Open Science in Universities: Implications for research and for doctoral education

Open Science in Doctoral Education: Practical insights from the University of Liège

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## Open Science @ Liège Université

<table>
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<th>Year Range</th>
<th>Achievements</th>
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| 2005-2006  | PoPuPS: Portal of Scientific Periodicals  
             BICTEL/e repository of doctoral dissertations |
| 2007-      | ORBI Open Repository  
             - 2017: 146,995 references - 93,359 full text docs  
             - Support & training from the Bachelor level  
             - Use for the evaluation of researchers and projects |
| 2017       | - WG on Open Data, strong commitment  
             - Open Innovation still on track  
             - Open Source well implemented with the help of national funders  
             - Trainings and seminars |
Doctoral candidates

Currently deal with Open Science in doctoral training, mainly with:

• Open Source
• Open Access
Open Source

• Bibliographical references manager: Zotero, Mendeley, citeulike;
• Bibliographical researches: Google Scholar, DOAJ, DOAB;
• Statistical programs: R;
• Mapping tools: QGIS, Open Layers, OpenStreetMap;
Open Access

• Mandatory archiving of scientific papers and research articles in the ULg Institutional Repository: ORBi

• Trainings on OA, ORBi specific functionalities (reports, usage statistics, Altmetrics)

• Promoting our research papers via the scientific communication tools: ResearchGate, Mendeley, Academia.edu, ORCID and social media for scientists: Twitter, LinkedIn
Publication Practices

Open Access publishing **encouraged** lately

**BUT**

**CONTRADICTORY**

with the requirements of Doctoral Colleges
“Geographical literature” usage in ORBi – some research results

Maps presented at the QQML 2012 Conference
French references usage over the world
English references usage over the world
Findings

• The frequent publication of the English articles in Impact Factor Journals does not increase the usage of the English geographical literature

• The higher usage of the French references is probably due to the local character of the case studies and their publication in French national journals not indexed by the bibliographical databases

• Countries most viewing and downloading geographical references from ORBi are French Speaking and developing countries with no access to commercial bibliographic databases

• Article’s language and the specificity of the case studies could play an important role in the article’s usage over the world
Doctoral training

Trainings & credits

• Open Access Basics
• Copyright & Open Access
• Keysteps for recording of publications in ORBI
• Creation of automated reporting using ORBI
• Open Source Development
• Professional Open Software
• Users’ guides and videos
• Charter and Code, HRS4R

Boost actions

• Eligibility of OA-APC
• Recognition of OA publication
• ORBI is mandatory

Axe 6
OPEN SCIENCE, OPEN RESEARCH

L’Open Access est de plus en plus incontournable et notamment dans le domaine de la recherche. Avec son programme ORBI, EUI a manifesté son engagement dans le processus. Cet axe de formation détaille quelques outils intéressants pour innover et diffuser votre recherche.
How to boost the process?
• Institutional commitment
• Essentials for research
• Availability of tools
• Support to authors
• Monitoring compliance
• Staff training for peers

What can slow it down?
• Self-funding (APC)
• Recognition
• Tools functionalities
• Bad communication
• Career perspective
There is no alternative to OA, there is no science but an open one

H-J Bungartz, EUA-CDE Doctoral Education Bulletin, 8, winter 2016