This is a translation of the Strategic synopsis Monitor Dutch repositories - The network of repositories in the Netherlands: infrastructure for Open Access to knowledge. The complete report is only available in Dutch.

The network of repositories in the Netherlands: infrastructure for Open Access to knowledge

SURF's aim when setting up the DARE programme (2003–2006) was to ensure public access to the research results produced by the Dutch universities. To that end, an interoperable network of institutional academic repositories was set up with a joint portal – with functionality including a search function – for users of this information. Two such infrastructures were ultimately created: a network of repositories containing information generated by the research universities, with the "NARCIS" portal (www.NARCIS.nl), and a few years later a network of repositories for information from the universities of applied sciences ("HBOs"), the "HBO Knowledge Base" (www.HBO-Kennisbank.nl).

The SURFshare programme (2007–2011) – the successor to the DARE programme – built on this knowledge infrastructure for Open Access to research results. Amongst other things, the programme focuses on improving this infrastructure and on the expansion – possible in part because of this infrastructure – of scientific and scholarly communication via enhanced publications, collaboration environments for researchers ("collaboratories"), and access to research data.

This study measures the effects of the two networks of repositories, charts the current situation, and explores possible scenarios for the future. It is in part a follow-up to the study *Dutch Academic Repositories SURFshare Baseline Survey* [*Nederlandse Academische Repositories, SURFshare Nulmeting*] of March 2010. That study was a baseline survey of the Dutch universities' repositories carried out at the end of 2008 and with additional research in the first half of 2009. Important statistics in the study concern the 2007 calendar year. In other words, despite being published in 2010, the results were in fact a number of years old, namely from the start of the SURFshare programme.

The study was carried out on behalf of SURF by Leo Waaijers (Open Access consultant) and Maurits van der Graaf (Pleiade Management en Consultancy) and was supervised by Annemiek van der Kuil (SURF).

Strategic synopsis

Strategic synopsis regarding the repositories supplying NARCIS

Analysis

Construction of national infrastructure for Open Access to research results has stagnated.

Key observations as regards Open Access
- The percentage of publications made available annually via the repositories on an Open Access (OA) basis (referred to below as "coverage") has not increased significantly since 2007; in 2010, it fluctuated between 7% and 30% at virtually all institutions.
- It is only in the case of theses that a large majority of the universities have succeeded in achieving coverage of more than 80% over the past four years (2007–2010).
- The level of OA success (i.e. as regards theses) or stagnation (as regards all other publications) does not correlate with university mandates or personnel capacity.
- Implementation of six of the nine "standard" success factors for institutional repositories at more than half the institutions has not led to a higher level of coverage. Based on experience so far with the three other success factors, no breakthroughs can be expected here either.

Stagnation culture
- There are major disparities between the institutions in virtually all areas of OA. This concerns institutional policy (even though all the universities and also the Royal Netherlands Academy of Arts and Sciences (KNAW), and the Netherlands Organisation for Scientific Research (NWO) have signed the Berlin Declaration), infrastructure (software, persistent identifier, subject access, format of metadata), inclusion policy, work processes and personnel deployment, and delivery to NARCIS. These disparities have not decreased when compared to the results of the previous study in 2008. It is obvious that the national infrastructure is not viewed sufficiently as a joint exercise.

Operational effects
- The DARE agreements of 2007 regarding setting up the national infrastructure are outdated and are not all being complied with. New arrangements have not yet been put in place. This has an impact on the robustness of the infrastructure.
- The joint NARCIS website has a number of deficiencies, partly due to there being insufficient systematic quality control.
- Efforts to create a national research registration system to replace the old METIS system have been suspended. An attempt will now be made to construct a uniform national data model for research registration. The metadata for the institutional repositories and NARCIS will be supplied from the research registration systems.
- Permanent storage of the content of the repositories in the National Library's e-Depot did in fact recommence in mid-2010, but rollout has been difficult due to the above-mentioned disparities between the repositories and the absence of collective work agreements.

Exception
- One exception concerns DAIs – Digital Author Identifiers – for which a joint system has been set up. As of the end of 2011, some 80% of researchers had been allocated a DAI. This is a valuable aid when searching for publications according to the name of the author and as a basis for the provision of services to authors.

Recommendations

The content of a repository is not just a local collection but a contribution to a global knowledge network. The initial results of the SURE2 project confirm that virtually all of the demand for content from the repositories comes via Google and Google Scholar. That demand is also highly international. This consideration is the common thread in the following recommendations.

Primary objective
Agree jointly with the institutions on a primary objective:

Primary objective: From the end of 2015, 70% of the research output published annually in the Netherlands should be accessible by means of Open Access.[1]

Joint action
- Make the primary objective the criterion for all joint decisions and developments.

Collaboration by authors
- The primary objective cannot be achieved without the collaboration of the authors of research publications. A series of apps should therefore be developed offering useful services for authors who are depositing their publications. Offer these services at a number of different aggregation levels (faculties, research groups, projects, institutions, etc.) and key into international successes, for example Google Scholar Citations for publication lists, CiteULike/Mendeley/Zotero for publications, Dataverse/DataCite for datasets, or Linked Open Data for Web services.

Infrastructure
- Make NARCIS the logistical core for delivery to Google (i.e. Google Scholar), the e-Depot, and other disciplinary national/international service providers. Assign a clear and not merely non-committal coordination function to an umbrella institution.

Green and Gold
- Because the "Green Road" alone will almost certainly not be sufficient in order to achieve the primary objective, policy regarding the "Golden Road" should be intensified. The proposal is for a task force – headed by the chair of the Association of Universities in the Netherlands [*VSNU*] – to be set up for this purpose, which would work on behalf of the universities towards shifting away from the licensing model to the OA model.

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[1] This target must be clearly verifiable. For example: 70% of all the publications registered in the annual report of the VSNU for 2014 (= scientific/scholarly publications plus theses and professional publications) should be accessible as Open Access via Google Scholar at the end of 2015.

Strategic synopsis regarding the repositories supplying the HBO Knowledge Base

Analysis

> **A modest national infrastructure has been constructed for Open Access to the results of applied research; use of that infrastructure is so far only limited.**

Key observations as regards Open Access
- All the larger Dutch "universities of applied sciences" [*hogescholen, HBOs*] – a total of 21, comprising more than 90% of students – are participants in the HBO Knowledge Base [*HBO Kennisbank*]. There is a certain diversity as regards software and definitions, but that does not appear to be a disruptive factor, perhaps because the HBO Knowledge Base is still small. Deposition of publications in the repository does not normally form part of an institution's work processes.
- There are various obstacles to making graduation papers or Bachelor's degree theses openly available: explicit consent is required from the student (as the copyright holder); work placement companies are afraid of confidential business information leaking out; and poor-quality papers/theses have a detrimental effect on an institution's image. In general, neither students nor institutions would appear to be proud of this product. Only a fraction of the theses are made available via the HBO Knowledge Base.
- Publications by *lectors* (i.e. the associate professors who run the HBO knowledge networks) range from "letters to the editor" to contributions to professional publications and scientific articles. A great deal of highly diverse audiovisual material is also produced. There is as yet no question of a broadly supported culture of quality. Institutions are still attempting to define their research profile. Nothing is known about research output in terms of the number and type of publications, meaning that conclusions are not possible about the coverage percentage either. Given the number of *lectors* and instructors who carry out research, it would appear to be low.
- There are 40,000 visits to the HBO Knowledge Base each month. However, little is known about the nature of these visits (i.e. one-off, regular, actual human beings, or crawlers?) or the use made of the material stored in the repositories: does it lead to downloads or citations, and is there valorisation? How is the content in the repositories approached: via the HBO Knowledge Base or via Google, for example (as with NARCIS in the great majority of cases)?
- On average, each institution makes 0.4 FTE available for its repository.

Recommendations
Practice-based research as a systematic task of Dutch universities of applied sciences goes back only ten years, and is still under development, including the associated publication culture. The quality and accessibility of research publications scarcely play a role in the profile of the institution or the status of its *lectors* and instructors who carry out research. The HBO Knowledge Base can act as a catalyst for this process. The recommendations below assume that that is the central role of the HBO Knowledge Base.

Primary objective
Agree jointly with the institutions on a primary objective:

> **Primary objective: Make the HBO Knowledge Base into a showcase for displaying the knowledge products produced by the universities of applied sciences by:**
> - **starting in 2015, making publicly available the publications generated by practice-based research by *lectors*, researchers, and instructors at the Dutch universities of applied sciences (unless the authors provide reasons as to why this should not be done);**
> - **starting in 2015, make publicly available at least 50% of the student theses that receive a high mark.**

Output by *lectors*, researchers, and instructors
- *List of publications in annual report:* Starting in 2013, the annual report for each institution should include a bibliography (generated by the research registration system) of practice-based

research publications by *lectors*, instructors, and researchers, based on shared definitions (drawn up by the Netherlands Association of Universities of Applied Sciences [*HBO-Raad*]). The Netherlands Association of Universities of Applied Sciences should publish a complete survey of research output (like that of the Association of Universities in the Netherlands).

- *Inclusion in repository:* These publications, together with the associated full text, should be included in the institution's repository and as far as possible made available on an Open Access basis via the HBO Knowledge Base.
- *Services for lectors/instructors/researchers who deposit publications:* Authors who deposit publications should be able to benefit from the provision of useful services, for example automatically generated bibliographies, the possibility of viewing the number of times their publications are downloaded, etc.
- *Promote Open Access:* Open Access to the results of practice-oriented research allows maximum use of them to be made by the public. The universities of applied sciences and their Association should pursue an active policy of promoting Open Access to these results by encouraging the setting up of new Open Access journals for professionals and the migration to OA of existing ones.

Graduation papers
- *Archive all graduation papers:* Each institution should include all the graduation papers produced by final-year students in its repository for archiving for the purpose of accreditation.
- *Only graduation papers scoring 8 or higher* should qualify for Open Access via the HBO Knowledge Base.

Demand side
- *Use of the HBO Knowledge Base to achieve knowledge valorisation:* Thorough quantitative and qualitative research on use/users of the HBO Knowledge Base will make it possible to more closely define and intensify its role in knowledge valorisation.

Investment
Circulating the results generated is an inherent part of research as such. A (modest) proportion of the research budget should therefore be reserved for this purpose. If the above proposals are to be implemented, then an average staff deployment of only 0.4 FTE is definitely too little. The Association of Universities of Applied Sciences will also need to deploy personnel to flesh out the proposals and to implement them.