Achieving the CoreTrustSeal certification to increase stakeholder confidence

Data Archiving and Networked Services
DANS

RDA
RESEARCH DATA ALLIANCE

Data Archiving and Networked Services (DANS) adopts Repository Audit and Certification Catalogue RDA recommendation

The mission of DANS is to promote and provide permanent access to digital research information. DANS is and has always been heavily involved in creating and achieving certification for the trustworthiness of digital repositories. We are one of the founders of the Data Seal of Approval (DSA), acquiring our repository's first DSA certification in 2011, which was renewed in 2013 and prolonged in 2016. Next to that we acquired World Data System (WDS) certification in 2015 and the nestor seal-/DIN 31644 in 2016. In 2018 these were complemented by the CoreTrustSeal. Over the years we went through the process of acquiring certification with two goals: first, to show our stakeholders the trustworthiness of our repository, and second, to improve our internal processes and update our documentation. Preparing for certification is a perfect opportunity to raise the bar and reinforce collaboration between our archive, IT, policy and legal departments.

Dr. Ingrid Dillo, Deputy Director Data Archiving and Networked Services (DANS) in The Netherlands

The challenge

DANS wants to show the trustworthiness of its repository to its users and other stakeholders, thereby creating confidence and have a way to differentiate the repository from others in the field. As digital preservation is part of our mission we would like to raise awareness for this subject.

The RDA outputs adopted

The Repository Audit and Certification Catalogues, a two-part recommendation produced by the RDA Repository Audit and Certification DSA–WDS Partnership WG, was used/ adopted. It harmonised common procedures and requirements for certification of repositories at the basic level, drawing from the procedures and requirements already put in place by the DSA and WDS. Based on this effort the DSA and WDS merged into CoreTrustSeal, thereby gradually replacing DSA and WDS certifications.

DANS has used the CoreTrustSeal to sustain and display its reputation as trustworthy digital repository in a transparent way, which induces stakeholder confidence and differentiates us from others. At the same time, it helps us raise awareness on digital preservation and the importance of long-term availability of data for re-use. Next to that, the procedure of getting certified improves (internal) communication on our overall mission and goals, but also has a positive effect on our processes and procedures making them even more effective and efficient.

Getting certified as a trustworthy digital repository through CoreTrustSeal does not solve technical challenges by providing technical solutions. It does however give you a context in which to think about the technical challenges you face. As CoreTrustSeal publishes all approved self-assessments on their website, it has created **a database of knowledge on how peers have solved similar challenges**, which is freely accessible and can be used to inspire solutions in your own repository. Furthermore, the OIAS reference model is used as a base for the CoreTrustSeal requirements which provides a common framework and language.

Consequences faced without a solution

Not being certified makes it harder to demonstrate to researchers and research support staff why Trustworthy Digital Repositories (TDR) are essential for keeping their research data reusable or even FAIR (Findable, Accessible, Interoperable, Reusable) in the long term.

Funders are also getting stricter in where (research) data is deposited and that they remain preserved for the longer term; not being a TDR could stop the inflow of data into our repository as depositors will choose a certified repository instead.

CORE TRUST SEAL ✓

The benefits of adopting the RDA output

In 2017 DANS has written a self-assessment on the basis of the 16 requirements of the CoreTrustSeal and received certification in April 2018. Similar to previous occasions where we wanted to acquire certification for our repository, we have done so for the following reasons:

» Promote our repository as a trustworthy digital repository, increasing our stakeholder confidence by showing we are a reliable partner for funders, depositors and users of data

» Have a transparent way to prove we are a trustworthy digital repository

» Differentiate our repository from others

» Raise awareness on digital preservation, which is part of our core mission.

» To check, improve and update our policy and workflow documents and for instance our long-term Preservation Plan.

» Re-evaluate and make improvements on our technical solutions and processes for long-term preservation.

» Going through a certification process is a good team building exercise as it brings people from different departments together with a common goal.

The adoption process

Method

DANS started to apply for CoreTrustSeal certification for its repository EASY by filling a self-assessment based on the 16 requirements in August 2017, which was then submitted to the CoreTrustSeal board in September 2017. The self-assessment was reviewed and sent back to us with comments on the requirements we needed to elaborate on further. The self-assessment was sent back and forth three times in total before the Board approved our application and awarded CoreTrustSeal in April 2018. The DANS self-assessment of EASY and CoreTrustSeal review is now available.

Several DANS staff have been involved in the process. For most of them collecting and providing the evidence for a self-assessment of the repository is interwoven with their primary tasks. This makes it hard to identify the part of their time that was specifically devoted to the CoreTrustSeal certification.

Effort

Four kinds of activities can be distinguished in DANS's CoreTrustSeal certification effort:

1. Activities related to DANS's policies
   » regarding the repository
   » regarding the organisation
2. Activities related to the technical infrastructure of the repository
   » internal consultation and design
   » development

   » documentation
3. Activities related to the text for the self-assessment
   » adapting text of the previous assessment (DSA/WDS)
   » writing new text
   » adapting text of documents which are offered in support of CoreTrustSeal criteria
   » adapting text on the DANS website
   » internal consultations about these texts
4. Project management

Conclusion

We estimate the net effort of applying for CoreTrustSeal certification is about 250 hours, which we consider quite acceptable every few years. Clearly, the effort required correlates with one's – accomplished and/or pursued – levels of compliance: it takes less time to provide an up-to-date description of the repository's state of the art than e.g. to design and implement major improvements of the technical infrastructure. Finally, it is good to note that the application process both stimulates and is stimulated by the everyday repository process.

Main Takeaways

As the application for certification of its repository is an exercise DANS repeats at regular intervals we are quite at home in the procedure. We would make the following recommendations to (first time) applicants:

Without submitting a self-assessment, the CoreTrustSeal requirements can be used as an internal benchmark to assess the repository's state of the art as the requirements and reviewers guide for assessing the repository are accessible via the CoreTrustSeal website.

All approved self-assessments of repositories are available via the CoreTrustSeal website. This means you can access self-assessments of related repositories in your field, which can be used for inspiration or finding solutions to common problems helping you prepare for the official submission.

Higher management should be the driving and connecting force disseminating the importance of trustworthiness through certification in the entire organisation, making resources available when and where necessary and taking strategic decisions on needed improvements if any.

Acquiring certification is a team effort and works best if everyone within the repository is on board; it's a great team building exercise.

Especially first-time applications require a lot of effort depending on the maturity of the documentation of processes and procedures. Often when starting a certification procedure, you find that the processes and procedures used within your repository are well thought out but not always documented sufficiently as a lot of knowledge is in people's heads but not on paper.

Seeking certification can lead to the need for updating and/or changing the design and implementation of major improvements to the technical infrastructure. This takes a lot of time that is not necessarily part of the certification process, but does need to be taken into consideration when starting the process.

As the certification allows different levels of compliance to the requirements, it could be that you identify areas that need or want improvement through the certification process. In the self-assessment you can state this is work in progress and will be ready by the next certification round in three years.

Getting certification at regular intervals strengthens and develops your repository and helps keep it relevant for the future.

Certification of your repository is not a one-off exercise.

In the ever-changing environment we work in, we recommend to go through the process on a regular basis. The CoreTrustSeal certification for instance is valid for a period of three year after which it needs to be renewed.

We definitely recommend other repositories get certified, or at least to use the requirements as an internal benchmark to check the quality and sustainability of their repository service, its processes, and staff.

Clearly, certification is not something you do "to impress other repositories". On the contrary: Science Europe, the organisation of research funding and research performing organisations in Europe, has developed criteria for the selection of trustworthy repositories. These criteria contain a recommendation that repositories that are not yet certified seek certification. We can only encourage repositories to prepare for this and to benefit, like DANS, from the boost that a certification process can give to internal communication and collaboration, on top of raising the level of trustworthiness.

Data Archiving and Networked Services (DANS)

DANS (Data Archiving and Networked Services) is the Netherlands Institute for permanent access to digital research resources. DANS encourages researchers to make their digital research data and related outputs Findable, Accessible, Interoperable and Reusable. We provide expert advice and certified services. Our core services are: DataverseNL for short-term data management, EASY for long-term archiving, and NARCIS, the national portal for research information. By participating in (inter) national projects, networks and research, DANS contributes to continued innovation of the global scientific data infrastructure. Open if possible, protected where necessary. DANS is an institute of the Dutch Academy KNAW and funding organisation NWO.

DANS Stakeholder Community

DANS's primary target group includes primarily scientific researchers (with a focus on social sciences and humanities) and, to a lesser extend, public and private organisations that carry out research commissioned by the – national or local – authorities. They are both data producers and data users. Researchers in training (i.e., doctoral students) belong to this primary target group as well. Data with a scientific significance collected by companies such as polling organisations and archaeological companies are also welcome. Besides researchers and research organisations, journalists and the wider public are invited to use our data services, including the repository: a substantial part of the datasets is available Open Access.

DANS longstanding involvement in RDA

DANS has been very active in the RDA since the beginning, for example by co-chairing or participating in Working Groups and Interest Groups, as we appreciate the grassroots approach and global coverage provided by the RDA. We organised the fourth RDA plenary in September 2014 and DANS' Deputy Director Ingrid Dillo has been active in the RDA Technical Advisory Board, was Acting Secretary General of the RDA in 2017/2018 and is now a member of the RDA Council. This longstanding involvement in the RDA made it obvious to collaborate on certification requirements for data repositories through the RDA.

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