

The value of libraries for research and researchers

A RIN and RLUK report

March 2011



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We wish to thank all those in universities across the UK who gave freely of their time in providing information and evidence to us; and SCONUL for allowing us access to its data.

List of abbreviations

ACRL	Association of College and Research Libraries
AHSS	Arts, Humanities and Social Sciences
GPA	Grade Point Average
HEPPI	Higher Education Pay and Prices Index
HESA	Higher Education Statistics Agency
OA	Open Access
PCA	Principal Component Analysis
RAE	Research Assessment Exercise
RCUK	Research Councils UK

REF	Research Excellence Framework
RIMS	Research Information Management System
RIN	Research Information Network
RLUK	Research Libraries UK
ROI	Return on Investment
RSO	Research Support Office
SCONUL	Society of Colleges, National and University Libraries
STEM	Science, Technology, Engineering and Mathematics
VLE	Virtual Learning Environment
VRE	Virtual Research Environment

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Executive summary

Executive summary

Aim and approach

This report presents the findings of a systematic study of the value of the services that libraries in the UK provide to researchers, and of the contributions that libraries from a wide range of institutions make to institutional research performance. The aim was to identify the key characteristics of library provision to support research in successful UK universities and departments.

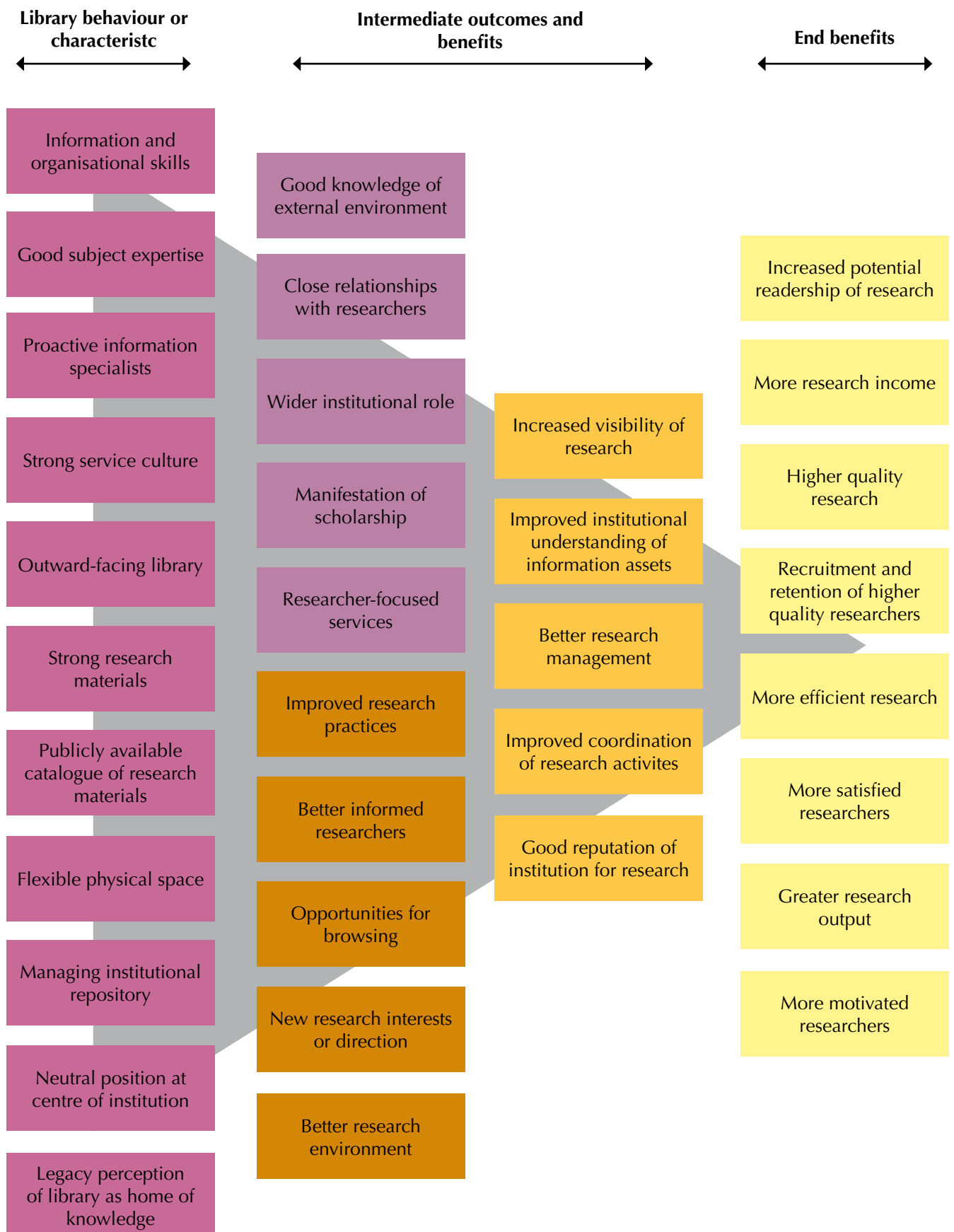
The approach comprised two main elements: quantitative analysis of statistics – from SCONUL, HESA, and the RAE, along with bibliometric data - to investigate correlations between the characteristics and behaviours of libraries in 67 UK HE institutions, and the research performance of those institutions; and gathering and analysing a large tranche of qualitative information from nine institutions with a range of characteristics.

Statistical and qualitative evidence

Our initial hope was that analysis of statistical trends and correlations would provide evidence and suggest avenues to explore in the qualitative phase of the project. The limitations of the available statistical data on library provision and characteristics, however, mean that our statistical analyses have been of limited utility.

This report is therefore based on a large weight of qualitative evidence, gathered from interviews and focus groups with a range of stakeholders – researchers, PVCs Research, the Research Support Office, Graduate Deans and Finance Directors as well as librarians - across nine institutions, and carefully analysed and cross checked. Such evidence is based on individual perceptions and experiences, but we believe that in the aggregate, the evidence on the value of libraries set out in this document is robust and unequivocal. Libraries contribute to the research performance of individuals and institutions in many different ways, even if the nature and extent of that contribution is not well understood by researchers and senior managers.

Our findings are summarised in the form of map which sets out the key characteristics and behaviours of libraries, and the links between them and the performance of individual researchers and institutions. Libraries have changed and are changing, developing new roles and services. Our detailed findings are thus presented in the form of ten stories – summarised in the map - about the different kinds of value that libraries provide in supporting both individual researchers and the research performance of their host institutions.



Key messages

1. Good libraries help institutions to recruit and retain top researchers

There is global competition for top researchers, and institutional reputation is key to attracting them. Many factors contribute to a good reputation, including league tables, RAE scores, research productivity and funding levels. But the library also contributes, positively or negatively, to an institution's reputation. The quality, nature, and extent of the library's collections, of its staff and the services they provide, and of its buildings are all important. Successful and high-quality libraries can be a significant factor in recruiting and retaining top researchers.

2. Libraries help researchers win research grants and contracts

Success in winning research grants and contracts is critically-important, especially for research-intensive universities. Research Support Offices help researchers to generate a regular flow of high-quality applications for such grants and contracts, but libraries are playing an increasingly significant role too. On the whole they do so in response to specific requests rather than pro-actively, however, and in general researchers are not required to consult the library in generating their bids. Libraries could play a greater role if researchers knew that support was available, and if their involvement was more formalised. Libraries have an opportunity to use their skills to help researchers improve the quality of their funding applications, and to increase the institution's success in winning research income.

3. Libraries promote and exploit new technologies and new models of scholarly communications

Libraries are critically important in helping researchers to exploit the full benefits and opportunities of the networked world, including such developments as open access and social media. But libraries are not always well-equipped to promote change, and researchers sometimes resist efforts to modify their behaviours and practices. Nevertheless, many libraries have succeeded in addressing such problems, by establishing stronger links with researchers and re-focusing their services to promote and exploit new technologies and new models of scholarly communication.

4. Repositories increase the visibility of the institution and raise its research profile

Most institutions now have repositories to store and make available institutional assets such as research papers and theses. In most cases, the library runs the repository on behalf of the institution, and senior institutional managers acknowledge the role the repository plays in increasing the visibility of the institution's outputs and raising its research profile. But repositories are only as valuable as the content they hold, and now the focus is on increasing the volume of content, by making it routine for researchers to deposit their outputs. Libraries are now playing an increasing role in educating researchers and building more effective procedures and approaches across the institution.

5. Outward-facing libraries contribute to institution-wide initiatives

In recent years, many libraries have demonstrated that they can seize opportunities to help institutions respond to changes in the research environment. Libraries' central and impartial position, together with their information and organisation expertise, puts them in a good position to play a wide institutional role and deliver new value. Seizing these opportunities is not always straightforward, since in some institutions libraries have to overcome traditional views about their appropriate role. But outward-facing libraries can help in joining up research support and administration, leading to better research management and a higher profile for the library across the institution.

6. Specialist staff work in partnership with academic departments

Information specialists - both subject specialists and those with a specific focus on the needs of researchers - form a significant group of the library staff in most institutions. The researchers who make use of them see them as vital. But too often information specialists and researchers are not well connected. Putting that right can alter specialists' roles profoundly, shifting them away from more traditional collection management roles. Where this change has taken place, information specialists take a more proactive role, working in partnership with academic departments and acting as consultants. Such developments have been welcomed by heads of departments and researchers.

7. Connecting with researchers enhances the value of the library's services

The digital revolution has changed the relationship between libraries and researchers, many of whom do not use the physical library. As one librarian said, "the more we do to make access quick, seamless and easy, the more invisible we make ourselves". Libraries are becoming alert to their separation from researchers, and are trying to find ways to reconnect with them, and to fill the gaps in their knowledge and understanding of researchers' needs. Such an approach can lead to a strong service culture permeating the library, increasing researcher satisfaction, as well as winning recognition and respect for the library across the institution.

8. Dedicated spaces provide a better work environment for researchers

For some researchers the physical library is valued as a place to work and study, particularly if they do not have their own departmental space or if they rely for their research on printed or manuscript content held in the library. Many researchers find, however, that the library is crowded with undergraduates, especially in term time, and that it provides a difficult environment in which to work. In order to meet researchers' needs, some libraries have therefore created dedicated areas for them, providing a better environment for those researchers who depend on the library and its contents

9. Easy access to high-quality content is a key foundation for good research

Access to high-quality content remains crucial to research, and its value is recognised by researchers, senior managers and librarians alike. Libraries spend huge amounts to sustain and develop their collections, and researchers across the sector now have access to more content than ever before. But they always want more. The downward pressure on institutional budgets, continuing increases in subscription costs at above inflation levels, and fluctuations in exchange rates, are making it more difficult to sustain the current level of purchasing. Some libraries are still seeking to increase the content budget, but others are reducing the amounts of content they buy, while yet others are seeking to be smarter by procuring more with less. 'Daring to be different', and taking a more evidence-based, strategic approach to content procurement, should

help libraries to meet researchers' needs more effectively as well as helping their dialogue with the senior managers from whom they seek funding.

10. Libraries are a physical manifestation of the values of the academy and of scholarship

Libraries are one of the most enduring features of the academy, central to the values and the practice of scholarship. But in a period of austerity they are increasingly being asked to justify their existence. Perhaps the deepest, yet most elusive, contribution that libraries make is to provide a physical manifestation of the scholarly ethos that universities exist to inculcate and preserve. There is a risk that this intrinsic value may not be recognised by future generations of researchers who work in an online world. In building the evidence as to libraries' contribution to research, it is important to stress that the whole is greater than the sum of the parts; and that the value of the library is as a crucial cornerstone and representation of the values of the academy and of scholarship.

Continuing change and risks: the need for an evidence base

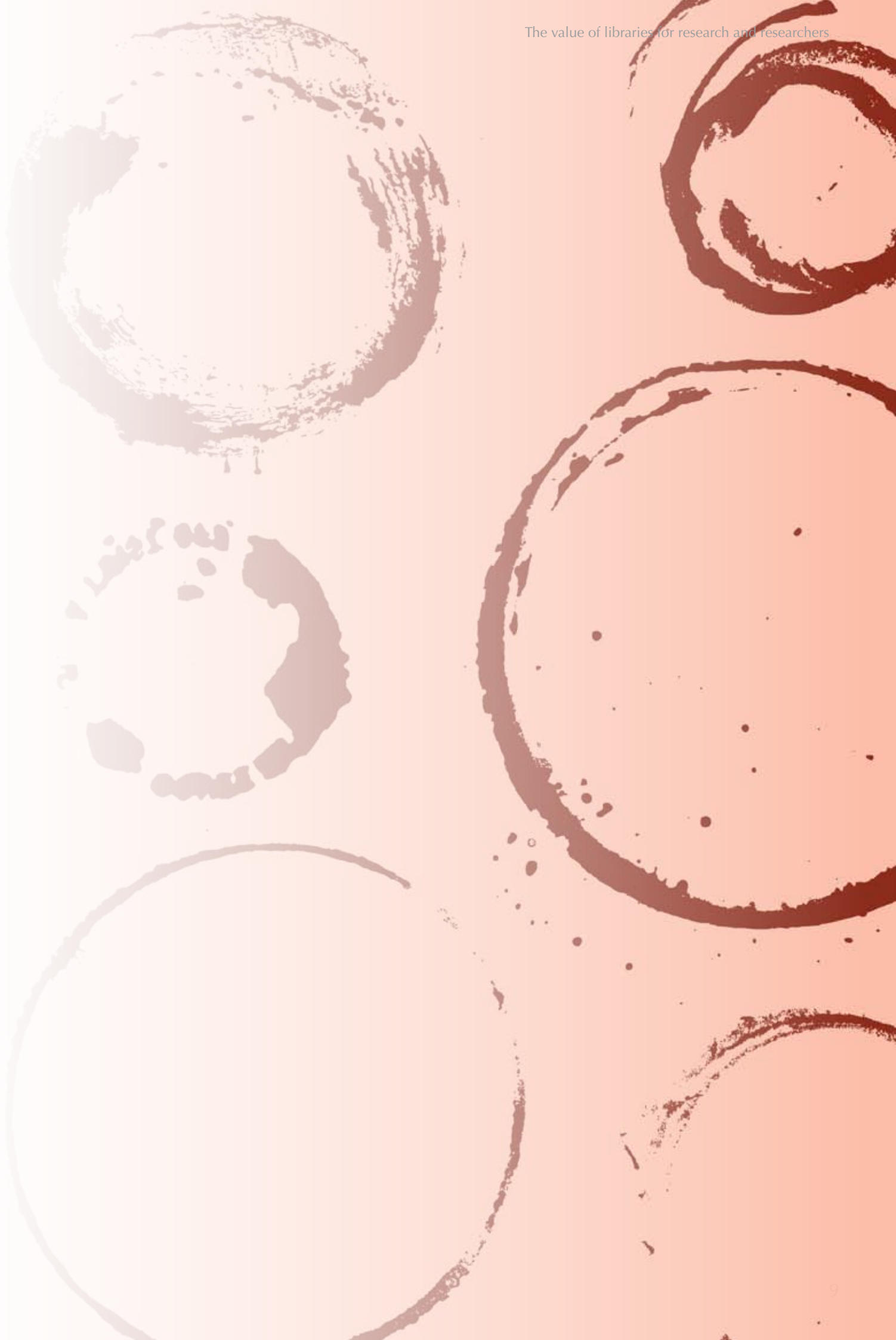
Libraries are changing and the value they provide will change too. This project has provided a snapshot of libraries based on current evidence, as the HE sector begins a period of turbulent change. The need to demonstrate value will endure and should not be underestimated. Arguing the case for libraries may get harder as the traditional role of libraries in providing access to content – the role most frequently mentioned and valued by researchers and senior managers – continues to become less visible.

We frequently spoke to senior researchers and managers whose experience of research began before the digital revolution, and who tend to see the value of libraries residing in their traditional role as content providers. Such perceptions may come under increasing scrutiny as budget pressures mount, and as current senior managers are replaced by those whose experience is of a different world, with a different set of assumptions. A big challenge for libraries, therefore, is to communicate to both researchers and senior managers how they are changing, and the opportunities for the future. Should traditional perceptions persist, there is the danger that the development of new roles and services will be put at risk. Further work to build the evidence base is therefore critical. But in so doing, it is important to stress that libraries must be judged beyond the immediate needs they serve; and that the value of any library is inextricably linked to the values of the university.

We hope that this report provides a framework for demonstrating the contribution libraries can and do make currently to the performance of researchers, research teams and institutions. But further work for the future will require better statistical evidence on library characteristics and activities.

That in turn will require working with SCONUL and its members, or finding other ways to gather statistics on how libraries support research, including, for example, training in information skills, support for individual research projects, and the development of institutional repositories. If possible, the statistics should provide breakdowns of the provision focused on the needs of specific departments or cost centres.

Gathering data of this kind need not be formalised to the same extent as the collection of the returns to SCONUL and HESA. Periodic lightweight surveys may suffice, in order to gather evidence to test particular hypotheses or investigate specific areas of provision.



Introduction



1. Introduction

Purpose and objectives

This report presents the findings of a systematic study of the value of the services that academic libraries in the UK provide to researchers, and of the contributions that they make to institutional research performance. This is an important theme in RLUK's current strategic plan, and complements RIN's aim to develop an evidence base on the provision of information services to researchers. The report is intended primarily for university librarians and their staff, but we believe it should also be of interest to research funders, and to senior managers and policy makers in the higher education sector.

The specific objectives of the project were to:

- investigate, across a range of universities and departments with differing records of success in research, the nature and extent of the provision of library services for researchers, including such characteristics as:
 - the volume and range of content provided;
 - the nature, range and extent of the services provided by subject specialists and others.

- investigate changes over the past decade in key indicators of research performance and in key characteristics of library provision.
- assess any correlations between key features of library provision and of research performance.

Approach

The approach comprised two main elements: quantitative analysis of statistics to investigate correlations between the characteristics and behaviours of libraries in 67 UK HE institutions, and the research performance of those institutions; and gathering and analysing a large tranche of qualitative information from nine institutions with a range of characteristics.

The quantitative analysis was based on:

- SCONUL statistics measuring various library characteristics;
- statistics published by HESA covering such matters as numbers of staff and research students; research grants and contract income (particularly in comparison with total income);

- bibliographic data on the numbers and impact of publications produced;
- evidence submitted to and the results of the RAEs of 2001 and 2008.

The study was undertaken between April and September 2010. The qualitative information included interviews and focus groups with a range of librarians and members of the research communities in the selected institutions and subject domains. A more detailed account of the methodology is available on the RLUK and RIN websites.¹

The study also draws on evidence from relevant previous studies, some of which have taken different approaches to demonstrating the value of academic libraries (eg by attempting to calculate a return on investment).

Scope

Libraries

This project covers academic libraries in UK HE institutions, **not** just RLUK institutions. It thus covers libraries which differ significantly in the range of functions they fulfil and services they provide, as well as the place they occupy in broader institutional structures (for example, whether or not they are converged with IT services). The picture presented in this report of the value of libraries is therefore an amalgam of many different libraries rather than any individual library. The table in Section 3 provides an overview of the services offered by libraries to different groups of users and stakeholders.

Researchers

The focus of this project is on researchers, from doctoral students, through post docs, to senior academics. Some distinctions in types or areas of research (eg STEM, AHSS) have been made, but the findings are generally applicable across all research domains. RLUK has commissioned a second study – currently being conducted by CIBER at UCL – focused on the value of libraries to undergraduates, taught postgraduates and other students.

Value

In this project we have considered ‘value’ as the direct and indirect benefits of libraries, actual and perceived. We have generally defined as direct benefits those that libraries bring to researchers (eg providing access to academic journals); and as indirect benefits the library’s contribution to the research performance of the institution as an organisation. Considering both these elements, and the links between them, allows us to build an overall map of the value of libraries to research (see Section 3).

Terminology

A range of terms is used across the sector to describe similar concepts and practices relating to library services. In the interests of clarity we have tried to be consistent in our terminology, and we use the following terms:

- **Research Support Office:** refers to institutional support functions in the areas of research grants, research degrees and research quality assessment.
- **Research material:** covers all content and collections, in any format, used for conducting research.
- **Information specialists:** refers to librarians in a liaison role who have special subject expertise and/or a specific focus on researchers and their needs.

Overview of this report

- Section 2 contains an overview of the environment for libraries and research;
- Section 3 provides a map summarising the value that libraries provide to researchers and research;
- Sections 4 to 13 set out ‘stories’ of specific kinds of value;
- Section 14 reviews the evidence gathered and analysed for this project and the extent to which we have met the project objectives.

The detailed results of the quantitative analysis, including a list of the institutions which it covered, are published separately.

1. www.rin.ac.uk/value-of-libraries



*The environment for
libraries and research*

2. The environment for libraries and research

Introduction

This section presents an analysis of the environment for libraries and research and how it has changed over the last decade.

Overall environment

The networked world has had a profound impact on research and communication practice over the past decade, and practices continue to change. The last decade has also seen sharp growth in levels of research activity, and an associated growth of interest in monitoring and assessing research performance. A PVC Research noted that in the past academics had been allowed to “get on with what they are interested in”, but that institutions now need to “be more strategic about where they focus research”.

Libraries continue to play a central role in these developments. They introduced e-content, so that it is now fundamental to researchers’ practice and improved the efficiency with which they work. However, the digital revolution has changed the relationship between researchers and libraries. As one librarian remarked, the more that libraries do to make accessing research materials quick, seamless and easy for researchers “the more invisible they make themselves”. The lack of contact with researchers means that there can arise a “gap between the needs of researchers and what the library provides”. Many libraries are now trying to find ways to reconnect with researchers.

Libraries in many universities have nevertheless been successful in seizing opportunities to participate in institution-wide initiatives such as research information management systems, and efforts to improve training and support for researchers. In many cases, the catalyst for change has been running the institutional repository, now commonly seen as a fundamental part of an institution’s infrastructure. Libraries’ perceived success in this role has increased their visibility and earned them respect from senior managers.

Library and research statistics

LISU² compile annual statistics on libraries, and also work to identify longer-term trends.³ In addition, a report published by RIN and SCONUL examines trends in library finances in more detail.⁴ This work demonstrates that:

- “[In the last decade] the proportion of total institutional expenditure devoted to libraries has fallen significantly in all parts of the sector.”⁴ The current figure is the “lowest level for the ten year period”.⁵
- the number of current serial titles per FTE member of teaching and research staff doubled between 1998-9 and 2008-9.
- “expenditure on information provision, while increasing in real terms for all groups, has remained relatively steady as a proportion of all library expenditure. It accounts for just over a third of all library expenditure, with no significant changes between 1999 and 2009.”⁴
- “the balance between expenditure on books and serials has changed significantly. Expenditure on books has fallen in real terms... [whereas]... expenditure on serials has risen sharply.”⁴
- “expenditure on print-only serials has fallen in real terms ... [between 2001 and 2009] ... at the same time, expenditure on serials in electronic format has increased almost seven-fold.”⁴

In assessing the data on expenditure, it is important to note that:

- It is difficult to decouple expenditure on support for teaching and learning, and for research.
- library inflation is higher than overall institutional inflation (as measured by the Higher Education Pay and Prices Index’s⁶ (HEPPI) library component and total index). This exacerbates the decline in library expenditure as a proportion of institutional expenditure.
- institutions vary in their patterns of activity and expenditure, and so averages tell only a limited story.
- SCONUL data may not include additional institutional funded expenditure (eg capital investment in new buildings).

2. See <http://www.lboro.ac.uk/departments/ls/lisu> [accessed on 14 September 2010].

3. See for example, *SCONUL library statistics: trends 1998-99 to 2008-09*, White and Creaser, August 2010.

4. *Trends in the finances of UK higher education libraries: 1999-2009*, RIN, September 2010.

5. *SCONUL library statistics: trends 1998-99 to 2008-09*, White and Creaser, August 2010.

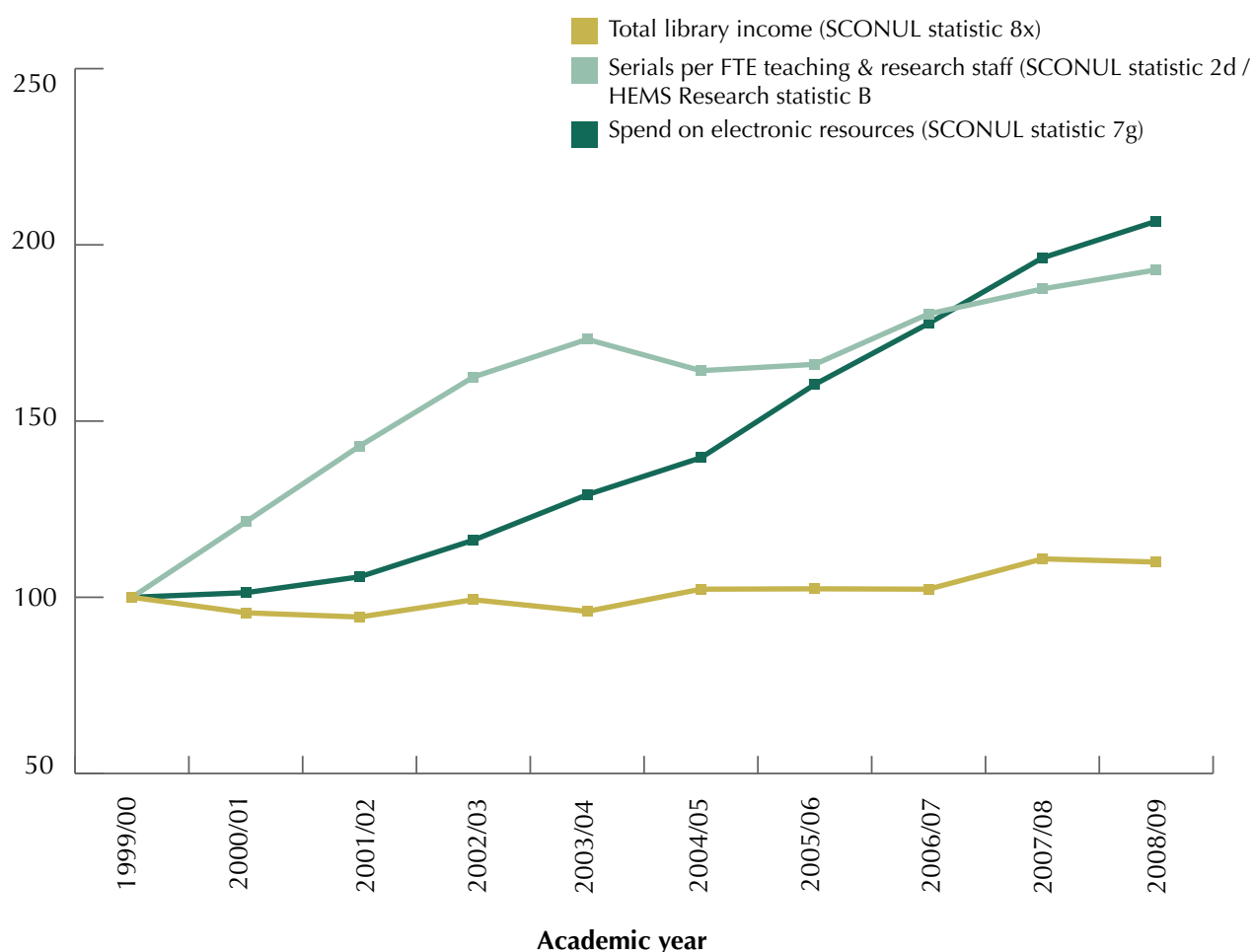
6. See <http://www.universitiesuk.ac.uk/PolicyAndResearch/Statistics/Higher-Education-Pay-and-Prices-Index/Pages/default.aspx> [accessed 14 September 2010].

Data from SCONUL and HESA are summarised in Figures 1 and 2. The numbers have been baselined at 100 for the academic year 1999-2000. Costs and income have been adjusted for HEPPI-measured inflation (for SCONUL data, the library component of HEPPI inflation).

The SCONUL data highlight the sharp increase in expenditure on electronic resources and in the provision of serials.

The HESA statistics show that academic staff costs, research grant and contract income, and the number of PhDs awarded⁷ have increased significantly in the last decade.

Figure 1: Library trends in the last decade



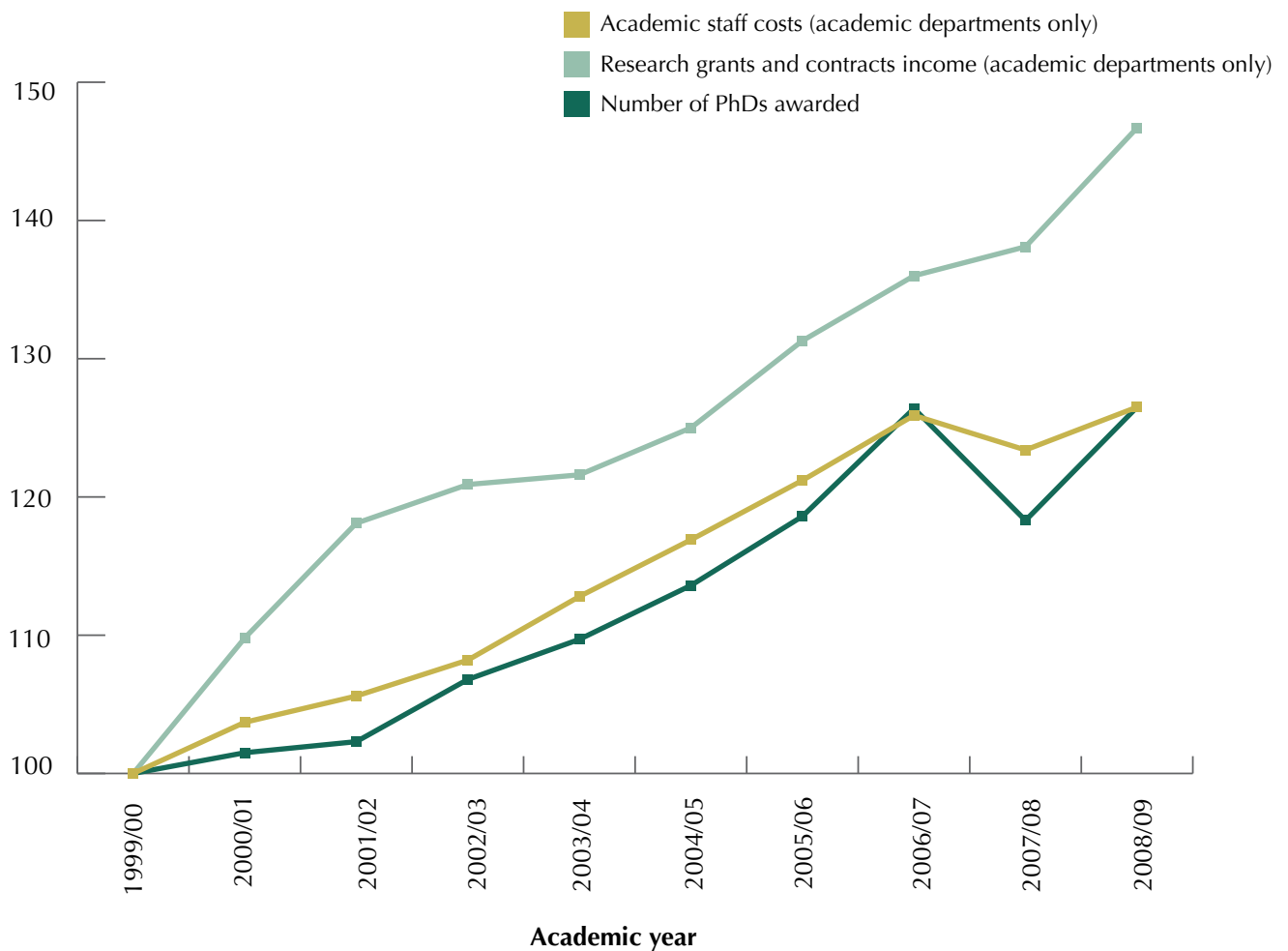
Funding of libraries

Remote access to digital content means that many researchers do not know what libraries do for them: libraries' supporting role is hidden behind the scenes. This may become an increasingly important issue for libraries as a new generation of senior academics becomes responsible for decision making. At present, many senior academics' formative experiences were of a physical

library. They often have a "gut feeling" that libraries are worthwhile for research, or a "strong view" that the institution needs to protect the library budget; and they thus require little persuasion about the need to support the library. As these decision-makers are replaced by those whose experience is of an online digital world, however, there may well be a different set of starting assumptions.

7. Changes to the structure of HESA's student record in 2007/08 may have had an impact on the drop in numbers of PhDs recorded in that year.

Figure 2: Research trends in the last decade



Thus at present, while there are usually rigorous annual reporting requirements relating to libraries' contribution to the student experience, there is less focus on their contribution to research performance. For many senior managers, including Finance Directors, the main focus of concern in relation to libraries is ensuring that they can sustain or improve their current levels of content procurement, even within the constraints of flat or falling budgets overall. As universities seek to enhance their systems for monitoring and assessing research performance, however, libraries are likely to face greater demands for evidence as to how, and how effectively, they support research.

Building the evidence base on all aspects of library activities, not just content provision, is therefore critical. One Finance Director noted that senior managers are not

always aware of the nature and extent of libraries' roles in supporting research, since the evidence is not being put forward. The following sections will help libraries to remedy that deficiency.

What does the library do for me?

Libraries provide some services direct to researchers. They also provide services and support to other stakeholders who then themselves help the research process, and thus for the research effort across institutions. Figure 3 (overleaf) outlines the breadth of such services. Not all libraries provide all these services, and they operate in many different ways. However the diagram indicates the range of services offered by libraries in different ways to different categories of users and stakeholders.

Figure 3: Library services and functions





*ap of the value that
ries provide*

3. A map of the value that libraries provide

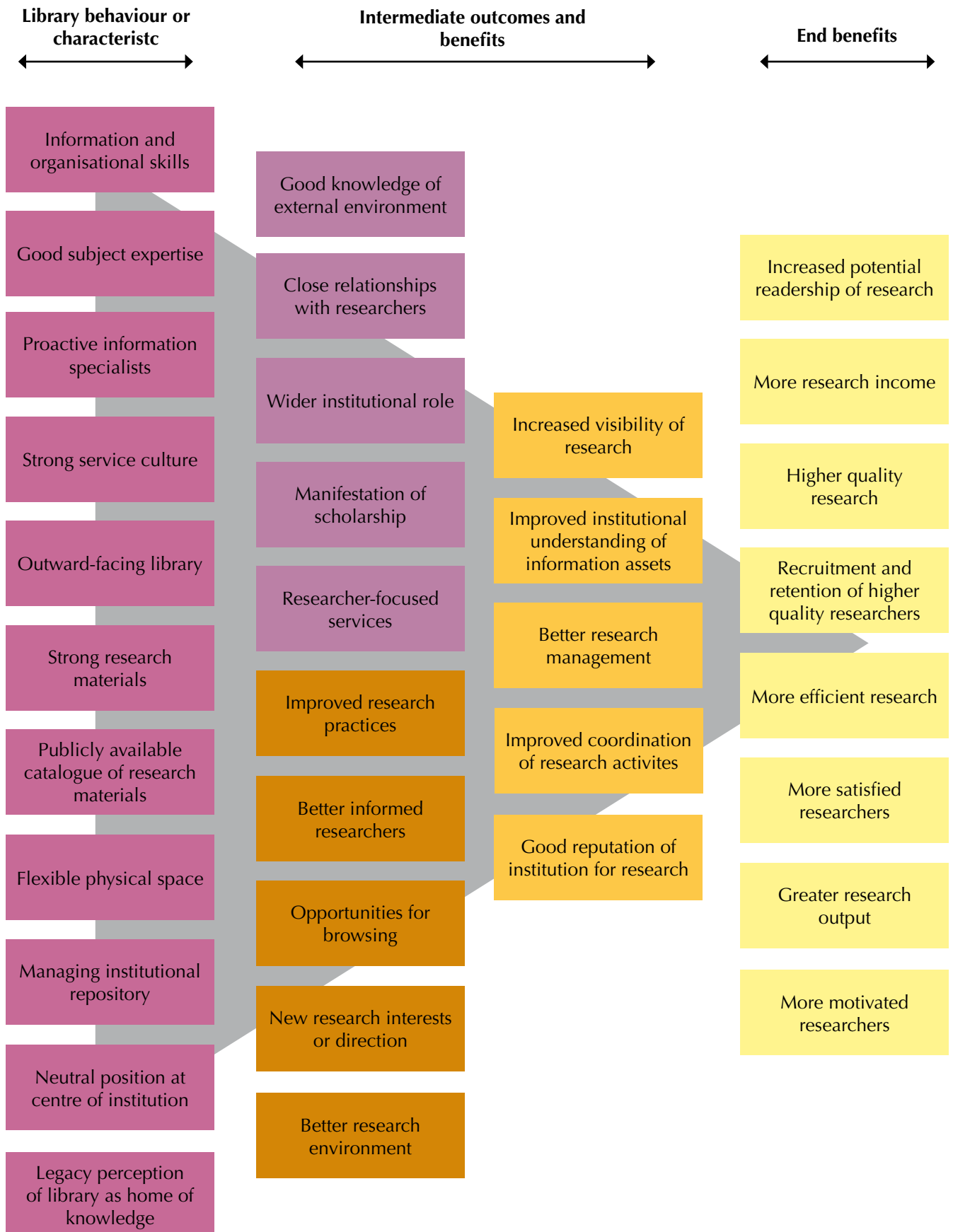
Introduction

This section provides an overall map of the value of libraries, presents a vision of good practice, and summarises the supporting stories of value presented in Sections 4-13.

Overall value

The map of value on the following page provides a summary picture of how libraries support researchers and research. It presents various library behaviours and characteristics and shows the outcomes and benefits they bring to researchers and HE institutions. The map is based on qualitative evidence collected during the project, and derives from the ten maps presented in more detail in Sections 4-13. The logic chains have been simplified in this summary map: while all the library behaviours and characteristics and end benefits are represented, only the major intermediate steps are shown.

We provide in Sections 4–13 substantial qualitative evidence as to the steps in the chains of logic. The limitations of the available statistics mean that we cannot provide statistical evidence to underpin all the links in the chains. Much more detailed quantitative data and analysis would be required to do that. Nevertheless, we believe that the maps provide a useful way to review what libraries do, and the benefits they bring to researchers and institutions.



A vision of good practice

Libraries can bring substantial value to researchers and research. The map is a composite of examples of good practice and the benefits that they bring. We offer here a vision of a library that combines all such characteristics and behaviours.

Such a library evolves and responds with enthusiasm to the new opportunities and challenges for higher education, the information society and knowledge economy. It is no longer seen simply as a provider of content, and is actively pursuing new opportunities to build institutional value. One of the library's most important characteristics is its strong service culture, ingrained in the mindsets of librarians at all levels, in the governance of the library, and in all library processes. The reward is respect for the library across the institution, high levels of researcher engagement, and strategic collaboration with other providers of research support.

The practices of subject specialists in such a library are far removed from traditional collection management roles; they adopt a much more proactive approach, working in partnership with academic departments. They understand and speak the language of the subjects they support. They often take up an embedded position where support is required. They operate as liaison officers between the library and researchers in their domain, consultants to identify and solve problems, and trainers to improve skills and understanding. Better links with researchers and academic departments help the library to position itself in a changing environment, to take advantage of new opportunities, and to respond to researchers' evolving needs and behaviours.

A strong service culture is closely linked to an outward facing stance. The library exploits its skills and its position at the centre of the institution to cultivate links with many other bodies, identifying opportunities for creating new value and delivering that value in collaboration. The information and organisational skills of library staff are drawn on regularly and routinely to support the institution's research mission.

The institutional repository is seen as a fundamental part of the institution's infrastructure. The library's success in running the repository has significantly increased its

profile as a service that can provide valuable support to research across the institution. This has opened the door to further opportunities and partnerships.

In this scenario, while much has changed, many things remain the same. Provision of content to researchers is still a huge part of the library's role, but done in an increasingly smart way. A proactive, open, continuous dialogue takes place between the library, the faculties and departments about what content is needed and where savings can be made. Innovative means of delivery (eg piloting of new content, open access content and new document delivery systems) are being trialled. The library exploits its publicly-available catalogue of research materials to strengthen the research reputation of the institution.

The library also retains its scholarly ethos and its place as a home of knowledge. Physical space remains a constraint, but it is managed flexibly to meet the demands from traditional and new users, and the portfolio of services that the library offers.

Specific 'stories' of value

The overall map of value is based on ten different stories – set out in Sections 4-13 – of how and where libraries provide value to researchers and research. Each story is based on information collected in this project, along with other related information sources.

For convenience, the table overleaf summarises the following sections and the specific stories of value they present.

Section	Section title	Library behaviours or characteristics	End Benefits
4	Good libraries help institutions to recruit and retain top researchers	<ul style="list-style-type: none"> • Strong service culture • Strong research materials • Publicly-available catalogue of research materials 	<ul style="list-style-type: none"> • Recruitment and retention of high-quality researchers
5	Libraries help researchers win research grants and contracts	<ul style="list-style-type: none"> • Good subject expertise • Information and organisational skills • Strong service culture 	<ul style="list-style-type: none"> • More research income
6	Libraries promote and exploit new technologies and new models of scholarly communications	<ul style="list-style-type: none"> • Outward-facing library • Strong service culture 	<ul style="list-style-type: none"> • More satisfied researchers • Higher quality research • More efficient research
7	Repositores increase the visibility of the institution and raise its research profile	<ul style="list-style-type: none"> • Managing the institutional repository 	<ul style="list-style-type: none"> • Higher quality research • Increased potential readership of research • More research income
8	Outward-facing libraries contribute to institution-wide activities	<ul style="list-style-type: none"> • Outward-facing library • Impartial position at the centre of the institution 	<ul style="list-style-type: none"> • Higher quality research • More research income
9	Specialist staff work in partnership with academic departments	<ul style="list-style-type: none"> • Good subject expertise • Strong service culture • Proactive information specialists 	<ul style="list-style-type: none"> • Greater research output • More efficient research • More satisfied researchers
10	Connecting with researchers enhances the value of the library's services	<ul style="list-style-type: none"> • Outward-facing library • Strong service culture 	<ul style="list-style-type: none"> • More satisfied researchers • Higher-quality research • More efficient research
11	Dedicated spaces provide a better work environment for researchers	<ul style="list-style-type: none"> • Flexible physical space • Strong research materials 	<ul style="list-style-type: none"> • More satisfied researchers • Higher quality research • Greater research output
12	Easy access to high-quality content is a key foundation for good research	<ul style="list-style-type: none"> • Strong research materials • Information and organisational skills • Good subject expertise 	<ul style="list-style-type: none"> • More efficient research • Higher-quality research
13	Libraries are a physical manifestation of the values of the academy and of scholarship	<ul style="list-style-type: none"> • Legacy perception of library as home of knowledge 	<ul style="list-style-type: none"> • More motivated researchers

The background is a solid orange color. Overlaid on this are several abstract geometric elements. A large, light green, semi-transparent arc curves from the top left towards the center. Another similar arc is visible in the upper right. In the lower half, there are two stylized, rectangular structures resembling bookshelves or architectural frames. The one on the left is orange with a white zigzag line at the top. The one on the right is green with a white zigzag line at the top. Both have vertical lines extending downwards. At the bottom, there are two more rectangular blocks, one orange and one green, each containing several horizontal white lines. A small green semi-circle is at the bottom center. Several small white dots are scattered across the design, including one near the top left, one near the top center, one near the top right, and one near the center of the green shelf structure.

*Good libraries help to
recruit and retain top
researchers*

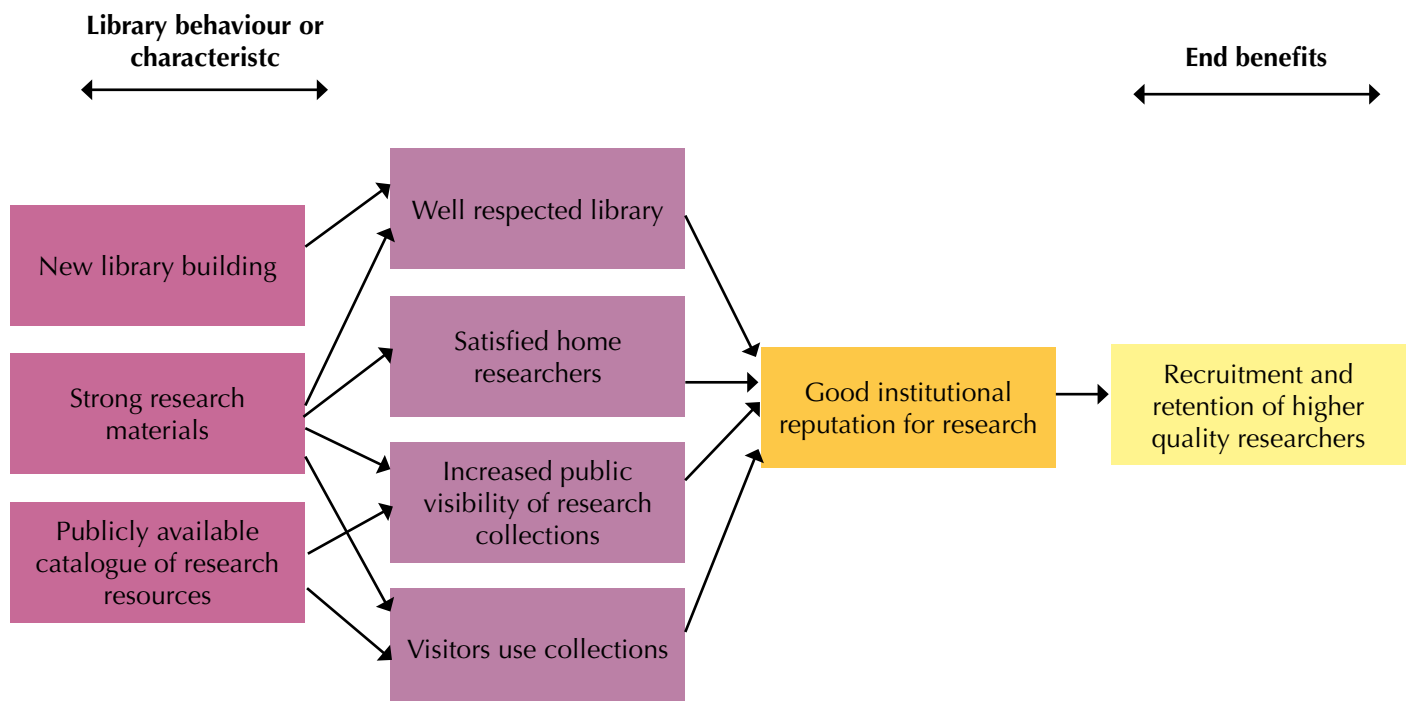
4. Good libraries help institutions to recruit and retain top researchers

Summary

There is global competition for top researchers, and institutional reputation is key to attracting them. Many factors contribute to a good reputation, including league tables, RAE scores, research productivity and funding levels. But the library also contributes, positively or negatively, to an institution's reputation. The quality,

nature, and extent of the library's collections, of its staff and the services they provide, and of its buildings are all important. Successful and high-quality libraries can be a significant factor in recruiting and retaining top researchers.

Benefits map



Value to researchers and research

There is a global market of research and researchers, and both universities and other organisations – in the public, commercial and voluntary sectors – vie with each other to recruit talented individuals. In making their decisions, researchers are influenced by a number of factors, but institutional reputation is critical.

Many factors contribute to a good reputation, including league tables, RAE scores, research productivity and funding levels. Our evidence suggests that the library also contributes, positively or negatively, to an institution's research reputation. Those to whom we spoke for this study highlighted among other things:

- prestigious and comprehensive research content, including exceptional journal and book collections, and historical, rare and unique research resources built up over the lifetime of the institution by purchase, gift or bequest
- new library buildings (at a 1994 Group institution, the library building is included in the tour for prospective postgraduate researchers).

The library's research collections can be a distinctive feature of an institution, boosting its 'brand'. The quality, nature and comprehensiveness of the library's collections can be a key selling point, a major draw for international students, and an influence on researchers when choosing whether to apply for or accept a post. A humanities researcher at a Russell Group institution said he had left his previous institution because of its poorly stocked library. At another Russell Group institution, the 'outstanding' e journal collection was highly valued by one researcher since "I mostly find that I can get the content I want immediately".

Special collections boost profile and brand

A Russell Group institution seeks wherever possible to exploit its special collections in raising its research profile. Images from the collections are used extensively by Corporate Communications, for example, in Alumni newsletters, to promote 'World Book Day' and in institutional displays.

As well as being used by home researchers, libraries often welcome large numbers of external researchers to use printed content, archives and special collections. Five English university libraries – two of which are legal deposit libraries – hold the status of national research libraries, and receive special funding in recognition of the national roles they fulfil. The Deputy VC at a Russell Group institution noted that the library's special collections distinguished the institution as contributing something "quite unique" to the sector as a whole.

The "pulling power" of library collections

A straw poll of researchers in a 1994 Group institution showed that the library holdings had been a factor in attracting many of them to the institution. The investment in the library was obvious, and made clear the institution's commitment to support research.

Our evidence also suggests, however, that some researchers believe that important collections and archives are not always well handled or exploited. One library, for example, received feedback from academics that it did not exploit its resources well enough to attract researchers to their department, since the collections were not adequately catalogued. And researchers at a Russell Group institution were concerned that inadequate physical space would "constrain the archive" in the future, and its ability to accept new deposits or to showcase existing collections.

Constraints on funding and pressure on space mean that it is important for libraries to capitalise on their collections and other assets to increase their reputation and that of their host institution. Ensuring that collections are well-catalogued with readily-available metadata records, and digitising them wherever possible, are increasingly important. There has been significant investment in such activities at some institutions in recent years, from both institutional and external sources, and often involving collaboration between the library and academic departments. Such initiatives can benefit both the library and the institution.

Bidding for funding to exploit special collections

A library at a 1994 Group institution collaborated with the history department to win a grant from the Mellon Foundation to develop abstracts of papers from the library's archives.

A Russell Group institution has received three grants from the Wellcome Trust to increase access to its collections, through cataloguing and dissemination. The library is now organising a joint conference with an academic department to promote the new collections.

Review of evidence

Four of the nine institutions involved in the study highlighted the library as a contributing factor to the institution's research reputation. This evidence came from librarians, researchers and PVCs Research.



*Libraries help
researchers win research
grants and contracts*



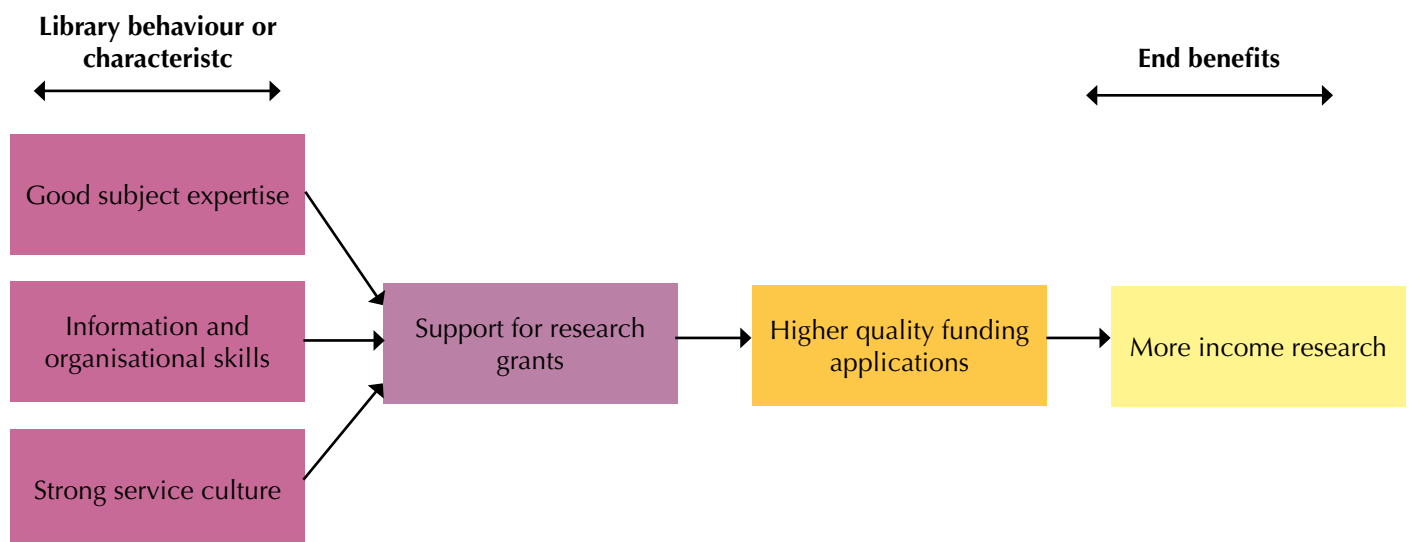
5. Libraries help researchers win grants and contracts

Summary

intensive universities. Research Support Offices help researchers to generate a regular flow of high-quality applications for such grants and contracts, but libraries are playing an increasingly significant role too. On the whole they do so in response to specific requests rather than pro-actively, however, and in general researchers are not required to consult the library in generating their bids.

Libraries could play a greater role if researchers knew that support was available, and if their involvement was more formalised. Libraries have an opportunity to use their skills to help researchers improve the quality of their funding applications, and to increase the institution's success in winning research income

Benefits map



Value to researchers and research

The seven UK Research Councils award nearly £2 billion every year to universities in research and training grants, through a competitive application process. A further £900 million is awarded by research charities, and a total of c£1.7 billion by other bodies including Government Departments, the EU, and industrial and commercial organisations.

In research-intensive institutions in particular, a high percentage of income comes from research grants and contracts. For a Russell Group institution involved in this study, research grants and contracts amount to 60% of its income. It is therefore very important for such institutions to generate a regular flow of high-quality grant applications.

The processes of applying for grants are generally managed and supported by the Research Support Office. Our evidence suggests, however, that libraries are playing an increasingly significant role in supporting the development of applications, through:

- advice on collections (eg for digitisation projects), and ensuring that researchers will have access to the content they need to support their research;
- conducting literature reviews and surveys and providing references for inclusion in grant applications;
- quality checking of data;
- undertaking to provide resources and expertise for the project (eg a systematic literature review);
- advice on data management plans.

Sometimes libraries bid for research funding in their own right, usually in collaboration with academic departments.

A library helps researchers demonstrate their credibility

An academic department was involved in a major bid to support research capacity development in sub-Saharan Africa. Information literacy was a key component in the proposal, and the library helped the researchers involved to demonstrate their understanding of this. Although the bid was not successful, the input was valued: “it was great to work alongside Library staff, who brought excellent insights and input to the bid process”.

Department at a Russell Group institution

On the whole, however, libraries provide support for grant applicants in response to specific requests rather than pro-actively, and input from the library is generally not formalised as a “standard checklist item” in the processes managed by the Research Support Office.

Risks arising from not involving the library in grant applications

A department was successful in winning funds for a project on climate change, and as a result set up a new Masters course. The library was not involved in the grant application, and the researchers did not consider the demands for library resources. This became a major problem as the project and the Masters Course imposed significant unfunded demands on the library and its resources. A working group has now been established to ensure that such problems do not recur.

Department at a Russell Group institution

Our evidence suggests that libraries could play a greater role in supporting grant applications, if researchers knew that support was available and if library involvement was more formalised. Libraries have an opportunity to use their skills to help researchers improve the quality of their grant applications, and increase the institution's success in winning research income. The Director of the Research Support Office at a Russell Group institution stated that "while [he] had no complaints about the contribution of the library to grant applications, it is still at a fairly operational level. The library could be more strategic and proactive", by

- working more closely with academic departments to communicate how the library can help researchers, and to identify opportunities to provide support;
- helping departments to get a better understanding of the library and the resource implications for research projects. Researchers often believe that since the library is separately funded, they do not need to secure additional resources to enable the library to meet the demands associated with specific proposals.
- liaising with the Research Support Office about opportunities to formalise the library's involvement, or to make them more aware of how it could support researchers in the application process.

Review of evidence

Librarians at four of the nine institutions said that they had been involved in supporting grant applications, in response to requests from researchers or the Research Support Office. Two of the nine libraries had successfully bid for funding themselves.

Other studies on the library's value to the grants process

In the US, a number of studies have sought to develop a quantitative measure of the library's return on investment (ROI) by tying faculty's use of library materials to the generation of grant income.⁸ The objective is to demonstrate in concrete terms the economic value of the library to the institution as a whole. These studies link the use of library resources to successful grant proposals, initially at the University of Illinois at Urban Champaign and then at a further eight institutions worldwide. These show a range of results, and the work is now being expanded into a major programme covering the value of a much wider range of key library products and services.⁹



8. See Luther, J. (2008) "University investment in the library: What's the return? A case study at the University of Illinois at Urbana-Champaign", Elsevier Library Connect White Paper, <http://libraryconnect.elsevier.com/whitepapers/lcwp0101.pdf>, [date accessed 13/09/2010]; and Tenopir, C. (2010) "University Investment in the Library, Phase II: An International Study of the Library's Value to the Grants Process", Elsevier Library Connect White Paper, <http://libraryconnect.elsevier.com/whitepapers/roi2/2010-06-whitepaper-roi2.pdf>, [date accessed 13/09/2010].

9. See <http://libvalue.cci.utk.edu/node/2> [accessed on 10 January 2011].



*Libraries promote and
expiot new technologies
and new models of
scholarly communications*

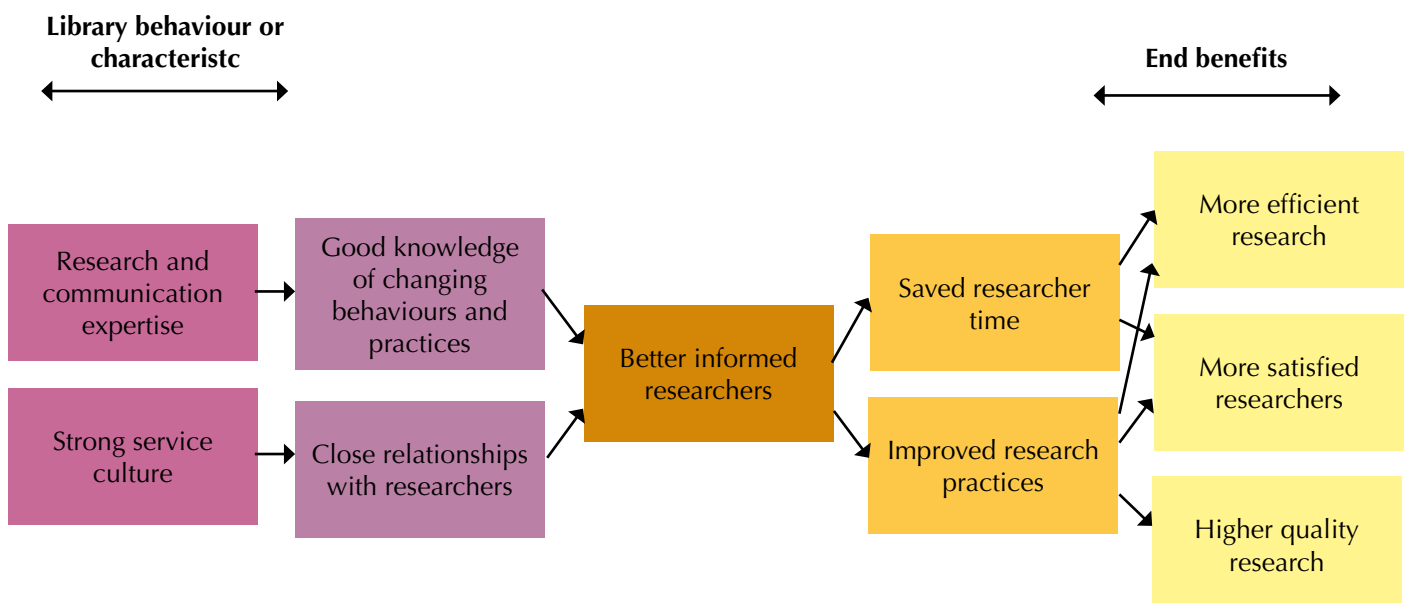
6. Libraries promote and exploit new technologies and new models of scholarly communications

Summary

Libraries are critically important in helping researchers to exploit the full benefits and opportunities of the networked world, including such developments as open access and social media. But libraries are not always well-equipped to promote change, and researchers sometimes resist efforts to modify their behaviours and

practices. Nevertheless, many libraries have succeeded in addressing such problems, by establishing stronger links with researchers and re focusing their services to promote and exploit new technologies and new models of scholarly communication.

Benefits map



Value to researchers and research

The continuing digital revolution has produced a networked world which has changed research and communication practices fundamentally; and change continues at an unrelenting pace. Libraries' expertise in information management and in scholarly communications means that they are well-placed to help researchers to exploit the full benefits and opportunities of a digital networked world by, for example:

- procuring and delivering a wider range of content;
- training researchers to find and use the ever-increasing volumes and kinds of content;
- promoting new models of dissemination and publication;
- providing advice on IPR and copyright;
- promoting and supporting good practice in reference management.

The rapid pace of change presents challenges as well as opportunities for both libraries and researchers. The Vitae Researcher Development Conference in 2009, for example, identified "the ability to adapt to new academic behaviours as one of the most necessary skills, as well as one of the core challenges, for new researchers". Promoting change can be difficult, however: while researchers have quickly embraced changes such as online access to scholarly journals, their adoption of other developments and initiatives, such as open access repositories, has been much slower.

Researchers may resist change for a number of reasons: natural caution, uncertainty, or unwillingness to abandon existing practices which seem to work well; misconceptions about what is involved; lack of time to learn new procedures or techniques; or lack of clarity as to the benefits that change may bring. Libraries are not always well-equipped in such circumstances to promote and support changes in behaviours and practices: library staff may themselves lack the new skill-sets required, or an understanding of how change might affect researchers' established patterns of work.

Helping with copyright issues

The introduction of a policy requiring theses to be submitted in electronic form and made available through the institutional repository raised significant difficulties when it was found that some theses included material such as photographs that might be covered by third party copyright. Doctoral students who were writing up when the policy was introduced had to address copyright issues and obtain permissions at the last minute. The library helped them to deal with these issues, and is now working across the university to ensure that good copyright practice is embedded in research workflows.

1994 Group Institution

Our evidence suggests that many libraries have nevertheless succeeded in re focusing library services and operations to promote and exploit evolving technologies and new models of scholarly communication, encouraging researchers to adopt new behaviours and practices. They have done this by, for example:

- Developing new roles to support researchers; and working with senior members of the institution (eg Graduate Deans and Heads of Departments) to make a case for funds to recruit new members of staff.
- Changing the roles of information specialists so that they work more closely with researchers and develop better understanding of their behaviours (see Section 9).
- Retraining and enhancing the skills of library staff in areas including systematic literature reviews and bibliometrics.
- Developing innovative ways of interacting with researchers, eg via dedicated researcher space in the library, and exploiting new technologies.
- Keeping abreast of scholarly communication developments and ensuring that the wider institution is aware of them through, for example, reporting at research and departmental committees.
- Working with the Research Support Office and other units in the institution to review opportunities to provide support.

The library creates a new role for a bibliometrician

A library worked with the PVC Research and the Research Support Office to secure funding for a new post specialising in bibliometrics. The bibliometrician's role is to work with academic departments to identify research strengths, and to help the institution improve the impact of its research. This includes helping researchers to understand bibliometrics (and its limitations), and undertaking specific bibliometric analyses. The PVC Research noted that institutions now realise that they need to "be more strategic about where they focus research"; and the appointment of the bibliometrician is part of the institution's commitment to such an approach.

1994 Group Institution

PGR training sessions

A senior researcher praised the library for keeping its courses for postgraduate researchers up to date with technological changes. He attends the sessions each year with his postgraduates and finds that he "learns something new each year"

Researcher, Russell Group institution

Take advantage - researchers enjoy talking about their work

An information specialist has tested new ways of engaging researchers and understanding how they work. She exploits researchers' readiness to talk about their work as a lead into discussing opportunities to help improve their efficiency. She found one researcher using a mindmap to help in writing papers for publication. She showed him how to link the mindmap with reference management software so that references were automatically inserted when he exported the mindmap to a document. This saves "huge amounts of time", which he could not have achieved on his own. The two have since collaborated together and published work jointly.

Information specialist and researcher, Russell Group institution

Dedicated researcher support on developments in technology

A facilitator uses a dedicated researcher space in the library to provide a forum for exploring new technologies for research. Her role is "essential in helping researchers keep up to date with new developments. By joining social networks, I provide a first point of contact for new users, as well as updating more experienced users on ways of developing their online profile. The events I organise, and the networking platforms I use, also encourage interdisciplinary communication."

Her activities have included:

- developing an online space to share research ideas and information – using Facebook, Twitter and a blog – with a ready-made network of contacts, and helping PhD students to design and set up a blog about the archive on which they're working;
- setting up RSS feeds to help researchers to track research sources;
- displaying new devices, such as e-book readers, and showing researchers how to find, download and read free e-books;
- facilitating workshops on the use of new technologies, and providing technological advice;
- supporting individual projects by showing a researcher, for example, how to use free software to record interviews;
- "discussing the possibility of holding a conference or event in Second Life".

She noted that the skills she supports can be important in future careers both within and beyond academia. An MA student said that his current employers were "very impressed with his web 2.0 skills."

1994 Group institution

Review of evidence

All nine libraries provided evidence of how they are providing advice to researchers on changing research and communication practices. Three of them provided evidence of how they have created new roles, employing new staff with different skills sets, to extend their services to researchers.



*Repositories increase the
visibility of the institution
and raise its research
profile*

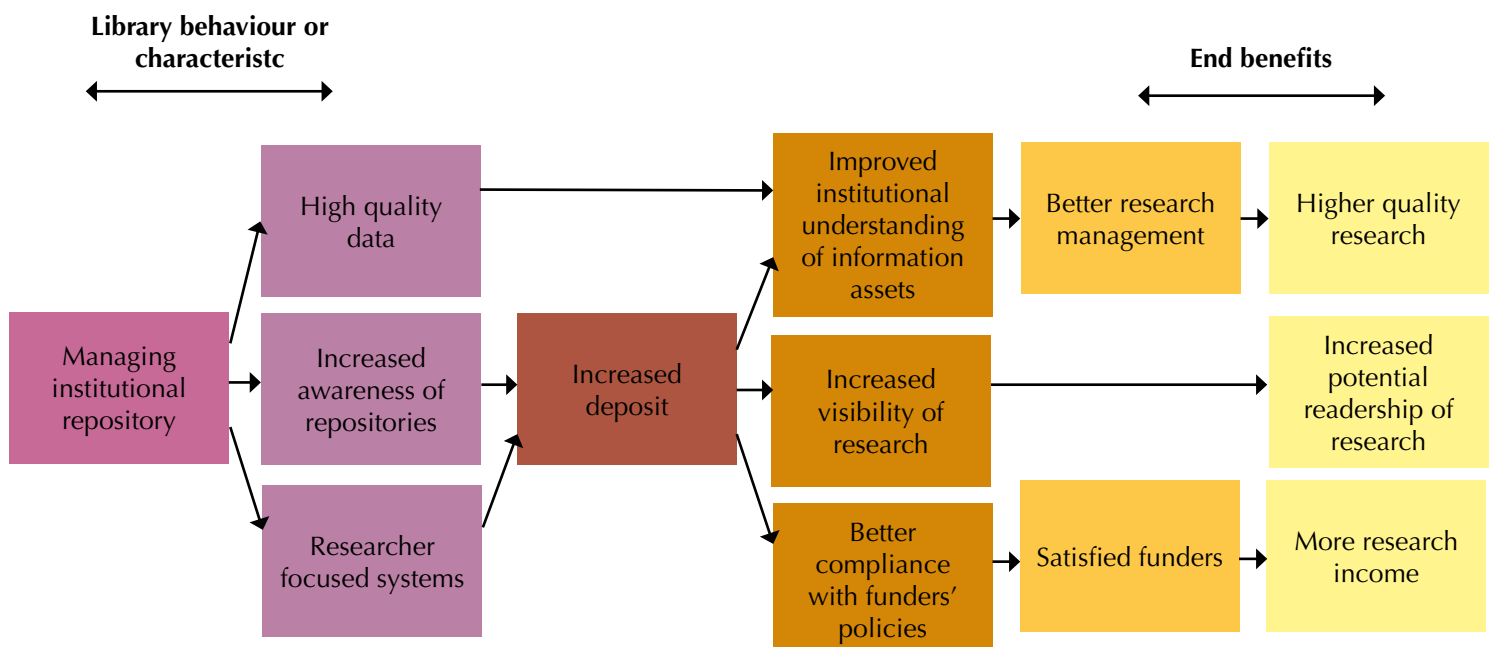
7. Repositories increase the visibility of the institution and raise its research profile

Summary

Most institutions now have repositories to store and make available institutional assets such as research papers and theses. In most cases, the library runs the repository on behalf of the institution, and senior institutional managers acknowledge the role the repository plays in increasing the visibility of the institution's outputs and raising its research

profile. But repositories are only as valuable as the content they hold, and now the focus is on increasing the volume of content, by making it routine for researchers to deposit their outputs. Libraries are now playing an increasing role in educating researchers and building more effective procedures and approaches across the institution.

Benefits map



Value to researchers and research

Repositories¹⁰ have become a fundamental part of the infrastructure for universities, with senior managers recognising their role in showcasing the institution's research output and raising its research profile. A Research Support Office noted that the "full text hits ... are astonishing and really pleasing; the fact that theses are often in the top hits really helps early career researchers."

Libraries have played a fundamental role in setting up and managing repositories, and this is widely acknowledged and welcomed. Libraries' roles in supporting and promoting repositories continues to be of critical importance, by, for example:

- promoting the repository through their established links with researchers and academic departments
- using their knowledge management skills to help populate the repository with full text records and appropriate metadata;
- using their understanding of academic publishing and copyright to ensure that researchers understand what can be deposited in the repository and on what terms
- employing their bibliographic expertise to check records and improve their accuracy.

PVCs Research support the library's role in developing the repository

A PVC Research said the institutional repository was fundamental, both as a marketing tool and as a "single point of truth for the published output record". He saw the library as the owner of the repository, and noted that its role is valued by senior management.
Russell Group institution

Another PVC Research noted that the library was "absolutely instrumental in getting the repository up and running." He recognised the value of the repository in providing a way of getting early access to published work, noting that it supports the institution's commitment to its research being for public good.

1994 Group institution

But repositories are only as valuable as the content they hold, and encouraging researchers to deposit their outputs has often proved difficult; repositories typically only hold a fraction of their researchers' current and past publications. Researchers are often unaware of the repository, or the benefits to themselves and the institution of depositing their research in it. Some consider deposit as an unnecessary chore, or too much of a burden to bother with, or even as a mechanism for the institution to "spy" on their research activities.

Institutions are now trying to capitalise on their investment in repositories by increasing the amount of material they hold. The focus is thus increasingly on ways to "embed the repository in the lives of researchers", making it routine for them to deposit their outputs. This is driven in part by the lead-in to the REF in 2014, with repositories seen as playing a crucial role in the preparations and submission, for example by identifying a complete record of publications and providing accurate metadata. Some institutions have now decided to require researchers to deposit their research outputs in the repository.

Our evidence suggests that libraries are playing an important role in driving up deposits, with one PVC noting that "libraries will play an increasing role in educating researchers" and building up more focused and joined-up approaches across the institution by, for example:

- improving workflows to make deposit easier and to alleviate researchers' 'worries' (eg by linking in services such as SHERPA's RoMEO and JULIET which set out publishers' and funders' policies on issues including copyright, deposit, and open access).
- continuing to work with academic departments to raise awareness and promote the benefits of the repository.
- educating researchers on funders' policies and on topics such as copyright and open access to help them make informed decisions.
- increasing awareness of researchers' obligations to their institution and to their funders, and working with others such as the Research Support Office to ensure that funders' open access requirements are met by grant holders.

10. Where 'repository' refers to collections of digital content including metadata and associated full text articles.

Benefiting from shared expertise and experience

A group of research-led institutions has established a Research Information Forum to encourage networking and sharing of expertise among librarians and other institutional staff involved in research and research support. Topics discussed have included open access mechanisms, researcher reactions to repositories, collection of repository statistics, and the use of repository content in Twitter and RSS feeds. The library and the Research Support Office at one member institution has reviewed the scope for improving the support they provide at different points in the research lifecycle.

Making researchers more comfortable about depositing

One institution uses a 'mediated deposit' process under which a member of the library team checks all submissions, eg for copyright, embargos, versions and accurate metadata. This, and a programme of educating researchers about issues such as copyright, have made researchers "much more comfortable" with depositing their outputs in the repository.

University Alliance institution

Helping institutions to get additional value from the repository

A library-run repository is now being used to underpin an annual review of research activity, including publications and research grants and contracts. The Library Director serves on the committee overseeing the exercise.

Russell Group institution

Targeting researchers from different angles

One library has raised the profile of the repository through training and related sessions run through the People Development Unit (which contributes CPD points and legitimises the training); through sessions tailored for departments or individuals; and as part of institutional PGR training. It also provides a suite of researcher-focused information on the online learning environment, and promotes significant 'milestones' such as the "100 club" of people who have 100 items in the repository.

Small research institution

The advent of institutional Research Information Management Systems (RIMS), connecting the repository and other institutional systems, will change the landscape further in some institutions. Building a coherent infrastructure of technical systems, policies and practice will enable research processes, performance and outputs to be better managed, and will be less onerous for researchers. Libraries are major stakeholders in the planning and implementation of RIMS, and are likely to be a key part of the workflow.

Embedding the repository in the Research Information Management System

An institution is seeking to embed the institutional repository in a Research Information Management System, making deposit much easier by harvesting publications automatically from PubMed, Web of Science etc and presenting them to the researcher for confirmation. An institutional mandate for the deposit of other research outputs will be implemented when the system is launched.

Russell Group institution

Review of evidence

Eight of the nine institutions involved in the study run the institutional repository and are focused on increasing deposit of outputs. There are many studies on institutional¹¹ repositories and their evolution, some of which are summarised in a forthcoming book chapter by Alma Swan.

11. Swan, A. (2011) Institutional repositories - now and next. In: *University Libraries and Digital Learning Environments* (eds Penny Dale, Jill Beard and Matt Holland), Ashgate Publishing. (In Press).



*Outward-facing libraries
contribute to institution-
wide initiatives*

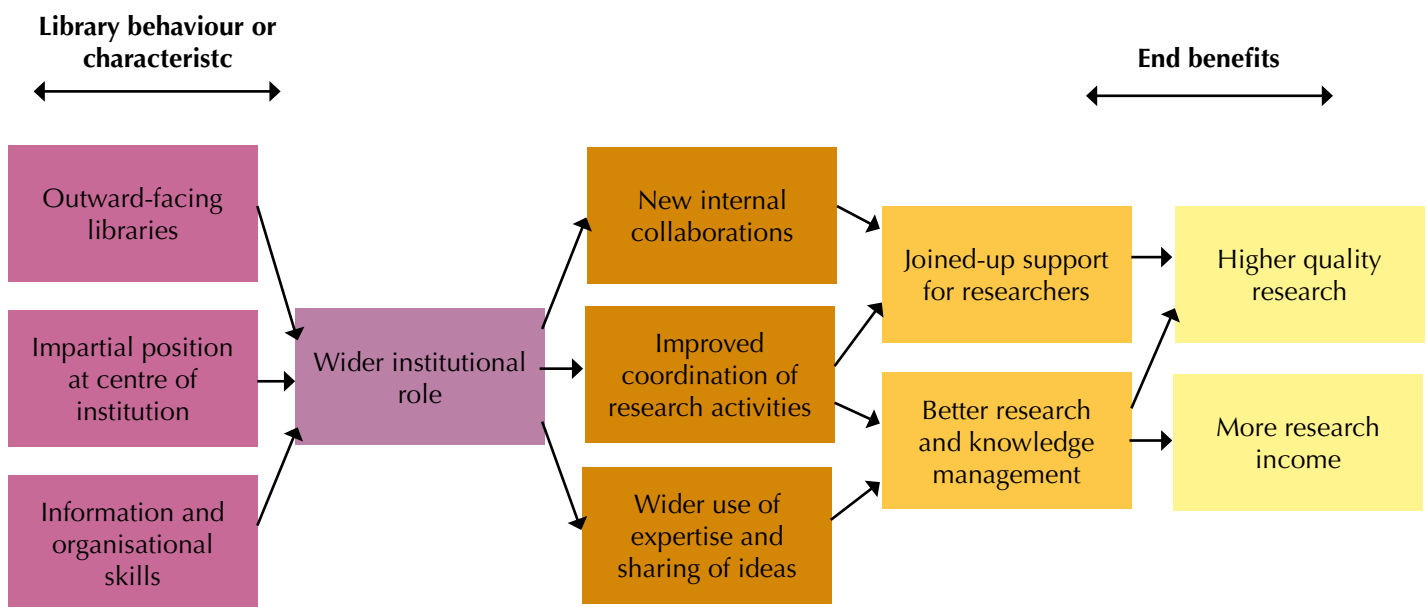
8. Outward-facing libraries contribute to institution-wide initiatives

Summary

In recent years, many libraries have demonstrated that they can seize opportunities to help institutions respond to changes in the research environment. Libraries' central and impartial position, together with their information and organisation expertise, puts them in a good position to play a wide institutional role and deliver new value. Seizing these opportunities is not always straightforward,

since in some institutions libraries have to overcome traditional views about their appropriate role. But outward-facing libraries can help in joining up research support and administration, leading to better research management and a higher profile for the library across the institution.

Benefits map



Value to researchers and research

The digital revolution has brought dramatic changes in the research and information landscapes, including the ubiquity of digital information; a renewed emphasis on training and career development for researchers; the open access movement and related policy developments from the major research funders; Institutions have to respond to these and other changes, including the demands of the Research Assessment Exercise and the forthcoming Research Evaluation Framework, and the impact agenda by:

- introducing better management of information about research funding and grants;

- ensuring compliance with funders' new policies;
- introducing new training programmes;
- developing a better understanding of the institution's research outputs and information 'assets';
- guiding researchers on how to maximise their impact and visibility.

These institutional responses often cut across existing structures, involving a number of departments and services.

The Research Support Office, the Graduate School, and individual academic departments, for example, may all be delivering elements of guidance for researchers. There is thus the risk of lack of coherence in what is offered across the institution as a whole; and researchers can often encounter an unhelpful mix of advice and support.

Some libraries, however, have been able to seize opportunities to enhance their role across the institution and to help overcome the risks of overlaps and gaps in services and support. Their impartial position at the centre of the institution, together with their knowledge management skills, put them in a good position to

- working closely with research support and planning offices to provide coherent support services throughout the research lifecycle;
- check bibliographic records and collate publications for the RAE and REF;
- establishing themselves as an integral part of doctoral training programmes;
- developing closer ties with academic departments and support them in new ways such as helping them to understand bibliometrics and how to optimise their citations;
- providing expert contributions to institutional debates on issues such as data management.

Other libraries have not been able to make the most of these opportunities to engage with institutional change, to become more outward-facing and to deliver new value. This may be because of the library's relative isolation, or to traditional perceptions from academics and senior managers about the library's role.

Breaking free from traditional perceptions

At one institution both the Library Director and the PVC Research said that the library was highly regarded, but had to break free from traditional views of the roles it should fulfil. While it was wonderful to feel valued, it was difficult to implement changes and grasp new opportunities.

Small research-focused institution

At another institution, the Library Director received quizzical looks from heads of academic departments when she suggested that library services could move beyond content provision to support research in different ways. Once she explained what new roles were possible, however, there was much more interest in continuing discussions.

Russell Group institution

Nevertheless, many libraries have been successful in seizing opportunities to become key partners in institution-wide initiatives such as research information management, or improvements to researcher training and support. For many, the catalyst for change has been running the institutional repository. Libraries' perceived success in this role has greatly increased their institution-wide visibility.

Seizing opportunities depends on being in the right place at the right time, through:

- participating as active members of institutional committees;
- developing a good understanding of institutional strategies and what the library can do to support them;
- using sector knowledge to look for opportunities to 'be useful';
- promoting new library services across the institution (often to sceptical audiences).

Such work can raise the profile of the library as a provider of cost-effective and valuable support to research. Many libraries have found that proving their capability in one area has opened the door to further opportunities and partnerships.

Testimonials from close collaboration

A research support office was full of praise for the library: “the library and the research support office are very interdependent now – we cannot manage without one another”. One example of value was the library’s work to collate all the institution’s researcher support and training information into a coherent and comprehensive online learning environment. This was cited by the QAA as an example of good practice.

Small research institution

A Director of Research and Planning said that the library’s support for the 2008 RAE was “absolutely essential to get the comprehensive and accurate information needed”. Some librarians are now considered “honorary research staff members”, such is their close relationship. The library has subsequently taken a “proactive and positive approach” to preparations for the forthcoming REF, collating the institution’s response to the national consultation; participating in the REF strategy group; and providing bibliometrics and citation skills.

Russell Group institution

A library has worked with the Graduate Dean to incorporate a dedicated postgraduate space within the new library building, providing an important physical representation of the Graduate School. At the Dean’s instigation and active involvement, the library has appointed a facilitator to act as a point of contact for postgraduates. The space is well used, and the facilitator is much in demand.

1994 Group institution***Timely and insightful advice to the institution***

Following the negative publicity surrounding the ‘climategate’ episode, a Library Director recognised that similar issues could easily have arisen at his institution. He raised the issue of data management to a grateful senior management board, and action is now being taken to address it.

1994 Group institution

A research liaison librarian analysed the Researchers of Tomorrow report and drafted a response outlining what it meant for the institution, with recommendations on how that should be addressed. A member of the institutional research committee was extremely grateful that this enabled him to report to the committee, which welcomed the analysis.

University Alliance institution***The library came to the rescue and a new collaboration was born***

A library was brought into preparations for the 2008 RAE only four weeks before the submission date. The library team was asked to check the accuracy of ~10,000 bibliographic records, 80% of which were found to contain errors. It was a “nightmare” to resolve all the problems in time for the submission, but the library did it, and also improved the accuracy of researcher web pages and consultancy profiles. The library is now formally engaged in planning for the REF, and is also managing a project to embed the institutional repository into a new research information system.

Russell Group institution**Review of evidence**

Libraries at eight out of nine institutions involved in this study have seized opportunities to become more outward-facing and deliver new value across the institution; the other library is making progress towards this.



*Specialist staff
in partnership
academic departments*

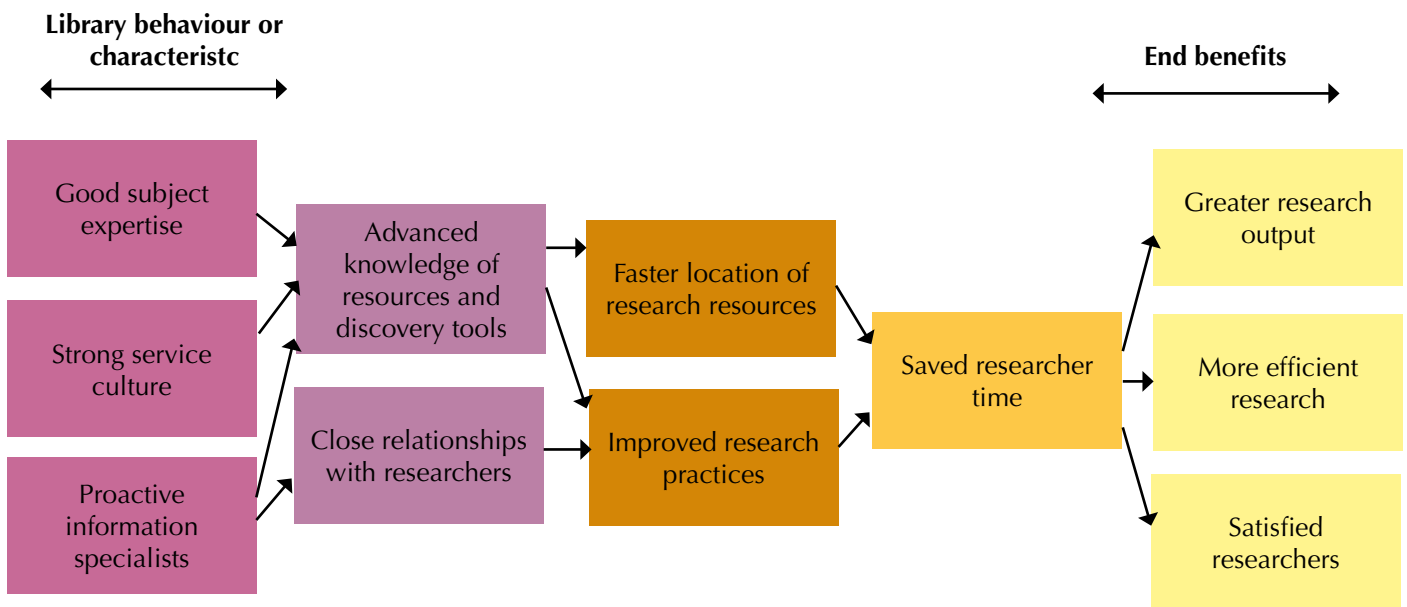
9. Specialist staff work in partnership with academic departments

Summary

Information specialists - both subject specialists and those with a specific focus on the needs of researchers - form a significant group of the library staff in most institutions. The researchers who make use of them see them as vital. But too often information specialists and researchers are not well connected. Putting that right can alter specialists'

roles profoundly, shifting them away from more traditional collection management roles. Where this change has taken place, information specialists take a more proactive role, working in partnership with academic departments and acting as consultants. Such developments have been welcomed by heads of departments and researchers.

Benefits map



Value to researchers and research

Specialists with subject and research expertise form a significant group of the library staff in most institutions, working with academic departments and researchers to identify and address their library and information needs. Many of them work with students as much as, or more than, with researchers. They have traditionally had wide-ranging roles, varying in accordance with the environment of the institution, the department and the library. Roles may encompass liaison with users, dealing with enquiries, collection management, advocacy, user education, and participating in the work of relevant committees. The balance between different activities, and the nature and extent of engagement with researchers varies both between institutions and across disciplines. At one institution, for example, the specialist staff are in much more demand in the health and life sciences than in veterinary studies or architecture.

Our evidence suggests that the researchers who make use of them and their expertise see them as one of the most valuable features of library services. One researcher noted that their expertise is “difficult to replace”, and even more important than content when researchers can “get the content they need from the British Library”. Researchers value the personal contact, particularly if they are isolated within their institution or, in the case of doctoral students, if they can get only limited guidance from their supervisors. One researcher said that “it’s important to have a good relationship with liaison staff... since they can be incredibly helpful for your research”.

A senior researcher's view of subject specialists

"Libraries are wonderful things, stuffed full of information. But finding things can be hard, and catalogues are only so much use. What you really want is someone you can ring up, explain what you are looking for, and they tell you where to find it. At these people are called 'Departmental librarians' and they are truly marvellous. After all, a book in a library is no use unless it is read."

Our evidence suggests that while specialists who work with researchers provide real help and support, they often find difficulties in reaching researchers in the first place. Since many researchers – senior ones especially - are relatively autonomous and do not visit the library very much, they can be quite unseen.

Many libraries are thus trying to find ways to establish better links with academic departments and researchers, so that they not only help individual researchers with their immediate information needs, but can also promote improvements in research practice. Libraries are also seeking to change the roles of subject and other specialists, so that they act more like consultants, working in partnership with academic departments. Increased emphasis is placed on specialists developing a more detailed understanding researchers' needs and behaviours, and identifying opportunities to help make researchers' lives simpler. One specialist thus helped a researcher to save time when writing papers for publication, by showing him how to link mindmap and reference management software so that references were automatically inserted into the paper.

This 'embedded consultant' role moves specialists away from more traditional collection management roles, such as cataloguing, classification and book selection. They may for instance focus more on education and training (in open access, information literacy, using the repository, reference management and so on) and active advocacy for the library, its collections and services.

Where libraries have been successful in changing cultures in this way, as part of a more general service culture, academic departments have welcomed the change, and levels of engagement with researchers have increased.

Supporting researchers by helping with teaching

Specialist staff at a library help researchers by delivering sessions for students which highlight relevant information resources or show them how to use databases. This can both add to the quality of the student experience and free up researchers' teaching time.

Russell Group institution

A new role - systematic reviews of literature

Information specialists in medicine responded successfully to an approach from researchers for assistance with systematic literature reviews. The library has now trained all subject specialists in systematic review, and created a new post to promote the service to researchers. The library can charge for the service if it goes beyond an agreed level of support.

Russell Group institution

Desktop library visits – engaging research staff

An information specialist explored ways of building better links with senior researchers through 'desktop library visits' (individual structured visits in the researcher's preferred environment). She emailed all academic staff offering a visit, and received positive responses from ~15% of staff, who emailed outlines of their research and teaching interests. The visits were tailored to their specific needs, covering relevant information resources, and demonstrations of new tools such as RSS feeds for tables of contents. The visits were effective in building working relationships, increased awareness, and co-operation with the library.

Russell Group institution

Embedded information specialists


One specialist is funded by the health sciences department, but line-managed by the library. Funding by the department means that they “think of her as their own”. She offers services to all researchers, and has developed researcher support web pages for the department, as well as running an assessed course for doctoral students on research methods.

1994 Group institution

Review of evidence

All nine libraries involved in the study noted the importance of specialist staff. Five of them are trying to change the culture of the role, particularly to develop closer relationships with academic departments. Researchers who had used the specialists found them valuable.





*Connecting with
researchers enhances
the value of the library's
services*

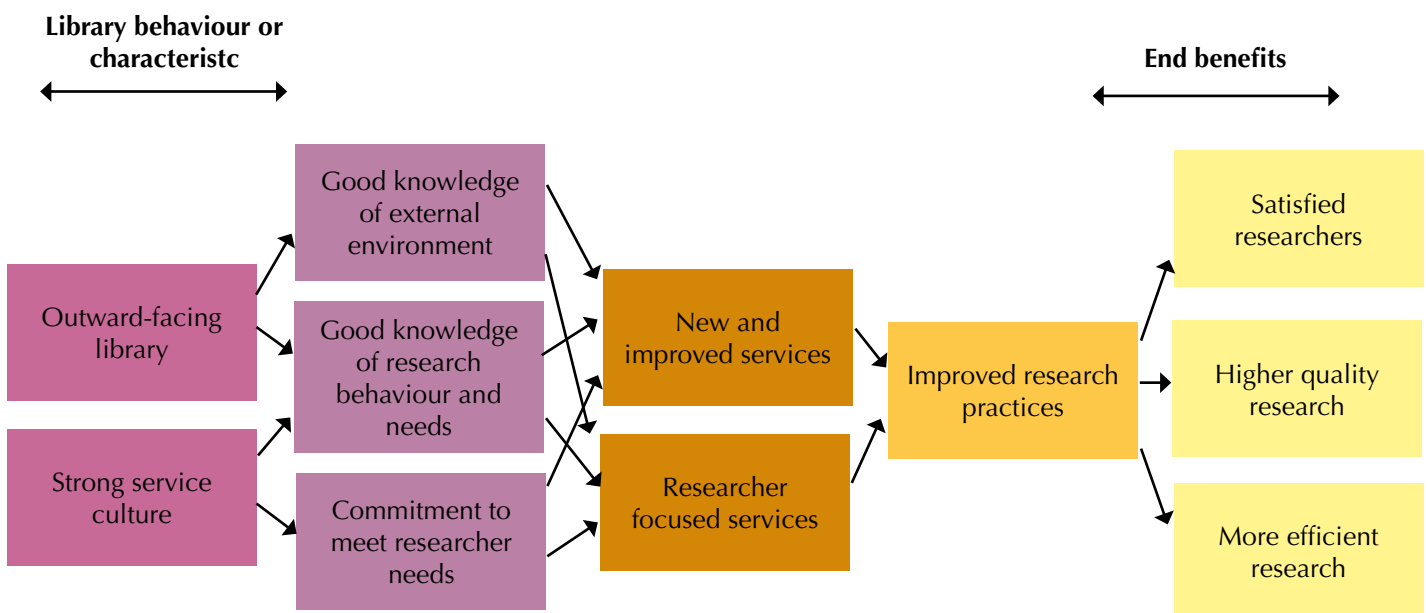
10. Connecting with researchers enhances the value of the library's services

Summary

The digital revolution has changed the relationship between libraries and researchers, many of whom do not use the physical library. As one librarian said, “the more we do to make access quick, seamless and easy, the more invisible we make ourselves”. Libraries are becoming alert to their separation from researchers, and are trying to

find ways to reconnect with them, and to fill the gaps in their knowledge and understanding of researchers' needs. Such an approach can lead to a strong service culture permeating the library, increasing researcher satisfaction, as well as winning recognition and respect for the library across the institution.

Benefits map



Value to researchers and research

The digital revolution means that many researchers, particularly in STEM subjects, now access a virtual library as unseen or hidden customers. As one librarian remarked, “the more we do to make access quick, seamless and easy, the more invisible we make ourselves”.

This lack of contact with researchers can lead to a gap between the needs of researchers and what the library provides. This can have a negative effect on what the

library offers to researchers, both in the provision of research materials and in other services. A librarian said that libraries “do not know if they are missing things because they do not come into contact with [researchers]”. This makes it more difficult for libraries to position themselves in a changing environment, to take advantage of new opportunities, and to respond to researchers' evolving needs and information behaviours.

Our evidence suggests that libraries are becoming alert to their separation from researchers, and the gaps in their knowledge and understanding of researchers' needs that may result. With some more traditional library roles being phased out, 'libraries of the future' is currently a hot topic in the sector. As part of this, libraries are now trying to reconnect with researchers by:

- gathering feedback from researchers in areas such as use of journals and options for new services;
- becoming more closely linked with academic departments, eg by participating in departmental research committees;
- working with partners, including vendors and other institutional services (eg the Research Support Office) for mutual gain;
- developing their understanding of the changing research environment and looking for new opportunities to provide value to researchers.

Working hard for feedback

A library works hard for feedback from researchers to focus the services it offers. The librarians say that participating in departmental committees is important in enabling them to have structured dialogue with researchers, and to gather information about their concerns and priorities. The library also runs surveys and focus groups, which was much appreciated by one researcher who felt "able to be involved in shaping the services".

Russell Group institution

Picking up on the next 'big thing'

Developing a good understanding of the external environment, and good connections within the institution, has enabled the library to identify new opportunities and raise its profile. Thus after a librarian identified data management as an issue of growing importance, a researcher enquired about where to store data to meet the requirements of a research grant. The librarian raised the issue with the Research Support Office, and a working group has been set up to address data management, secure data storage, business continuity and related issues across the institution.

University Alliance institution

Working with vendors to improve library services

A library works with vendors to test new products and services, run workshops, and discuss pricing structures. This has enabled the library to attract researchers to workshop sessions on issues such as 'how to get published'; to find out more about researchers' behaviour; and to help ensure that they spend money only on resources that researchers will use. The workshop involved both a publisher and a journal editor from the institution, thus adding a credibility that the library could not offer on its own. Trials of new content and tests of new products are used to inform purchasing decisions; and the library then includes usage statistics in its marketing('our feedback suggests that you...').

Russell Group institution

A researcher-focused support structure

A library has dealt with its relative lack of direct contact with researchers by developing an area for them on its managed learning environment. Information is packaged for different disciplines and covers topics such as skills development, open access and the repository, resource discovery and much more; and the Research Support Office posts notes from training sessions. A specialist is designated as a point-of-contact for researchers, with a role which includes:

- updating the researcher web pages, either in response to requests from departments or to align with the Research Councils' skills framework;
- engaging with departments by participating in committees, giving presentations, attending away days, and providing one-to-one researcher support;
- promoting library services to researchers and departments;
- working with other service departments such as the Research Support Office;
- arranging events and bringing in external speakers to talk, for example, about the RoMEO and JULIET databases.

University Alliance institution

Proactive engagement with researchers is clearly important, and increases researcher satisfaction. Our evidence suggests also that when a strong service culture permeates and is ingrained in the culture of the library, its processes and its governance, this is recognised and welcomed by senior researchers, institutional managers, and other departments. This can earn respect for the library across the institution, and lead to new opportunities. The cultural change, however, is not always easy, and one librarian noted that they "work hard for feedback" to make sure that they work and spend money in ways useful to researchers.

Recognition for a strong service culture

A library's strong service culture was recognised and appreciated by both senior managers and researchers: the PVC Research said that "the library staff are incredibly service-oriented and there's a nice culture in the library. They could not be doing anything better from an SMT perspective." Researchers also felt that the library was there "for the benefit of the user" and successful in meeting their needs.

Russell Group institution

An organised approach to researcher support

A specialist librarian has produced an Action Plan outlining her activities in supporting researchers in areas such as liaison, employability, links with RCUK, skills development, and theses. This is supported by a 'Communication Plan', the goal of which is to make researchers aware of and encourage engagement with the services delivered by the library.

University Alliance institution

A service culture mindset

A librarian said that the library "is there to smooth the path for researchers so that they are free to get on with research". Her focus on the question "how can we make it easier for people to do the job they are interested in?" reflected a service culture mindset which brought strong praise from both researchers and senior managers.

Russell Group institution

Review of evidence

Three out of the nine libraries involved in the study said that they do not have adequate contact with researchers in order to fully understand their needs. But all nine stressed the importance of responding to user needs. Three out of nine libraries demonstrated evidence of a strong service culture.

*Dedicated spaces
provide a better work
environment for
researchers*



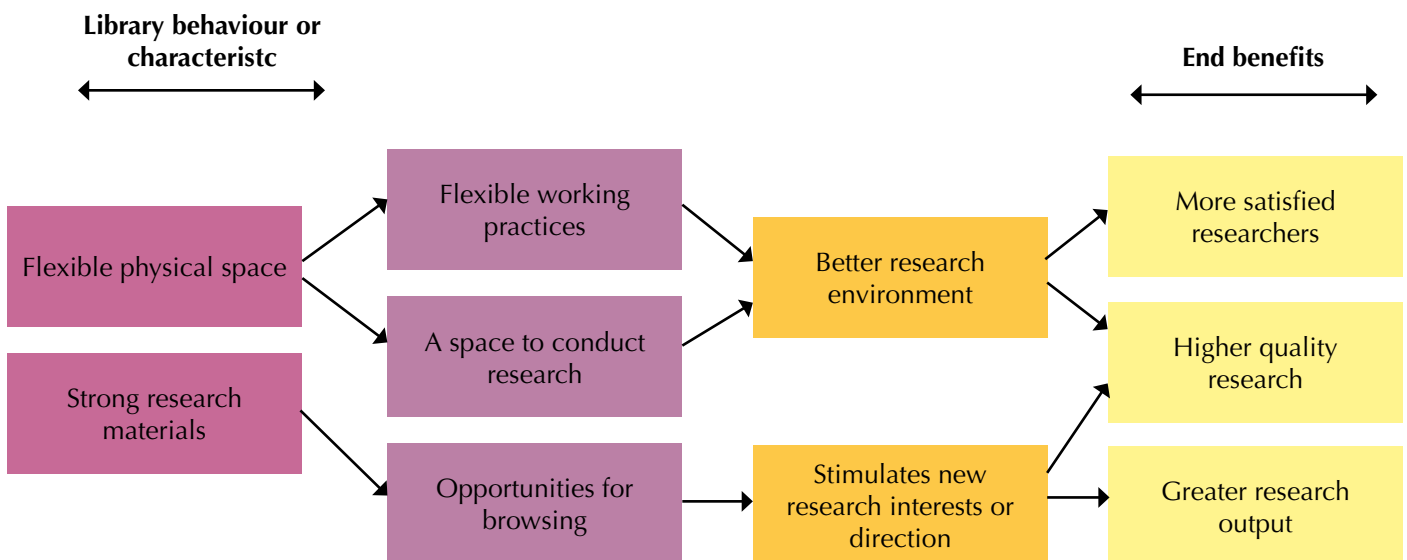
11. Dedicated spaces provide a better work environment for researchers

Summary

For some researchers the physical library is valued as a place to work and study, particularly if they do not have their own departmental space or if they rely for their research on printed or manuscript content held in the library. Many researchers find, however, that the library is crowded with undergraduates, especially in term time, and

that it provides a difficult environment in which to work. In order to meet researchers' needs, some libraries have therefore created dedicated areas for them, providing a better environment for those researchers who depend on the library and its contents.

Value chain



Value to researchers and research

Since content is now usually delivered directly to researchers' desktops, the library as a physical space is frequently considered as irrelevant for researchers. Many of them, particularly in STEM disciplines where research is heavily dependent on journal publications, say they never visit the library. Cancer researchers at one institution said that since research in their area moves very quickly, they need to consult online the most up-to-date literature.

For many of the AHSS disciplines, however, the library is the research laboratory, where researchers use books, archives, and special collections. If the primary content they need is not available in digital form, visiting the library is essential. A creative arts researcher also said that even if a book is available digitally, she still prefers to view the hard copy, since pictures are difficult to view online, and she can also browse other texts in the library at the same time. Another researcher similarly valued the library's collection of physical content for browsing, noting that "you can go beyond your own subject in a library like this".

For doctoral students and others who do not have dedicated desk space, or who are required to hot desk, the library is valuable as a place to work. In the AHSS disciplines in particular, research can be an isolating experience and it is "nice to be able to get out" and to interact with other people.

Browsing physical content

A doctoral student's experience was that he found many more books for his research by browsing physical rather than online content. He also found that hopping from one article/book to another online did not encourage him to build up a coherent narrative of the research that has been done; it was much easier to do so through browsing physical content.

Doctoral student, physiotherapy

Many researchers find, however, that the library is crowded with undergraduates, especially in term time, and that it provides a difficult environment in which to work. Many libraries are therefore seeking to improve the physical working environment by developing study spaces both for researchers who rely on access to physical content as well as others who may wish to use the library. In some cases, the dedicated space for postgraduates and other researchers is accompanied by special members of staff who serve as a point of contact for researchers, helping them with queries as well as organising training sessions and briefings. Other positive changes include extended opening hours, cafes, self service machines, and facilities to connect your laptop to the network.

A PVC Research said that the dedicated postgraduate space now provided in the library provided a great example of a proper learning environment and "a physical representation of the graduate school". A Graduate Dean noted that as a researcher he had rarely visited the library, relying heavily on electronic journals for his research. Since being involved in a library extension and refurbishment project, however, he had become "a bit of a convert": the new library building now provided a place where "people go to talk and learn", with even "some science researchers now using the library as a place to write".

A valued space for any researcher

Some researchers described the library as a "a breath of fresh air" and "the one thing we would miss if we left". It felt as if it had been built with users in mind, and provided an environment conducive to study: it has a cafe, they can bring their own laptop, the hours are great, and the different study spaces are "wonderful". A researcher who used mainly electronic content said he went to the library to get away from his office and escape the demands placed on him there. He also took the opportunity to browse the books.

University Alliance institution

A library has "an imaginative and technology-rich facility" where researchers can study and meet colleagues across campus to discuss their research. It also contains flexible seminar and lecture space, as well as group and individual study areas with embedded technology to facilitate collaborative and interdisciplinary research.

Russell Group institution

New spaces for postgraduates

A library now includes a well-used dedicated postgraduate space created through an extension and refurbishment. It provides both formal and informal spaces for quiet study, together with rooms for group study (with a PC, DVD player, plasma screen and whiteboard, and laptops and e-book readers for postgraduate use) and a space for interaction with new technologies. Workshops to develop postgraduates research skills are hosted in the space, as well as student-led meetings such as 'Thesis Support Group' events with a strong social aspect.

1994 Group institution

Review of evidence

Three of the nine libraries involved in the study have dedicated spaces for researchers, and a fourth is designing one into a new building now under construction. Two further libraries have been refurbished to provide flexible working spaces and improved environments for research. Librarians at all three institutions with dedicated spaces for researchers said they were well used and valued.



*Open access to high-
quality research content
is the key foundation for
research*



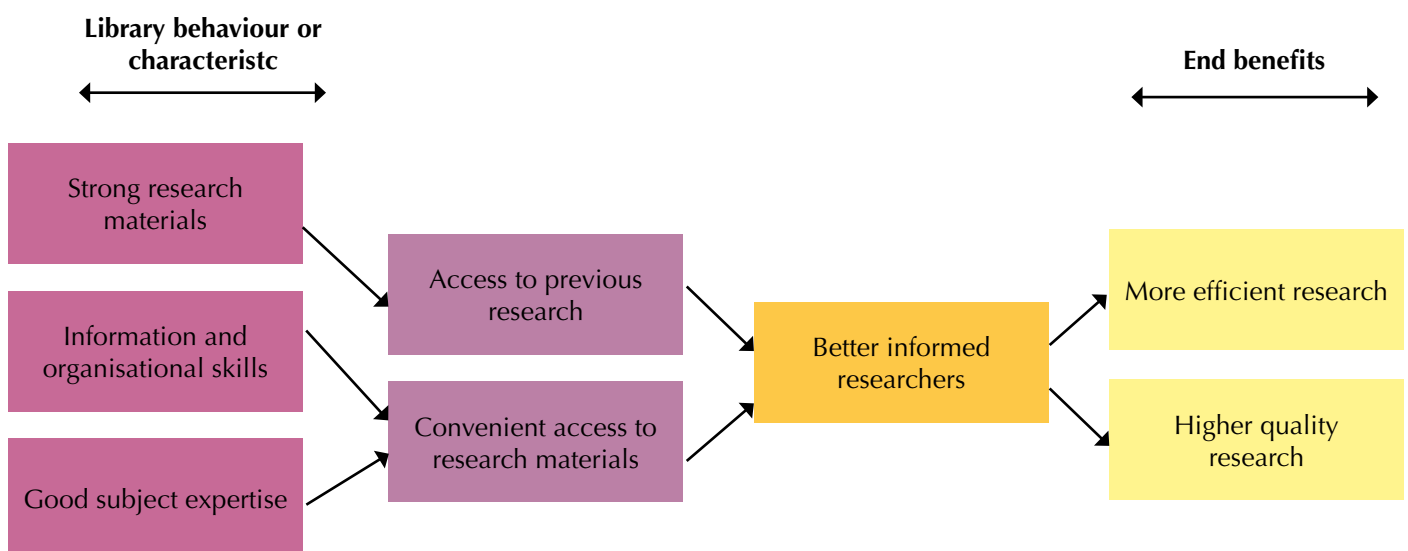
12. Convenient access to high-quality research content remains a key foundation for good research

Summary

Access to high-quality content remains crucial to research, and its value is recognised by researchers, senior managers and librarians alike. Libraries spend huge amounts to sustain and develop their collections, and researchers across the sector now have access to more content than ever before. But they always want more. The downward pressure on institutional budgets, continuing increases in subscription costs at above inflation levels, and fluctuations in exchange rates, are making it more difficult to sustain the current level of purchasing.

Some libraries are still seeking to increase the content budget, but others are reducing the amounts of content they buy, while yet others are seeking to be smarter by procuring more with less. 'Daring to be different', and taking a more evidence-based, strategic approach to content procurement, should help libraries to meet researchers' needs more effectively as well as helping their dialogue with the senior managers from whom they seek funding.

Benefits map



Value to researchers and research

Academic libraries have historically been the gateways to content, providing researchers with access to the information resources necessary to support their work.¹² Libraries played a critical role in the digital revolution, developing new services to provide digital content to researchers. And libraries have continued to develop their services and roles in areas including resource discovery, identity management and access management, as well as procurement and curation. However, the focus remains the same: enabling quick and convenient access to content, and removing any obstacles for researchers.

Convenient access to high-quality research content remains critical for researchers. The overwhelming majority of the researchers, librarians, staff in Research Support Offices, and senior managers we consulted during this study viewed this as the primary means through which libraries provide value to research.¹³ Provision of content is also the aspect of library budgets that senior managers relate directly to research, and over which senior academics are fiercely protective. In most research institutions, significant cuts in the availability of journals would give rise to strong objections.

Libraries have responded successfully to the new ways in which researchers interact with digital content, providing seamless access to a virtual, as well as the physical library. All researchers confirm that digital content is invaluable, 'particularly if you travel' or are not based in the institution; but many still like to browse print, and others (particularly in AHSS disciplines) still depend on print and manuscript resources.

Content provision is crucial to research

A PVC Research said that the library is "the gateway to content – researchers are utterly dependent on the ability to access content quickly and seamlessly". The Library Director said that "if the library had to make cuts, or if the e-journals went down for a day, the library would 'know about it!'"

Russell Group institution

Libraries spend huge amounts to sustain and develop their collections, and researchers across the sector now have access to more content than ever before. But they always want more. The downward pressure on institutional budgets, however, combined with continuing increases

in subscription costs at above inflation levels, and fluctuations in exchange rates, may make it more difficult to sustain current levels of procurement.

Our evidence suggests that libraries are responding in three ways:

- **Increasing the content budget** to maintain or enhance current levels of provision, in order to cover rising costs and meet increasing researcher demands. This implies either that senior institutional managers are prepared to increase library budgets overall, at least to cover the cost of inflation, or that libraries make cuts in other areas (eg staffing or operational costs) to cover the increase for content procurement.
- **Maintaining the content budget** at its current level, but reducing the amount of content provided. This has currently been necessary in only a minority of the institutions that took part in this study, although many think that reductions are on the horizon. One library has consulted researchers about a 7.5% cut to the journal budget. In a lengthy and sensitive process some researchers questioned the library's authority to make any cuts: "are you allowed to do this?" Another library undertook an exercise to cap content provision last year, which resulted in an extended debate about what might be cut and how people "would continue to do their research".
- **Seeking to be smarter** with the content budget to achieve more with less. This is an approach that many institutions are now seeking to adopt, for example by:
 - a) Reviewing usage. COUNTER statistics now make it much easier than in the past for libraries rigorously to review levels of use of online material.
 - b) Using document delivery services such as the British Library's Secure Electronic Delivery to provide access to content in niche areas.
 - c) Testing content with researchers before committing to purchase through the main content budget.
 - d) Exploiting Open Access (OA) content, including OA journals and repositories, and promoting them to researchers.
 - e) Promoting access and use of procured content by improving resource discovery (eg by improving link resolvers and providing better interfaces), by promoting the content available through the library, and helping researchers to access and use

12. Research content includes journals; books and monographs; grey literature; special collections and archives; databases; multimedia; and dissertations and theses; and provision of 'strong research materials' requires, of course, a series of activities to support, among other things procurement, resource discovery, curation, and identity and access management.

13. A minority (~5 respondents) cited access to information experts as the most valuable.

it (one institution noted that researchers sometimes ask for new content that the institution already purchased).

Try before you buy

A library works closely with vendors to trial content to inform their purchasing decisions: “is it worth buying?” The library also organised trials and a vendor demonstration for an academic department that wished to purchase a global marketing database. The department subsequently decided to purchase the database, which is managed by the library.

Russell Group institution

Smarter procurement of research content

A library has a policy that researchers can have access to any content they want, though they may have to wait 24 hours. The institution cut journal subscriptions some years ago, relying more heavily on the British Library’s Secure Electronic Delivery (SED) service. Researchers can use SED as an unlimited service, free at the point of use. Feedback suggests that researchers value being able to “access just about anything we want” albeit with a 24 hour delay in some cases. One researcher used the service so much that he was concerned about the cost to the library.

University Alliance institution

Helping departments to help themselves

A librarian reviewed content provision for a department and showed that it “did not shape up well” compared to that for similar departments at other institutions. She highlighted some crucial resources of which members of the department were unaware, and which they have since decided to purchase. The content is managed by the library; if it proves to be well used, it will be a candidate for future inclusion in the library budget. This approach was commended by the Research Support Office, which commented that “the [Library Director] has done some fantastic work”.

Russell Group institution

A dynamic budget

A Library Director noted that the content budget was “dynamic” and changed to reflect changes in research focus at the institution. Content is thus well-mapped to the activities of the institution. The library actively manages its research collections, regularly reviewing levels of use, and maintaining a priority list for new content.

Russell Group institution

vidence from our statistical analysis shows a negative correlation between volume of serials per FTE researcher and research performance, which suggests that some institutions may be purchasing content that does not serve to improve their research performance. The law of diminishing returns may play a part here: institutions may subscribe to wide ranges of content, some of which will be used only infrequently, so that the marginal benefit of subscribing to further resources decreases. It may be useful for libraries to investigate this further within their institution: what are the critical research materials, what is ‘nice to have’, and is the price worth paying?

Currently, the top research institutions benchmark themselves against one another in terms of content provision, so that they end up with similar procurement models. One Russell Group institution, for example, reviewed its content budget and found it to be less than that of many similar institutions. Hence it increased the budget to be more comparable with them. The PVC Research commented that the “library is very efficient – it has a low proportion of spend on staff rather than content”.

Arguing the case for more content may, however, get harder. We talked to many senior managers whose work began before the digital revolution and who tend to see an intrinsic (but often difficult to articulate) value in libraries. They may thus need little persuasion on the need to support the library. But such views may come under increasing scrutiny as budget pressures mount, unless there is good evidence as to the levels of use of the content that is provided, and the value derived from that use.

Moreover, new senior managers whose primary experience is digital online libraries may bring a different set of assumptions. ‘Daring to be different’ and taking a more evidence-based, strategic approach to content procurement may thus help libraries not only to meet the

needs of researchers more effectively, but also to persuade the senior managers from whom they seek the necessary funding.

Review of evidence

The SCONUL statistics that most closely relate to provision for researchers are the data content provision – serials, databases and to some extent books. Consequently, that is where much of our correlation analysis focused. We highlight here some of the key findings. Further detail about the analyses and the methodology are available on the RLUK and RIN websites.¹⁴ For ease of reference, we note below the numbers assigned to the different indicators in the annual SCONUL statistics.

It should be stressed that the correlations outlined below do not imply causality, and even if there were to be some causal relationship, there is no indication in which direction cause and effect might run: does the input to the library drive good research, or does research success provide more resources to the library? This is especially important given the limitations of the available statistics, which are discussed further in Section 14.

Positive correlations

Several of the indicators demonstrate positive correlations between library inputs and research outputs:

- ***between library characteristics and research outcomes at institutional level***
Unsurprisingly, we found strong positive correlations between some of the raw input and output variables (eg spend on serial subscriptions and number of PhDs awarded). Such correlations can be related to the size of different institutions. Larger institutions are likely to have more researchers, award more PhDs, spend more on staff and have bigger libraries with more stock and higher expenditure.
- ***between library income per FTE of users (SCONUL statistics 8x/3h) and research grants and contracts per researcher***
There is a positive relationship between library income and the income won by universities in research grants and contracts. This may simply reflect a likelihood that institutions with more research income spend more on their libraries.
- ***between book stock per FTE of users (2a/3h) and research outputs***
This correlation is moderately strong, but its significance is not clear. It may reflect simply that

successful research institutions are likely to buy more books; but it is unclear whether bigger book collections can help in driving more research success.

Negative correlations

There are also some significant negative correlations:

- ***between content collection per FTE researcher and research outputs***
The volume of serials and electronic databases per FTE researcher (2d+2k) is negatively correlated with all three output factors: RAE 2008 results, research grant and contract income per researcher, and PhDs awarded per member of academic staff. This might be taken to suggest that the more content a library provides, the lower the research performance of the institution, which seems odd. It probably reflects, however, the role of specialist content and the law of diminishing returns. Most institutions buy the key resources for the subjects in which they have research interests, and resources such as Web of Science are ubiquitous. Some institutions buy only the essential resources, and still produce solid research; their researchers may use ILL or BL Direct to access resources to which they do not subscribe. Other institutions subscribe to wide ranges of content, some of which will be used only infrequently, so that the marginal benefit of subscriptions tends to fall.
- ***between content spend per FTE researcher (7b, 7g) and research outputs***
This negative correlation may be the result of the variation in subscription prices across the HE sector, where large and more successful institutions often pay more than small institutions for their subscriptions to the same content.
- ***between proportion of content spend electronic resources other than serials and research indicators***
Electronic resources other than serials include databases and e-books. This correlation probably reflects that institutions with a high proportion of expenditure on e-books rather than e-journals are likely to be more focused on teaching as distinct from research. It should be noted, however, that inconsistent interpretation of definitions in the SCONUL annual returns from institutions means that the statistics are not wholly reliable in this area.

14. Available at www.rin.ac.uk/value-of-libraries

Correlations and causality

Some earlier studies have examined the relationship between content provision and research outcomes. Two pieces of work we have considered are:

- Oppenheim, C. and Stuart, D. (2004) *"Is there a correlation between investment in an academic library and a higher education institution's ratings in the Research Assessment Exercise?"*, Aslib Proceedings, Vol. 56 Iss: 3, pp.156 – 165.
- Research Information Network (2009) "E-journals: their use, value and impact",

Both studies include more detailed analyses of specific aspects of the relationships between content provision and research output than was possible in this project. Neither of them, however, is able to show causal relationships between library income or journal spending and use, and research outcomes.

Oppenheim and Stuart identified correlations between a university's academic excellence, according to its RAE ratings, and the amount spent on its library. They conclude, however, that more detailed statistics are required to understand "how the money is spent rather than just how much money is spent".

The RIN report, based on work undertaken by the CIBER team at UCL, explored e-journal usage and found:

- highly-credible correlations between electronic serials spend and downloads;
- tentative links between e-journal consumption and research outcomes, including strong associations between article downloads on the one hand and PhD awards, success in securing research grants and contracts (RGC) income, and numbers of papers published in scholarly journals on the other.

In further work published more recently, a model has been built to test relationships between expenditure on e-journals, levels of usage, and research outcomes over a three-year period. It suggests that any direct relationship between expenditure and subsequent research success is weak. But it also indicates that there is a very powerful relationship between levels of usage of e-journals and subsequent research success. Demonstrating that levels of usage are a strong predictor of research success in the future is not the same as establishing a causal relationship between usage and research success, of course: it may be that some third factor is at work.

More detailed modelling and testing, for individual universities and groups of universities, and over different time periods, are required to test a range of hypotheses. Nevertheless, both libraries and universities may wish to consider this evidence in reaching decisions on the future development of their collections.

15. <http://www.rin.ac.uk/our-work/communicating-and-disseminating-research/e-journals-their-use-value-and-impact>.

16. http://www.rin.ac.uk/system/files/attachments/Ejournals_part_II_for_screen_0.pdf



*Libraries are a physical
manifestation of the
values of the academy
and of scholarship*

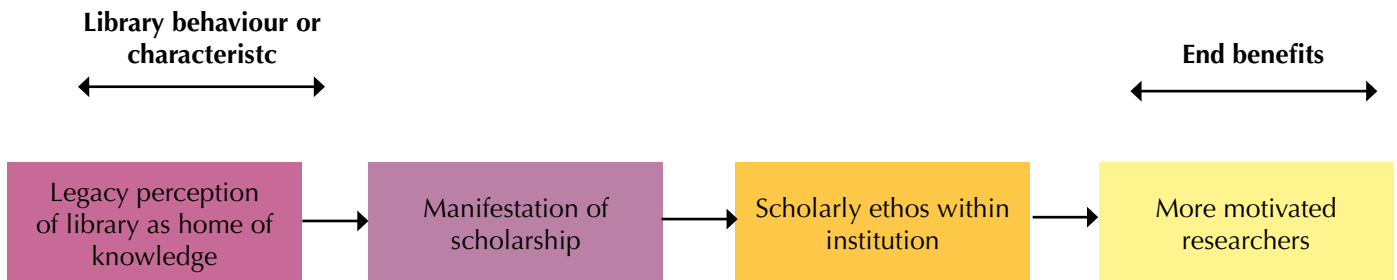
13. Libraries are a physical manifestation of the values of the academy and of scholarship

Summary

Libraries are one of the most enduring features of the academy, central to the values and the practice of scholarship. But in a period of austerity they are increasingly being asked to justify their existence. Perhaps the deepest, yet most elusive, contribution that libraries make is to provide a physical manifestation of the scholarly ethos that universities exist to inculcate and preserve. There is a risk that this intrinsic value may not be recognised by future generations of researchers who work in an online world. In building the evidence as to libraries' contribution to research, it is important to stress that the whole is greater than the sum of the parts; and that the value of the library is as a crucial cornerstone and representation of the values of the academy and of scholarship..

Value to researchers and research

Academic libraries are one of the most enduring features of the academy, central to the values as well as the practice of scholarship. The UK has some of the oldest libraries in the world, serving as a physical expression of those values. In a period of austerity, however, libraries are increasingly being asked by their institutions to justify their existence. This report has outlined how, in both tangible and intangible ways, libraries provide value to researchers and research. Perhaps the deepest, yet most elusive contribution that libraries make, however, lies in their providing a physical manifestation of the scholarly ethos that universities exist to inculcate and preserve: as a 'real tangible physical expression of knowledge'. Many of those to whom we spoke for this study noted the value of the library as a representation of the transcendent values of the academy and of scholarship, a "real physical thing where I can see the celebration of scholarship" and a "crucial cornerstone of the research environment".



Researchers go to the library or use its resources and services for many different purposes: to search and browse journals, to consult information specialists, to find a space for study away from the immediate demands of the day job. Many researchers still depend on the physical library to access critical research materials. And many of those who do not use the physical library regularly nevertheless see it as a symbol at the intellectual heart of the university, and an expression of what the university is about.

There is a risk, however, that this intrinsic value may not be recognised by future generations of researchers whose primary experience is of an online digital networked world. As these researchers become decision makers in institutions, arguing the case for libraries may become harder, and evidence as to the value of libraries will be more rigorously tested. In building the evidence as to the contribution the library makes to research, it will be important to stress that the whole is greater than the sum of the parts; that libraries must be judged beyond the immediate needs and demands that they serve, in terms of their value as a whole; and that the value of the library is inextricably linked to the values of the university.

The intangible value of the library

A PVC Research said that “the library is a statement about the value of research. It is important that the library is richly endowed and a welcoming space”. She also said that the library is “a major part of the enterprise in producing an environment for research and it is critical that it is well provided for”. The librarians there feel that the library is “a cherished part of the institution”.

Russell Group institution

The library as ‘glueware’

At a highly distributed university, researchers said that they feel the library helps them “identify themselves with the institution” and should be given more prominence to fill what they perceived to be a “gap at the centre of the university”.

Russell Group institution

Review of evidence

Stakeholders at four of the nine institutions commented on the library’s contribution to a ‘scholarly ethos’. The majority of the evidence came from PVCs Research.

14. Review of evidence

Introduction

This section reviews findings from previous work alongside the evidence gathered for this project, and considers the extent to which we have been able to meet the objectives and answer the questions posed at the beginning of the study.

Previous studies and statistics

Many studies have investigated the value of libraries, but few have investigated the value of academic libraries to research. The statistics and previous studies referenced in this project are highlighted below.

We have drawn on the annual statistics for academic libraries compiled by LISU¹⁷ on behalf of SCONUL, as well as LISU's analysis of longer-term trends.¹⁸ We have

noted in addition a report by the RIN and SCONUL which examines trends in library finances in more detail.¹⁹ We have also drawn on HESA statistics on research,²⁰ including academic staff costs, research grants and contracts income and the number of PhDs awarded. An overview of key trends over the last ten years is provided in Section 2.

We have also noted the findings of an RIN report on researchers' use of academic libraries and their services,²¹ which presents an account of the current position and of likely trends for the future. The current study confirms the report's conclusion that researchers believe that their institutions' libraries are doing an effective job in providing the information they need. Our findings also align with the report's recommendation that it is "time to consider the future roles and responsibilities of all those involved

17. See <http://www.lboro.ac.uk/departments/lis/lisu> [accessed on 14 September 2010].

18. See for example, *SCONUL library statistics: trends 1998-99 to 2008-09*, White and Creaser, August 2010.

19. *Trends in the finances of UK higher education libraries: 1999-2009*, RIN, September 2010.

20. See www.hesa.ac.uk [accessed on 14 September 2010].

21. *Researchers' Use of Academic Libraries and their Services*, RIN and CURL, April 2007.

in the research cycle – researchers, research institutions and national bodies, as well as libraries – in meeting the challenges that are coming”. The value of a strategic and integrated approach to research support is one of the key themes emerging from the current project.

From the US, we have also noted a recent report²² commissioned by the Association of College and Research Libraries (ACRL) to investigate the value of libraries and their contribution to institutional missions and goals, and to “respond to the demands and positions of academic librarians as contributors to campus conversations on accountability and impact”. The report provides a comprehensive review of the relevant literature, with a natural focus on the US. It also sets out a ‘research agenda’ focusing on libraries’ impact on institutional missions. It identifies two key questions on research impact:

- How does the library contribute to faculty research productivity?
- How does the library contribute to faculty grants?

The ‘research agenda’ for these questions covers:

- surrogates for library impact (eg research outputs such as number of publications, number of patents);
- data sources (eg CV analysis, institutional faculty records, publication citation analysis);
- potential correlations (eg with institutional mission or outcomes).

The report also provides some steps to help librarians accelerate their efforts to demonstrate value by “embracing an outcomes approach that reveals the impact of libraries on users”.

In Australia, the Go8 University Librarians²³ conducted a cost-benefit study in 2009 to assess the value of the information resources provided by libraries to their research communities. It used contingent valuation methodology, a survey-based technique, to assess researchers’ willingness to pay for content and services in a series of hypothetical scenarios.

Return on Investment

We have noted in Section 10 two major studies based in the US that seek to calculate return on investment as a means of quantifying the value of the library. The focus to

date in these studies has been on linking the use of library resources to successful grant proposals.²⁴ The work is now being extended to cover the value of all key library and services.²⁵

Correlation analyses

We have also considered (see Section 4) two studies which examine the relationship between content provision and research outcomes.²⁶ Both of them contain more detailed analyses of the relationships between specific aspects of content provision and of research outcomes than was possible in this study. Neither of them, however, is able to establish conclusive causal relationships between library income, or journal spending and use, and research outcomes. Both conclude that more detailed studies are required of library activities in different institutions and groups of institutions before any such relationships can be established.

Project objectives and evidence

The objectives of this study are set out in Section 1. Overall, we provide evidence in this report to demonstrate the contributions libraries make to institutional performance:

- we have identified the key characteristics of library service provision across a range of institutions and departments (Section 2).
- we have provided a review of changes to the libraries and research environment over the past decade (Section 2).
- we have developed an overall map of the value that libraries bring to researchers and to research (Section 3), identifying library characteristics and behaviours, their benefits and their relationships to research outcomes. We provide qualitative evidence in Sections 4–13 to support the steps in the chains of logic in the map.
- We have presented ten ‘stories’ of how libraries provide value to researchers and research. We provide evidence from a wide range of stakeholders across nine institutions to support and illustrate these stories.
- We have highlighted good practice in library services, characteristics and behaviours, those that are

22. *The Value of Academic Libraries: a Comprehensive Research Review and Report*, ACRL, September 2010.

23. See www.go8.edu.au/go8-members/go8-committees/62-go8-librarians, accessed on 1 November 2010.

24. *University investment in the library: What’s the return? A case study at the University of Illinois at Urbana-Champaign*, Luther, 2008. *University Investment in the Library, Phase II: An International Study of the Library’s Value to the Grants Process*, Tenopir, 2010.

25. *Value, outcomes and Return on Investment of Academic Libraries*.

See www.arl.org/stats/statsevents/return-on-investment-roi-lib-value-workshop.shtml [accessed on 13 September 2010].

26. *Is there a correlation between investment in an academic library and a higher education institution’s ratings in the Research Assessment Exercise?*, Oppenheim and Stuart, 2004.

E-journals: their use, value and impact, RIN, 2009.

supporting change and are valued by researchers and institutional stakeholders.

The limitations of the available data, however, mean that our statistical analyses of correlations and trends have been of limited utility. The SCONUL statistics were not designed for work of this kind, and they do not identify or distinguish between the library services and provision aimed at researchers on the one hand, and at students on the other; or between what is focused on meeting the needs of different departments or cost centres within a university. Moreover, the statistics do not cover all aspects of library services; there are gaps in the figures for a significant number of institutions; and we have been told that different institutions and individuals adopt different definitions and interpretations in compiling the returns on which the statistics are based, so that there is some lack of confidence in cross-institutional comparisons. Since only a minority of UK academic libraries have adopted the LibQual survey service, and then only intermittently, we have been unable to use LibQual statistics as an indication of researcher satisfaction and as a means of supplementing the SCONUL statistics.

For all these reasons, we cannot provide statistical correlations to underpin the steps in the chains of logic in the value maps, or to identify key changes in library provision or research success, and any relationships between them over the past decade.

This report is therefore based essentially on a large weight of qualitative evidence, gathered from interviews and focus groups with a range of stakeholders across nine institutions, and carefully analysed and cross checked.²⁷ Such evidence is based on individual perceptions and experiences, but we believe that the evidence we set out on the value of libraries is robust and unequivocal.

A key issue we encountered in collecting evidence from researchers and senior managers was the visibility of the library and its services. As with any service that works well it is easy for the library's continued existence and performance to be taken for granted:

- researchers focused heavily on access to research content;
- senior managers were strongly positive about the value of the library as a whole, but frequently were unable to discern why, in terms of particular services or characteristics, they felt so.

There are thus challenges for libraries in expressing what they do and how their roles are evolving. These challenges are exacerbated because the focus when libraries report on their performance tends to be on support for students; reporting on support for research is often limited to the adequacy and use of the content budget. Much of what the library does is therefore hidden. At the same time, the handling and use of information have become more complex and important aspects of the research process. Hence as libraries develop new roles in supporting research, and as budgets become more constrained, it is important that the governance, monitoring and assessment of libraries and of research become more closely integrated. Closer links between researchers and libraries would bring benefits to both, and to the institution as a whole.

Summary: the need for an evidence base

Libraries are changing and the value they provide will change too. This project has provided a snapshot of libraries based on current evidence, as the sector begins a period of turbulent change. The need to demonstrate value will endure should not be underestimated. Arguing the case for libraries may get harder as the traditional role of libraries in providing access to content – the role most frequently mentioned and valued by researchers and senior managers – continues to become less visible.

We frequently spoke to senior researchers and managers whose experience of research began before the digital revolution, and who tend to see the value of libraries residing in their traditional role as content providers. Such perceptions may come under increasing scrutiny as budget pressures mount, and as current senior managers are replaced by those whose experience is of a different world, with a different set of assumptions. A big challenge for libraries, therefore, is to communicate to both researchers and senior managers how they are changing, and the opportunities for the future. Should traditional perceptions persist, there is the danger that the development of new roles and services will be put at risk. Further work to build the evidence base is therefore critical. But in so doing, it is important to stress that libraries must be judged beyond the immediate needs they serve; and that the value of any library is inextricably linked to the values of the university.

27. All information gathered was collated in a database-driven mindmap, and tagged according to institution and stakeholder. The information was then reviewed in order to analyse the nature of value that libraries were said to bring to researchers, and then tagged accordingly with a further identifier. This then provided an evidence base for each area of value.

We hope that this report provides a framework for demonstrating the contribution libraries can and do make currently to the performance of researchers, research teams and institutions. But further work for the future will require better statistical evidence on library characteristics and activities. That in turn will require working with SCONUL and its members, or finding other ways to gather statistics on how libraries support research, including, for example, training in information skills, support for individual research projects, and the development of institutional repositories. If possible, the statistics should provide breakdowns of the provision focused on the needs of specific departments or cost centres. Gathering data of this kind need not be formalised to the same extent as the collection of the returns to SCONUL and HESA. Periodic lightweight surveys may suffice, in order to gather evidence to test particular hypotheses or investigate specific areas of provision.

This report, along with the related annexes, is available to download at www.rin.ac.uk/value-of-libraries or further hard copies can be ordered via contact@rin.ac.uk

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The Research Information Network has been established by the higher education funding councils, the research councils, and the national libraries in the UK. We investigate how efficient and effective the information services provided for the UK research community are, how they are changing, and how they might be improved for the future. We help to ensure that researchers in the UK benefit from world-leading information services, so that they can sustain their position as among the most successful and productive researchers in the world.

We provide policy, guidance and support, focusing on the current environment in information research and looking at future trends. Our work focuses on five key themes: search and discovery, access and use of information services, scholarly communications, digital content and e-research, collaborative collection management and storage.

As an independent voice, we can create debates that lead to real change. We use our reports and other publications, events and workshops, blogs, networks and the media to communicate our ideas. All our publications are available on our website at www.rin.ac.uk

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RLUK's vision is that the UK should have the best research library support in the world.

Our mission is to work with our members and with our partners, nationally and internationally, to shape and to realise the vision of the modern research library.

Our values:

- We collaborate to achieve more, faster, than we could individually
- We listen to our members and represent their views
- We maximise our influence and provide value for money for our members
- We work with the research community to promote excellence in support of current research and anticipate future needs
- We share good practice and build the capacity of our staff to promote change
- We value the richness of our collections and work to ensure that researchers can exploit them to the full
- We are proud of our past and confident of our future
- We will provide leadership in all areas where our contribution can gain most value for the community

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