

Facing Data Challenges: The Current Actions & Future Perspectives of Academic Libraries

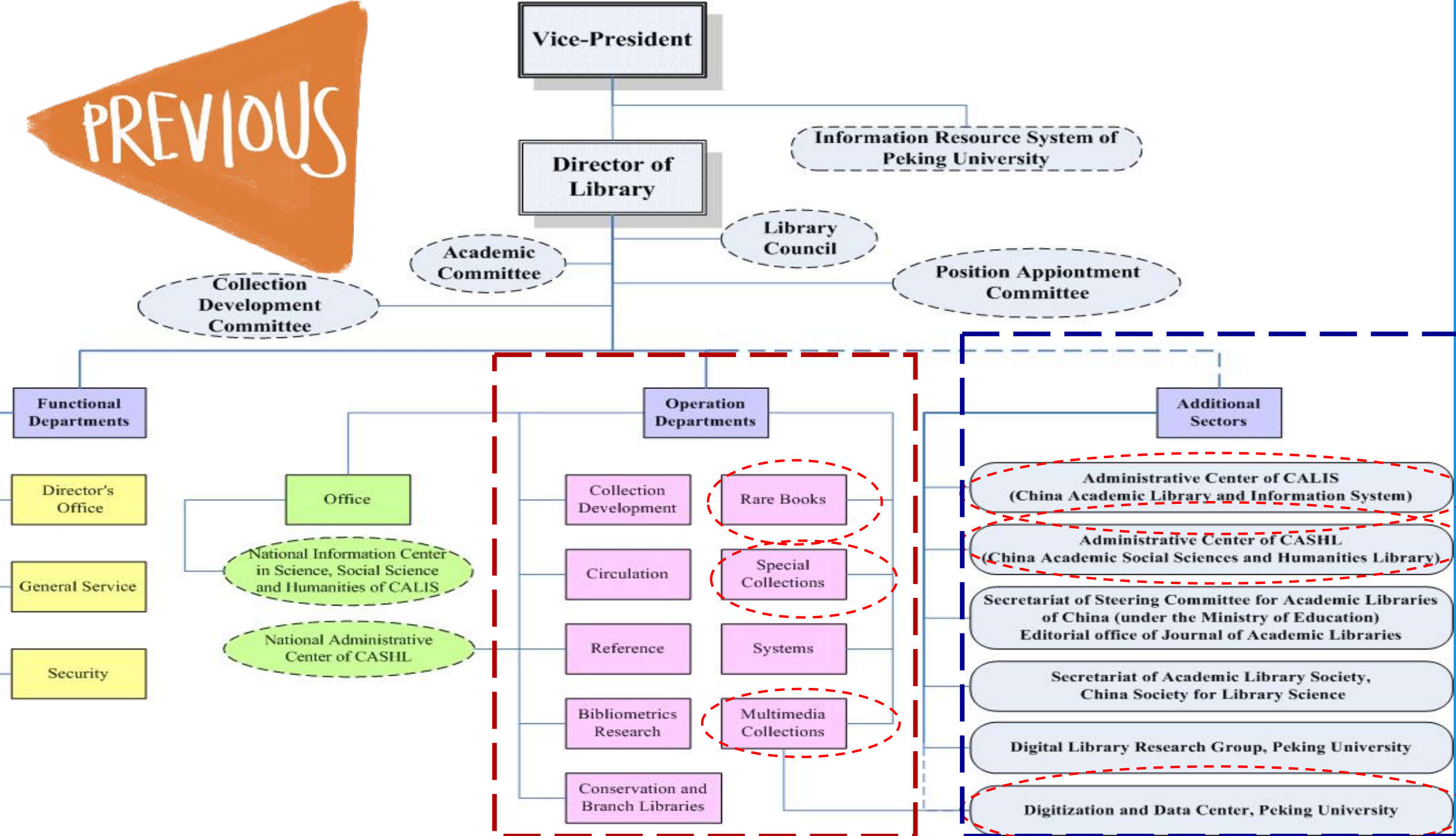
Nie Hua@Peking University Library, China
PRRLA 2016.12.05 @UoM , Melbourne



Outline:

- Background
 - Library Re-energy and Re-Position
 - Open Science, Open Access, Open data
- RDM Implementation and Services in Peking University
- Future Perspectives

PREVIOUS



PKU Library 2018 Action Plan

NEW Focus from management-oriented to User-oriented

NEW Functions redesigned: 4 modules

NEW Institutional Reorganization: 4 dimensional supporting

Collection
Development

Research
Support

Learning
Support

Scholarly
Communication

NEW

HR

IT

Space

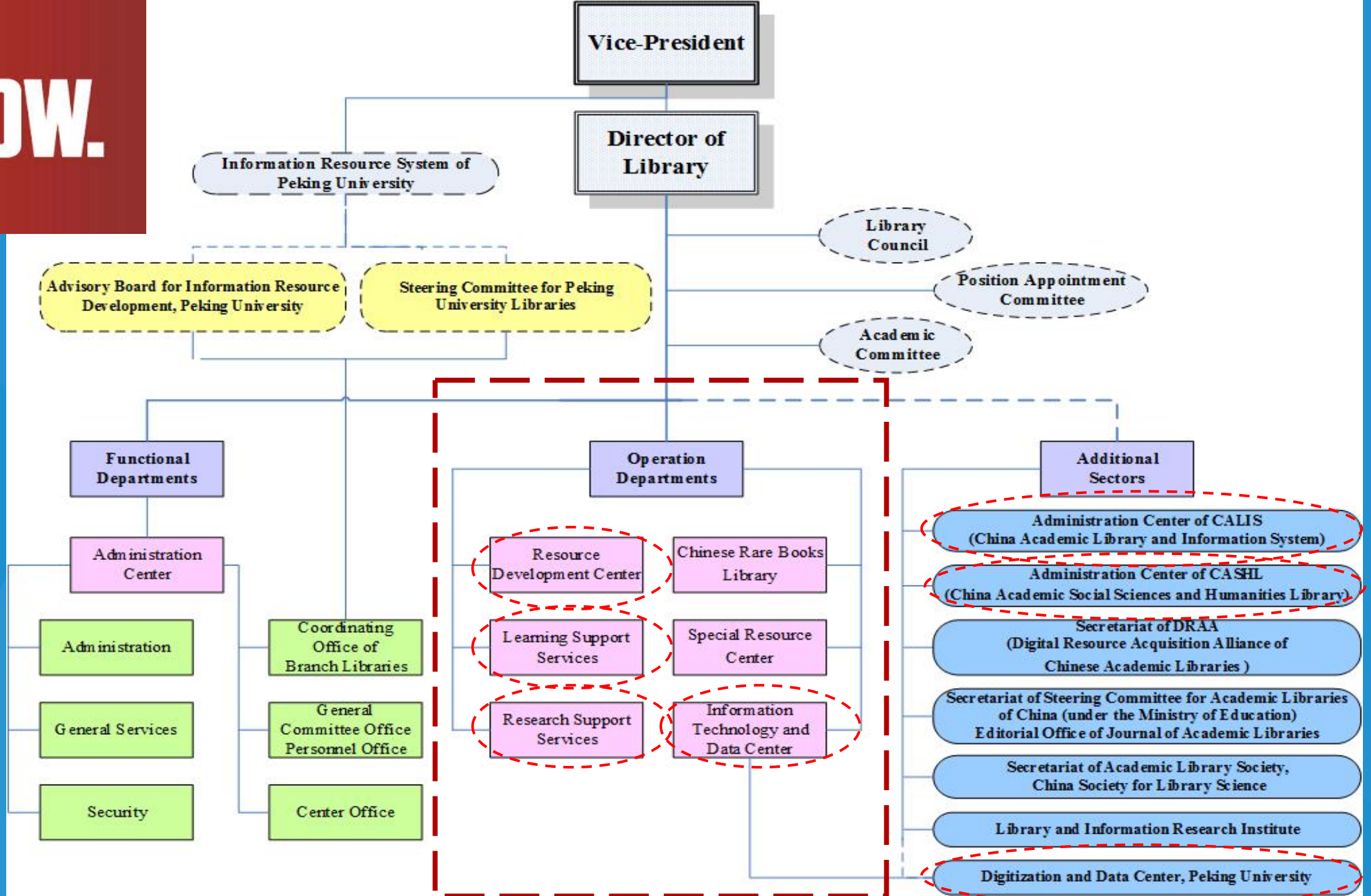
**Research
& Project**

**Radical
Collaboration**



- Institutional
- National : CASHL DRAA
- International:
- CALIS: more involvement

NOW.



Highlights of 4 modules

01. Resource Development

- New disciplinary resources dev.
- OA Resources

03. Teaching & Learning Support

- Space as a resource function redesign & management

资源建设

研究支持

学习支持

学术交流

02. Research Support

- Support for Disciplinary Development
- Decision-Making
- Information Literacy

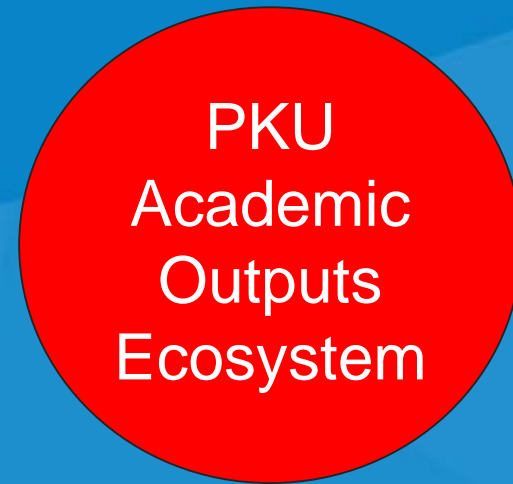
4. Open Access & Scholarly Communication

- IR
- Open Journals
- Scholars

PKU
Academic
Outputs
Ecosystem

PKU Academic Outputs Ecosystem

- ← Open Repository@2011
- ← Open Journals@2012
- ← Open Scholars@2015.12.25
- ← Open Research Data@2015.12.25



OA: Pathway and destination of Scholarly Communication.

Need Assessment: Campus Survey@2013

- awareness and practices of data curation & sharing;
- features of specific scientific data
- current status of data management
- re-use of the data
- expectation to research data management services

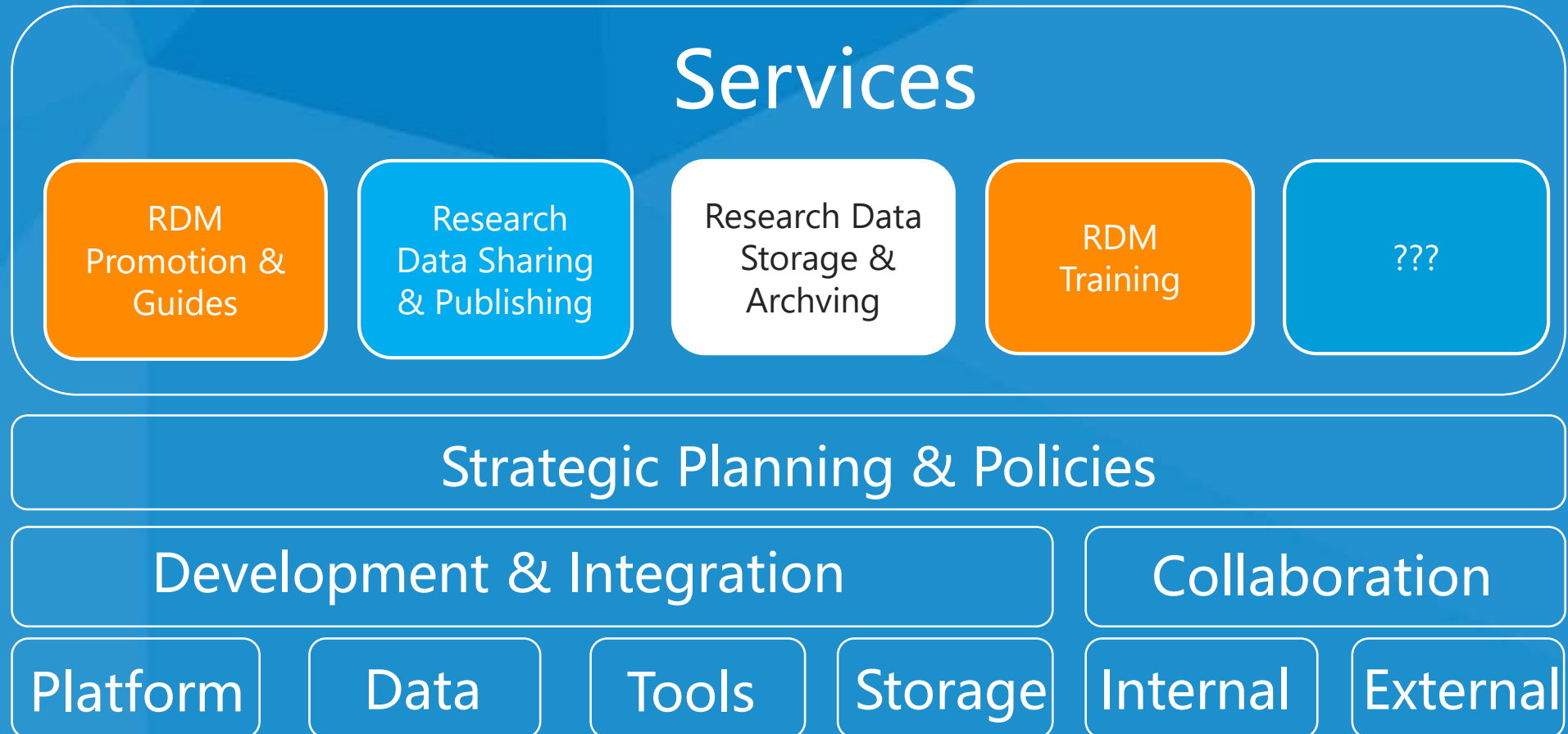
Need Assessment: Interviews @ 2013



Interviews showed three major trends of research data management.

1. research data sharing behavior: strong disciplinary-oriented features.
2. researchers generally require an embargo period with data sharing.
3. data sharing behavior: spontaneous, lacks proper incentives and necessary maintenance, lacks a well-managed mechanism for data citation, academic recognition and feedback.

PKU Library RDMS Plan:



Cooperation:

- Peking University Library (**PKUL**)
- Institute of Social Science Survey (**ISSS**)
- Office of Scientific Research, Office of Social Science

PKUL

Research Data
Management
Services



ISSS

NSFC

Management
Science Data
Center
Data Services

**PKU Open Research Data Platform
Data Center for Management Science**

Objectives:

- Publish high-quality research data to disseminate academic outputs through **open platform**
- Promote open science to encourage **reuse and reproduction of research data**
- Foster **practices and metrics** of research data citation
- Explore **data publishing** and long-term **preservation** solutions
-

PKU Open Research Data Platform
Data Center for Management Science

Data services Provided:

- **ISSS**: collection and cleaning, standardization and analysis, and data repository platform testing and feedback
- **PKUL**: requirements and functional design as well as the development and maintenance of data repository, data storage, classification, management and associated services.
- **Both Parties**: Training and workshop and Other value added services on demand

Data Repository Platform:

- DSpace for PKU Institutional Repository
- OpenScholars for Scholars@PKU
- Open Data Platform on Trial:
 - Dataverse
 - Data Conservancy
 - CKAN
 - DSpace



2,026,874 Downloads

opendata.pku.edu.cn

北京大学开放研究数据服务平台 Peking University Dataverse network

POWERED BY THE **Dataverse Network** PROJECT v. 3.3

北京大学开放研究数据服务平台，由北大图书馆联合北大社科调查中心、北大社会科学部、北大科学研究部共同推出，致力于成为发布高品质研究数据、传播学术影响力的开放式平台。平台以“规范知识产权保护”为基础，以“倡导开放科学（Open Science）”为宗旨，鼓励研究数据的再利用(Reuse)和再生产(Reproduce)，促进研究数据引用(Citation)的实践和计量，并探索数据出版(Publish)和长期保存(Preservation)，培育和实现跨学科的协同创新。

创建一个数据空间 (DATAVERSE)
创建一个数据空间 (Dataverse) 用于上传您的数据集 (Datasets) 和创建数据合集 (Collections)

已发布的数据空间

全部 # A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

数据空间 (Dataverses) : 5

名称	机构	发布日期	活跃度
软微自然语言处理研究组-测试	查看信息[+]	Nov 14, 2014	■■■■
北京大学考古文博学院	查看信息[+] 北京大学考古文博学院	Jun 11, 2014	■■■■
曾毅	查看信息[+]	May 29, 2014	■■■■
北京大学数据与信息学管理研究组	查看信息[+]	May 29, 2014	■■■■
北京大学中国社会科学院调查中心		May 6, 2014	■■■■

Search Studies 检索 高级检索 检索提示

all research fields.

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

al Food Policy Institute (IFPRI) Dataverse

Henry A. Murray Research Archive at Harvard University

Murray Research Archive Dataverse

+ Add Data

Sort

verse

re, 2016, "Occurrence data for priority CWR of Zambia", doi:10.7910/DVN

e of planning conservation actions for 30 prioritised CWR in Zambia. The data . (2012)'s (Psophocarpus); Biodiversity Collecting Missions database 1.2; GB...

S

Data Dataverse

Major Localization@ Dataverse 4.0

- Bilingual interface and content
- improve user group management functions
- add data request function with application of joining user group
- support online view, export + visualization of usage data
- featured dataverses in home page
- DOI registration
- SSO Authentication for PKU users

指标 8,810 下载

Metrics
 8,810 Downloads





北京大学中国调查数据资料库 数据空间

北京大学

搜索该数

The root dataverse.



China Survey Data Archive
Dataverse



Center for Healthy Aging and
Development Studies
Dataverse



GIS software (Geosoft)
Laboratory, Peking University
Dataverse



visualization and visual
analytics research group,
Peking University Dataverse

Search this dataverse...

Find

Advanced Search

- 数据空间 (19)
- 数据集 (109)
- 文件 (365)

1 到 10, 共 128 个结果

- 分类
- 组织和机构 (12)
 - 研究项目 (4)
 - 研究者 (2)
- 单位
- 北京大学 (45)
 - 北京大学中国国情研究中心 (18)
 - 北京大学信息科学与技术学院 (17)
 - 民政部政策研究中心 (15)
 - 北京大学信息管理系 (6)

中国居民健康与疾病

2016-11-29

黄悦勤, 2016
平台, V1

中国精神障碍疾病负担、酒精药物使用障碍、痴呆等八类主要精神障碍用精神卫生服务的现状

“一带一路”沿线国家五

2016-11-29

北京大学科

路”沿线国家

“五通指数2015”发布

- Dataverses (19)
- Datasets (109)
- Files (365)

1 to 10 of 128 results

Sort

« < Previous 1 2 3 4 5 Next > »

China Mental Health Survey,2013

Nov 29, 2016 - Restricted-Use Data Dataverse

Yueqin Huang, 2016, "China Mental Health Survey,2013", <http://dx.doi.org/10.18170/DVN/O5PS2H>, Peking University Open Research Data Platform, V1

China Mental Health Survey,2013

Five Connectivity Index of the Countries along "the Belt and Road" (2016)

Nov 29, 2016 - Science Evaluation Research Group of Peking University Dataverse

Science Evaluation Research Group of Peking University; Ocean Information Research Center of Peking University, 2016, "Five Connectivity Index of the Countries along "the Belt and Road" (2016) ", <http://dx.doi.org/10.18170/DVN/HIYRP>, Peking University Open Research Data Platform, V1

19

19 Dataverses

106

106 Data Sets

365

Data Files

800

Registered Users



中国家庭跟踪调查
China Family Panel Studies



可视化与可视分析研究组
Visualization and visual analytics
research group



中国健康与养老跟
踪调查
China Health and Retirement
Longitudinal Study, CHARLS



北京大学数据与信息
管理研究组数据
Data and Information Management Group



中国国情研究中心
调查数据
The Research Center For
Contemporary China



北京大学地理信息系统软件
(Geosoft)实验室
GIS software (Geosoft) Laboratory

Deposited Contents of PKU Open Research Data

Featured Services & Functions:



For : Data Provider



For : Data User

Online Data Analysis: Two Ravens

TwoRavens

数据选择与查看

Data Selection

Variables Subset

Gender

TriadRelativism

GrowProvince

ProvincePathogenHumanPlusYbook

CountyDiseasePrevalenceHumanCn

CountyDCode

RiceWheatBorder

CountyDCodeRice

ProvDCode

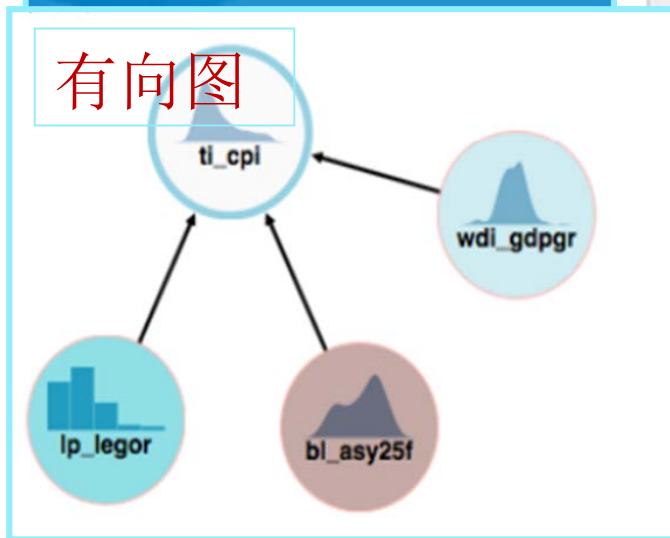
ProvincePaddyPercent

RiceCat

SocialPolitics

Summary Statistics

Label	Wheat	Mean
		Median
	0.7679	
		Mode
	1.000	
	NaN	Stand Dev
	0.4231	Maximum
	1.000	Minimum
	0.000	Invalid
	944	Valid
	224	



模型分析结果

Model Selection

Models Set Covar. Results

bl_asy25f

ti_cpi

wdi_gdpgr

lp_legor

x: 5.688
x1: 9.010

x: 3.983
x1: 3.983

x: 0.2709
x1: 11.13

x: 1.1
x1: 4

Multi Search Functions:

查找

Dataverses ▼

Datasets ▼

Datasets: Citation Metadata ▼

Datasets: Geospatial Metadata ▼

Files ▼

查找

**Dataverse-
Institution info.
Provider Info.**

Data Set Info.

Data File Name

Variables

Tracking Data related Publications:

- 1000+ Publications Citing PKU Open Research Data
- Bidirectional association established between IR and Open Data



北京大学 开放研究数据平台
Peking University Open Research Data

赵耀辉; John Strauss; 杨功焕, 2015, “中国健康与养老追踪调查 (2013全国追踪)”, <http://dx.doi.org/10.18170/DVN/AQIU6C>, 北京大学开放研究数据平台, V1

马超, 宋泽, 顾海. 医保统筹对医疗服务公平利用的政策效果研究[J]. 中国人口科学, 2016(1):108-117.



北京大学 机构知识库
Institutional Repository of Peking University

User and Usage:

Guest User: 100,00+ Registered User: 800+

- Institutions of Users : 60 countries, 97 research institutions
- Top five countries of visitors: China, US, UK, Singapore and Japan
- Disciplines: Economics, Sociology, Statistics, demography, Management Science, Engineering, Computer Science, Library Science, Chinese, etc.

19

19 Data Space

106

106 Data Sets

365

Data Files

800

Registered Users



4674 Downloads

China Family Panel Studies



188000 Views

Visualization and visual analytics research group



中国健康与养老跟踪调查

China Health and Retirement Longitudinal Study, CHARLS



北京大学数据与信息
管理研究组数据

Data and Information Management Group



中国国情研究中心
调查数据

The Research Center For Contemporary China



440000 Views

北京大学地理信息系统软件
(Geosoft)实验室

GIS software (Geosoft) Laboratory

Deposited Contents of PKU Open Research Data

Awareness:

1st Price of The 2nd Chinese Academic Library Services Innovative Case Contest @2016.11.03

PKU Data Finding Contest @ 2016.12.16

“Publication of scientific theories, and of the experimental and observational data on which they are based, permits others to identify errors, to support, reject or refine theories and to reuse data for further understanding.”

Science as an Open Enterprise
by The Royal Society, June, 2012

北京大学图书馆
第三届搜索达人大赛

— “开放数据” 篇

数据寻宝 谁是达人

真金不怕火炼，大奖正虚位以待
敢来接受挑战吗？

科研过程

1. 选题和研究方案

参赛链接及详情请见：图书馆主页最新消息
本次大赛由普谷数据库商EBSCO公司独家赞助支持。

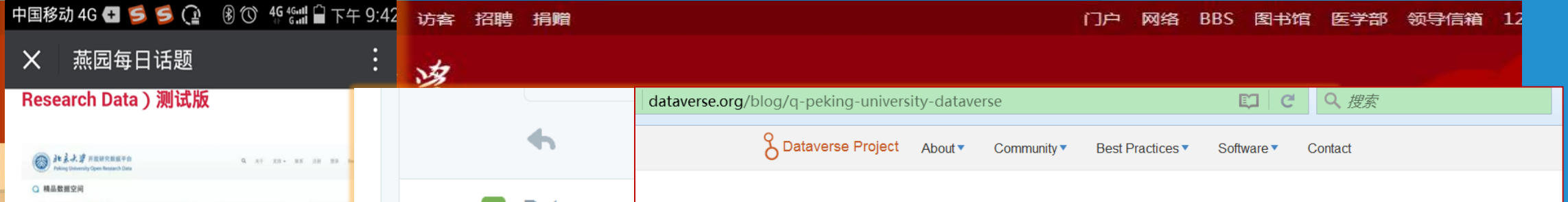
Re3data.org registered/indexed

- Registered on re3data.org @2015.5.15
- re3data.org has reached a milestone of identifying and listing **1,500** research data repositories
- From China: **25**↑。

The screenshot displays the re3data.org website interface. At the top, the logo reads 're3data.org' with the tagline 'REGISTRY OF RESEARCH DATA REPOSITORIES'. A navigation bar includes links for Home, Search, Browse, Suggest, FAQ, About, Schema, API, Contact, and Legal notice / Impressum. A search bar on the right contains the text 'peking university' and a search button. Below the search bar, there are navigation controls for 'Previous', '1', and 'Next', along with a 'Sort by' dropdown. The search results section shows 'Found 2 result(s)' and a single result titled 'Peking University Open Research Data'. This result includes a list of subject categories such as 'Humanities and Social Sciences', 'Engineering Sciences', 'Social and Behavioural Sciences', and 'Computer Science, Electrical and System Engineering'. It also lists content types like 'Plain text', 'Standard office documents', and 'Scientific and statistical data formats'. The country is listed as 'International' and 'China'. A descriptive paragraph at the bottom of the result explains the platform's purpose: 'In order to meet the needs of research data management for Peking University. The PKU library cooperate with the NSFC-PKU data center for management science, PKU science and research department, PKU social sciences department to jointly launch the Peking University Open Research Data Platform. PKU Open research data provides preservation, management and distribution services for research data. It encourage data owner to share data and data users to reuse data.'

Feedbacks:

北大主页对平台进行了宣传和介绍。学生微信公众号燕园每日话题对平台上线的新闻进行了关注，首日访问量超过万次。哈佛大学IQSS的资深数据科学家在twitter上对我们进行了推介。南洋理工大学图书馆专程到北京大学图书馆进行了为期四天的学习和考察。哈佛大学dataverse开发团队博客对我们进行报道。



2016.11.30 10th Anniversary of ISSS:

- Beyond collecting well-designed, large-scale survey data and other data,
- Beyond disseminating them freely, while protecting the privacy and confidentiality of research participants,
- **[research data]**..... are critically important training grounds for new cohorts of highly productive scientific researchers and scholars, and Chinese social science research has become highly visible and respected internationally.

• **This is the state of the art – of the science. The capacity for others to reproduce one's finding's is essential for the proper conduct of science.**

Robert Mason Hauser, Professor of Sociology at the UW-Madison

Reference: Harvard DataVerse

1,923

Data Space

63,643

Data Sets

375,081

Data Files

2,026,874

Downloads

The screenshot shows the Harvard DataVerse website at <https://dataverse.harvard.edu>. The page features the Harvard University logo and the text "Harvard Dataverse" and "A collaboration with Harvard Library, Harvard University IT, and IQSS". A metrics bar indicates "2,026,874 Downloads". Below this, there are four featured datasets from partner organizations: World Agroforestry Centre (ICRAF), Population Services International (PSI), International Food Policy Research Institute (IFPRI), and the Henry A. Murray Research Archive. A search bar is present with the text "Search this dataverse...". On the left, a sidebar lists categories: "Dataverses (1,923)", "Datasets (63,643)", and "Files (375,081)". The main content area shows search results for "Occurrence data for priority CWR of Zambia" by Dickson, Ng'uni, Munkombwe, Graybill, Tembo, Masiye, 2016, with a DOI of 10.7910/DVN/Z5XN1F. Below this, another result for "Dave Leip U.S. Presidential General County Election Results" is visible.

Reference: ICPSR

9,675

Data Sets

70,000

Citations to
Data Related
Publications

52,000

Downloads
Per Month

600,000

Website Visitors
Per Year

The screenshot shows the ICPSR website homepage. At the top, the URL is www.icpsr.umich.edu/icpsrweb/. The main header features the ICPSR logo and the tagline "Social science in the public interest" over a background image of a university building. Below the header is a "News" section with a "More Headlines" link and a "view all news" button. The "This is ICPSR" section highlights four key facts: 1. International leader in data stewardship and data analysis services, featuring DDI and DSA logos. 2. 9,675 studies, comprising 4.6 million variables, with a bar chart titled "CONSUMER EXPENDITURES ON ENTERTAINMENT 2013-2014" showing a significant increase from 2013 to 2014. 3. 109 staff, accompanied by a photo of a man speaking. 4. 20,000 Summer Program participants, accompanied by a photo of a group of people.

Summary and Thoughts:

- From IR to Journals to scholars to data :
Library's role on "Made in PKU"
- Collaboration & Engagement: the Keys
- Awareness & Policies : especially on the
institutional level

Ancient Materials Library

阿卜杜勒·阿齐兹国王公共图书馆分馆暨北京大学古籍图书馆

透视效果图

Grand Opening @ 2017.03





Library Space Renovation & Revitalization



East Wing completed by 2018
West Wing reconstruction in plan







北京大學圖書館
PEKING UNIVERSITY LIBRARY