

# More cloud for TiU

**Based on a paper presented at the UKSG One-Day Conference, London: 'A Problem Shared? Understanding shared services and the drive for efficiency in scholarly communications', on 16 November 2011**

After a long period of developing library systems in house, Tilburg University (TiU) decided to buy a new integrated library system (ILS) and at the same time go for a cloud solution. Functionality, cost and vision of the future of scholarly communication were weighed up, and OCLC came out as the winner: TiU is now implementing OCLC's 'Web-scale Management Services' (WMS) and WorldCat Local (WCL). The road leading to that decision is described and some issues to be resolved are mentioned. The implementation project is intended to end in June 2012. Additionally, a short description is given of a possible future Dutch national information infrastructure for scholarly output that consists of just four major building blocks which partly already exist.

On 1 June 2010, Tilburg University (TiU) chose OCLC's 'Web-scale Management Services' (WMS) as its new library 'back end' system and WorldCat Local (WCL), also from OCLC, as its new 'discovery platform'.

Introducing a new library system may seem important to librarians and library staff, but is not necessarily that important to end users. After all, much of the functionality of a library system is hidden from the end users, and rightly so. Only when we reach the front end of the system, the discovery functions, does it influence end users quite directly. That is not to say that all the 'back end' functionality is not important. It is. But TiU would not have undertaken the task of changing its library system if we were not convinced that we could improve end-user functionality as well. The simple map depicted in Figure 1 illustrates the process that led us to our decision to implement both WMS and WCL from OCLC as our next library system.



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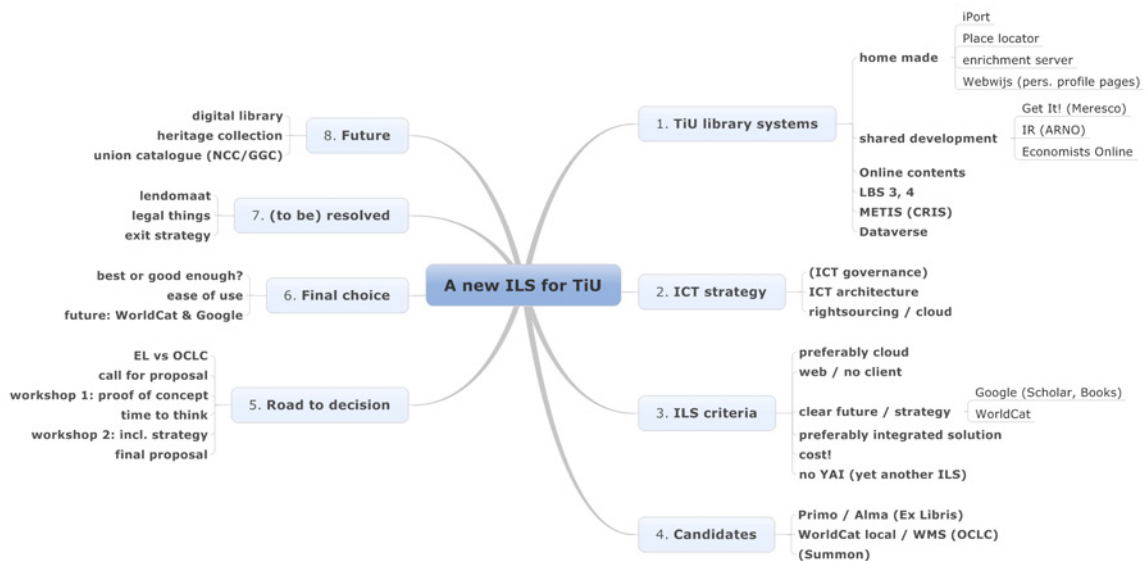


Figure 1. TiU's road to WMS/WLC

## TiU library systems

Concerning library systems, TiU has always had quite a few home-grown systems: those are the unfamiliar names top right in Figure 1. These systems have served TiU very well in all the years when their functionality was not easily available on the market. Nevertheless, TiU decided some years ago that we should stop developing our own systems for this kind of now increasingly more 'common' functionality. It has become too expensive to maintain and, no matter how hard we try, we are simply unable to keep up with the developments of the big players in the world of 'discovery and delivery'. We now need to focus on other things than building library systems (such as education support and research support). So, it was a strategic decision to stop developing and try to find services in the marketplace that would do the things that we did but even better, if possible, and certainly cheaper.

TiU also uses a few shared developments: for instance, our discovery layer is called 'Get It!', which was developed together with Delft Technical University and a firm called CQ2 using their 'Meresco' software. It has provided us with a good integrated search solution for a few years now but, as for our home-grown systems, the burden of keeping software like this up to date and able to deliver services on a level that people expect today – fully integrated, simple, fast – is becoming too much for a rather small university like TiU.

The same goes for the repository software called ARNO that we developed with several other universities in The Netherlands and for the subject repository on economics, called Economists Online, that we developed in a consortium with 30 universities worldwide. For research data, both our own and for participants in Economists Online, we use Harvard's Dataverse system.

As its integrated library system (ILS), for decades TiU has been using OCLC/Pica's LBS (local library system) in conjunction with the Dutch union catalogue that is based on OCLC/Pica's CBS (central library system).

For registration of research output and reporting, TiU uses a Dutch research information system called Metis.

## Information and communications (ICT) strategy

When TiU reached the conclusion that it needed to renew its (digital) library systems, it looked at its ICT-architecture and sourcing policies. We quickly arrived at the conclusion that a library system itself does not give us any competitive advantage and therefore is a good candidate for outsourcing. We did not want to use 'classical' hosting (application service provider - APS), because apart from not running the systems in our own data centre, we also wanted to be freed of the hassle of updating, upgrading and converting. This, amongst other things, meant that we were looking for a 'true cloud' solution.

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## Integrated library system (ILS) criteria

TiU was looking for a vendor with a clear Web x.O-strategy. We did not want just another IT system but a service that would integrate with the way that our primary users – students, teachers, researchers – work. For discovery, this means services that are closely connected with Google, as 'plain' Google all too often is the starting point for many a discovery.

Also, we were looking for an integrated solution. Not a 'best of breed' where we would have a discovery system from one vendor and a delivery system from another and that would leave us with the potentially frustrating task of being responsible for the co-operation of the two.

Of course, cost was an issue. But also, we were determined not to introduce into The Netherlands yet another ILS because it does make working together with our fellow university libraries harder, even if we all adhere to standards. Whether, given our final choice, our new system is a natural upgrade of an already existing ILS or 'yet another ILS', is open for debate.

## Candidates

From the final short list, we removed Summon because Serial Solutions at that time did not have an integrated solution (e.g. no acquisition and no circulation). That meant that we were left with a choice between Ex Libris' Alma/Primo and OCLC's WMS/WCL.

## Road to decision

We asked both vendors for a proposal and then organized a 'proof of concept' workshop with each of them. We asked for a real, preferably live, demo, not just slideware. This was an exciting time. Both vendors showed real existing systems that clearly were in their early stages but also evidently maturing. Alma had better functionality, WMS a better user interface. Since TiU is a fairly small university and we have a rather straightforward university library – with just one desk, for instance – we felt that both systems would do in the field of functionality.

## Final choice

We then asked Ex Libris and OCLC to disclose their strategies on systems and services to us in a second round of workshops. And here, eventually, we felt more 'at home' with OCLC's vision, centred around WorldCat and closely connected to Google's services (Search, Scholar, Books). And as far as functionality goes, we decided 'good' had to be 'good enough'.

So, we choose OCLC with Web-scale Management Services as our new library 'back end' system and WorldCat Local for discovery. And we celebrated the fact that we had reached a decision. But we also sent out a clear message to our staff that whenever the way they worked turned out to be different than the way the new system worked, it would mean: changing our habits. You don't change a cloud service that easily. This is not an easy message to bring to people who have been doing a fine job in a more or less fixed manner for years and years, but we encountered little objection.

## To be resolved

We are now a few months into the project. So far so good, but surely there will be some rough times ahead as is the case with most ICT projects. There are a few things that we still need to resolve. At the moment, WMS cannot interface with our 'Lendomaat', a self-service machine for checking out books. We are convinced, however, that OCLC and the Lendomaat-vendor will be able to deliver that functionality in due course.

More important are legal issues. In The Netherlands there is a debate running about the legal aspects of cloud services, especially when with a supplier that is based directly or indirectly in the United States of America. The most thorny issue here is the American Patriot Act, whose long arm extends into Europe when you are doing business with an American vendor. Since we are dealing with a Dutch firm, we have some faith in our legal position in this matter, but the debate is not over. Apparently, this issue also attracted the attention of politicians both nationally and on a European level.

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We are also keen on a clear 'exit strategy'. Exit strategy means that when we for whatever reason want to stop using OCLC's services after the current contract period, we want to have a realistic opportunity to retrieve (all) our data, either to start anew with a different vendor or to use them directly ourselves. This may sound obvious, but in cloud services is not. It is the reason why we are pulling this issue forward into the implementation project.

## Future

When the project is finished in June 2012, and if everything has been going well, we will have a few things left on our wish list. First, there are still questions about the 'completeness' of our new digital library. Will WorldCat and WorldCat Local really function

as a one-stop shop for everything? Will they, in a user-friendly way, be able to give access to material in our institutional repository, our Economists Online subject repository, our heritage collection ('Brabant-Collectie')? Second, we have questions about the future of the Dutch union catalogue (NCC) and the way we will be cataloguing in the future. For now, even after the introduction of WMS, TiU will be using the venerable Pica+ format and will use the Dutch central cataloguing system (GGC) for original or copy-cataloguing. It seems inevitable though, that TiU will make the switch to an international standard like Mark21 sometime. Not switching now makes the WMS project simpler, but we realize we have to make that move someday.

Figure 2 illustrates a very simple scheme for a shared service environment that we are working on in The Netherlands. The diagram shows services for scholarly **output** that are additional to journals (and books). What it shows is that in The Netherlands, we are working on a two-staged shared service future. Most of the services are already in place but not everybody is using them and not everybody is using them with the same intensity. Most researchers publish articles in journals, and all universities work also on getting a meaningful version of those articles in their institutional repository. At the moment we have 13 university repositories and a few fairly new ones for polytechnics. The articles in these repositories are already automatically aggregated into a national science portal ('Narcis') and stored in the long-term preservation archive ('e-depot') of our Royal Library (KB). All universities also use the same research information system. Given the maturity of the systems involved, it would not be very hard to install just one national research information system for the whole of The Netherlands and add a national repository 'underneath'.

For research data, we could do something similar, although dealing with research data is more complicated than dealing with 'just' publications. We are currently considering establishing a 'community cloud' data service, because for various reasons we would like research data in its non-public stages to stay within national boundaries. TiU could start using the University of Utrecht's Dataverse service instead of its current Harvard-based instalment, and switch to a national service if one gets off the ground.

We currently have two data archives for the long-term preservation of research data: DANS, for the social sciences and humanities, and 3TU for the technical universities. In due time they could merge to become a national data archive.

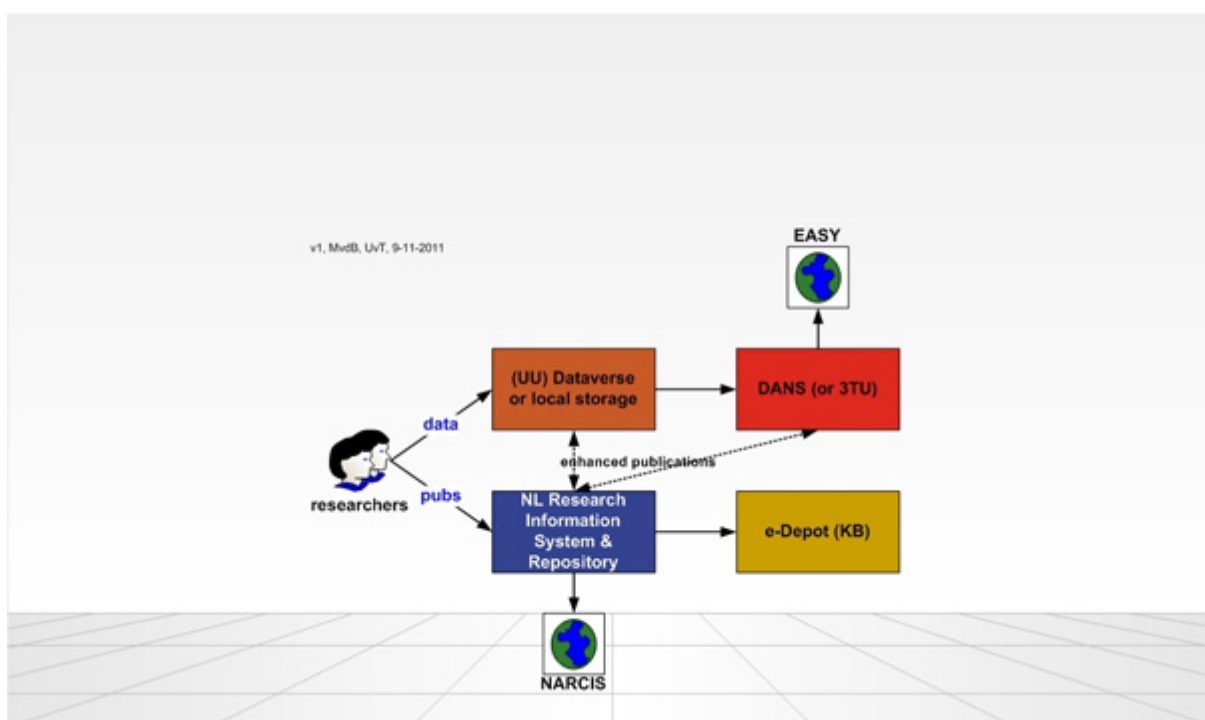


Figure 2. National context - shared services in the Dutch national information infrastructure

- 22 What this all means, and what Figure 2 shows, is that our Dutch national shared infrastructure for scholarly output can basically be built on four blocks: a research information system that includes a repository, an e-depot, a current data service and a data archive. With the help of persistent identifiers for people, publications, data and maybe even institutions, we would then have a solid basis for things like 'enhanced publications', researcher profile pages and machine-actionable scholarly communication.

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