Survey on Open Access collection development and management: a comparison analysis between Italy and UK

Assunta Arte
Consiglio Nazionale delle Ricerche – ISM (**I**stituto di **S**truttura della **M**ateria) - Library
Research Area of Potenza, C.da Santa Loja Z.I. , I- 85050 Potenza, Italy.
E-mail address: assunta.arte@cnr.it

Maria Cassella
University of Turin – Polo Bibliotecario "Norberto Bobbio", Lungo Dora Siena 100 A 10153
Torino, Italy.
 E-mail address: maria.cassella@unito.it

Abstract:

As Open Access (OA) resources increase, libraries, particularly academic libraries, tackle with the challenge to manage OA resources in an appropriate and sustainable way. As a matter of fact, the huge emphasis placed by libraries on advocacy and access to OA collections has postponed the problem to find strategies to best develop and manage OA collections.

Even though OA collections are normally toll free, or mainly toll free there is still a need to manage them in a proper and sustainable way. For example, Article Processing Charges (APCs) present problems of budget allocation and control. Other interesting issues to be tackled are: how are OA resources selected and advocated in order to support them and how and where are local OA resources indexed, if they are indexed? How are they preserved in the long term?

To explore some of these issues in February 2014 authors carried out a comparative survey on OA collection development and management in UK and in Italy. The goal of the survey was to analyze the way academic libraries in UK and in Italy manage OA collection and if there are relevant differences in OA collection development and management between the two countries.
To carry out the survey the authors conceived an online questionnaire divided into three parts:
1) OA collection development; 2) OA collection management; and 3) OA collection preservation strategies. This paper will present the results of our comparative survey.

Keywords: Open Access; Collection development; Open Access collection development; Library Management

1. Introduction

In the last ten years Open Access (OA) resources have increased both quantitatively and qualitatively.

Some figures on OA development show this growing trend:
- number of articles searchable at the article level through the Directory of Open Access Journals (DOAJ) increased by over 21,000 in the first quarter of 2014;

- the Directory of Open Access Books (DOAB) added 293 open access monographs in the same quarter for an 18% growth rate (annual equivalent 72%) and a total of 1,912 books as of March 31, 2014;[1]

- in 2013 a study commissioned by the European Commission and carried out by Science Metrix showed that the proportion of peer-reviewed scientific literature available open access was 50% in 22 different disciplines and countries of the world. Although this percentage may seem overly optimistic, OA growth is constant and well-documented.[2]

As OA resources continue to increase libraries, particularly academic libraries, tackle with the challenge to manage OA resources in an appropriate and sustainable way.

To date, a few studies have focused on the issues of OA collection development (selection, promotion, evaluation, and preservation of Open Access resources).

In the early days of the OA movement, Genoni (2004) discussed the management of OA collections particularly referring to institutional repositories.

Later on Bowerin Mullen (2011) analyzed the role of collection development librarians in selecting, organizing and indexing OA collections; more recently Burpee and Fernandez (2013) have explored OA collection development in Canada, referring both to Green and Gold Road, while Dehua Hu, Aijing Luo, Haixia Liu (2013) have described how OA has become the future of academic library exchange in China, also discussing the role of collection development librarians.

2. Collection development librarians' role to foster the OA paradigm

As manifold other new librarian roles collection development librarian is involved in the Open Access paradigm.

The complexity of Open Access has fostered the evolution of new librarians' roles in order to support user needs and new scholarly communication models: i.e. repository managers,

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[1] Facts and esteems on Open Access growth can be found in Heather Morrison's blog: *The Imaginary Journal of Poetic Economics* http://poeticeconomics.blogspot.it/

[2] Eric Archambault, Didier Amyot, Philippe Dechamps et al., *Proportion of Open Access peer-reviewed papers at the European and world levels, 2004-2011, produced for the European Commission by Science-Metric,* August 2013 http://www.science-metrix.com/pdf/SM_EC_OA_Availability_2004-2011.pdf

scholarly communication librarians, digital copyright specialists, bibliometrics and research assessment specialists etc. Other more traditional librarians roles are becoming more and more related to OA management, advocacy and support: i.e. electronic resources librarians, subject librarians and, last but not least, collection development librarians.

Collection development librarians are best positioned to play a key function in assuring development, management and preservation of OA collections. Collection development librarians add value to OA collections.

Manifold different issues need to be taken into account to manage OA collections in an efficient and long term sustainable way:

- Technical issues;
- Quality issues: selection of OA resources according to their relevance for the local context and to their quality;
- Discoverability of OA resources: indexing of local OA resources in OPAC, next generation catalogues, discovery tools ecc.;
- Management of OA business models and their sustainability (APCs and memberships);
- Long term preservation strategies;
- OA resources advocacy.

We will hereafter briefly examine each of the above mentioned issues:

Technical issues
"all aspects of OA resources involve technical issues from the processing, construction to the management, preservation and service of OA resources in the entire life cycle".[3]
Technical issues – i.e. interoperability, OAI-PMH compliance, web-platforms, repositories, metadata - are key aspects for OA dissemination. Collection development librarians collaborate with IT staff, scholarly communication librarians and repository managers to choose the best technical tools and to develop OA technological assets.

Quality issues: selection of OA resources according to their relevance for the local context and to their quality
In the last decade an important task for collection development librarians has become the selection of OA resources. Selection can be performed according to two main parameters:

- Quality;
- Relevance to local context.

In 2013 the OA community was shocked by an experiment carried out on the peer-review process exercised by OA journals by the biologist and science journalist John Bohannon. The experiment revealed that there is little or no quality control in 157 Open Access peer-reviewed journals which do not practice a serious article selection.[4]

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[3] Wang Zhigeng, Liang Huiwei, Zhang Wenjing, *Open Access Resource Management: a New Role for the National Library of China,* **IFLA WLIC,** 10-15 August 2010, Gothenburg, Sweden.

[4] Cfr. John Bohannon, *Who's afraid of peer review*? "Science", 4 October 2013, https://www.sciencemag.org/content/342/6154/60.summary. In the article Bohannon revealed that a fraudulent paper he had written about a lichen molecule had been accepted by 157 online OA journals. One limitation to Bohannon's Methodology was the fact that flawed articles were sent only to a selected group of Open Access journals.

Collection development librarians can guide authors' choice of OA journals by suggesting strategies to identify "predatory" OA journals, i.e. journals with little content which publish law quality papers and contributions and aggressively campaign for academics to submit articles.

Manifold tools are now being developed to help librarians and authors assess OA journals quality.

Beall's List of predatory Open Access Publishers, for example, is an attempt to stigmatize unethical behaviors from OA publishers.

An exciting and useful initiative is also the "Journalysis"[5] a free service *for* academic authors run *by* academic authors for reviewing experiences with academic journals.

Recently the Grand Valley State University Libraries developed a set of indicators - the Open Access Journal Indicators - to support faculty in selecting OA ethical publishers and journals. Some positive selected indicators are:

- Membership to Open Access Scholarly Publishing Association (OASPA);
- Journal has ISSN and DOI;
- Journal is affiliated with a scholarly society or an academic institution;
- Journal is registered in Urlichsweb and DOAJ;
- Journal clearly indicates fees and rights for use and reuse of content at article levels.[6]

Management of OA business models and their sustainability: (APCs and memberships)
Managing the complexity of OA business models, particularly the management of Article Processing Charges (APCs) which are now adopted both by a set of OA publishers[7] and by the majority of commercial big publishers, is another huge task for collection development librarians. Commercial publishers are trying a variety of approaches to expand their Open Access business models. As a matter of fact, APCs are becoming a very common strategy in commercial e-journals.[8]
Administrative management of APCs can be very cumbersome and time-consuming as the entity of APCs vary enormously from publisher to publisher. Huge differences can be traced between OA publishers and international commercial publishers. A study carried out in 2010 by Solomon and Björk[9] highlighted that the APCs price range varied between 8 and 3,900 USD, with the lowest prices charged by journals published in developing countries and the

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[5] http://journalysis.org/

[6] Sarah Beaubien, Max Eckard, *Addressing faculty publishing concerns with Open Access Journal Quality Indicators,* "Journal of Librarianship and Scholarly Communication", 2 (2014), n. 2 http://jlsc-pub.org/jlsc/vol2/iss2/8/

[7] http://www.openaccesspublishing.org/apc2/

[8] According to Bo-Christer Björk and David J. Solomon in November 2013 the number of hybrid journals offered by 13 major publishers was 8003. Cfr. Bo-Christer Björk, David J. Solomon, *Developing an effective market for Open Access Article Processing Charges: final report,* March 2014 http://www.wellcome.ac.uk/stellent/groups/corporatesite/@policy_communications/documents/web_document/wtp055910.pdf

[9] David J. Solomon - Bo-Christer Björk, *A study of Open Access Journals using article processing charges,* "Journal of the American Society for Information Science and Technology" , 63 (2012), p. 1485-1495 available at http://www.openaccesspublishing.org/apc2/preprint.pdf

highest by journals with high impact factors from major international publishers. Journals in Biomedicine represented 59% of the sample and 58% of the total article volume. In a more recent study on APCs market, Solomon and Björk estimated an average APCs rate from 1,418 USD for full OA journals to 2,727 USD for hybrid journals.[10] Hybrid OA articles are significantly more expensive than their full OA counterparts.

To tackle the complexity of APCs, some academic libraries have set up OA central funds. To date funds dedicated to OA collections appear to have been set up by a minority of institutions. In a paper published in 2012, Pinfield and Middleton revealed that the number of institutions in UK which had adopted OA funds had not changed significantly between 2009 and 2011.[11]

As a matter of fact, collection development librarians are still struggling to find standard procedures to manage APCs. To help librarians with APCs aggregators have conceived new services: e.g. in 2013 Swets launched the Article Processing Charge Management service.[12]

Notwithstanding this, managing APCs remains a long and winding road for academic librarians.

Sustainability of OA business models should also be carefully addressed. This is both a political and an economic issue, of course. Collection development librarians should evaluate OA business models and choose a strategy in order to support different OA resources with different business models in the mid and long term. Collaboration with faculty is necessary to best perform this evaluation activity.

Long term preservation strategies for OA resources
Digital preservation is also a new "exciting" task for collection development librarians. As there is no access without preservation librarians should also take care for long term preservation of digital collections and funds: "preservation significance is not only able to adapt to the information needs of today's society, but meet the needs of future customers understanding the social situation and studying the historical experience of the current social development, and play a role in inheriting national and human culture."[13]

OA resources long term preservation should be very closely paid attention to both at national and institutional level. Strategies to address OA preservation issues can be manifold:
- developing strategies at national level, such as the service offered by the National Library of China;
- relying on third part preservation providers and services, i.e. Portico;
- developing a national distributed model to preserve commercial and open access journals, i.e. the LOCKSS model;
- managing a long term preservation plan at institutional level.

Advocacy of OA resources

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[10] Bo-Christer Björk, David J. Solomon, 2014, cit.

[11] Stephen Pinfield, Christine Middleton, *Open Access central funds in UK universities*, "Learned Publishing", 25 (2012), n, 2 available at http://eprints.nottingham.ac.uk/1625/1/OA.pdf

[12] http://www.swets.com/open-access-services-for-libraries

[13] Wang Zhigeng, Liang Huiwei, Zhang Wenjing, *Open Access Resource Management: a New Role for the National Library of China,* **IFLA WLIC,** 10-15 August 2010, Gothenburg, Sweden.

Last but not least, we believe there is still a role that collection development librarians can play to advocate and promote OA resources. Notwithstanding the fact that the OA movement is now more than ten years old and that it is resulting in a radical transformation of scholarly communication, advocacy is still needed to disseminate the OA paradigm and its principles. Collection development librarians should join subject librarians in their task to discover, select, and promote new OA resources and to pursue the best ways to disseminate faculty research outputs.

3. Survey on Open Access collection management: a comparative analysis between Italy and UK

In order to approach all the above discussed issues and to highlight the role of collection development librarians in OA collection development, in February 2014 we decided to carry out a comparative survey on OA collection management in UK and in Italy.

The goal of the survey was to analyze the way academic libraries in UK and in Italy manage OA collection and if there are relevant differences in OA collection development and management between the two countries.
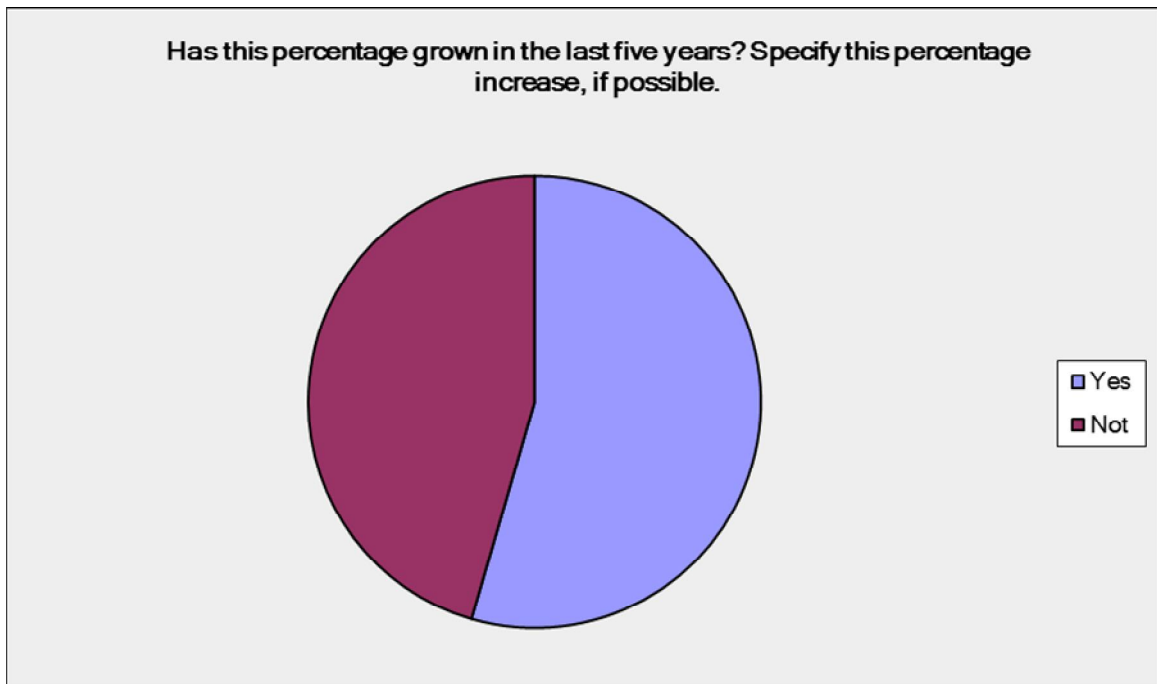
To carry out our survey, we conceived an online questionnaire by utilizing SurveyMonkey. We prepared ten questions divided into three sections:
1) OA collection development (6 questions), 2) OA collection management (3 questions), and 3) OA collection preservation strategies (1 question).

The survey was publicized in UK on two discussion lists: the SCONUL discussion list and the LIBER discussion list; in Italy the survey was publicized on the OA-Italia discussion list, a list devoted to Open Access themes and topics. We also contacted 86 Italian library directors and repository managers by email to invite them to partecipate in our survey. As result of survey the number of respondents was 17 from Italy and 13 from UK.

4. Survey Results: UK

The goal of questions number one and two was to address the cost issues of OA collections; in particular we asked the survey participants what percentage of the library budget is devoted to OA collection development (for example to cover the journal APCs) and if this budget had increased in the last five years. The percentage of the budget devoted to OA collections ranges from less than 1% up to 5%, but in one case special funding is used to manage APCs; in two cases out of eleven the library does not directly manage funds for OA collection development. Referring to question number two 54,5 per cent of the respondents (6 participants) answered that their library OA budget had increased in the last five years, 45,5 (5 participants) said no.

Has this percentage grown in the last five years? Specify this percentage increase, if possible.

Yes
Not

In question number three we asked the survey respondents to list the type of OA resources their library supported.
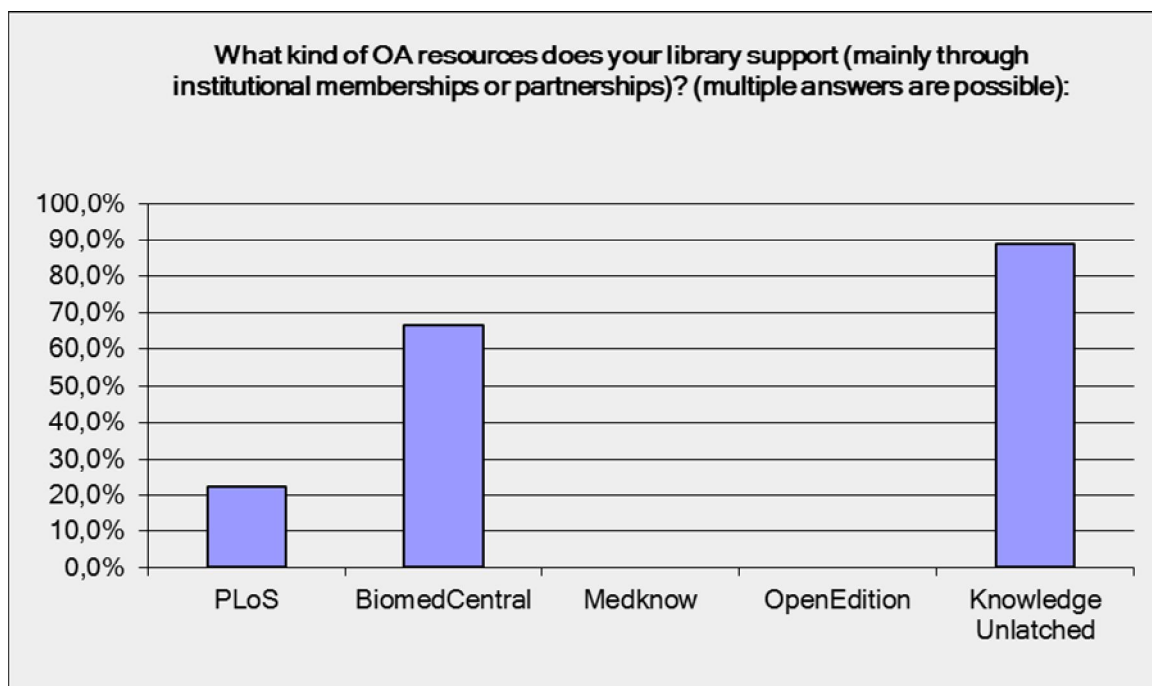
Knowledge Unlatched (KU), an interesting collaborative experiment to support the publication of OA monographs,[14] was the most supported OA resource: 8 respondents out of 11 answered that their library supported this pilot project.

Knowledge Unlatched is a community-driven project now supported by a variety of partners, including a public library: i.e. CLOCKSS, HathiTrust, Portico, JISC collections, New York Public Library, Max Planck Society, and OAPEN.

In March 2014 KU announced that its Pilot Collection of 28 new books from 13 recognized scholarly publishers had become Open Access.

The second most widely spread OA resource was the well-known OA scientific publisher BioMedCentral (66,7% of respondents), followed by the Public Library of Science (22% of respondents).

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[14] http://www.knowledgeunlatched.org/ . According to the KU business model, libraries pay a title fee which represents the basic cost of publishing a book.

What kind of OA resources does your library support (mainly through institutional memberships or partnerships)? (multiple answers are possible):

It is remarkable that academic libraries are now exploring new ways to support OA monograph publishing in order to tackle the lasting academic monograph crisis.[15] As a matter of fact, KU represents a shift in the OA paradigm as member libraries directly support OA publishing. Alternatively, academic libraries are themselves increasingly becoming publishers in the digital world.

Unsurprisingly, Open Edition, a portal of OA resources (e-journals, e-books, events, and blogs) in humanities and social sciences, developed in France as a rib of the project "Revue.org"[16] by the CNRS, the University of Marseille and other scientific partners, is not supported in UK, while it is expanding in Spain and in Italy.

Questions four, five, and six addressed the topic of OA central funds.

In question four we asked the survey participants if their library had activated an OA central fund: 4 respondents out of 12 said their library had a fund dedicated to OA collections, one respondent said they are going to activate an OA fund, one library is evaluating the project, 2 respondents answered their library had a RCUK block grant for APCs; the remaining 4 respondents said they have no central fund to support OA collection development. Results from question number five and six revealed that in the majority of cases OA funds are managed by academic libraries; in one case the fund is managed by the Institutional Registry.

With regard to OA central funds, it should be underlined that UK was one of the first country where OA funds were activated, e.g. the University of Nottingham, an early champion of Open Access (OA) publishing in the UK, was one of the first institutions to establish a central fund to support open access publishing costs.
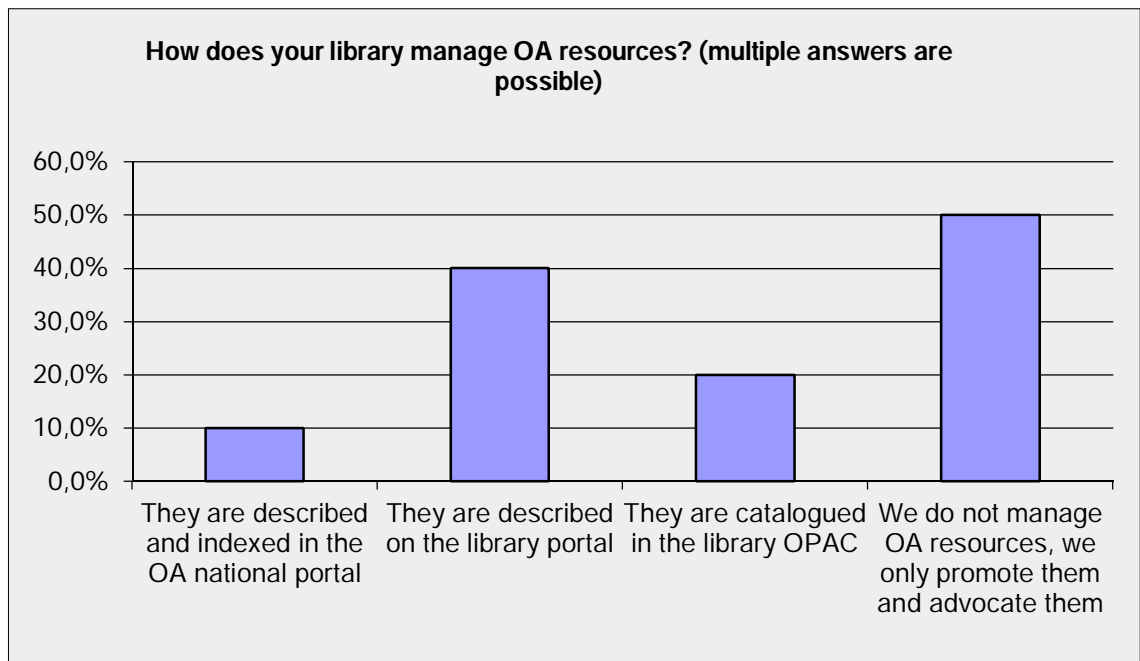
The next three questions (number 7, 8, and 9) focused on the management of OA collections.

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[15] According to some estimates the market for monographs has shrunk by around 90% over the past few decades.

[16] A web platform for OA journals launched in France in 1999.

We thought it would be more meaningful to make a distinction between the management of OA collections, in general, (question number 7) and the management of local OA collections, i.e. collection published by institutions themselves (question number 8).

Referring to question number seven, 5 respondents out of 13 answered their libraries do not manage OA collections at all, but promote them, 4 librarians said OA collections are described on their library portals, 2 librarians answered that OA resources are tracked in their discovery tools, 2 respondents said the OA resources are catalogued in their OPACs, one librarian said the OA resources are indexed on a national OA portal whose name was not specified, one librarian cited the Directory of Open Access Journals (DOAJ).

Referring to question number eight 70% of respondents (7 out of 10) answered that their local OA collections are harvested and indexed by their discovery tool customization, while 40% and 30% (multiple answers were permitted) said that their local OA resources are described on the library portal and in their OPAC respectively. 10% of respondents answered that local resources are also indexed in a national OA portal and in their local virtual reference desk. In one case OA resources are indexed (and consequently preserved) in the institutional repository.[17] This answer is interesting as it places the *questio* of the conceptual relationship between institutional repositories and OA web publishing platforms, [18] the formers being more oriented to the dissemination and preservation functions, the latters being more similar in their scope to the publishing formalization of a university press.

Answers to question number 8 highlight a particular attention in the management of local OA resources which are institutional-oriented and, therefore, need special promotion and curation from academic librarians. Less attention was devoted to OA resources in general.

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[17] It should be highlighted that institutional repositories can support both management and preservation of OA resources.

[18] This relationship has been long discussed in the past; overlay journals are a good example of how repositories and OA web publishing platforms can interact.

Question number 9 intended to explore the qualitative selection issue. It is remarkable that in 3 cases out of 10 academic librarians assess quality of OA resources, in the remaining cases, they don't.

Scope of the last question was to address the long term preservation issue. 3 respondents out of 10 had a strategy in order to preserve their OA collections: either by indexing resources in Portico, or by establishing an infrastructure that manages and preserves digital content, or by using the institutional repository as a local strategy to preserve digital resources.

5. Survey Results: Italy

In Italy, the economic crisis has negatively impacted on collection development and, particularly, on OA collection development. The library budget dedicated to OA collections ranges from 1,25% to 0,03 percent; 8 respondents out of 12 said they have no budget for the development of OA collection.

In consistence with the answers given to the first question, the percentage of budget fixed for OA collections has increased only in 2 cases out of 10 responses received in the last five years.

As far as the supported OA resources are concerned (question number 3), there is a substantial difference between Italy and UK, which is mainly due to the different cultural environment.

In Italy, the most supported OA resource is BioMedCentral (42,86% of respondents), followed by PLoS (28,57%) and by Open Edition (14,29%) that, as said previously, is now launching its platform in Italy by **developing** partnerships with some Italian publishers.

Open Edition requires each publisher who joins the publishing platform to publish at least 50% of its catalogue open access. The access to the .html format is always free, while to download the .pdf and the .epub formats it is necessary to pay a membership fee.

In Italy, only one respondent out of 12 declared his library had established an OA central fund. One respondent observed that university departments may have funds to pay APCs, but there is no central control of such funds.

Italian academic libraries prefer to manage OA collections by describing them on their library portal. 5 respondents out of 13 (38,46%) adopt this strategy to manage and to promote OA collections, followed by 4 respondents (30,77%) who declared that OA resources are described in their OPAC, while 3 respondents (23%) said they do not manage OA resources at all, but promote them. Two respondents said that OA resources are, respectively, indexed in the EBSCO AtoZ list and described on a national portal. **This last answer is a bit astonishing as there is no Italian OA portal.** A good support to librarians is the Italian wiki on Open Access http://wiki.openarchives.it/index.php/Pagina_principale, but OA resources are not indexed on it.

As far as local OA resources are concerned, 38% of respondents (5 responses) declared they index OA resources in their discovery tool, while 30% (4 responses) describe the OA collections on the library portal and in their OPAC. Two respondents said they do not manage OA collections at all, which is of course a minority. One library stated that OA resources are

described on the institutional OJS platform, as a matter of fact referring exclusively to local published e-journals.

As in UK, Italian academic libraries are now developing strategies to manage OA collections. Some slight differences can be traced between the two countries.

OA collection development quality is not yet perceived as a key issue by academic libraries in Italy. Only 2 out of 7 respondents answered they are evaluating quality of OA resources in order to select them.

As far as the digital preservation of OA resources is concerned, the majority of respondents (75 %, 9 respondents out of 12) answered they do not have a strategy on the long term preservation of OA resources, while 3 respondents said are developing a strategy, namely: one library declared they are using the repository to preserve OA resources, one is going to integrate them in LOCKSS/CLOCKSS, one cited the Sapienza Digital Library as an infrastructure to preserve local digital resources.

Conclusions

A few conclusions can be drawn from our survey's results. Generally speaking, management of OA collections is somewhat more mature in UK than in Italy. Budget devoted to OA collection development is still a fraction of the total budget of the academic library, but in UK the maximum percentage was 5%, while in Italy maximum percentage was 1,25%. Academic libraries support the same kind of OA resources but some cultural differences can be traced between the two countries. Open Edition is supported only in Italy: as a matter of fact the platform publishes OA resources in HSS and is more national-oriented than other platforms publishing in the STM segment.

Knowledge Unlatched is a well-known project in UK as it is supported by the British Library Trust, but it is almost unknown in Italy, where OA publishing is more focused on e-journals and very few institutions indeed are involved in OA monograph publishing, mainly through their university presses.[19]

OA central funds are spreading in UK, not in Italy. This negative Italian trend can be explained by two main reasons:
- the lasting economic crisis, which has constrained academic library budgets;
- the weak role of the academic library in the university ecosystem. As a consequence of this weakness, Italian academic libraries have to date scarce or no strength to impose any change in the way library budgets are conceived.

As far as OA collection management is concerned, there is a slight difference between general OA resources and OA resources published locally. Academic libraries pay more attention to local OA resources than to general OA resources; local OA publications can be either described on library portals or more effectively indexed in a discovery tools. The latter solution is by far the preferred solution in UK.

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[19] For example the Florence University Press publishes OA monographs by effect of its partnership in OAPEN.

OA collection preservation is still a big issue at stake. Academic libraries that take care of this aspect are few, the majority, both in UK and in Italy, do not really have a strategy for the long term digital preservation of OA resources. National strategies are not defined. More work should be done to disseminate awareness of the importance of preserving in the long term OA collections.

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