

The roles of libraries and information professionals in Open Educational Resources (OER) initiatives

Survey Report

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Executive Summary

This report contains the findings of a study carried out by the Centre for Academic Practice & Learning Enhancement (CAPLE) and Centre for Educational Technology and Interoperability Standards (CETIS), at the University of Strathclyde. The study focuses on the involvement of the Library as an organizational unit, and of individual librarians and other information science specialists, in open educational resources (OER) initiatives. This research study contributes to the current Open Educational Resources (OER) Programme [<http://www.jisc.ac.uk/oer>], an initiative by JISC and the HEA whose objective is to promote the creation, dissemination, access and use of OER. This programme represents a firm commitment by UK Higher Education (HE) institutions to the OER movement.

This study is based on a survey targeted to OER projects worldwide, partially based on preliminary work done by CETIS Research Fellow John Robertson (2010b). The current survey incorporates 15 questions, which make use of scaled, multiple choice, structured, and open questions. It was implemented online using SurveyGizmo, and responses were gathered during October and November 2011.

Disregarding partial, empty, duplicated, and problematic responses, the total number of usable participants was 57. However, as all of the survey questions were optional, the number of useful answers varied between different sections, questions and options. Nine of the participants (15.8%) only answered the first section providing some basic information about their OER Initiative and its objectives. These contributions were not excluded as they provide significant insights into the aims of current OER initiatives around the world.

The geographical distribution of survey participants is quite heterogeneous with contributions coming from all continents. The countries with most contributors are, in descending order, the United Kingdom, USA, Spain, South Africa, India, and Nigeria. The majority of contributions came from HE institutions (81.3%), with fewer contributions coming from research centres, publishers, international organizations, NGO, and even an e-learning private centre and a high school. The majority of respondents participate in UKOER and Open Course Ware projects.

The main objectives of these OER initiatives are: to implement a repository or a content management/publishing system for OER release (57.9%); to release existing institutional content as OER (56.1%); and, to raise awareness of OER and encourage the use of open educational content within the local academic community (52.6%).

The analysis of those survey questions regarding the involvement and roles of the library and librarians at OER initiatives shows a considerable heterogeneity of situations. Their involvement of librarians is significant: three out of four projects teams count on at least one librarian, and most of them are based on the institutional

library. In half of the projects accounted for, the library is leading or a partner of the initiative. The main areas of library's involvement are: description and classification, management, preservation, dissemination, and promotion of OER. In order to support these activities, librarians provided expertise in information science areas, especially: metadata standards, vocabularies, indexing and classification, information retrieval, information literacy, and repository technology and management. It was also found, however, that librarians needed to develop expertise in different areas, including SEO and IPR and licensing options, but mainly about e-learning and OER knowledge, technologies and standards.

OER initiatives participating in this study positively valued the libraries' and librarians' involvement. Most respondents considered the contributions made to be absolutely indispensable (36%) or very valuable (25%). However, a small, but significant percentage of projects felt that the involvement of libraries and librarians had no influence (11%) or that their impact had been insufficient (5%) to date.

The final conclusions of this study indicate that even if the library and/or librarians are well valued by projects where they are already engaged with, the participation of the library is still not widespread, and a significant lack of awareness exists both from OER initiatives with regards to library activities and from the libraries about the resources released by OER initiatives. However, most of the objectives of content-focused OER initiatives are strongly related to library and information science activities and skills and we consider that their involvement would be of great benefit to those projects not yet engaged with them.

We found a clear need to promote the role that libraries and librarians can play in OER initiatives, highlighting the expertise and competencies which libraries and librarians can offer. This active promotion is needed to build awareness among stakeholders about libraries and librarians potential contribution to the OER movement, but also, among libraries and librarians about their key role as OER advocates within and out-with their institutions.

We suggest that a further analysis of the practices of OER initiatives regarding their strategies for storing and dissemination of content, the creation and management of OER collections, and the OER lifecycle is required to effectively promote the role of libraries and information professionals. This analysis, together with an accurate identification of objectives and needs of OER initiatives, would allow for better development of best practice guidelines and recommendations, where librarians have an important role to play.

We conclude that libraries, libraries associations, and LIS education institutions should take on the development of the skills that librarians need to better support OER initiatives, designing and offering training programs and improving syllabus.

1. BACKGROUND

Open Educational Resources (OER) are *“teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions. Open licensing is built within the existing framework of intellectual property rights as defined by relevant international conventions and respects the authorship of the work”* (UNESCO, 2012). The term was coined by UNESCO at its 2002 Forum on Open Courseware (UNESCO, 2002), and emphasized at their recently published Paris OER Declaration (UNESCO, 2012).

With respect to OER, the term "open" generally means that the resource can be accessed and used by everyone in a non-discriminatory manner, and also that it can be adapted, modified, and shared. More specifically, the characteristic of openness addresses the removal of technical, economic, and legal barriers to gain access to and make use of open educational resources.

The phenomenon of OER is part of a broader trend towards participatory innovation processes and open access to knowledge, embodied in several previous movements or concepts that are committed to the "open", including: the Open Access (OA) movement; the Open Source Software (OSS) movement; or the Open Content movement. The latter is a neologism coined by David Wiley in 1998 to be applied to any creative work *“that is licensed in a manner that provides users with the right to make more kinds of uses than those normally permitted under the law - at no cost to the user”*. At the present Wiley's efforts on OpenContent¹ are specially focused on educational materials.

Creative Commons licenses² play a significant role in making “openness” possible, and it has a particular interest in and engagement with educational materials³. Creative Commons licenses are currently being used in a broad range of open educational content projects worldwide, including the notable Open Course Ware⁴ from MIT. Launched in 2001, MIT OCW is usually considered as a key initiator of the OER movement and the subsequent international OCW Consortium⁵ created in 2005. MIT OCW, the OCW Consortium and many others dealing with open textbooks, instructional videos, and a broad range of materials at repositories and digital libraries

¹ Open Content web site: <http://www.opencontent.org>.

² Creative Commons initiative: <http://creativecommons.org>

³ Creative Commons Education: <http://creativecommons.org/education>.

⁴ MIT Open Course Ware: <http://ocw.mit.edu>.

⁵ OCW Consortium: <http://www.ocwconsortium.org>

rely on CC Licensing. Creative Commons is also partnering with academic publishers of educational content.

In the development and management of OER, academic libraries are called to play a key role, even if it has not been widely recognized yet at the same level as their role in Open Access to science or data. Academic libraries are committed to improving access to scholarly and educational content for their users and, with that aim in mind, they regularly create collections of learning and teaching materials. Traditionally, these collections are developed through the selection and acquisition of externally produced resources. Also, as pointed out by Robertson (2010b) or Bueno-de-la-Fuente and Hernández-Pérez (2011), they may hold institutional content as syllabi and past exam papers; however, to date, the inclusion of lecture notes, presentations, or formative assessment materials has not been common practice. Even if digitally available, this content generally remains in closed virtual learning environments and is controlled by the lecturer, or departments providing the course. Their integration with library resources and searching facilities is generally insufficient (see Hirst, 2009).

Moreover, these practices pose serious challenges to long-term preservation. Kleymeer, Kleinman and Hanss (2010) highlight that many OER projects either use dedicated OER or open courseware publishing platforms, learning management systems, or their own locally created systems – few of which have been designed with any explicit consideration of the preservation needs of materials or formats.

In recent years, many universities worldwide have created digital repositories for the management of teaching and learning resources produced by their academic community, or included these resources as specific collections in their institutional repositories (Bueno-de-la-Fuente and Hernández-Pérez, 2011). These repositories and digital libraries allow the discovery of resources, facilitate access, and enable their further reuse, thus supporting and fostering the “open” movement. Moreover, they also offer the potential to ensure the long-term availability of resources. However, the need for the long-term preservation for educational resources is not taken for granted and raises a number of issues (see Conyers and Dalton, 2008). Within the OER community, many projects prefer other approaches to storing and disseminating resources, though some efforts are being made to combine preservation and dissemination (e.g. Minguillón, 2010).

As open resources become more prominent, academic libraries need to take account of them, integrating the institutionally produced content in their digital collections, and selecting those external OER that could be of the interest of the community. As outlined by ACRL (2009), OERs should become additional resources referenced by subject librarians in supporting students and lecturers.

The published literature that connects OER and libraries is still scarce. Apart from the articles noted above, such as those of Kleymeer, Kleinman and Hanss (2010) or

Robertson (2010b), it is more common to find blog entries addressing this topic. This suggests a broad interest in the subject but also the relative immaturity of the discussion, for example: Hirst (2009), highlights the general absence of OER at libraries websites; Davies (2009), insists in the fact that historically libraries have not worried about digital educational resources; Cormier (2009) explains his experience of brainstorming about libraries and their role in teaching and learning, including OER; Leslie (2010) reflects about the role of a “OER Virtual Librarian”; and, especially the series of articles about OER and Libraries posted by Robertson (2010a; 2010c; 2010c; 2010d; 2011) at his JISC-CETIS blog. Some authors make this relationship clearer, to the point of stating that public libraries are the first and most successful form of OER (Ronkowitz, 2010).

Reflecting on the connections and implications of OER to libraries, Robertson (2010a; 2010b), discusses the responsibilities that libraries/librarians should undertake with respect to OER. While Belliston (2009) has previously suggested that they can identify and index quality OERs, preserve OERs and help with IPR—and even create and use their own OERs⁶—Robertson argues that this does not take into account the different challenges offered by educational resources or the active role librarians can play in the initial description, management, and distribution of OERs. Consequently, Robertson proposes that libraries might also: have an interest in promoting ‘openness’/ open resources; help users describe, discover, manage and disseminate OERs; and evolve their approach to information literacy and study skills to include OERs, as well as support the use of OERs for learning and teaching in collaboration with other relevant services. Robertson (2010b) suggests that libraries can best offer advice and engage in meaningful relationships with Open Education in relation to: metadata and resource description; information management and resource dissemination; information literacy (finding and evaluating OERs)⁷; subject guides; and managing and clearing Intellectual Property Rights.

Similarly, Kleymeer, Kleinman and Hanss (2010) emphasise the commonality of goals and missions of OER initiatives and academic libraries, stating that partnerships between them “*seem not just logistically convenient but philosophically obvious*”. They consider libraries to be among the first OER producers, as they have been digitising

⁶ In this sense, it is worth to mention the proposal of Pryde (2009) for a Universal Library OER initiative that gathers all the OER developed by libraries and librarians about a range of topics, as information literacies, including how to develop instructional materials themselves.

⁷ Robertson (2010b; 2010d) has also explored the potential information literacies needed to encompass supporting students in selecting and evaluating OER. He suggests a skillset for the discovery and selection process which supports Open Education in the same way that information literacy supports research, including tasks as: evaluating the resource, IPR and technical issues on using the resource, resources needed in order to access and use the resource, and types of interaction assumed by the resource. Moreover, the Solstice CETL at Edge Hill University has developed an Open Content Literacy Framework based on the work of the ReForm project (ReProduce programme): <http://bit.ly/cjWalf>.

and sharing digital materials even before the generalization of public Internet. The report groups the attributes that libraries can offer to OER initiatives into two categories: infrastructure and relationships.

With regards to the library infrastructures, assets that could potentially benefit university OER initiatives include: *“search and discovery capabilities, copyright expertise, data storage, metadata and indexing, institutional repositories and preservation”* (Kleymeer, Kleinman and Hanss, 2010). The authors suggest that those OER initiatives acting as stand-alone units are duplicating infrastructure and missing opportunities to use library’s existing and proven systems.

Moreover, Kleymeer, Kleinman and Hanss (2010) argue that university libraries can also provide access to trusted relationships and communities of practice. Libraries have a central position in the lives of the academic community members even despite the changes brought by technology and the wider and easier of scholarly and educational content online. In this sense, librarians have relevant skills, including outreach and education, curriculum development, and instructional support, which could benefit OER programs.

Along with the effectiveness of existing infrastructures for the central management and publishing of OER content on campus, and the trustworthiness brought by the library commitment in these initiatives, the authors also recommend the partnership with libraries in order to achieve the long-term sustainability of OER projects and the cultural change towards a culture of open and reusable learning and teaching materials over closed and restricted ones.

Robertson (2010c) proposes a set of research questions in order to get a better understanding of current practice, which could ultimately help define guidelines for best practice for libraries and OER:

- What opportunities and issues emerge for librarians and libraries from the OER movement?
- What role do libraries currently have in OER initiatives or the wider management of learning materials produced by institutions?
- Are library skills perceived as relevant to the management of teaching and learning materials (within libraries, within institutions, or by the OER movement)?
- What can the libraries or librarians offer the institution in this area?

In order to gain insight into some of these questions, Robertson (2010b) carried out a pilot survey about the roles of academic libraries and individual librarians in promoting, supporting, and sustaining institutional Open Educational Resource initiatives. The initial results show a broad distribution of libraries’ involvement: *“from leading initiatives to probably not being aware of them”* (p. 6). In a third of the respondent projects polled, the library played an active role in OER release, and half of

them played an active role in OER use. The results pointed out a clear expectation that libraries could support tagging and metadata, identify and index quality OERs, support discovery, and the use of OERs by academic staff and students. Interestingly, these activities were scarcely among the actual areas of involvement as it was the provision of IPR guidance.

As for the librarians' views of their role with respect to OER, the key findings of two UKOER related initiatives, Open Transferable and Technology-enabled Educational Resources (OTTER)⁸, and the Support Centre for Open Resources in Education (SCORE)⁹, are revealing. The results from an OTTER's survey (Nikoi, 2010) showed that librarians had a predisposition toward assuming that their role would be managing OER repositories, developing generic OER, indexing, cataloguing, and promotion the use of OER. They have still, however, some concerns about third party copyright clearance, currency and quality of OERs, funding, etc. Moreover, they would like to see policies and recommendations on some issues as management of OER and metadata requirements. The recently published SCORE Library Survey Report (de Beer, 2012), highlights the low demand for librarians to locate OER, and confirms the predominance of intellectual property concerns (thirty-two librarians from twenty-three higher education institutions from UK participated in the survey). A significant majority of the respondents were not confident in using and promoting CC licences, and most of them cited that, alongside a lack of digital literacy skills, these were among the main reasons for lecturers not engaging with, using, or releasing OER.

The findings of these studies demonstrate that, despite the advantages and benefits that libraries could bring to OER initiatives, and the clear need of their skills and knowledge (for example, advising and training about intellectual property and digital literacy), the value of their involvement is not generally recognized. The boundaries and opportunities of this involvement are also not well defined, nor are the implications and challenges for the library services and professionals.

A more thorough analysis is needed that could pave the way for a more constructive relationship between libraries and OER initiatives. A prime benefit from this research could be:

- The announcement of a set of recommendations for Higher Education institutions that are currently carrying out OER initiatives, or planning to do so, regarding the roles and responsibilities of libraries and librarians and the benefits that their participation could bring to their projects.
- The creation of a set of guidelines and recommendations for libraries and library and information science (LIS) professionals with respect to OER.

⁸ Open Transferable and Technology-enabled Educational Resources (OTTER): <http://www2.le.ac.uk/departments/beyond-distance-research-alliance/projects/otter/otter-f>

⁹ Support Centre for Open Resources in Education (SCORE): <http://www8.open.ac.uk/score/>

- The definition of a technological framework and a model of services that academic libraries should develop and offer in order to take on the location, aggregation and dissemination of OER, as well as the promotion of their creation and use / reuse.
- The development of a competency framework that librarians should acquire in order to support OER initiatives, provide OER quality services and engage with the OER movement. This framework would guide the needed adjustments in library professionals' education and training.

In this regard we can highlight the International Association of Universities (IAU) OER project¹⁰, which aims to establish an international partnership for the development of a "Training Programme for Academic Librarians on OER Use, Reuse and Production", specially targeted to librarians in developing countries. This kind of effort reinforces the relevance of the library role for the OER movement and the need of further analysis and developments on this area.

2. OBJECTIVES

The main **objective** of this study is to explore the actual role and level of engagement of the Library as an organizational unit, and of individual librarians or information professionals, in Open Educational Resources initiatives.

In particular, it aims to:

- Identify the main objectives of a significant sample of OER initiatives worldwide in order to classify and characterize them.
- Identify the presence or absence of librarians working as part of at OER initiative teams, their number, and proportion and their level of engagement with the initiative.
- Establish relationships between the type of OER initiative and/or its main objectives and the level of engagement of the Library and librarians.
- Determine the Library's responsibility and awareness about the OER initiatives within its institution.
- Analyse the level of integration of the OER initiative and its resources at the institutional Library website, collections and searching services.
- Identify those tasks and processes in OER initiatives in which librarians are actively involved (e.g. location, aggregation, organization, management, and promotion of

¹⁰ IAU OER Project: <http://www.iau-aiu.net/content/iau-oer-project>.

- open educational resources, both institutionally and third-party developed) and their level of commitment.
- Determine the knowledge, skills and technologies needed to assume these tasks to work on OER initiatives, identifying those areas where librarians had expertise, or on the contrary, where further training is needed.
 - Investigate the perceptions of members of OER initiatives team about the role and involvement of the Library and librarians, in light of their past experience, present experience, and possible future activity.

3. METHODOLOGY

For the purposes of this study a mixed methods approach has been applied, incorporating both qualitative and quantitative aspects, including the design, implementation, and analysis of a survey addressed to OER initiatives worldwide. The main steps undertaken in the research were:

1. Selection of study population.
2. Survey design.
3. Implementation of the online survey.
4. Survey distribution.
5. Gathering and filtering results.
6. Analysis of survey results.
7. Extracting conclusions.

The target population of the survey has been deliberately left open to any institution, initiative, or expert worldwide dealing with OER and/or open content for learning and teaching, but focuses on the Higher Education context. The target population includes a wide range of projects approaching the creation and release of OER, and the dissemination and promotion of OER; the implementation of learning repositories or others management and publishing systems as Open Course Ware portals; the aggregation of open educational content; and so on. The emphasis here is on resources and so those projects focused solely on open educational practice were deemed outside the survey's intended scope. Respondents were normally individual OER team members who had a sufficient overview and insight of the project's current activities, team composition and profiles.

For the survey design, an iterative and evaluative process was devised, which included a pilot test with selected experts who could contribute to the instrument's on-going improvement and final refinement. The initial set of questions took into account previous work undertaken by John Robertson (2010b): in particular, a pilot survey used to analyse the involvement and roles of the Library and individuals in OER related

activities, distinguishing between the use and release of OER content. These questions provided an excellent starting point for this study, which has systematized and developed them further, collocating them with new questions that delve into various aspects of the relationship between libraries and OER. The result was a survey instrument comprising a final set of 15 questions, all of which were kept optional.

In the design of some of the questions—such as those dealing with the main objectives of the projects and their profiles of team members—some exploratory was conducted. The websites and descriptions of a considerable number of UKOER and OCW projects were studied, as well as some other initiatives listed on sources as OER Commons¹¹, allowing us to identify the common main objectives of this type of project and the different potential profiles of working teams.

The survey was implemented online using SurveyGizmo. The distribution and promotion strategy had two stages, the first included: sending general messages to targeted distribution lists (e.g.: oer-discuss@jiscmail.ac.uk, oer-forum@lists.esn.org.za, openness@listserv.educause.edu, oer-discovery@lists.ibiblio.org) and the UKOER participant list; posting in identified online communities such as the OCW Consortium¹² and WSIS Knowledge¹³, at John's CETIS blog¹⁴, and using Twitter. The second stage intended to increase the response rate by sending follow up reminders to invited participants, and individualized messages to targeted project managers or contact persons of OER projects (mainly selected from JISC OER Programmes¹⁵, HEA OER¹⁶ and OCW projects' webpages).

As for the survey, the provided utilities of the chosen survey platform - SurveyGizmo - were of great help in gathering and filtering answers. It distinguishes between partial and complete responses, which allowed us to easily discard all the partial responses which were empty or only included identification information. Those tagged as partially complete which provided information up to at least the 5th question (main objectives) were kept, and the 130 remaining were disregarded. Duplicates responses and contaminated answers were also discarded. The final number of screened responses was 57.

¹¹ OER Commons: <http://www.oercommons.org>.

¹² OpenCourseWare Consortium Communities of Interest: <http://www.ocwconsortium.org/en/community>.

¹³ WSIS Knowledge Communities: <http://www.wsis-community.org/pg/groups/14358/open-educational-resources-oer/>.

¹⁴ John's JISC CETIS blog: <http://blogs.cetis.ac.uk/johnr>.

¹⁵ JISC UK OER Programme Phase 1: <http://www.jisc.ac.uk/whatwedo/programmes/elearning/oer>, and Phase 2: <http://www.jisc.ac.uk/whatwedo/programmes/elearning/oer2.aspx>.

¹⁶ HEA Open Educational Resources: http://www.heacademy.ac.uk/resources/detail/oer/OER_phase2.

Although SurveyGizmo provides useful and comprehensive functionalities for automatic generation of summary reports, tables and charts, the resulting data were exported into Excel spread sheets and analysed offline. The raw data was split into several spreadsheets to allow for easier analysis of sections and specific questions, the creation of personalised tables and charts, and the cross analysis of particular questions.

4. SYNTHESIS AND DISCUSSION OF RESULTS

4.1. Section 1: OER Initiative

4.1.1. Country

Projects from seventeen countries in North and Central America, Europe, Asia, and Africa participated in the survey. There were no responses from Oceania or South America. The projects were based predominantly in United Kingdom, from where eighteen responses were received, followed by Spain and the United States, both with eight projects. There were also some participants from India (n=5), South Africa (n=5), Nigeria (n=3), and one each from Cameroon, Canada, and Dominica.

The distribution of participants cannot be explained by a larger number of OER initiatives in these countries, even though this may be true for the US and UK. Rather, it may be related to the survey dissemination strategy, as the lists and forums used, and the language of both the introductory messages and the survey itself could have discouraged some non-English speaking projects from participating.

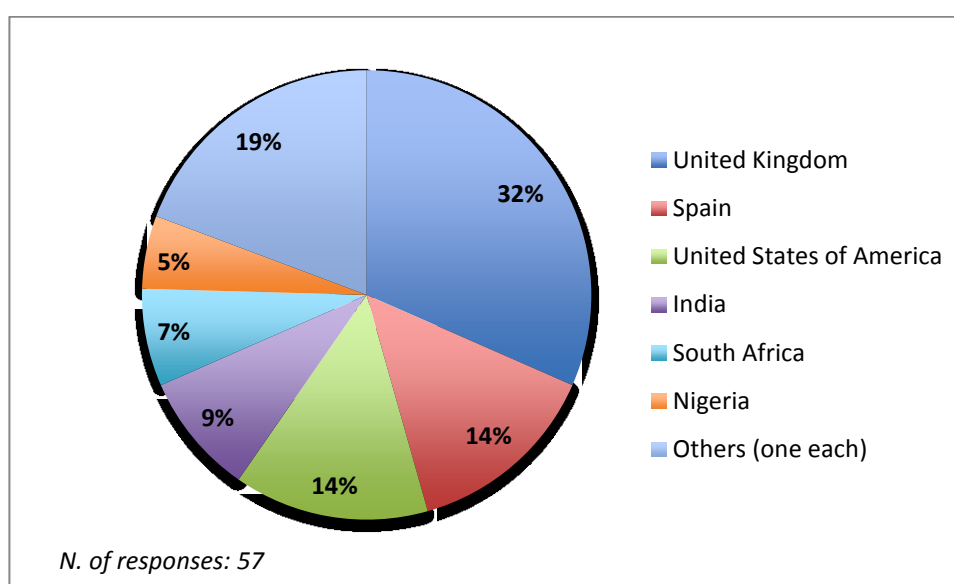


Chart 1. Survey participants by country

4.1.2. Type of organization

The broad majority of OER initiatives participating in the survey were based at Higher Education institutions, significantly public universities (n=44) and with a smaller number of private universities (n=3). The participation of three NGOs is notable as that type of institution was not originally among the survey choices, but was identified using the “Others” option. It is also worth noting the participation of types of

organizations: two research institutes, an international organization, a private learning centre, a high school, and a publisher.

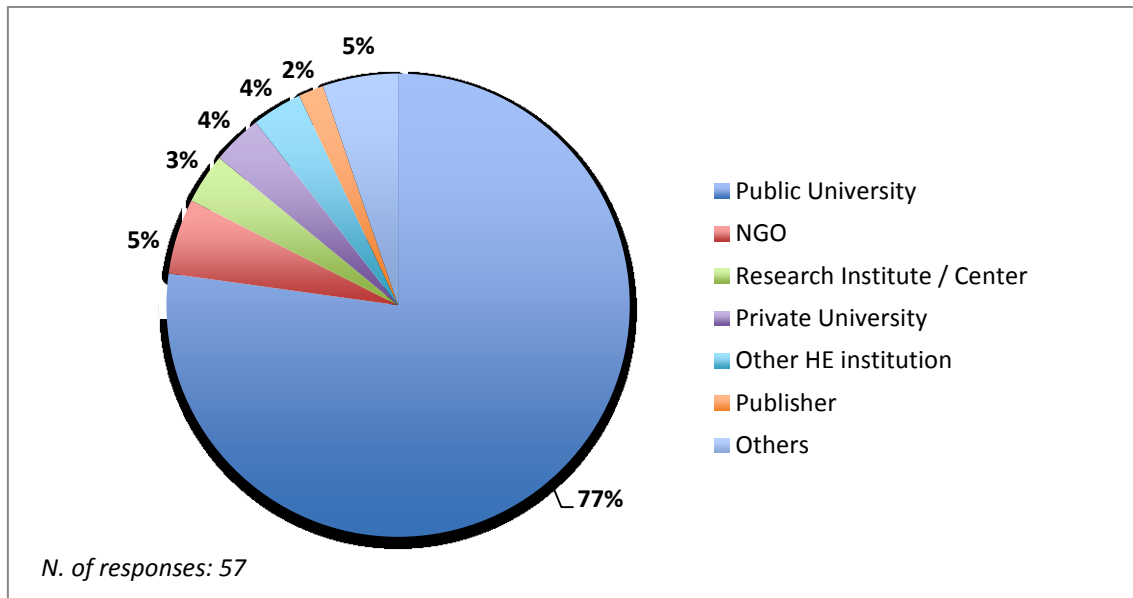


Chart 2. Participants by type of organization

4.1.3. Main objectives of the OER initiative

Question 5: Within the following areas, which are the main and secondary objectives of your project?

This question has provided valuable information allowing us to identify the main objectives and areas covered by a representative amount of OER initiatives worldwide. For this reason, the data of those respondents who only answered this first section was also included in the overall results.

An overall view of this grid question indicates that there is a good balance between the three areas identified (development and release, support and research) and their selection as main objectives of the project. A closer look shows that the activities considered a main objective for a higher number of projects were: “Implement a repository or a content management/publishing system for OER release” (n=33); “Release existing institutional content as OER” (n=32); and “Raise awareness of OER and encourage the use of open educational content within the local academic community” (n=30). If we consider together those answers that chose an activity as either a main or a secondary objective, the more popular continue to be the same three but in reverse order.

Every option provided has been chosen as a main objective by more than ten respondents. The least popular main objectives were “Research on cultural issues” and “Coordinate and promote OER initiatives”, both selected by eleven participants.

Respondents most commonly identified the following activities as “out of scope”: “Develop new OER from open content sources” and “Research on cultural issues” both chosen by fourteen projects. Also “Aggregate multiple OER sources (internal and external) in a collection”; and “Coordinate and promote national / regional / international OER initiatives and open educational practice”, by 13 projects. The area with a higher proportion of “out of scope” activities is the research one, where every option but one has been considered so at least by ten projects.

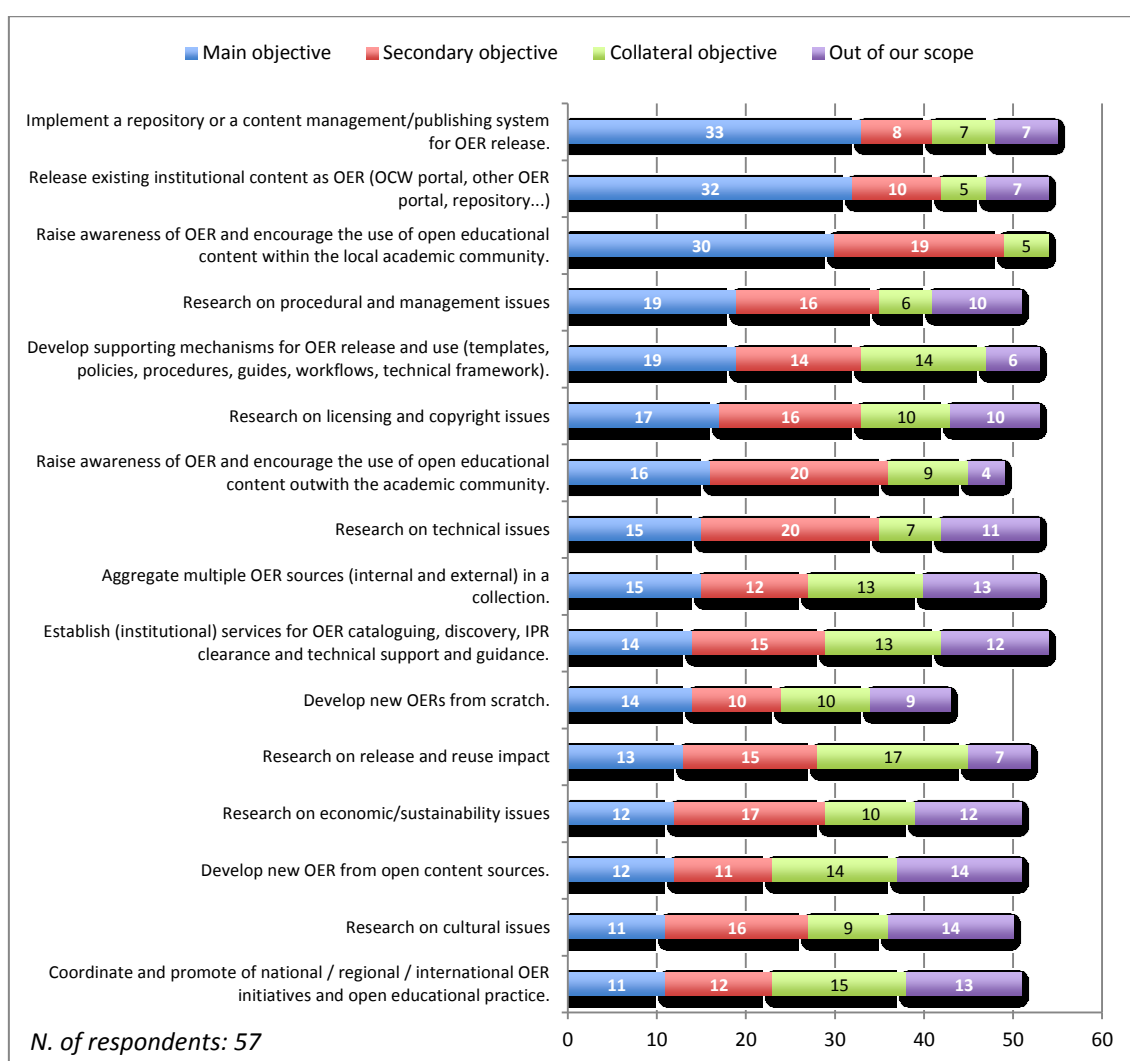


Chart 3. Mains objectives of participant OER initiatives

It is worth noting the high number of activities chosen as a main objective by each project. The average of main objectives by project is almost four (=3,68). Even if nearly a majority of projects chose one to three main objectives (=27, or 47%), there are a considerable number of initiatives that chose more than 5 main objectives, reaching

up to ten in two cases. Conversely, there were five initiatives whose main objectives did not match with the ones proposed in the survey.

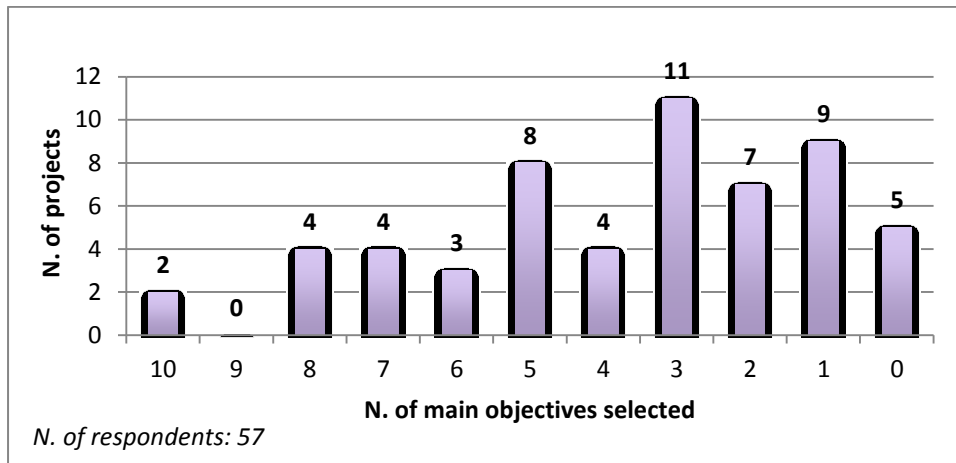


Chart 4. Number of main objectives selected by each OER initiative

Regarding the results by the categories of objectives established *a priori*, it is noticeable the predominance of support objectives selected as a main priority (=43,5%), followed by research ones (=30,7%) and development and releasing objectives (=25,8%). These percentages could be slightly balanced if we make the adjustment by number of objectives of each type (the Develop group only has five objectives, while the others have 6). Nonetheless, supporting objectives continue to be the most selected ones (=41,3%).

It is not possible to identify a clear pattern or relationship between the type of project and the area and/or number of their main objectives. For example, one project named “OER development” selects just one main objective among the Development ones, and four from the Supporting initiatives section. Moreover, some projects might be considered to be very similar, as OCW initiatives, show a heterogeneous prioritization of objectives among the three categories.

4.2. Section 2: Storing and dissemination of OER

4.2.1. Storing strategies

Question 6. IF your project is committed to creating new OER content or releasing existing learning resources as OER, how do you store these materials?

Respondents outlined a broad range of practices and strategies for storing OER content created or released within their initiatives. As illustrated in Chart 5, most of the respondents use institutional repositories of learning content (n=22) or other institutional repositories (n=17), and the OCW portal (n=20). These results are

consistent with the fact that the implementation of a repository was among the main objectives of thirty-three projects, and that many participants were OCW projects.

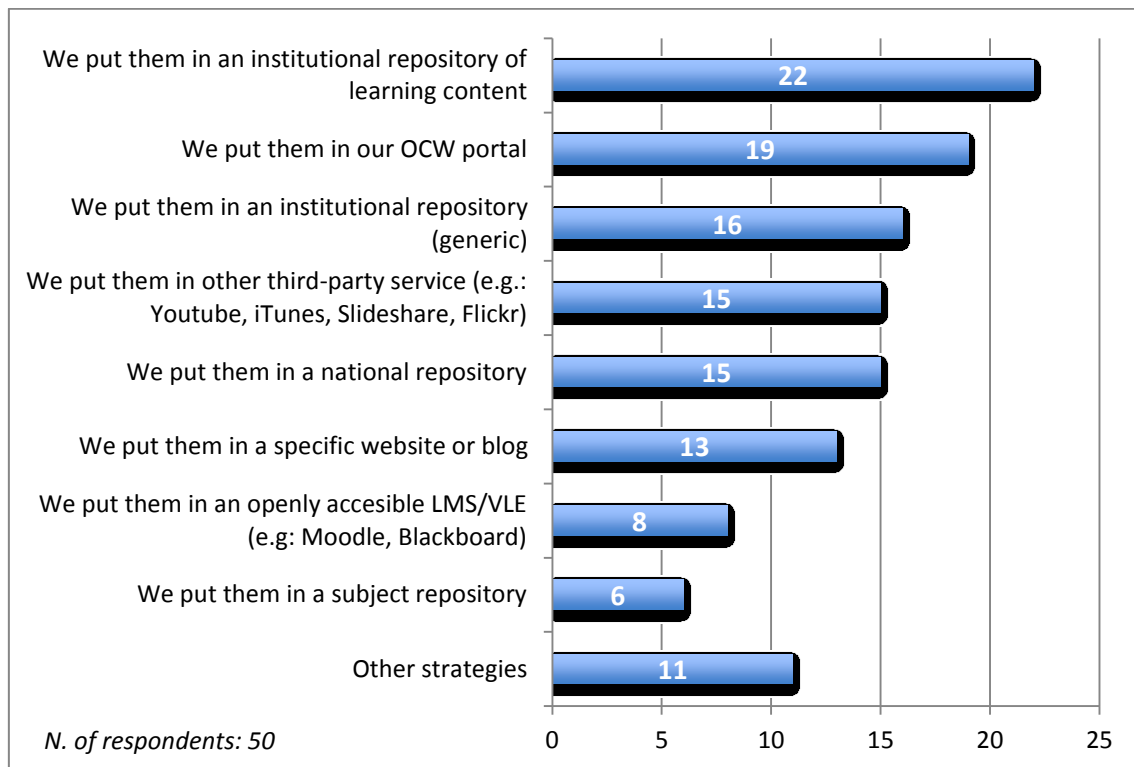


Chart 5. Storing strategies for OER content

It is worth mentioning that, as well as depositing the OER on various kinds of repositories, some projects also store and release their content through third party services (n=15), open LMS/VLEs (n=8), and project websites/blogs (n=8). Furthermore, one fifth of the projects did not make use of any kind of repository. There were some initiatives whose unique storing and releasing strategy was through their project's websites/blogs (n=5), or the OCW portal (n=4), and three of them use the OCW portal together with a 3rd party service.

It should be noted that twelve projects also reported other storing strategies including project servers, university websites, virtual classrooms, state/regional and community-based repositories. One of them also mentioned the federation of metadata with harvesting services.

In considering the number and range of storing strategies followed by each project, a broad distribution of patterns has been identified. Only thirteen projects had just one strategy while the broad majority carried out two (n=20, more than a third of respondents to this question), or three actions (n=8). Moreover, just below one fifth of respondents reported to have adopted four to seven storing strategies.

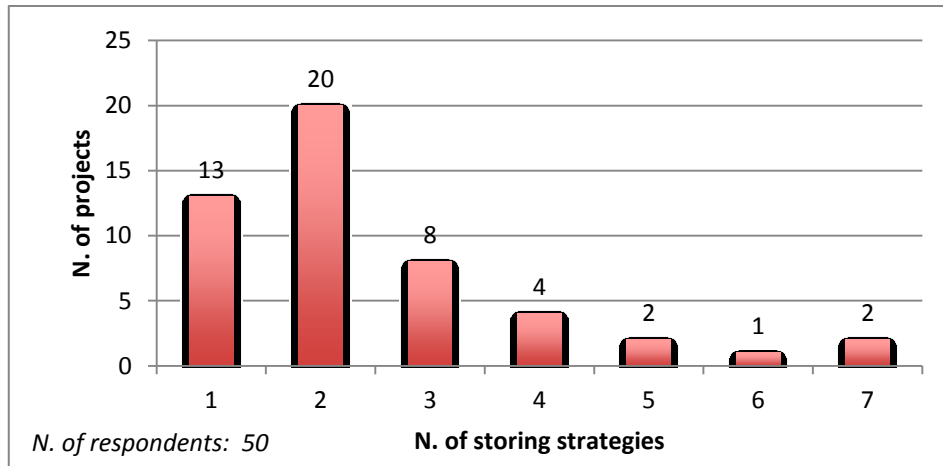


Chart 6. Number of storing strategies adopted by each OER initiative

These results may indicate whether respondents have different collections of OER content being stored separately, that OER are located at different places along their lifecycle, or that some of the content is stored duplicated for multiple audiences or with different purposes, as long-term preservation and access. It could be also the case that content is stored in one system while its metadata is stored and/or harvested by many other system in order to foster their visibility and location, as some of the free responses suggest.

4.2.2. Dissemination strategies

Question 7. Besides storing your content, do you carry out any of the following specific strategies for disseminating and fostering the visibility and discoverability of your OERs?

In order to foster the visibility and discoverability of their OER content, the participant projects include distinctive metadata tags (n=27), use social media channels (n=25), and optimise their sites and resource descriptions for search engine discovery (n=23) beyond the use of these metadata tags. Some projects have chosen uploading the content to third-party services (n=17), integrating them in the institutional LMS (n=13) or being indexed by aggregators (n=12), helping global and local users in finding and using their resources. Only four respondents considered that depositing content in their repository or website was, on its own, an adequate strategy to promote the visibility and discoverability of their content.

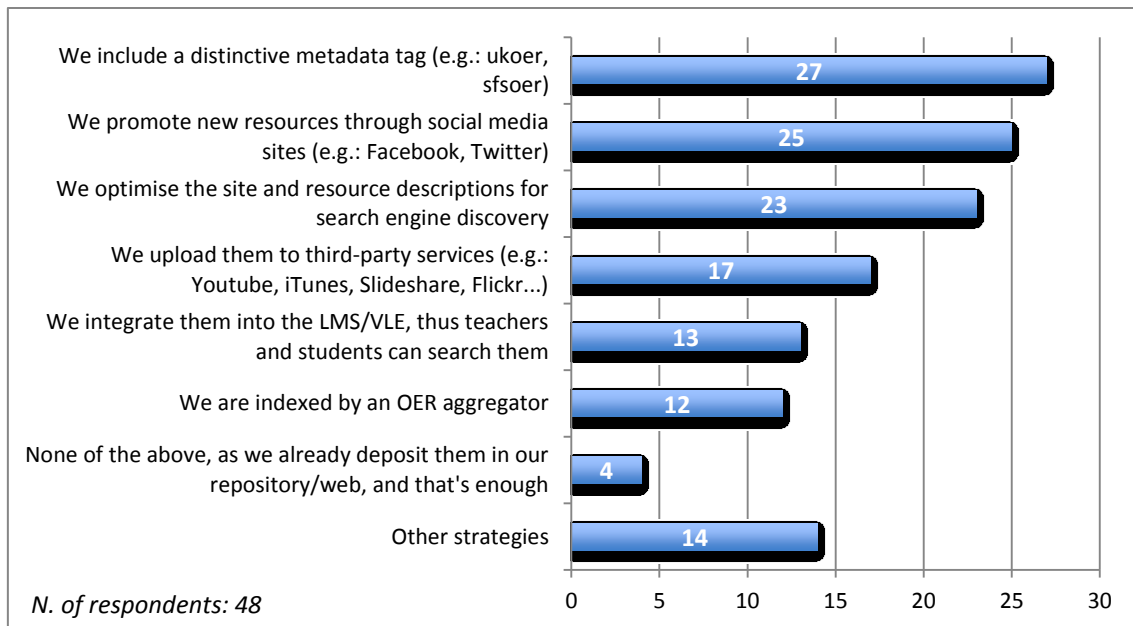


Chart 7. Dissemination strategies for OER content

Considering the number of strategies chosen by each project, even if many of them implemented just one strategy (n=11), there were a considerable number of projects that selected two (n=12) or more dissemination activities, reaching up to six in one case. Among the respondents that implemented just one strategy, these were: promote them through social media sites (n=5), integrate them into the LMS/VLE (n=2), upload them to third-party services (n=2), include a distinctive metadata tag (*ukoer*, *sfoer*) for general search engines (n=1), and one indicated the use of RSS syndication at the open answer. Also, two respondents argued they did not need any further strategy as they already deposit the content in the repository or publish it through their website, and another just advance their plans for future dissemination activities.

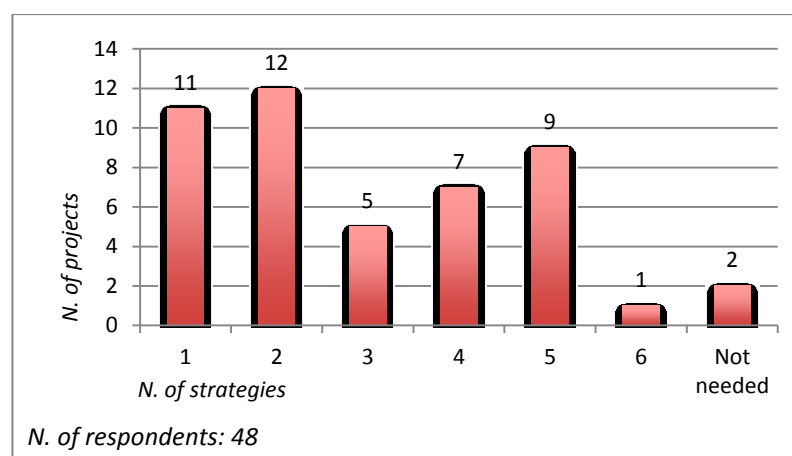


Chart 8. Number of dissemination strategies by OER initiative

While having a similar distribution as the number of storing strategies, that could be associated with the reasons suggested above (e. g. multiple collections of the same initiative), the fact that most of the projects apply just one or two disseminating strategies (half of those who answered to this question) is a bit under expectations. A major number of strategies and dissemination channels per initiative would be expected, considering their positive and multiplying effect on the broader access and use of OER.

4.2.3. Library integration strategies

Question 8. Does the Library integrate these resources as part of the institutional information assets?

The integration of OER content in the library services and collections is not yet widespread. Most of the initiatives are simply linked from the library home web page (n=24) or the e-resources collection (n=11), and in some cases their OER are included as recommended resources in the subject reading lists (n=5). A very few of respondents integrate this collection of educational materials for searching functionalities, whether into the e-resources meta-search service (n=6) or the library catalogue (n=3).

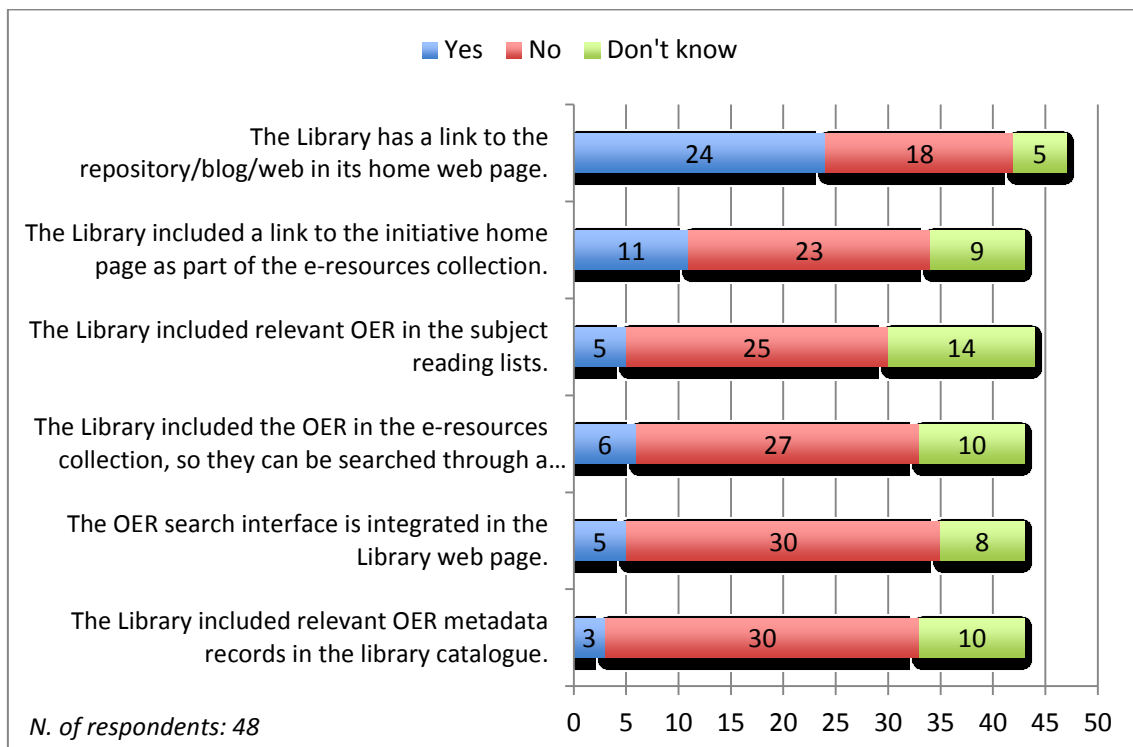


Chart 9. Strategies for integration of OER initiative outputs at the Library resources and website

A closer look to the responses indicates that the projects with a higher integration with the library (selecting the last three options) don't follow any specific pattern, thus we

can find: three OCW portals, two repositories, and an institutional collection of learning objects. The initiatives that actually had their contents integrated into the library catalogue were the OCW projects mentioned above, and another one focused on OER releasing without any specific storing and dissemination platform.

There is a considerable number of “Don’t know” answers to many of the options, and even six respondents chose that option four or more times. These results suggest a high level of non-awareness both from OER initiatives with regards to library activities and from the libraries about the resources released by such initiatives.

4.3. Section 3: Professional profiles and level of engagement of team members

4.3.1. Profile of team members

Question 9. Which are the profiles of the team members in your OER initiative?

This question has provided valuable information regarding the number and profiles of team members of the OER initiatives participating in the study. As for the number of members of each team, it should be noted that generally, they are small teams up to five members (n=18), and that most of them have ten or less constituents (n=28). Just below one third of them (n=14) are medium-size projects (from eleven to thirty members) while there are four exceptional projects involving over one hundred members. A more detailed analysis of these numbers allows us to put forward two possible explanations for these significant differences: in two cases, they could have stated the approximate overall number of members at the institution (lecturers, researchers and other profiles); and for the other two, they might have included as project members all those authors and content creators who have contributed content to the project.

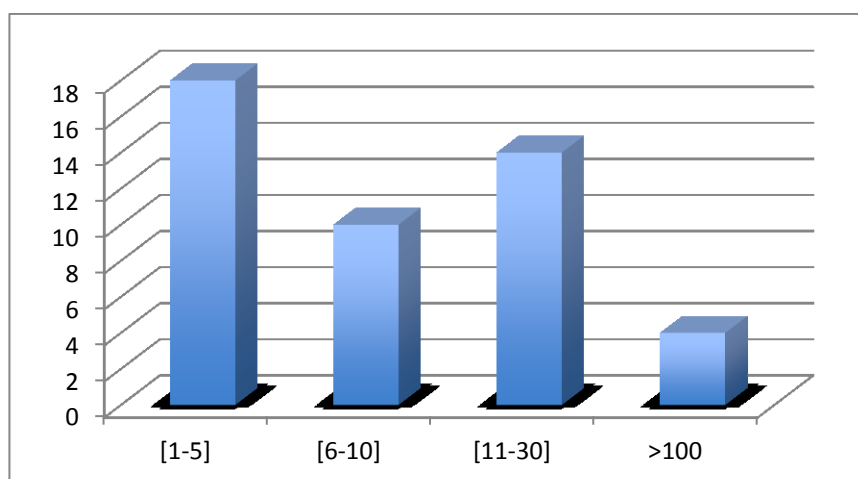


Chart 10. Number of team members per project

Here we might question the adequacy of the question design and the information and instructions provided by the survey, which may have led to confusion to some participants. However, in the second case, those initiatives which may have accounted all the authors and content creators as team members, poses us a conceptual dilemma. These agents are certainly part of the initiative, whether or not they are responsible for putting up and manage the project.

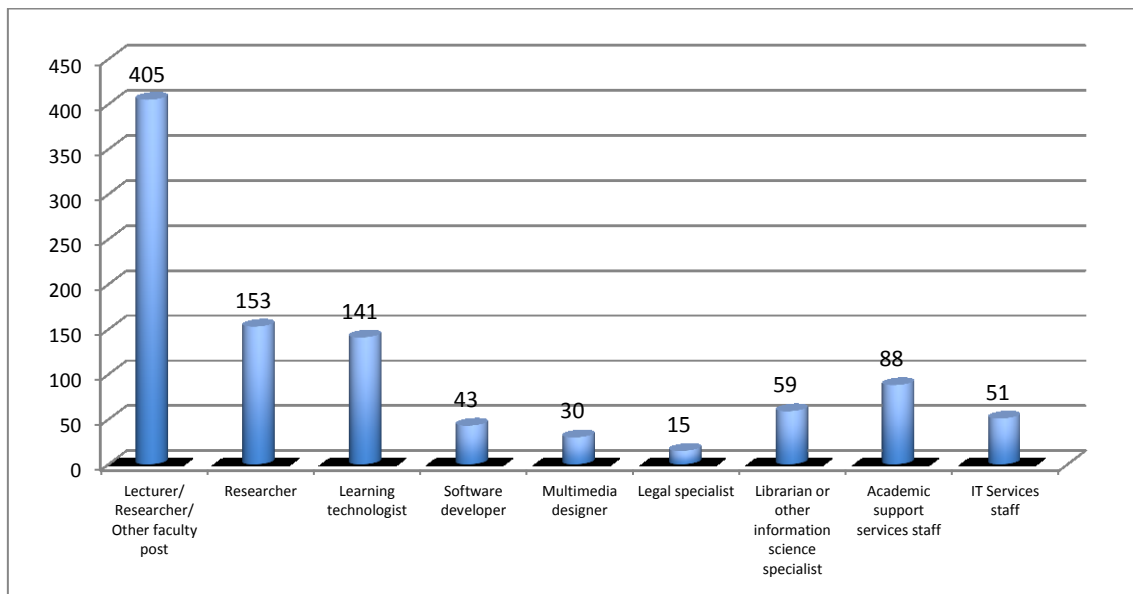


Chart 11. Number of profiles engaged in OER initiatives

At these OER initiatives, the more commonly involved professionals are lecturers (n=405 members), researchers (n=153), and learning technologists (n=141). These are followed by academic support staff (n=88), librarians or other information science specialists (n=59) and IT services staff (n=51). The less commonly involved professionals are legal specialists (n=15), and some technological professionals as software developers (n=45) or multimedia designers (n=30). The high number of lecturers, researchers, and learning technologists might be a consequence of those exceptional projects commented above, composed mainly by these professionals.

Considering the presence of these roles with at least one team member, the librarians are the ones engaged in a broader number of projects (n=34), followed by lecturers (n=31), software developers (n=26), learning technologists (n=24), academic support staff (n=24), and IT services staff (n=23). Multimedia designers and legal specialists are the roles involved in a fewer number of projects.

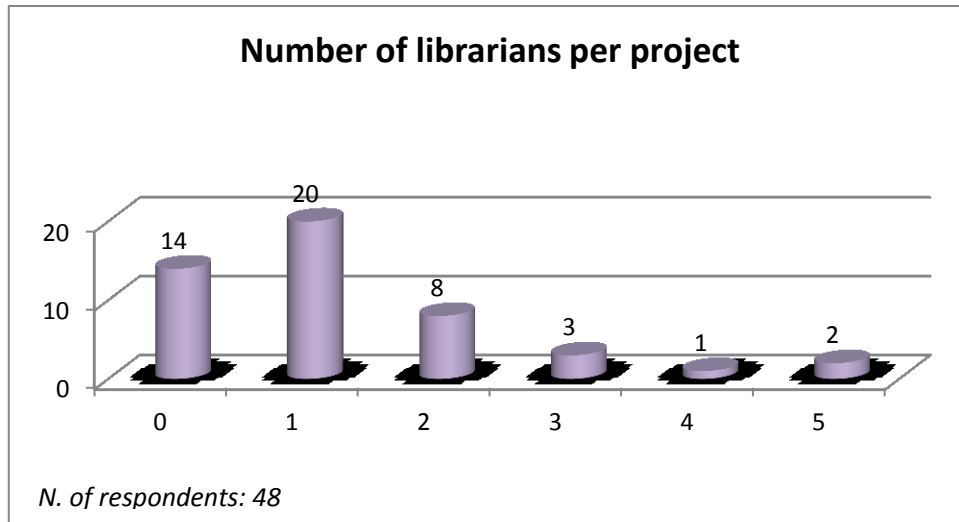


Chart 12. Number of librarians per OER project team

Within the thirty-four teams including librarians, most of them have a single librarian (n=20), and none has more than five. Within these teams, they usually represent less than half of the members (85%). There were only two projects exclusively managed by librarians, and in both cases they were based at the institutional library. These were an OCW portal and a university library developing OER content on information literacy. Furthermore, for those initiatives having more than one librarian in their teams, in half of them the Library was leading/co-leading the initiative, and in the other half, the Library was a partner on the initiative, which could contribute to this slightly bigger presence.

4.3.2. Engagement of librarians in OER initiative

Question 10. IF there is a library or information science specialist in the OER initiative team, which is his or her level of engagement and workplace?

The level of engagement of librarians involved in these projects is somewhat limited, as they are mainly institutionally based at the library or information services (in 23 initiatives), and only 4 of them are exclusively dedicated to the OER initiative. It is worth noting the involvement of library and information science lecturers as collaborators on three initiatives and the participation of external specialists in one case.

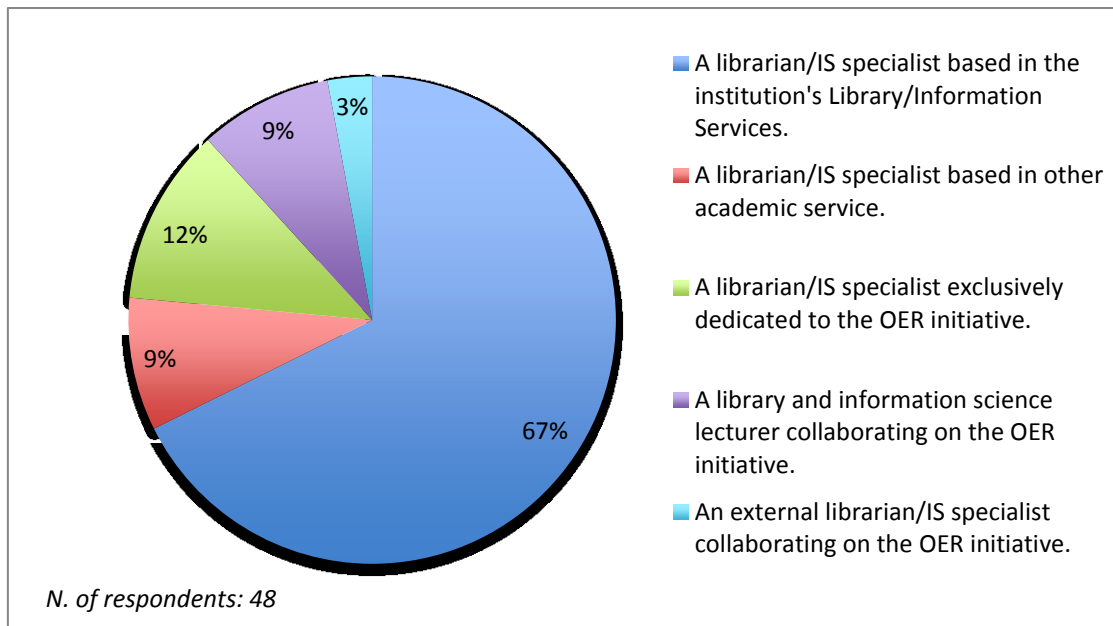


Chart 13. Level of engagement of librarians within the OER initiative's teams

As happened with the main objective question, no clear patterns could be identified among the projects that do or do not have a librarian in their teams, showing a broad heterogeneity of situations. This suggests us the need of a further analysis on initiatives' leadership and library engagement.

4.3.3. Absence of librarians in OER initiative

Question 11. IF there is NOT a library or information science specialist in the OER initiative team, could you state the main reason for that?

Among the reasons argued not to have a librarian in their teams, the most common are that they "just need their occasional advice", or "are planning to do it", both chosen by five respondents (24%), mainly OCW projects. Only two projects considered that they "don't need the librarians for their purposes", being initiatives mainly focused on the development and content repurposing for reusable OER and the implementation of a repository. Seven participants stated other reasons, related to competence issues between the library and other services, lack of collaboration within the institution, and even economic barriers (see Appendix).

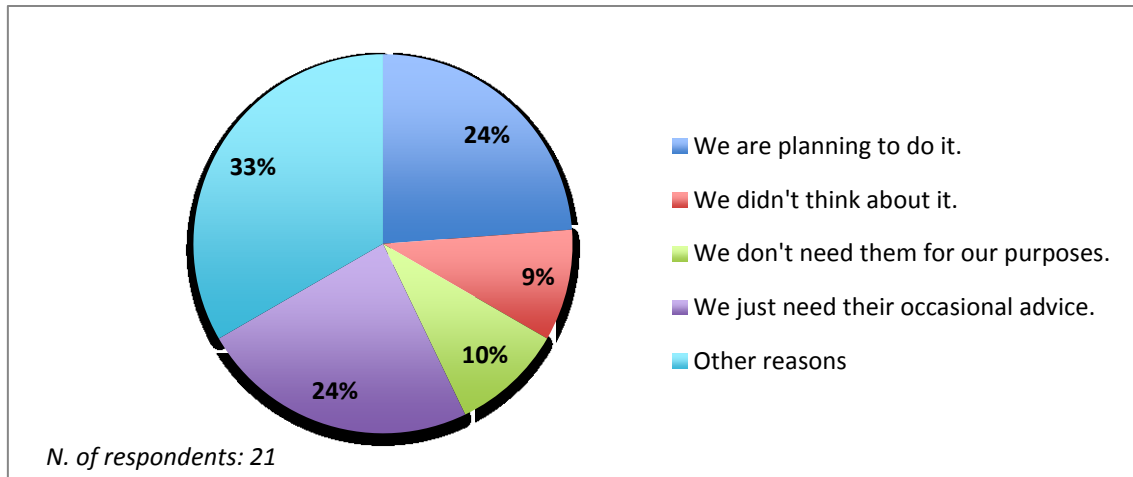


Chart 14. Reasons for absence of librarians with the OER initiatives teams

4.4. Involvement and roles of the Library in the OER initiative

4.4.1. Involvement of the Library as an organizational unit.

Question 12. Besides the presence or collaboration of librarians and/or other information specialist in your project team, which is the involvement and commitment of the Library as a unit in your OER initiative.

When asked for the involvement of the Library as an organizational unit, eleven projects stated that it is leading or co-leading the OER initiative, in twelve cases act as a partner, and in eleven projects the Library just support the initiative as an organisational effort, without having an specific role on it. There is a considerable number of OER projects where the Library has neither an active nor a support role, whether it is aware (n=2) or not of their efforts (n=8).

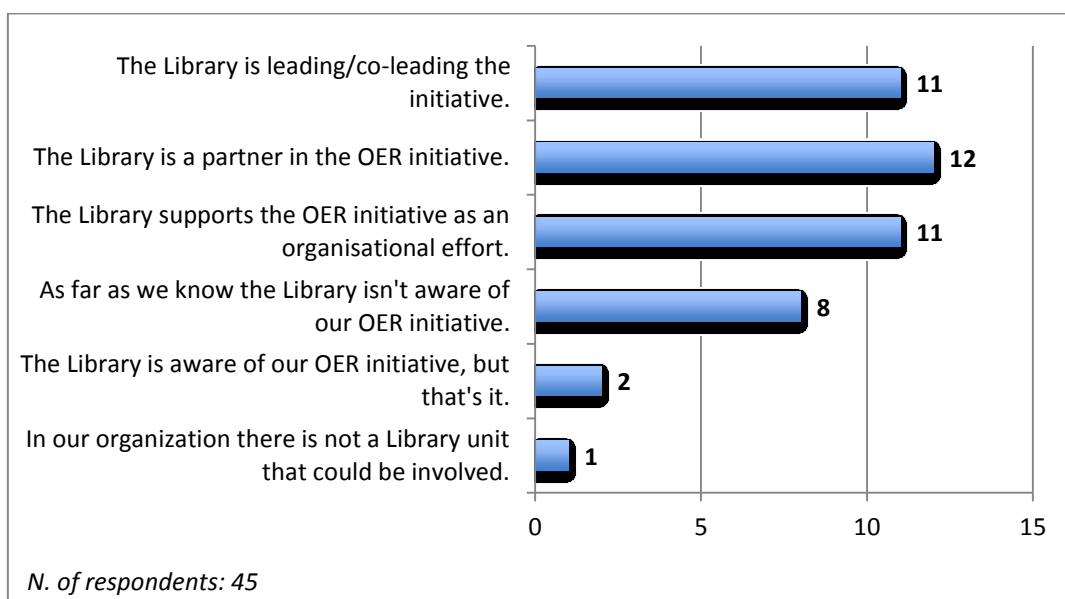


Chart 15. Level of engagement of the Library as an organizational unit

4.4.2. Responsibility of librarians in specific activities

Question 13. In which of the following activities are the librarians or the Library involved in your OER initiative and which is their level of responsibility/commitment?

The results have shown that the Library and librarians have specific and clear responsibilities at OER projects, which are not always within the classical remit of library activities. They are mainly responsible and actively working on description and classification (n=13), preservation (n=11), dissemination (n=11) and management (n=10) of OER content, and also for the promotion of the OER initiative (n=12) or OER use (n=10) across and beyond the institution.

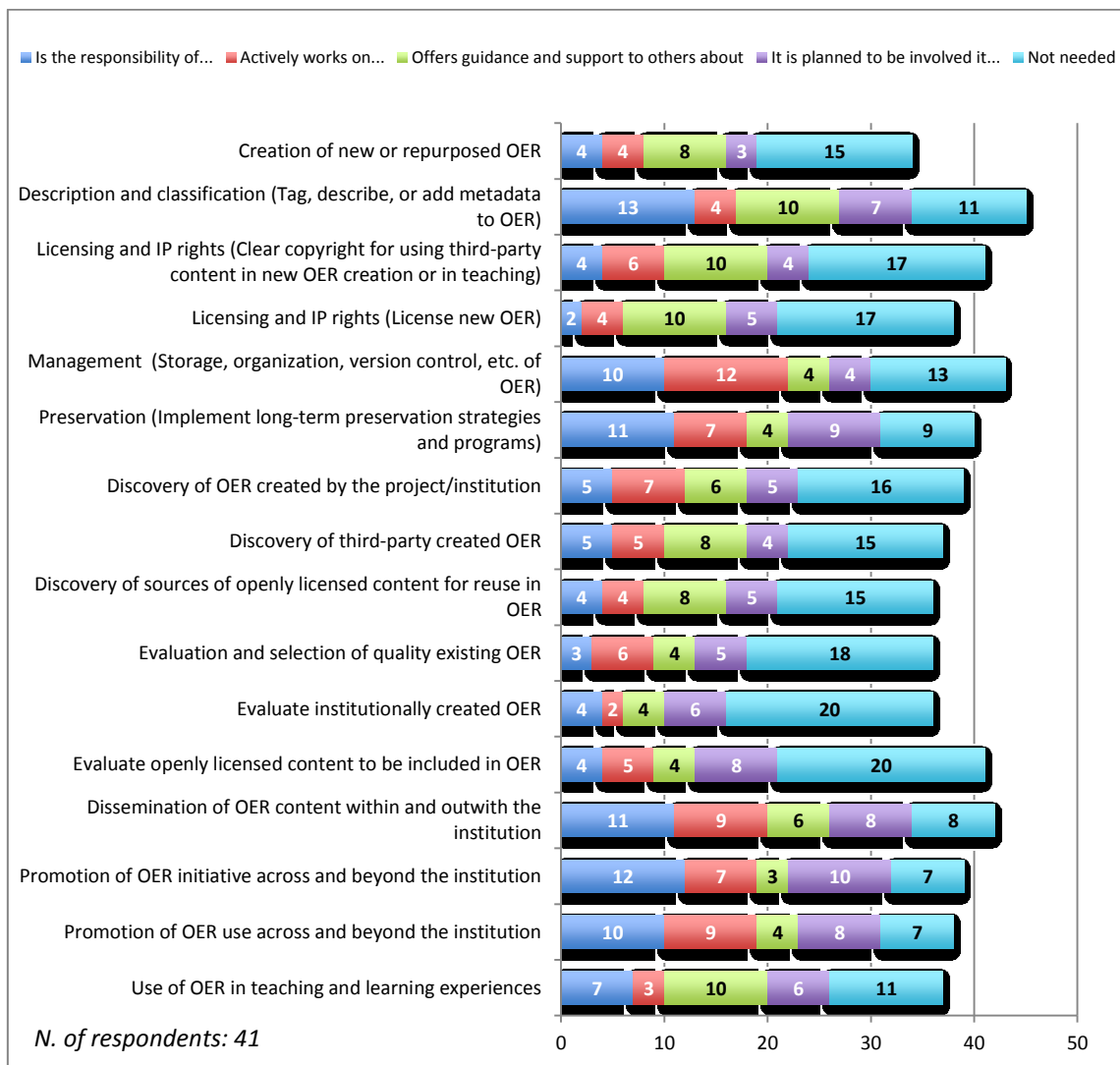


Chart 16. Level of engagement and responsibility of librarians in specific activities

As for the guidance and support roles, again we find the description and classification of OER (n=10) but licensing and IP rights are highlighted, whether they deal with third party or new OER content (ten projects for each one). Also they offer guidance for the

use of OER materials in teaching and learning experiences (n=10) or even the creation of new or repurposed OER, and the discovery of third-party created OER or open content sources to be reused at OER development (each one selected by eight projects).

There are many other activities where the library is planned to be involved: promotion of the OER initiative (n=10) and OER use (n=8); preservation (n=9) and dissemination (n=8) of the institutional OER content; and evaluation of openly licensed content to be included in new OER (n=8). The number of tasks not needed is significant; the most common ones being the evaluation, discovery, and licensing related ones.

4.4.3. Expertise and skills development of librarians

Question 14. IF librarians, or other individuals with information science skillsets were involved with your OER initiative, in which of the following areas and technologies did they have, or need to develop expertise (in the context of your project)?

As we might expect, the librarians were shown to have expertise in most of the general library and information science technologies and activities needed at OER initiatives. Primarily in indexing and classification techniques (n=24), information literacy and information retrieval (both at twenty-two projects), and in the use of general purpose vocabularies and classifications (n=21) and metadata standards (n=19). They also had some expertise in specific e-learning and OER knowledge, technologies and standards already known by librarians, mainly basic OER concepts (n=16), learning content management tools (n=14), and learning content metadata (n=13).

The areas where librarians needed to develop expertise were mainly specific to e-learning and OER, such as learning content package standards (n=19) or learning content authoring tools (n=17). Nevertheless, there were also some areas of expertise of relevance at the the library/information systems domain where further skills were needed, e.g. licensing options and technologies (n=17), SEO (n=16), preservation techniques, technologies and standards (n=15), or communication protocols (=14).

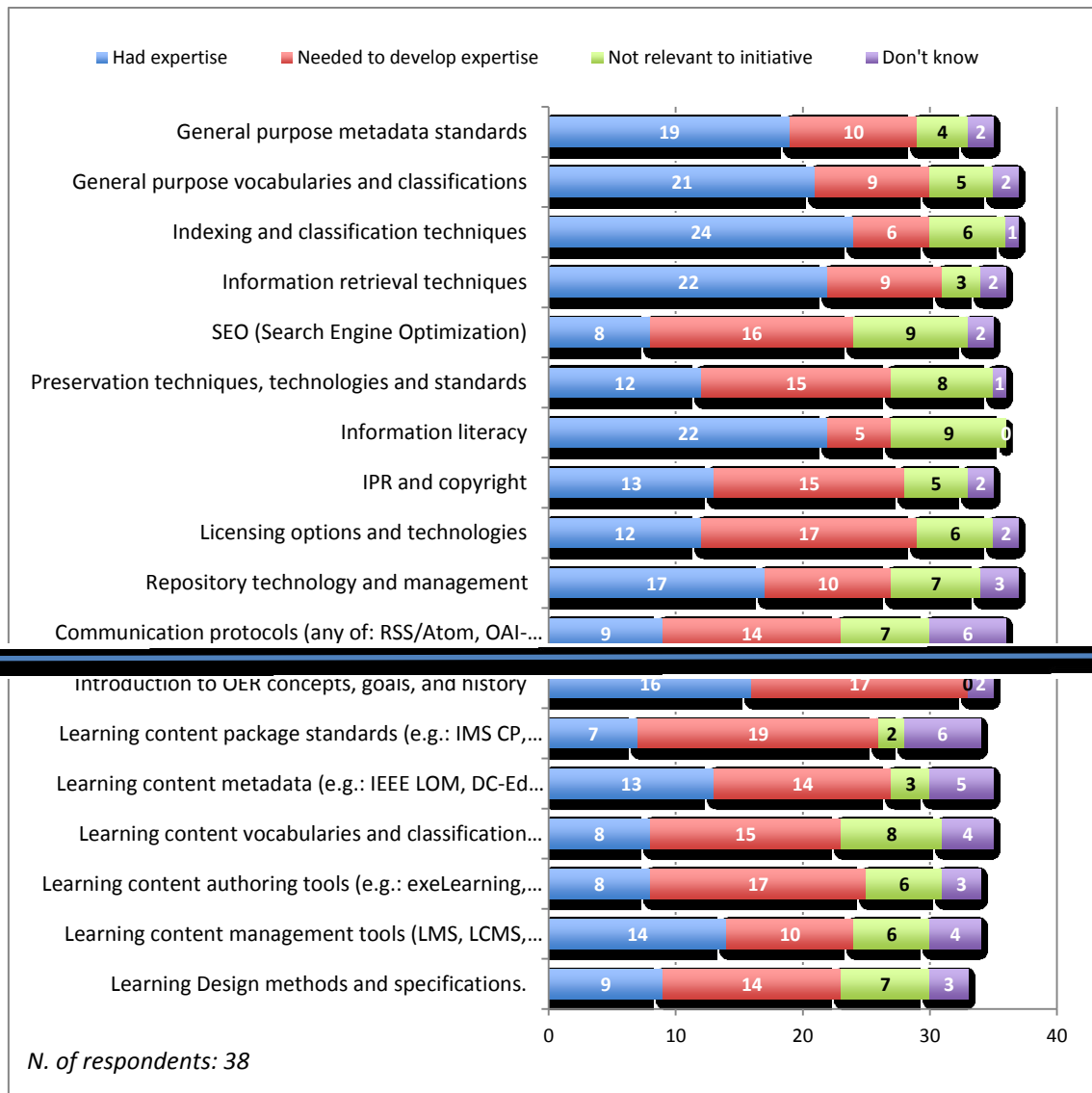


Chart 17. Level of expertise and need of skills development of librarians in OER initiatives

4.5. Final thoughts

4.5.1. Assessment of library involvement in OER initiative

Question 15. In your opinion, how would you rate the past, present and future involvement of the Library and librarians in your OER initiative?

Most of the participants considered the involvement of the library so far as absolutely indispensable (36%) while many of them rated it as very valuable (25%) or helpful (23%). Only five projects stated that its involvement had no influence for them and two that it has been insufficient.

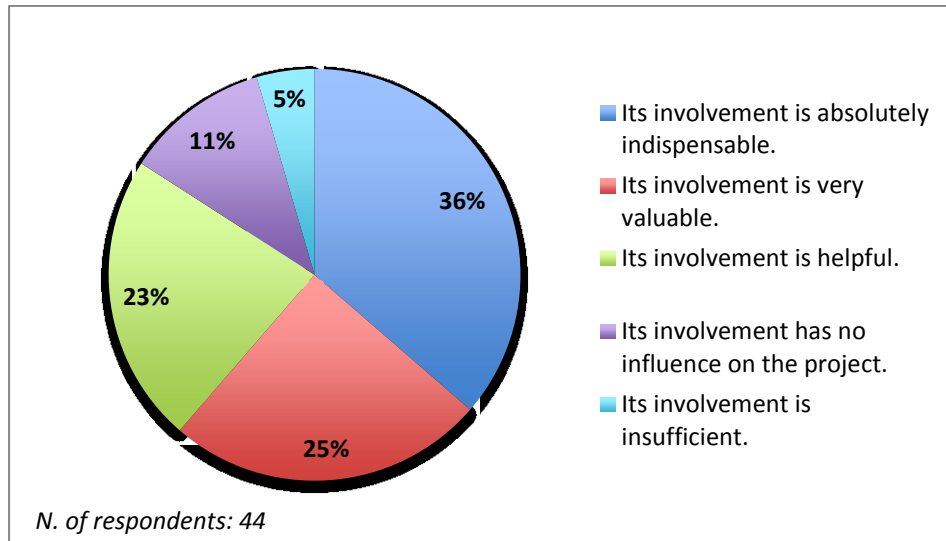
Past and present involvement

Chart 18. Opinions on the past and present involvement of the Library/librarians

Future involvement

Those respondents which projects already have librarians on their teams indicated that its on-going involvement is helpful, and there are only two cases where they are not needed.

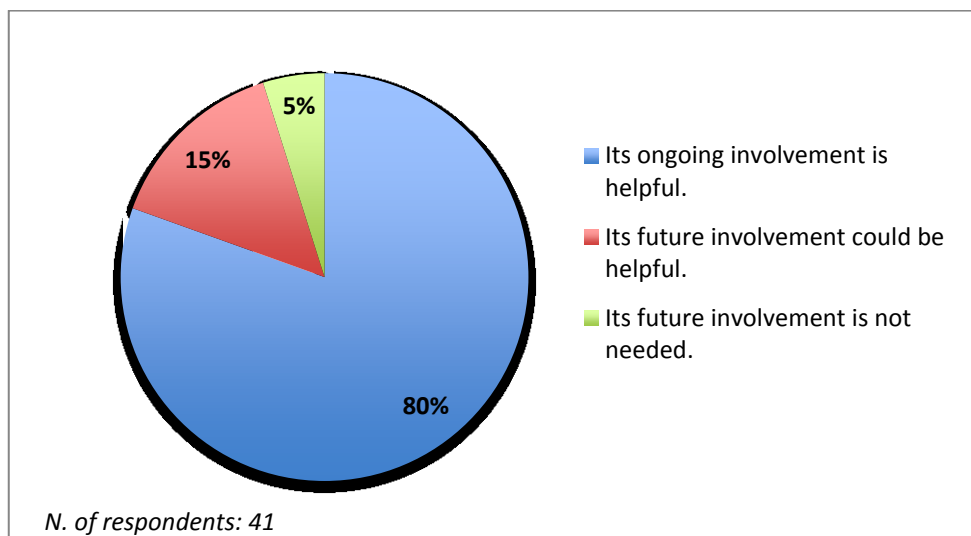


Chart 19. Opinions on the future involvement of the Library/librarians

A significant number of open-ended comments have been gathered within the last question, offering different responses. Some of participants gave extra information or clarifications about their OER initiative, as their objectives and state of development, in most of the cases related to the library role on it. Many provided their opinion about the need of the library or the convenience of their collaboration in the project, generally with a positive perception of it. There were also some comments related to the survey itself, both noting difficulties in answering some of the questions and even some offering suggestions for future surveys.

5. CONCLUSIONS AND RECOMMENDATIONS

This study has enabled us to draw many valuable conclusions at various levels, pertaining particularly to the objectives, practices and dynamics of OER initiatives; the actual role and importance of librarians of the Library and librarians in OER initiatives, as well as the opportunities and potential contributions of librarians of the Library and librarians in such initiatives; and, the needs for further training and advocacy about the implications and opportunities of OER for the LIS domain. We were also able to draw some conclusions about the design of the survey itself.

The most significant results are related conclusions are the following:

- The participating initiatives show a good balance of dedication to the three areas where the OER related activities and objectives were classified: Develop and release, Support, and Research, with a slight predominance of the Support area of activities. For these initiatives, the three most important objectives were: releasing existing institutional content as OER; implementing a repository or a content management/publishing system for OER release; and raising awareness of OER and encourage the use of open educational content within the local academic community--each of them representing one of the three areas identified.
- The OER initiatives responding to the survey rarely have a single area of activity and usually have a combination of many objectives of different nature. The majority of them (85%) selected more than one main objective, ranging from zero to ten, and with an average of almost four (=3.68).
- Contrary to expectations, it has not been possible to identify a clear pattern or relationship between the type of project and the area and number of objectives selected. For example, some projects that could be considered similar, as OCW initiatives, show a heterogeneous prioritization of objectives among the three categories. These results suggest the need for a reformulation of this specific survey question, considering the option of prioritization of objectives or restricting the number of main objectives to be chosen.
- There is a broad range of storage strategies used by OER initiatives. However, the use of repositories is widespread, as more than a half of respondents (=39) store their OER at learning content repositories (=22), institutional repositories (=17) as well as state/regional and community-based repositories. Also, consistently with the kind of participant projects, many respondents use the OCW portal (=20) for storage purposes. There is also a considerable use of third party services (n=15), open LMS/VLE (n=8), and project's websites/blogs (n=8).
- The use of multiple storage strategies is common practice among OER initiatives participating in this study. 75% of respondents stated they use more

than one storage strategy, reaching up to seven in two cases. These results demand a further analysis, as many scenarios could be drawn: initiatives having multiple collections of OER content being stored separately; storage of OER at different locations along their lifecycle; or duplicated storage of OER for multiple audiences or with different purposes, as long-term preservation and access.

- The strategies for improving the visibility and discoverability of OER are diverse. Like the storage strategies, most of respondents applied more than one strategy (70%) to support both the institutional and external users. For institutional users, some projects integrate their content in the institutional LMS (=12). And for the wider public, the most common practices are: optimization of project's sites descriptions and contents for search engine and aggregators indexing (n=23), using distinctive metadata tags (n=27), using social media channels to promote the content (n=25), and even the upload of OER to third-party services (which benefit from a pre-existent community of users).
- The scenarios suggested above regarding storage strategies could also explain this multiplicity of strategies for visibility and discoverability. However, in this second case they are fewer than expected, given that a larger number of dissemination channels per initiative would have a positive and multiplying effect on the broader access and use of OER.
- Collaborations between OER initiatives and Libraries about the storage of OER or improving their discoverability are not yet widespread. Just eleven respondents asserted that their Libraries link to the e-resources collection, very few integrate this collection of educational materials with search functionalities, whether into the e-resources meta-search service (n=6), the library catalogue (n=3), or in some cases by including OER as recommended resources in the subject reading lists (n=5). Furthermore, in many cases the Library does not even have a link to the OER collection or project website. This fact, together with the high number of "Don't know" responses, indicates a distinct lack of awareness both from OER initiatives with regards to library activities and from the libraries about the resources released by them.
- The majority of OER initiatives responding to the survey have small teams, up to ten members (80%). Four of them, however, stated that they have teams of over a hundred. These teams are (in decreasing order) composed of: lecturers, researchers, learning technologists, academic support staff, librarians or other information science specialists, and IT services staff. OER initiatives have a predominance of active content creator roles (as lecturers, researchers and learning technologists), while other support and technical staff hold a secondary role.

- From these responses, librarians are the ones involved in a larger number of projects (=34), even if they more frequently account for only one team member (=20). It is significant that among those initiatives that had more than one librarian in their teams, at half of them the Library was leading/co-leading the initiative, and in the other half, the Library was a partner. There were two projects exclusively managed by librarians, in both cases the projects were based at the institutional library.
- The most common reason for not having a librarian in the project team was that occasional advice from a librarian was sufficient (n=5). Only two projects considered that collaboration with the library / librarians was not needed at all. Other barriers to the participation of librarians in OER initiatives included, conflicting/duplicating of competencies with other services and economic barriers. A good sign is that some projects stated their intention to include them in the near future.
- Most of the librarians involved in OER initiatives are based at the Library (76%), and they hardly have exclusive dedication to the project (four respondents). Therefore, we can presume that librarians' involvement in OER projects is somehow limited, as they should share their time and dedication among multiple tasks and responsibilities.
- Only one of every four OER initiatives are led or co-led by the institutional Library. Instead, the Library plays other roles at the same proportion (one of four): act as a partner; just support the initiative as an organisational effort; or even does not play any role at all, regardless of being aware of the initiative or not.
- OER Project librarians have specific and clear responsibilities, although they are mainly responsible of traditional library activities (description and classification, preservation, dissemination and management of OER content). In many cases, Libraries and librarians are also in charge of promoting the initiative and the use of OER across and beyond the institution. As for the guidance and supporting activities, apart from those traditional competences already mentioned and others as licensing and IP rights clearance or content discovery, there are a significant number of projects where librarians are also contributing and supporting the creation of OER content and the use of this kind of resources in teaching and learning experiences.
- The survey responses confirm that the expertise of librarians in most of the general LIS technologies and skills is needed at OER initiatives. Furthermore, OER project librarians also offer expertise in some specific e-learning technologies, as learning content management tools or learning content metadata. They do need to develop further expertise on some specific e-

learning and OER technologies, as learning content package standards or learning content authoring tools, and on high-level technologies associated to libraries, licensing technologies, SEO or digital preservation.

- Attitudes to the library/librarians involvement are highly positive among the participating OER projects, as they consider librarians absolutely indispensable (36%), very valuable (25%), or helpful (23%). Only five projects stated that their involvement had no influence and in two cases it has been insufficient. All but one of the projects where librarians had been involved considered, their ongoing involvement helpful.
- Open-ended comments made in the survey covered a broad range of aspects related to the survey topic or the instrument itself, and provided a generally positive approach towards Library / librarians involvement on OER initiatives.

Moreover, some lessons that have been learnt regarding the survey design, namely:

- The survey design and dissemination strategy had a language bias, as the lists and forums used, the introductory messages and the survey itself, were in English. Only some dissemination and individual emails were written in Spanish targeting specific OER projects. Probably, this fact has discouraged some non-English speaking projects from participating, and has clearly influenced the geographical distribution of respondent projects, mainly coming from UK, US and Spain.
- A more comprehensive and inclusive dissemination strategy for the survey would have been preferable, resulting in more accurate results and conclusions. Next phases for this study could include the survey translation into multiple languages of broad use, together with specific distribution strategies.
- Some survey questions were left too open, resulting making analysis and interpretation of responses difficult, particularly in relation to the main objectives of the project, the responsibilities of the Library/librarians, or the librarians' expertise and training needs. These questions should be reconsidered and reformulate to achieve the intended results.
- Lastly, some survey questions seem to have been misinterpreted by some of the respondents, particularly the number of members of the OER initiative. Again a thorough review and evaluation is needed to provide clarification and further develop the study.

From the former, we have reached the following conclusions about the relationship and involvement of Libraries and librarians on OER initiatives, mainly:

- Most of the objectives of OER initiatives dealing with content are strongly related to library and information science activities and skills, at different levels. Therefore, we consider that the involvement of librarians and/or IS staff highly beneficially and would suggest all projects incorporate such staff.
- A further analysis is needed on the practices of OER initiatives regarding their strategies for storing and dissemination of content, the creation and management of OER collections, and the OER lifecycle. This analysis, together with an accurate identification of objectives and needs of OER initiatives, would allow for the better development of best practice guidelines and recommendations, where librarians have an important role to play.
- There is a clear need to promote the role that libraries and librarians can play at OER initiatives, highlighting their expertise and competencies. This is needed to build awareness among stakeholders about their potential contribution to the OER movement, but also, among Libraries and librarians about their key role as OER advocates within and out-with their institutions.
- There is an opportunity for libraries and librarians to further engage in the OER movement as creators and users themselves of OER content, for their own training in common areas as information literacy¹⁷.
- In order to better support OER projects, librarians should develop further expertise in some technologies and activities specific to educational digital content (learning content package standards or authoring tools) and OER implications.
- The development of this expertise should be a responsibility of Libraries as a unit, designing and offering training programs to their staff. But specially, it should be assumed by LIS education institutions, whose mission is to prepare and educate professionals capable to face the current digital information context and meet the needs of their users, in this case, the academic community.

Finally, the conclusions drawn from this study suggest the need of future research work on the topic from similar or different approaches, such as:

- The identification of academic libraries worldwide that are creating subject collections selecting external OER, gaining insight in their methods and

¹⁷ Some efforts in this sense include the UKOER Project DELILA (Developing Educators Learning and Information Literacies for Accreditation) (<http://delilaopen.wordpress.com>), and the new project of the CILIP CSG-Information Literacy group in partnership with UNESCO (<http://delilaopen.wordpress.com/il-oer-survey/>).

practices, especially regarding integration mechanisms for content search and reuse.

- Analysis of Library websites, collections and services of those institutions with an ongoing OER initiative, in order to identify and assess the actual presence and visibility of OER resources through them.
- Design and carry out a series of interviews to individual LIS professionals about their experiences when working with digital learning resources in general and OER in particular, in order to identify the challenges and their strategies to cope with them.
- Comparative analysis of library and information science syllabus in order to identify the possible lacks of knowledge and training needed to handle digital learning resources.

The importance of pursuing this research line is highlighted by the fact that academic libraries around the world are playing an increasingly active role in the teaching-learning process, sometimes being redefined as Learning Resource Centres (LRCs). Among other functions, LRCs are intended to develop educational digital resource collections, gathering together both institutional and externally created resources. In this context, OER take up an important and prominent position. The further research proposed above, and other such studies, are a strategic way to gain insight on the experiences of Libraries and librarians involved in OER projects, pointing out the challenges and opportunities they are facing. The results of these studies would be of particular value to those academic libraries that are still in their infancy in terms of the configuration of open educational digital collections.

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Appendix: Detailed survey data

Section 1: OER Initiative

Question 3. Country

Table 1. Number of participants by country

Country of origin	N. of respondents
United Kingdom	18
Spain	8
United States of America	8
India	5
South Africa	4
Nigeria	3
Cameroon	1
Canada	1
Dominica	1
Finland	1
Guyana	1
Jamaica	1
Japan	1
Macedonia	1
Malaysia	1
Rwanda	1
Sweden	1
Total	57

Question 4. Type of organization

Table 2. Number of respondents by type of organization

Type of organization	N. of respondents
Public University	44
NGO	3
Research Institute / Center	2
Private University	2
Other HE institution	2
Publisher	1
Others	3
Total	57

Question 5: Within the following areas, which are the main and secondary objectives of your project?

Table 3. Mains objectives of participant OER initiatives

	Main objective	Secondary objective	Collateral objective	Out of our scope	Total
Implement a repository or a content management/publishing system for OER release.	33	8	7	7	55
Release existing institutional content as OER (OCW portal, other OER portal, repository...)	32	10	5	7	54
Raise awareness of OER and encourage the use of open educational content within the local academic community.	30	19	5		54
Research on procedural and management issues	19	16	6	10	51
Develop supporting mechanisms for OER release and use (templates, policies, procedures, guides, workflows, technical framework).	19	14	14	6	53
Research on licensing and copyright issues	17	16	10	10	53
Raise awareness of OER and encourage the use of open educational content outwith the academic community.	16	20	9	4	49
Research on technical issues	15	20	7	11	53
Aggregate multiple OER sources (internal and external) in a collection.	15	12	13	13	53
Establish (institutional) services for OER cataloguing, discovery, IPR clearance and technical support and guidance.	14	15	13	12	54
Develop new OERs from scratch.	14	10	10	9	43
Research on release and reuse impact	13	15	17	7	52
Research on economic/sustainability issues	12	17	10	12	51
Develop new OER from open content sources.	12	11	14	14	51
Research on cultural issues	11	16	9	14	50
Coordinate and promote of national / regional / international OER initiatives and open educational practice.	11	12	15	13	51

Table 4. Number of main objectives selected by each OER initiative

N. of Main Objectives	N. of respondents
0 objectives	5
1 objective	9
2 objectives	7
3 objectives	11
4 objectives	4
5 objectives	8
6 objectives	3
7 objectives	4
8 objectives	4
9 objectives	0
10 objectives	2
Total	57

Section 2: Storing and dissemination of OER

Question 6. IF your project is committed to creating new OER content or releasing existing learning resources as OER, how do you store these materials?

Table 5. Storing strategies for OER content

Storing strategy	N. of respondents
We put them in an institutional repository of learning content	22
We put them in our OCW portal	19
We put them in an institutional repository (generic)	16
We put them in a national repository	15
We put them in other third-party service (e.g.: Youtube, iTunes, Slideshare, Flickr)	15
We put them in a specific website or blog	13
We put them in an openly accesible LMS/VLE (e.g: Moodle, Blackboard)	8
We put them in a subject repository	6
Other strategies	11
Total	125

Table 6. Number of storing strategies adopted by each OER initiative

N. of strategies	N. of respondents
1 strategy	13
2 strategies	20
3 strategies	8
4 strategies	4
5 strategies	2
6 strategies	1
7 strategies	2
Total	50

Question 7. Besides storing your content, do you carry out any of the following specific strategies for disseminating and fostering the visibility and discoverability of your OERs?

Table 7. Dissemination strategies for OER content

Dissemination strategies	Nº of respondents
We include a distinctive metadata tag (e.g.: ukoer, sfsoer)	27
We promote new resources through social media sites (e.g.: Facebook, Twitter)	25
We optimise the site and resource descriptions for search engine discovery	23
We upload them to third-party services (e.g.: Youtube, iTunes, Slideshare, Flickr...)	17
We integrate them into the LMS/VLE, thus teachers and students can search them	13
We are indexed by an OER aggregator	12

Dissemination strategies	Nº of respondents
None of the above, as we already deposit them in our repository/web, and that's enough	4
Other strategies	14
Total	135

Table 8. Number of dissemination strategies by OER initiative

N. of strategies	N. of respondents
1 strategy	14
2 strategies	11
3 strategies	6
4 strategies	7
5 strategies	9
6 strategies	1
Total	48

Question 8. Does the Library integrate these resources as part of the institutional information assets?

Table 9. Strategies for integration of OER initiative outputs at the Library resources and website

Strategies for OER integration at Library's resources and services	Yes	No	Don't know	Total
The Library has a link to the repository/blog/web in its home web page.	24	18	5	47
The Library included a link to the initiative home page as part of the e-resources collection.	11	23	9	43
The Library included the OER in the e-resources collection, so they can be searched through a meta-search service (e.g.: Metalib, Primo)	6	27	10	43
The OER search interface is integrated in the Library web page.	5	30	8	43
The Library included relevant OER in the subject reading lists.	5	25	14	44
The Library included relevant OER metadata records in the library catalogue.	3	30	10	43

Section 3: Professional profiles and level of engagement of team members

Question 9. Which are the profiles of the team members in your OER initiative?

Table 10. Profiles and number of team members in OER initiatives

Type of profile	N. of team members
Lecturer/ Researcher/ Other faculty post	405
Researcher	153
Learning technologist	141
Software developer	43
Multimedia designer	30
Legal specialist	15
Librarian or other information science specialist	59
Academic support services staff	88
IT Services staff	51
Total	985

Table 11. Number of librarians in OER initiative's teams

Proportion of librarians in OER teams	Nº of OER initiative teams	Percentage of OER initiative teams
0	14	29,17%
0,01-0,05	6	12,50%
0,05-0,09	5	10,42%
0,10-0,19	7	14,58%
0,20-0,49	9	18,75%
0,50-0,99	5	10,42%
1	2	4,17%
Total	48	100,00%

Question 10. IF there is a librarian or information science specialist in the OER initiative team, which is his or her level of engagement and workplace?

Table 12. Level of engagement of librarians in the OER initiative

Level of engagement of librarians in OER initiative	Nº of respondents
A librarian/IS specialist based in the institution's Library/Information Services.	23
A librarian/IS specialist based in other academic service.	3
A librarian/IS specialist exclusively dedicated to the OER initiative.	4
A library and information science lecturer collaborating on the OER initiative.	3
An external librarian/IS specialist collaborating on the OER initiative.	1
Total	34

Question 11. IF there is NOT a library or information science specialist in the OER initiative team, could you state the main reason for that?

Table 13. Reasons for absence of librarians with the OER initiatives teams

Reasons	Nº of respondents
We are planning to do it.	5
We didn't think about it.	2
We don't need them for our purposes.	2
We just need their occasional advice.	5
Other reasons	7
Total	21

Free text comments to Question 11:

- I work within our Information and Learning Services which includes librarians, IT specialists, educational technologists I call on their assistance as required
- The information professional/researcher is pioneering the efforts to spread the word about the existence of OER in the first place... Basically, this is a raising awareness initiative raised by a PhD candidate in Library and Information science...
- They just happened to hire someone with an LIS degree (me) for another job. :)
- We always welcome the Library/IS community. OER is not their primary purpose in relation to these projects.
- We are having some difficulties with territory - who is responsible for what aspects of our OER initiative?
- We are not that type of institution. The interest and collaborative spirit does not exist throughout departments.
- We'd love to work with our library to help maintain our content catalog, especially as we migrate between different CMSs. Though we have had discussions with our library, resources on both sides are constrained and this makes it difficult to engage in a very meaningful way.

Section 4: Involvement and roles of the Library in the OER initiative

Question 12. Besides the presence or collaboration of librarians and/or other information specialist in your project team, which is the involvement and commitment of the Library as a unit in your OER initiative.

Table 14. Level of engagement of the Library as an organizational unit

Library involvement/awareness/commitment	N. of respondents
In our organization there is not a Library unit that could be involved.	1
The Library is aware of our OER initiative, but that's it.	2
As far as we know the Library isn't aware of our OER initiative.	8
The Library supports the OER initiative as an organisational effort.	11
The Library is a partner in the OER initiative.	12
The Library is leading/co-leading the initiative.	11
Total	45

Question 13. In which of the following activities are the librarians or the Library involved in your OER initiative and which is their level of responsibility/commitment?

Table 15. Level of engagement and responsibility of librarians in specific activities

Activity	Is the responsibility of...	Actively works on...	Offers guidance and support	It is planned to be involved it...	Not needed	Total
Creation of new or repurposed OER	4	4	8	3	15	34
Description and classification (Tag, describe, or add metadata to OER)	13	4	10	7	11	45
Licensing and IP rights (Clear copyright for using third-party content in new OER creation or in teaching)	4	6	10	4	17	41
Licensing and IP rights (License new OER)	2	4	10	5	17	38
Management (Storage, organization, version control, etc. of OER)	10	12	4	4	13	43
Preservation (Implement long-term preservation strategies and programs)	11	7	4	9	9	40
Discovery of OER created by the project/institution	5	7	6	5	16	39
Discovery of third-party created OER	5	5	8	4	15	37
Discovery of sources of openly licensed content for reuse in OER	4	4	8	5	15	36
Evaluation and selection of quality existing OER	3	6	4	5	18	36
Evaluate institutionally created OER	4	2	4	6	20	36

Activity	Is the responsibility of...	Actively works on...	Offers guidance and support	It is planned to be involved it...	Not needed	Total
Evaluate openly licensed content to be included in OER	4	5	4	8	20	41
Dissemination of OER content within and outwith the institution	11	9	6	8	8	42
Promotion of OER initiative across and beyond the institution	12	7	3	10	7	39
Promotion of OER use across and beyond the institution	10	9	4	8	7	38
Use of ER in teaching and learning experiences	7	3	10	6	11	37

Question 14. IF librarians, or other individuals with information science skillsets were involved with your OER initiative, in which of the following areas and technologies did they have, or need to develop expertise (in the context of your project)?

Table 16. Level of expertise and need of skills development of librarians in OER initiatives

Areas and technologies	Had expertise	Needed to develop expertise	Not relevant to initiative	Don't know	Total
General purpose metadata standards	19	10	4	2	35
General purpose vocabularies and classifications	21	9	5	2	37
Indexing and classification techniques	24	6	6	1	37
Information retrieval techniques	22	9	3	2	36
SEO (Search Engine Optimization)	8	16	9	2	35
Preservation techniques, technologies and standards	12	15	8	1	36
Information literacy	22	5	9	0	36
IPR and copyright	13	15	5	2	35
Licensing options and technologies	12	17	6	2	37
Repository technology and management	17	10	7	3	37
Communication protocols (any of: RSS/Atom, OAI-PMH/ SRU/SRW)	9	14	7	6	36
Introduction to OER concepts, goals, and history	16	17	0	2	35
Learning content package standards (e.g.: IMS CP, SCORM, IMS CC)	7	19	2	6	34
Learning content metadata (e.g.: IEEE LOM, DC-Ed Application Profile, others)	13	14	3	5	35
Learning content vocabularies and classification (e.g.: ETB Thesaurus, ILOX, EUN, LRE or LOM vocabularies, others)	8	15	8	4	35
Learning content authoring tools (e.g.: exeLearning, Wimba Create...)	8	17	6	3	34
Learning content management tools (LMS, LCMS, repositories)	14	10	6	4	34
Learning Design methods and specifications.	9	14	7	3	33

Final thoughts

Question 15. In your opinion, how would you rate the past, present and future involvement of the Library and librarians in your OER initiative?

Table 17. Evaluation of Library/librarians' involvement in OER initiatives

Evaluation of library/librarians involvement	N. of respondents
Its involvement is very valuable.	11
Its involvement is insufficient.	2
Its involvement is helpful.	10
Its involvement is absolutely indispensable.	16
Its involvement has no influence on the project.	5
Its future involvement could be helpful.	6
Its future involvement is not needed.	2
Its ongoing involvement is helpful.	33
Total	85

Final open question: Please add any other comments or data that you wish to share regarding OER initiatives and Library and librarians involvement.

Free text comments:

- Wish they could be part owners of project.
- We have now a national project with www.sis.se to build a Swedish national metadata standard for digital learning material for education area.
- This initiative should be made known as a deliberate effort especially in the field of education. Not sure that that is the case.
- The Institutional Repository contains the OER in a specific section called Repositorio Docente (Academic Repository) and one of the collections in this section is OCW.
- The development of OER is not perceived as being of central importance to the Library, it is a small initiative.
- The curation of OER makes perfect sense in the library! Educational technologists can advise on appropriate technologies and learning designs. Libraries should curate and help make the resources accessible and discoverable. Libraries have traditionally operated in closed systems. I believe this is the last hurdle for librarians to take up OER as an institutional learning resource as valuable as books and journals.
- Our task force has just begun. We are in the process of evaluating our institutional strengths including the skills of the library staff. The main librarian will play an important role on our task force.
- Our project was releasing information literacy materials as OERs so librarians were central to the project.
- Our library just hosted an Open Access Week and Open.Eau Claire was invited to participate. The library plans to do more to support the project.
- Our library is generally on board with our initiative but hasn't been actively engaged in promoting in beyond individual partnerships, we still have to educate the library staff of our existence and educate them about creating and using OER.
- Our immediate priority is not with OER library and libraries involvement.

- No library involvement so far - apols can't 'unclick' the 3rd radio button but would like to.
- Need continued funding
- Librarianship skills are so essential, rather than librarians: staff were involved who were not librarians but nonetheless had many skills mentioned.
- Librarians provide academic institutions with the latest trends and know-how's from the world of information technologies...More expertise in the field of metadata and digital preservation is needed...Merging into the LAM's (Library-Archives-Museums) scheme would provide even more valuable resources for the scientific/academic community... I am here for the learning revolution and I am here to stay and help learners find the resources needed...but, nobody can do it alone, we need more understanding from the university senates and IT professionals to help us to build, maintain and preserve knowledge resources available...
- Instructional Designers, Instructional Technologists and Librarians are critical in informing faculty/students on OERs and promoting their use/acceptance. Please note that while we do not have a library, and therefore could not respond to all the questions, we do work with librarians.
- I didn't skip the last set of questions because I didn't see them but because none of the answers applied to me. We value library contribution. We are multi-partner projects with NHS partners and the medical and NHS libraries group is active, along with NHE-HE Forum. These pan-organisational projects don't suit engagement of one particular library. Having spent the morning with the University contracts officer (now I am having a beer) I know how difficult OER is for the sector, we are living on grace and favour (and stealth) to release OER against what will be HEI policy on sharing.
- Every higher secondary school should be aware about OER initiatives and library and librarians involvement.