



NANYANG
TECHNOLOGICAL
UNIVERSITY
SINGAPORE

DR-NTU (Data)'s CoreTrustSeal Certification

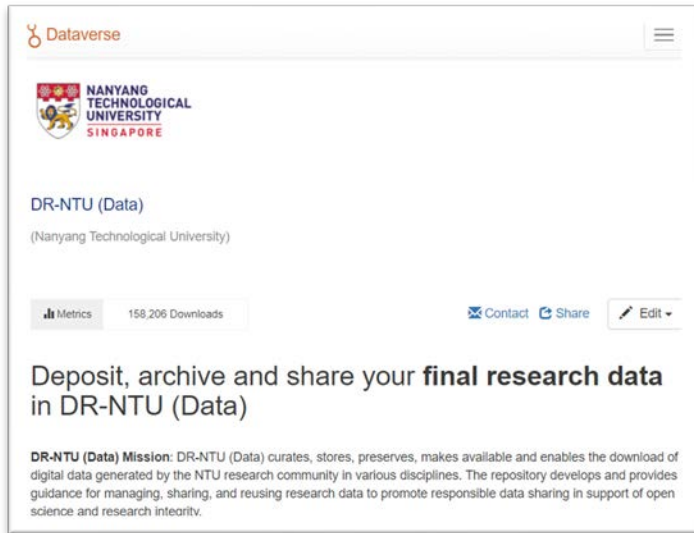
3 Aug 2022

Yuyun Wirawati
NTU Library



DR-NTU (Data)

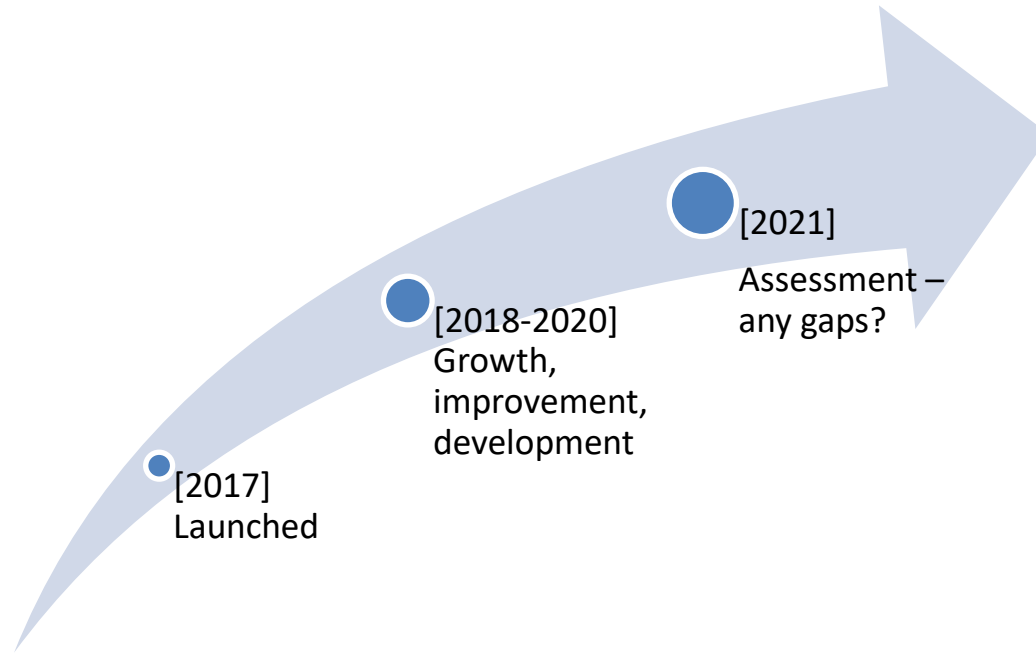
- [NTU Research Data Policy](#) stipulates that research data must be managed and shared in a timely and responsible manner.
- [DR-NTU \(Data\)](#), launched in Nov 2017, is a data repository for NTU community to deposit, archive and share the final research data from projects carried out at NTU.
- Using open-source software, Dataverse. Managed by NTU Library.
- Currently there are more than 1,000 published datasets, with a total of 30,000 files stored in DR-NTU (Data).



Assessment

[/ə'sesmənt/] an opinion or a judgement about somebody/something that has been thought about very carefully

Source: [Oxford Dictionaries](#)



Assessment



[COAR Next Generation Repositories](#)
[COAR Community Framework](#)

A set of applicable and achievable good practices.



[Transparency and Openness Promotion Guidelines](#)

Data must be posted to a trusted repository



[Fair Principles](#)

Emphasize machine-actionability to find, access, interoperate and reuse data

Certification

- 🍏 Allows data repository to demonstrate to stakeholders that an **independent authority** has **evaluated** it and **endorsed** its trustworthiness
- 🍏 An important contribution to ensure **reliability** and **durability** of data repository



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Which Certification?

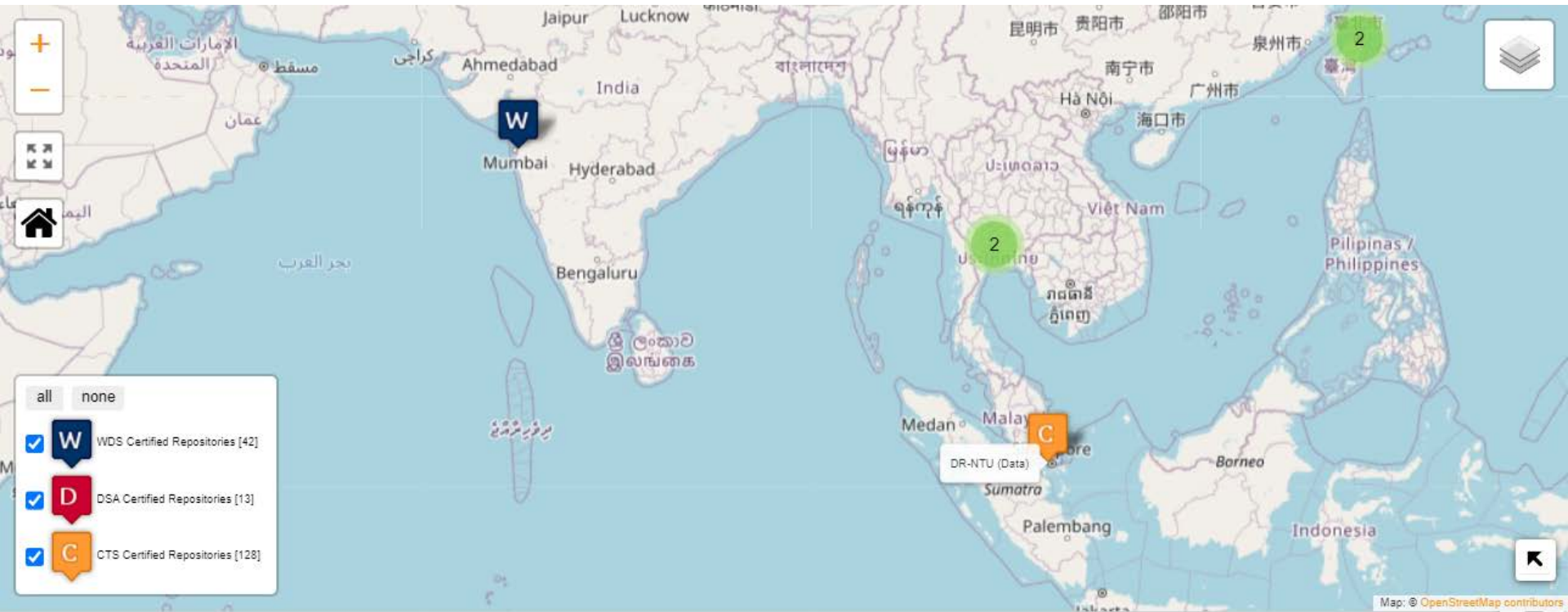


The amount of resources required and potential modification to existing process/systems increased as the certification level goes up.

Which Certification?

Certification	Number of certified repositories	Notes
<u>ISO16363</u>	2	US Government publishing office was certified in 2018. Indira Gandhi National Centre for the Arts, India, was certified in 2017.
<u>Nestor Seal</u>	4	All certified repositories are in Europe; 2 were certified in 2016, and 2 were certified in 2017
<u>CoreTrustSeal</u>	120 (as of 1 Mar 2022)	CTS replaces previous World Data Systems (WDS, 2011-2018) certification and Data Seal of Approval (DSA 2008-2018) certification.

CoreTrustSeal (CTS)



Source: <https://www.coretrustseal.org/why-certification/certified-repositories/>

CTS 16 Requirements

CoreTrustSeal 16 Requirements

Organizational Infrastructure	Digital Object Management	Technology
<ol style="list-style-type: none">1. Mission2. Licenses3. Continuity of Access4. Confidentiality/Ethics5. Organizational Infrastructure6. Expert Guidance	<ol style="list-style-type: none">7. Data Integrity and Authenticity8. Appraisal9. Documented Storage Procedures10. Preservation Plan11. Data Quality12. Workflows13. Data Discovery and Identification14. Data Reuse	<ol style="list-style-type: none">15. Technical infrastructure16. Security

Compliance Level

Applicant to indicate a compliance level for each requirement:

- 0 –Not applicable
- 1 –The repository has not considered this yet
- 2 –The repository has a theoretical concept
- 3 –The repository is in the implementation phase
- 4 –The guideline has been fully implemented in the repository



Certification can be granted even if some requirements are at level 3; requirements include an assumption of continuous improvement.

Preparation work & self assessment

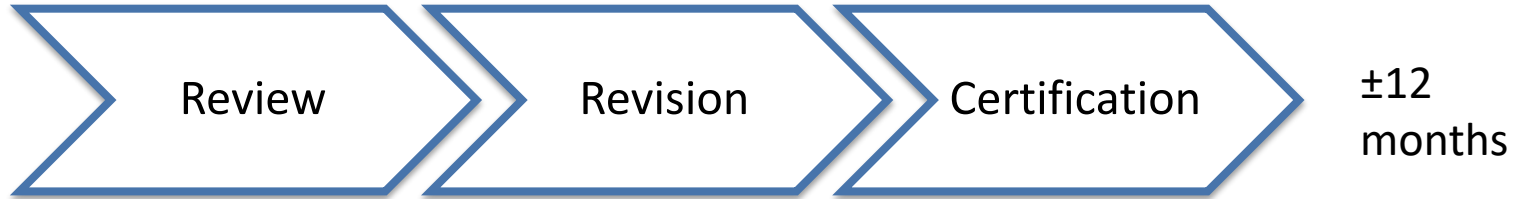


- Setup clear objectives
- Communicate with stakeholders
- Form a team

- Literature review
- Benchmark
- Review workflows
- Review documentations
- Consolidate findings

- Register and pay to CTS

Review process



- Peer review by CTS Assembly of Reviewers
- There are two reviewers, and they may have different feedback
- Revision to meet the requirements (i.e. giving more evidence)
- A maximum of 5 revision per application

Gaps identified

CoreTrustSeal 16 Requirements

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Gaps identified: Continuity of Access

The repository has a continuity plan to ensure ongoing access to and preservation of its holdings.



Succession Plan



Possibility of secondary custodian and/or reciprocal custodian



Consortium



Agreement with other archive in provision of data access

Gaps identified: Data Quality / Data Reuse

The repository has appropriate expertise to address technical data and metadata quality and ensures that sufficient information is available for end users to make quality-related evaluations.

The repository enables reuse of the data over time.



Collaborate with subject experts



Grow community of practice



Enable community interaction (like [Pubpeer](#)), rating system

Gaps identified: Preservation Plan

The repository assumes responsibility for long-term preservation and manages this function in a planned and documented way.



Publicly available
Preservation Plan



Risk assessment via file
format identification
and validation

DR-NTU (Data)

After 3 rounds of reviews, DR-NTU (Data) is certified as a Trustworthy Data Repository by the CoreTrustSeal Standards and Certification Board until Jan 2025.



Benefits



Displays commitment to data and service quality.



Heightens stakeholder confidence.



Increases DR-NTU (Data) visibility and international recognition.



The review process improves our workflows, technical solutions and processes for long term preservation.



Improves awareness and compliance with established standards.

Lesson Learnt

01

Get a team! This is not a one-person's work.

02

Benchmark against similar repositories.

03

Ask for expert's advice.

04

Have an open mind.

05

Enjoy the learning process!

