

The task of digital information management*

M. S. Sridhar[@]

A search for information management in quotes retrieves millions of hits in the Internet and first 20 or so hits invariably are found to be associated with either electronic or digital information. Digital content is all-pervasive and invading life and libraries. Most Indian S&T libraries already have about 15% of their content in digital form and it is increasing at the rate of about 5% per annum.

Paper decay vs. digital decay

Over centuries paper technology has remained remarkably stable. Residual acidity and dust might have caused slow decay of paper based documents. Preservation efforts of archivists have successfully restored their contents and slowed down decay. Most of the contents of decaying paper products were recoverable. How about digital decay? Apart from physical deterioration, obsolescence of hardware, software and storage medium and failure to save crucial format information may cause digital decay and loss of entire content of a digital document. The tapes of 1975 Viking launch mission to Mars were recently found to have deteriorated despite careful storage. The laser disc and the player used in 1986 BBC Doomsday project were long obsolete and specialist team struggled for more than an year to retrieve the data. Space shuttle's obsolete software and storage media (flexible floppies) have even raised the question about continuation of the present Shuttle launches. Hopefully, digital archive experts will come out with a way to preserve and save enormous digital content being generated and stored today for a distant future. Think of time capsule in microform buried in deep well some thirty years ago. Who is going to use them and do we expect appropriate microform readers to be available some fifty years later. Same thing may happen to our digital archives in less than fifty years time frame. We, yet do not have confidence to discard or destroy palm leaves or paper scripts after digitising, but try to make a photocopy to preserve and / or use.

Abused 'accessibility' and visit statistics

Extensive research has shown that three factors, namely, accessibility, ease of use and perceived utility, have profound effect on use of an information source. Digital technology has greatly facilitated and acted as catalyst on the trio factors. The technology (ICT) has successfully dismantled strong fences built around information sources. Traditionally, libraries have been champions of access restrictions with chained books, closed access, restricted membership and punitive measures for using books for longer than pre-decided duration. For a moment let us digress and recall that while evaluating a service organisation, 'input' is often used as a proxy measure of 'output'. As examples, we may note expenditures on R&D, library and welfare services quite often serve as output measures in assessing the respective system. Exactly the same way, in digital environment, 'provision for access' is becoming a proxy measure for actual access, the access for use and the use for usefulness. Use and usefulness need to be distinguished carefully. A library may be used, but it may not be useful, another may be useful, but not used. The ideal is one which is used and useful. The same should hold good for the Internet and digital libraries also. In other words, extensive visit or use of any source of information without utility or usefulness is futile. In this way visit and access statistics in digital environment could be misleading and also abused. More than 10% bogus clicks in the present 'pay-per-click' model of Internet search engines is a good example for abuse. By repeated clicking on ones own site generates revenue to the company and by repeated clicking on rival's

site causes loss to them. After a prolonged legal fight, the new 'pay-per-action' model is being considered to replace the 'pay-per-click' model.

Ease of use and need for consumption skills vary widely

The second factor 'ease of use' is a concept which is more subjective and person dependant in digital environment. It varies very widely from accessing specific information to a large collection of digital documents and databases. As such varied degrees of consumption skills are required to effectively access and use different sources of information. Need for information consumption skills and information literacy also vary widely among users and with respect to tools and services. Using TV does not need much of consumption skills, but using a database or a digital library does need.

Perceived utility is not real utility

The third factor 'perceived utility' does not refer to real utility of a source of information, but what the user might guess and feel about the source of information. Generally, utility and accuracy of computerised services are held very high. Whether a footpath astrologer or a high-tech hospital, the common man has high respect for the service delivered through a computer. In other words, it is widely believed that what comes out of a computer must be true. Hence the digital environment is already in an advantageous position as far as perceived utility of the customer is concerned. Among the factors, the accessibility and ease of use are considered to be stronger than the perceived utility, quality and amount of information expected from a source of information.

Content boom is gray literature boom

Content boom in digital form is diminishing the demarcation between published and unpublished as well as published and gray literature. More and more digital content is pouring in public domain without subjecting to editorial quality control or refereeing process. Unpublished, which was once outside the purview of libraries, has become equally important in today's libraries. In other words, what was once considered as informal source of information (the new label is 'tacit knowledge') is entering organised storage and retrieval arena. Most important is that the Web itself has emerged as a large source of gray literature. Unfortunately, most of gray literature (particularly, technical reports) are even today distributed by clearing houses like NTIS (US government agency) in microform. At the same time, originating agencies have been posting many of their R & D reports on Web for free access. With lakhs of microfiche reports in their collections, libraries are in a fix and unable to resolve the issues like whether to continue to build microfiche collection (as hard copies are expensive) or not. Inevitably some are replacing microfiche reader-printers by scanners to digitise the existing huge collections.

* *Deccan Herald*, 60 (199) 19 July, 2007, DH Education-pII.

<http://www.deccanherald.com/Content/Jul192007/dheducation2007071813595.asp>

@ About the Author

Dr. M. S. Sridhar is a post graduate in mathematics and business management and a doctorate in library and information science. He is in the profession for last 35 years. Since 1978 he is heading the Library and Documentation Division of ISRO Satellite



Centre, Bangalore. Earlier he has worked in the libraries of National Aeronautical Laboratory (Bangalore), Indian Institute of Management (Bangalore) and University of Mysore. Dr. Sridhar has published four books ('User research: a review of information-behaviour studies in science and technology', 'Problems of collection development in special libraries', 'Information behaviour of scientists and engineers' and 'Use and user research with twenty case studies') and 74 research papers, written 19 course material for BLIS and MLIS, presented over 22 papers in conferences and seminars, and contributed 5 chapters to books. **E-mail:** sridharmirle@yahoo.com, mirlesridhar@gmail.com, sridhar@isac.gov.in ; **Phone:** 91-80-25084451; **Fax:** 91-80-25084475.