# A Study on the Progress of Science Library

科学图书馆发展研究

Edited by

YE Jianzhong FANG Junmin Uwe Rosemann Nicole Petri

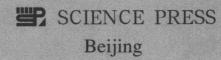


# A Study on the Progress of Science Library

科学图书馆发展研究

Edited by

YE Jianzhong FANG Junmin Uwe Rosemann Nicole Petri



本书是中德两国图书馆学界的研究人员就当前图书馆的发展进行的展望和分析。全书就门户与导航系统建设、科技信息资源共建共享机制、图书馆的决策支持服务、图书馆市场化及其经济分析、图书馆业务、图书馆管理与读者服务工作当前发展、图书馆国际合作等问题进行了探讨。论文从不同的侧面反映了中德两国图书馆当前的发展情况。本书适合图书馆学、情报学的研究人员和高等院校相关专业的师生阅读。

#### 图书在版编目(CIP)数据

科学图书馆发展研究/叶建忠编.—北京:科学出版社,2005

(中德科学会议文集)

ISBN 7-03-015498-3

I.科... Ⅱ.叶... Ⅲ.科研图书馆—国际学术会 议—文集 IV.G258.5-53

中国版本图书馆 CIP 数据核字 (2005) 第 045593 号

#### A Study on the Progress of Science Library

Copyright © 2005 by Science Press, Beijing

Published by Science Press 16 Donghuangchenggen North Street Beijing 100717, China

Printed in Beijing

All right reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the copyright owner.

ISBN 7-03-015-498-3 RMB 65.00

### **Preface**

With the ever increasing globalization of science, technology, economy, and culture, any local development is greatly dependent on and closely associated with the development of its local and global environment. Science and technology information is becoming critical during the development. Germany, as a well-developed country in Europe and in the whole world (ranking the third in the world on international patent applications), plays an important role in the advancement of science and technology, and possesses rich experience on science and technology information services. At the same time, Chinese science and technology information service is improving towards the international standards. In recent years, there has been increasing communication and cooperation of many areas between Germany and China, such as on politics, economic trade, and culture. However, communication channel on science and technology information service and the mechanism for facilitating such communication still need significant improvement.

Over ten years ago, Ms. Elisabeth Simon, who was in charge of foreign affairs in Deutsches Bibliotheksinstitut, wrote in a recommendation letter of my application for DAAD scholarship, "I believe that Mr. Ye will build up a cooperation and communication friendship bridge between German and Chinese libraries field after he goes back to his homeland when he finishes his study". It has been more than ten years since my coming back from Germany. But what she said has always been encouraging me to do something to facilitate the communication and cooperation between German and Chinese library systems. With the further communication/exchange of Sino-German science and technology, with the help and support of das Chinesisch-Deutsche Zentrum für Wissenschaftsförderung in Peking established by both National Science Foundation of China (NSFC) and die Deutsche Forschungsgemeischaft (DFG), my long-cherished wish eventually came into being. In April 2004, Chengdu Library of the Chinese Academy of Sciences and Technische Informationsbibliothek und Universitätsbibliothek Hannover organized the first Sino-German symposium on Current Development of Research Libraries.

More than forty experts on library information circles of Germany and China participated in the symposium. Under Mr. U. Rosemann's organization, as the organizer of German conferences, president of subito e.V, director of Technische Informationsbibliothek und Universitätsbibliothek Hannover, the representatives of German nationwide comprehensive libraries, such as die Deutsche Bibliothek and Staatsbibliothek zu Berlin, as well as German nationwide professional libraries, such as die Technische Informationsbibliothek und Universitätsbibliothek Hannover, Deutsche Zentralbibliothek für Medizin and Deutsche Zentralbibliothek für Wirtschaftswissenschaften, attended the symposium. Most of the attendences were directors. The Chinese representatives were from National Science and Technology Library (NSTL), China Academic Library and Information System Management Centre (CALIS), five member units of Chinese National Science Digital Library (CSDL), which play an important role in current Chinese Academic Documents Information System, and Chinese Science and Technology Information Research Institute, Shanghai Library and Tsinghua University Library, etc. All are highly reputable in the Chinese documents and information system. The fact that representatives from so many important libraries of both countries participated in the symposium indicated the mutual interest and enthusiasm of people in German and Chinese libraries and information institutions to build up communication channels and mechanisms on Sino-German science and technology information service. During the period of the symposium, by means of close contact and extensive discussion, Germany and China jointly put forward further cooperation on five fields, and hoped to hold research library symposium again in 2005 Germany, with the support of das Chinesisch-Deutsche Zentrum für Wissenschaftsförderung in Peking.

The content of almost thirty papers submitted by the representatives matched the three subjects of the present development of digital library, library business and library service mode. The content of those essays referred to the digital library establishment, subject information portal and navigation system establishment, science and technology information resources sharing mechanism, library decision-making supporting service, library general adoption of the market principle and its economic analysis, library business, library management and the present development of reader service, library international cooperation, etc. Those essays reflected the present development of libraries of both Germany and China from different angles.

With the permission of the authors, the collected essays will be published soon. All the Chinese representatives submitted English translation of each essay, and the submitted essays by German representatives had all been translated into Chinese by the translators organized by the Chinese part. The symposia records and memorizes the first symposium of science libraries between Germany and China. It is more important that, by this means, the communication achievements of Sino-German science and technology information service will prevail more widely, which will further influence and speed up the development of Sino-German science libraries.

I would like to thank das Chinesisch-Deutsche Zentrum für Wissenschaftsförderung in Peking for its support of the holding of the symposium and the publication of the symposia, and also thank die Deutsche Forschungsgemeischaft (DFG) for its emphasis on the symposium. Mr. Rutz, in charge of library of DFG, participated in the symposium from the beginning to the end. I would like to dedicate the book as the gift to those supported and helped the symposium.

YE Jianzhong Summer, 2004, in Chengdu, China

# 前 言

科技、经济、文化的交流日益全球化,任何一个局部的发展都紧密地扣入到它与周边环境普遍联系之网中,必须更多地互通有无,以人之长补己之短,科技信息尤其如是。德国作为一个在欧洲乃至世界举足轻重的发达国家,其科技发展(如果以国际专利申请量来衡量,德国在全世界排名第三)以及对科技发展起支撑作用的科技信息服务都有很多可资借鉴的经验,而中国的科技信息服务水平也在不断向着国际一流水平靠拢。近年来,中德两国在政治、经贸、文化等多个领域的交流与合作日益密切,但是在科技信息服务的交流方面,渠道尚不畅通,机制也尚未建立。

十多年前,德国图书馆研究院负责外事工作的 Elisabeth Simon 女士在一封为我申请 DAAD 奖学金的推荐信中写道: "相信叶先生在学成回国后将在中德两国图书馆界架起合作交流的友谊桥梁。" 从德国归来虽已过十余载,但此话一直搅动着我为促进中德图书馆界交流与合作做工作的思绪。随着中德两国在科技方面的交流日益加深,在由国家自然科学基金委和德意志研究联合会共同组建的中德科学中心的支持和资助下,我的夙愿终成现实。2004年4月上旬,中国科学院成都文献情报中心、德国技术信息图书馆与汉诺威技术大学图书馆在中国成都,成功地共同主办了首届中德"科学图书馆当前发展"学术研讨会。

中德两国有 40 余位图书情报界的专家参加了此次学术研讨会。在德方会议发起人、德国文献联合会主席、德国技术信息图书馆与汉诺威大学图书馆 U. Rosemann 馆长的精心组织下,德国国家级的综合图书馆,如德国图书馆和德国柏林国家图书馆以及德国国家级的专业图书馆,如技术、医学、经济等专业图书馆都有代表参加会议,且大部分为馆长。中国方面的代表来自于在当前中国文献保障系统中起重要作用的国家科技图书文献中心、中国高等教育文献保障系统管理中心、中国科学院国家科学数字图书馆的五个成员单位和中国图书文献系统中知名度很高的中国科学技术信息研究所、上海图书馆、清华大学图书馆等单位。两国如此众多重要图书馆的代表参加会议,不仅显示了中德两国图书情报界人士相互学习的积极性,同时也构建起了中德双方科技信息服务交流的渠道。会议期间,中德双方通过广泛接触,提出了今后在五个方面的合作内容,并希望在中德中心的支持下,2005 年在德国再次召开科学图书馆学术研讨会。

这次会议上,与会代表提交的近 30 篇论文在内容上紧扣大会要求的"数字图书馆、图书馆业务和图书馆服务模式的当前发展"三大主题。论文内容涉及数字图书馆建设、学科信息门户与导航系统建设、科技信息资源共建共享机制、图书馆的决策支持服务、图书馆市场化及其经济分析、图书馆业务、图书馆管理与读者服务工作当前发展、图书馆国际合作等多方面。这些论文从不同的侧面反映了中德两国图书馆当前的发展情况。

在征得作者同意后,现将会议论文结集出版,中方代表均提交了英文论文, 德方代表提交的论文在会前也全部由中方组织者组织人力译成了英文。该论文集 既是对中德两国科学图书馆第一次学术研讨会的记录和纪念,更重要的是,通过 这种方式能够将中德两国就科技信息服务方面的交流成果更广泛地传播,让这次 会议能够对中德两国科学图书馆事业的发展产生更大的影响和促进作用。

在这里,我要特别感谢中德科学中心对本次会议召开和论文集出版给予的支持和资助,同时也要感谢德意志研究联合会对本次会议给予的重视,德意志研究联合会主管图书馆工作的 Rutz 先生从始至终参加了会议。我愿将此书作为感谢他们对此次会议支持和帮助的礼物。

**叶建忠** 2004年夏于中国成都

# **CONTENTS**

#### Preface

### The Current Development of Digital Library

Digital Deposit at Die Deutsche Bibliothek
Ute Schwens 2
Library in the Digital Age: The Content Industry Perspective
MIAO Qihao 8
International Developments and Implementation Regarding Metadata
Heike Neuroth · · · · 25
Building up the Virtual Medical Library in Germany
Ulrich Korwitz ····· 40
CSDL: Building an Integrated Science Digital Library at Chinese
Academy of Sciences (CAS)
XU Yinchi, MAO Jun ····· 44
Investigation and Analysis of Digital Libraries in China
ZHAO Ping, XU Ping, WU Tingzhao, LI Bingyan 63
Construction of the Library Information Gateway
YE Jianzhong, CHEN Yihong, HAN Hong 79
EconBiz and EconDoc-Subject Portals for Economics and Business Studies
Olaf Siegert ···· 92
Science Library: From Bibliotheca to Desktop Terminals-Perspective of
Future Development of Libraries From the Point of View of Readers'
Professional Knowledge Acquirement Behavior
XIAO Hong, YU Jianrong, SHEN Dongjing, SUN Jilin 97
New Media Require New Structures: Reengineering and Change
Management in the Bayerische Staatsbibliothek
Hildegard Schaffler

## The Current Development of Library's Function

	Vascoda—Discover Information
	Uwe Rosemann 124
_	Marketing in Libraries
_	Nicole Petri
	Views on Enhancing the Academic Library's Information Service for
	Decision Support
	LIU Ya, WANG Yan 138
_	The Information Alliance for Education, Social Sciences and
_	Psychology—A One-Stop-Shop for the Benefit of Users
	Beate Tröger
	The Current Development of Library Management and Service
	Search for a New Information Service Model in a Digital Environment
	ZHANG Xiaolin · · · 162
	Library Planning in Germany
	Friedrich Geißelmann · · · · 178
	The Present and Future of China National Science and Technology Library
	-Towards a new Paradigm of Sci-tech Information Resource Sharing
	MENG Liansheng
	Kosten-und Leistungsrechnung in Bibliotheken
	Xiaogang Gerns
	The Socialization of the Service in the Scientific Library
	SUN Chengquan 217
	Mission Statements in Libraries and Arrangements for Goals
	Klaus Franken 225
	Client-focus, Building Academic Library Information and Services System
	HOU Zhuang, ZHANG Xiaodong, WEN Yang 233
	Long-term Archiving of Digital Publications in Germany Activities and
	Prospects
	Elmar Mittler ····· 253

	Countermeasures for Elevating Service Quality of Science Libraries in the	
	New Era	
	LIU Dehong, LIU Qing	272
	Subito—Documents from Libraries	
	Traute Braun-Gorgon	284
	Scientific Collection Digitization and International Cooperation	
	ZHENG Xiaohui, JIANG Airong, LIU Guilin	293
	Across Languages-Across Bits and Bytes-The East Asia Collection of the	
	Staatsbibliothek zu Berlin, and its Planned Project "Digital Library East Asia"	
	Matthias Kaun	309
The	Postscript	317

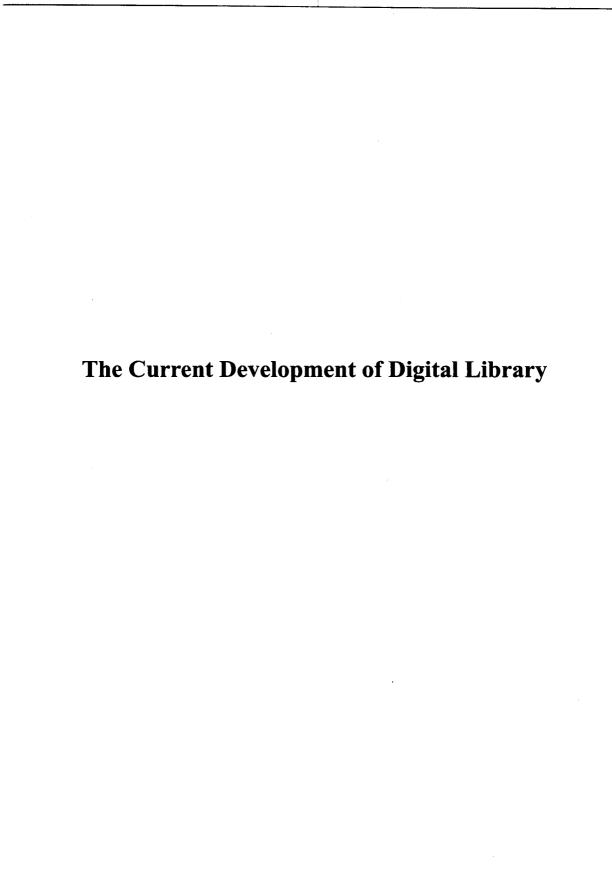
# 目 录

# (页码依英文文章排)

前言
数字图书馆当前发展
■ 德国图书馆的数字存储
Ute Schwens 2
■ 从内容产业的角度审视数字时代的图书馆
缪其浩 17
■ 元数据的国际发展和实施
Heike Neuroth25
■ 建构德国的虚拟医学图书馆
Ulrich Korwitz40
■ 中国科学院国家科学数字图书馆的建设
徐引篪 毛军 55
■ 中国数字图书馆调研
赵萍 徐平 吴廷照 李秉严72
■ 全球图书馆馆藏资源导航系统的建立
叶建忠 陈漪红 韩红86
■ 德国的经济贸易学科门户网站
Olaf Siegert92
■ 科学图书馆:从藏书馆到桌面终端——从读者专业知识获得行为看
未来图书馆发展方向
肖宏 于建荣 沈东婧 孙继林107
■ 新的媒体需要新的构造:巴伐利亚州州立图书馆的再造和转换管理
Hildegard Schäffler

图书馆业务当前发展	
■ 虚拟图书馆、信息协会和电子期刊图书馆联合体(Vascoda):信息发现	
Uwe Rosemann	124
■ 图书馆的市场化	
Nicole Petri	130
■ 关于推进科学图书馆决策信息支持服务的思考	
刘娅 王艳	147
■ 教育、社会科学与心理学的信息联盟——"一站式"用户服务	
Beate Tröger	154
图书馆管理与读者服务工作当前发展	
■ 寻求数字化知识化环境下的新型信息服务模式	
张晓林	171
■ 德国图书馆计划编制	
Friedrich Geißelmann	178
■ 中国国家科技图书文献中心的现状与发展——科技信息资源共建	
共享的范例	
孟连生	200
■ 图书馆的费用和效率的计算	
孟晓钢	213
■ 科学图书馆与社会化开放	
孙成权	222
■ 图书馆的宗旨和目标安排	
Klaus Franken	225
■ 以用户为本,构建大学图书馆信息资源保障及服务体系	
侯壮 张晓东 文阳	244
■ 德国长期文献的数字化保存现状与展望	
Elmar Mittler	253
■ 整合信息资源 优化服务环境 强化研究实力 提升服务层次——科学	
图书馆提升为决策和科研服务水平的对策	
刘德洪 刘渚	. 278

	国际间图书馆文献委托复制服务:图书馆文献	
	Traute Braun-Gorgon	284
	科学资料的数字化与国际合作	
	郑晓惠 姜爱蓉 刘桂林	302
	跨越语言,跨越比特和字节——柏林国家图书馆东亚部及其"数字	
	东亚图书馆"项目计划	
	Matthias Kaun	309
附证	<u> </u>	317



# Digital Deposit at Die Deutsche Bibliothek

#### **Ute Schwens**

Die Deutsche Bibliothek, Frankfurt 60322

In whatever way you look at them, whether you focus upon their technical or economic aspects or upon usage aspects, electronic publications are a fascinating medium. But this fascination allows that a rather tiresome problem is being overlooked which is as "old" as the electronic publication itself—its long-term archiving.

Almost 600 years after Gutenberg's invention the net has entered a tough competition with traditional media in disseminating of the written word as well as images and sounds. This new medium endows the electronic publication with enormous advantages: unparalleled accessibility that is enormously enhanced in time and space, it offers full-text retrieval, it can be modified, it can be linked to other resources. Almost any one of these advantages by itself and certainly their totality offsets today and here its great flaw—its ephemeral existence.

On the other hand does science not live on the "here and now", on the speed with which new publications are made globally accessible, but also on the historical dimension, the memory, the archive of knowledge.

Therefore it is only natural that the ephemeral nature of the medium has to be counteracted by a concept for long term archiving. Even if the theme long term accessibility is not as fascinating as the terrific development of the nets, even if its development, implementation and—even worse—permanent practice emerges with the smell of being cost-intensive, the problem is present and pressing, because it has not been resolved yet. Day-after-day we all have the experience that internet resources which yesterday were still present have disappeared all of a sudden by today.

We have the obligation in front of future generations to keep our scientific and cultural heritage usable. This vague "we" for us can be put in concrete terms for the German publications.

The responsibility for the collection, indexing and making accessible of German publications lies with Die Deutsche Bibliothek (DDB) at its three locations Frankfurt, Leipzig and Berlin.

In 1912 the German publishers initiated the funding of a national library for Germany as a whole, the Deutsche Buecherei in Leipzig. In 1946, after World War II

and the division of Germany, they did the same again for the Deutsche Bibliothek in Frankfurt. Because of the partition of the country two functionable libraries were existing and fulfilling tasks of a national library, in the Eastern part the Deutsche Bücherei in Leipzig, in the Western the Deutsche Bibliothek in Frankfurt. With the Unification Treaty both institutions were unified to one—that is now Die Deutsche Bibliothek.

Responsibility for printed and recorded music is assigned to the Deutsches Musikarchiv Berlin, which is a department of the Deutsche Bibliothek Frankfurt.

The law regarding Die Deutsche Bibliothek of March 31st, 1969 specifies the functions and duties of Die Deutsche Bibliothek, defining it as the central archival library for Germany.

The law has since been augmented by the law regarding the Unification Treaty of September 23rd, 1990, which provides for the establishment of the central archival library and national bibliographic centre for the Federal Republic of Germany with locations in Frankfurt am Main and Leipzig.

(I am sure you know that this Unification Treaty was one of the results of the reunification of the two parts of Germany: the former GDR—German Demokratic Republic—with the FRG—Federal Republic of Germany.)

The last point ruled by the law was already mentioned by me: the responsibility for printed and recorded music lies with the Deutsches Musikarchiv.

The primary responsibilities specified by law are the collection and preservation of

- all printed and electronic publications issued in Germany since 1913, regardless of publication form;
- all German-language publications issued abroad since 1913;
- all translations into other languages of German-language publications issued abroad since 1913;
- all foreign-language publications about Germany (the so-called Germanica) issued abroad since 1913;
- printed works authored or published by German-speaking emigrants from 1933 to 1945.

Doing all this Die Deutsche Bibliothek performs the task of a national repository, for the time being mainly for the traditional print media.

Looking to electronic publications their collection is not totally included in the collection mandate of Die Deutsche Bibliothek.