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What is a good library?

Librarianship is a curious profession in which we select materials we don't know will be wanted, which we can only imperfectly assess, against criteria which cannot be precisely defined, for people we've usually never met and if anything important happens as a result we shall probably never know, often because the user doesn't realize it himself. (Charlton *quoted in* Revill, 1985)

Introduction

A useful way to explore the essence of libraries is to examine how researchers and practitioners view 'goodness' in the library context. What is it that makes a 'good' library? The question was formalized some decades ago, most notably in a seminal paper by Orr (1973) entitled *Measuring the goodness of library services*. He suggested that in fact two questions need to be asked: 'How good is this library?' and 'How much good does this library do?'; today we might be more likely to label these as the *effectiveness/efficiency/economy* and *impact* questions. The first is in essence concerned with measuring and assessing the performance of the library against some agreed criteria, as when the number of books issued per head of population is compared with the national average. The second, much harder to measure, is whether the library made a difference, for example to the student studying for a degree.

During the last third of the 20th century, a great deal of work was done on library performance, much of it based on systems views of the library, and this approach informs the first part of this chapter. During the late 1980s and 1990s, the emphasis shifted somewhat towards the application of quality management concepts to libraries, and this is considered later in this chapter.

The library as a system

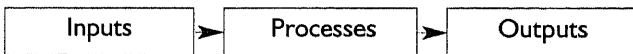
The term 'system' can become a catch-all, and is particularly dangerous in an ICT-intensive world where it is too often assumed to have technological meaning – Smith (1980) referred to it as 'a piece of status-raising jargon'. But it has a long history in management and organizational theory, and is helpful in

defining libraries, because, as earlier chapters have indicated, they are concerned with *processes* in their particular context of information and its use.

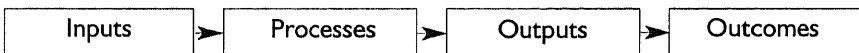
The essence of the systems approach lies in the view of the library as an organization operating within an external environment and interacting with that environment in terms of inputs and outputs. The organization itself is concerned with processing inputs to create outputs. At its narrowest, the systems approach can lead to a rather blinkered view of the library – although outputs (such as book issues) have outcomes (such as well-read students) that may not be seen to be the concern of the librarian. This is, of course, a dangerous state of affairs, since users can find other ways to satisfy their reading needs – or not bother! The simple closed system model is clearly inappropriate.

Libraries are better thought of as open systems, where the influence of the system on the environment and the environment's influence on the system are explicitly considered. At one level this is a question of survival – Childers and Van House (1989) have commented, in terms of inputs: 'To survive, the organization must acquire resources, which are controlled by various external groups. Therefore the effective organization is one that responds to the demands of its environment according to its dependence upon the various components of the environment for resources.'

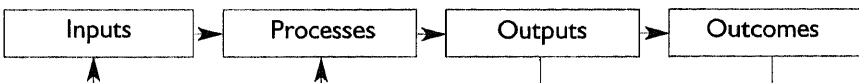
The simplest view of a system is thus:



The question of value, and the recognition that real-life systems are open, leads to the inclusion of impacts or outcomes:



Management of the system assumes that outputs and outcomes generate feedback which is used to control inputs and processes:



The question of goodness can then be related not only to the efficiency and effectiveness of the *processes*, and not only to actual outputs and outcomes, but also to the adaptability and responsiveness of the library to its environment. This model underpins many of the studies of library performance and library quality that have been published in the past 30 years.

Library performance

Among the studies of traditional library performance, those in the academic sector by Van House, Weil and McClure (1990) and in the public library sector by King Research (1990) are particularly useful. The International Organization for Standardization (ISO) has published a standard set of performance indicators for libraries, ISO 11620 (International Organization for Standardization, 1998). A 1995 academic library sector report, prepared for the UK higher education funding councils, provides a helpful model (Higher Education Funding Council for England, 1995a) suggesting that library performance should be assessed by reference to five areas:

- integration: the level of integration between the mission, aims and objectives of the institution and those of the library
 - strategic cohesiveness
 - resourcing mechanisms
 - planning processes
 - service-user liaison
 - assessment and audit mechanisms
- user satisfaction
 - overall user satisfaction
 - document delivery services
 - information services
 - study facilities
 - information skills programme
- delivery: are stated objectives being met and is the volume of outputs high?
 - meeting service standards
 - meeting development targets
 - documents delivered per full-time equivalent (fte) user
 - enquiries answered per fte
 - information skills instruction per fte
 - library study hours per fte
 - volumes in stock per fte
- efficiency: outputs related to resource input
 - items processed per library staff fte
 - total library expenditure per item processed
 - documents delivered per library staff fte
 - total library expenditure per document delivered
 - total library expenditure per study hours per annum
 - volumes in stock per library staff fte
 - total library expenditure per volume in stock

- economy: cost per unit
 - total library expenditure per fte
 - library staff expenditure and operating costs per fte
 - space per fte
 - fte per number of libraries
 - acquisition costs per fte
 - fte per professional library staff
 - fte per seat.

While many of these indicators are concerned with internal management and are not particularly relevant to the present discussion, it is highly significant to note that, for example under ‘user satisfaction’, the four services that are regarded as significant are document delivery, information services, study facilities and information skills programmes. This gives us some insight into the working groups’ thinking about libraries – these four services are clearly regarded as in some way ‘core’. The first set of indicators is also of considerable significance, since it lays emphasis on impacts and in particular on how well the library is integrated with its parent organization. Clearly, this integration – in systems terms the effectiveness of feedback mechanisms between the organization and its environment – is seen as particularly important.

Turning to the public library sector, the UK’s Department for Culture, Media and Sport (DCMS) published draft public library standards in June 2000 that explicitly focus on ‘*both* library users and potential users, and their needs for service’ (Department for Culture, Media and Sport, 2000 – original emphasis). The headings used for the 23 proposed performance indicators are:

- location of libraries and access to them (3 indicators)
- opening hours (2 indicators)
- application of the new information and communication technologies (2 indicators)
- issuing and reserving books (2 indicators)
- use of the library service (3 indicators)
- user satisfaction with library services and staffing (6 indicators)
- books and materials (5 indicators)
- local application (no specified indicators but ‘all authorities should build on the national standards with local schemes to measure sub-authority-wide service levels’).

It is interesting that so many of these indicators are based on traditional library operations and so few on ICT-based services – in fact of the two ICT-related

indicators, one refers to access to an online catalogue while the other sets a standard of 0.7 workstations per thousand population, including OPACs.

The question of how the performance of digital and hybrid library services can be measured is being explored in parallel research projects in Europe and the USA. The former work is currently centred on the EC-funded EQUINOX project (<http://equinox.dcu.ie> – see also Clarke, 1999) which is based on earlier studies reported in Brophy and Wynne (1997) and Wynne and Brophy (1998). The latter study is focused on a project entitled ‘Developing statistics and performance measures for the networked environment’ (<http://www.albany.edu/~imlsstat> – see, for example, Bertot, McClure and Ryan, 1999, as well as the key precursor report in McClure and Lopata, 1996). This work sheds some interesting light on the underlying models of the ‘library’ that are being addressed. Issues which have been identified include the following:

- It is very difficult to find a satisfactory definition for ‘document’ in the electronic environment, where an object may be dynamic and may be made up of many smaller information objects, as when an article refers to images which are held as separate files.
- The boundaries of the ‘library’ are very fuzzy, so that it is difficult to know what is a ‘library’ service. For example, use of a link from the library web pages while using a PC in the physical library would seem to qualify as a ‘library service’, but it is unclear whether account should be taken of exactly the same action performed by a library user when at home.
- The number of items delivered may be irrelevant to performance, since users can download many items in the process of browsing through them and discarding most. The traditional information retrieval measures of precision and recall have limited application in such environments.
- Readily available statistics are often worse than useless. For example, website ‘hits’ can be counted in so many different ways and hits are generated by so many different applications that interpretation is almost impossible. All that can be said with certainty is that zero hits is a bad thing!
- The response times experienced by users, frequently viewed as a key user satisfaction issue, are often outside the library’s control as delays may be caused by downstream bottlenecks. Extracting true *library* performance data in this area is thus very difficult.
- The convergence of library and computing services, common in the UK and not unknown elsewhere, makes the organizational model behind traditional library performance indicators inappropriate.

To date work on alternative performance indicators has looked mainly at how existing indicators can be adapted to meet the new paradigm. However, current work which is seeking to extend the EQUINOX project is examining a new range of indicators based on the library models that are discussed later in this volume.

Demand for library services

A key issue for libraries, whether traditional, hybrid or digital, is how to generate appropriate levels of demand for services. However, libraries are rather peculiar, along with some other public sector services, in that their immediate customers do not pay directly for their services. Brophy and Coulling (1996) put it this way:

In most settings, the customers pay for goods they receive; in academic institutions and public libraries . . . this is not the case, and care must be taken not to make assumptions that providing the funders with the service they demand will satisfy the actual users and the other stakeholders.

Equally, of course, providing the end-users with the services they want may not satisfy the funders!

Buckland (1988) has written extensively on these issues, particularly on the 'double feedback loop', which separates the responses of library managers and those of users to unsatisfied demand. If demand for a particular library service – perhaps for a particular book – is higher than the service can immediately satisfy, then the librarian may take action to increase the service, perhaps by buying extra copies or by reducing the loan period (in academic libraries usually by placing items in a short loan collection) so that existing copies circulate more rapidly. Quite independently, the user, when faced with the book's unavailability, may reduce demand on the library's service by a variety of strategies, such as going to another library, buying a copy, borrowing one from a friend or tutor, or simply giving up. (Incidentally, real-life examples of each of these strategies were discovered by Goodall and Brophy (1997) in their study of franchised course students.) The librarian's actions may stimulate additional, or at least reveal pent-up, demand; the users' actions may reduce demand on the library. However, as Buckland points out:

. . . since library services are normally free, the library's income does not depend directly on the level of demand. Reduced demand, therefore, does not weaken the library as it would a business, where a drop in demand would reduce sales and, therefore, income. Quite the reverse, a reduced demand for a free service reduces the

pressure, leaving the existing resources more adequate to cope with the remaining demand. (Similarly, serving increased demand may not be as rewarding as it would be for a commercial business.)

It is interesting to apply this logic to electronic services and this will be considered at greater length later. However, it may be noted here that while a single electronic copy should, bandwidth and other technical factors permitting, be able to serve virtually unlimited demand, other factors start to come into play that tend to uphold the double feedback loop mechanism. For example, the decisive factor may become which of several possible services the user finds it easiest to access – an issue examined in detail later in this chapter when quality attributes are examined.

In addition to elucidating various aspects of the systems model applied to libraries, Buckland suggested six ‘barriers’ that have to be negotiated if someone is to access and use an information object successfully:

- 1 *identification*: ‘strictly speaking, this is usually at least a two-stage process: deciding where to look (“channel selection”) as well as identifying a specific book, record, or other source’
- 2 *availability*, defined as the process of delivering the object to the user
- 3 *price to the user*, including the cost to the user of ‘time, effort and discomfort as well as money’
- 4 *cost to the provider*, which again includes direct costs but may also involve decisions on, for example, whether providing access contravenes values – such as ‘social values in the case of indecent or irreligious materials’
- 5 *cognitive access*, which requires the user to have the cognitive ability to understand and use the resource
- 6 *acceptability*, which covers such issues as credibility (which might be judged by reference to source or author) and cognitive conflict (where an information object’s content conflicts with the user’s beliefs).

A particular issue in this analysis would be to determine where the boundaries of the library’s responsibilities stop – for example, how much responsibility does the library take for helping users develop their cognitive abilities?

Quality management

A considerable amount of work has been carried out in examining the application of quality management to libraries (see, for example, Milner, Kinnell and Usherwood, 1994; Brophy and Coulling, 1996; Brockman et al, 1997; Brophy et al, 1997a). At the heart of this work is the recognition that, as services, the

primary motivation for libraries should be to meet the needs of their users as well as is possible. Quality management is based on precisely such a premise, its foundations being laid on definitions of quality which stress that the 'goodness' of a product or service can only be measured in terms of the extent to which it meets the customer or user's requirements – in formal terms quality is defined as 'fitness for purpose' or 'conformance to requirements'.

Total Quality Management (TQM) stresses a customer focus and continuous improvement as core values. Brophy and Coulling (1996) list ten intertwined facets of TQM which need to be developed simultaneously:

- developing a clear purpose for the organization
- providing vision, commitment and leadership
- encouraging teamwork and involvement by all staff
- ensuring that the design of all products and services is customer-oriented
- having clear, systematic, unambiguous and universally applied processes
- investing in continuous training and development of all staff
- monitoring performance continuously and acting on the results
- benchmarking achievements against the best in the sector
- developing cooperative rather than confrontational relationships with suppliers
- careful control of resources and awareness of costs.

Recently, there has been a noticeable movement towards redefining TQM in terms of 'business excellence' and the 'learning organization'. The latter concept is based on the idea that organizations need to go beyond the training of individuals, to become a 'learning entity'. The organization itself should be capable of learning, of adapting and changing in response to internal and external stimuli, through facilitating the learning of individuals, teams, sections, departments, and ultimately the whole enterprise. Of course organizations themselves cannot think or feel, so what is being suggested is the organization of individual learning in a systematic way that enables the total contribution to be brought to bear on all activities in a planned, yet dynamic fashion. The link to knowledge management, described in Chapter 2, is clear.

Library quality

An approach taken in a number of research projects at the Centre for Research in Library and Information Management (CERLIM) has been to relate the understandings of service organizations in general that have arisen from a quality management perspective to libraries. The importance of this approach lies first in its very clear focus on customer perspectives – quality is defined in

terms of customer purposes and expectations – and secondly in its emphasis on continuous improvement. It is thus concerned with change, but change that is motivated by a closeness to user needs and wants.

Quality management generally builds on systems models and thus, in library terms, fits closely with the systems approach described above. However, its further relevance for present purposes – ie for helping to improve understanding of what libraries are for and what role they might play in the future – lies in the definitions of quality itself. While the broader quality management approach has been described by Brophy and Coulling (1996), this tighter focus draws on work initially undertaken by Garvin (1988) in the USA. In essence, it identifies a series of quality attributes: Garvin's initial eight have been modified and expanded to ten attributes in their application to libraries (Brophy, 1998a, 1998b). The aim is to increase understanding of what makes a library service attractive to users and potential users alike. In the following account the initial description of each attribute is followed by two examples. In the left-hand column these are taken from the automobile industry, an area with long experience of quality management approaches and with a need to cope with intense competition and rapid change. The right-hand column is related to library services.

Performance

These are the primary operating attributes of the product or service – what every customer would expect the product to have without having to ask. Their presence has little effect on customer satisfaction, but their absence leads immediately to complaints and dissatisfaction.

Automobile	Libraries
<ul style="list-style-type: none"> • Seats • Gear change • Heater • Interior light 	<ul style="list-style-type: none"> • Catalogue of stock • Logically organized stock • Study space • Knowledgeable staff

The exact definition of these core performance attributes depends, of course, on the individual library and the mission it is trying to accomplish.

Features

These are the secondary operating attributes, which add to a product or service in the customer's eyes and make the whole service more attractive but which are not essential to it.

Automobile	Libraries
<ul style="list-style-type: none"> • CD player • Air conditioning • Side airbags • Automatic windscreen wipers 	<ul style="list-style-type: none"> • Link to document delivery from the online catalogue, so that clicking on the item results in it being delivered to the user's home or place of work • Personal notification of new acquisitions • Coffee shop

It is not always easy to distinguish 'performance' characteristics from 'features', especially as what is essential to one customer may be an optional extra to another. Furthermore, over time 'features' tend to become 'performance' attributes – it is likely that document delivery will take this path, becoming an essential adjunct to library services. Nevertheless there is a valid distinction to be made. One way to check this distinction is to ask, 'Can this aspect of service produce "customer delight"?' Generally, performance attributes are taken for granted – it is only when they are not there that customers notice, and then complain. Features, on the other hand, are usually not noticed when they are absent since the customer did not expect them. When they are provided, customers are surprised at this 'extra' benefit and express delight with the service.

Conformance

The question here is whether the product or service meets the agreed standard. These are both national or international standards (for example technical standards) and locally determined service standards. The standards themselves, however they are devised, must of course relate to customer requirements.

It is of course important not just to have stated service targets but to determine whether they are being met consistently.

Automobile	Libraries
<ul style="list-style-type: none"> • National 'type' standards • Performance in crash tests 	<ul style="list-style-type: none"> • Anglo-American Cataloguing Rules, edition 2 • MARC (which version?) • Service standards <ul style="list-style-type: none"> – Average acquisition time – Average ILL delivery time

Reliability

Customers place high value on being able to rely on a product or service. For products this usually means that they perform as expected (or better). For services the idea of reliability translates best into 'correct service'.

Automobile	Libraries
<ul style="list-style-type: none"> • No breakdowns 	<ul style="list-style-type: none"> • Are correct answers given to queries? • Are links on the library's website working correctly?

Reliability also includes service availability – at one time this was a common problem with computer systems but usually now only occurs if a library subscribes to very limited concurrent access so that a user cannot get on to a database until someone else logs off.

Durability

Garvin defines 'durability' as 'the amount of use the product will provide before it deteriorates to the point where replacement or discard is preferable to repair'. For library services, especially those which are IT based, the question is likely to revolve around longevity of the solution adopted. To some extent this is dependent on technological progress, which may be difficult to predict, but views can be formed on whether a service is within the mainstream of development effort or adopting a more risky approach.

Automobile	Libraries
<ul style="list-style-type: none"> • How prone to rust? • Mechanical durability 	<ul style="list-style-type: none"> • Technology has likely development path • Existing user base is large and growing

Currency

For most users of libraries, the currency of information, ie how up to date the information provided is when the user retrieves it, is a more pressing issue than durability.

Automobile	Libraries
<ul style="list-style-type: none"> • Is it the latest model? • Does it have the most up-to-date features? 	<ul style="list-style-type: none"> • Latest editions of books • Latest issues of journals • Today's newspapers available when the library opens • Current CD-ROM mounted

Serviceability

When things go wrong, how easy will it be to put them right? How quickly can they be repaired? How much inconvenience will be caused to the customer, and how much cost incurred? This last will include not just the direct cost, but the inconvenience and consequential losses the customer faces.

Automobile	Libraries
<ul style="list-style-type: none"> • Ease of obtaining spares • Network of garages • Complaints procedures • Comprehensive warranty 	<ul style="list-style-type: none"> • Corrections of errors in document supply • Courtesy of staff • Receptivity to complaints and suggestions

In general, libraries and information services have not had to give a great deal of attention to these issues in the past, but they are becoming of major importance, especially where an online information service is being provided on a commercial basis. A particular issue for libraries will be the ability to deliver the

'right' information object in response to poorly formulated queries, something that is occupying the attention of all the leading Internet search engines.

Aesthetics

While this is a highly subjective area, it can be of prime importance to a customer.

Automobile	Libraries
<ul style="list-style-type: none"> • Design (exterior and interior) • Finishes • 'Lifestyle' statements 	<ul style="list-style-type: none"> • Building design, including finishes • Web home page design

A modern, light, airy building, which is well designed and well laid out, can give an impression of quality that can override the actual experience of using the service. Relatively poor service in an aesthetically pleasing environment may be preferred to an average service in a building that is drab and uninviting. First impressions are often the basis for user selection of services, and may have little to do with actual functionality.

Perceived quality

This is one of the most interesting attributes, because it recognizes that all customers make their judgments on incomplete information. They do not carry out detailed surveys of 'hit rates', or examine the performance of rival information retrieval systems, or check the percentage of interlibrary loan requests completed within two weeks. They do not read the service's mission statement or service standards and they do their best to bypass the instructions pages on the website. However they will quickly come to a judgment about the service based on their preconceptions as users and on the reputation of the service among their colleagues and acquaintances.

Automobile	Libraries
<ul style="list-style-type: none"> • Japanese cars are reliable • German cars are well built • British cars fall apart 	<ul style="list-style-type: none"> • The library is great – the staff are really helpful and nothing's too much trouble • The library is a waste of time – they never have the books you want and the staff always give the impression that you're interrupting them when you ask for help

Accessibility

The question posed here is, 'Can *this* user make use of *this* service?' Most services and products are designed for the 'standard' customer – a tall person may hit their heads on the hanging signs while small users may be unable to lift books off a top shelf. More seriously a high proportion of library users have a disability of some kind and need special consideration if they are to access library services in the electronic era: for example, 2% of the UK population – over a million individuals – have some form of visual impairment.

Automobile	Libraries
<ul style="list-style-type: none"> • Seat adjustment • Conversion for disabled users available 	<ul style="list-style-type: none"> • Some of the OPACs have the mouse situated where left-handed users can use it • Large screen PCs • Audio-based browsers for web access • Braille option instead of print • Text telephone for deaf people

A multicoloured, dynamic, multimedia website may look wonderful to many users but will be a barrier to those who are visually impaired.

The ten attributes outlined above provide some insights into what is meant by 'quality' in a library context. They reinforce the strong user-orientation of much work in this field but provide additional analysis that helps to demonstrate the issues likely to be of particular importance to libraries in the future.

Conclusion

Attempts to answer the question 'What is a good library?', whether from systems or quality management viewpoints, demonstrate a twin concern with quantitative measures of (mainly) outputs and with user perceptions. As yet there have been few attempts to answer Orr's second question, 'How much good does this library do?'. Although user satisfaction and quality attributes analyses start to address the issue, it remains the great unknown of library services. While it is reasonable to infer that users would not continue to use services from which they gained no benefit, the complexity of interactions, particularly in the learning processes that so many libraries claim as their core area of concern, makes the isolation of library contributions difficult.

Nevertheless, it is a matter for concern that libraries as a whole are not able to provide evidence of the value and impact that they claim.

Despite this limitation, the evaluation of library services reinforces the conclusions of earlier chapters that the essence of the library is to be found at the nexus of information and use, of information provider and information user, and that the successful library is the one that manages services to maximize the benefits to stakeholders, of which the end-user is the most important. Meeting the information needs of users remains at the core of library services, whatever else they may do.