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Priority Initiative „Digital Information“ by the Alliance of German Science Organisations

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(AvH, DAAD, DFG, FhG, HGF, HRK, MPG, WGL, WR)

Guiding Principles

Equipping scientists and scholars with the information infrastructure best suited to meeting their research needs is the guiding principle of this priority initiative. In the digital age, this entails digital access to publications, primary research data, and virtual research and communication environments, available to the user without costs or other barriers. It also requires a sustainable, integrated digital research environment that can provide all German researchers the broadest possible access to published knowledge and the relevant primary research data.

An integrated and innovative information environment is most effective when established within both a national and an international context. The partners within the Alliance of German Science Organisations are committed to increasing Germany’s competitiveness in world-class research by concentrating competencies and resources, and improving the coordination of current and future activities. In particular, they are prepared to coordinate their basic political and professional decisions in the area of digital information, to bundle the financial resources that they employ for this purpose and, if necessary, to provide additional resources.

The Alliance of German Science Organisations therefore agree to coordinate the activities of the individual partner organisations and to expand on the ideal of the innovative information environment by means of a Joint Priority Initiative from 2008 to 2012 with the following goals:

- to guarantee the broadest possible access to digital publications, digital data and other source materials
- to utilise digital media to create the ideal conditions for the distribution

and reception of publications related to German research

- the 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 collaborative research by means of innovative information technologies.

The partners within the Alliance of German Science Organisations agree to coordinate and bundle their resources and activities in the following priority areas:

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

Alliance Initiative Digital Information – The Priority Areas in Detail

→ Priority Area 1: 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.

In order to ensure that German research institutions have extensive access to digital publications, free-of-charge to individual researchers, the Alliance of German Science Organisations will increasingly work towards achieving national consortium agreements between its institutions and the scientific publishing houses. This will provide a better service to scientists and scholars, and ensure the responsible management of public funds.

The DFG’s national licenses model will be expanded until it covers the requirements of all research institutions as fully as possible, thereby contributing to a comprehensive digital research environment. A key criterion for the further development of this model is to ensure the autonomy of information services at individual research institutions as well as of the existing information infrastructure. The partners will also attempt to coordinate the license agreements with partner organisations abroad whenever feasible.

The Alliance of German Science Organisations aims at eliminating historic spend for print editions as the reference point for negotiations with publishing companies.

An essential objective of the collaboration is also to utilise the combined negotiating potential in order to negotiate demand-oriented license packages with the publishing companies, rather than the supply-oriented packages currently available, and also to develop corresponding new business models. Additionally, the acquisition of national licenses should also be used toward acquiring extended usage rights for authors.

→ Priority Area 2: 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 digital research environment must ensure well-organised, sustainably funded, and uncomplicated access to publications free of charge.

The activities of the Alliance’s existing Open Access working group – perhaps including further members – will be stepped up, so that the open access to texts, primary data and other digital objects can be promoted and implemented by means of science policy and other concrete steps.

A primary goal of this Priority Area is to expand the scope and network of institutional and disciplinary digital repositories. To achieve this, incentives will be developed in the context of the alliance’s activities: First – with reference to

the research institutions – to undertake the standardisation, networking and quality assurance of publication servers; and second – with reference to the individual scientists and scholars – to make (secondary) publications available via the so-called “green road” of Open Access.

The second essential goal is to further develop the so-called “golden road” of Open Access (an article is freely accessible as soon as it is published in a journal) through coordinated action. This will require the development of new business and funding models as well as new forms of cooperative financing. Pilot projects will be used to track the way in which subscription fees and publication costs can be correlated and/or rearranged. Models will be developed and tested in discipline-specific settings with the goal of financing publication costs as the final step of the research process. Suitable budgetary measures must be developed to ensure that research budgets are not strained as a result.

→ Priority Area 3: National Hosting Strategy

The increasing acquisition of commercial publications in digital form presents all scientific institutions with the challenge of making these contents permanently available via a suitable infrastructure. There is consensus that a national strategy is indispensable, both for reasons of cost and because of the technical and organisational requirements of the task. Such a strategy should be developed and implemented without delay. This will be even more urgent when, in accordance with the e-only principle, scientific publications are acquired and retained solely in electronic form.

A national hosting strategy seeks to establish and operate an efficient hosting infrastructure for the storage of digital texts. This will guarantee sustainable access to licensed commercial publications as well as to retro-digitised materials.

The Alliance of German Science Organisations has agreed to develop and implement a joint strategy for the national hosting of licensed commercial publications and other media acquired in licensed form. The core component of such an infrastructure is a repository in which data can be reliably stored. This storage system will not come with its own user interface, but will instead function as a “back-end”, equipped with standard access interfaces and

services.

The Alliance of German Science Organisations is aware that this requires new infrastructure. and that this new infrastructure is as fundamentally important to the research community as the development of electronic library databases and specialist information systems was in earlier years.

→ Priority Area 4: Primary Research Data

In Germany alone, the costs associated with obtaining research data as the basis for scientific knowledge – whether in sociology, medicine, remote sensing or high-energy physics – is in the order of magnitude of several billion euros each year. Even after a relatively short phase of scientific evaluation by individual researchers or small groups, much of this data is forgotten and/or allowed to deteriorate. All scientific institutions therefore see an urgent need for action in order to ensure the systematic backup, archiving and provisioning of scientific data for subsequent (re-)use by third parties. The development of archiving and access strategies for primary research data is, admittedly, in varied stages and is of varying urgency in the different disciplines. This must be taken into account when it comes to applying the measures described in this Priority Area.

The Alliance partners aim to establish structures to enable the collection, archiving and subsequent reuse of primary research data in all applicable disciplines in which these are not yet available – whether to make scientific findings verifiable in order to promote Good Scientific Practice, or to make them available for subsequent reuse in the context of different research questions or disciplines. The key element in this process, the sine qua non for its success, is the close cooperation between the scientists and the information providers.

The activities of the Alliance Initiative are directed to three areas:

First, the partners wish to formulate a common data policy in order to promote both the need for action and to demonstrate the usefulness of primary data infrastructures for scientists and scholars.

Secondly, the partners wish to foster cooperation between scientists and information specialists and to offer funding for pilot projects. Such projects

should develop subject-specific standards and methods of data curation and archiving; they should also define the division of labour required in the process. These steps have the overall goal of establishing a reliable system of digital archives for primary research data, and to ensure that these remain accessible internationally and their data reusable in various interdisciplinary contexts.

Finally, the third and ultimate aim is to establish a system of discipline specific, internationally networked data repositories for primary research data. However, this task can and should only be tackled when sufficient experience has been acquired from the funding and evaluation of pilot projects. This is to ensure that the new structures respond to the requirements of the individual subject disciplines and are embraced by them.

The partners within the Alliance of German Science Organisations agree to coordinate their funding programmes in the area of primary research data and, when necessary, to merge or harmonize them. They also agree in due time to examine the possibility of establishing common infrastructures for primary research data.

→ Priority Area 5: Virtual Research Environments

The networking of research environments will play a decisive role in the productivity and competitiveness of both individual researchers and geographically distributed and cross-disciplinary research groups. This Priority Area can and will be expanded in proportion to the successes seen in the other priority areas.

The goal is to design a research and development strategy to support scientists and scholars as they establish subject-specific and interdisciplinary networked digital research infrastructures known as “virtual research environments”. Initial efforts in this direction have been made at the Helmholtz Association with the “Helmholtz Virtual Institutes” and the “Helmholtz Alliances”, at the DFG with the funding programme “Thematic Information Networks”, and at the Max Planck Society and the Leibniz Association in their joint eSciDoc developments. These efforts are to be intensified and extended within the individual partner organisations. Based on the results obtained there, it will be decided at a later point in time how cooperation within the alliance can be intensified, for example, with a joint request for bids regarding the

establishment of cross-institutional virtual research environments.

→ Priority Area 6: Legal Frameworks

Digital research environments are also currently obstructed by two factors which must be dealt with in the political sphere. The first of these factors is the latest amendment to the German copyright law and the second concerns the different rates of value added tax for printed and digital publications.

In the course of a future amendment to the copyright law, the Alliance of German Science Organisations will actively plead the case for Open Access, with the goal, among other things, of securing a “basic right” for authors to publish their findings in accordance with the idea of providing scientists free access to information.

Moreover, the Alliance of German Science Organisations will advocate that the current distortion of competition between print publication and digital publication be eliminated by equalising the applicable rates of value added tax. It is desirable that, analogous to the print media, digital media should also be granted a reduced rate of value added tax.

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