

# Facing Data Challenges: RDM Implementation and Services in Peking University

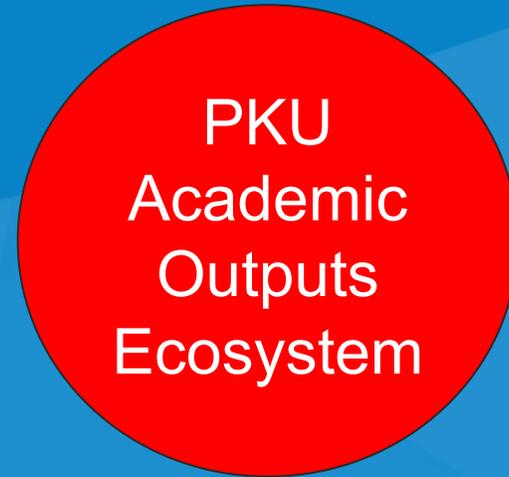
Nie Hua , Peking University Library, China

COAR 2018 Annual Meeting  
2018.05@ZWM , Hamburg



# 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

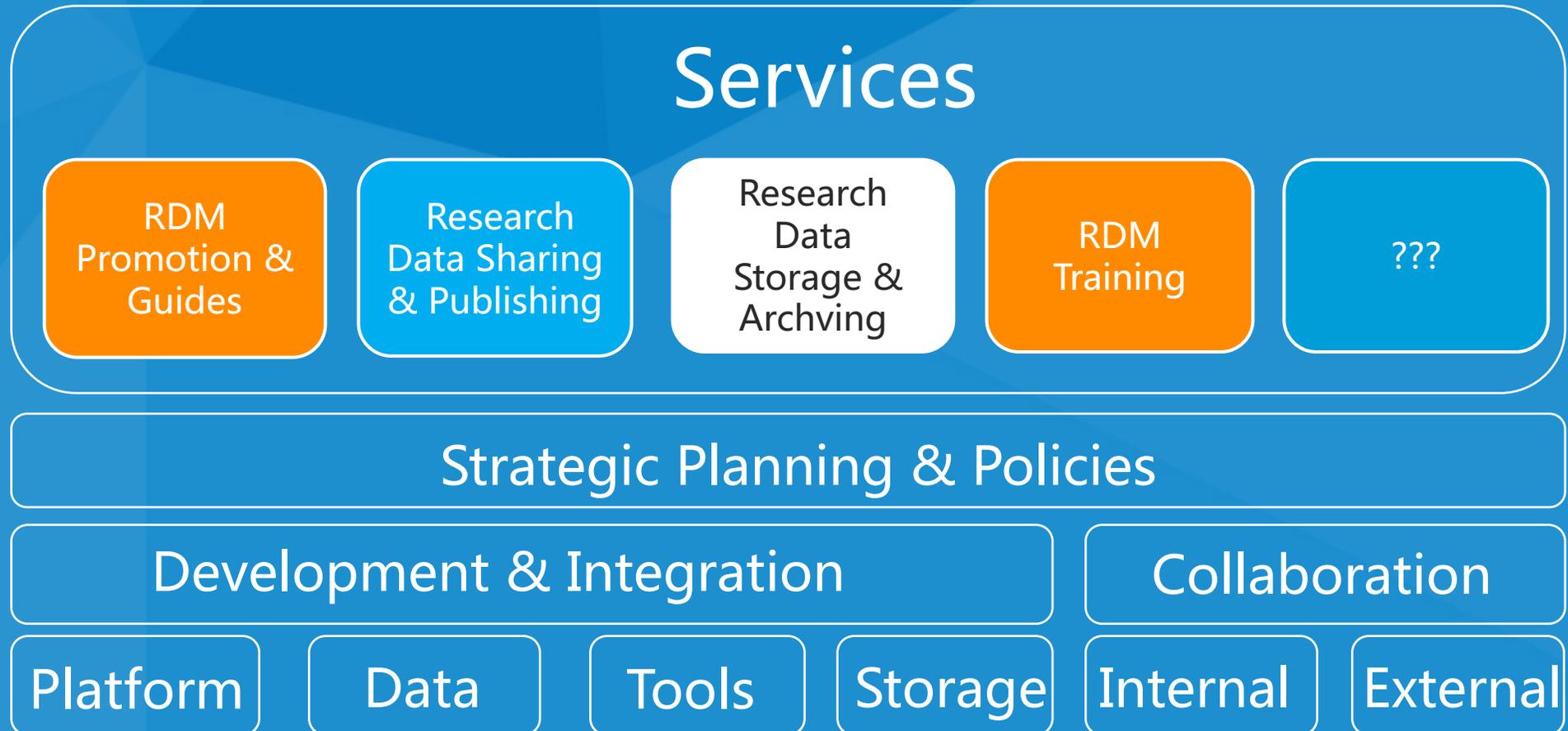
# Need Assessment: Interviews @ 2013



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: @ 2014



# 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**

## 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

2015.12.2  
5

https://dataverse.harvard.edu

Dataverse

搜索 关于 Guides 支持 注册 登录



Harvard Dataverse

A collaboration with Harvard Library, Harvard University IT, and IQSS

Metrics 2,026,874 Downloads



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

搜索 关于 支持 联系 竞赛 注册 登录 Switch to English

Henry A. Murray  
Research Archive  
of Harvard University  
Murray Research Archive  
Dataverse

+ Add Data

Sort

priority CWR of Zambia", doi:10.7910/DVN

ns for 30 prioritised CWR in Zambia. The data  
rsity Collecting Missions database 1.2; GB...

## 北京大学开放研究数据平台

重用数据，再现科研。  
提升引用，跟踪影响。

开放数据  
为您的研究点赞！

创建我的数据空间

或 浏览平台数据



# 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)

[更多...](#)

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

“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 > »

**Dataverse Category**

- Organization or Institution (12)
- Research Project (4)
- Researcher (2)

**Affiliation**

- Peking University (46)
- The Research Center of Contemporary China (RCCC) (16)
- School of Electronic

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

# 31

31 Dataverses

# 159

159 Data Sets

# 555

Data Files

# 9500+

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



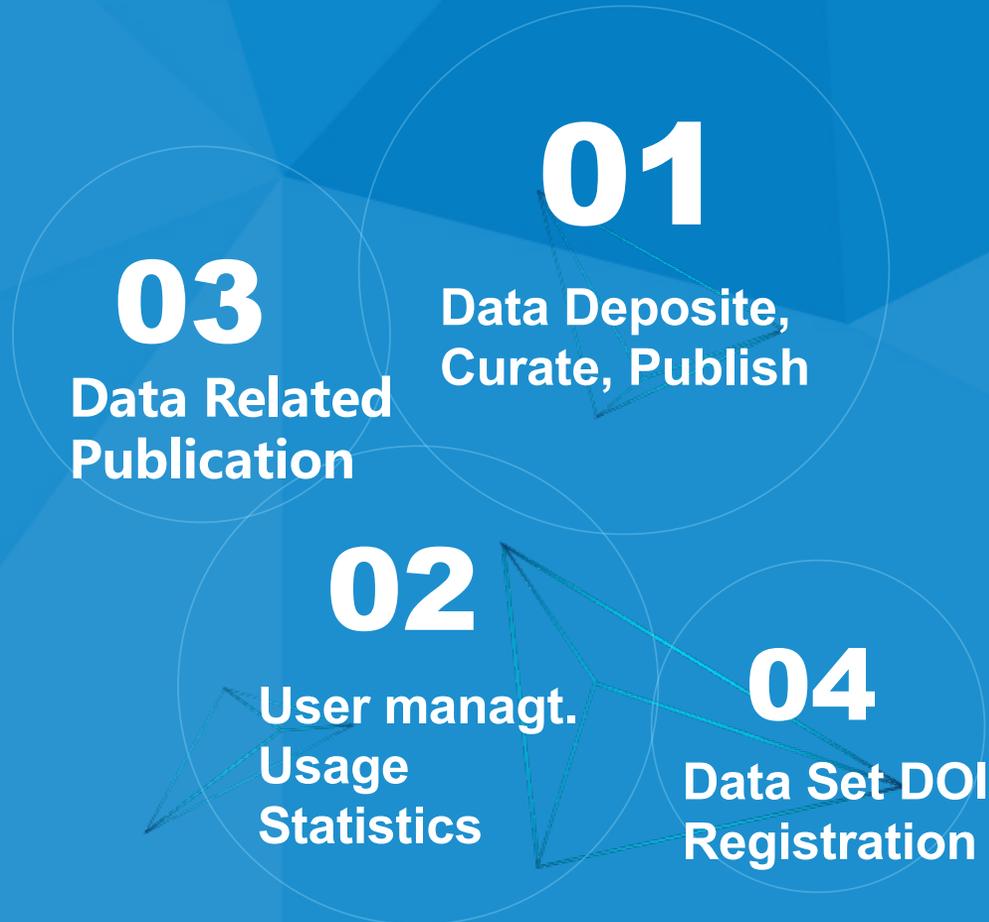
## 北京大学地理信息系统软件 (Geosoft)实验室

GIS software (Geosoft) Laboratory

# Deposited Contents of PKU Open Research Data

# Featured Services & Functions:

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For: Data Provider



For: Data User

# Online Data Analysis: Two Ravens

TwoRavens

### 数据选择与查看

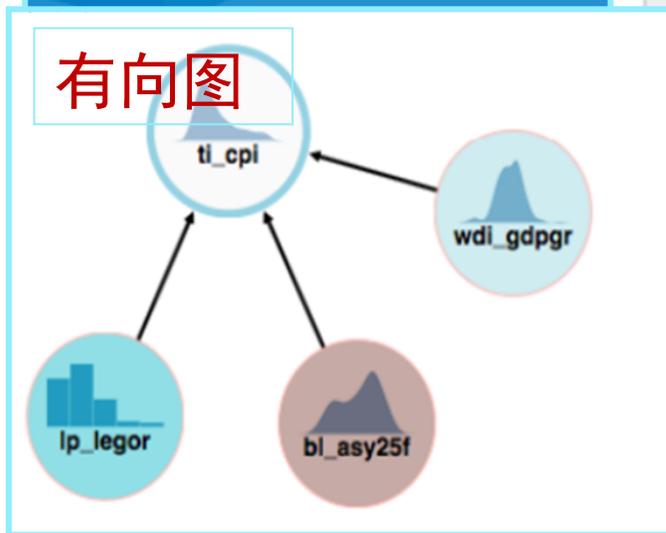
Data Selection

Variables Subset

- Gender
- TriadRelativism
- GrowProvince
- ProvincePathogenHumanPlusYbook
- CountyDiseasePrevalenceHumanCn
- CountyDCode
- RiceWheatBorder
- CountyDCodeRice
- ProvDCode
- ProvincePaddyPercent
- RiceCat
- SocialPolitics

Summary Statistics

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



### 模型分析结果

call: func(var)

#### Model Selection

Models Set Covar. Results

- bl\_asy25f**: x: 5.688, x1: 9.010
- ti\_cpi**: x: 3.983, x1: 3.983
- wdi\_gdpgr**: x: 0.2709, x1: 11.13
- lp\_legor**: 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:

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**Guest User: 100,00+ @ last 12 months**

**Registered User: 9556**

- Institutions of Users : 72countries, 1000 research institutions
- Top five countries of visitors: China, US, UK, Japan and Kerea
- Disciplines: Economics, Sociology, Statistics, demography, Management Science, Engineering, Computer Science, Library Science. Chinese. etc.

31

31 Data Space

159

159 Data Sets

555

Data Files

9500+

Registered Users



62,215 Downloads

China Family Panel Studies



432,630 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



1,823,890 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

# Re3data.org registered/indexed

- Registered on re3data.org @2015.5.15
- re3data.org identifying and listing **2,000** research data repositories
- From China: **37**↑。

The screenshot displays the re3data.org website interface. At the top, the logo 're3data.org' is shown 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 menu. The search results section indicates 'Found 2 result(s)' and features a card for 'Peking University Open Research Data'. This card includes a 'PKU-Opendata' link, a 'Subject(s)' section with tags for 'Humanities and Social Sciences', 'Engineering Sciences', 'Social and Behavioural Sciences', and 'Computer Science, Electrical and System Engineering'. It also has a 'Content type(s)' section with tags for 'Plain text', 'Standard office documents', 'Scientific and statistical data formats', 'Databases', and 'Structured graphics'. The 'Country' section is tagged with 'International' and 'China'. A descriptive paragraph at the bottom of the card 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.'

# Awareness:

1<sup>st</sup> Price of The 2<sup>nd</sup> 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

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

科研过程

1. 选题和研究方案  
重用别人的数据或利用别人的数据

真金不怕火炼，大奖正虚位以待  
敢来接受挑战吗？

和长期保存  
数据资源

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

2017.11-2018.04:

# 1<sup>st</sup> National University Data Driven Innovation Research



Tencent 腾讯

GALL  
A Cengage Company

# Policies of Scientific Data Management

## General Office of the State Council, PRC

**国务院办公厅印发《科学数据管理办法》**

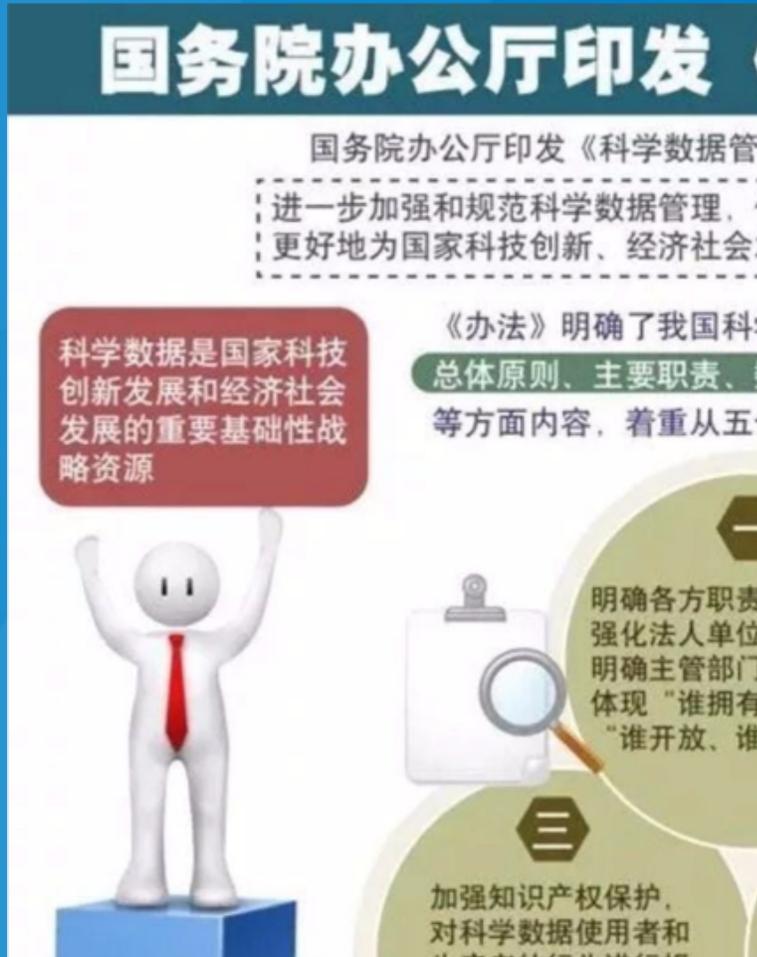
国务院办公厅印发《科学数据管理办法》  
进一步加强和规范科学数据管理，  
更好地为国家科技创新、经济社会

科学数据是国家科技创新发展和经济社会发展的重要基础性战略资源

《办法》明确了我国科学数据管理的总体原则、主要职责、等方面内容，着重从五

明确各方职责，强化法人单位主体责任，明确主管部门，体现“谁拥有、谁开放、谁

加强知识产权保护，对科学数据使用者和



The infographic features a white cartoon character with a red tie on a blue pedestal. It includes a magnifying glass icon over a document and a circular arrow icon. The text is in Chinese, discussing the State Council's new regulations on scientific data management.



**Digital China Institute**

# 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



北京大學圖書館  
PEKING UNIVERSITY LIBRARY