NEWS

ISI's electronic library

First announced in August 1994, the Institute for Scientific Information's Electronic Library Project[1] has made considerable progress in its first year.

The project in which IBM and Lotus collaborate with ISI, aims to deliver complete information to customers' desktops. The prototype consists of *Current Contents/Life Sciences* edition, providing table of contents, bibliographic data, and abstracts for 1350 journals, with the addition of full images of those articles for which publishers have agreed to allow electronic storage and delivery.

All aspects of the prototype are now in place. IBM offers technical advice and components for storage, retrieval and delivery of information in a distributed environment which will seamlessly plug into various existing library WAN/LAN topologies. Lotus Notes Desktop software will be used by pilot sites at eight locations – six in North America and two in the UK – which have agreed to test the prototype.

ISI chose Lotus Notes as it is the leading client/server platform for developing and deploying groupware applications, and it has the capacity to deal with large amounts of full-imaged data and to track usage statistics. Besides, it is easily integrated into ISI's prototype, and provides the level of security needed for the content providers, viz. the journal publishers.

ISI has invited over 360 publishers, representing the 1350 journals indexed in *Current Contents/Life Sciences*, to participate in this venture. Two Indian journals, *Journal of Biosciences* and *Journal of Genetics*, both published by the Indian Academy of Sciences, are among the journals that have agreed to make full text images available to clients of ISI's electronic library. The

eight pilot sites that would test the prototype are Brookhaven National Laboratory, Lehigh University, the New York Public Library, Purdue University, SmithKline Beecham Pharmaceutical R&D, Thomas Jefferson University, University College in London, and Glaxo Research and Development Ltd.

The test phase of the prototype has begun and will last for eighteen months. The test phase aims to shed light on practical applications such as data access, retrieval and usage. Input from library communities' and publishers will help clarify issues such as copyright, intellectual property, pricing and usage patterns, that are key to the commercial success of the project.

The cornerstone of the project is the construction of an economic model that will facilitate pricing that will be acceptable to the information providers and the users. The project will measure the economics involved, weigh the need for security vs access, and will measure and assess usability. ISI's prototype electronic library can test:

1. Technical systems required to support electronic journal delivery (data access, storage and delivery)
2. Internal systems required to facilitate implementation of the electronic library – including billing, accounting and business management reporting
3. Economic models that will meet the diverse needs of the publishing and user communities
4. Behaviour of users to determine how the electronic journal may change the traditional information purchasing and usage patterns.

The economic model is based on several assumptions

1. The *Current Contents* database will be a site license.

2. Pricing for the electronic journals will be subscription-based and will be set by the publisher.
3. Royalty payments for documents ordered through the system will be set by the publisher. ISI will set a processing fee.

The prototype will provide for seamless network integration through a network-based client/server system that can be added to and coexist with the customer's current local area network. The ISI server at the pilot site will be capable of supporting heterogeneous clients, e g. Windows, Macintosh, OS/2, etc. For reasons of security, data transmission will be via dedicated ISDN lines and not through Internet. The network uses the standard TCP/IP both for communication between Central Server and Customer Server and for traffic between Customer Server and Desktop.

In a way, the seeds of the idea of an electronic library were sown more than 50 years ago, when in 1954, Gene Garfield wrote as the first Grolier Society Fellow at Columbia University that 'the ideal library must be able to supply information instantaneously [and] satisfy a wide variety of information requirements for a population that will be highly intellectual and scientifically trained'. The founder of ISI then used the term 'library system for the year 2045!' Now it appears, thanks to developments in information technology and the growing demand for accurate information to meet specific demands, that his dream will come true 50 years earlier than anticipated by him and others.

1.   Arunachalam, S , *Curr Sci*, 1994, 67, 977-978

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