Discussion: Lessons Learned

HMetS Writing Group

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October 15, 2021
Writing Group Session

This meeting

October 15, 2021

1. First draft of first part

   Feedback by **22 Oct**!

2. Discussion

   What challenges/lessons should the paper cover?

3. Paper's Appendix

First Draft: Case description (+some analysis)

Table 3. Use Case Infrastructures: Summary of Features

	Repository platform & catalogue	Metadata standards	Metadata protocols	Added Services	Known aggregators
GCdataPR	Custom	DCI[14], DataCite	OpenSearch	Real-time usage statistics	CrossRef, China-GEOSS, China National Knowledge Infrastructure (CNKI). XML file with metadata is emailed to DCI once per year
IGS	Collection-level metadata records are available via NASAs Common Metadata Repository (CMR)	DIF 10, ECHO 10, ISO 19115-2:2009 (MENDS and SMAP dialects), UMM-C	CMR CSW, CMR public APIs, OpenSearch	A state-of-the-art IGS data discovery platform is being developed.	Through NASA's CMR
INTERMAGNET/ WDC-Geomagnetism (Edinburgh)	Custom repository for all INTERMAGNET data products. Recent (2013-) yearly definitive data sets are deposited in the German Center for Geo-Research (GFZ Potsdam) data repository	Via INTERMAGNET: IAGA2002, CDF; Via GFZ: GeoJSON, DataCite, ISO 19115	Via INTERMAGNET: HTTP, FTP; Via GFZ: request to DataCite's API		DataCite, FIDGEO[15]
ISGI	Custom. Data can be searched and downloaded from the ISGI site. Programmatic web access is available upon request from researchers and institutions	Data content at ISGI is well documented. *A collection of records with homogeneous metadata is being curated and a public access metadata service is also planned*	IAGA2002, with *CERIF, DataCite and/or DCAT based profiles and/or crosswalks also planned*	n/a	n/a
NSSDC	Custom platform	NSSDC Core Metadata Specification, SPASE, *DataCite, VO Data model; Planned NSSDC metadata schema update to fully support DataCite*	OpenSearch, OGC-CSW (via the WDS China Common Clearinghouse), Data search platform, *OAI-PMH*	All datasets receive PIDs: DOI, Handle, CSTR IDs; *planned metadata registration service*	Chinese Basic Science Data Center, CNKI
SEDAC	Vital Digital Asset Management System (Fedora), *with migration to Drupal 8 underway*	FGDC CSDGM, ISO19, DataCite	International Data Network's OGC CSW, NASA's CMR CSW, CMR public APIs, OpenSearch		DataCite, GEOSS (via EOSDIS/CMR).
WDC-RRE	Custom: Debian OS, OSS NGNIX, PostgreSQL, TorCMS	Dublin Core, ISO 19115/19139/19119, WDS-RREs Data Identification and Metadata standards (incorporating ISO and Chinese standards); *plans for a new metadata standard specification*	OpenSearch, OGC-CSW 3.0.0, OAI-PMH 2.0, SRU 1.1., *Geonetwork*	PID versioning system to create identifiers for dynamic data sets	WDS-China, CNKI

[a] Features given in *italics* are planned or currently in development.

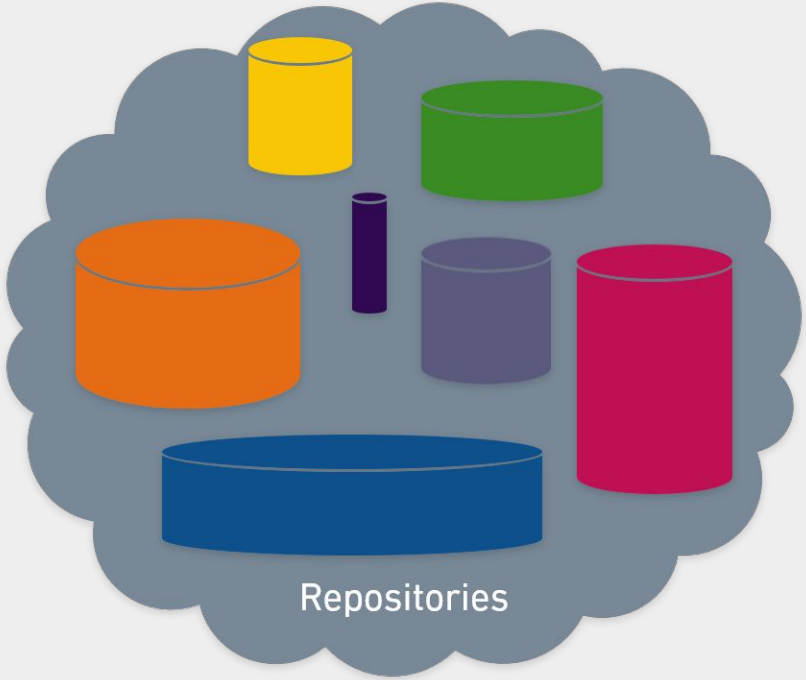
Feedback by **22 Oct**!

Feedback Rounds

1. **October 22:**
   Feedback to Part 1
   Draft of Part 2 ready
2. **November 5:**
   Feedback to Part 2
3. **November 19:**
   Final round of feedback
4. **November 26:**
   Submit to journal

Lessons?

Individual challenge + recommended approach (=lesson)



Use cases analysis + shared/contrasting pattern (=lesson)


Keeping track of who is using data products
Ensuring proper re-use, attribution & citation of data assets
Demonstra
Success (includi
working with publishers)
Policy
Continuing to serve original users while reaching new ones
Balancing openness and data protection while sharing data and metadata
Evolving Tech
Project funding and resources
Limitations of a harvesting strategy for data set discovery
Challenges
Standards coordination (internal/external)

Lessons

Repository Profiles

- Supplementary file/appendix with the Data Science Journal (if accepted)
- Zenodo
- WDS-ITO's website
- Other?

https://doi.org/10.1080/17538947.2018.1504995, pp. 1441–1456. ISSN: 1753-8947. DOI: 10/gg5nhd. URL: https://doi.org/10.1080/17538947.2018.1504995 (visited on 03/02/2021).

Zhang, Lili et al. (Jan. 2021). "A Review of Open Research Data Policies and Practices in China". en. In: *Data Science Journal* 20.1. Publisher: Ubiquity Press. ISSN: 1683-1470. DOI: 10/gksr3r. URL: https://doaj.org (visited on 03/12/2021).

Zou, Ziming, Senlin Xiong, and Xiaoyan Hu (2020). "Chapter 4 - e-Science Applications of Chinas Space Science Satellite Missions". en. In: *Chinas e-Science Blue Book 2018*. Ed. by CAS et al. Singapore: Springer Singapore. DOI: 10.1007/978-981-13-9390-7. URL: http://link.springer.com/10.1007/978-981-13-9390-7 (visited on 08/25/2020).

Appendices: Institutional Profiles

This section describes seven institutions infrastructures. After a brief (half page to one page) description of each institution and affiliations, six items are described: The stakeholders and user community served, the technical infrastructure of the repository, the current state of the metadata (its standards and exchange technologies and platforms used to share it), any planned developments for harvestable metadata services, the existing and needed resources for development, and any unique challenges faced.

Appendix A. Chinese National Space Science Data Center

The Chinese National Space Science Data Center (NSSDC) is the repository for the National Space Science Center (NSSC, formerly the Center for Space Science and Applied Research) in Beijing (NSSDC 2020b). It is a WDS Regular Member, and a CoreTrustSeal-certified data repository (Edmunds 2020). Together with WDC-RRE and GCdataPR, NSSDC is one of the original nine Chinese data repositories who

Next meeting

November 6

1. Address any remaining issues in draft
2. Statements of contribution
3. Acknowledgements
4. Other details