

German Digital Information Initiative for Building New Knowledge Service Capabilities

Authors: Gu Liping

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Abstract

The Alliance of German Scientific Organizations (Allianz der deutschen Wissenschaftsorganisationen) launched the second phase of the Digital Information Program (priority initiative-digital information) in January 2013, aiming to promote the open sharing and utilization of digital scientific research information. The Prussian Cultural Heritage Foundation and Berlin State Library, the Saxon State and University Library Dresden and Göttingen State and University Library, the Frankfurt University Library, among others, joined the Digital Information Working Group. The program encompasses six implementation schemes: national licensing system, national collection strategy, research data, open access, legal framework, and virtual research environment. The Alliance of German Scientific Organizations and the second phase of the Digital Information Program will provide German researchers with more robust knowledge service capabilities during the 2013-2017 period.

Full Text

Building New Knowledge Service Capabilities Through Germany's Digital Information Initiative

Affiliation: National Science Library, Chinese Academy of Sciences, Beijing 100190

Email: gulp@mail.las.ac.cn

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In January 2013, the Alliance of German Science Organizations (Allianz der deutschen Wissenschaftsorganisationen) launched the second phase of its Priority Initiative for Digital Information, aimed at promoting the open sharing and utilization of digital scientific research information. The Prussian Cultural

Heritage Foundation and Berlin State Library, the Saxon State and University Library Göttingen, and the Frankfurt University Library, among others, joined the Digital Information Working Group. The initiative comprises six implementation programs: (1) national licensing, (2) national hosting strategy, (3) research data, (4) open access, (5) legal framework, and (6) virtual research environments. Between 2013 and 2017, the Alliance and its second-phase Digital Information Initiative will provide German researchers with significantly enhanced knowledge service capabilities.

Keywords: German information policy; research data policy; open access funding; institutional repositories; intellectual property; copyright

1 Overview of Germany's National Digital Information Initiative

The Digital Information Initiative represents Germany's national information policy. Developed by the Alliance of German Science Organizations—comprising ten representative research institutions—it is a five-year plan designed to address the information infrastructure needs of scientific development, including technical hardware and software, legal and policy frameworks, human resource development, and financial and business environments. The first phase focused on organizing and integrating the needs, intentions, resources, and policy proposals of member institutions, while the second phase emphasizes concrete policy implementation.

In January 2013, the Alliance of German Science Organizations officially launched the second phase of its Priority Initiative Digital Information [1-2], which will, over five years, collaborate with partners from professional and policy domains to establish digital research infrastructure and shared resources. It will continue advancing open publishing and open access practices in science from four dimensions—legal, financial, technical, and organizational—at both national and international levels.

The Alliance consists of ten German research and educational institutions (see Table 1), dedicated to enhancing digital information support capabilities for research and education to meet the demand that “science requires rapid, free, and unrestricted exchange of information.”

Building on the first phase implemented from 2008 to 2012, the second-phase plan was formulated on January 26, 2012 [3], and its first-phase summary and second-phase priorities were released on January 17, 2013. Known as the “Priority Initiative for Digital Information,” its main objectives include [4]: (1) promoting comprehensive openness in digital publishing, research data, and information retrieval to ensure the future usability of digital information in other research contexts; (2) creating favorable conditions for the international dissemination of German research publications and data; (3) ensuring long-term access to global digital media and content and their integration into Germany's digital

research environment; and (4) continuously innovating information technologies and digital methods that support academic research activities.

2 Participation of German Research Funding Agencies, Research Institutions, and National and Regional Libraries

Since its establishment in 2008, the Alliance of German Science Organizations completed foundational work during its first phase, including basic principles and strategies, guidelines for national licensing, research data sharing agreements, establishment of virtual research environments, and national repositories for open access paradigms, as well as proposing scientific recommendations for copyright law amendments. The second-phase Digital Information Initiative encompasses six strategic implementation programs [5]: (1) National Licensing (Nationale Lizenzierung), (2) National Hosting Strategy (Nationale Hosting-Strategie), (3) Research Data (Forschungsdaten), (4) Open Access, (5) Legal Framework (Rechtliche Rahmenbedingungen), and (6) Virtual Research Environments (Virtuelle Forschungsumgebungen).

Germany's major public, academic, and research libraries have also participated in various working groups of the second-phase initiative, as shown in Table 2 .

The operational mechanism of the Alliance of German Science Organizations is as follows [12]: member institutions dispatch representatives to form a joint steering committee, with each institution appointing two coordinators for communication and liaison. Working groups regularly report progress to the steering committee, which is responsible for reviewing work and formulating further development actions. German libraries participate in the Digital Information Initiative in two ways: first, libraries with relevant expertise undertake research projects as working group members; second, within their capacity, they implement relevant policy advancement work according to the final action plans formulated by the steering committee.

3 Key Policy Implementation Priorities in the Digital Information Initiative

Based on Germany's six digital information programs, the enhancement of national knowledge service capabilities primarily aims to meet the needs of academic communication in the digital research era and address various challenges in removing information exchange barriers.

- **National Licensing [13]:** Achieving the broadest possible availability of digital publications at the national level and in other open access domains. The second phase focuses on promoting joint acquisition of licenses by Alliance members under the principles advocated by the Alliance. Its purpose is to achieve long-term sustainable development of the research information market, transforming digital information resource sup-

ply from supply-driven (business models) to demand-driven (researcher-friendly models).

- **National Hosting Strategy [14]:** Implementing a national strategy for the German Research Foundation and a “double bottom” approach for long-term preservation by research institutions to achieve permanent preservation of digital publications. The second phase requires implementing various protocols for long-term preservation of electronic information resources.
- **Research Data Management [15]:** Aiming to achieve collection, storage, and open sharing of research data through professional information science and information technology methods. The second phase includes: improving data interoperability and metadata exchange methods, promoting research data usage and openness through successful cases, analyzing operational costs of research data centers, and ensuring unrestricted access to research data for scientific purposes.
- **Open Access Movement [16]:** Primarily removing financial, technical, or other legal barriers for the digital research environment. The second phase aims to promote comprehensive open access to digital research information, guiding research and educational institutions to systematically practice open access across different academic fields through policies and practical guidelines. It collaborates with Science Europe and the Global Research Council to jointly promote open publishing and open access.
- **Legal and Policy Frameworks [17]:** The legal framework of copyright law and related rights is crucial for developing the digital research environment. The second phase focuses on amending copyright law provisions, enhancing the Alliance’ s negotiating position in copyright matters, and addressing cross-cutting issues in Alliance agreements, such as usage rights for open publishing, publications, and research data, long-term funding for open access services, and ensuring legitimate rights and interests of open access. Additionally, Alliance partners strive to reduce taxes on digital publishing to levels similar to print publishing.
- **Virtual Research Environments [18]:** Building working platforms that enable scientists to conduct research collaboration without restrictions from different locations, including software and network communication infrastructure for the entire process from research data processing to publication. The second phase will focus on enhancing existing tools’ mapping and analysis capabilities, transitioning from temporary platforms to permanent operations (explicitly stating that licensing and charging systems will not be considered), exploring various legal issues that may arise from new organizational forms (such as land and funding resources), and evaluating and exchanging experiences from successful cases.

4 Germany's Digital Information Initiative Will Have Broad Impact on the Global Scientific Community

The Alliance of German Science Organizations emphasizes in its document “Digital Research Data” [19] that the Digital Information Initiative aims to achieve Germany’s goals of enhancing scientific quality, productivity, and global competitiveness, representing a strategic task that requires joint investment from science, politics, and other social sectors.

While the first phase focused on planning and design, the second phase emphasizes practice and promotion, with each phase spanning five years. These developments are relevant not only to knowledge services in German libraries and information centers but also to library and information science undertakings worldwide. The initiative references global policy reports and local practical experience, integrating national scientific development strategies with library services to form a series of agreements, standards, practical guidelines, and action plans (see documents on the website <http://www.allianzinitiative.de>). Its specific implementation processes and outcomes merit observation and reference by China’s library community. This article serves as an introductory piece to stimulate further discussion.

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