should be taken into account.

**Usage Rights**

Many activities of the Alliance initiative are designed not only to enable as much free access as possible to publications and research data but also to ensure their availability in such a form that research findings can be widely used by third parties. This is evident for example in Alliance licence agreements, when the hosting or provision of periodical articles through virtual research environments is ensured, and when the importance of standards as one of several requirements for the use of research data is included in the criteria for handling this data. In order to remain efficient and competitive, researchers will in the future be increasingly dependent on the legal, technical and organisational backing for the usability and verifiability of research findings.

One particular challenge is to legally ensure the free usability of research data and to counter the threat of commercialisation in this area.

This results in the necessity to give equal importance to the fundamental reusability of research findings in all areas of the Alliance initiative. To achieve this, guidelines must be developed and agreed upon which take into account
technical and organisational aspects (e.g. standards, interoperability, metadata, storage and archiving) and legal aspects (e.g. contracts, licensing and codes of practice) and which are strictly implemented throughout the Alliance initiative. Due consideration should be given to international debate and developments, such as the concept of open science.

An ad-hoc working group will draw up guidelines that are capable of ensuring the reusability of research findings and which will guide the actions of all working groups within the Alliance initiative.

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