



# EIFL-OA: Open Access

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## “THE 1ST SUDANESE OPEN ACCESS INSTITUTIONAL REPOSITORY AT THE FACULTY OF SCIENCE, UNIVERSITY OF KHARTOUM” A CASE STUDY FROM SUDAN

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February 2012

Results of the EIFL-funded project: “Open Access awareness-raising campaign among researchers at the Faculty of Science, University of Khartoum (UofK)” (acronym: OASCIR) implemented by the Faculty of Science, UofK with the partner: GrandIR, CB, and travel support provided by Carlos III University Madrid.

### INTRODUCTION

DSpace@ScienceUofK is the first Institutional Repository (IR) ever developed in the Sudan. It is the result of the EIFL-funded OASCIR (Open Access awareness-raising campaign among researchers at the Faculty of Science) Project, aimed to raise awareness about Open Access (OA) at the Faculty of Science, University of Khartoum (UofK) through a series of training activities for scholars and the implementation of an OA IR for researchers to deposit their research output.

The UofK (<http://www.uofk.edu>) is the leading higher education and research institution in Sudan, over half the Sudanese research output is produced at UofK. However, before the launch of the DSpace@ScienceUofK (<http://oascir.uofk.edu/>) IR, there was no OA IR in the entire country and there was very little awareness of OA as a tool of scholarly communication.

The Faculty of Science (<http://science.uofk.edu>) was selected as a focus for the OASCIR Project because researchers affiliated with this Faculty produce high quality research that is little known to the outside world. Academic staff affiliated with the Faculty of Science publish a large number of articles and conference papers and also theses and dissertations which are only available in print format, on shelves in their Departmental and/or Postgraduate Faculty Library. The only document that was published OA at that time and was available online for those who knew it existed was the Sudan Journal of Science. In our opinion, it was important that another form of exposure and means of sharing with the research community worldwide be identified. Setting up an IR seemed the best way of achieving this objective, while at the same time serving as a tool for raising the visibility of the institution as well.

### KEY ACHIEVEMENTS

- Dspace@ScienceUofK IR (the first in Sudan) is live and its contents are steadily growing; currently over 221 documents are openly available.
- Since launch, there has been an increase in usage, reaching a high of over 1121 downloads in one month.

- Three training courses were held: 1) copyright issues and content deposition into the IR mainly designed for librarians and IT personnel (in July); 2) OA and IRs for researchers (in July); and 3) Managing the IR for repository administrators and managers (in November). Over 50 people attended the training sessions.
- Awareness raising activities have been carried out for Faculty of Science scholars and students, inspiring several to publish OA for the first time; and providing librarians with the knowledge to advocate for OA.
- A proposal for the UofK to take steps towards adoption of an institutional OA policy was well received and the UofK is currently considering signing the Berlin Declaration.
- The UofK Vice Chancellor endorsed the project to be university-wide (thereby encouraging other faculties to join).
- The project has attracted national attention with the Sudanese Council of Ministries Documentation Department naming it a project of significant, national importance.
- The OASCIR managers have received many invitations to present at various events, both national (such KMCA2012 Workshop that took place in January 2012) and international (OA Africa 2011 Conference in Ghana).
- The entire project has been documented on the OASCIR blog, thereby facilitating replication by other institutions.
- The project has had a very high impact on the UofK ranking at the January 2012 Webometrics edition of the Ranking of World Universities (#11 in the Arab world rank: [http://www.webometrics.info/top100\\_continent.asp?cont=aw](http://www.webometrics.info/top100_continent.asp?cont=aw) compared to #29 in January 2011; and #13 in the African continent rank: [http://www.webometrics.info/top100\\_continent.asp?cont=africa](http://www.webometrics.info/top100_continent.asp?cont=africa)).

## PROJECT DESCRIPTION

Primary goals of the project included promoting OA to UofK scholars and librarians, designing and discussing Institutional OA policies, training librarians at UofK to build, maintain and populate the IR, and making openly available the research output of the Faculty of Science (e.g. uploading the already available OA Sudan Science Journal (<http://sciencejournal.uofk.edu>) into the DSpace@ScienceUofK repository as well as other faculty publications and presentations.

Secondary goals were to organize, share, manage and preserve UofK research output by providing OA to full-text documents and hence exposing the institution's intellectual output to researchers around the world who would otherwise not have access to it through traditional channels; and also to increase the libraries' role as partners in research.

## STRATEGIES, TACTIC, AND TOOLS

After deciding that under the OASCIR project, an OA IR at the Faculty of Science would be created in order to more effectively carry out the OA awareness-raising campaign, we were faced with the difficult task of how to fit so many activities in such a short period of time (10 month).

While the DSpace software platform was being built by GrandIR in Madrid, Spain, a dissemination campaign was carried out through the OASCIR Project blog, <http://uofkoascir.blogspot.com/>. The campaign targeted scholars, librarians and students at the UofK so they could learn about the project and also about OA, even before any training activities were held. Posts were published in the blog not just about the OASCIR Project, but also on relevant OA issues, such as OA journals or subject-specific repositories where researchers interested in OA could find references and also publish their own contributions even before an IR was available.

The first version of the DSpace@ScienceUofK IR was released only in the UofK IP range, so that the Faculty of Science scholars could review it and make suggestions for improving its design and functionality.

Training activities then started, with technical courses held in July both for UofK librarians and for Faculty of Science researchers, to encourage uploading of publications in the repository as soon as possible. Copyright issues were covered in the training to ensure that researchers were aware of the opportunities and the restrictions for making their work openly available. University journal editors were contacted and offered a hosting and dissemination platform for their journals. And University authorities were informed about the benefits of institutional OA policies.

Once the DSpace@ScienceUofK was up and running, a usage module was implemented, so that visits to the repository and file downloads could be periodically monitored and also used as a dissemination tool providing evidences that OA does increase the visibility and usage of the resources (see usage growth here: <http://oascir.uofk.edu/stats>).

The OASCIR Project relied heavily on GrandIR (<http://www.grandir.com/en>) to develop and host the DSpace software platform upon which the DSpace@ScienceUofK IR operates and to conduct the training courses. The three training courses were offered free of charge and were made attractive for participants to attend, thereby spreading the knowledge. The Faculty of Science co-funded the final workshop and the Faculty as well as the UofK provided venues throughout the course of this project free of charge.

An important effort was also made for putting together a technical team to locally manage the repository. Candidates needed to be interested in OA and to have the required technical skills for carrying out the various tasks attached to the DSpace@ScienceUofK IR management. Mr Mukhtar Mohamed Mahmoud was appointed as Deputy Manager and Ms. Esra Elfaki as Assistant Content Manager. A number of UofK staff provided a significant contribution to the OASCIR Project success. Two UofK Administrators were particularly supportive, namely Dr. Sumaia M. A. Abu Kashawa, UofK Deputy Vice Chancellor, and Dr. Salah Bashir, Dean Faculty of Science. Their support was crucial. We are getting more supporters now including the institution Vice Chancellor Professor Siddig Hayati in addition to the Main Library Secretary Professor Ahmed Hassan Fahal among others.

## SUCCESS STORIES

Thanks to the OASCIR Project, lots of scholars and librarians at the UofK and from other Sudanese universities and institutions are now aware of the OA movement and its importance to scholarship. For most of them this was their first opportunity ever to hear about OA and now many are already active OA supporters. In addition, the Faculty of Science researchers have started submitting pre-print versions of their research output to the IR. The project has also inspired several MSc students at UofK to make their work openly available.

The Dspace@ScienceUofK was designed as a seed repository -- once it proved successful, it would eventually spread to other UofK Faculties and other universities, such as University of Elnileen, Sudan University for Science and Technology and Red Sea University. We are still at the first stage of consolidating the IR as a valuable repository at the Faculty of Science, but we have received many expressions of interest that confirm the viability of the project.

Working on a remarkably low budget, the OASCIR Project has proved it is possible to set up and develop an OA IR and to carry out an awareness-raising campaign in countries where no previous infrastructure existed. The whole OASCIR Project evolution has also been recorded at the Project blog so that those stakeholders interested in replicating it for other institutions or countries are able to do so by following the project milestones.

As a result of these outcomes, OASCIR has been invited to take part in several national and international conferences, which provided opportunities for further sharing of best practices. For example, OASCIR

project presented at the KMCA2012 ‘Knowledge Management Capacity in Africa’ International Conference, <http://www.kmca2012.net/> in Khartoum in January 2012.

After the OASCIR Project was conceived along discussions at the OA Africa Conference in Nairobi in November 2010, just one year later the Project managers delivered a presentation – which happened to be quite popular – at the OA Africa 2011 Conference held last October in Kumasi, Ghana, <http://bit.ly/tWCgI4>. BioMed Central – the OA publisher that hosted both OA Africa conferences, asked the OASCIR Project managers to write a brief contribution describing OASCIR as a successful outcome of such events that could potentially be replicated in other institutions and other countries.

Another unexpected success story regarding OASCIR was that the Sudanese Council of Ministries Documentation Department approached project manager in Sudan to document this project as a national treasure project. This came as a surprise as OASCIR was initially focused on the academic community.

Finally, staff from the Sudan Archive at the University of Durham, UK (<http://www.dur.ac.uk/library/asc/sudan/>) were very interested to learn about the new Dspace@ScienceUofK OA IR during their visit to the UofK last November. Opportunities for potential cooperation in order to offer OA to valuable documents of the history of the Sudan are currently being explored.

## LESSONS LEARNED

It is possible to achieve ambitious objectives on a tight budget when the enthusiasm is there as a driving force. However, it is extremely important that there is a strong institutional commitment to the project when trying to develop an OA infrastructure from scratch.

Setting up, developing and promoting an OA IR involves many complex tasks. It is nearly impossible to accomplish them all without a firm institutional commitment in terms of staff and facility allocation. The OASCIR Project was lucky to have this support, so it was possible to carry out most planned actions as projected despite running on a really tight budget.

It is absolutely necessary to have a trained team available with the required technical capacities, both from a document management and IT viewpoint.

Also, having a clear institutional OA policy in place will be of great assistance when trying to raise awareness about the importance of OA to scholars.

## CHALLENGES

The OASCIR Project faced lots of challenges and could have done better in certain aspects. Among the challenges, researchers were keen to participate in the IR at the start, but were then worried about Intellectual Property issues. In order to solve this, one of the project’s main goals was to design and implement an Institutional OA policy, which is now in process.

In addition, OA surveys were unsuccessful because a large percentage of the Faculty of Science staff did not respond to the questionnaires, neither online nor in print.

Another very important obstacle faced by the Project was the fact that most UofK librarians are either not librarians by training or traditional librarians who have limited computer skill, making it challenging to do document uploading and classifying, or to perform other important tasks for developing an IR. As a result of these various challenges, the number of documents presently available in the Dspace@ScienceUofK IR remains quite low, although there is digitisation work in progress that should gradually result in more content available.

In addition, there were financial challenges that had to be overcome; the OASCIR Project needed to do many tasks, with little funds, including training scholars and librarians, setting up and developing an IR and disseminating the Project at community events.

## THE FUTURE

As a successful project, OASCIR is going to be a landmark for the whole national academic community in Sudan. The project manager in Sudan, Rania Baleela, was appointed during the Project as the Head of the Education, Training and Support Department of the Main Library, which will serve as a perfect platform for training librarians and scholars on OA and FOSS. In addition, Rania Baleela was also appointed EIFL-OA country coordinator and can thus advocate for OA in the whole country and not only at her own institution. The Project Deputy-Manager in Sudan, Mr Mukhtar M. Mahmoud is becoming interested in OA and will therefore be able to help as well along dissemination campaigns.