EAD: OBSTACLES TO IMPLEMENTATION, OPPORTUNITIES FOR UNDERSTANDING

BY JILL TATEM

Abstract: Innovation diffusion theory explains different rates of adoption of new technologies as a consequence of potential adopters’ perceptions of the innovation’s advantages compared to alternatives, complexity, compatibility with accepted practices and values, trialability, and observability. Applying this analysis to Encoded Archival Description (EAD) suggests that its widespread adoption by archivists will depend on changing current negative perceptions of EAD’s complexity and usefulness. Improving EAD’s ease of use depends largely, though not exclusively, on advances in authoring and browsing software. User-centered research focusing on evaluation of the effectiveness of EAD finding aids offers the best chance of demonstrating EAD’s advantages over other technologies for creating and delivering digital finding aids.

Introduction

Archivists are operating in an environment increasingly influenced, if not dominated, by digital information delivered across computer networks. Not just the Internet, but organizational and regional networks are proliferating as well. And these networks are delivering massive quantities of high-quality information. Numerous studies conclude that users prefer informal methods of locating information resources because those methods are convenient and comfortable. It doesn’t get much more convenient than having access to hundreds of high-quality databases from the comfort of one’s own home or office. Consequently, decreasing numbers of users will be willing to make the extra effort to discover resources outside these convenient channels. The long-term success of archives will depend on the ability of archivists to operate effectively in the digital environment. Archivists are still experimenting with the scope and mix of computer-mediated services, but it is likely that publication of finding aids will be one component of the new service models. However, publishing finding aids for self-service by a large and diverse public that is attempting to use them alongside some very sophisticated databases and Web sites introduces intriguing new challenges. The profession has been largely unwilling to evaluate the effectiveness of finding aids. Perhaps this was acceptable when use of finding aids was buttressed by heavy mediation by archivists for a few users in the
relative obscurity of reading rooms. But there is some evidence that user expectations are higher in the digital environment. Certainly failures there are more public as, of course, are successes. Success in such an environment will be undermined by delivery of tools that are difficult to use.¹

If digital finding aids are to be published for unmediated remote use, archivists ought to know how they help and hinder users. With this knowledge, archivists can keep the features that worked well in print, modifying them for digital use as necessary; eliminate the obstacles imposed by the print medium; and offer new capabilities that were simply not practical on paper.

This is a fairly demanding agenda, made more daunting by even a cursory review of the literature of human-computer interface design and computer usability research. That literature offers numerous examples of the importance to user success of even small variations in organization, labeling, and presentation of data. It is also clear that users cannot be treated as a homogeneous whole. Differences in cognitive style, domain knowledge, system knowledge, and information needs all demand different functionality and interfaces if digital tools are to be used successfully.

It seems unlikely that many repositories have the resources to develop this kind of in-house system design and evaluation expertise, particularly when they are simultaneously battling processing, conservation, and cataloging backlogs. The best hope for the design of finding aids that work effectively as digital tools is in collaboration that incorporates rigorous user-centered evaluation. Fortunately, the development of EAD provides a mechanism by which this collaboration may be affected.

Encoded Archival Description (EAD) is an SGML DTD (Standard Generalized Markup Language Document Type Definition) for the class of archival finding aids known as registers.² Its development began in 1993 at the University of California at Berkeley and proceeded through a series of reviews and modifications leading to the release of version 1.0 in the fall of 1998. SGML is an international standard (ISO 8879), which prescribes the rules used to define the logical structure of a class of documents. Those rules are expressed in a DTD that describes the structural components of a type of document, how each component relates to the others, and how each is tagged. Tags are codes inserted in digital documents to identify these components so that software can display, search, and navigate the document in ways not possible if the document’s structure is not made explicit, i.e., if the document is simply a stream of characters or words.

This article is not a balanced look at EAD’s strengths and weaknesses. The focus is, first, on perceptions of a new information technology held by the target adopters—archivists—at the early stage of its introduction. Secondly, the article focuses on the extent to which those attitudes are obstacles to implementation of EAD. Lastly, it focuses on how those attitudes might change in response to additional information about and experience using EAD.
Innovation Diffusion Theory

This article explores a long list of criticisms of EAD. In purely objective terms, these criticisms could be challenged quite effectively and, in fact, many of them have been. However, all of these alleged weaknesses have been expressed frequently and, in some cases, vehemently by archivists in a variety of situations: postings to electronic discussion lists, conference papers and comments, meetings to explore the feasibility of using EAD. There is no evidence that these opinions are statistically significant representatives of the profession. Nevertheless, the frequency with which they appear suggests they are not isolated sentiments.

More importantly, when examined within the framework of innovation diffusion theory, these criticisms suggest the existence of significant barriers to widespread adoption of EAD. Innovation diffusion theorists do not attempt to evaluate an innovation’s objective goodness. Instead, they examine how perceptions of an innovation affect its rate of adoption and how an innovation may be positioned to increase its acceptance. Innovation diffusion has been defined as the “manner in which any technological innovation moves from the stage of invention to widespread use or non-use.”

Perceptions of five characteristics of innovations have been found to explain why some innovations are accepted and others rejected. “Diffusion studies have demonstrated that innovations that offer advantages, compatibility with existing practices and beliefs, low complexity, potential trialability, and observability will be diffused more extensively and rapidly” than those not exhibiting those five characteristics.

Diffusion studies have examined acceptance of innovations as diverse as rap music, VCRs, hybrid seedcorn, automobile seat belts, cellular phones, and many computer systems. They have generally concluded that relative advantage, compatibility, and complexity most consistently explain innovation adoption. Research focusing more specifically on acceptance of information technologies has generally concluded that the perceived usefulness and perceived ease of use of a system are the primary determinants of usage. Perceived usefulness, similar to relative advantage, is the “degree to which a person believes that using a particular system would enhance his or her job performance.” Perceived ease of use, similar to complexity, is the “degree to which a person believes that using a particular system would be free of effort.”

Needless to say, any conclusions at this early stage in EAD’s development about its long-term adoption must be tentative. However, early attitudes about relative advantage and ease of use do not seem to favor rapid and widespread adoption of EAD given the current Internet environment. The caveat is deliberate as currency on the Internet is measured in hours and days, not months and years. Constraints and opportunities change quickly.

The Diffusion of EAD As an Innovation

In the last two decades, archivists, like other so-called knowledge workers, have participated in a dramatically changed information environment, the creation of which has been driven by the availability of inexpensive and powerful desktop computers and the networks that link them. During this short period the profession has embraced
a multitude of stand-alone computer applications for managing information; bibliographic descriptions of archives contributed to OPACs; Gopher, FTP (File Transfer Protocol), and Web services for disseminating information about collections and services; and now Encoded Archival Description. And, contrary to stereotypes, the profession has embraced these new information technologies. The Luddites may be grumbling amongst themselves, but they are not attacking the new machines. Nevertheless, there is some evidence that not all of these new information technologies have been equally popular among archivists.

Reports that appeared two to three years after publication of the MARC AMC format suggested that about one hundred repositories were contributing bibliographic records describing manuscript collections and archival records series to the two major bibliographic utilities, OCLC and RLIN. Contrast this to the number of repositories with Web sites, reported as twenty-six hundred in April 1998, some four years after Web server and client software became widely available. Less than six months after publication of the public version 1.0 of EAD, the Society of American Archivists' EAD Roundtable listed 28 institutions as current implementers.

It may be too early to predict EAD's likely place on this spectrum of technology adoption. It is not too early to examine archivists' attitudes and assumptions about EAD and on-line archival information generally, and how those attitudes pose obstacles to widespread and successful EAD implementation.

Relative Advantage

"Relative advantage" is the extent to which the new technology is perceived as offering improvements over currently available tools. Advantages may be seen as economic, social prestige, convenience, or satisfaction. The advantages EAD's proponents emphasize are the case with which end users will be able to locate archival materials when finding aids are available remotely via computer networks and the resulting increased visibility of archives. Another advantage claimed for EAD is the long-term usability of EAD finding aids and reduced migration costs because EAD is a public standard that is platform and program independent. Proponents suggest that EAD finding aids—because their coding is structural rather than procedural—have superior manipulability (display, searching, browsing). Additional advantages are EAD's flexibility in encoding finding aids at different levels of granularity, and EAD's control by archivists.

The negative perceptions of EAD's advantages seem to be in three areas. The first is that there is no adequate distribution channel for EAD documents, i.e., no free client software is available for all platforms similar to Web browsers or to Acrobat® Reader. The second is that EAD is just the latest trend; it won't last and, consequently, it isn't worth the effort to learn and implement. The third is that information that was formerly contained in hierarchical documents can be more effectively stored in relational database structures and delivered to users via Web-based front ends.

How does EAD compare to other ways of publishing finding aids by way of computer networks? It must be noted that one of the advantages of SGML is the availability of conforming documents for use—with little to no modification—in a variety of
methods, not all of them digital and not all of them through networks. Nevertheless, the profession's current emphasis is on delivery of finding aids to users via computer networks. So it seems fair to ask whether EAD offers advantages compared to other mechanisms. Currently, the most common other mechanism is HTML. HTML, too, is an application of SGML. SGML proponents have been critical of HTML's emphasis on procedural encoding designed for on-line display of simple document structures as well as the many variations added to the tag set by publishers of browser software.  

The uniquely digital capabilities that EAD enables that most dramatically distinguish EAD finding aids from HTML are more flexible and varied display and manipulation via user interfaces tailored for different user needs. For example, some users need to monitor a well-known domain for new information. A list of new collection titles could be extracted from a collection of EAD finding aids and arranged by the date the finding aid was created or last revised to support rapid review of sources new since the user's last contact. Other users need a simple overview of an unknown domain. For them, collection titles accompanied by scope and content notes arranged by time, geography, or some other organizing concept might be more useful. Still other users require in-depth understanding of a small portion of a domain. For these users, the hierarchy represented in the finding aid for a single fonds discovered through standard key-word searching might be more useful. In all three cases, the different combination of finding-aid components presented in different orders is all achievable by computer processing, not by human creation of separate Web pages.

Attempting to position EAD as superior to HTML or to paper finding aids requires identifying the dimensions of superiority most compelling to archivists. One of the difficulties is that the direct benefit—convenient access to information—accrues to end users. The benefits to repositories, which bear the entire implementation cost, are indirect and intangible. Even so, they are not negligible. Some innovation diffusion studies have identified the prestige conferred by adoption of new technologies as significant determinants of adoption rates. This may be particularly attractive to archivists weary of the stale clichés about dusty old records, unused and, by implication, useless. Similarly, the increased visibility of archival materials mentioned as an outcome by early EAD adopters, though not a sufficient condition for increased resources, may be attractive to managers aware that obscurity does not improve the budget.

One of EAD's often-cited solutions—how to avoid trapping data in proprietary formats—positions EAD as a preventive innovation. That is, its adoption will prevent some undesirable consequence. Preventive innovations tend to have slow rates of adoption because their advantage is difficult to perceive since it is a nonevent, their reward is in the future, and there is uncertainty that the reward will be needed.

Intangibles notwithstanding, it would be helpful to position EAD so the benefits for repositories of adoption were perceived as more immediate and tangible. Incentives such as grant funding have been found to increase adoption rates and to lead to adoption by those who otherwise would not adopt. There is a perception that publishing finding aids must, of necessity, increase demand for traditional heavy mediation that would not be sustainable. Perhaps it could be shown that users require less mediation or assistance when they use finding aids encoded for structure rather than presentation. If users are more self-sufficient, increased demand may not overburden current staff.
Perhaps it could be shown that archivists, both as producers and as users of finding aids, are more productive using EAD finding aids.

Compatibility

“Compatibility” is the extent to which the innovation is perceived to be consistent with existing practices, values, needs, and experiences. Proponents emphasize the compatibility of EAD with traditional paper registers as well as being the evolutionary successor to MARC AMC.

Three kinds of compatibility reservations specific to description have been expressed about EAD. It has been suggested that SGML’s reliance on a single hierarchical structure for any given document class is at odds with the tradition of archival finding aids representing dual intellectual and physical hierarchies. Secondly, some believe that the traditional archival register, which EAD models, is not useful or appropriate for undetermined, end-user access in a digital environment. Lastly, there is the possibility that the traditional archival register is not nearly as ubiquitous as many believe. That is, many repositories are using other data structures for their finding aids and many more have processing and description backlogs so severe that these data don’t exist in any structure.

EAD’s compatibility can be examined both with respect to professional culture and with respect to descriptive practice. Compatibility with existing descriptive practices will vary dramatically from repository to repository in spite of EAD’s efforts to model traditional finding aids. At the operational level, encoding archival registers with EAD tags will require some change in most repositories, particularly in those that have imposed no consistency on their production of finding aids. Up-front efforts to develop coding guidelines and style sheets, staff training, software installation, and configuration are all necessary but disruptive mostly in the short-term. Once new work routines are established, the daily operation of the repository flows on, assuming the repository has been realistic about resources necessary to sustain the effort.

Compatibility with professional culture is more problematic. Archivists do not have broad or deep habits of collaboration. Traditional archival dependence on “do-it-yourself” solutions created from the ground up, repository by repository, works against the kind of cooperative approach that seems, in these early days, to make financial and technical sense for EAD implementation.

A second problem is that inattention with electronic publishing leads to a failure to understand its essential feature: constancy of change. This lack of understanding results in a sense of frustration—sometimes even betrayal—with the necessity of continuously learning and implementing new technologies. This, in turn, leads to skepticism about the ability of new technologies to live up to their proponents’ claims. This is exacerbated by archival isolation from research and development in the broader information science arena, which makes it more difficult to identify relevant competing approaches or to incorporate useful research findings in evaluation decisions. Similarly, archival inattention to patterns of technology adoption by end users impedes the profession’s ability to select appropriate technologies. The flip side of frustration with skepticism about new technology is concern that the technology may work too well.
Many archivists are uneasy about possible increases in demand for services and different kinds of services that might result from electronic publication of finding aids. This concern is not, of course, specific to EAD, but it is likely to affect the rate at which it is adopted.

Inattention to issues of financial sustainability limits archivists’ ability to finance continued use of new technologies. A related economic issue is that the profession’s stated enthusiasm for providing “free and universal access” has overlooked the fact that many repositories rely either directly or indirectly on user fees or sale of finding aids and facsimiles of original documents for financial survival. For these repositories, the economic issues associated with electronic publishing of finding aids are more complex than recovery of conversion costs. Archives that primarily serve managers of parent institutions are unlikely to be swayed to EAD adoption by an emphasis on service to academic scholars. Given that most of the EAD developers and early adopters operate in the academic research library environment, this emphasis is understandable. Nevertheless, positioning EAD as useful in only one service model when its potential utility is much broader is counterproductive.

**Complexity and Perceived Ease of Use**

“Complexity” is the extent to which the innovation is perceived as difficult to learn, understand, and use. Application guidelines have been disseminated. EAD project participants are creating and sharing templates, coding guidelines and procedures, and training programs. An electronic list facilitates discussion of problems and shared solutions. Implementation case studies have been published.

The negative perceptions of EAD appear to be two: SGML authoring software is expensive and hard to use; EAD, itself, is too hard to understand.

Efforts of EAD proponents, such as those already under way, may alter perceptions about the complexity of EAD use. But even early adopters express frustrations about steep learning curves and technical complexity. It must be asked whether EAD’s most frequently mentioned solution—how to provide end users with remote unmediated access to finding aids—responds to a need felt by archivists. How many repositories consider publishing finding aids an operational priority rather than a goal in principle? The rapid adoption by archivists of HTML suggests that many repositories are willing to make some effort to disseminate finding aids digitally. To attract these archivists to EAD, a persuasive case must be made that EAD is not significantly more complex than HTML or that the advantages of EAD finding aids are worth the extra effort.

Unfortunately, much of the complexity issue is inextricably tied to the availability of easy-to-use software on both the publisher and user ends. This is not an arena that archivists control; they can influence it only indirectly. To the extent possible, software publishers should be encouraged to make demonstration versions of authoring/publishing software available. Software reviews from archivists experienced with these products would also be beneficial.

The development of the Extensible Markup Language (XML) specifications may improve the software situation. XML is a subset of SGML developed specifically to support use of SGML on the World Wide Web. Like SGML, XML is a metalanguage
that allows design of markup languages that describe classes of documents. XML was
designed to be simpler to apply than SGML while remaining SGML compliant. The
World Wide Web Consortium approved the XML 1.0 Specification in February 1998.25
EAD version 1.0 is XML compliant. If XML is widely adopted by the World Wide
Web community, software publishers may be attracted to this market. Web publishers
accustomed to inexpensive, sophisticated, easy-to-use authoring and site-management
software are likely to demand similar capabilities in XML software. Similarly, if XML
content becomes widely available over the Web, the market for XML browsers may
attract the attention of software publishers. Encouraging as these possibilities are, soft-
ware remains an obstacle to EAD adoption.

**Trialability**

"Trialability" is the extent to which a new technology may be tried before a commit-
ment is made to use it.26 While EAD, as a data content standard, is separate from the
software that is used to create, validate, deliver, and manipulate documents, in practi-
cal implementation terms the standard and software have to be used together. Percep-
tions, then, focus on EAD's model of finding aids. First, are the data elements needed
in archival finding aids present and is the hierarchical arrangement of those elements
effective? Second, can archivists try out authoring/publishing software? Third, can
archivists try out search engines and client software?

The EAD DTD has been made available to any interested parties from its earliest
days. Thus, any interested repository may try mapping EAD data elements and struc-
ture against its own finding aids. However, as already noted, trialability is hindered by
the scarcity of easy-to-use software on the publisher and user ends.

**Observability**

"Observability" is the extent to which the results of a new technology are visible.27
Observability is enhanced by the visibility of the entire EAD development process.
Through conference presentations, print publications, Web sites, and electronic dis-
cussion lists, the development and implementation of EAD has been a very public
process. Information about all aspects is plentiful.

The delivery of EAD finding aids created by numerous repositories over the Internet
certainly enhances the visibility of the innovation. However, the sophistication of de-
elivery mechanisms used by repositories varies. The scarcity of SGML-aware browsers
and the resulting need to convert EAD finding aids to HTML may mask the full func-
tionality of EAD. An EAD finding aid that looks and acts like an HTML finding aid is
unlikely to reflect the advantages of EAD.
Where Do We Go from Here: Research Opportunities for Evaluating EAD

Thus far, end users have been conspicuous in their absence from EAD planning and evaluation activities. Ironically, the invisibility of users is one of the elements of EAD development that is most compatible with professional practice. Numerous archivists over decades have called for user studies, explored the depth and breadth of our ignorance of user behavior and needs, and made persuasive arguments for the unfortunate consequences of that ignorance to the services we provide. Unfortunate as this ignorance has been in our traditional service model of heavily mediated, on-site use of static paper and film sources, it will be fatal to the profession’s attempt to adapt to unmediated, remote use of fluid digital sources.

User-centered design strategies offer archivists the best chance of developing information systems that will be used at all and, more importantly, will be used effectively and efficiently. User-centered design starts from the problems users must solve, the skills they possess, and the processes that they use in informing themselves. The traditional ways in which archivists differentiate between archivists and end users, and then categorize end users by their affiliation or status (faculty, graduate student, genealogist, teacher), is unlikely to be useful in informing design decisions. Attributes of users, including archivists, that more directly and precisely describe their information needs and behaviors must be identified, defining patterns for which finding aids can be designed.

For example, a 1992 review of research on the information needs and behaviors of managers characterized their problems as being complex and ill defined, requiring information presented in formats that allowed easy comparisons. They valued results that were summarized, synthesized, analyzed, and succinct. Contrast this to a 1991 description of museum visitors’ information behaviors as “educational browsing.” “They come to do something that is interesting and fun. They are happy to learn, but they are generally not engaging in purposeful learning behavior directed toward new conceptual understanding.” The manager and the museum visitor may both be looking for information on the same topic. They are unlikely to be equally well served by the same organization and formatting of that information or by the same mechanisms to display, navigate, and manipulate it.

There is very little empirical research in the archival literature about finding-aid effectiveness. The results strike a cautionary tone. End users don’t understand key data elements such as dates and linear extent. Lengthy descriptions and large retrieval sets are probably more hindrance than help. Current arrangements of descriptive components within finding aids may undermine usability of those finding aids.

Fortunately, there are vast quantities of research in the literatures of information and computer science that are applicable to the conversion of finding aids for digital use. A somewhat arbitrary selection offers three lessons.
Lesson One: How a Task Is Done Is As Important As What the Task Is

In converting a hospital’s patient data from paper to an on-line system the designers’ expectation was that—since users were looking for familiar standardized forms, which translate well to a database—queries of the database should work well. They didn’t because, in using the paper forms, users were accustomed to browsing through folders, not to formulating search queries.33

A prototype of a system to retrieve and display electronic journal articles was not well received by its target audience because, although the goal—retrieving and reading journal articles—was supported, their familiar ways of achieving their goal via flipping pages and browsing tables of contents were not.34

A comparison of paper and hypermedia versions of a specialized encyclopedia established that users had difficulty with navigation support tools that were unfamiliar even if they were demonstrably better than strategies carried over from familiar print products.35

These kinds of findings suggest that, in designing for users with a great deal of experience in using paper finding aids, users’ familiar ways of using those paper finding aids should be replicated, in some fashion, in the digital version. It is less clear whether these same strategies work equally well for novices.

Lesson Two: Formatting Matters

A comparison of paragraph and list display in a hypertext database found that both user accuracy and search time improved when using the list display.36 Multiple studies comparing reading speed on paper and on computer displays showed a 15 to 30 percent slower task time for comprehension of text on displays.37 One might conclude that, in electronic text, less is better.

Lesson Three: Features That Work for Information Professionals Don’t Necessarily Work for Anyone Else

Several studies of various kinds of databases conclude that information professionals use advanced searching features; end users rarely do.38 A comparison of the use of different navigation tools in a hypertext system by users engaged in exploratory tasks and by those engaged in directed tasks showed distinct patterns. For example, 28 percent of the explorers used the guided tour, but only eight percent of the directed-task users did. By contrast, only six percent of the explorers used the index, while 17 percent of the directed-task users did.39

Similarly, characteristics of users, including domain knowledge (what they already know about the issue they are investigating); system knowledge (their skill in using the structure in which information is presented); and time (how long they will use the system, how often, and how quickly they need information) will govern the kinds of system features that are useful.40 These combinations of user motivations and characteristics form patterns. These patterns should govern the kinds of capabilities designed in digital finding-aid systems.
Effective systems will offer different features to match different patterns. For some users, a system that privileges browsing associative links over searching via text strings might be ideal. For example, reporting relationships usually described in administrative histories offer powerful pointers to records series relevant to users who must trace development and implementation of policy through the chain of command often present in complex organizations. With appropriate tagging and linking, these pointers turn into paths that ease user navigation through complex record systems. Without these capabilities, users must record or remember the names of subordinate and superior bodies, then search for each, hoping that vocabulary control or key-word searching will produce desired matches. There is an increasingly persuasive case made by some researchers that, for many users, system features that support browsing (as distinct from searching via query) are more effective. Browsing minimizes the initial burden on users to describe their information need in language appropriate to the system. Instead, they have only to recognize useful information. This is particularly helpful for novices, for infrequent users, and for users with ill-defined problems. Browsing works particularly well for data that are heavily structured, particularly in hierarchies: if a hierarchy can be made clear to users, it provides a consistent and understandable path through the data. Browsing hierarchies is especially useful for exploration of unknown domains because it minimizes navigational confusion. It is also supportive of users with different subject knowledge because the level of detail presented is under the user’s control.41

For some users, a top-down, general-to-specific exploration enabled by traditional hierarchical finding aids is most useful. Others might be better served by lateral navigation of the same component in multiple finding aids, such as biographical sketches of all of an organization’s presidents. Because EAD identifies the text containing the biographical sketch as biography or history rather than simply as paragraph or list, software can locate the text and present it without archivist intervention, as needed by both type of users.

In order to support this user-centered organization and presentation of information effectively, the attributes of finding aids must be examined and associated with relevant characteristics of users to find the most effective matches.

**Conclusion**

Current EAD project participants are already engaged in efforts that may alter many negative perceptions of EAD. However, the profession’s ability to evaluate EAD’s contributions is limited by a lack of clarity in its expectations of archival services—particularly of finding aids—especially in a digital environment. Archivists are operating with a less than fully-formed architecture for archival information systems, which might usefully guide descriptive standardization understanding and efforts. Archivists have an inadequate understanding of user needs and behaviors, notably in a digital environment, against which to measure the effectiveness of EAD finding aids. Since it is uncertain how effective print or HTML finding aids are for users, it is difficult to compare EAD versions. There are too many critical aspects of description and access about which too little is known.
Similarly, the profession has less than a complete model of the costs of producing, modifying, and delivering traditional finding aids, which makes it difficult to devise reliable comparisons of costs of any new methods. The profession’s lack of experience and comfort with formal evaluation methods, especially quantified measures, makes it difficult to gather the data that might make a persuasive case to resource allocators for support of new technologies.

On a broader level, widespread adoption of EAD, if it happens, seems to be part of the infamous paradigm shift from go-it-alone strategies to those of collaboration; from repository-centric attitudes to profession-wide ones; from a belief that archives’ control and service issues are unique to a realization that archives have much in common with other information providers.

This is, undoubtedly, a Good Thing, but would be made even better if it were accompanied by a shift away from unexamined reliance on familiar data-centered techniques. In the best of all possible worlds archivists would know what aspects of finding-aid content, structure, and presentation serve what kinds of information needs of what kinds of users, and that knowledge would be the foundation of standardization efforts. Absent that knowledge, the developers of EAD created a structure for finding aids that modeled the finding aids frequently used. The profession can use EAD to continue making familiar finding aids and hope that somehow they work for users or that, if they don’t work, no one will notice. The alternative is to use the rich test bed created by EAD projects to study user behavior and the role of archival description in satisfying user needs. The understanding that would result from this kind of study is essential to archivists’ ability to continue to provide useful access to archival records in a changed and changing information environment.

ABOUT THE AUTHOR: Jill Tatem is Assistant University Archivist at Case Western Reserve University. She holds an M.A. in history from the University of Dayton and an M.S.L.S. from Case Western Reserve University. An earlier version of this article was presented at the May 1998 Midwest Archives Conference meeting.

NOTES

1. The lack of mediation is only one element of change from traditional to computer-mediated service. User expectations of service responsiveness and scope of digital resources are others. Failures and successes are more public as a consequence of publishing finding aids for a worldwide audience. The enormously greater audience is the key difference. And users tell each other about their experiences in interest-based electronic discussion groups.


4. Dillon and Morris, 6.


17. Rogers, 209, 217.

18. Rogers, 217.

19. Rogers, 221.

20. Rogers, 15.


23. Rogers, 16.


26. Rogers, 16.

27. Rogers, 16.


42. Michael Fox's characterization of the dilemma is particularly apt: "We don't know what works because we don't have anything to test because we don't know what works because we haven't encoded data because we don't know what's needed." Michael Fox, <michael.fox@MNHS.org> "Re: Concerns regarding number of hits," 15 October 1998, <EAD@loc.gov> (15 October 1998).