Where is the Xerox Corporation of the LIS Sector?

ALAN GILCHRIST AND JOHN BROCKMAN

ABSTRACT

THOUGH THERE IS MUCH INTEREST IN QUALITY ISSUES in the library and information science (LIS) sector in Europe, implementations appear to be few and piecemeal. Barriers to fuller involvement persist and a critical mass of lead organizations has not yet appeared. It is argued that the prerequisites for greater progress are: (1) a visible LIS quality management infrastructure; (2) greater awareness of the issues, improved training and availability of tried and tested tools at the organizational level, and (3) a more informed dialogue at the interfaces of the information chain, supported by a consensus-based language of performance criteria.

INTRODUCTION

The Xerox Corporation is the only organization to have won all three international quality awards: the Deming prize, the Baldrige Quality Award and, the newest of the three, the European Quality Award. These award systems embody all the basic tenets of Total Quality Management (TQM) and share the particular and specific objective of establishing world leaders—i.e., paragons of the application of TQM—that other organizations are invited to emulate. It is significant, and a clear indicator of the success of these schemes, that so few organizations have won the prizes; many more organizations and parts of organizations have adopted the underlying quality models and used them to assess their own performances.

In those organizations that have successfully embraced the quality culture—e.g., Xerox Corporation, British Telecom, and others—the word "quality" appears to have become redundant and, for example, the European Quality Model is now often referred to as the "Business Excellence Model" by organizations in both the private and public sectors. At a recent meeting in Luxembourg, a speaker from the European Foundation for Quality Management (EFQM—administrators of the European Quality Award) announced that he was not going to talk about the "management of quality" but the "quality of management." This is a perfect riposte to those carping critics who suggest that TQM is the latest hype, a passing fad. On the contrary, TQM is a logical extension of the evolution of management theory and practice from the mechanistic approaches of people like F. W. Taylor to those propounded by Peter Checkland, a principle proponent of SSM (Soft System Methodology). Like TQM, SSM recognizes the existence of various stakeholders interacting in dynamic and behavioral systems.

It might be viewed as a paradox that, while library and information science personnel have much of the expertise inherent to quality management, a critical mass in the sector does not yet seem to have appeared. LIS personnel should be well equipped to deal with the documentation of ISO 9000 (especially with some of the DMS-based software packages now available); but, more fundamentally, they have always operated (haven't they?) customer-focused services and been adept at interpersonal networking.

QUALITY MANAGEMENT TAKE-UP IN THE LIBRARY AND IINFORMATION SCIENCE SECTOR

On the basis of very few surveys and the personal experience of the two authors, the implementation of quality management appears to be limited and piecemeal, at least within the continent of Europe. A survey conducted by Porter (1993), mainly of the public and academic library sector in the United Kingdom, showed that any involvement in quality management was in its very early stages, encompassed a wide range of approaches, and had been developed in isolation from other LIS. From the survey, it transpired that only 19 percent claimed to be involved in TQM and a mere 14 percent in certification.

Three years later, a second United Kingdom report (Webb, 1995), concentrating on the special library sector, suggested that just over one-quarter of the organizations surveyed were involved with TQM and about one-third with BS 5750 (the United Kingdom certification equivalent of ISO 9000).

However, as the report acknowledges, these figures are misleading:

> although TQM was in place as an organization-wide policy, because the LIS unit was either part of another department or did not have overall responsibility in its decision-making, its TQM related activities

> could not be set out as something operating separately at the LIS
> level. In the case of BS 5750 it is possible for individual depart-
> ments to apply for recognition and in a number of cases, especially
> where the LIS was part of another department, the organisation had
> made the decision about which departments or functions should
> pursue BS 5750. These had not always included the LIS or its par-
> ent function. (p. 12)

This picture is borne out by a show of hands at the 1995 Spring Meeting
of EUSIDIC (the European Association of Information Services). To the
question, "Has anybody been through the ISO 9000 process?" only five
people, out of an audience of forty who had come to discuss quality is-
sues, answered in the affirmative, and in all five cases the process had
been initiated from upper administrators. The EUSIDIC audience was a
mixture of database producers and library and information science per-
sonnel, but the same question (from the audience) was put to a panel of
six database producers at the 1993 International Online Meeting in Lon-
don. On that occasion, not one had embarked on certification, though
one claimed to be considering the Baldrige Quality Model. In France,
Duflos (In press) found a similarly low level of activity among French
database producers with only 7 percent using self-assessment and none
having prepared a quality manual.

According to EFQM (personal communication, 27 March 1995), the
most active country in Europe with regard to quality management is the
United Kingdom but with some strong movements in Scandinavia and
rapidly growing interest from Germany. This accords with the experi-
ence of the present authors with respect to the library and information
science sector but perhaps with the addition of France.

Clearly, doubts and misgivings persist, probably due to feelings that
TQM is too difficult or costly or that the library and information science
unit is too small for TQM to be relevant. The result seems to be that
those having attempted TQM address only a part of the whole, thus emas-
culating the holistic approach. The weakest element in all the attempts
seems to be a failure to come to grips with customer-focused performance
evaluation.

WHERE DO WE GO FROM HERE?

Barry Mahon, executive director of EUSIDIC, gave a conference pa-
per with the title "Where Do We Go from Here?" but with the postscript:
And where is here? The previous section gave a glimpse of where we
appear to be in Europe, and even if that picture is unflattering or over
pessimistic, it is clear that there is much to do. Moreover, this is not just
an organizational, national, or European issue. One does not need to
invoke the word "globalization" to understand that the information sec-
tor is, and has been for a long time, international in all of its aspects.
Consequently, quality issues should be tackled simultaneously at all levels.

INFORMATION QUALITY INFRASTRUCTURE

The second author of this paper (a senior librarian in the U.K. Ministry of Defense) has successfully launched a Ministry-wide Quality Platform (see Figure 1). The key factors to observe here are that the platform is securely linked to both the corporate strategy and to the plans and strategies of the component parts; that it follows the U.K. Quality Model (identical to the European Quality Model); and that the whole is held together by the TQM information network which interacts with the external environment. It is this networking feature which is a particularly appropriate activity for LIS personnel. It is clearly possible to export this model to any organization in order to promote best practice through the networking of ideas and data culled from within and without the organization. With a little more adaptation, it should be possible to relate the same model to the information sector, even if somewhat different interpretations and follow-up actions were required for the largely product-oriented information industry and the more service-oriented LIS sector. What is important, as is argued below, would be the need to closely associate these two components of the information world. Furthermore, it is not necessary to impose such a platform as a single monolithic global entity, but it could provide a common framework by which participating professional bodies could communicate. The idea of an information quality forum (less formalized than the platform concept) was debated at the EUSIDIC Spring Meeting and will be presented to the next meeting of the Special Interest Group on Quality Issues hosted by FID (Fédération Internationale de l'Information et Documentation). One could envision the establishment of self-assessment clubs and benchmark data networks and, eventually perhaps, award systems based on relatively objective and consensual performance criteria.

INTERFACES IN THE INFORMATION CHAIN

A fundamental feature of quality management is the attention paid to supplier/customer relationships at all points of the value chain, both interorganizational and intraorganizational. In the crucial center of this chain are the database producers, hosts, and the intermediaries manifested as librarians, information scientists, information brokers and analysts, personal assistants, and so on. It is fully appreciated that both database producers and hosts encounter serious problems in the processing of their data inputs, and at some stage this interface should be included in the total picture. To date, however, most of the available public debate has been conducted at the interface between database producers/hosts and intermediaries, and even here the details of that debate have been disseminated almost exclusively by intermediaries. While this is admirable, there is a danger here of a confrontation between cost-conscious customers and profit-nervous suppliers. This can be avoided only if the
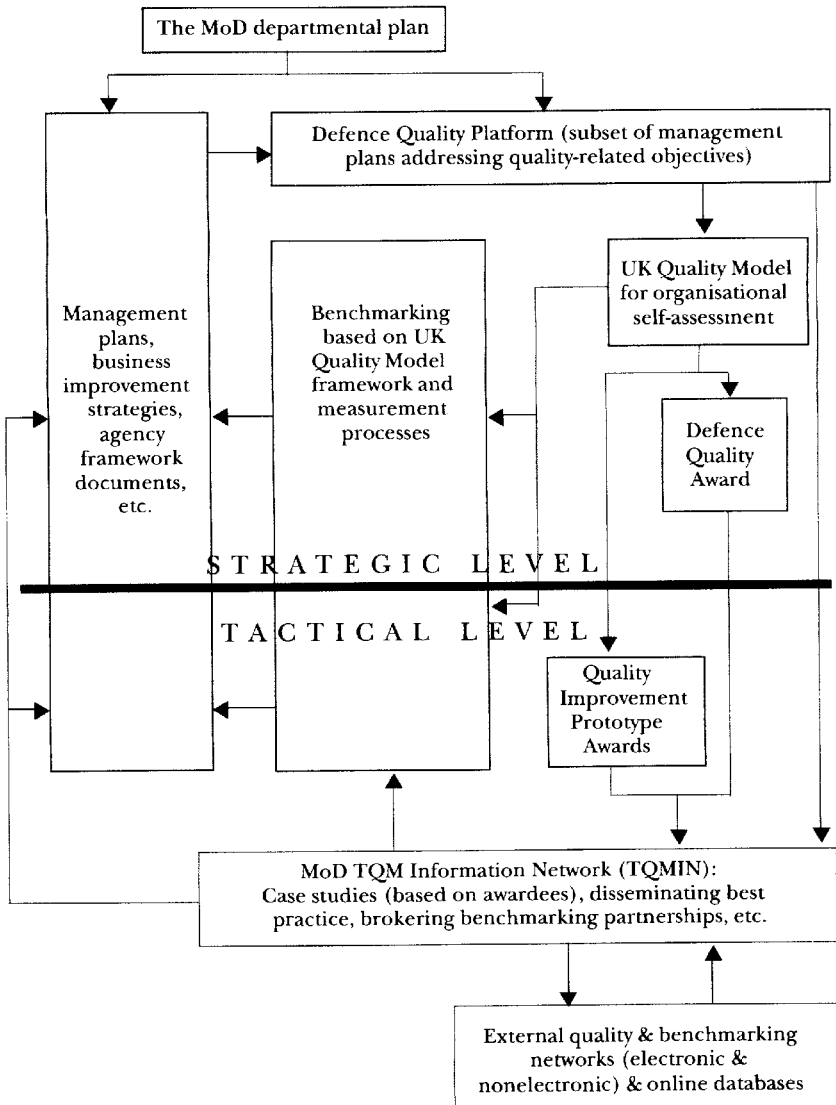
Figure 1. The Defence Quality Platform. A proposed quality Infrastructure for the Ministry of Defence

two sides establish a dialogue based on a mutual understanding of their problems and supported by a common vocabulary. But there is a further dimension to this problem which may be observed at the interface between the intermediaries and their customers. While the work of SCOUG

(the Southern California Online Users Group) as reported by Basch (1993) and similar work produced by the Finnish Database Quality Group and reported by Juntunen et al. (1991) have produced valuable checklists of, and insights into, performance criteria, there is a relative lack of end-user criteria. While database producers, hosts, and intermediaries might be able to base a useful discussion on such criteria (e.g., Granick, 1991), there is less reason to suppose that the same set of criteria would be adequate at the intermediary/end-user interface. The technique of Quality Function Deployment is widely used, particularly in the Japanese manufacturing industry, to capture performance criteria in the language of the customer and to translate these and their accompanying importance weightings into the language of design and manufacturing. Given the fact that information access and provision is becoming increasingly complex and end-user targeted, it must make sense for the intermediaries (i.e., information access facilitators) and the information providers to gain a better understanding of user requirements as expressed in their own words—i.e., the criteria and their relative importance.

UNIT EXCELLENCE AND SELF-ASSESSMENT

It is not uncommon to hear the response from LIS managers to queries about their interest in TQM—i.e., that it is nothing new, and they have always operated a customer-focused service. Unfortunately, they are not so quick to produce objective evidence of customer satisfaction—i.e., of whether they are getting better or how they stand in relation to peer units. The technique of self-assessment provides a relatively simple way of answering all these questions and, at the very least, provides diagnostic insights into weaknesses in core processes. The British Quality Foundation (BQF) defines organizational self-assessment as: "A comprehensive, systematic and regular review of an organization's activities and results referenced against a model of organizational excellence" (British Quality Foundation, 1994). The model proposed, and increasingly extensively used, by the BQF and the EFQM is shown in Figure 2. It will be seen that, of the nine boxes, four make up the results—i.e., what an organization (or function or unit) achieves. In the award system, the "results" boxes score exactly half of the total and reflect the outcomes as viewed by the stakeholders. Of these results, the quality axiom "the customer is king" is underlined by the highest score in the model: 20 percent afforded to customer satisfaction. The satisfaction of the "people"— i.e., "all individuals employed by the organization, and others who join in with the task of serving customers, directly or indirectly" scores 9 percent and it is in this area that the working environment, in its broadest sense—training, improvement, and empowerment–comes into play. It is worth repeating that customers are found within the organization as well as in the more ordinary sense. The last box—"business results"—is a generic concept
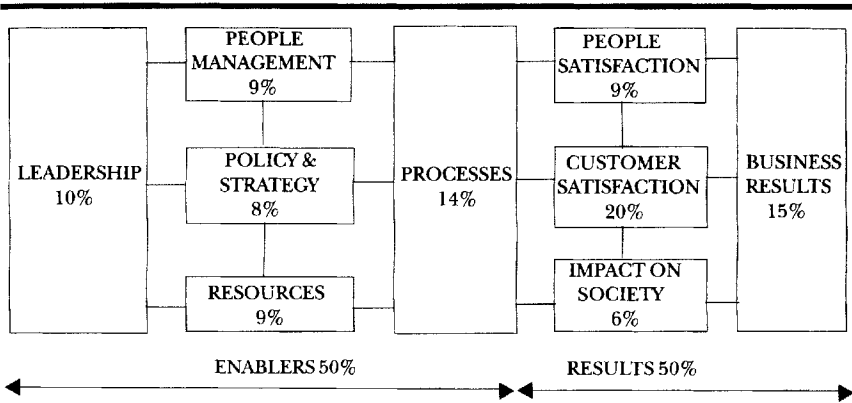
Figure 2. The European Quality Model

which embraces the results as viewed by owners, shareholders, or public sector funders: the model is as valid for the public and private sectors as it is for the manufacturing and service sectors.

The other five boxes cover the "enablers," or how the results are being achieved, and these are relatively self-explanatory. However, it is worth opening the box labeled "resources," for it is here that the LIS function resides when the model is being applied corporately rather than to the LIS function itself. The resources which make up 9 percent in the award system are divided into:

1. financial resources;
2. information resources;
3. suppliers, materials, buildings, and equipment; and
4. application of technology.

"Information resources" are defined as "business and technical data and other information in all its forms and the means of making information available."

It should be explained that the Quality Model is not prescriptive and allows for a good deal of local interpretation. Indeed, in recognition of the fact that 80 percent of European enterprises are small or medium, the EFQM is "downsizing" the model to make it more accessible to such enterprises. In this context, it is also relevant to note that self assessment can be applied in a very formal way at one end of the spectrum and with less effort at the other end. For example, a full award simulation exercise could engage a team over a period of nine months in a large organization where a mere two days is enough if using either the "matrix chart approach" or the "questionnaire approach."

An interesting development of self-assessment based on the European Quality Model has been pioneered by the U.K. Royal Mail. This idea of unit excellence is described in a paper by Zaremba and Crew (1995). It shows how the factors in the model described earlier were rendered more appropriate at the unit level so that, for example, "impact on society" became "community satisfaction," and "policy and strategy" became "planning." All Royal Mail senior managers have been trained as assessors in the adapted process, and self-assessment is undertaken by small teams drawn from this pool. Furthermore, supporters at the unit level (local delivery offices, motor transport workshops, and so on) underwent intensive training to ensure that the units avoided any difficulties in applying the process. When fully operational, it is intended that these self-assessments are implemented annually to see how units have improved and to identify areas where improvements might be sought. Royal Mail also envisions making internal awards for unit excellence, which accords with the ideas in the Corporate Quality Platform presented in Figure 1.

Is It All Worth It?

This is a question that the individual LIS manager must answer within the context of his or her own situation. There seems to be overwhelming evidence that it is all worth it for the large organizations who have reengineered their fundamental philosophies and core processes in order to meet the complex combination of external factors evident in our so-called postindustrial society. It is not perhaps so clear at the functional level, particularly if it is an LIS operation that decides to tackle the problem of its parent organization unilaterally. There are one or two attempts in the literature to estimate the costs and benefits of quality management but none known to the present authors that might help LIS managers.

Instead, this article concludes with a report of two studies which take a novel, and perhaps significant, look at the cost of "nonquality" and a quotation from a Baldrige Award assessor that should take the reader back to the concept of the corporate quality platform discussed earlier in the article and the potential role of the LIS function within that larger context.

The report on the cost of "nonquality" was undertaken by Herget (1994). He opens with some startling observations:

- only 4 to 6 percent of customers complain at all
- one dissatisfied customer tells ten other people
- one satisfied customer tells three other people
- only 9 percent of the dissatisfied customers who did not complain remained customers
- it costs five times more to win a new customer than to retain an existing one

● 100 loyal customers generate 50 to 70 new customers

In the main part of Herget's paper, he quotes two sets of figures from actual studies:

	European Currency Units
Cost of quality at Infomat (Crashaw, 1993)	
Loss of clients (40 p.a. @ ECU 5000 p.a. 50 percent (losses due to quality failures)	100,000
Quality inspection	16,000
Cost editing	20,000
Feedback	10,000
"Defensive" clients visits	25,000
Internal fire fighting	25,000
Internal administration	10,000
Total	206,000

Ratio: Quality costs to turnover = 20 percent

The second set of figures is rather more disturbing:

Cost of quality at Company Beta (Herget, 1994)	ECU
Prevention costs	10,000
Appraisal costs	21,000
Failure costs (internal)	90,000
Failure costs (external)	40,000
Total p.a.	161,000

Ratio: Quality costs to turnover = 41 percent

Herget (1995) concludes with the statement that "producing quality costs money, but not producing quality costs much more. This is the conclusive refutation of the argument which is continually leveled against the pursuit of quality."

Finally, the quote of the Baldrige assessor who said, referring to the Baldrige Quality Model (not unlike the European Quality Model shown in Figure 2):

> Category 2, Information and Analysis, might seem innocuous. It's not; it's lethal. It has a low point value—only 80 out of the 1,000 possible for the entire application...yet Category 2 holds disproportionate power....its diminutive point weight is far outweighed by its value in supporting the more highly scored examination categories....The way an award candidate integrates Category 2 with the others can make or break an entire application. (Omdahl, 1992, p. 44).

The LIS sector needs to take quality seriously, to work sensibly with its suppliers, to objectively evaluate customer satisfaction, and integrate its activities and potential within the corporate quest for excellence.

REFERENCES

Basch, R. (1990). Measuring the quality of the data: Report on the fourth annual SCOUG Southern California Online User's Group retreat. *Database Searcher, 6*, 18-23.

British Quality Foundation. (1994). *The 1995 UK Quality Award: Guide to self assessment.* London, England: British Quality Foundation.

Crawshaw, S. (1993). Infomat—der Aufban einer Qualitatsorganisation. In W. Schwuchow (Ed.), *Qualitat von Informationsdiensten.* Frankfurt, Germany: GMD.

Duflos, A. (1995). Quality and French database producers: Results of a survey. *FID News Bulletin, 45*(5), 153-155.

Granick, L. (1991). Assuming the quality of information dissemination: Responsibilities of database producers. *Information Services & Use, 11*(3), 117-136.

Herget, J. (1994). *Implementing quality management systems in information organisations.* Unpublished report, University of Kostanz.

Herget, J. (1995). The cost of (non-) quality—why it matters for information providers. *FID News Bulletin, 45*(5), 156-159.

Juntunen, R., et al. (1991). *Quality requirements for databases: Project for evaluating Finnish databases* (Proceedings of International Online Meeting in London, 1990). Oxford, England: Learned Information.

Omdahl, T. (1992). Inside the Baldrige Award guidelines: Category 2: Information and analysis. *Quality Progress, 25*(7), 41-46.

Porter, L. (1993). *Quality inititiatives in British library and information services* (British Library Research and Development Report No. 6105). London, England: British Library, Research and Development Department.

Webb, S. P. (1995). *Pursuing quality in special libraries: A study of current activities and developments in the United Kingdom.* Unpublished paper funded by the British Library Research & Development Department.

Zaremba, D., & Crew, T. (1995). Increasing involvement in self-assessment: The Royal Mail approach. *TQM Magazine, 7*(2), 29-32.