Chapter 11

E-Metrics: Tools for Measuring Usage of Electronic Resources

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ABSTRACT

Libraries are spending large proportion of their budget on the subscription of information resources (print and electronic resources). Since the early 2000’s increasing percentage of library budget has been shifted to the purchase of e-resources. The usage data of e-resources provided by the publishers and aggregators to libraries, proved to be helpful for libraries and decision makers in selecting best possible resources for their users. In yesteryear’s many e-metrics tools had been developed and are in continuous experiments so to develop reliable, consistent and on time usage data. The present study discusses the various e-metrics tools and their advantages and limitations.

INTRODUCTION

There are various terms used to describe the science of recording, measuring and interpreting website statistics. Web metrics, web analytics, web stats and site stats are examples. ‘E-metrics’ refers to the measure of electronic resources usage. The ‘metrics’ of web metrics refers to measurement, the science of measuring websites and in particular: measuring website actions and extracting trends. E-metrics fall into two broad areas: the patron-accessible electronic resources themselves (databases, electronic journals, e-books) and the services that support access to those resources (technical infrastructure, virtual reference, digitization projects) (Turner, 2003). Another aspect to be stressed is the relatively easier means to study the e-resource usage due to the electronic footprints left by users and systems which can be easily tracked: a feature un heard of with the usage of information in traditional forms like print and microform, though “to use usage statistics as an absolute criterion for judging value is dangerous and misunderstands the scholarly system” (Singleton, 2010).
Usage statistics of the e-resources indicate how and to what extent the e-journals or other e-resources are being used. Statistics related to how many times searches were made, number of sessions, counts of full-text downloads in particular span of time, cost per download, etc. would reveal what resources are being used up to what extent, and what are not. This can help the library staff to take renewal decisions and budget allocation appropriately. The ongoing economic meltdown/recession will impact consortia and their libraries. The extreme fluctuations in the exchange rate of local currencies with dollar, pound and euro are further aggravating the situation especially in the case of developing countries. This also necessitates that library professionals should analyze and interpret the usage statistics to arrive at tangible collection development initiatives basing purchase decisions of tomorrow on actual usage of today.

The concern with usage can itself lead to interesting and possibly beneficial change: for example, in the functionality of the electronic journal, the linking or integrating with data sets, including the research data, as well as text and data mining (Singleton, 2010).

BACKGROUND

Electronic information resources also provide a means for measuring resource usage that was not as readily available in the print environment. As early as 1999, when the Association of Research Libraries’ (ARL’s) Statistics and Measurement Committee convened its first meeting on “New Measures,” participating librarians identified the need for quantifying the impact that electronic resources were having on their libraries. ARL subsequently sponsored the “E-Metrics” project (http://www.arl.org.stats.newmeas/emetrics/) that all 123 ARL members are currently engaged in.

Other initiatives - like COUNTER (Counting Online Usage of Networked Electronic Resources, http://www.projectcounter.org/) and the International Coalition of Library Consortia’s (ICOLC’s) Guidelines for Statistical Measures of Usage of Web-Based Indexed, Abstracts, and Full-Text Resources (http://www.library.yale.edu/consortia/webstats.html)-have helped to standardize vendor usage counts for networked electronic resources (Shepherd & Davis, 2002).

A recent study by two New Zealand librarians (McDowell & Gorman, 2004) found that while New Zealand academic libraries utilize vendors’ usage statistics for informing collection management decisions, there was no significant correlation between the vendors’ usage statistics currently provided and those desired by academic librarians. While the authors concluded that the usefulness of vendors’ usage statistics is improved if the publisher adopts either COUNTER or ICOLC standards, academic librarians also had differing needs from those met through even standardized usage statistics.

Librarians also seek to determine the impact that electronic resources and other library collections and services are having on their constituencies or their institutions’ core missions. For academic research libraries, these core missions are typically instruction, research, and public service. The author developed a study in the 1980s which estimated the extent to which traditional academic research library expenditures in the United States supported their universities’ core missions (Franklin, 1989). By the late 1990s, the increasing popularity of electronic information among faculty and students had made it necessary to update the study’s methodology to address networked electronic resource use.

Measuring the Impact of Networked Electronic Services, or MINES for Libraries™ (http://www.arl.org.stats.newmeas/mines.html), thus originated to supplement a library cost analysis study that was originally developed in the 1980s. MINES for Libraries™ was subsequently developed as an online
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