

# DH Education

## The task of digital information management

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.

A search for information management retrieves millions of hits on the Internet. The 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 per cent of their content in digital form and it is increasing at the rate of about 5 per cent per annum.

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.

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 the 1975 Viking launch mission to Mars were recently found to have deteriorated despite careful storage. The laser disc and the player used in the 1986 BBC Doomsday project were long obsolete and specialist teams struggled for more than an year

to retrieve the data. The 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 a time capsule in microform buried in a 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? A similar fate awaits our digital archives in less than fifty years.

### Abused 'accessibility'

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 these factors. 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. In exactly the same way, in a 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 per cent bogus clicks in the present 'pay-per-click' model of Internet search engines is a good example for abuse. By repeated clicking on one's own site generates revenue





to the company and by repeated clicking on the 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.

The second factor 'ease of use' is a concept which is more subjective and person dependant in a digital environment. It varies very widely from accessing specific information to a large collection of digital documents and databases. 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.

### **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 grey 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 into the public domain without being subjected to any editorial quality control or refereeing process. Unpublished, which was once outside the purview of libraries, has become equally important in to-

day's libraries.

In other words, what was once considered as an informal source of information (the new label is 'tacit knowledge') is entering the organised storage and retrieval arena. Most important is that the web itself has emerged as a large source of grey literature. Unfortunately, most of the grey 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 the 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.

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## About the Author

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