Introduction

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LIBRARIES ARE THE CRUCIBLE OF GENIUS. In the 500 years since the invention of the printing press, libraries have been at the center of a remarkable flowering of the human intellect, serving as repositories of the human experience while promoting structured inquiry and critical thinking. Libraries are fundamental to the intellectual experience and the natural creativity of the mind; they are core services at every postsecondary institution. Indeed, there are no great universities without great libraries. What, however, defines a great library? What constitutes excellence or effectiveness in research library services? How does a library evaluate—for itself and its diverse constituencies—whether it is delivering the best possible services for the considerable investments made in its operations?

Library Trends, in a ground-breaking issue under the editorship of Thomas Shaughnessy of the University of Minnesota, first addressed this question in 1996. In his introduction, Shaughnessy observed that a focus on inputs had traditionally driven the research university community. There was in place, he suggested, a belief that higher investments or expenditures somehow implied better outcomes or higher quality (Shaughnessy, 1996). The question of the relationship between expenditures and quality was joined. That important issue of Library Trends added sparks to the ongoing research of library effectiveness with far-reaching implications.

Research libraries have always placed value in describing and evaluating their institutional resources and services. The Association of Research Libraries (ARL) has probably the best statistical data series in the history of higher education with data describing libraries back to 1908. The com-

mitment to assessment was strengthened in 1994 when ARL adopted as a strategic objective "to describe and measure the performance of research libraries and their contribution to teaching, research, scholarship, and community service." By this action, the Association of Research Libraries demonstrated the previously stated desire by major research libraries "to maintain the useful approaches of the past and explore responses to the challenges of the present and future" (Pritchard, 1992, p. 4). The 1990s was an era of exploration, discovery, and revelation not only for libraries but for the whole world, in many ways changing the established paradigms under which long-held assumptions were based and forcing libraries to focus on the basic reason of their existence. At a meeting in Tucson in the winter of 1999, research librarians from around North America met under sponsorship of the Association of Research Libraries to discuss the issues pervading library service quality. The New Measures initiative was a joint undertaking of ARL's Research Library Leadership and Development Committee and its Statistics and Measurement Committee. At that meeting, the participants affirmed the need for alternatives to expenditure metrics as measures of library performance (Blixrud, 1999).

There emerged a general consensus that rising demands for evaluation and accountability required library administrators to develop alternatives to the focus on inputs or expenditure metrics. A few months later, at the ARL annual meeting, the New Measures group considered and endorsed a pilot project proposal by Texas A&M University. That proposal entailed the use of a protocol well-grounded in the business community— SERVQUAL—to assess service quality in research libraries. The launch of the Texas A&M project served as the genesis of this issue of *Library Trends*. As events evolved, from among thirty volunteer ARL libraries, twelve were selected to participate in the first phase of the pilot project. The January 2000 Midwinter American Library Association meeting brought together project planners, participants from the twelve ARL libraries, and invited researchers in library service quality. There it was agreed that the next annual meeting of ARL in October 2000 would feature a symposium of leading researchers on library service quality. At the symposium, the ARL/ Texas A&M initiative would be discussed along with other important research efforts in North America, as well as projects from the United Kingdom, Europe, Australia, New Zealand, and elsewhere. Presented here in this volume is the latest thinking and research on library service quality as it is being articulated by leading researchers and professionals in the field and presented at the October 2000 symposium.

The planned symposium was given further impetus and validity when the ARL/Texas A&M project was awarded a three-year grant by the U.S. Department of Education Fund for the Improvement of Postsecondary Education (FIPSE) to further develop the service quality protocol and to extend its application beyond research libraries to other postsecondary settings. In spring 2001, more than forty higher education institutions and their libraries have expressed an interest in participating in this three-year pilot effort and test the emerging protocol.

As observed, the Texas A&M pilot project had its origins in the gap theory of service quality developed by the research team of Parasuraman, Zeithaml, and Berry (1985). Their ground-breaking research led to the development of the SERVQUAL protocol. While gap theory has several layers of complexity, at its simplest, service quality can be measured by the gap between customers' desired service levels and the perceived level of service delivery. Further, from the perspective of the authors, in the definition of service quality, only the perceptions of the customers matter. Designed initially for the for-profit sector where it remains an acknowledged industry standard, SERVQUAL has also been widely applied elsewhere. In fact, over eighty doctoral dissertations have been written in the past decade to assess its applications to fields as diverse as ecology and historical preservation. Danuta Nitecki (1995), one of the contributors to this issue, initially explored the study of its application to libraries.

The SERVQUAL instrument, regrounded and evaluated within the research library community by the Texas A&M University research team, emerges as the LibQUAL+ protocol. The first articles of the issue treat aspects of the development of LibQUAL+. Colleen Cook and Fred Heath describe the process by which "gap theory," as expressed in SERVQUAL, was re-grounded for the research library environment through a series of interviews with faculty, graduate students, and undergraduates at participating universities across North America. Sixty interviews were conducted altogether and were then transcribed, loaded into a software analysis package, coded, and analyzed. The results of those interviews helped to prepare the Web-based questionnaire that undertook to measure, in the users' own words, their assessment of library service quality. The users' penchant for self-reliant access to library resources is addressed at some length and calls into question some long-held assumptions about user behavior.

Five thousand respondents from twelve pilot institutions were captured by the Web-based questionnaire referred to above as part of the quantitative evaluation of the protocol developed. The quantitative data were analyzed by the Texas A&M team. Bruce Thompson and Colleen Cook report their findings of an overarching construct of library service quality as well as the four dimensions that define the construct: affect of service, reliability, access to information, and library as place. The affective behaviors—staff demeanor, knowledge, and responsiveness—and reliability are as important in libraries as they are in the business world. Comprehensive collections remain important, and faculty and graduate students often fault their libraries for the absence of in-place collections. Increasingly, however, there emerges an expectation of ubiquitous access to information, regardless of format or mode of delivery. As a place, the physical

library still serves many clients in a myriad of practical fashions while it diminishes in centrality for others.

Steve Hiller from the University of Washington compares the findings of LibQUAL+ with triennial surveys performed at the University of Washington. He compares the two methods and discusses the design, content, and delivery mechanisms. He reiterates the value of LibQUAL+ as a standardized instrument for interinstitutional comparisons and discusses the cost savings of a Web-based survey. He finally compares the University of Washington Libraries' survey with LibQUAL+ in such areas as response and representativeness of survey population, similarities and differences in results, and whether the right questions are being asked. His analysis provides a useful external check to the emergent paradigm now being tested by ARL and Texas A&M, lending important corroboration while suggesting opportunities for further study and affirming the importance of both standardized and locally developed assessment tools.

Patience Simmonds and Syed Saad Andaleeb of Pennsylvania State University, Erie, describe their own attempt to use SERVQUAL dimensions to predict and explain the use of physical library facilities in an era of rapidly expanding electronic access. Their article explores the tenuous relationship among expectations, perceptions, and behavior. In their article, the concept of *library as place*, also examined by Hiller and Cook and Heath, is analyzed from a different perspective. Resources and familiarity with the library were significant explanatory variables. An examination of the standardized beta values shows that one's familiarity with the library had the greatest impact on library use, followed by resources, tangibles, and gender. Their findings echo the preoccupation of Web-based information service providers with a concept known as "stickiness"—i.e., the extensive use of known information resources as one's familiarity with them increases.

Other authors make clear that there are many lenses through which to view the issue of library service quality, and different methodological approaches by which to attempt its measurement. Shelley Phipps of the University of Arizona approaches the issue of service quality from the perspective of the learning organization. Transformation of research libraries, she observes, proceeds from the commitment to the voices of users certainly, but also to the voices of staff and of library processes themselves. The learning organization then *acts* upon the information it receives "experimenting, seeking new perspectives and new methodologies, and designing new organizational systems that involve, engage, develop, and increase the commitment of staff and partner with customers to design the future they need that includes library values and vision."

Rowena Cullen, head of the School of Communications and Information Management at the Victoria University of Wellington, offers an overarching view of efforts to study user satisfaction in libraries and gives

an explanation as to how user satisfaction relates to service quality. In her study, she discusses a model of user satisfaction as both a micro-level response to individual transactions and at the macro-level as an outcome of service quality. She cautions that there is a lack of resolve in the profession to address the gap between users' expectations and our professional perceptions of these. The lack of resolve may be due to limitations imposed by our reliance on measures of "objective reality" that have not always met customer needs. Cullen emphasizes the need for a culture of assessment and, foremost, the need for action that is long overdue.

Pioneers in the arena of library service quality—Danuta Nitecki, associate university librarian at Yale University, and Peter Hernon, professor at Simmons College—offer added perspectives. Developing an argument that differs from Cullen in emphasizing the affective aspects of satisfaction versus the cognitive aspects of service quality, their article also examines the relationship between these two concepts and underscores the importance of the *local context* in the assessment paradigm. The value of service quality assessment as a local planning issue is a primary focus of the article. Caution, they stress, is essential in designing a process of normative cross-institutional data collection or of making generalizations from it. Higher education and library perspectives are also to be developed in relation to recognition and certification programs such as the Malcolm Baldrige National Quality Award and ISO 9000.

As we learn from Roswitha Poll, director, University und Landesbibliothek Münster, Germany, concerns about library service quality are not limited to North America. Her article reports on work currently underway in Germany using the Balanced Scorecard approach, a concept for an integrated quality management system across four perspectives: users, finances, internal processes, and potentials (innovation). Poll indicates that "the basic model of the Balanced Scorecard adapted to the conditions of academic libraries, deviates from the original model in placing not the financial, but the user perspective foremost. Libraries do not strive for maximum gain, but for best service." But, as Poll reminds us, the basic concept is not to look at the different quality aspects separately but rather as part of an integrated system.

In his article, Ian Winkworth of the University of Northumbria, Newcastle, England, catalogs the pressures for accountability in the United Kingdom and the rise of public service performance measurement across the nation. The role of the Standing Conference of National and University Libraries (SCONUL) in the development of academic library performance measures is discussed, and their practical application in local situations is described. The need for satisfactory frameworks for performance measurement is reiterated in this article as well as the promising potential of international collaboration on assessment efforts.

Philip Calvert of Victoria University of Wellington reports the findings of a remarkable cross-cultural study of university library student expectations of service quality between China and New Zealand. The results of his study show that there exists a global set of customer expectations that can be used to measure academic library service quality and consists of three dimensions: staff attitudes, the library environment, and services that help users find information. Calvert asserts that these dimensions are similar across user groups, across different organizations, and across different countries. His study of customer expectations in New Zealand and China also finds that "national culture is not a major precursor of attitudes to service quality so it will not impede efforts to set international measures of service quality." Echoing the sentiments of Ian Winkworth, Calvert suggests the need to examine the international applications of LibQUAL+ and other instruments.

This issue of *Library Trends* concludes with the contribution of John Carlo Bertot of Florida State University and an examination of the challenges of service quality assessment in a networked environment. He offers an overview of statistical and performance methods that librarians may find useful in assessing networked-based services. His article suggests a framework for network-based assessment that may allow library administrators to demonstrate the uses of their electronic resources and services. His own conclusion, that library researchers and practitioners must engage in a perpetual cycle testing theory and developing proven methodologies in order to advance the service quality assessment, underscores the messages of the other authors and effectively serves as the theme of this issue of *Library Trends*.

Measuring library service quality can be both a project as well as a process to be continually enhanced and improved. The findings reported in this volume and their implications have far-reaching consequences for the future of libraries and their evaluation and assessment. Library service quality is a concept that is becoming less elusive and increasingly recognizable and actionable. As standardized protocols like LibQUAL+ are emerging and flourishing side by side with local implementations emphasizing quality improvements, there is a distinct possibility that libraries will be in a position to develop a better understanding of what constitutes and determines various levels of quality in certain environments.

Understanding library quality will possibly lead us to develop not only an understanding of preferred and best service practices but also toward widespread recognition of standards for library quality, especially to the extent that users have an overarching preconceived notion of library quality. For example, to the extent that users are expecting libraries to enhance their self-reliance in seeking information, libraries will be much better off acting in concert and cooperatively to empower users to achieve basic levels of self-reliance in their information-seeking behaviors through

services such as cooperative online reference and information literacy instruction programs.

At the same time as basic levels of library service quality are achieved in a cooperative library environment, the expectations for highly specialized services for the local community of users will increase, together with a recognition that innovation and local differentiation of resources and services is increasingly important. Whether all higher education and research institutions will be able to afford to engage in sustainable global library cooperative programs, and at the same time develop highly specialized services for their local user communities, is as much an issue of wise deployment of resources as it is an issue of political willingness to continue to perceive libraries as the crucible of genius and civilization, a symbol for knowledge and wisdom, a portal for lifelong learning and discovery.

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