ORBi in orbit, a user-oriented IR for multiple wins: why scholars take a real part in the success story...

The University of Liège's institutional repository, ORBi (Open Repository and Bibliography, http://orbi.ulg.ac.be), was officially launched in November 2008. Barely fourteen months later (February 2010), it already contained more than 30,000 bibliographic references with more than 20,000 full texts available. In other words, this represents a growth of more than about 65 new references a day, which is appreciable for a medium-sized university (17,000 students, 2,700 scholars, about 3,500 new publications/year). According to ROAR (http://roar.eprints.org), ORBi is the second institutional repository (for a total of 930) in high activity level (i.e. number of days with more than 100 archived references a day). Furthermore, all these records were archived by the Institution authors themselves, there was neither batch archiving nor mass validation. What are the reasons that may explain such a success?

Open Access has been a central point of concern for the Library Network (LN) of the University of Liège (ULg) since a long time. Various projects have already been carried out: BICTEL/e, (open repository for electronic theses at ULg) or PoPuPS (portal for open access e-journals published by members of ULg). For us, the best way for academic libraries to keep serving their users with effectiveness, they must get deeply involved in the development of Open Access. That's the reason why since 2005, we have immersed ourselves completely in the ORBi challenge.

In our opinion, the main reason for the success of ORBi is the combination of three factors:
1. a strong institutional policy,
2. the fact that this project was multi-players,
3. the user-oriented improvement of the repository.

Strong institutional policy
The first reason for success is the **effective continuous support by the ULg academic authorities**. Indeed, Bernard Rentier, the Rector of the ULg, is a well-known ardent supporter of Open Access with multiple committed standpoints on this matter (see his blog, see also the launch of Enabling Open Scholarship [EOS]). He realized very soon that scholars have to take an active part in the development of a new paradigm for scholarly communication. We think that institutional repositories have no chance of real success if they are not actively supported, in a strong dynamic collaboration, by their academic authorities and libraries.
When the University's Administrative Board decided, upon the Rector's recommendation, in May 2007 to create an institutional repository, they also introduced a **mandatory deposit policy** for publications published after 2001 (based on the "Immediate Deposit, Optional Access" model and known as the "ULg Mandate"). A second decision came to strengthen the new mandate: a few months after the launch of ORBi, **only references archived in the repository would be taken into account** for evaluations, appointments, promotions, budget allocations, etc. So, any publication or communication that had failed being introduced and archived into ORBi wouldn't be considered!
Nevertheless, this mandate does not suffice to explain the success since ULg authors have deposited many more references and full texts than required.

Multi-players project
Another part of the success lies in the fact that all involved actors have taken a specific role and that responsibilities were clearly defined from the beginning.
It is also very important that **authors** feel really involved in the deposit. Once a document has been published, authors usually consider they are no longer concerned with it. We want to reverse this trend and to convince scholars that their publications are so important that these cannot become "orphans". Scholars have to recover their "paternity" on them. Consequently, the deposit is totally made by the ULg **authors** themselves or their representatives (see below). No librarian nor another person is in charge of any part of the deposit. Furthermore, during the

deposit process, all ULg authors of a publication are involved in a **shared mode**, not only one of them. Each author can see what is being done by a co-author and can benefit from the work done by another. The task is shared by all co-authors, but the responsibility is also shared by all. Moreover, since each author has the possibility, during the submission process, to complete or correct a reference submitted by a co-author, his implication in the referencing is bigger and his feeling of responsibility towards the final result (quality and quantity of archived references with a full text) certainly increases, hence scholars feel involved in the project and its success.

With their specific competencies, in touch with several aspects of the academic life and with the specificities of scholarly communication, **academic librarians** are particularly well positioned to carry out such an essential project. That is the reason why the implementation of the institutional repository was seen right away as a major priority for the LN of the University of Liège. A project team was set up and placed directly under the leadership of the director of the LN, who was fully aware of the Open Access movement. A large freedom of action was left to the LN in order to carry out the project. So, the team has been largely autonomous and responsible for the strategic development of the repository: conceptualization of the global framework, workflow definition, integration with internal or external tools, harvesting, referencing, support, training sessions, etc. This freedom of action has facilitated the coherence of the project and its effectiveness.

Regarding some specific disciplinary aspects (defining elements of a discipline classification, defining the structure of publications lists, etc.), the ORBi team was in close touch with **Faculties' representatives** since librarians cannot claim to have sharp competencies in very specific disciplinary aspects.

Finally, as explained earlier, **ULg authorities** took the responsibility to define and promote the ULg mandate.

User-oriented tool

Since ORBi was intended to be exclusively fed by references created by ULg authors themselves, we have put a lot of emphasis on its **user-friendliness** from the very beginning. That is why ORBi has been conceived with the aim of offering a powerful repository process, easy and quick, enhanced by several tools that strongly simplify the authors' task. The deposit process required a minimal effort on the part of authors and to offer a maximum of services and benefits. In order to reach these goals, several developments have been added to the initial DSpace platform. We believe that most of these new functions and services strongly contribute to the success of ORBi.

In order to allow each co-author to be aware of the work in progress, the **traditional DSpace submission web interface** (known as *MyDspace*) **has been improved** and special zones have been created, among others "*Submissions in progress by a co-author*" and "*Submissions to be signed by co-authors*". The first one contains all references that are being deposited by a ULg co-author (based on the LDAP). This allows the author to see that the publication is already being referenced by a ULg colleague, which spares him the need to do it. Under the second one, the author can watch completed references to which a full text in open access has been joined and for which each co-author, for whom an e-mail address has been provided, must sign an Open Access diffusion license[1]. We also added a very helpful tool to **import references**: imported references are not automatically archived, they must be checked, improved and, if needed, corrected by the concerned authors.

Another strength of ORBi is to be found in the improvement of the submission process. The original DSpace steps have been reduced and reorganized on a logical base according to our needs. The bibliographic **submission form** has also been proposed in twelve different versions, according to the type of publication to be submitted (academic journal article, book, part of book, conference, report, dissertation or thesis, learning material, patent, cartographic material, computer development, etc.). The submission form adapts automatically to present only fields that are specific and related to the publication type. So, by filling in the form, submitters are not troubled by non-pertinent fields. There are also dynamic drop-down lists linked to institutional

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[1] The University of Liège wants to guarantee the strict respect of the intellectual property rights of each actor (authors, publishers, etc), most particularly in the specific context of Open Access. The diffusion license grants the University of Liège the non-exclusive license to use the submitted reference and the attached document(s) in open access deposited for circulation on the Internet. An e-mail request is then sent to all co-authors who can very easily grant (or eventually not grant) the license. The signature is the last step before archiving in the institutional repository.

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(LDAP), home-made (39,000 scholarly journals, etc.) and external (SHERPA/RoMEO) databases. Moreover, a context-sensitive help has been implemented and appears as the depositor goes along. The depositor can also enrich the reference with all information considered as useful (comments about the document and its use, name of the research program, funder, research center, etc). Concerning the files, researchers can deposit various versions of the publication ("author's preprint", "author's post-print" and "publisher's post-print") and numerous files. Of course, they can manage the access rights for each file (open access, open access with embargo, restricted access). They can also add complementary files (raw data, video…) linked to the publication and safeguard documents concerning individual agreements concluded with the publishers in terms of self-archiving. So, ORBi's submission forms are **precise**, **specific**, **flexible** and **user-friendly**.

Another helpful development is the **appointment of a representative**. We have set up a function that allows every scholar to appoint a delegate, member of the ULg community (colleague, assistant, secretary, PhD student, etc.). Only one delegate can be appointed by an author, but one person can be a delegate for several ULg authors. Delegates can do almost the entire job for their principal: submitting new references, correcting submitted references, importing references and adding a full text version of the publication. Nevertheless, the only thing they cannot do is to validate the reference (i.e. to archive it). This is only accessible to the principals, authors of the referenced publications, who finally keep their hands on the submission process and always remain responsible for what is published in their names and visible on the Internet. If some authors are not happy with what they consider as a limitation, most of them are aware of the importance of this procedure to ensure high quality for theirs references.

Next to these technical and ergonomic tools, **legal assistance** was a real matter of concern for us. It is assured to the depositor via a FAQ, a tool box, a detailed legal guide and a support by a lawyer, member of the LN who developed specific competencies in this matter. The tool box offers mailing templates addressed to publishers (most particularly an amendment or supplement to the agreement concluded by the author with the publisher) to be submitted to the latter so as to get authorization to distribute a work in open access as well as a request for repository authorization for a specific document. The legal guide provides an overview of questions of a legal nature that could result from the publication and distribution of a work, particularly within the framework of Open Access.

Finally, once references have been archived in ORBi, it is very important fort us, in order to gain support from our scholars, that the whole job that has already been done can be **used for many usages** ("*sweat once, win many times*"):

- For every scholar, there is a link in the Institution **phonebook** to all their archived publications in ORBi.
- Complementary developments have been made to enrich the references with **bibliometric indicators**: number of visualizations per reference, number of downloads per reference, number of citations in Web of Science and from Google Scholar, IF, IF5, EigenFactor…
- Possibility for every researcher or laboratory to **generate, easily and quickly, their publication lists** for many usages in different output formats (pdf, txt, html, xml…), in international bibliographic standards (APA…) and according to models decided and validated by the University Faculties. Generation of reports is essential in order to be in keeping with the Board's decision: ORBi is the unique source for publications lists and only those references archived in the repository are taken into account for appointments, promotions, budget allocations, etc.

We also consider that an active referencing is fundamental to really improve the visibility of the authors' academic production. On that point, our efforts seem to be effective since we observe, for example, that once a reference has been archived in ORBi, it takes no more than one hour before finding it with Google.

Conclusion

If it seems that ORBi is a real success and our system has met a positive and grateful reception by a lot of ULg authors, we definitely don't want to rely on our laurels. The road to maturity is still long and the ORBi team is facing important challenges now. Among them:

- Continued improvements of the tool, notably ergonomic and bibliometric aspects.
- Continuation of the liaison work with ULg authors (training sessions for new researchers, integrating of retrospective references, answering authors' fears by better explanations, etc.), so that ORBi becomes an intrinsic part of the Institution's landscape (from starting steps to routine).
- Collaboration with nearby institutions to promote IR with the aim to realize large harvesting (hopefully on a European basis).
- Unique identification of external authors.
- Clarification of the Open Access mandates for middle-sized and small publishers.
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This will be the coming episodes of the ORBi adventure…

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