

Research librarians in a virtual environment: new skills, new services

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Abstract

This paper highlights both the new functions taken on by UOC research librarians and the new skills that this professional profile requires, based on the experience of the UOC Virtual Library. By setting up a series of bibliometric units, the Library has been able to integrate itself into the University through bibliometric studies and other research support services. A group of research librarians provides support to researchers from the start of the research process to the assessment of their scientific output. They also provide support for the University's strategic decision-making through the analysis of bibliometric data.

University libraries have traditionally provided support to researchers in the use of the services and resources that they subscribe to in their fields of research, ranging from information searches to standardisation of authors' names in the different databases. However, research has evolved and the research librarian has taken on new roles, working across disciplines with other research support areas at universities. These functions have led to the development of new services, including:

- Bibliometric support for accreditation calls from assessment agencies;
- Advice on repositories and open-access publication, and
- Guidance on dissemination of research: publication in scientific journals based on bibliographical and bibliometric studies; visibility on social networks, etc.

To be able to provide these services and as a result of the evolution of research and its technologies, research librarians require the following skills:

- Strategic orientation: understand the university, its organisation, strategic objectives and processes;
- Interpersonal skills: establish collaboration with research groups and departments; provide a response to the real needs of users;
- Proactivity: know the research world so as to be able to predict the needs of the university's scientific community;
- Cross-disciplinary: work together with all the university's departments providing research support, and
- Communication skills.

This paper presents the experience of the UOC research librarians as an example for other university libraries developing research support services. It shows how the acquisition of new skills by our research librarians, in addition to their knowledge of library services and resources, has resulted in the deployment of bibliometric support services that have been very well received by the university's academic and research staff.

Keywords

bibliometric analysis, research support, librarian skills, research performance measurement.

1. Introduction

Created in 1994 as Spain's first online distance-learning university, the Universitat Oberta de Catalunya (Open University of Catalonia, UOC) is a pioneer in research into the classroom application of new learning technologies and a benchmark in the information society and e-learning fields. Its programmes are taught via its Virtual Campus and the services it offers students are exclusively provided online.

The UOC's research, innovation and transfer activity revolves around 36 research groups, comprising approximately 250 researchers linked to one of its departments or one of its two research centres, the Internet Interdisciplinary Institute (IN3) and the eLearn Center (eLC). The University's research is mainly carried out by its teaching staff and is organised into the disciplines of arts and humanities, social sciences, health sciences, and technology and communication.

Since 2009, the UOC has been endeavouring to give its research, innovation and transfer activity fresh impetus through the Office of the Vice President for Research and Innovation of the University. Its aim is to promote high quality research and innovation with a bearing on teaching and an unequivocal impact on the socioeconomic fabric of its surroundings. The measures taken to generate the aforementioned impetus include cross-disciplinary work with all the areas involved in the University's research support processes cooperating to achieve excellence in research.

The new panorama described above is part of an external context marked by two important factors. Firstly, research evaluation processes, in which quality indicators based on scientific publications are a major consideration, have become more competitive¹ and rigorous. In that regard, it must be remembered that librarians have a longstanding tradition of compiling and working with bibliometric

¹ MacColl, J. (2010, page 7)

data. The scientific quality of publications also has a bearing on researcher accreditation, raises the UOC's level of scientific excellence and improves prospects of obtaining funding through competitions.

Secondly, bibliometric units, created to answer researchers' needs in terms of the dissemination and evaluation of their work, have increased in number in universities. The creation of such a unit or a bibliometric queries service is clearly related to a research quality model, and gives libraries the opportunity to actively participate in the research processes of the university or institution they serve.

The UOC's Virtual Library supports the University's teaching and research activity with a view to raising quality and excellence levels in learning, teaching, management, research, lifelong learning and knowledge management processes. It is one of the areas with a cross-disciplinary role in the entire research process, spanning from an idea's conception, the collection and analysis of data, to the dissemination and subsequent evaluation in research quality accreditation processes.

Reorganisation within the UOC's Virtual Library and institutional efforts to stimulate research led to the establishment of Serveis de Biblioteca de Suport a la Recerca (Research Support Library Services, BSR) in 2011. BSR is a group of five librarians with specific competences, who implement a research support service charter.

The purpose of this article is to present the experience of the UOC's research librarians as an example for other university libraries that might be developing such services. Combined with their knowledge of library services and resources, the new competences and skills that the librarians in question have acquired have resulted in the implementation of research support services that have been very well received by the University's academic and research staff. In conclusion, the article describes the benefits entailed for researchers, as users of the new services, and for the Library itself and its members of staff who offer those services.

2.- Research support at the UOC

At the UOC, the Office of the Vice President for Research and Innovation operates through the Research Committee to establish strategies and measures based on the University's research and innovation policy. Those strategies and measures are applied by the different areas involved in providing research support, mainly the Office of the Vice President for Research and Innovation itself, the Research and Transfer Support Office (OSRT), the Planning and Quality Office, the BSR group, and the IN3 and eLC research centres.

The users of the UOC's research support services and activities are its researchers and research groups. Each year, the OSRT produces a UOC knowledge map (<http://mapadelconeixement.uoc.edu/mapa.php>) featuring the University's research groups.

When the BSR group was formed, it embarked on an analysis of all the UOC's research support processes (encompassing the areas and departments involved, existing tools at the University, and the services provided and activities carried out), with a view to catering for the needs of researchers and research groups.

The areas referred to previously manage the University's research support tools, specifically a Current Research Information System (CRIS), the OSRT's intranet, the institutional repository and the Library's resources and services.

The UOC's CRIS (which is called Comprehensive Research Management or GIR) is managed by the OSRT. It is a researcher support tool that can be used to look up information on funding opportunities, record R&D&I activity and save CVs. Once a researcher has added details of their scientific output to the system, they have the option of disseminating it via the UOC's institutional repository. At present, the Library helps to revise the journal titles and bibliographic and bibliometric data included in CVs. The OSRT also has its own intranet for circulating information on the UOC's R&D&I activity and reinforcing its service for research staff.

The Library manages the UOC's O2 institutional repository, which contains the open access e-publications arising from the University's research, teaching and management activities. The Library leads the O2 project, which is an example of how it develops specialised information products (based on the UOC's open access strategy, in this case).

The Library also provides specialised information resources and services to support the UOC's teaching and research activities. In that regard, it has a digital collection development plan and a plan for twice-yearly appraisals of the collection's content.

The BSR group has taken a two-stage approach to the aforementioned analysis of all the UOC's research support processes. The first stage involved identifying the administrative processes and defining the stages involved in the research process, based on:

- observing the environment.
- looking up information available from the UOC's Virtual Campus and, in particular, the University's research intranet.
- interviews with research groups, directors of other areas and staff of the Office of the Vice President for Research and Innovation.
- establishing the state of the art in terms of existing bibliography related to the role of research librarians and the different stages of the research process.
- a benchmark study on other national and international universities' research support services and activities.

Compiling all the data in question has made it possible to study not only the research community's needs and expectations, but also the use of and satisfaction with the library services.

The second stage involved identifying processes in which Library staff can apply their competences and skills, as well as the different types of users to whom the Library can offer its services. The processes in question are related to researchers' needs at the different stages of the research process. However, the Library's activity is not limited to researchers, and the University's management processes to which it can contribute were also identified.

Analysing the aforementioned processes has made it possible to establish a user typology for the Library's research support services. One group consists of researchers and research groups, who are offered guidance at every stage of the research process. A second group comprises the UOC's management areas, with which the Library cooperates to improve research support activities, services and tools. A third group is formed by staff of the offices of the UOC's vice presidents and its department and programme directors, who, among other things, request strategically relevant bibliometric data for decision making in their respective areas, based on a quantitative and qualitative analysis of the University's scientific output.

3. UOC research librarians' professional and personal competences

As a result of having studied the work circuits and research-oriented services which interact at the UOC, the BSR group is developing a new service charter. The charter describes the existing services and new ones stemming from the needs detected in interviews with researchers and from the guidelines set out by the Office of the Vice President for Research and Innovation in the University's strategic plan.

The Library establishes annual targets related to the UOC's lines of strategy, as an approach to analysing new needs, reviewing work processes and implementing improvements or new services. Library staff are therefore not only responsible for the activity of the particular service to which they are assigned (e.g. acquisitions, the virtual reference service, collection management, bibliographic queries, bibliometric queries, communication), but also for target-related activity, whether as project coordinators or participants. In the case of each target, a need is defined, the areas of the University involved are identified, the service or improvement to be implemented is conceptualised, a work plan is prepared, pilot testing is carried out and indicators are established for evaluation purposes. That methodology enables Library staff to:

- develop new competences and skills.
- identify new areas in which they need training.
- keep the perspective of users in mind.
- interact with other UOC teams and areas linked to a target, and thus undertake cross-cutting work on improving administrative quality.
- familiarise themselves with other approaches to work within the UOC.
- adapt targets to the UOC's strategic plan or reference framework.
- discover the real implications of implementing new projects.

The activities in question allow staff to develop the professional competences and the personal competences or skills² analysed below, which they subsequently apply when providing services.

In this article, we make a distinction between professional competences and personal competences or skills. We consider a professional competence to consist of specific knowledge on particular matters that make it possible to carry out an activity, and a personal competence or skill to be an innate or acquired ability that makes it possible to carry out an activity or provide a service.

² Marshall, J. (2003)

Research librarians inherit certain competences that are part of their professional profile and adapt them to a particular type of user. Such competences may be referred to as traditional professional competences. In contrast, there are other competences that are specific to the research arena.

Research librarians' traditional professional competences are:

- expertise in reference services.
- knowledge of information resources.
- data-related expertise (encompassing database, digital collection, bibliographic reference and documentation management, bibliographic citation, and searching for and retrieving information).
- knowledge of privacy practices.
- knowledge of intellectual property legislation.

The reference service that the UOC's Library offers is only available online, and the University's research librarians thus require the communication skills and ICT competences necessary to work in the corresponding environment. Nowadays, all libraries offer an online user service, and the skills and competences that involves will, over time, become part of a librarian's traditional professional competences. The same is sure to happen where librarians' competence in social network use is concerned.

The specific competences involved in research support are related to the research process stages of searching for information, dissemination and evaluation. Research librarians are experts in:

- specialised information resources.
- the publishing sector.
- journal indexing criteria.
- bibliometrics.
- current research information systems (CRISs).
- research quality evaluation processes.

As experts in information resources, research librarians are familiar with the specific resources corresponding to the disciplines in which research is conducted at their institution. In addition to scientific publications, the resources in question currently include research-oriented social networks, general or specialised open access repositories, databases and ICT tools for research data and information management.

With regard to their competence where the publishing sector is concerned, librarians offer researchers guidance on form-related aspects of journals, for the purpose of publishing documents, and on other communication channels for disseminating their research results. Librarians have thus had to extend their knowledge of publishing houses and form-related criteria for publishing in print journals to encompass other means of dissemination, such as e-publishing, social networks and repositories, as well as their knowledge of the legal framework in terms of journals' publishing policies. In relation to that framework, the UOC's Library merely offers an informative service on article copyright and how it may affect the practice of authors storing their own work in institutional and thematic repositories. Legal advice on such matters is provided by the University's Legal Service.

The open access movement is gathering pace among the international scientific community, and librarians must thus acquire the necessary knowledge of copyright and publishing licences, including those applicable to open access material. The UOC is in favour of its scientific output being openly accessible and consequently approved an institutional open access policy (<http://hdl.handle.net/10609/4966>) in 2010. The University's Virtual Library helped to draft the policy and prepared a guide to its implementation for teaching and research staff.

Familiarity with digital preservation policies is another of the competences necessary for dealing with matters related to guaranteeing the storage of and access to information in any kind of format.

With regard to advice on publishing articles, research librarians need to know about journal indexing criteria and bibliometric indicators to be able to guide researchers on the status of journals in databases and other relevant indices. It must be borne in mind that an article's impact is determined by the number of citations it receives and the quality index status of the journal in which it is published. Being indexed in certain renowned databases and quality indices gives a journal greater visibility, meaning authors have more data on the basis of which to judge how appropriate it would be to publish their work in it.

At an institutional level, the Library has participated in establishing an indexing plan for each UOC scientific journal, a project led by the UOC's Online Publications Area. Intended as a reference framework for all the University's editorial teams looking to develop an indexing strategy for their journal, the plan describes the different steps required to index a journal in databases and reference directories. The Library's involvement in the project is an example of cooperative work and of how research librarians have applied their knowledge of journal indexing to initiatives of the University's other areas.

Bibliometrics, as mentioned in the introduction, is a necessary competence for studying and analysing the institution's scientific activity. Research librarians are able to extract, interpret and present bibliometric data in various ways³, depending on the queries received on three different levels, that of researchers, that of research groups and departments, and that of the UOC as a whole. They therefore need statistical knowledge for the purpose of interpreting and presenting data. Due to its connection with research accreditation processes and research quality evaluation measures, bibliometrics is held in high esteem in the University. Bibliometric data provides the bodies responsible for research activity with quantitative and qualitative indicators for strategic decision making, and is linked to the evaluation of researchers' achievements and, thus, their promotion prospects. The bibliometric queries and evaluation process support services are consequently very well regarded by the scientific community and enhance research librarians' standing.

Lastly, ICT competences are essential for librarians in a virtual environment, both for their day-to-day activity and for dealing with users and solving any problems they may have with the Virtual Library, in relation to access to electronic resources, managing information or using services.

In connection with ICT competences, librarians need to be familiar with social networks, as Web 2.0 enables them to interact with researchers outside the Library itself or the Virtual Campus, via professional or research networks and other Web 2.0 resources.

Having looked at research librarians' professional competences, we will now examine their personal competences or skills, i.e. the set of personal characteristics that they demonstrate through observable behaviour and which, in their activity as UOC Library staff, can be associated with excellence in the fulfilment of their duties.

Firstly, research librarians must have strategic focus, the ability to quickly grasp not only changes in their environment, but also opportunities, threats, and the strengths and weaknesses of the UOC's research. On that basis, they need to be familiar with the general national and international research framework, the University's research structure and strategies, and the Library's activities for supporting the scientific community. Proactivity is an essential personal competence in that respect, one that makes it possible to operate under any circumstances, anticipating the scientific community's problems and seizing opportunities. For example, alertness to changes in research evaluation systems makes it possible to generate the documentation needed to inform researchers thereof.

There are two skills implicit in the Library's target-based work methodology, namely transferability and teamwork. Transferability is defined as the ability to work with other departments and management

³ Gumpenberger, C. (2011, page 175)

areas participating in a given research management process, regardless of internal divisions and the different scientific disciplines involved. In the UOC's virtual environment, that means using ICTs to operate in a network, engaging in mutual cooperation to achieve specific objectives and respecting other areas' points of view and methods. Such cooperative work makes it possible to improve the quality of the University's research support services, thanks to the constant review of workflows between all the areas involved. Teamwork, meanwhile, is defined as the ability to collaborate and cooperate with other people and groups from within or outside the University, adhering to commitments and sharing knowledge to reach envisaged targets, and adapting to the role assigned, which, in the case of the Library, may be that of a team coordinator or member. This personal competence is in line with the Library's target-based work model.

Effective research librarians require certain interpersonal skills that facilitate communication and interaction with others, such as empathy and sociability. The importance of such skills is greater in a virtual environment, given its impersonal nature, and the UOC's research librarians look to use Web 2.0 tools to work more closely with researchers. However, researchers opt for face to face interaction when they need to discuss matters related to the evaluation of their scientific achievements or to strategies for disseminating their results. Such personal contact forges a librarian-researcher bond that, over time, results in the former becoming an integral part of the latter's research process.

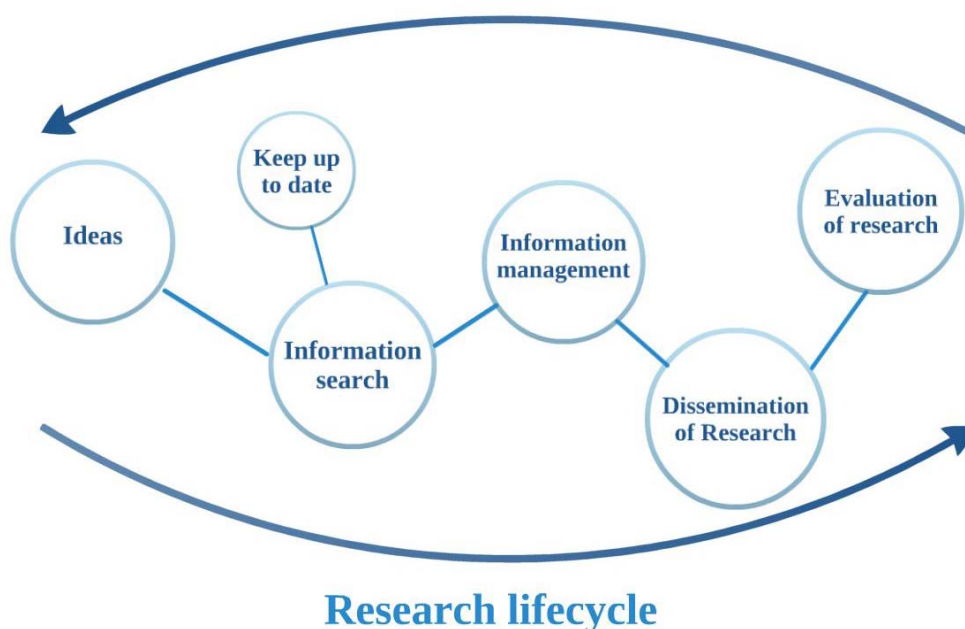
Lastly, librarians require personal competence in communication, defined as the ability to transmit information to service users, taking the interests and needs of different types of users into account. In a virtual environment, that competence involves an appropriate approach to composing digital texts, as well as presenting information in different ways (graphics, metrics, etc.), depending on the message to be conveyed. For example, the UOC's Virtual Library does not have a physical space for attending to users, meaning that doubts and queries are dealt with exclusively online, without the option of detecting errors by observing a user's browsing activity. Given that limitation, librarians provide responses in video format to show users how the Library's services and resources work. Video responses have proven more effective than written responses where certain incidents are concerned, and librarians therefore use their ICT and communication competences to optimise the user service they provide and adapt their replies to each user's specific needs.

In addition to having an open attitude towards technologies, librarians need to be skilled in communicating in Web 2.0 environments, particularly in terms of active participation in social networks that specialise in research and enable researchers not only to interact with their peers from their field but also to present their work and, thus, improve the impact of its results. Given that it operates in a Web 2.0 environment, such means of interacting with researchers are crucial for the BSR group.

4.- Research support library services

The Library's research support services are intended to cater for the different needs researchers experience at the various stages of the research process. To implement its service charter, the Library has begun a dissemination process geared to researchers incorporating the figure of the research librarian into their scientific work and to research librarians identifying the mechanisms necessary to raise awareness of their competences among the scientific community.

The BSR group divides the research process into the five stages shown in the following diagram:



The research process is regarded as non-linear, meaning that some services (e.g. the bibliographic and bibliometric queries services) may be offered at different stages thereof.

- **Bibliographic queries service:** personalised guidance on searching for documents relevant to a user's academic or research activity. Researchers, research groups and the University's departments can use the service at different stages of the research process, specifically the research definition stage (e.g. identifying a field's leading authors or research groups), the information search stage (e.g. establishing the state of the art where existing bibliography is concerned) and the dissemination stage (e.g. identifying journals that publish articles on a given topic).

- **Bibliometric queries service:** a personalised service that offers answers to queries and guidance on searching for bibliometric data and scientific output quality evaluation. As far as researchers are concerned, the service is related to both the research dissemination stage, where it involves identifying journals with a high impact factor in which publishing their results would be advisable, and the evaluation stage, where it involves compiling their publications' quality indicators (and in which case it ties in with the accreditation process support service).

When provided for the University as a whole, the service currently involves responding to requests for bibliometric reports. Firstly, the service produces a monthly report on UOC authors' scientific publications indexed in ISI Web Of Knowledge and the number of citations received. At the request of the Office of the Vice President for Research and Innovation, it also produces an annual bibliometric report on the UOC's scientific articles, analysing the University's scientific output on the basis of all the bibliometric indicators deemed applicable to social sciences in the specific criteria for evaluating the research activity of the teaching and research staff of Catalonia's public universities⁴. Additionally, other initiatives involving the bibliometric analysis of the UOC's scientific output are emerging, such as an internal evaluation report on law and jurisprudence studies monographs, which was produced in 2011 on the basis of publishing house prestige and the citations received according to the Thomson Reuters Book Citation Index.

Services geared to the visibility of research results are available at the dissemination stage:

- **Publication strategy:** an advisory service on the different channels for publishing and disseminating research results, as well as on legal matters related to publication. Research librarians guide users not only on traditional publishing policies, but also on open access publishing and the different types of usage licences for their publications. As far as where to publish is concerned, in addition to information on form-related publication criteria, research librarians provide researchers with bibliometric advice on each discipline's most prestigious publications, with a view to their scientific achievements being appraised positively in future official research evaluation processes.

Librarians also oversee the indexing of UOC authors' names in databases, and therefore offer an **author name standardisation service**, applying the name standardisation policy approved by the UOC's Governing Council on 28 October 2009 (<http://openaccess.uoc.edu/webapps/o2/handle/10609/12981>). Standardising the way an author writes their name guarantees them greater visibility and facilitates the retrieval of their scientific output distributed among different databases and other information systems.

⁴ Resolution ECO/3016/2011, dated 22 December, published in the Official Gazette of the Catalan Government, no. 6040, of 9 January 2012

- **Web 2.0 reputation:** guidance for researchers on two aspects of their Web 2.0 academic identity, specifically that of developing such an identity and that of monitoring what is published about them on the internet. Where developing an identity is concerned, researchers ought to use a single, standardised username to avoid any ambiguity. Additionally, they should be mindful of which parts of their CV they make publically available and have a strategy regarding the networks they use to publicise their scientific achievements or forge professional ties. In terms of identity monitoring, there are ways of tracking and evaluating a researcher's reputation.

The UOC currently offers a Web 2.0 reputation course and a usage and style guide for corporate accounts on social networks. In that respect, the Library is working to offer researchers advice on their academic identity, as there has been an increase in their use of social networks to showcase their research activity, both to publicise their results and establish links with other researchers. Mendeley⁵, a combined reference manager and social network for researchers, is a relevant recent example.

- **Data curation:** advice on the management, preservation, dissemination and exchange of data obtained during the research process. At the UOC's Virtual Library, the service in question is presently at a stage involving the analysis of existing best practices in the social sciences and information technologies arena and of UOC researchers' current data management practices. The guidelines and tools necessary to optimise such management will be developed at a later stage, using either the institutional repository or other technological applications.

In the research evaluation stage, the following service is available to researchers:

- **Evaluation agency accreditation process support:** advice on the evaluation criteria and searching for the bibliometric data quality agencies use to assess a researcher's academic and scientific achievements. For researchers, the service entails guidance on the process of checking their publications' bibliometric data and form-related aspects of the content of their CV. In terms of management activity, it involves the production, in conjunction with the Planning and Assessment Office, of specific guides for each research evaluation process organised. Consisting of three sections, the guides cover form-related aspects of setting out an application, explain how to retrieve quality indicators and summarise the criteria used to evaluate researchers' experience in each field of knowledge.

The BSR group offers a range of training programmes adapted to the different and changing needs of its users. The programmes constitute a cross-disciplinary service that can be provided at different stages of the research process, depending on their subject matter:

⁵ MacColl, J. (2010, page 6)

- **Training service:** the UOC's most recent training plan (covering 2009-2012⁶) assigns the Library the task of training the members of the University's community in basic information skills to enable them to use the Library's content and services to access, manage and utilise information without assistance. The Library thus offers self-directed learning modules on information skills and training videos on using its services and resources. In the case of electronic resources, it has also opted to take advantage of database providers' training catalogues to avoid duplicating work. Additionally, the Library actively participates in the UOC community's lifelong learning process via classrooms directly, supplying high quality information resources adapted to each area of subject matter. The training the Library offers researchers focuses on useful content for every stage of the research process, ranging from how to perform appropriate, relevant bibliographic and bibliometric searches to how to use bibliography managers to handle information collected in the course of their work. There is also a specific training programme for doctoral candidates and visiting scholars, which is designed to forge a librarian-researcher bond from the outset of the research process.

Lastly, the Library offers a user service. Communication with researchers takes place via email and telephone and in face-to-face meetings. However, service requests are dealt with by means of a **virtual reference service** (called The Library Replies), which is permanently available and guarantees a response within 48 working hours.

⁶ UOC Library Training Programme 2009-2012:
http://biblioteca.uoc.edu/docs_elec/formacio/Training_Programme_2009-2012.pdf

5.- Conclusions

The institutional strategy of promoting research and, in the case of the UOC's Virtual Library, the consolidation of a support group for the scientific community have generated a number of benefits for Library users and the Library itself.

Personalised attention and guidance throughout the research process are particularly notable benefits for researchers and research groups, who are able to take advantage of:

- A research support person or team in the Library. That person or team will be familiar with the research process and able to guide them on the most suitable information services and resources at each of its stages. In a virtual environment, where all services are managed via the Virtual Campus, the figure in question is very important. It must be borne in mind that researchers prefer to receive certain services (e.g. advice on their publication strategy) in person, due to the matters covered having a direct impact on their career.
- Round-the-clock access to information resources and services via the Virtual Library.
- Personalised services adapted to every stage of the research process, ranging from an initial bibliographic search for the purpose of contextualising their research to services related to the evaluation of their scientific output.
- Advice on the most suitable channels for disseminating their research results. It should not be forgotten that the outcome of their publication strategy has a bearing on their research's visibility and on evaluation processes.

On an institutional scale, cooperation between all research support areas paves the way for improved management, which has a direct effect on the service researchers receive. The task of carrying out research support processes has traditionally been assigned to a given area, without taking into account the diversity of the competences they involve. An integrated approach to dealing with such processes, with all the UOC's areas providing their specific knowledge, contributes exponentially to constant improvements to research support and, thus, increases management quality.

The Library itself has also benefited from the process of integrating the UOC's research support workflows, analysing the needs of potential research support service users and implementing new services.

The new services developed have directly raised the Library's profile among members of the scientific community and administrative staff, due to its integration into the UOC's research support processes. Given the competences and skills required to provide the new services, the University's research

librarians are also enjoying an enhanced status on the Campus, where they are now perceived as being at the forefront of research support.

The integration of the figure of the librarian into the stages involved in research takes place progressively. A researcher's relationship with a research librarian begins when the former becomes aware of the benefits and services the latter can offer them. An example is the specific training programme for doctoral candidates, which is a starting point for establishing a link with new PhD students at the beginning of their scientific career. That entails two benefits, namely the useful resources and services with which the Library provides them for each stage of their research process, and the availability of a Library team to guide them throughout that process. Another example is the offer of professional advice on the evaluation of the quality of the scientific output of researchers taking part in an accreditation process. That is an opportunity to make them aware of other potentially useful services and to create a trust-based bond for future requests for assistance.

The Library's new services have been well received by researchers, as the increasing level of demand for them shows. The result is a better perception of those services among users.

Lastly, the BSR group's professional development has been particularly notable. Defining the professional and personal competences of the UOC's research librarians, as described in this article, has given them a reference framework for establishing their needs in terms of training and professional improvement. In that regard, the target-based work model employed by the UOC's Library enables research librarians to acquire the competences and skills their activity requires as part of a lifelong learning process.

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