

# Promoting the Open science culture in university libraries of developing countries: *case studies of the French-speaking universities of Belgium cooperation programs in the Global South.*

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BST Library and learning center of sciences and technologies

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U Liège - Université de Liège  
Gembloux Agro Bio-Tech Library

for  
ARES-CCD

*Fédération Wallonie-Bruxelles – Académie de recherche et d'enseignement supérieur  
Commission de la coopération au développement*

### Université catholique de Louvain

since 1425, ... at Leuven  
and since 1973, at Louvain-la-Neuve and Brussel Woluwe  
more recently in other locations

Six campuses in Belgium



Louvain-la-Neuve

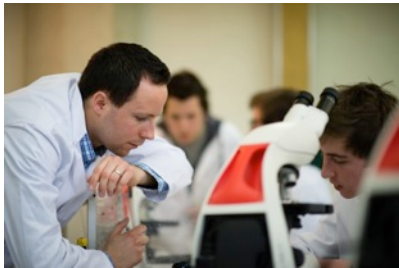
## Université catholique de Louvain (Belgium) : 14 faculties

(2015-2016)



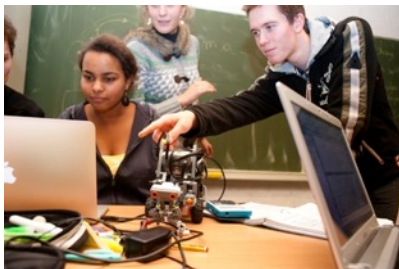
### > Human Sciences (15 773 students)

Law and criminology  
Economic, Social, Political Sciences and Communication  
Louvain School of Management  
Philosophy, Arts and Letters  
Psychology and Educational Sciences  
Theology



### > Health Sciences (7 753 students)

Medicine and Dentistry  
Pharmaceutical and Biomedical Sciences  
Public Health  
Motor Sciences  
**Veterinary Medicine**



### > Science and Technology (5 330 students)

**Sciences**  
**Louvain School of Engineering**  
Architecture, Architectural Engineering and Urbanism  
**Biological, Agricultural and Environmental Engineering**

# UCL Library and learning center of sciences and technologies New building since sept.-2014



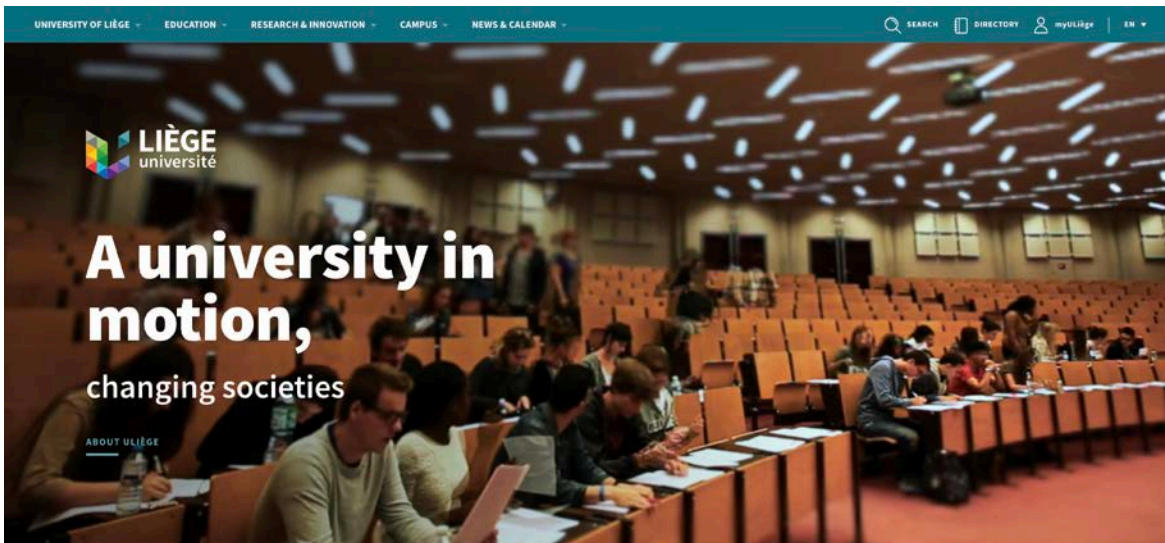
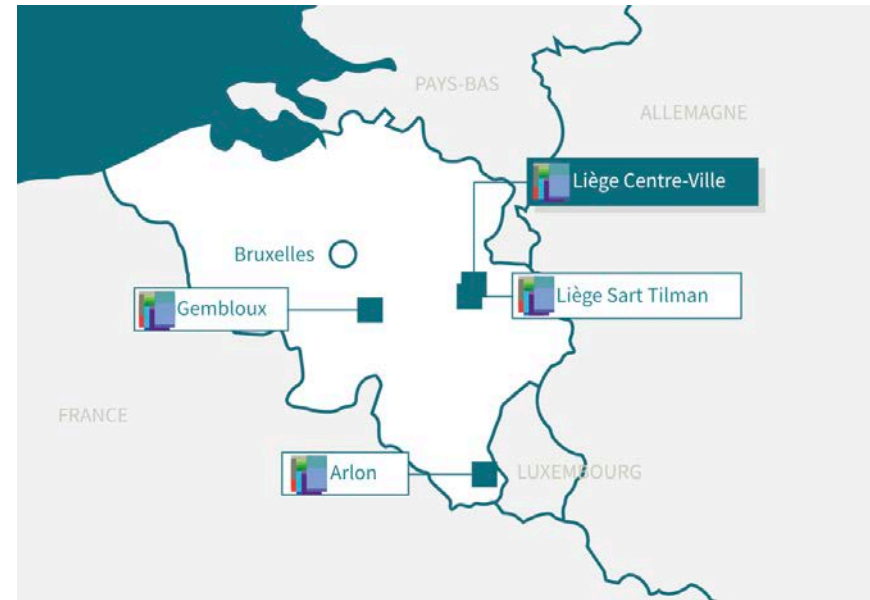


## Université de Liège

since 1817, ... at Liège

1 university, 3 cities, 4 campuses

Liège city center, Liège Sart Tilman, Gembloux, Arlon



## Université de Liège (Belgium) : 11 faculties - 23,758 students

- > **Human Science**
  - Architecture
  - HEC Liège, School of Management
  - Law, Political Science and Criminology
  - Philosophy and Letters
  - Psychology, Speech Therapy and Education Sciences
  - Social Sciences
  
- > **Health Sciences**
  - Medicine
  - Veterinary Medicine
  
- > **Sciences and Technology**
  - Applied Science
  - Gembloux Agro-bio Tech
  - Science



## U Liège Library – The library as a service !



Five sub-libraries :

ALPHA



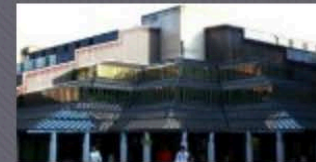
BSA



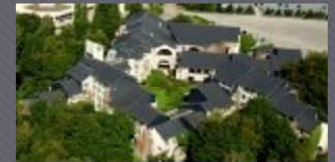
BST



BSV



Graulich



Then years of Open Access :

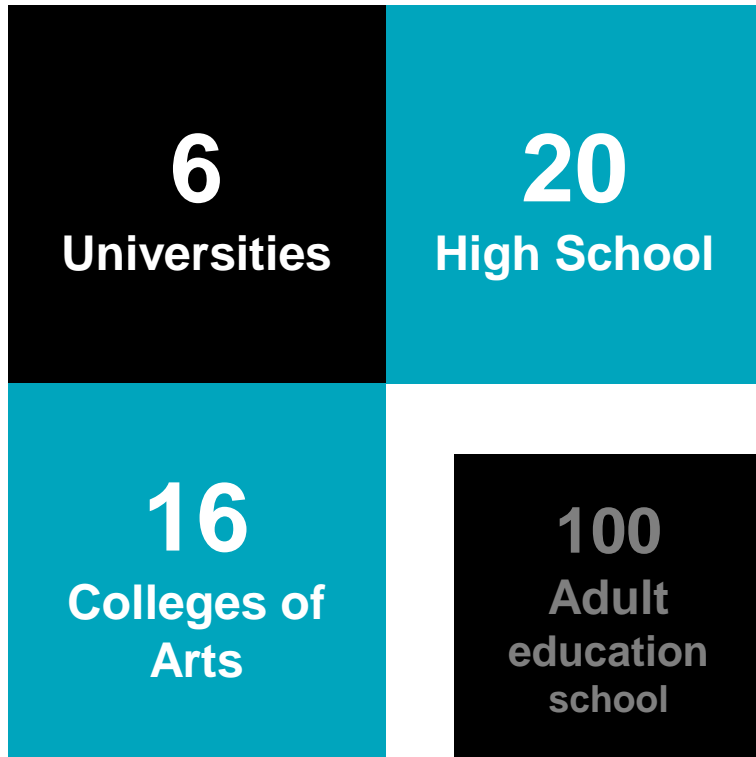


- ✓ Orbi : Open repository and bibliography
- ✓ PoPuPs : the publication portal for scientific periodicals
- ✓ MatheO : Master Thesis Online
- ✓ DONum : Deposit of Digitized Objects



ACADÉMIE  
DE RECHERCHE ET  
D'ENSEIGNEMENT  
SUPÉRIEUR

## ARES, the Academy for Research and Higher Education (07-11-2013)



- » Public interest body
- » Brings together the **42 French-speaking higher education institutions** of Belgium
- » And 100 adult education school
- » Carries out **general coordination** while preserving autonomy & specificities
- » Organises the **dialogue** & promotes **collaborations** at national & international level
- » Supports HEIs in their **Teaching, Research & Community service** missions
- » Strengthen **visibility**



# 12(+3) Standing committees

|                         |                             |                       |
|-------------------------|-----------------------------|-----------------------|
| Mobility                | Information on studies      | Success               |
| Development Cooperation | International Relations     | Student Life          |
| Sustainable development | Quality                     | Research Valorisation |
| Statistics              | Libraries & common services | Lifelong Learning     |

- » Prepare the **deliberations** on the topics they are dedicated to
- » Members chosen for their **expertise**: academics, teaching & research staff, technical & administrative staff, students...
- » **Students** comprise **50%** of 2 of them (Success & Student Life)



# The ARES-CCD approach

*“ Strengthen the capacities of our academic partners with a view to OWNERSHIP*

**/ OWNERSHIP**

*“ Support PARTNERSHIPS to increase help EFFECTIVENESS*

**/ PARTNERSHIPS**

OPEN  ACCESS

*“ Commit in line with the principles of academic AUTONOMY and right of INITIATIVE*

**/ INITIATIVE**

*“ Commit in the LONG TERM to ensure the SUSTAINABILITY of our actions*

**/ SUSTAINABILITY**

# 31 M€

Annual budget for academic development cooperation / funding by the Belgian Federal Government

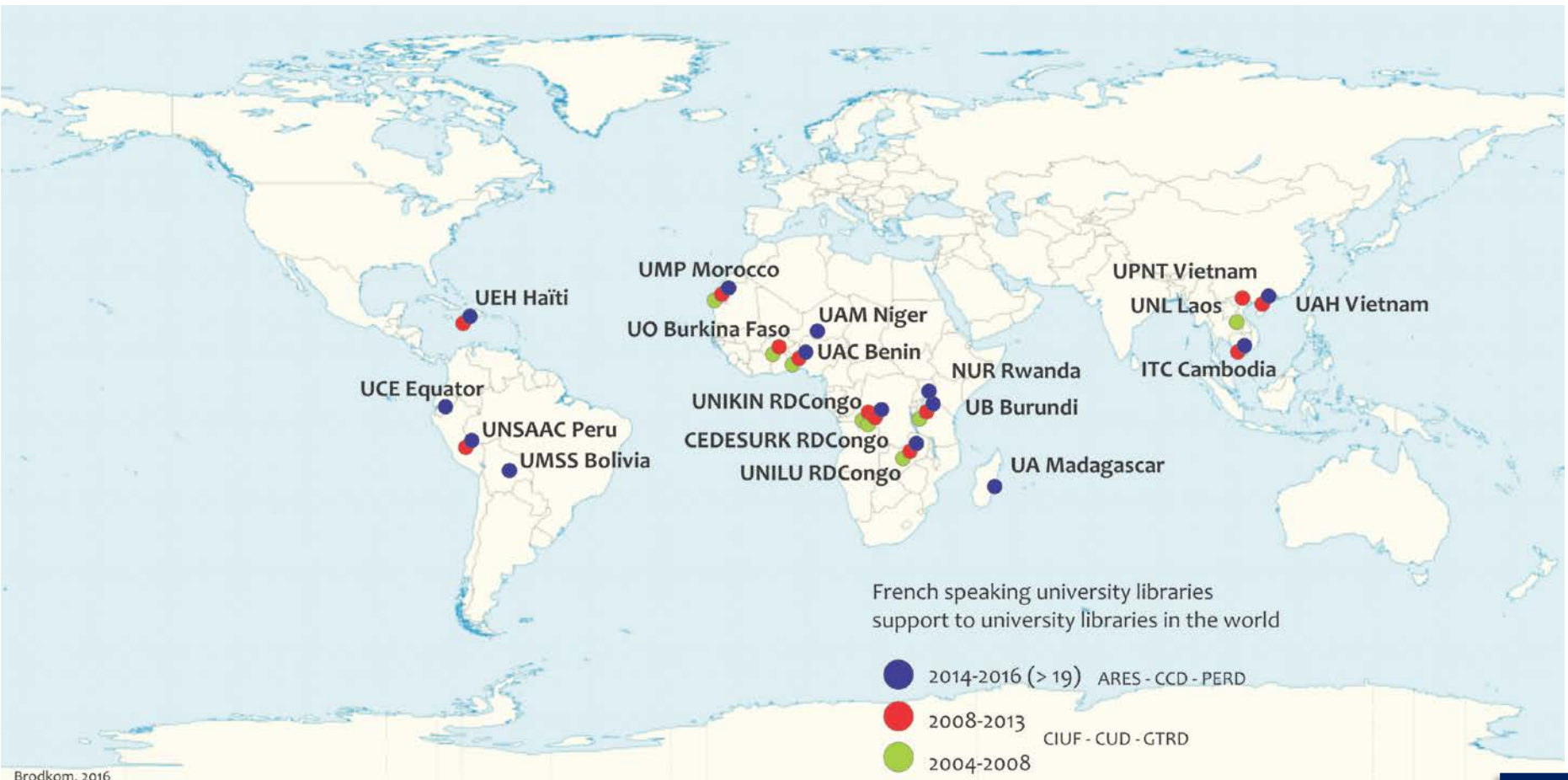
= 13.5% Belgian non-governmental budget for Development Cooperation



## ARES-CCD-PERD : Group of experts in **documentary resources**





Actually (only volunteers !) : 12 librarians or library managers from 5 Universities and 1 Higher school and 1 representative of the ARES permanent staff.

B. Pochet and Fr. Brodtkom manage the group since 2013



## Subresults expected for library activities

### Before 2013 :

1. the number of **information resources** is increased 
2. the **services** to users are improved
3. the **quality** of libraries management is improved
4. the skill and **qualification** of staff are improved 
5. the **user's awareness** to digital and information literacy is improved 
6. the **spaces**, infrastructures and furniture in libraries are improved
7. the computer and **IT equipment** are increased 
8. the **network** and the collaborations between libraries are organized

### After 2013 :

1 > 8

9. specialized courses to develop the **information literacy** of partners 
10. specific services for research are developed : **ILL**, supply of scientific papers, etc. 
11. scientific staff is formed to scientific writing and **bibliographic tools** (Zotero, ....)



The budget :

Actually, a budget for libraries and resources of ~ **40,000 EUR / year** is open for **each partner**.

Allowable expenses :

### **Investment budget**

- > Computers, scanner, photocopiers, ....
- > Shelves, tables, chairs, ....
- > Small infrastructures : group rooms, reception desk, ....

### **Operating budget**

- > Books (included expedition if purchased in Belgium)
- > Stationery, toner cartridge, pre-payment cards for cellular, ...
- > Learning sessions : lunch, location of materials, ....
- > Subscription to particular resources (Hinari, etc.)

### **Mobility expenses**

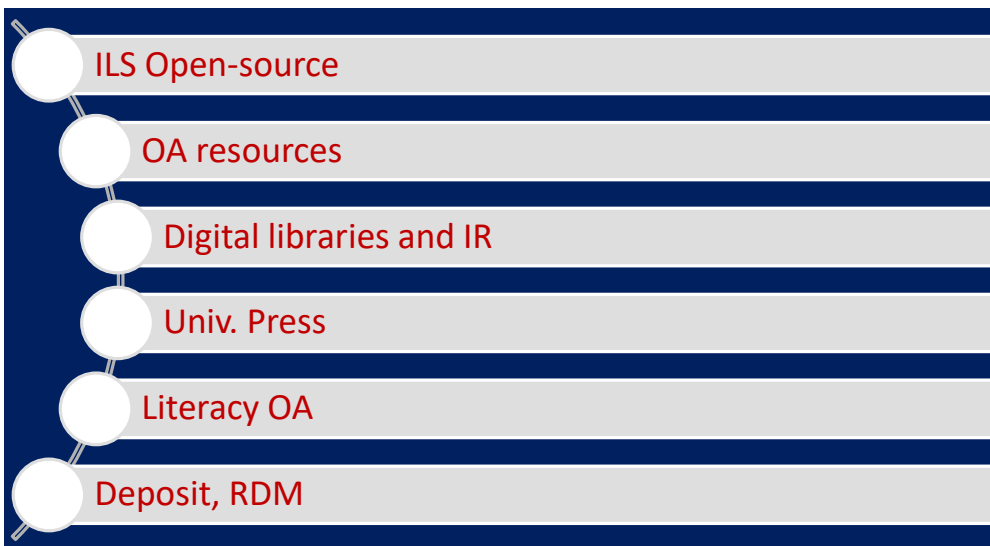
- > N/S missions (1 > 3 /year for 5 > 10 days)
- > S/N missions (2 missions/year of 1 – 2 librarians for 10 days)

### **Grant/awards for studies and training courses**

And what we do not accept to pay : recurring cost for journals, buildings, staff costs, ...

## Promoting the Open Access :

- Installation, development and support of Open source ILS – PMB and KOHA
- Harvesting and promotion of OA resources (training session, PERD web site, ...)
- Development of Digital Libraries and Institutional Repositories (DSpace, Omeka, ...)
- Support to the development of university press to reduce/ abolish costs for students
- Training and awareness-raising of library trainers for OA use in their information literacy courses
- Promotion of the deposit of the research papers and results of cooperation programs in IRs





## Installation, development and support of Open source ILS

In the years 2004-5, the PERD has paid a trainee to conduct a survey about the **Open Source ILS** available on the market. The situation of the catalogues and access to information was particularly problematic in some countries ....



The goal was :

- to identify which one of them will be the best suited to the needs and means (*particularly in human resources and capabilities*) of the university libraries in partnership with our cooperation.
- to develop the skill of some of our librarians (*because we use commercial ILS in our universities*) in order to ensure the sustainability of the implementation of free ILS in the partner libraries.

Two products have been selected :





CEDESURK RD Congo  
UAC Benin  
UA Madagascar  
UB Burundi  
UNIKIN RD Congo  
UNSAAC Peru

version 17.05.01 of  
KOHA on Debian 8.7

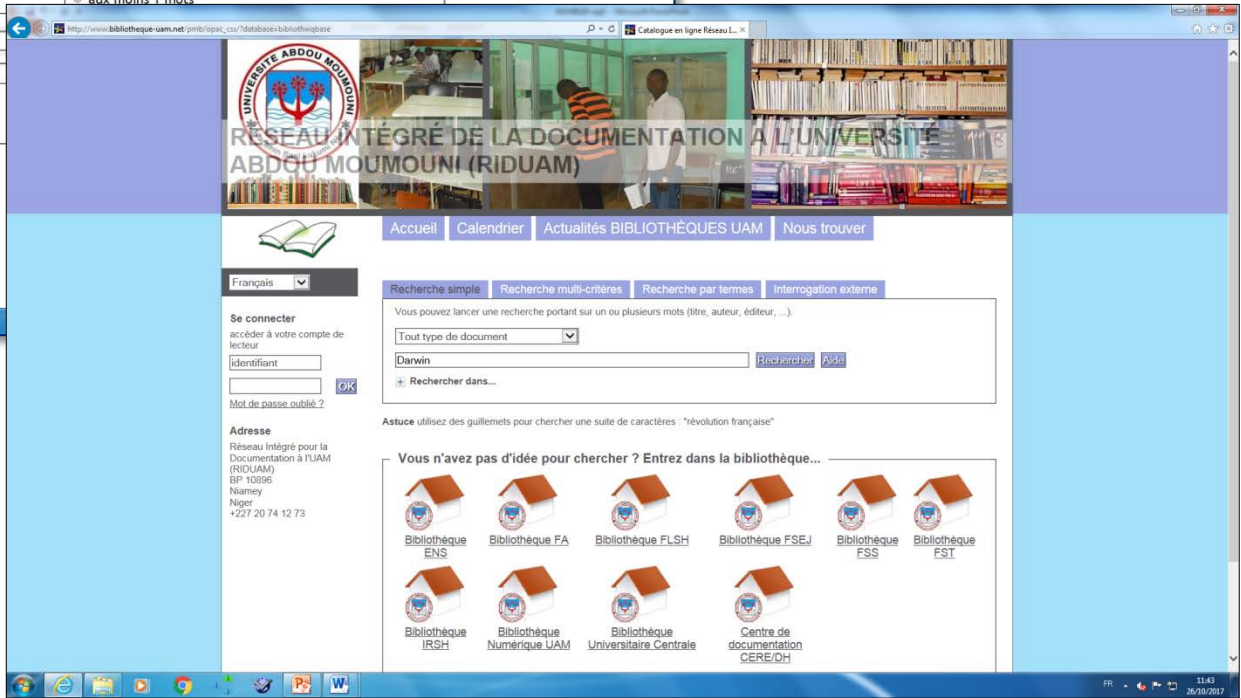
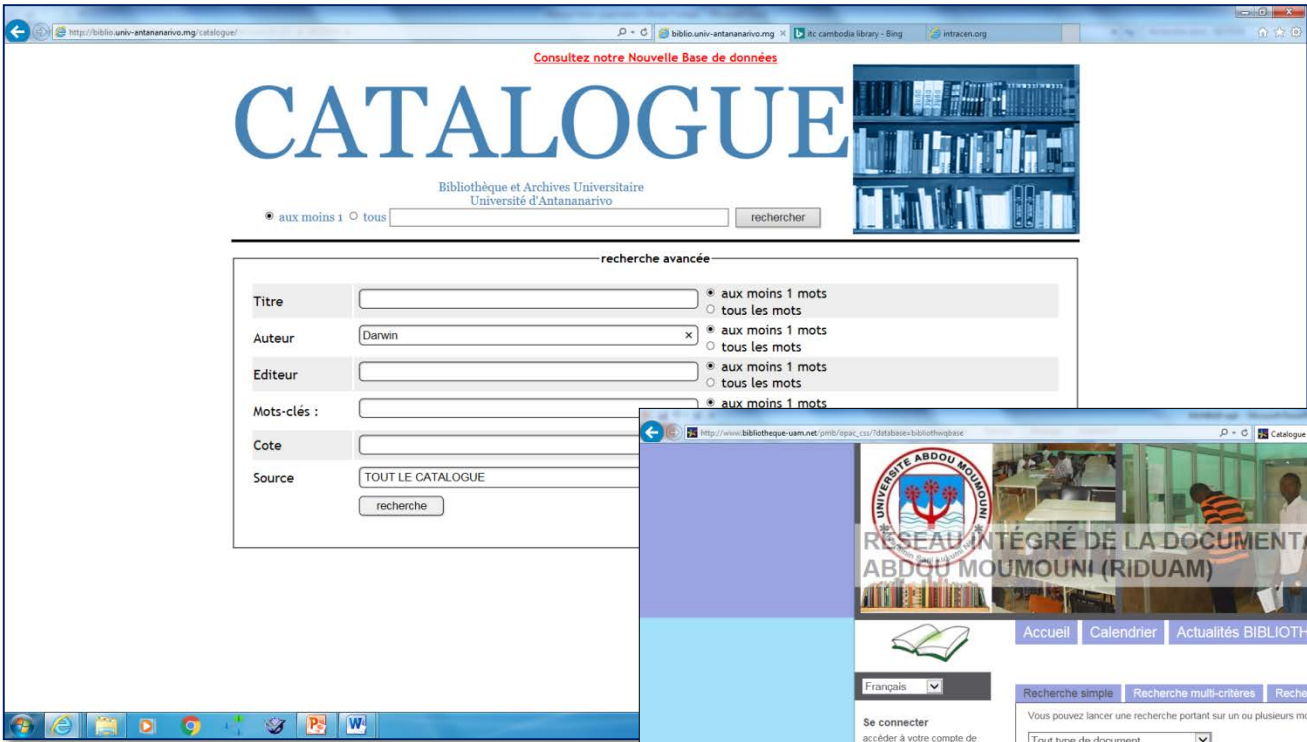
Libol : UAH Vietnam  
ABC : UMSS Bolivia

...



ITC Cambodia (> 2015)  
UAM Niger  
UEH Haiti  
UMP Morocco  
UNILU RD Congo

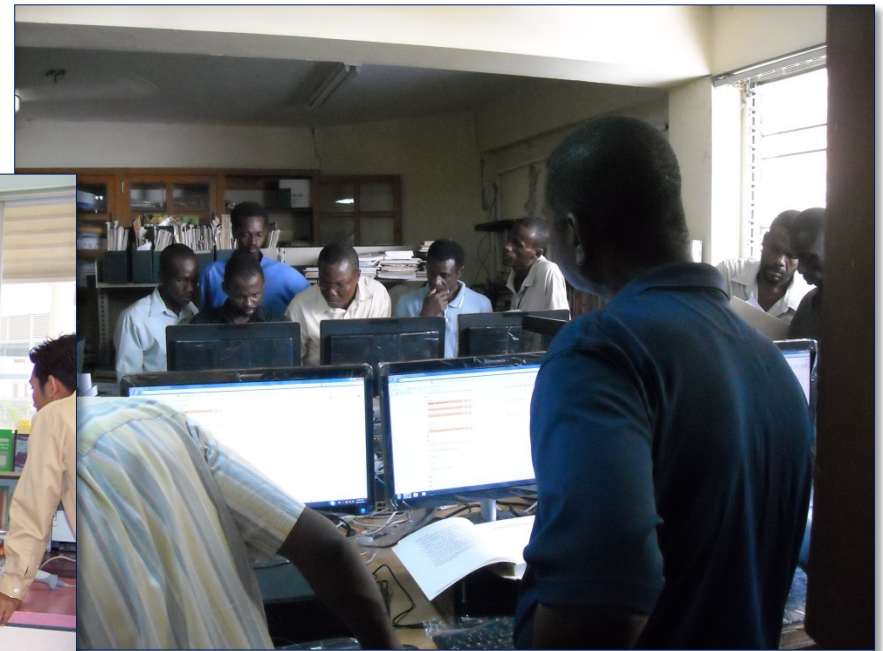
ILS Open-source



<http://biblio.univ-antananarivo.mg/catalogue/>  
[http://www.bibliotheque-uam.net/pmb/opac\\_css/?database=bibliothwqbase](http://www.bibliotheque-uam.net/pmb/opac_css/?database=bibliothwqbase)

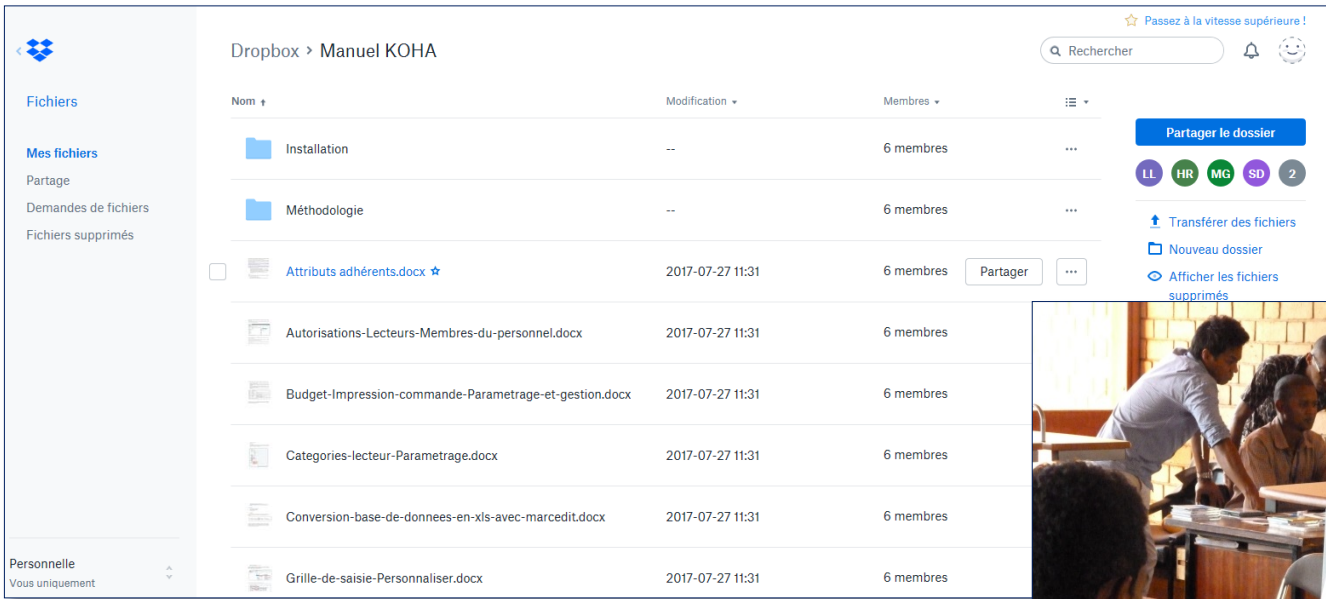
## Activities :

- Create local WG of cataloguers
- Financial support to installation (server, PC's, ...)
- Training (in Belgium) of IT team dedicated to libraries
- Training (in local libraries) of librarians to cataloguing
- Manuals and Wiki
- Meeting of users



# ILS Open-source

In 2018 the PERD will organize an intl' meeting with KOHA users. Participants come from Peru (UNSAAC), Benin (UAC), Madagascar (UA) and Belgium (UCL, UMONS). The goal is the writing of a "KOHA manual for dummies" for current and future partners. A collaborative platform was created on Dropbox to prepare the meeting.



Dropbox > Manuel KOHA

Rechercher

Partager le dossier

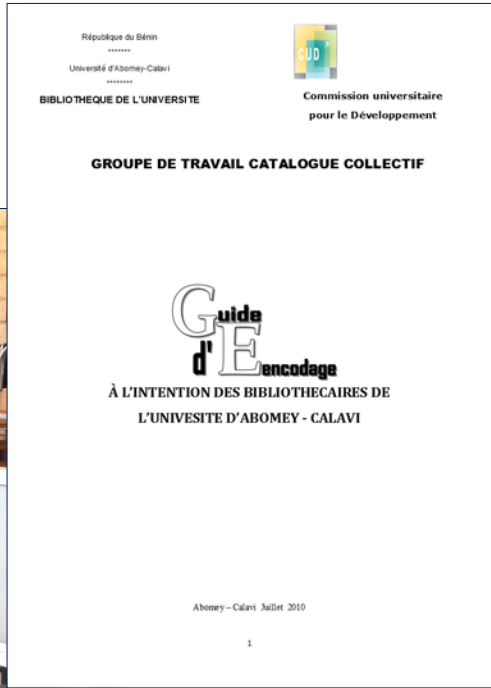
LL HR MG SD ?

Transférer des fichiers

Nouveau dossier

Afficher les fichiers supprimés

| Nom  | Modification     | Membres   |
|--|------------------|-----------|
| Installation   | --               | 6 membres |
| Méthodologie   | --               | 6 membres |
| Attributs adhérents.docx                               | 2017-07-27 11:31 | 6 membres |
| Autorisations-Lecteurs-Membres-du-personnel.docx       | 2017-07-27 11:31 | 6 membres |
| Budget-Impression-commande-Parametrage-et-gestion.docx | 2017-07-27 11:31 | 6 membres |
| Categories-lecteur-Parametrage.docx                    | 2017-07-27 11:31 | 6 membres |
| Conversion-base-de-donnees-en-xls-avec-marcedit.docx   | 2017-07-27 11:31 | 6 membres |
| Grille-de-saisie-Personnaliser.docx                    | 2017-07-27 11:31 | 6 membres |



République du Bénin  
Université d'Abomey-Calavi

BIBLIOTHEQUE DE L'UNIVERSITE

Commission universitaire pour le Développement

GRUPE DE TRAVAIL CATALOGUE COLLECTIF

Guide d'encodage  
À L'INTENTION DES BIBLIOTHECAIRES DE  
L'UNIVESITE D'ABOMEY - CALAVI

Abomey - Calavi Juillet 2010

1



OA resources

- (CUD) ARES Portal of OA validated resources
- Support to subscription at UN alternative resources and research platforms (*even if all there content are not only from OA sources*) with a financial support to Group B countries with a low-cost access
  - HINARI of WHO
  - AGORA (FAO)
  - ....
- Learning sessions of presentation and demonstration of OA resources : for librarians and for academic and scientific staffs
- Participation to initiatives to increase the use of resources in OA

OA resources

The screenshot shows a web browser window with the URL <http://www.bsa.ulg.ac.be/cud/resource/list/>. The page title is "Groupe Transversal Ressources Documentaires". The navigation menu includes "Introduction", "Ressources", and "Site de la CUD". The main content area is titled "Ressources" and features a list of resources under the letter "A". The resources listed are:

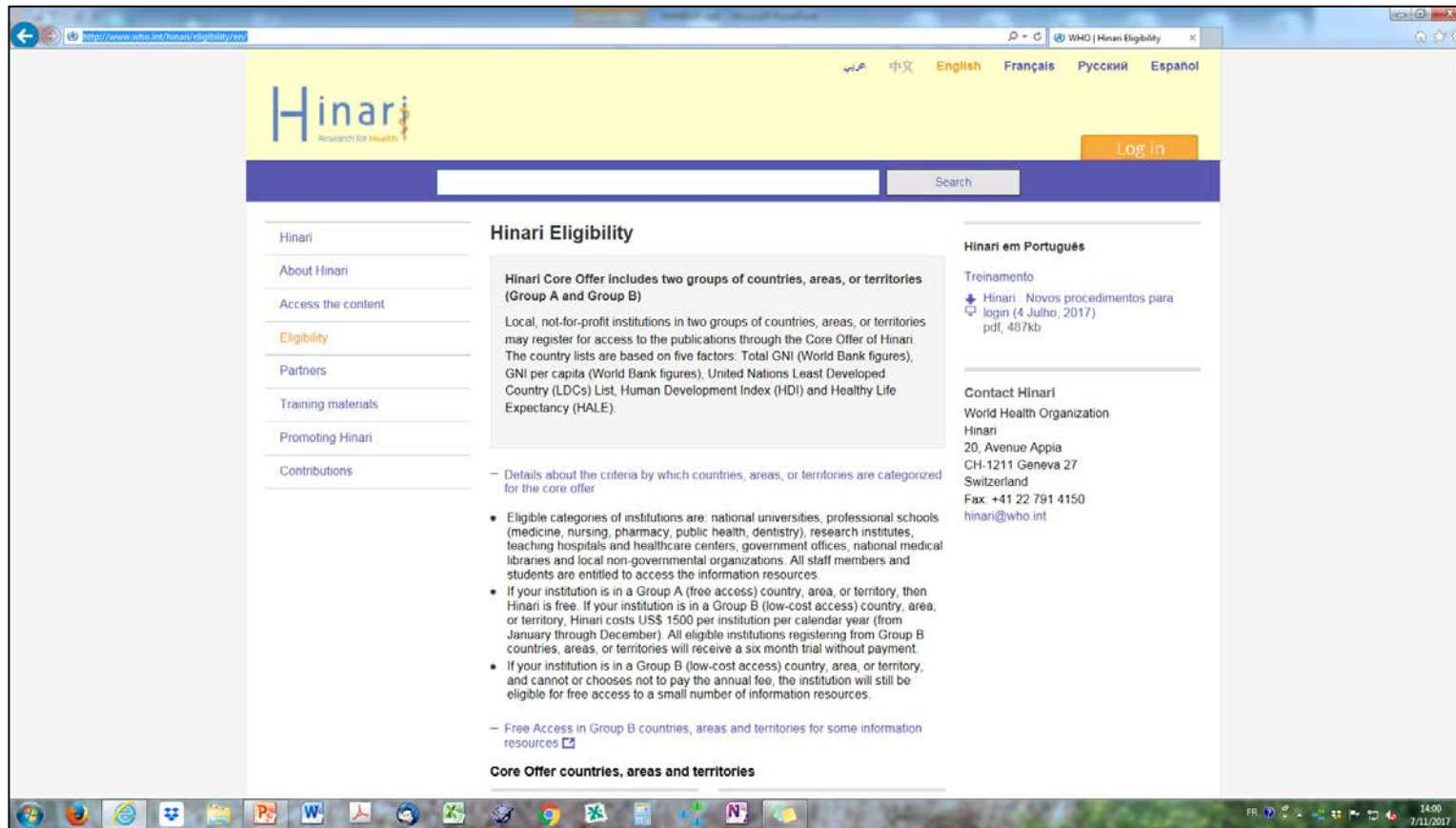
- AgEcon Search - Research in agricultural and applied economics
- Agora (Access to Global Online Research Agriculture)
- AGRICOLA
- AGRIS (Information for International Agricultural Research)
- Agropolis - guide des bases de données
- AJOL (African Journals Online)
- archiveSIC (Archive Ouverte en Sciences de l'Information et de la Communication)
- ArXiv
- Ask Source

The page also includes a navigation bar with "Par type" and "Par sujet", and a search bar with "A-Z". The footer of the browser window shows the system tray with the date 30/10/2017 and time 15:12.

<http://www.bsa.ulg.ac.be/cud/resource/>



<http://www.who.int/hinari/eligibility/en/>



OA resources

UCL Université catholique de Louvain

ARES CCD

Bibliotecnología : Tlc & Open Access  
Dr. Fr. Brodtkom UCL/BST – ARES-CCD

36/69

Acceso abierto :  
1<sup>era</sup> subdivisión basada el **el modelo económico y la revisión**  
o no por los pares > P. Suber Trad. M. Lebert

[OA archivo físico](#)

Archivos abiertos

[PLOS biología](#)

Revistas abiertas

UCL Université catholique de Louvain

ARES CCD

Bibliotecnología : Tlc & Open Access  
Dr. Fr. Brodtkom UCL/BST – ARES-CCD

37/69

Acceso abierto :  
2<sup>a</sup> subdivisión de acuerdo con el tipo de contenido (diversificación)

Revistas

Banco de datos

Vinculo Web, herramientas

Open Research Platform

Recursos de la comunidad

Libros

Repertorios institucionales

Otros materiales

OA resources

Sistema de Información Científica Redalyc  
Red de Revistas Científicas de América Latina y el Caribe, España y Portugal

English Seguir [Twitter](#) [Me gusta](#) (31 815)

1137 revistas científicas | 37 576 fascículos | 481 962 artículos a texto completo

Publicar

Todo CS+1 CNYE Búsqueda avanzada

Locobolo Flores (192-2016)

**Colecciones de revistas**  
Cientos de revistas científicas arbitradas de 22 países de Iberoamérica indexadas en redalyc.

**Indicadores bibliométricos**  
Una mirada alternativa a la medición científica de instituciones y países.

**AutoresRedalyc**  
Una plataforma para identificar los trabajos publicados en revistas indexadas en redalyc y crear página de autor.

**Productos editoriales**  
Informes en colaboración con instituciones iberoamericanas.

editores  
Postulación y evaluación de revistas

DOAJ Busca en  
Para promover el acceso abierto

SciELO  
Scientific Electronic Library Online

português | english | Contacto

**Sobre el SciELO**

- Sobre el SciELO
- Indicadores Bibliométricos
- Acceso vía WS, OAI y RSS

**Red SciELO**

**colecciones de Libros**

- Brasil

**colecciones de Revistas**

- Argentina
- Bolivia
- Brasil
- Chile
- Colombia
- Costa Rica
- Cuba
- España
- México
- Perú
- Portugal
- Sudáfrica
- Uruguay
- Venezuela
- Salud Pública

**en desarrollo**

- Paraguay

**discontinuadas**

- Brasil Proceedings
- Social Sciences
- West Indian Medical Journal

**divulgación científica**

- Ciencia e Cultura
- ComCiência
- Pesquisa FAPESP
- Revista Digital de Química

**Busca artículos**

método  donde

**Lista revistas**

Búsqueda por Revistas  
Entre con una o más palabras

Por lista alfabética - todos  
A B C D E F G H I J K L M N O P Q R S T U V W Y Z

Por tema - todos

- Ciencias Agrícolas
- Ciencias Biológicas
- Ciencias de la Salud
- Ciencias Exactas y de la Tierra
- Ciencias Sociales Aplicadas
- Humanidades
- Ingenierías
- Lingüística, Letras y Artes

Por entidad editora - todos  
A B C D E F G H I L M N O P R S T U V W

**SciELO en números**

Uso del sitio  
Citas  
Co-autoría

1.249 Revistas  
38.651 Números  
873.525 Artículos  
13.005.080 Citas

**Nuevos**

Última actualización - 14/sep/2015

259 Números  
Por tema  
Por colección

23 Revistas  
Por tema  
Por colección

**Blog**

SciELO en Perspectiva

**Twitter**

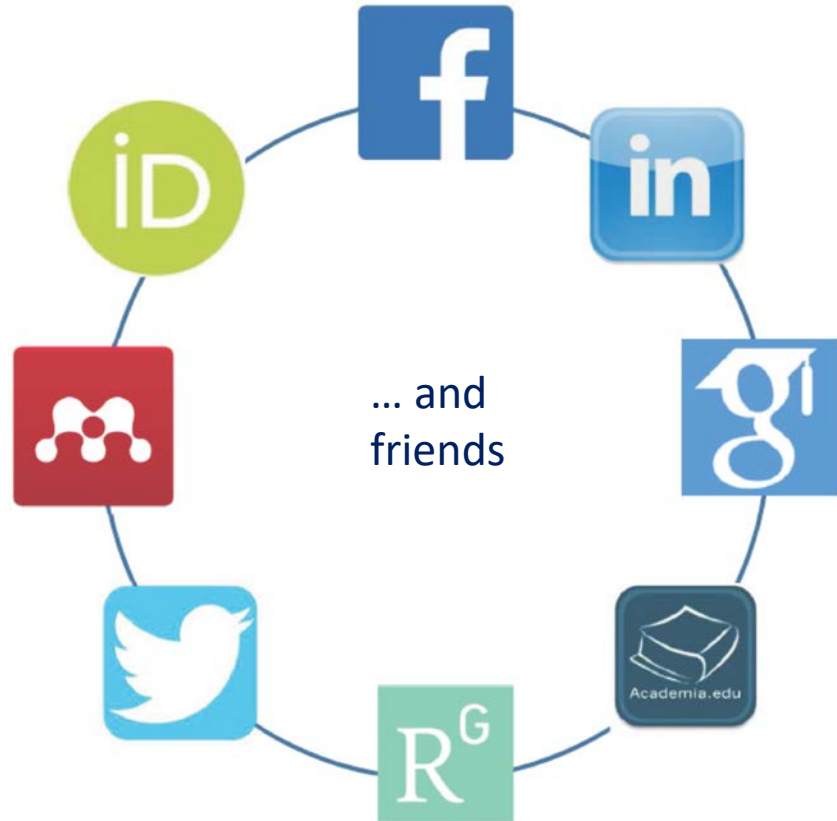
SciELO @redescielo  
SciELO em Perspectiva: "Cresce a adoção do inglês entre os periódicos SciELO do Brasil" [goo.gl/9FSu30](http://goo.gl/9FSu30)

SciELO Refereed

Kudos @GrowKudos  
NEWS! Landmark project with @ScholarOneNews - piloting addition of Kudos summaries earlier in publication workflow [bit.ly/ktrso](http://bit.ly/ktrso)

OA resources

Learning sessions of the use of social networks and how they can be efficient sources of documents



## Contribution to other international projects : For example with the Canadian project SOHA in Haïti



*Open science as a collective tool of empowerment and cognitive justice in Haiti and French-speaking Africa : building the roadmap.*

The screenshot shows the website for the SOHA project. The main heading reads: "La science ouverte comme outil de développement du pouvoir d'agir et de la justice cognitive en Haïti et en Afrique francophone". Below this, the project title is repeated: "Le titre complet de ce projet de recherche-action est : La science ouverte comme outil collectif de développement du pouvoir d'agir et de la justice cognitive en Haïti et en Afrique francophone : vers une feuille de route [Open science as a collective tool of empowerment and cognitive justice in Haiti and French-speaking Africa : building the roadmap]". The website also features a navigation menu with items like ACCUEIL, À PROPOS, BLOG, PARTICIPER, OUTILS DE FORMATION, ÉVÈNEMENTS, and CONTACT. There are social media icons for Facebook, Twitter, and Google+ on the left side. The footer mentions the project is part of the Association science et bien commun.

And also with Spanish AECID, French AUF, SIDA Sweden, ...

## Development of policies to develop Institutional Repositories

Development of Institutional repositories :

1. Define a global policy for the University partner
2. Legal obligation of deposit for actual and further publications, thesis, ...
3. Identify and help a dedicated IT team
4. Choice of the open source solution
5. Local, equipment, scanner, ...
6. Continuous support (eventually with other cooperation)



# Dig. Lib and local IR

**YACHAYNINCHIS WIÑARINANPAQ**  
para que nuestro conocimiento crezca

## Repositorio Institucional de la UNSAAC lanzado oficialmente

Inicio / Actualidad / Repositorio Institucional de la UNSAAC lanzado oficialmente

Luego de varios meses de trabajo coordinado y a través de la Red de Comunicaciones institucionales, la Universidad Nacional de San Antonio...

*Le Réseau de Bibliothèques de l'Université Abdou Moumouni*

Vous êtes ici : Accueil

### Ressources numériques

- Bibliothèque numérique Francophone
- RESSOURCES UAM
- Bibliothèque CHEIKH ANTA DIOP
- Bibliothèque NUMERIQUE TV5 MONDE
- Bibliothèque NUMERIQUE Nationale France
- BIELEFELD ACADEMIC
- HYPER ARTICLE
- OAI
- OAISTER

### Événements et culture

- Accueil
- Formation

### BIBLIOTHEQUE NUMERIQUE

Bienvenue dans le Réseau des Bibliothèques de l'Université Abdou Moumouni (RIDUAM).  
**ENTREZ DANS LE CATALOGUE COLLECTIF DES BIBLIOTHEQUES DE L'UAM>>>**

#### Bibliothèque ENS

La Bibliothèque de l'École normale Supérieur (E.N.S)

#### Bibliothèque FSS

La Bibliothèque de la Faculté des Sciences de la Santé (F.S.S)

#### Bibliothèque IRSH

La Bibliothèque de l'Institut de Recherche en Science Humaine

## Support to the development of University press



Univ. Press

### Activities :

- Financial support to creation of University press (equipment, offices, staff, ... )
- S/N missions of designers, executives, commercials in our universities
- Budget for material and equipment
- Contribution to publishing costs (translation, etc.)

### Final objectives :

- Facilitate the access (for students) to books and manuals at free or reduced costs
- Increase the number of local publications in the Institutional repositories





# Peru (UNSAAC) Translation of OA book

**Référence : Leer y escribir la literatura científica**

**Type de document :** Ouvrages ; Ouvrage publié en tant qu'auteur, traducteur, etc.  
**Discipline(s) :** Sciences sociales & comportementales, psychologie ; Education & enseignement  
Sciences sociales & comportementales, psychologie ; Bibliothéconomie & sciences de l'information  
**Pour citer cette référence :** <http://hdl.handle.net/2268/204655>

**Titre :** Leer y escribir la literatura científica  
**Langue du document :** espagnol  
**Titre traduit :** [fr] Lire et écrire la littérature scientifique  
**Auteur, co-auteur :** Pochet, Bernard [Université de Liège > Bibliothèque et Centre de Documentation (GxABT) >]  
**Traducteur :** Durand, F.M. []  
**Date de publication :** 2016  
**Maison d'édition :** Fundación universitaria para la investigación, desarrollo, ciencia y cultura San Antonio Abad del Cusco (FUNSAAC)  
**Nombre de pages :** 143  
**Ville :** Cusco  
**Pays :** Pérou

**Mots-clés :** [en] information literacy ; textbook ; Scientific writing  
**Résumé :** [es] Esta obra (traducido por F. M. Durand del francés "Lire et écrire la littérature scientifique" el 2012, incluye actualizaciones posteriores) no es una guía de empleo de internet o de diversas herramientas documentales. Es una herramienta de formación científica con un enfoque resueltamente metodológico.  
Sirve de soporte a los cursos de metodología documental y de literatura científica de Gembloux Agro-Bio Tech (ULg). Puede ampliamente ser utilizado en todas las enseñanzas y las formaciones que tocan a la literatura científica exactas y aplicadas.  
Basada en más de veinte años de experiencia y redactado en un estilo simple y directo, esta obra aborda los diferentes aspectos de la búsqueda de informaciones científicas y de la utilización de esta información así como los de la producción de artículos publicados en revistas con comité de lectura.  
El lector por tanto es considerado como lector y usuario de la información científica, y como productor de esta información. Es este enfoque global de la comunicación científica que justifica la elección del título.

**Organisme(s) subsidiant(s) :** ARES - CCD  
**Public cible :** Chercheurs ; Professionnels du domaine ; Etudiants  
**URL permanente :** <http://hdl.handle.net/2268/204655>

**Document(s) associé(s) à cette référence :**

Document(s) en texte intégral :

| Fichier                             | Commentaire | Version           | Taille  | Accès       |
|-------------------------------------|-------------|-------------------|---------|-------------|
| leer_y_escribir.pdf<br>Accès ouvert |             | Postprint éditeur | 3,07 MB | Voir/Ouvrir |

## Haiti (UEH) : University press Approximately 12 titles each year since 2009



CEDESURK (RD Congo) :

*Unité de Reproduction des documents pédagogiques*

Scientific writing workshops

OA journal : Congo-Sciences (9 issues online, > 10/2017)



RECHERCHE ET PUBLICATION EN RDC

## Le CEDESURK, les ateliers d'écriture scientifique pour jeunes chercheurs et la création de la revue *Congo Sciences*

De la documentation à la publication, le CEDESURK élargit son champ d'action et encourage les chercheurs congolais à publier les résultats de leurs recherches. En organisant chaque année plusieurs ateliers de rédaction scientifique à l'attention des jeunes chercheurs des universités et des centres de recherche du pays et en initiant un projet de revue scientifique interuniversitaire, la bibliothèque participe à la relance d'un programme de publication et d'édition universitaires.

## Training of library trainers for OA use in the IL courses



International session of courses and exchange of good practices for library trainers and managers of libraries from our ...

- French-speaking partners : 10 days in June-July (each 2 years : 14 participants in 2016)
- Spanish-speaking partners : 7 days in November-December (actually 4 participants each year)



Each participant has to prepare (before) a project generally linked to the access of documentary resources. The goal of session in Belgium is to share it with the others, to receive help from Belgian librarians and ... to finalise the project.

**The 2018 session at the University of Liege will be specifically dedicated to Open science and Open access projects**





# Promotion of the deposit in Be IR of research papers and data



ACADÉMIE  
DE RECHERCHE ET  
D'ENSEIGNEMENT  
SUPÉRIEUR

**60 projects** of multidisciplinary and collaborative research or courses focused on development or innovation :

[https://www.ares-ac.be/images/prd-pfs/rapports/ARES-PRD\\_Rapport-de-resultats-des-programmes-2008-2009.pdf](https://www.ares-ac.be/images/prd-pfs/rapports/ARES-PRD_Rapport-de-resultats-des-programmes-2008-2009.pdf)

### En savoir plus

Khemili S., Kwasigroch J.M., Hamagrouche T. & Gilis D. Modelling and bioinformatics analysis of the dimeric structure of house dust mite allergens from families 5 and 21: Der f 5 could dimerize as Der p 5. J. Biomol.Struct.Dyn., 29 (2012)663-675  
DOI: 10.1080/073911012010525018

### Carte d'identité du projet

|  |   |
|--|---|
| <b>Nom du projet</b>                   | Création d'un pôle de compétence en biologie moléculaire et biotechnologie à l'université de Boumerdès  |
| <b>Pays</b>                            | Algérie   |
| <b>Promoteur Nord</b>                  | Dimitri Gilis   |
| <b>Unité de Recherche</b>              | Unité de Bioinformatique génomique et structurale   |
| <b>Institution partenaire Nord</b>     | Université Libre de Bruxelles   |
| <b>Promoteur Sud</b>                   | Aïcha Refoufi   |
| <b>Unité de Recherche</b>              | Département de Biologie, Faculté des Sciences   |
| <b>Institution partenaire Sud</b>      | Université M'Hamed Bougara de Boumerdès   |
| <b>Autres institutions partenaires</b> | ULg, Institut Pasteur (Algérie), Direction de la Santé et de la population de la Wilaya de Boumerdès, CHU Mustapha Bacha  |
| <b>Durée totale</b>                    | 5 ans (1/09/2008 – 31/08/2013)  |
| <b>Discipline</b>                      | Sciences appliquées et sciences de la santé   |
| <b>Code CAD</b>                        | 43081 (Éducation et formation plurisectorielles) – 43082 (Institutions scientifiques et de recherche)   |
| <b>Objectifs</b>                       | Améliorer la formation dans le domaine de la biologie moléculaire et des biotechnologies à l'université de Boumerdès et ainsi renforcer les compétences recherchées entre autres par le secteur pharmaceutique, le secteur biomédical et les services de santé, le secteur agro-alimentaire ou la police scientifique |



The main problems, we *have to overcome*, to promote the use of Open Access

1. the lack of qualified human resources and IT skill
  2. the weight of habits and traditions in the use of documentary resources
  3. the lack of power grid stability and Internet bandwidth too low
  4. the fear of teachers that they are no longer alone in possessing knowledge
  5. the power games and the bad governance
  6. the poor quality of the information flows between librarians and users
  7. the misunderstanding of the digital world and digital libraries
  8. the poor understanding of the copyright rules
- ...



But ... the collaboration between our libraries and libraries of developing countries allows nevertheless to building **bridges** connecting peoples, cultures, education and research practices, ... and with the Open science culture of today, the passage on this bridge is more and more free and easy



## Thank you for your attention

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