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The LIRG/SCONUL Impact Initiative: assessing the impact of HE libraries on learning, teaching, and research¹

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The *LIRG/SCONUL Impact Initiative* took place between July 2003 and December 2005. Twenty-two higher education institutions in the UK attempted to measure the impact of their services on learning, teaching, and research. Within the context of the programme, each institution investigated the impact of a new innovation. This paper provides a final overview of the two phases of the *Impact Initiative* and highlights some of the findings. Measuring impact is not easy but there are significant benefits for the profile and development of academic libraries in trying to do so. It provides guidance for libraries on assessing impact drawing upon the experience of the *Impact Initiative*.

Introduction

The rate of change experienced by libraries has never been faster. Technology is fundamentally altering the way in which information is stored, organised, retrieved, and presented. This is leading to radical changes in the way in which libraries operate with a greater emphasis upon digital resources, facilitating information access, and the provision of innovative online services. In higher education, the position of libraries within their institutions is evolving as students and academic staff become more reliant on e-services. This means that established roles of libraries and librarians are under threat as the traditional focus of libraries declines. In this new environment, the librarian's status is not based upon buildings, size of the library collections, or the budget. The librarian's status will be judged upon their contribution to core business processes of the institution, especially students' learning [Payne 2005]. Also, increasingly, senior academic managers in host institutions are expecting their libraries to be able to demonstrate their contribution to learning, teaching, and research. This means having evidence available that can show the contribution that libraries make, and thinking about how that evidence can be presented and used.

Demonstrating a library's value and impact

Much has been written in the professional literature about the impact of libraries. Roswitha Poll has compiled a very useful bibliography on library impact and this is a good starting point for exploring the literature. Looking through the references in the bibliography, it becomes clear that attempts to measure impact have been attempted across all library sectors and many methods have been deployed (Poll 2006). However, there is not consensus on terminology and 'impact' and 'outcomes' are often used synonymously (Poll and Payne 2006). In the context of the *LIRG/SCONUL Impact Initiative*,

¹ Based on a paper presented at Digital libraries a la carte: new choices for the future. Ticer, University of Tilburg, Netherlands, 21st- 25th. August 2006

described in this article, impact was considered in terms of the difference that libraries make through their interventions.

Assessing a library's impact represents a significant step change for academic libraries that already have a good track record in performance measurement. Libraries have particularly adept at gathering, collating, and presenting statistics. Many of these statistics relate to:

- *Inputs*: amount of resource coming into the Library in terms of funds, space, staffing, size of collections.
- *Outputs*: this is usually measured in terms of levels of activity generated by the Library [eg loans, visits, downloads, enquiries etc.]

Increasingly, libraries have also been able to provide:

- *Costs*: Data on how funding is spent, unit costs of providing particular services [eg cost per document supplied, cost per user, etc.], or the cost of aspects of service delivery [eg cost of providing special services to particular segments of the clientele]
- *Satisfaction levels*: Assessing the extent to which the Library's clientele are satisfied with services [usually through satisfaction surveys or through more qualitative techniques such as focus groups or in-depth interviewing, etc.]
- *Performance indicators*. Monitoring the extent to which the Library is performing at established levels [eg turnaround times, failure rates, satisfaction levels, etc.]
- *Benchmarking data*. Comparing costs, processes, and outcomes with those of like institutions, and why these differences occur.

All of these data are potentially useful for library managers. However, they are all concerned with the quality of service delivery. They are not focussed on either the value of the service to stakeholders (including users) or the impact of the service on learning, teaching, and research.

Impact measures might be expressed in terms of increased use of resources, wider range of resources used, broader profile of users, more web links to library resources, increased citation of library resources in bibliographies. Some of these are clearly the same measures as discussed earlier in the context that libraries use. However, they are used in combination and in the context of providing evidence of the impact of our services. Often, in measuring impact, these more quantitative measures are used alongside more qualitative evidence of impact [such as the 'stories' of individuals whose lives have been directly affected by the library or its interventions]. Other measures (such as assessment of bibliographies, testing, reviewing student coursework) take librarians into areas where they are looking more directly at their impact on the learning process.

Fundamentally, focussing on impact moves performance measurement from looking at "what makes a good library?" to "how much good does a library do?" Interest in the 'goodness' of libraries is not new and has been with us for at least the last three decades. However, the changing environment of higher education, funding pressures, and the effects of technology on the delivery of

library services, has led to much greater interest in being able to demonstrate library impact.

Challenges in measuring impact

Measuring a library's impact is inevitably going to be challenging. This is because we are dealing with the complexity of seeking to measure the library's contribution to changes in peoples' awareness, knowledge, competencies, confidence, behaviour, and attitudes. It is also likely to be difficult to separate out the library impact from other influences. This is particularly the case where the Library's contribution to learning, teaching, and research is well integrated.

Moreover, the impact that the Library makes is not necessarily as intended and it may not be positive. Some actions may have unexpected, sometimes adverse, effects on users. Suppose a university library wants to ensure wider circulation of its book stock and introduces fines for late return of books. Some of the clientele, however, are better able to incur these costs and feel that fines are a price worth paying in order to retain the books that they want. Those, who are less able to pay, are then disadvantaged. Additionally, not all impacts are immediate. Some interventions may take many years before they have an effect. For example, the information skills learnt at college may have the greatest impact when the student graduates.

Measuring library impact is never going to be easy. However, the institutions that signed up for the *LIRG/SCONUL Impact Initiative* clearly felt that, in the current environment, it was worthwhile to engage in this attempt to demonstrate their impact.

LIRG/SCONUL Impact Initiative

The *LIRG/SCONUL Impact Initiative* sought to put in place a supported programme for measuring library impact. The focus was upon assessing the difference that a library makes to learning, teaching, and research. Rather than seeking to measure a Library's overall impact, it concentrated on measuring impact in relation to specific initiatives or innovations. Twenty-two higher education libraries from across the UK participated in the *Impact Initiative*, which took place between July 2003 and December 2005. It was jointly run by the Library and Information Research Group (LIRG) and the Society of College, National and University Libraries (SCONUL) through its Working Group on Performance Improvement. The *Impact Initiative* was facilitated by consultants David Streatfield and Sharon Markless, authors of '*Evaluating the impact of your library*' (Markless and Streatfield 2006a), who have considerable experience of measuring the impact of libraries.

Each participating institution identified an area where they wished to investigate impact. This allowed them to choose an area of particular concern to them and their institution. As Table 1 shows, many of the projects were concerned with teaching and learning with a marked emphasis on looking at

Table 1
Participants in the LIRG/SCONUL Impact Initiative

Theme	Institution	Topic	Phase
Collaborative academic provision	University of Teesside	Impact of library support to partner institutions	1
E-resources	Bournemouth University	Equality of access to e-resources	2
	University College Chester	Impact of investment in electronic resources	1
	University of Stirling	Student use of subject resources web pages	2
	University of the West of England	Increasing amounts spent on electronic information services (EIS) each year	2
Information desks	King's College	Integrated enquiry desks	2
	Staffordshire University	Single point of access for IT and library enquiries	2
	Birkbeck, University of London	Impact of an online induction tutorial	1
	Brunel University	Information skills for research postgraduates	2
	Glasgow Caledonian University	Information literacy strategy: awareness of strategy and impact	1
	University of Gloucestershire	Impact of an online information skills tutorial	1
	University of Leeds	Impact of information literacy initiatives	1
	Leeds Metropolitan University	Information literacy strategy: awareness of strategy and impact	1
	Northumbria University	Impact on improving students' confidence and competence in information and IT skills	1
	Open University	Information literacy programme: impact on information literacy amongst students	1
Non-traditional students	University of Southampton	Library support for non-traditional students of modern languages	2
Research	University of Birmingham	Institutional repository and scholarly communications advocacy	2
	University of Edinburgh	Subject-specific electronic resources and the research process	2
	University of Glasgow	Subject-specific electronic resources and the research process	2
	University of Warwick	Impact of the library on the research process	1
Widening participation	Newman College	Support for widening participation	2
	University College Northampton	Support for widening participation	2

Phase 1 July 2003-July 2004.

Phase 2 July 2004-December 2005.

the impact of information literacy initiatives or the provision of e-resources. The choice of these areas is not entirely surprising as these are areas of increasing investment by libraries. However, it is not difficult to see that there are other themes related to learning and teaching that could equally well have been chosen, eg investment in new learning spaces, new key skills programmes, library involvement in virtual learning environments (VLEs), distance learner support, and so on.

The *Impact Initiative* adopted a 'facilitated action research' approach in which library staff themselves were involved in collecting and analysing the evidence of impact of their library's innovative interventions (Markless and Streatfield 2006b). Participating institutions could send up to four library or academic staff (including one senior library manager) to an 'impact implementation workshop' at the beginning of their phase of the *Initiative*. At this seminar, they worked with the facilitators and other delegates in firming up the topic that they would investigate, identifying their measures of impact, and deciding how they would go about collecting the evidence of impact. This introductory workshop was followed up with review workshops in the middle and at the end of each phase. Between these events, participating libraries were encouraged to share experience and seek help through the closed LIS-IMPACT online mailing list. There was some collaboration between institutions [eg Leeds Metropolitan and Glasgow Caledonian in phase 1, and Bournemouth and the University of the West of England in Phase 2] but most institutions had institutionally specific needs.

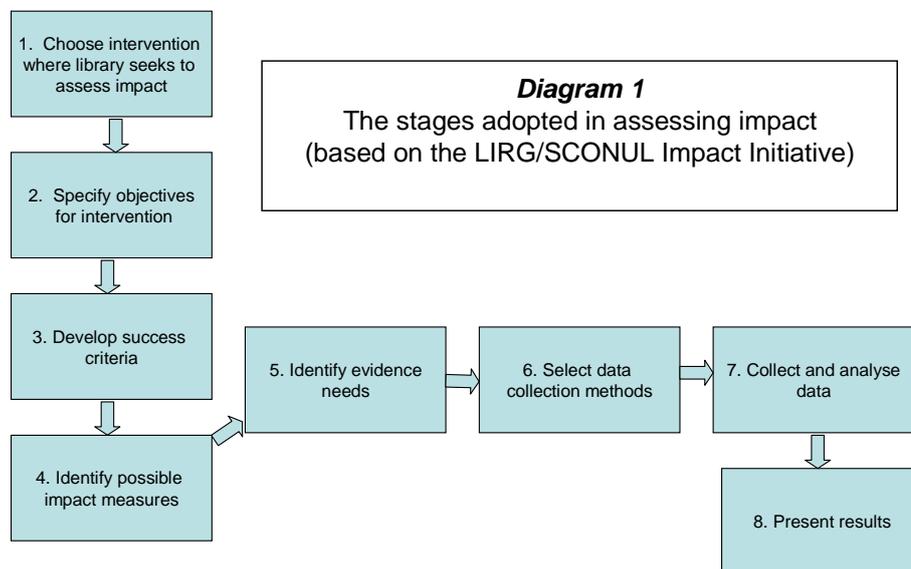
An impact process model, developed by the facilitators in earlier work, was deployed in the *Impact Initiative* (Markless and Streatfield 2006a). This impact process model enabled institutions to identify relevant performance indicators to demonstrate the impact of their interventions. In other words, the *Initiative* put in place a means by which libraries could systematically assess the impact they had made to learning, teaching, and research in relation to their chosen innovation. Participants followed eight key stages to assessing impact in the *LIRG/SCONUL Impact Initiative* from choosing the intervention where the library sought to assess its impact through to presenting the results (Diagram 1). These stages are presented in Appendix 2 as a checklist for use by libraries that may wish to assess the impact of an intervention that they have made.

What methods can be used to assess impact?

A wide range of methods were used in the *LIRG/SCONUL Impact Initiative*. Reports of all of the institutional projects in Phase 1 of the *Impact Initiative* appear in the Spring 2005 issue of *Library and Information Research* (*Library and Information Research* 2005) and these detail the methodologies used by each of the projects in that phase. Some of the methods used included:

- Statistics on usage [including web statistics, e-statistics]
- Auditing current practice
- Documentary evidence
- Minutes of meetings

- Analysis of enquiries
- Questionnaires
- Diaries
- Interviews [face-to-face and by telephone]
- Focus groups
- Participant observation
- Pre and post diagnostic testing of skill levels
- Multiple choice assessment
- Evidence of reflection in progress files
- Analysis of bibliographies



An example

So, for example, a library has introduced e-resources. Its objectives for doing so can be summarised as follows:

1. To enhance the student learning experience through the provision of appropriate e-journals, e-books, and other subscription-based electronic sources.
2. To enhance support to academic staff in their research and teaching through the provision of appropriate e-journals, e-books, and other subscription-based electronic sources.
3. To achieve greater cost-effectiveness by making available appropriate e-resources that are valued by students and staff

Taking just the first of these three objectives, the success criteria might be stated as:

- Students will be using the full range of e-resources available to them.
- Students who have used e-resources will feel that they have performed better in their coursework.
- Tutors whose students have used e-resources will feel that the students have performed better in their coursework.

The evidence and data collection methods might then be:

- E-measures – appropriate use data [use of specific resources/user data]
- Diary of use of library resources
- Focus groups with students
- Telephone or face-to-face interviews with tutors
- Feedback from College, Faculty and School committees

Institutional results from the LIRG/SCONUL Impact Initiative

To give a flavour of what individual institutions found, Appendix B shows a selection of the findings from the institutional projects in the *LIRG/SCONUL Impact Initiative* that have been reported in the professional literature. Some projects failed to complete through changed circumstances [eg change in personnel] or work on the project was squeezed by other operational and or strategic priorities.

Not all library interventions were entirely successful but the availability of the evidence enabled the Library to change direction and try an alternative approach. Birkbeck, for example, had introduced an online induction tutorial and found that, although it was heavily used, there had been no improvement in test results relating to information search strategies as a result of its use. Online information skills tutorials were proposed instead (Draper 2005).

Issues around awareness of library initiatives were highlighted. Leeds Metropolitan University had developed an 'information literacy framework', which had been endorsed by the University's Learning, Teaching, and Assessment Committee, and distributed to academic staff in a booklet. About 150 staff were subsequently contacted by telephone. About 20% of those who had received the booklet had not read it (Everest, Scopes, and Taylor 2005). Jackson and Ashby (2005) report that a questionnaire survey had highlighted that academic staff and postgraduate research students at the University of Birmingham were largely unaware of the existence of an institutional repository.

Other findings reinforce what we might suspect about student behaviour. Middleton (2005), for example, reports that "students' use of information resources was strongly influenced by their academic tutors and was largely assessment driven." Other findings help to create a clearer understanding of

how the Library contributes to learning and teaching. There is evidence from many of the projects of the importance of the partnership between academic staff and librarians. Fiander (2005), for example, found that there was greater linkage from virtual learning environment (VLE) modules to e-resources where the librarian had been working with the academics at University College Chester.

The findings from the study at Glasgow Caledonian University suggest that the Library's impact may be longer term. Crawford (2006) found a "more sharply focussed" appreciation of the importance of information literacy skills amongst alumni than current students.

Conclusions

The *LIRG/SCONUL Impact Initiative* ended in December 2005. LIRG and the Health Libraries Group (HLG) of CILIP have embarked on a similar programme aimed primarily at health libraries². SCONUL is funding a new project (VAMP – Value And Impact Programme) which will develop a web-based framework and set of tools to enable library managers to demonstrate their value and impact³. As part of the work, Information Management Associates, who were involved in the *LIRG/SCONUL Impact Initiative*, have been commissioned to develop support materials on impact evaluation based upon the outcomes of the *Impact Initiative*.

The experience of the *LIRG/SCONUL Impact Initiative* confirmed that measuring impact can be demanding. Participants particularly highlighted the time commitment, and the need for more advanced (qualitative) research skills to collect some of the evidence. However, most of the participants in the *LIRG/SCONUL Impact Initiative* felt that the effort had been worthwhile. Evidence from the projects could be used by library management to support the management of change. Evidence was available to show to stakeholders the contribution being made by the Library and that funding was being well spent. The work raised the profile of the Library within the institution and helped to encourage better interaction between librarians and academics. Participants also reported significant benefits in developing staff including a better understanding of pedagogy, building new approaches to evaluation, and gaining research skills. It also enabled colleagues to gain deeper insights into how the Library can support academic processes and encouraged librarians to engage more actively with learning and teaching. Overall, the *Impact Initiative* encouraged libraries to engage with evidence-based practice, assisting colleagues to undertake evaluation and reflection.

Most of the institutions involved in the *LIRG/SCONUL Impact Initiative* clearly benefited from their participation. However, there have been wider benefits for higher education libraries. Twenty-two institutions now have experience in assessing impact. This forms the basis for building the "community of practice" that participants in Phase 2 sought (Blagden and Payne 2006). LIS-

²http://www.cilip.org.uk/specialinterestgroups/bysubject/research_old/training/workshops210906_230107.htm [accessed 4 December 2006]

³ http://www.sconul.ac.uk/events/agm2006/presentations/VAMP_Workshop.ppt [accessed 4 December 2006]

IMPACT, the online mailing list, developed and used during the *Impact Initiative* has now been opened up to all those interested in assessing impact, irrespective of sector or location.⁴ This is not only a means by which experience can be shared, but the filestore contains project plans, project reports, and research instruments from the *Impact Initiative* which would be useful to anyone considering measuring their impact.

⁴ <http://www.jiscmail.ac.uk/lists/LIS-IMPACT.html>

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Appendix A

Stages in assessing impact [as used in the LIRG/SCONUL Impact Initiative]

Stage 1	<i>Choose an intervention where library seeks to assess impact</i>	<ul style="list-style-type: none"> • Why are you focussing on this intervention rather than others? • Is the intervention aligned with a key area of library strategy? • Who will be audience for the results? • Do you need to demonstrate the benefits of this intervention to the University? Or is it to inform library decision making? • Measuring impact takes time and resources, so is this a worthwhile area to be investigating? • Will you be able to isolate the 'library' contribution from the contribution made by other parts of the University? • Do you want to involve other stakeholders (eg academics, quality managers) in the design and conduct of the study? • Will you need to obtain approval within your institution to conduct research with students?
Stage 2	<i>Specify objectives for the library intervention</i>	<ul style="list-style-type: none"> • What precisely are you seeking to achieve through the innovation? • Are you going to try and assess your impact in relation to all of these objectives or just selected ones?
Stage 3	<i>Develop success criteria against which a judgment can be made as to whether the objectives have been met</i>	<ul style="list-style-type: none"> • Who will decide whether or not you have made an impact? • How will you know whether you have met your objectives? • And how will you be able to convince others that you have met your objectives?
Stage 4	<i>Identify possible impact measures</i>	<ul style="list-style-type: none"> • How can the success criteria be translated into impact measures against which evidence can be collected? • What sorts of impact measures are appropriate in your institutional context?
Stage 5	<i>Identify evidence that needs to be collected in respect of these success criteria</i>	<ul style="list-style-type: none"> • What data can you realistically collect and analyse with the resources [staff and expertise] available to you? • Do you have sources of evidence that already exists [statistics, survey results etc] that perhaps just need to be reanalysed? • Do you have 'baseline' data so that you can assess whether or not your intervention has made a difference?
Stage 6	<i>Select appropriate data collection methods to collect the evidence</i>	<ul style="list-style-type: none"> • Are you looking for quantitative or qualitative data, or a mixture of the two? • What timescales are you working to, and will these affect the choice of methods? • Are there methodologies/tools that you can adapt and use? • Do you have the expertise to use these methodologies? • Are there any ethical/legal issues associated with using these methodologies?
Stage 7	<i>Collect and analyse the data</i>	<ul style="list-style-type: none"> • Are you going to use your own staff, recruit students, depend upon friendly academics, or pay somebody to collect and analyse the data?
Stage 8	<i>Present the results</i>	<ul style="list-style-type: none"> • Bearing in mind the different stakeholder audiences, what are appropriate methods for disseminating the results? • How do you plan to present the results – to your own staff, to the wider institution, and maybe to the outside world?

**APPENDIX B
SELECTED INSTITUTIONAL RESULTS FROM THE LIRG/SCONUL IMPACT INITIATIVE**

Institution	Innovation	Method	What was found	Reference
<i>Birkbeck University of London</i>	Introduction of an online induction tutorial	Diagnostic testing, questionnaire, log data for tutorial, statistics of induction session attendance	High use of the induction package. Improvement in knowledge of the library but no consistent improvement in information searching techniques	Draper 2005
<i>University of Birmingham</i>	Digital repository of scholarly publications	Questionnaires, telephone interviews, and focus groups	Academics and postgraduate research students were largely unaware of the digital repository.	Jackson and Ashby 2005
<i>Glasgow Caledonian University</i>	Introduction of information literacy framework	Surveys of current students and alumni	"More sharply focussed' appreciation of importance of information literacy skills amongst alumni than current students	Crawford 2006
<i>University of Gloucestershire</i>	Impact of an online information skills tutorial	Email questionnaires, bibliography exercise, diagnostic testing, multiple choice assessment, use statistics	Integrated, context driven, approach to information skills has had a positive effect on student skills. Sub-standard referencing needing attention across all areas of the University.	Bolton 2005
<i>University of Leeds</i>	Information literacy initiatives	E-statistics, interviews, questionnaires, diagnostic testing, analysis of bibliographies, evidence of reflection in student progress files, web statistics, data on no. of committees where information literacy discussed.	Evidence that students can improve their information literacy skills using generic e-learning resources. On-line tutorials revised and improved.	Howard and Gill 2005
<i>Leeds Metropolitan University</i>	Introduction of information literacy framework	Telephone interviews with academic staff , analysis of bibliographies, audit of information skills teaching	Around 50% of academic staff had received the booklet outlining the framework, 20% had not read it. Initial results show that information skills teaching has led to an improvement in student bibliographies	Everest, Scopes, and Taylor 2005
<i>Northumbria University</i>	Students' confidence and competence in information and IT skills	Questionnaires and focus groups, analysis of bibliographies in student assignments, research diaries.	"Students' use of information resources was strongly influenced by their academic tutors and was largely assessment driven."	Middleton 2005
<i>Open University</i>	Information literacy interventions	Diagnostic testing tool	Development of diagnostic testing tool for use with OU courses	Baker and Needham 2005

<i>Teesside University</i>	Services to partner institutions	Questionnaires, interviews	Lack of use of the Library by partnership students (only 9% used it) and lack of awareness of available off-campus services	Myer and Porrit 2005
<i>University College Chester</i>	E-resources availability	Statistical analysis of VLE content, e-measures, diagnostic testing, questionnaire, analysis of student bibliographies	Number of electronic resources cited in reading lists was disappointingly low. Most links from VLE modules to e-resources were in those departments where the librarian had been working with academics.	Peters and Fiander 2005
<i>University of Stirling</i>	Impact of subject resource web pages	Face-to-face interviews and statistical analysis of web site, questionnaires	Usage statistics showed that the pages were amongst the most used on the library web site. Redesign of web pages to focus on locating journal articles.	Blagden and Payne 2006
<i>University of Warwick</i>	Library support of the research process	Semi-structured interviews, use of tools to rate 'best publications'	Journal status changes over time. Academics with prestigious research outputs are more sceptical of journal impact data.	Bradford 2005
<i>University of the West of England</i>	Availability of electronic information resources	Documentary evidence, questionnaires, interviews, and participant observation	Clear evidence that the impact of electronic information services will increase as a result of the University's developing e-learning culture.	Blagden, and Payne 2006