

Japan established a data sharing center for publicly-funded biomedical science

Kousaku Okubo, Shoko Kawamoto, Hidemasa Bono and Toshihisa Takagi

Database Center for Life Science (DBCLS),
Research Organization of Information and Systems (ROIS)

http://lifesciencedb.jp/eninfo@dbcls.rois.ac.jp



BACKGROUND

Big Invest. in R&D Projects for BioMedicine

- More than three Billion \$/yr (R&D cost) for top-down projects in FY2008.
 http://www8.cao.go.jp/cstp/siryo/haihu73/siryo2.pdf
- Four Ministries (Health, Industry, Education and Agriculture) plan projects independently.
- Mostly executed by Univs. and Natl. Labs.

Privatizing Publicly Funded Science

- Three new laws for privatization of science in Univs. & Natl. Labs. (1988-2004).
- Idea of Good Practice is not shared. "Benefit his own venture company or benefit his own nation".

No Public Archives for Project Data

- Government contracts do not refer to data dissemination.
- No guidelines for data sharing.
- Various levels of voluntary data are released from individual project websites.



Mind the BIG Difference

Private property

- You can read/search if you pay
- Dissemination of copy is prohibited
- Reuse of material needs approval
- examples

▲Commercial Journals (Nature, Science)

▲Most
Japanese DBs

Public property

- You can read/search for free
- You can disseminate copy of original data
- Free reuse of material with attribution

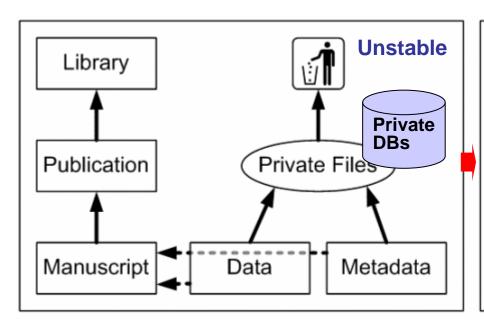
examples

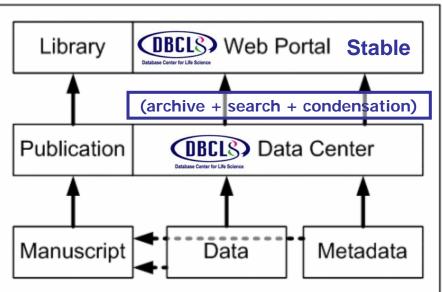
▲Open access journals (PLoS, BMC)

▲ DBs in NCBI



Mission





Current Scheme

Good Practice

Modification of Fig. 1 in "DATA PUBLICATION IN THE OPEN ACCESS INITIATIVE" (Klump et al., Data Science Journal, Volume 5, 15 June 2006 79-83p)



Mission

Three ways of standardization

for integration/interoperability

- **Syntactic:** DB structure and data format
- **Semantic:** ontologies and dictionaries
- **Pragmatic:** standardizing the "Term of Use", establishing "Public Domain" data

Archive + search + condensation

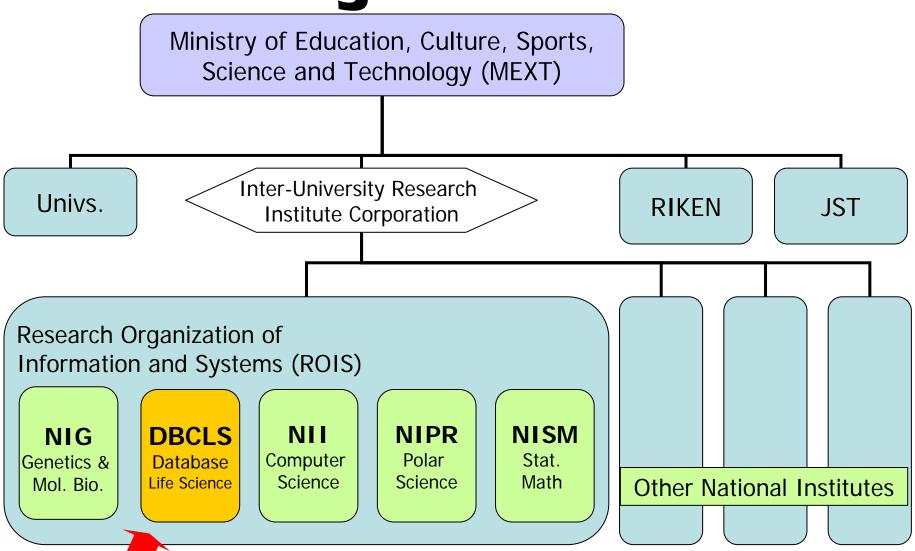
- Inventory of ongoing/finished national projects
- Survey & report on data availability of projects
- Archiving data from ongoing/finished projects
- Authoring Metadata

Disseminate "Opens" and "Commons"

- Collaborating with domestic "Open Access" journals, Creative Commons Japan etc.
- Hosting seminars and workshops on "Open Science" movement



Organization



We are here Established in 2007, Responsible for the 5yr national integrated DB project