

**“Six impossible things before breakfast”:
A multidimensional approach to measuring the value of libraries.**

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**Jennifer Cram
Manager, Library Services
Education Queensland, Australia**

A realistic performance measurement regime requires acceptance and management of ambiguity and contradiction and an understanding of the complexity of defining value in the context of libraries. Methodology for measuring value in a corporate library service is described, and models, taxonomies, service business research findings, and behavioural and psychological insights useful to inform performance measurement practice in relation to value are discussed. A conceptual framework for value measurement is proposed. Factors that contribute to ambiguity and contradiction are identified, with emphasis on the role of customer satisfaction assessment and conventional notions of accountability.

Introduction

There is no litmus test for value because defining value in the context of libraries is complex, individual stakeholders are unique, performance measurement is essentially spatial, and operating in an environment that is neither causal nor predictive creates complications. In this paper I will discuss some of the models, taxonomies, service business research findings, and behavioural and psychological insights I have found useful to inform performance measurement practice in relation to value. I will also briefly describe how we have centralised identifying and reporting value in my library service. However, I have no neat formulae or standards to share with you because each value judgement needs to be guided by explicit hypotheses.

To identify and test the hypotheses underlying value judgement requires eliminating three sources of sclerosis - blindness to reality- which plague most organisations: unchallenged assumptions, organisational myths and organisational taboos.

Assumptions that are unchallenged underpin virtually every activity in every organisation. These assumptions can be obvious, or they can be well hidden. Invariably, they are taken for granted and allowed to go unchallenged for long periods of time. As a result, some grow into myths partially or completely detached from reality, and even when shattered they can rise again. Over time, some incorrect assumptions survive attacks and contrary evidence to become untouchable, so that reality is bent to fit the taboo, not vice versa (Gilad, 1996).

To be able to measure the value of a library, we must, therefore, understand that the Cartesian “I think, therefore I am” does not work. Libraries have no inherent objective value. Value is (subjectively) assigned and is related to perception of actual or potential benefit. Rather, libraries create value by leveraging intangible assets in such a way as to add value and create benefits. They do not manage value. They manage processes and activities and they make decisions that *might* lead to production of value to the users of the library and to the parent organisation.

Libraries can thus be seen to constitute a potential of benefit. One of the difficulties in attempting to measure the value of a library is the near impossibility of measuring its intellectual output, because that is wholly dependent on the proportionate intellectual input of the library user. For example, the library acquires published information – intellectual output of authors and publishers. Then it might enhance the publication or information by organising and possibly analysing it. When the library hands the publication or information to a customer, that customer in turn adds value by evaluating the information presented in the context of his or her personal knowledge, experience and judgement. When the customer uses the information or publication, for example, to inform a decision, whatever decision is taken is based, not on the original information, but on this refined information. So, while clearly the library adds some value, it is not clear exactly how much it adds. This situation has been further obscured by the term “value-added” to denote any service for which it is practical to charge, a term that could also be taken to imply the corollary, that librarians add no value to the so-called core services they deliver. ⁽¹⁾

The extent to which a library’s potential is realised as a benefit to any individual, organisation or community thus depends to a large extent on the competences of individuals in accessing and using library services and materials and what proportionate value the user adds. The impact any library has on any individual or community is unique because of the uniqueness of its collection and its users. Indeed, the impact of a library could be deemed to be an accumulation of the impacts of the thoughts of totally unrelated authors. In this sense, the impact of a library is the impact of the choices an individual makes of which items and services he or she uses and the sequence in which he or she will use them. It follows then that the primary purpose of measuring the value of a library must be to see if the library is doing well, not to judge whether it is doing better or worse than other libraries.

Value is a psychological construct. It may be intrinsic or extrinsic, but it is always subjective. Most of us, for example, would agree that car accidents have an immense impact on the individuals involved, as well as a range of impacts on the community, the vehicle industry, insurance premiums and so on. It would seem, therefore that they must always have a negative value. However, dissect the Gross Domestic Product of any country, and you will find that car accidents are seen to have a positive contribution to the GDP because the money spent on medical expenses, car repairs, and funerals increases the total.

Value, therefore, depends on perspective and user competence.

Value and Impact

Something can have value but no impact on an activity or individual. Equally, something can have impact, but no value for those it has an impact on. What is the difference between value and impact? Does the difference matter? Although it has become reasonably common to speak of value and impact as if they are essentially bundled together, which in some senses they are, there is a fundamental difference between the two, and therefore that difference matters a great deal. Nonetheless, it can be demonstrated that there is a sequential relationship between library impact and library value.

Although impact is also commonly used as a synonym for outcomes, I make a fine distinction between impact and outcomes. The impact of an event or activity is the effect it has on other activities, or on the providers, recipients or beneficiaries of those activities. Outcomes, on the other hand, are the *realised* benefits or detriments that flow from those impacts. To measure value is to measure outcomes, which include the benefits which flow from the library’s outputs. It follows then, that to arrive at an estimation of value requires identification of and assessment of realised benefits. It also requires that we move beyond an internally constructed performance

spectrum that generally reflects a linear progression from Inputs through Activities to Outputs.

The Performance Spectrum

To be able to think beyond the traditional internally constructed performance spectrum is a prerequisite for effective resource allocation and evaluation. In recent years libraries have talked around the notion of outcomes, and some researchers have done some serious work in this area, though I am not convinced that libraries have been altogether effective in moving beyond citing this work as a global proof of the holiness of the library mission, and few libraries seem to be doing more than describe what they assume to be the outcomes of the provision of their services.

In distinguishing between outputs and outcomes, the South Australian guidelines on program evaluation and review use the example of an output as “a client served” and an outcome as “a client helped”. I would argue for the inclusion of Customers as a separate category in the performance spectrum, as well as the division of outcomes into Direct or Immediate Outcomes and Longer Term Outcomes because these help clarify the difference between operational, tactical and strategic approaches to performance (Figure 1). Distinguishing between intermediate outcomes and longer-term outcomes draws attention to cause-effect linkages and identifies lower-level outcomes that are within the control of the library (Ince, 1992). The library may not be solely responsible for long-term outcomes, but I suggest that though you may be judged on immediate outcomes, those immediate outcomes cannot be established without reference to the long-term outcomes, which are a reminder of the moral imperative that underlies all public service.

Inputs	Activities	Outputs	Customers	Direct/ Immediate Outcomes (Programme)	Longer-Term Outcomes (Policy)
Resources provided	Efficiency Indicators	Things done	Number and groupings	Impact	Value
HOW we do things			WHO we do them with	WHAT (do we want to achieve)? /WHY we do things	
Operational Orientation					
Tactical Orientation					
Strategic Orientation					

Figure 1: Performance Spectrum

While, in practice basing longer-term outcomes on untested assumptions is not unusual, outcome indicators have a specific role in strategic management: to initiate strategies that deliver appropriate benefits. Outcome indicators must, therefore, connect directly with specific tasks.

I first started looking at measuring the value of a library about fifteen years ago from the point of view of reporting on the library’s value to its parent body. My interest was totally pragmatic, prompted by my search for the underlying logic behind the apparent absence of evidence-based decision-making by local government authorities in relation to their libraries. While I already recognised that the only viable rationale for a library is to supply value to the direct users of library services, it quickly became clear to me that there are two equally impelling reasons for a library to measure the value it delivers to its parent body and to the beneficiaries of its services. These are to

ensure that decision-making within and about the library is evidence-based, but what is more important, to ensure the library survives.

Like Alice, I soon discovered that I had moved into an alternative universe. You may recall that in *Through the Looking Glass*, Alice asserts the philosophical proposition that something cannot be both true and false at the same time, whereupon the White Queen contradicts her: “When I was your age, I always did it for half-an-hour a day. Why, sometimes, I’ve believed as many as six impossible things before breakfast.” (Carroll, n.d.). There are so many ambiguous and contradictory aspects to measuring the value of libraries that believing impossible things almost becomes routine.

The Strategic Triangle

The source of ambiguity and contradiction lies, in part, in the environment in which libraries operate. Moore (1995) calls this the strategic triangle. The three corners of the triangle represent metanetworks. In order to produce services that are valuable to the beneficiaries of our services, we are required work within these metanetworks to strategically manage our libraries in an operationally feasible manner within the constraints of political legitimacy and support.

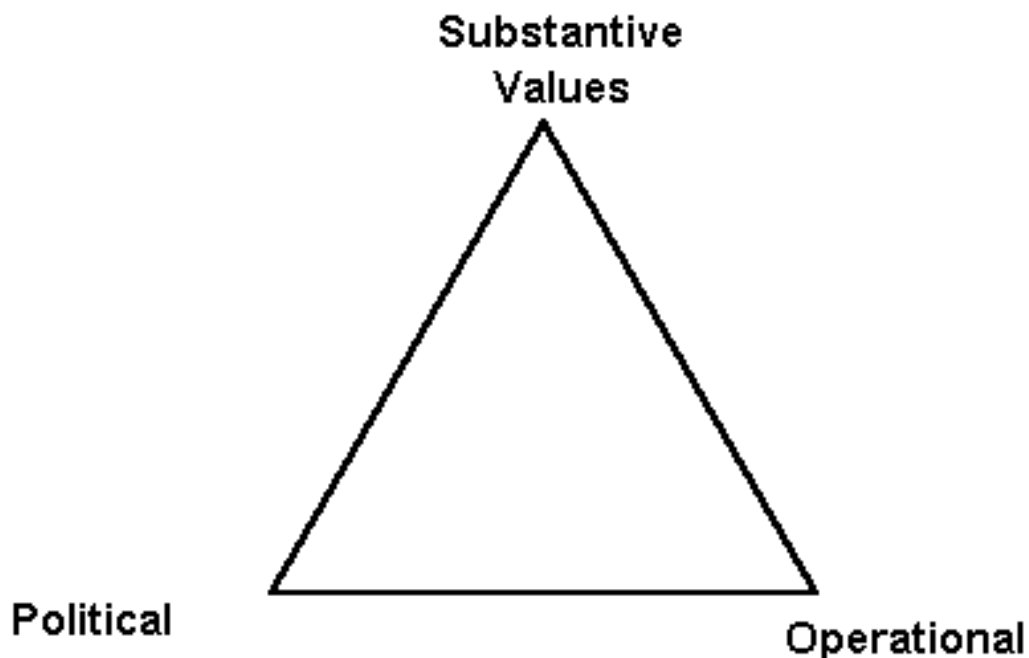


Figure 2: The Strategic Triangle

Economic rationalism requires establishing the monetary bottom line, but this does not exclude intangibles. In the 1990s, however, the focus has shifted to performance and ‘value’ is the new language of strategy. To legitimately claim credit for its contribution to an outcome, a library must be able to demonstrate a credible connection between its output and longer-term outcomes. Cause and effect is difficult to identify and demonstrate, indeed, establishing the link between the activity and observed outcomes can be extremely complex because causality is relative to social context (O’Faircheallaigh, 1992). While customers are beneficiaries of library services, identification of the customer may be quite difficult and they are not the **only** beneficiaries. The library delivers value not only to the direct user, but also any to agents between the library and the user, as well as to consequent beneficiaries. Benefits to the parent body, to future generations and to the wider community, must be included in estimations of value. Even more difficult is identifying causative

indicators for the effect we have judged to be a social or organisational good and thus a worthy outcome of library provision. Therefore libraries face the difficult task not only of identifying those social and organisational goods to which the library contributes, but of demonstrating the gains or increase in those goods which can be *directly attributed to the library*. This requires unrelenting and continuous questioning of assumptions, and in particular, identification of other variables. It is all too easy to fall into the trap of spook mathematics. For example, there appears to be a correlation in Germany between the decline of the stork population and the falling human birth rate (Economist, n.d.) Nonetheless, unless you are able to confirm that storks bring babies, you should not use stork population figures as an indicator of human fertility.

Conceptual Framework for Measuring Value

When we attempt to establish the value of a library we have to deal with a multi-perspective construct that requires recognition that not all appropriate measures can be precise, quantifiable, and able to be replicated. I therefore propose a conceptual framework for measuring value (Figure 3). This proposed framework is compatible with the conceptual framework for evaluation described by Rowena Cullen in her keynote address at the 2nd Northumbria Conference (Cullen, 1997)

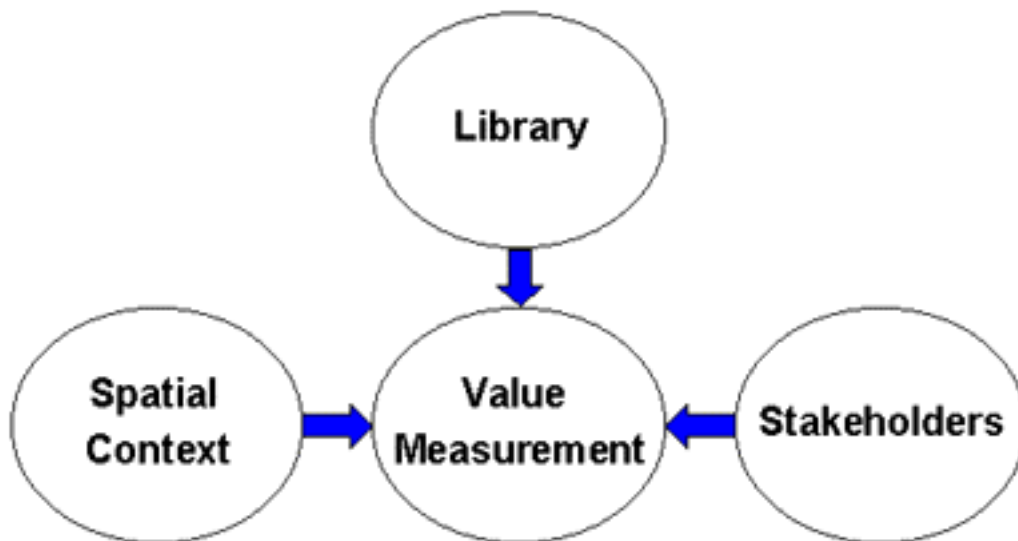


Figure 3: Outline of a Conceptual Framework for Value Measurement

The framework has four components: the library, the spatial context in which the library operates, the stakeholders, who interact among themselves as well as with the library, and the monitoring and evaluation process.

It is not, however, sufficient to merely adopt a “customer focus”. Ever since Karl Albrecht (1988) described moments of truth, we have been seduced by the methods and viewpoints of the retail industry. Many of those insights have enabled us to implement much needed improvements in our approach to service delivery, but these have come bundled with an economic approach concerned with resources and the long-term profitability of customers (Grönroos, 1994). Another inherent problem with the so-called “customer focuses” we have learned in the last decade, is that the customer perspective is generally modelled by the service provider. It often then tends to reflect what the library values, and assumes the customers value, rather than what the customers really do value. Unless a library realigns its perception of its own role

from service delivery to intervention, its assessment of the value of its services will be tainted. Central to my proposed framework is the absolute requirement for a perceptual shift as to the role of the library. The library must not be seen purely as a deliverer of services, but as an intervener in the social and/or economic well being of individuals, groups and the community within the spatial context, that is, the library is a deliverer of benefits.

Component 1: The Library

The first component (Figure 4) of the conceptual framework is the library, which can be defined as a specific activity of the parent organisation intended to influence a particular system, that is, a particular situation in which the organisation operates. Any of three related elements: the activity (that is, the library or one of the library's services), the organisation or the system, provide an entry point to any one of the others. Interactions can be identified between every combination of these.

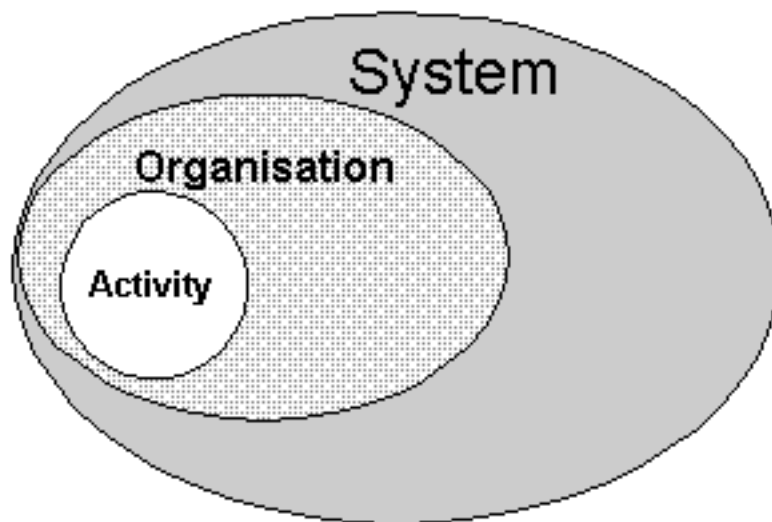


Figure 4: The Elements

The organisation as a whole will assess its impact on the system. However, the activity level (the library) should be assessing its relevance and the impact of its activities in relation not only to the system, but also to the purpose of the parent organisation. Because the system within which the library is situated and within which library activities take place always comprises some sort of community, the system cannot assess itself. Organisations of people who act within the system must assess it. Assessing the system enables an organisation to improve its understanding of the context in which it is operating and the conditions it is trying to influence, to examine the relevance of its mission and to articulate its vision for the future. Putting activity and organisational self-assessment into a framework of system assessment helps prevent unnecessary duplication and ties the system assessment to the library's stakeholders.⁽²⁾

Component 2: The Spatial Context

Almost all indicators of value are spatial in nature, that is, information is usually specific to a spatial level within a system (Figure 5). Not only do those levels affect each other, but decision makers and decision-making processes are different in each level. Spatial levels also relate to complexity levels. If you only consider the focal level your assessment will show average conditions, average value, not the differences that underlie them. It will also ignore the extent to which the focal level influences and

is influenced by the levels above and below. There is an inverse relationship between aggregation of data (higher spatial complexity level) and useability of information at the local level, so it is important that information is also drawn from the differentiation level immediately below the focal level. For example, if you are looking at the value of a multi-branch library system, the differentiation level will be the individual branch. To measure and use value information efficiently and to influence decisions, a library needs to define a series of assessment levels and focus on one of them. Outside of the focal and differentiation it is sufficient to identify the key influences and (if possible) assess their effects, but not necessary to try to track them from level to level (IUCN International Assessment Team, 1997)

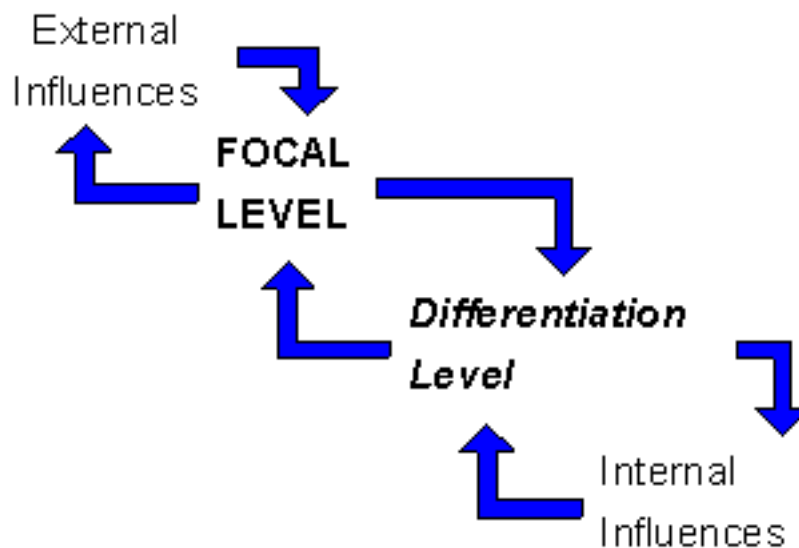


Figure 5: Spatial Context

Component 3: The Stakeholders

To be able to plan for and deliver value requires that a library understands who its stakeholders are, and what constitutes value to those stakeholders.

All libraries will have four groups of stakeholders; each with its own unique requirements, and all the component groups listed in Figure 6 will be relevant in some way.

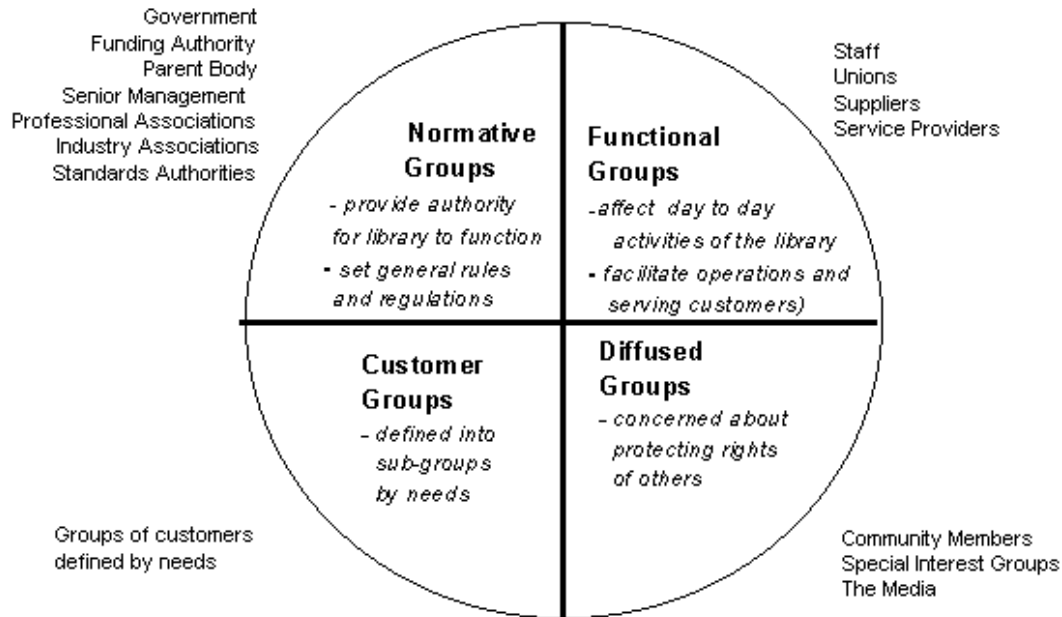


Figure 6: Stakeholder groupings

Component 4: Value Measurement

In attempting to measure value, a library is not attempting to establish an objective truth but to gather and analyse information that, on the macro level, can be used to support the contention that the library is worthy of continued funding, and on the micro level can be used to make decisions about resource allocation. Thus extra effort expended to go from approximately right to exactly right, though vital in some situations, is a waste of time and money in others (Thor, 1998).

Customer Satisfaction

Though frequently promulgated as the main goal for the library *the extent to which customers are satisfied* is also often presented as an outcome indicator, and assumed therefore to be a measure of effectiveness rather than the surrogate measure of service quality and value it is. Customer satisfaction assessment is inward and backward looking and generally time-lagged, sometimes severely. It is also tactical rather than strategic (Gale, 1997). Indeed, emphasis on satisfaction of current customer demands can inhibit the development of innovations that can meet the future, or current, but unstated, demands of those very same customers (Christensen, 1997). Yet customer satisfaction is also commonly classified as an output. It is neither outcome nor output. Rather, it is a qualitative assessment of library outputs and a measure of loyalty (McGuire, 1999). While customer satisfaction information is both primary and direct evaluation information, the *realised benefit* those outputs return to the individual user, the community or organisation the library serves, and the library's parent body, is the outcome, therefore customer satisfaction can only be an interim measure of value, which has severe limitations. In order to understand the limitations of satisfaction as a measure of value, it is imperative to understand the peculiarities of satisfaction as a psychological construct.

Gathering, analysing and using customer satisfaction data is complicated by lack of clarity about what customer satisfaction ratings measure. There is sound empirical basis to suggest that satisfaction data collected using different modes are not comparable. Comparisons are difficult or compromised because the distribution self

reports of customer satisfaction tend to be negatively skewed, while methods of collecting information can unduly influence the results (Peterson and Wilson, 1992).

For example: as much as a 12% differential in levels of satisfaction occurs between data collected using oral administration of satisfaction questions and data collected from self-administered questionnaires (Peterson and Wilson, 1992). On the other hand, where self-administration is in the form of e-mail research, findings suggest that the ephemeral quality of the message encourages the customer to respond in a more candid fashion (Thach, 1995). Whether the question is positively or negatively framed affects the resulting judgments. There appears also to be a relationship between the level of customer satisfaction obtained in a survey and the timing of the measurement (Peterson and Wilson, 1992). Feinberg et al (1995) have suggested that Likert-type questionnaires are culturally based, with both the determination of areas covered by the questions and the meaning of the words, culturally determined. There is no practical way to check whether questions have been misinterpreted or whether deliberately misleading answers have been given. Low customer expectations may also present obstacles (Schlichter and Pemberton, 1992). Interviews, while delivering more complete and revealing answers, are expensive and dependent on interviewer skill and impartiality, and focus groups may not accurately represent the attitudes of the entire customer group (Young, 1993):

Another difficulty particularly relevant to library and information services is that there is a perceptual overlap between information as a commodity and information as a process. The values assigned to the product are often confounded with the values assigned to the service (Dalton, 1992). Murfin and Gugelchuk (1987) found that there may be a difference between satisfaction with the service and satisfaction with the information provided despite findings of numerous unobtrusive studies that nearly half of all simple reference query responses are incorrect (Crews, 1998; Von Seggern, 1987).

Bias

All measurement data are collected through some form of observation. The investigator either “watches” what happens, or seeks self-observations from a user of the product or service. Value is clearly a judgement. But, the act of judging implies a definition of what is good or desirable and what is bad or undesirable, and we have no conceptual framework which explicitly defines what is considered good or bad getting better or deteriorating. Therefore we have no means to ensure consistency in such judgements, nor is it easy to aggregate various indicators. The “I know it when I see it” test that has been applied to both quality and obscenity, is woefully inadequate, though it incorporates a multiplicity of judgements. If a library chooses only a few indicators, it will measure only selected aspects of value. If it attempts to be more comprehensive it will end up with what is tantamount to noise and extreme difficulty in deciphering how well the library is doing. It is impossible to compare the library with other libraries, because a comparable conceptual framework is still to be developed.

The conceptual framework of value measurement I have proposed highlights the centrality of the multiple constituencies model of organisational effectiveness to the measurement of library value. Calvert (1997) has pointed out how rarely libraries adopt this model. But because individual stakeholders and stakeholder groups will have individual perspectives on value, for this purpose I cannot see any alternative. However, the multiple constituencies model is largely a marketing model, and does not of itself provide sufficient control to ensure that library outputs will return value. That control must be provided by other means.

All humans suffer from a cognitive inability to eliminate bias from their interpretation of information (Messick and Sentis, 1979; Messick, 1995; Bazerman, et al., 1997). Consequently objectivity is a psychological impossibility (Messick and Sentis, 1979;

Messick, 1995; Bazerman, et al., 1997). As a result, quantitative data cannot be assumed to be more objective than qualitative data. A statistic is susceptible to misleading presentation and interpretation, just as a judgment may be based on insufficient information. An accurate, soundly based judgement may be as objective as a set of statistics. However, it is difficult to know when a judgement is unbiased because bias typically enters unconsciously and unintentionally at the stage of making judgements (though this does not preclude deliberate misrepresentation at reporting stage). So-called impartial judgements are therefore likely to be unconsciously biased in a manner that is commensurate with the judge's self-interest (Messick and Sentis, 1979), regardless of the circumstances and the methodology.

The strategic triangle demonstrates three meta-perspectives. The stakeholder groups imply a wide variety of individual perspectives, but it is only when we *also* apply Gummesson's model of three organisational perspectives, which he described as tribes with different mindsets (Barron and Harris, 1995) that the role of perspective is highlighted and it becomes clear that who makes the evaluation, and/or the priority given to certain stakeholder groups, can make a significant difference to value judgements.

The mindset tribes Gummesson describes are:

- *productivity tribe* – 'the time and motion experts'
- *quality tribe* – 'customer champions'
- *profitability tribe* – 'the bean counters'

Performance measures in practice reflect the interactions among these three mindsets. Some of the stakeholders will be viewing services and interpreting their value through more than one of these filters.

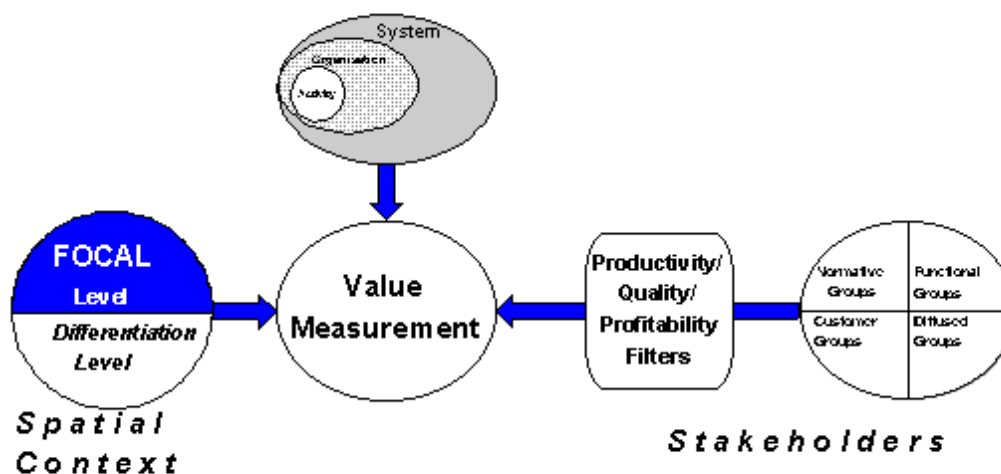


Figure 7: Conceptual Framework for Value Measurement

Tribal mindsets reflect the choice of the first variable, from which all consequences inevitably follow. Within organisations, this is also reflected in the reality of performance measurement. The measures for the mandated goals for the person at the top will automatically become the goals of the next level down in the organisational hierarchy, and so on. An essential prerequisite, therefore, is the capacity to demonstrate the value of the library both to the community and to the achievement of the

strategic goals of the organisation and the mandated goals of the CEO and other senior officers external to the library.

Accountability

In the public sector, this prerequisite is characterised as accountability. There are three separate but essential elements to accountability (Mosher, 1979)

These are

- information
- receivers or discoverers of that information, who must have both the capacity and the will to use the information and
- some form of recourse

Conventional notions of accountability suggest there is no point in developing outcome indicators for your activity or program if you cannot be held accountable for the end result inherent in the indicators. Such a viewpoint limits the capacity of a library to measure and report on value.

The hierarchical nature of the accountability chain in the public sector (Humphry, 1992) and the asymmetrical nature of authority relationships (Mulgan, 1997) impact negatively on the quality of information derived from the very processes designed to ensure accountability. Psychologists characterise this as 'self-serving bias' (Messick and Sentis, 1979). The traditional hierarchical view of accountability to official superiors is designed to serve only the party who delegates responsibility (Desautels, 1997). In particular, individuals who know the expectations of those to whom they are accountable tend to conform to those expectations (London et al., 1997). Therefore, unless the library adopts a moral notion of accountability, rather than a conventional organisational one, its attempts to establish value indicators will short-change many of the current beneficiaries, and will completely ignore future beneficiaries.

Defining Value

Having explored some of the ways in which assessment of value is dependent on personal perspective, I want to return to the thorny issue of defining value, an issue so complex that there is a whole philosophical discipline dedicated to it. There are a number of ways in which value commonly is defined: Axiology identifies about twenty of them, including aesthetic, ethical and economic values. From the economic point of view there are two kinds of value - value in exchange and value in use. Economists tend to define value as the amount paid for goods and services. In that view, fees become a surrogate measurement of value and benefit is measured by demand. In a more general sense, value equates to what the economists define as worth - either what is gained or the monetary value derived. Value is often seen as a side effect, not necessarily an objective of a library. Therefore economic benefits are frequently overlooked in consideration of the value of a library even though they are important and more conceptually amenable to quantification than social benefits.

While social and personal benefits constitute the moral imperative for libraries, and should therefore drive strategies, unquantified statements regarding benefits that can be directly attributed to the library are easy to discount and can be dismissed as wishful thinking because of the multiplicity of other variables that may contribute to the benefit.

If we take the various measures or indicators of value developed for an individual library and plot them visually, the difficulty of reaching any conclusion as to overall value becomes apparent (Figure 8).

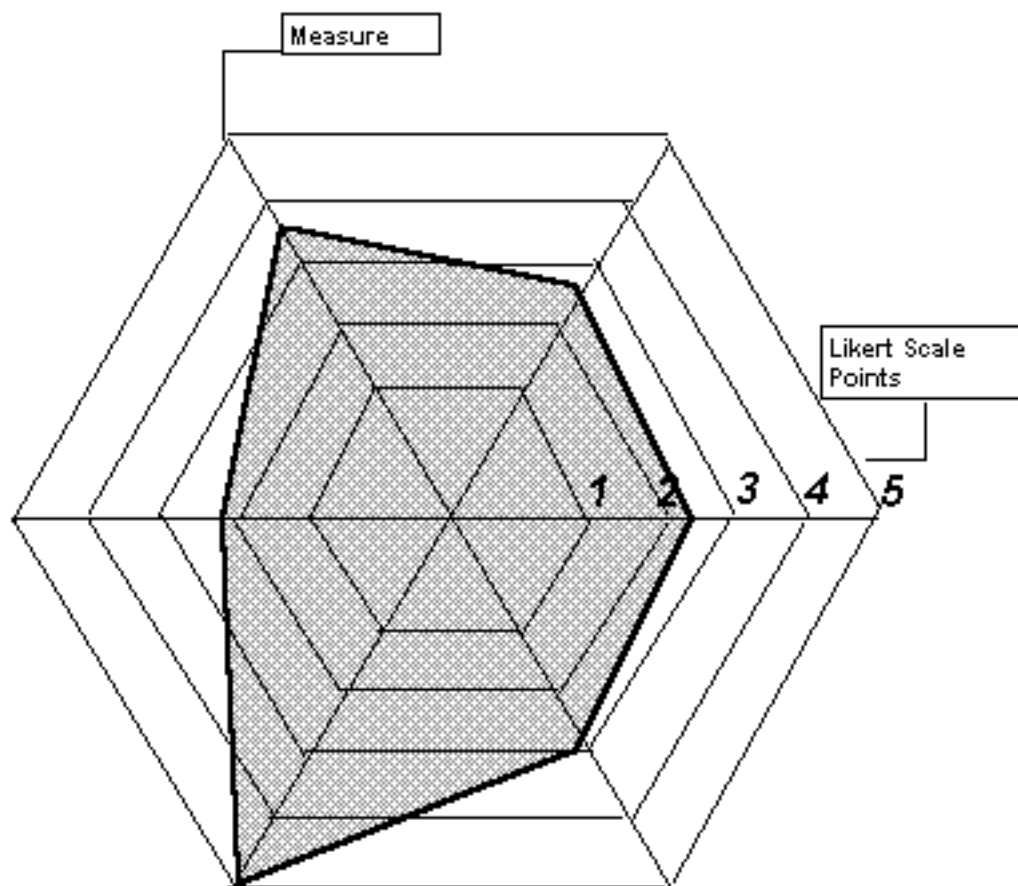


Figure 8: Visual Representation of Measurements

To obtain a clear message about the value of a library you need a common unit that allows you to combine indicators. The most widely used common unit is money. It is possible to attach a dollar value even to intangibles as long as you also acknowledge that that dollar value can only express a fraction of the value of some classes of benefit.

For this reason, much of my work in attempting to demonstrate the value of my library services - first in the public library environment and latterly in the special library and school library environment, has focused on quantifying and reporting value, particularly in the form of return-on-investment information couched in financial terms. Documenting the monetary value of the benefits the library delivers can be facilitated by analysing what constitutes economic benefit (Figure 9).

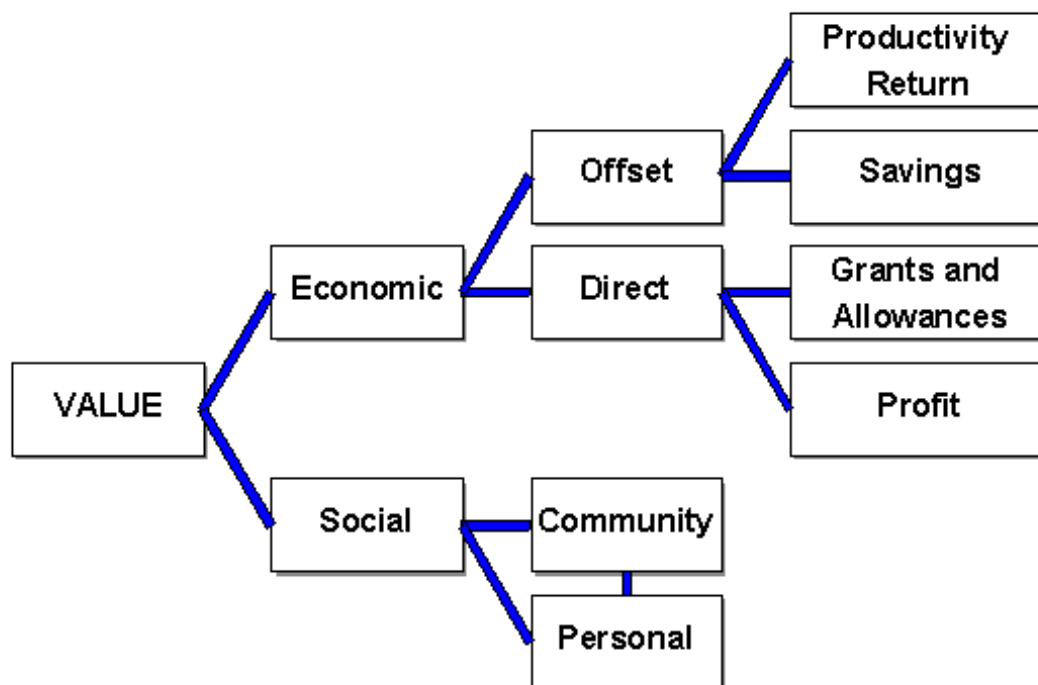


Figure 9: Aspects of value

To assign monetary value to intangibles all that is required is to state your assumptions. For example, it is possible to estimate a public library's contribution to the economy of the local area by documenting the following:

- an estimation of the proportion of staff salaries recycled into the community or returned to the community by other levels of government in tax-funded expenditure
- value of reduction in waste disposal resulting from sharing of books, magazines and newspapers
- value of local authority information distribution costs offset by circulating that information via the library
- the amount of personal discretionary expenditure not spent on library-type materials and services and therefore freed up to be spent in other ways in the community.

In this last category, all communities have leakage to those places where the books, magazines or newspapers the community reads are published and/or printed. This can involve leakage of revenue outside the country. Even a very conservative estimate of locally redirected expenditure per capita can add up to a healthy injection of funds into the local economy, representing a very positive return on investment in the total annual budget for the library.

The calculations must include the investment in the collection, in staff, and in operational costs. I advise that the temptation to exclude the library materials vote on the grounds of it being capital expenditure be resisted.

Education Queensland Library practice

Finally, I want to briefly describe the in-depth holistic data gathering undertaken in the Education Queensland corporate library service. I have deliberately left this until last

because it looks so simple, yet it is critical to understand that the analysis and decision-making that went into building the system were very complex.

Because our services are focussed on contribution to meeting the goals of the organisation, and therefore research services are central to what we do, we use collection of reference satisfaction data at point of transaction as a means of acquiring useable information about the extent to which we satisfy information requests (defined by the customer), the amount of time we have saved the customer by doing the research on the customer's behalf (as estimated by the customer) and the way in which the information will contribute to the meeting of the organisation's goals, together with the monetary value of the information in use. On the way, we also acquire useable information on both the macro and micro levels about appropriateness of the collections.

The return-on-investment realised by my library service thus does not only relate to the value of the information as it is used. It also itemises the productivity gains resulting from having librarians do the research rather than people whose main role is contributing directly to the achievement of the organisation's goals. We report accumulated benefits by using relevant salaries to quantify the productivity gains, to which we add the estimations of dollar value of the information and appropriate narrative about the contribution to the organisational goals. Staff members are required to have an in-depth understanding of what those goals are, and an absolute commitment to the long-term outcome for the organisation – well educated and balanced citizens.

While this reporting method cannot be entirely statistical, the combination of hard monetary value benefits and narrative has enabled us to drastically reduce the volume of information reported.

The methodology is simple, but it has not been an easy one to implement. Because few people are accustomed to thinking in terms of what they gain from library or information use, in terms of time saved or mistakes avoided, increased knowledge and competitiveness, or better decisions, and because people were initially very suspicious that what we were trying to establish was what they might be willing to pay for our services, it has also taken a great deal of training of users. But we persist, because we also recognise that surrogates for value measurement are inadequate. Recently we have started exploring methods of calculating the offset savings delivered by the collection.

Sometimes, however, you need something external to highlight aspects of the value of libraries. When I worked in local government I used to observe every year that the library would never achieve the funding engineering services did, because we could not invoke a threat that no politician would be brave enough to test. Local authorities are somewhat wary about the idea of raw sewerage running down the gutters. With the advent of Y2K, the information technology sector received an immense boost in perception of the mission critical nature of what they do. The combination of the introduction of accrual accounting and the Millennium Bug has delivered a minor benefit to Education Queensland libraries.

Some years ago, we made the decision to go against the tide of practice at that time, despite not being able to identify a single library that had not invoked the "no single item worth more than \$2,000, or \$5,000 or whatever the particular ceiling was" excuse to absolve it from valuing the library collection as an asset. The reason for our decision was our understanding that in accrual accounting terms, invoking such an excuse was tantamount to labelling our collections an inexhaustible resource, which clearly they are not, requiring a healthy injection of funds annually to buy new materials. We developed a methodology that was a fair compromise between accuracy and ease, and which could be applied in school libraries as well as corporate libraries, and we valued our collections. We repeat the exercise annually. When the organisation began to analyse the risk the Millennium Bug posed, library automation systems were initially excluded

from the list of strategic systems. That decision was quickly reversed when the library collection valuations were included in the equation. The moral of the story is that one should never miss an opportunity to assign monetary value to aspects of one's library service.

Conclusion

In this paper I have attempted to demonstrate that defining value in the context of a library is extremely complex. Value is a construct that is difficult to explicate and therefore difficult to measure. It is a construct primarily of belief and thought, and only secondarily of evidence. Value is assigned and related to perception of actual or potential benefit. Thus even where your valuation model is quantitative, valuation is not objective, not timeless, and not precise, because you will not get every element of the valuation right. In the final event, it may be the process of valuation that is more important than the product, at least internally, because it requires that you rigorously examine all assumptions and the motivations of all parties.

We are never going to measure value precisely or perfectly. The information we gather is going to be incomplete, biased by the organisation's focus, and by self-interest of stakeholders. Nonetheless, developing a performance measurement regime that balances traditional notions of efficiency and effectiveness (that is, fulfilling the organisation's strategic intent) with the resulting benefits to customers and beneficiaries, is critical to the survival of libraries, and a prerequisite for strategic development of library services. I reiterate that the purpose of measuring a library's value is primarily not to see whether the library is doing better or worse than others, but if it is doing well. There is, therefore, is no more powerful or public signal of what your library stands for than the way it defines and measures its performance, and particularly, how it addresses the issue of measuring its value.

References

- Albrecht, K. (1988) *At America's Service: How corporations can revolutionize the way they treat their customers*. Homewood, IL: Dow Jones-Irwin.
- Barron, S. and Harris, K. (1995) *Services marketing text and cases*. London: Macmillan.
- Bazerman, M.H.; Morgan, K.P.; and Loewenstein, G. F. (1997) 'The impossibility of auditor independence.' *Sloan Management Review*. Summer: 89-94.
- Calvert, Philip J. (1997) 'Collection development and performance measurement' *in* Gorman, G. E.; and R. H. Miller. eds. (1997) *Collection Management for the 21st Century: a handbook for librarians*. Westport, Connecticut: Greenwood Press, pp 121-133.
- Carroll, L.. (n.d.) *Through the looking glass*.
<http://www.bibliomania.com/Fiction/Caroll/CompleteWorks/p2-ch5.html>
- Christensen, C. M. (1997) *The innovator's dilemma: When new technologies cause great firms to fail*. Cambridge, MA: Harvard Business School Press.
- Crews, K.D. (1988) 'The accuracy of reference service: Variables for research and implementation.' *Library and Information Science Research*, 10: 331-355.
- Cullen, R. (1997) 'Does performance measurement improve organisational effectiveness? A post-modern analysis' *in* Department of Information and Library Management, University of Northumbria at Newcastle (1998) *Proceedings of the 2nd Northumbria International Conference on*

- Performance Measurement in Libraries and Information services*, 7-11 September, (1997) Newcastle upon Tyne: Information North p 3
- Dalton, G.M.E. (1992) 'Quantitative approach to customer satisfaction in reference service evaluation.' *South African Journal of Library and Information Science*, 60(2): 89-103.
- Desautels, L. D. (1997) 'Value for money in modern government.' *Canberra Bulletin of Public Administration*. 84: 65-71.
- Ephraim, P. E. (1994) 'A Review of qualitative and quantitative measures in collection analysis,' *Electronic Library* 12 (1994): 237-41
- Feinberg, R. A; De Ruyter, K.; Trappey, C.; and Lee, T. (1995) 'Consumer-defined service quality in international retailing.' *Total Quality Management*, 6(1): 61-67.
- Gale, B.T. (1997) 'Satisfaction is not enough.' *Marketing News*, October: 1-8.
- Gilad, B. (1996) *Business blindspots 2nd edition: Replacing myths, beliefs and assumptions with market realities*. Calne, Wiltshire: Infonortics.
- Gilbert, R. (1991) *Reglomania: The curse of organizational reform and how to cure it*. Sydney: Prentice-Hall.
- Grönroos, C. (1994) 'From marketing mix to relationship marketing: Towards a paradigm shift in marketing' *Asia-Australia Marketing Journal* 2(1): 9-30
- Humphry, R. G. (1992) 'The nature and perception of accountability' in PSM Course. (1994) *Resource Management*. Canberra: Public Sector Management Course: 198-201.
- Ince, R. (1992) 'Program evaluation in the South Australian public sector.' in O'Faircheallaigh, C. and B. Ryan. (1992) *Program Evaluation and Performance Monitoring: An Australian Perspective*. South Melbourne: Macmillan: 47-62.
- IUCN International Assessment Team. (1997) *Performance Assessment for Human and Ecosystem wellbeing and sustainable development: a system assessment method*. Gland: IUCN
- London, M.; Smither, J.W.; and Adsit, D.J.. (1997) 'Accountability: the Achilles' heel of multisource feedback.' *Group and Organization Management*. 22(2): 162-184. As transcribed in Business Source Plus Item No 9706046056.
- McGuire, L. (1999) *Australian services: Marketing and management*. Melbourne: Macmillan Education Australia.
- Messick, D.M. (1995) 'Equality, fairness, and social conflict.' *Social Justice Research*. 8: 153-173.
- Messick, D. M. and Sentis, K.P.. (1979) 'Fairness and preference.' *Journal of Experimental Social Psychology*. 15: 418-434.
- Moore, M. H. (1995) *Creating public value: strategic management in government*. Cambridge, MA: Harvard University Press.
- Mosher, F. C. (1979) *The GAO: The quest for accountability in American government*. Boulder, CO: Westview Press.
- Mulgan, R. (1997) 'The processes of public accountability'. *Australian Journal of Public Administration*. 56(1): 25-36.
- Murfin, M.E.; and Gugelchuk, G.M. (1987) 'Development and testing of a reference transaction assessment instrument.' *College & Research Libraries*, 48: 314-338.

- Noon, A. (1992) 'Accounting for results: portfolio explanatory notes become program performance statements.' *Australian Journal of Public Administration*. 51(1): 27-34.
- O'Faircheallaigh, C. (1992) 'Conclusion: Issues and dilemmas in program evaluation and performance monitoring.' in O'Faircheallaigh, C. and B. Ryan. (1992) *Program evaluation and performance monitoring: an australian perspective*. South Melbourne: Macmillan: 168-178.
- Peterson, R. A. and Wilson, W. R..(1992) 'Measuring customer satisfaction: fact and artifact.' *Journal of the Academy of Marketing Science*, 20 (1): 61-71.
- Ryan, B. (1992) 'Evaluation in the Commonwealth Government: A critical appraisal.' in O'Faircheallaigh, C. and B. Ryan. (1992) *Program Evaluation and Performance Monitoring: An Australian Perspective*. South Melbourne: Macmillan: 62-76.
- Schlichter, D. J. and Pemberton, J. M. (1992) 'The emperor's new clothes? Problems of the customer survey as a planning tool in academic libraries.' *College and Research Libraries*, 53 (3): 257-265.
- Thach, L. (1995) 'Using electronic mail to conduct survey research.' *Educational Technology*. 35 (2): 27-31.
- The Economist - quoted in 'Of Television, Storks and Criminal Behaviour':
<[http://utl1.library.utoronto.ca:70/0gopher_root70%3a\[_news._news._bulletin._nov21\]_psy.>](http://utl1.library.utoronto.ca:70/0gopher_root70%3a[_news._news._bulletin._nov21]_psy.>)
- Thor, Carl G. (1998) *Designing Feedback: Performance Measures for Continuous Improvement*. Menlo Park, CA: Crisp, pp 8-9
- Von Seggern, M. (1987) 'Assessment of reference services.' *RQ*, 26: 487-96.
- Young, V. (1993) 'Focus on focus groups.' *College and Research Libraries News*, 54(7): 391-394, p 393.

NOTES

- (1.) For a more extensive discussion of this issue see Oram, Jennifer (1995) 'Moving from cost centre to profitable investment: managing the perception of a library's worth" in *Asia-Pacific Library Conference: conference proceedings volume one*. Brisbane, State Library of Queensland pp 177-189, and republished in *Australasian Public Libraries and Information Services*, 8(3) pp 107-113.
- (2) I am indebted to a wide range of literature on ecosystem wellbeing and sustainable development for my understanding of the importance of a system framework for value assessment, and of the essentially spatial nature of assessment.